z/OS

IBM

IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference

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About this document

This document presents the information you need to set up and use IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature.

Who should use this document?

This document is for the system programmers who run a z/OS system with z/OS UNIX System Services (z/OS® UNIX), and for their users who use IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature. On other open systems, some system programmer tasks may be done by an administrator.

This document assumes the readers are familiar with z/OS systems and with the information for z/OS and its accompanying products.

z/OS information

This information explains how z/OS references information in other documents and on the web.

When possible, this information uses cross document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see *z/OS Information Roadmap*.

To find the complete z/OS library, including the z/OS Information Center, go to the z/OS Internet library (http://www.ibm.com/systems/z/os/zos/bkserv/).

IBM Systems Center publications

IBM Systems Centers produce Redbooks that can be helpful in setting up and using z/OS. You can order these publications through normal channels, or you can view them with a Web browser. See the IBM Redbooks site at http://www.ibm.com/redbooks.

These documents have not been subjected to any formal review nor have they been checked for technical accuracy, but they represent current product understanding (at the time of their publication) and provide valuable information on a wide range of z/OS topics. You must order them separately.

Summary of changes

Summary of Changes for SA23-2234-03

This document contains information previously presented in *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS User's Guide and Reference*, SA23-2234-02.

The "Readers' Comments - We'd Like to Hear from You" section at the back of this publication has been replaced with a new section "How to send your comments to IBM" on page xi. The hardcopy mail-in form has been replaced with a page that provides information appropriate for submitting comments to IBM.

New Information
- Two chapters added: Chapter 7, "sudo command reference," on page 209and Chapter 8, "sudo messages," on page 247.
- New information added to Introduction and Installing chapters.
- New information added to Chapter 4, "bzip2 messages," on page 15, Chapter 5, "cURL command reference," on page 41 and Chapter 6, "cURL messages," on page 79.

Changed Information.

Deleted Information.

This document contains terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of the change.

Summary of Changes for SA23-2234-02

This document contains information previously presented in *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS User's Guide and Reference*, SA23-2234-01.

New Information.

Changed Information.

Deleted Information.

Summary of Changes for SA23-2234-01

This document contains information previously presented in *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS User's Guide and Reference*, SA23-2234-00.

New Information
- Two chapters added: Chapter 5, "cURL command reference," on page 41and Chapter 6, "cURL messages," on page 79.
- New information added to Introduction and Installing chapters.

Changed Information.

Deleted Information.

How to send your comments to IBM

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   > 2455 South Road
   > Poughkeepsie, NY 12601-5400
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- Contact your IBM service representative.
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- Visit the IBM Support Portal at z/OS support page (http://www.ibm.com/systems/z/support/).

Chapter 1. Introduction

IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature (Supplementary Toolkit for z/OS) is a packaged product, which contains ported versions of the following tools:

- "bzip2"
- "cURL"
- "sudo" on page 2

Supplementary Toolkit for z/OS has been tested and packaged for use on z/OS.

This document is designed specifically for users of the Supplementary Toolkit for z/OS product. For more information on the IBM Ported Tools for z/OS product, go to the following site: `http://www.ibm.com/systems/z/os/zos/features/unix/port_tools.html` .

bzip2

bzip2 is a freely available, high-quality data compressor. It compresses files using the Burrows-Wheeler block-sorting text compression algorithm and Huffman coding. It typically compresses files to within 10% to 15% of the best available techniques (the PPM family of statistical compressors), while being around twice as fast at compression and six times faster at decompression.

bzip2 provides four commands whose functions are described as follows:

bzip2   A block-sorting file compressor to compress files.

bunzip2
> A block-sorting file compressor to decompress files.

bzcat   This command decompresses files to stdout.

bzip2recover
> This command recovers data from damaged bzip2 files.

For the command reference for bzip2 and related commands, see Chapter 3, "bzip2 command reference," on page 11.

cURL

cURL is an open source tool that can transfer data from or to a server or servers, using one of the supported protocols (HTTP, HTTPS, FTP, FTPS, TFTP, DICT, TELNET, LDAP or FILE). The command is designed to work without user interaction. cURL offers a variety of useful functions like proxy support, user authentication, FTP upload, HTTP post, SSL connections, cookies, file transfer, resume, and more. It is a command-line UNIX application, and runs in the z/OS UNIX System Services environment.

For the cURL command reference, see Chapter 5, "cURL command reference," on page 41.

sudo

sudo (su "do") is an open source tool that allows a system administrator to delegate authority in order to give certain users (or groups of users) the ability to run some (or all) commands as a superuser or another user, while providing an audit trail of the commands and their arguments. It is a command-line UNIX application, and runs in the z/OS UNIX System Services environment. sudo provides the following commands and files whose functions are described as follows:

sudo, sudoedit
> This command allows a permitted user to execute a command as a superuser (UID(0)) or another user, as specified in the sudoers file. For the command reference, see "sudo, sudoedit" on page 210.

sudoers
> This file contains a list of which users may execute what commands. For the file reference, see "sudoers" on page 220.

visudo
> This command edits the sudoers file. For the command reference, see "visudo" on page 243.

sudo for z/OS is supported on z/OS 1.10 and later.

Chapter 2. Installing Supplementary Toolkit for z/OS

This chapter should be read before installing Supplementary Toolkit for z/OS. It consists of the following sections which provide pre-installation planning information and additional post-installation setup and verification steps.

- **Pre-installation planning.** This section provides information for file-system allocation and help on locating and relocating or removing previous versions of the tools that may reside on your system.
- **Post-installation setup and verification.** This section provides required and optional post-installation steps such as providing symbolic links to Supplementary Toolkit for z/OS.

Pre-Installation planning

The following sections provide you with information that will be helpful in planning to install Supplementary Toolkit for z/OS.

File-system allocation

Supplementary Toolkit for z/OS installs into /usr/lpp/ported. Refer to the *Program Directory for IBM Ported Tools for z/OS* for details on the file system DASD requirements.

Files and directory structure

Supplementary Toolkit for z/OS is installed into the following directories:

```
/usr/lpp/ported                # Root directory for HPU files
/usr/lpp/ported/IBM            # SMP/E directory
/usr/lpp/ported/bin            # directory for executeables
/usr/lpp/ported/bin/base       # directory for base versions of executeables
/usr/lpp/ported/lib            # library parent directory
/usr/lpp/ported/lib/nls        # NLS parent directory
/usr/lpp/ported/lib/nls/msg    # message catalog parent directory
/usr/lpp/ported/lib/nls/msg/C  # Message catalog directory for default locale (C)
/usr/lpp/ported/man            # Man page parent
/usr/lpp/ported/man/C          # Man page for default locale (C)
/usr/lpp/ported/man/C/man1     # Man page directory
/usr/lpp/ported/samples        # directory for samples
```

Along with the above directories, the following files are installed for bzip2 for z/OS:

```
/usr/lpp/ported/IBM/HPUBZIP2     # bzip2, bunzip2, and bzcat
/usr/lpp/ported/IBM/HPUBZREC     # bzip2recover
/usr/lpp/ported/IBM/HPUZA200     # man page
/usr/lpp/ported/IBM/HPULICEN     # license file

/usr/lpp/ported/Ported_Tools_License.readme   # link to HPULICEN

/usr/lpp/ported/man/C/man1/hpuza200.book      # link to HPUZA200

/usr/lpp/ported/bin/base/bzip2-1.0.4          # link to HPUBZIP2
/usr/lpp/ported/bin/base/bunzip2-1.0.4        # link to HPUBZIP2
/usr/lpp/ported/bin/base/bzcat-1.0.4          # link to HPUBZIP2
/usr/lpp/ported/bin/base/bzip2recover-1.0.4   # link to HPUBZREC
```

The following files are installed for cURL for z/OS:

```
/usr/lpp/ported/IBM/HPUCACRT # curl-ca-bundle.crt
/usr/lpp/ported/IBM/HPUCURL7 # curl
/usr/lpp/ported/IBM/HPUZA200 # man page
/usr/lpp/ported/IBM/HPULICEN # license file

/usr/lpp/ported/Ported_Tools_License.readme # link to HPULICEN

/usr/lpp/ported/man/C/man1/hpuza200.book # link to HPUZA200

/usr/lpp/ported/bin/base/curl-7.16.1 # link to HPUCURL7
/usr/lpp/ported/share/curl-ca-bundle.crt # link to HPUCACRT
```

The following files are installed for sudo for z/OS:

```
/usr/lpp/ported/IBM/HPUDXSUD                 # sudo, sudoedit
/usr/lpp/ported/IBM/HPUDXVIS                 # visudo
/usr/lpp/ported/IBM/HPUDUERS                 # sudoers sample
/usr/lpp/ported/IBM/HPUDRCAT                 # message catalog
/usr/lpp/ported/IBM/HPUZA200                 # man page
/usr/lpp/ported/IBM/HPULICEN                 # license file
/usr/lpp/ported/Ported_Tools_License.readme # link to HPULICEN
/usr/lpp/ported/man/C/man1/hpuza200.book     # link to HPUZA200
/usr/lpp/ported/bin/base/sudo-1.7.2p2        # link to HPUDXSUD
/usr/lpp/ported/bin/base/sudoedit-1.7.2p2    # link to HPUDXSUD
/usr/lpp/ported/bin/base/visudo-1.7.2p2      # link to HPUDXVIS
/usr/lpp/ported/samples/sudoers              # link to HPUDUERS
/usr/lpp/ported/lib/nls/msg/C/hpusudo.cat    # link to HPUDRCAT
```

The following symbolic links are automatically created by the installation process for bzip2 for z/OS:

```
/usr/lpp/ported/bin/bzip2                    # symlink -> base/bzip2-1.0.4
/usr/lpp/ported/bin/bunzip2                  # symlink -> base/bunzip2-1.0.4
/usr/lpp/ported/bin/bzcat                    # symlink -> base/bzcat-1.0.4
/usr/lpp/ported/bin/bzip2recover             # symlink -> base/bzip2recover-1.0.4
```

The following symbolic link is automatically created by the installation process for cURL for z/OS:

```
/usr/lpp/ported/bin/curl                     # symlink -> base/curl-7.16.1
```

The following symbolic links are automatically created by the installation process for sudo for z/OS:

```
/usr/lpp/ported/bin/sudo       # symlink -> base/sudo-1.7.2p2
/usr/lpp/ported/bin/sudoedit   # symlink -> base/sudoedit-1.7.2p2
/usr/lpp/ported/bin/visudo     # symlink -> base/visudo-1.7.2p2
```

Migrating from previous versions

Before installing Supplementary Toolkit for z/OS, you should check if a previous version of bzip2, cURL, or sudo was acquired from another source has already been installed. Because these versions are not supported, you may wish to remove them. However, bzip2, cURL, and sudo can co-exist with previous versions, so if you choose to retain them, you will need to make sure that the location of the previous bzip2, cURL, and sudo utilities do not conflict.

Although Supplementary Toolkit for z/OS version of bzip2, cURL, and sudo are functionally equivalent to other available versions at the same level or earlier, bzip2, cURL, and sudo themselves have occasionally introduced changes between versions which are not compatible with previous versions and so your user community may need access to the previous version until those version-related

migration issues are resolved. Therefore, you should retain any previous versions until your user community has transitioned to Supplementary Toolkit for z/OS version of bzip2, cURL, and sudo.

Supplementary Toolkit for z/OS bzip2, cURL, and sudo will be installed into directories in `/usr/lpp/ported`. This is a unique directory specific to Supplementary Toolkit for z/OS and so during the installation into these directories there should be no risk of conflict with other versions of bzip2, cURL or sudo.

It is customary, however, for the bzip2, cURL, and sudo executables, or links to them, to be located in /usr/bin, /usr/sbin, /usr/local/bin or /usr/local/sbin (and sometimes /bin). A symbolic link to these tools should be defined in one of these directories. This is the point at which a conflict with the previous versions of the tools may occur. So, if you have a previous version, you will need to make sure to remove or rename these executables or symbolic links.

Tips for finding previous versions

As stated in "Migrating from previous versions" on page 4, the only conflict during the installation of Supplementary Toolkit for z/OS tools and previous versions of the tools may be in the /usr/bin/, /usr/sbin/, /usr/local/bin/, or /usr/local/sbin/ (and sometimes /bin) directories where the executables are typically installed. So, this section will focus on providing tips for finding the executables.

- **Use the `whence` command.** If a tool is located in a directory which is defined in $PATH, then the `whence` command will indicate which directory it is in. For example, to search for bzip2, from the z/OS UNIX command line, enter: `whence bzip2`

- **Check common directories**. Typically, the tool's module, or a link to it, is installed in one or more of the following directories:

  ```
  /usr/bin
  /usr/sbin
  /usr/local/bin
  /usr/local/sbin
  /bin                (although not typical)
  ```

  For example, to find the tool bzip2, do an "`ls -ld bzip2*`" in each of these directories.

- **Use the find command**. The find command is the most thorough method as it performs a search on all directories. However, it can take several minutes to run on systems with heavily populated file-systems. Also, to check all paths, it will most likely need to be run as a superuser. You may wish to restrict the find to system directories, such as /usr or /bin. Examples:

  ```
  find /usr -type f -name "bzip2*"
  find /bin -type f -name "bzip2*"
  ```

  If you run this command as a non-superuser, you may wish to redirect all error messages for directories you do not have access to, to /dev/null. To do so, add " 2> /dev/null" to the end of the above find commands.

Removing or relocating previous versions of a tool

If you have determined that you have a previous version of a tool, you need to determine whether you should remove it or relocate it. It is advisable that you initially **relocate** previous versions-- rather than remove them-- until you are satisfied that your user community has no dependencies on them.

Some other considerations:

- Tool executables from previous versions which have been installed in the common locations should be relocated or removed to avoid conflict with executables provided with Supplementary Toolkit for z/OS. The complete list of these potential extensions follows (however, not all of these are supported in Supplementary Toolkit for z/OS):

```
bzip2        bzip2.*.*
curl         curl.*.*
sudo         sudo.*.*
```

Preparing sudo for z/OS installation

sudo for z/OS is supported on z/OS 1.10 and later. If installed on a previous release of z/OS, sudo for z/OS will fail at run-time with an error message. If installed on z/OS 1.10 or 1.11, the PTF for APAR OA32470 must be applied.

sudo for z/OS also requires a GID(0) group to be defined on your system. If not defined, you can issue the following command to define it:

```
ADDGROUP SUDOGRP OMVS(GID(0))
```

Post-installation setup and verification

This section describes the post-installation setup and verification steps.

Adding symbolic link for man page

The Supplementary Toolkit for z/OS man page file is `hpuza200.book` and is located in the directory `/usr/lpp/ported/man/C/man1/`. In order to view this with the command `man bzip2`, `man curl` or `man sudo`, the directory `/usr/lpp/ported/man/C` (without the "/man1/") needs to be added to the default MANPATH environment variable defined in `/etc/profile`.

Alternately, you can create a symbolic link to `hpuza200.book` in the `/usr/man/C/man1/` directory which is typically defined as the default path of MANPATH in `/etc/profile`. To do this:

```
cd /usr/man/C/man1
ln -s  /usr/lpp/ported/man/C/man1/hpuza200.book  hpuza200.book
```

Adding symbolic link for message catalog

The sudo for z/OS message catalog file is `hpusudo.cat` and is located in the directory `/usr/lpp/ported/lib/nls/msg/C/`. In order to associate message numbers with sudo for z/OS error messages, you need to create a symbolic link to `hpusudo.cat` in the `/usr/lib/nls/msg/C/` directory. Here is how to do this:

```
cd /usr/lib/nls/msg/C
ln -s /usr/lpp/ported/lib/nls/msg/C/hpusudo.cat hpusudo.cat
```

Adding symbolic links and updating PATH to locate the tools

The tools are typically installed into `/usr/bin` and `/usr/sbin` on most systems. However, the Supplementary Toolkit for z/OS installs the tools into `/usr/lpp/ported/bin/base` and creates symbolic links for the tools in `/usr/lpp/ported/bin`. Therefore, to make it easier for a user to locate the tools, it is recommended that a user's PATH environment variable contain the `/usr/bin` and `/usr/sbin` directories and that you create symbolic links in `/usr/bin` and `/usr/sbin` to the tools. Here is an example of how to create the symbolic links:

```
cd /usr/sbin
ln -s /usr/lpp/ported/bin/visudo visudo
```

```
cd /usr/bin
ln -s /usr/lpp/ported/bin/bzip2 bzip2
ln -s /usr/lpp/ported/bin/bunzip2 bunzip2
ln -s /usr/lpp/ported/bin/bzcat bzcat
ln -s /usr/lpp/ported/bin/bzip2recover bzip2recover

ln -s /usr/lpp/ported/bin/curl curl

ln -s /usr/lpp/ported/bin/sudo sudo
ln -s /usr/lpp/ported/bin/sudoedit sudoedit
```

You may also wish to create symbolic links in /usr/local/bin or /usr/local/sbin, which are less typical than /usr/bin or /usr/sbin although reasonably common. It is not advisable to create symbolic links in /bin, although that can be found on some systems.

Verifying sudo installation

Check that **sudo** has been installed with a UID(0) owner, the set-user-ID bit on and the program control and noshareas extended attributes set. To verify these attributes, issue the following shell command:

```
ls -laEn /usr/lpp/ported/bin/base/sudo-1.7.2p2
```

The output should be similar to the following:

```
---s--x--x  -p--  3 0     0       573440 Jun  4 09:49 /usr/lpp/ported/bin/base/sudo-1.7.2p2
```

The first '0' indicates that owner is UID(0). The 's' indicates that the set-user-ID bit is on. The 'p' indicates that the program control extended attribute is set. The lack of an 's' after the 'p' indicates that the noshareas extended attribute is set. If the output is not correct, then you must set the attributes as follows:

Note: These steps assume that you are a UID(0) user.

- To change the owner to a UID(0) owner, issue the following shell command:
  ```
  chown 0 /usr/lpp/ported/bin/base/sudo-1.7.2p2
  ```
- To turn the set-user-ID bit on (and ensure the permission bits are correct), issue the following shell command:
  ```
  chmod 4111 /usr/lpp/ported/bin/base/sudo-1.7.2p2
  ```
- To set the noshareas extended attribute, issue the following shell command:
  ```
  extattr -s /usr/lpp/ported/bin/base/sudo-1.7.2p2
  ```
- If you are a user with at least READ access to the BPX.FILEATTR.PROGCTL resource in the FACILITY class, you can set the program control extended attribute by issuing the following shell command:
  ```
  extattr +p /usr/lpp/ported/bin/base/sudo-1.7.2p2
  ```

In addition, you might also need to ensure that the Language Environment run-time library is defined to program control, as shown in the following example:

```
SETROPTS WHEN(PROGRAM)
RDEFINE PROGRAM * ADDMEM
('CEE.SCEERUN'/volser/NOPADCHK
'SYS1.LINKLIB'/'******'/NOPADCHK) UACC(READ)
SETROPTS WHEN(PROGRAM) REFRESH
```

When you are done, you have verified the **sudo** installation.

For more information about program control, see z/OS UNIX System Services Planning.

Completing sudo setup

The **sudo** command can not run without a valid sudoers file, located at /etc/sudoers, describing what commands users may run and as which users. An example sudoers file is provided at /usr/lpp/ported/samples/sudoers and can be copied to /etc/sudoers using the following shell command:

```
cp -p /usr/lpp/ported/samples/sudoers /etc/sudoers
```

The file /etc/sudoers must then be customized for your installation using the **visudo** command. By default, the example sudoers file does not provide sudo authority for any user. In addition, BPXROOT is the default target and mailto user (that is, sudoers **runas_default** and **mailto** options) for sudo. These options should be set to the desired user. Refer to the Chapter 7, "sudo command reference," on page 209 for more information on customizing the /etc/sudoers file, and on the important ownership and permission modes required for the file.

The ownership and permissions mode of the /etc/sudoers file must be secure. The file must be owned by UID(0) and GID(0) and the permissions mode must be 0440. If the ownership and permissions mode are not secure, **sudo** and **visudo** may modify them to be secure or fail. In addition, editing the/etc/sudoers file should only be done by superusers using the **visudo** command. Also, it is important that the GID(0) group only contain users authorized to read the **/etc/sudoers** file. Generally, this group should be restricted to superusers.

Enabling Supplementary Toolkit for z/OS components

You must enable the components of Supplementary Toolkit for z/OS before you can use them. To enable a component, copy the contents of the component SAMPLIB member to a new or active IFAPRDxx member in SYS1.PARMLIB. Then issue the SET PROD operator command to dynamically enable the component function. The component SAMPLIB member is not active by default.

The name of the bzip2 SAMPLIB member is HPUTIFA. The bzip2 content of the HPUTIFA file is provided below:

```
PRODUCT OWNER('IBM CORP')
        NAME('Ported Tools')
        ID(5655-M23)
        VERSION(*) RELEASE(*) MOD(*)
        FEATURENAME('bzip2 for z/OS')
        STATE(ENABLED)
```

The name of the cURL SAMPLIB member is HPUTIFA. The cURL content of the HPUTIFA file is provided below:

```
PRODUCT OWNER('IBM CORP')
        NAME('Ported Tools')
        ID(5655-M23)
        VERSION(*) RELEASE(*) MOD(*)
        FEATURENAME('CURL for z/OS')
        STATE(ENABLED)
```

The name of the sudo SAMPLIB member is HPUTIFA. The sudo content of the HPUTIFA file is provided below:

```
PRODUCT OWNER('IBM CORP')
        NAME('Ported Tools')
        ID(5655-M23)
        VERSION(*) RELEASE(*) MOD(*)
        FEATURENAME('sudo for z/OS')
        STATE(ENABLED)
```

To activate the IFAPRDxx member dynamically, use the z/OS SET system command:

```
SET  PROD=xx
```

If you try to run bzip2 (or bunzip, bzcat or bzip2recover) before you enable it, the following error message will appear:

```
IFA104I REGISTRATION HAS BEEN DENIED FOR
PRODUCT WITH OWNER=IBM CORP          NAME=Ported Tools
FEATURE=bzip2 for z/OS   VERSION=01.01.03 ID=5655-M23
HPU00000 bzip2 exited-- cannot be used until defined in enablement policy.
```

If you try to run cURL before you enable it, the following error message will appear:

```
IFA104I REGISTRATION HAS BEEN DENIED FOR
PRODUCT WITH OWNER=IBM CORP          NAME=Ported Tools
FEATURE=cURL for z/OS    VERSION=01.01.03 ID=5655-M23
HPU00000 cURL exited-- cannot be used until defined in enablement policy.
```

If you try to run sudo (or sudoedit or visudo) before you enable it, the following error message will appear:

```
IFA104I REGISTRATION HAS BEEN DENIED FOR
PRODUCT WITH OWNER=IBM CORP          NAME=Ported Tools
FEATURE=sudo for z/OS    VERSION=01.02.00 ID=5655-M23
sudo: HPU00000 sudo exited-- cannot be used until defined in enablement policy.
```

For more information on IFAPRDxx, see z/OS MVS Initialization and Tuning Reference.

Chapter 3. bzip2 command reference

Name

bzip2, bunzip2 - a block-sorting file compressor

bzcat - decompresses files to stdout

bzip2recover - recovers data from damaged bzip2 files

Synopsis

bzip2 [-cdfkqstvzVL123456789] [filenames ...]

bunzip2 [-fkvsVL] [filenames ...]

bzcat [-s] [filenames ...]

bzip2recover filename

Description

bzip2 compresses files using the Burrows-Wheeler block sorting text compression algorithm, and Huffman coding. Compression is generally considerably better than that achieved by more conventional LZ77/LZ78-based compressors, and approaches the performance of the PPM family of statistical compressors.

The command-line options are deliberately very similar to those of GNU gzip, but they are not identical.

bzip2 expects a list of file names to accompany the command-line flags. Each file is replaced by a compressed version of itself, with the name original_name.bz2. Each compressed file has the same modification date, permissions, and, when possible, ownership as the corresponding original, so that these properties can be correctly restored at decompression time. File name handling is naive in the sense that there is no mechanism for preserving original file names, permissions, ownerships or dates in filesystems which lack these concepts, or have serious file name length restrictions, such as MS-DOS.

bzip2 and **bunzip2** will by default not overwrite existing files. If you want this to happen, specify the -f flag.

If no file names are specified, **bzip2** compresses from standard input to standard output. In this case, **bzip2** will decline to write compressed output to a terminal, as this would be entirely incomprehensible and therefore pointless.

bunzip2 (or **bzip2** -d) decompresses all specified files. Files which were not created by **bzip2** will be detected and ignored, and a warning issued. **bzip2** attempts to guess the filename for the decompressed file from that of the compressed file as follows:

- filename.bz2 becomes filename
- filename.bz becomes filename

- `filename.tbz` becomes `filename.tar`
- `anyothername` becomes `anyothername.out`

If the file does not end in one of the recognized endings, `.bz2, .bz, .tbz2` or `.tbz`, **bzip2** complains that it cannot guess the name of the original file, and uses the original name with `.out` appended.

As with compression, supplying no filenames causes decompression from standard input to standard output.

bunzip2 will correctly decompress a file which is the concatenation of two or more compressed files. The result is the concatenation of the corresponding uncompressed files. Integrity testing (-t) of concatenated compressed files is also supported.

You can also compress or decompress files to the standard output by giving the `-c` flag. Multiple files may be compressed and decompressed like this. The resulting outputs are fed sequentially to stdout. Compression of multiple files in this manner generates a stream containing multiple compressed file representations.

bzcat (or **bzip2** `-dc`) decompresses all specified files to the standard output.

bzip2 will read arguments from the environment variables BZIP2 and BZIP, in that order, and will process them before any arguments read from the command line. This gives a convenient way to supply default arguments.

Compression is always performed, even if the compressed file is slightly larger than the original. Files of less than about one hundred bytes tend to get larger, since the compression mechanism has a constant overhead in the region of 50 bytes. Random data (including the output of most file compressors) is coded at about 8.05 bits per byte, giving an expansion of around 0.5%.

As a self-check for your protection, **bzip2** uses 32-bit CRCs to make sure that the decompressed version of a file is identical to the original. This guards against corruption of the compressed data, and against undetected bugs in **bzip2** (hopefully very unlikely). The chances of data corruption going undetected is microscopic, about one chance in four billion for each file processed. Be aware, though, that the check occurs upon decompression, so it can only tell you that something is wrong. It can't help you recover the original uncompressed data. You can use **bzip2recover** to try to recover data from damaged files.

Return values: 0 for a normal exit, 1 for environmental problems (file not found, invalid flags, I/O errors, etc.), 2 to indicate a corrupt compressed file, 3 for an internal consistency error (for example, a bug) which caused **bzip2** to panic.

Options

bzip2 accepts the following command line switches:

-c --stdout
> This option compresses or decompresses to standard output.

-d --decompress
> This option forces decompression. bzip2, bunzip2 and bzcat are really the same program, and the decision about what actions to take is done on the basis of which name is used. This flag overrides that mechanism, and forces bzip2 to decompress.

-z --compress

    This option is complementary to -d: forces compression, regardless of the invocation name..

-t --test

    Check integrity of the specified file(s), but don't decompress them. This really performs a trial decompression and throws away the result.

-f --force*foo***[=***bar***]**

    This option forces an overwrite of output files. Normally, **bzip2** will not overwrite existing output files. Also forces **bzip2** to break hard links to files, which it otherwise would not do.

    bzip2 normally declines to decompress files which do not have the correct magic header bytes. If forced (`-f`), however, it will pass such files through unmodified. This is how GNU gzip behaves.

-k --keep

    This option keeps (does not delete) input files during compression or decompression.

    Note: If you do not own the input files, you may see the following messages when using this option: HPUB0020, HPUB0049, HPUB0012, HPUB0013 and HPUB0014. These messages can be ignored.

-s --small

    This option reduces memory usage, for compression, decompression and testing. Files are decompressed and tested using a modified algorithm which only requires 2.5 bytes per block byte. This means any file can be decompressed in 2300k of memory, albeit at about half the normal speed.

    During compression, `-s` selects a block size of 200k, which limits memory use to around the same figure, at the expense of your compression ratio. In short, if your machine is low on memory (8 megabytes or less), use `-s` for everything.

-q --quiet

    This option suppresses non-essential warning messages. Messages pertaining to I/O errors and other critical events will not be suppressed.

-v --verbose

    This option shows the compression ratio for each file processed. Further, the `-v` option increases the verbosity level, spewing out lots of information which is primarily of interest for diagnostic purposes.

-L --license

    This option displays the license terms and conditions.

-V --version

    This option displays the software version.

-1 (or --fast) to -9 (or -best)

    This option sets the block size to 100 k, 200 k, all the way to 900 k when compressing. This opiton has no effect when decompressing. The --fast and **--best** aliases are primarily for GNU gzip compatibility. In particular, **--fast** does not make things significantly faster. And **--best** merely selects the default behaviour..

--

    This option treats all subsequent arguments as file names, even if they start with a dash. This is so you can handle files with names beginning with a dash, for example: **bzip2 --** *-myfilename*.

--repetitive-fast, --repetitive-best
> These flags are irrelevant in versions 0.9.5 and above.

Recovering Data From Damaged Files

bzip2 compresses files in blocks, usually 900k bytes long. Each block is handled independently. If a media or transmission error causes a multi-block `.bz2` file to become damaged, it may be possible to recover data from the undamaged blocks in the file.

The compressed representation of each block is delimited by a 48-bit pattern, which makes it possible to find the block boundaries with reasonable certainty. Each block also carries its own 32-bit CRC, so damaged blocks can be distinguished from undamaged ones.

bzip2recover is a simple program whose purpose is to search for blocks in `.bz2` files, and write each block out into its own `.bz2` file. You can then use **bzip2 -t** to test the integrity of the resulting files, and decompress those which are undamaged.

bzip2recover takes a single argument, the name of the damaged file, and writes a number of files `rec00001file.bz2`, `rec00002file.bz2`, for example, containing the extracted blocks. The output filenames are designed so that the use of wildcards in subsequent processing, for example, **bzip2 -dc rec*file.bz2 > recovered_data**, lists the files in the correct order.

bzip2recover should be of most use dealing with large `.bz2` files, as these will contain many blocks. It is clearly futile to use it on damaged single-block files, since a damaged block cannot be recovered. If you wish to minimize any potential data loss through media or transmission errors, you might consider compressing with a smaller block size.

Chapter 4. bzip2 messages

Message numbers

To enhance serviceability, IBM assigns a unique message number to each informational, warning and error message generated by bzip2. These message numbers are of the form HPUB*xxxx* where *xxxx* is a unique four digit number. Message numbers starting with HPU0 are related to product enablement (see "Enabling Supplementary Toolkit for z/OS components" on page 8).

If your script or process needs to compare these messages against an expected message, the presence of the message number can cause the message to not match. For this reason, message numbering can be disabled by setting the _BZIP2_NOMSGID environment variable to 1 prior to running the script. For example:

```
export _BZIP2_NOMSGID=1
```

HPU00000 *command_name* **exited— cannot be used until defined in enablement policy.**

Explanation: The command *command_name* cannot be used until it is enabled.

In the message text:

command_name
    The name of the command that is not enabled.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The component of Supplementary Toolkit for z/OS must be enabled before it can be used. Use the product registration services to enable the command's component and have the user try the request again. See *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information on enabling the component. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00001 *command_name* **exited— registration service not available on this system.**

Explanation: The command *command_name* cannot be run on a system that does not provide product registration services.

In the message text:

command_name
    The name of the command that cannot be run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The components of Supplementary Toolkit for z/OS cannot be run on a system that does not provide product registration services. See *z/OS MVS Programming: Product Registration* for more information on product registration services.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00002 *command_name* **exited— registration request limit exceeded.**

Explanation: The product registration request limit has been exceeded.

In the message text:

command_name
    The name of the command that generated the error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Use the product deregistration service to remove unneeded product registrations and have the user try the request again. See *z/OS MVS Programming: Product Registration* for more information on the product deregistration service. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00003   *command_name* **exited— product registration function** *function***() failed with unexpected return code** *return_code***.**

Explanation: The product registration function *function* failed with return code *return_code*.

In the message text:

command_name
    The name of the command that generated the error.

function
    The name of the product registration function that failed.

return_code
    The return code of the product registration function that failed.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00004   **Product deregistration failed with unexpected return code** *return_code***.**

Explanation: The product registration function ifaeddrg() failed with return code *return_code*.

In the message text:

command_name
    The name of the command that generated the error.

return_code
    The return code of the ifaeddrg() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00005   **Internal error– atexit() failed with return code** *return_code***.**

Explanation: The atexit() system call failed with return code *return_code*.

In the message text:

return_code
    The return code of the atexit() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate

action based on the system error. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUB0000   bucket sorting ...

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 4 or more times. It explains that bzip2 is currently performing bucket sorting on the file being compressed.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 4.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0000 bucket sorting ...

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0001   main sort initialise ...

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 4 or more times. It explains that bzip2 is currently initializing the program for sorting the buckets of the file in compression.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 4.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0001 main sort initialise ...

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0002   *data_num* work, *block_num* block, ratio *ratio_num*

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 3 or more times. It describes how much data has been compressed, how many blocks have been created and the compressed data's ratio.

data_num
    The number of compressed data

block_num
    The value of block of bzip2

ratio_num
    The value of compression ratio

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 3.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0002 43973 work, 10223 block, ratio 4.30

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0003   too repetitive; using fallback sorting algorithm

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 2 or more times. The data in the compressed file is too repetitive. bzip2 will use an alternative fallback sorting algorithm which is better for repetitive data. The compression ratio of the fallback algorithm will be larger than the default compression ratio.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 2.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0003 too repetitive; using fallback sorting algorithm

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0004   no data compressed.

Explanation: The file to be compressed does not contain any data; it has a file size of zero.

System action: Displays the warning and continues processing any other files specified.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Confirm that the file to be compressed should not contain any data (it has a file size of zero).

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0004 no data compressed.

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0005   *compress_ratio*:1, *bit_ratio* bits/byte, *saved_num*% saved, *in_bits_num* in, *out_bits_num* out.

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 1 or more times. It provides specific details about the compression ratio.

compress_ratio
    The value of input bits divided by output bits

bit_ratio
    The value of output bytes divided by input bits

saved_num
    The value of saved ratio

in_bits_num
    The value of input bits

out_bits_num
    The value of output bits

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. You can suppress the messages by not specifying the "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0005 7.843:1, 1.020 bits/byte, 87.25% saved, 400 in, 51 out.

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0006   *program_name*: *input_file_name*:trailing garbage after EOF ignored

Explanation: This message indicates that one or more bytes of data was found beyond the EOF ("end of file"). All data beyond the EOF will be ignored and not be decompressed.

program_name
    One of bzip2 bunzip2 or bzcat

input_file_name
>   Input compressed file name

System action: Displays the warning and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to verify that the extra data following the EOF is not a problem. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0006 bzip2: /u/spring/bzt/dest_files/6.txt.bz2: trailing garbage after EOF ignored

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0007   data integrity (CRC) error in data

Explanation: During a CRC (cyclic redundancy check) test, the bzip2 application has detected that data in the compressed file is corrupted. The file cannot be decompressed.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to check whether the compressed file is corrupted. If it is, try using the bzip2recover program to recover data from the uncorrupted sections, and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0007 data integrity (CRC) error in data

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0008   file ends unexpectedly

Explanation: The compressed file did not have the expected file end. The file may be corrupted.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Use the bzip2recover program to attempt to recover data from undamaged sections of corrupted files. If the file was transferred from another system, for example, using ftp or oput/oget, verify that it was transferred in binary or image mode.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0008 file ends unexpectedly

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0009   bad magic number (file not created by bzip2)

Explanation: bzip2 did not create the tested file.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that you are decompressing a file compressed by bzip2 and that the file is not corrupted. If it is, the bzip2recover program may be able to recover data from the uncorrupted sections. If the file was transferred from another system or file-system (for example, using ftp, or oget/oput), verify that it was transferred using binary or image mode.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0009 bad magic number (file not created by bzip2)

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0010   **trailing garbage after EOF ignored**

Explanation: This message indicates that one or more bytes of data was found beyond the EOF ("end of file"). All data beyond the EOF will be ignored and not be decompressed.

System action: Displays the warning and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the extra data following the EOF is not a problem. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0010 trailing garbage after EOF ignored

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0011   **It is possible that the compressed file(s) have become corrupted. You can use the -tvv option to test integrity of such files. You can use the `bzip2recover' program to attempt to recover data from undamaged sections of corrupted files.**

Explanation: The compressed file may be a corrupted file.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The message explains how to test the damaged compressed file and how to get the undamaged sections of the corrupted compressed file. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0011 It is possible that the compressed file(s) have become corrupted.You can use the -tvv option to test integrity of such files.You can use the

`bzip2recover' program to attempt to recover data from undamaged sections of corrupted files.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0012   **Input file =** *input_file_name*, **output file =** *output_file_name*

Explanation: This is an informational message only. The input file name and output file name is displayed.

input_file_name
    Input file name

output_file_name
    Output file name

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0012 Input file = /u/wellie/bzt/ dest_files/11.txt.bz2, output file = /u/wellie/bzt/ dest_files/11.txt

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0013   *program_name*: **Deleting output file** *output_file_name*, **if it exists.**

Explanation: The output file will be deleted if it had been already created.

program_name
    One of bzip2 bunzip2 or bzcat

output_file_name
    Output file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This message can be suppressed by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0013 bzip2: Deleting output file /u/wellie/bzt/dest_files/13.txt, if it exists.

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0014   *program_name***: WARNING: deletion of output file (apparently) failed.**

Explanation: bzip2 encountered a damaged compressed file but could not delete the output file, which had been already created.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: If the file still exists, you may wish to remove it manually.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0014 bzip2: WARNING: deletion of output file (apparently) failed.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0015   *program_name***:WARNING: deletion of output file suppressed**

Explanation: During the compression of the input file, bzip2 detected that the input file no longer existed and could not complete the compression. The output file may not be correct, but bzip2 is not deleting in case it contains useful information.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to run an integrity check against the output file using the bzip2 options "-tv".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0015 bzip2: WARNING: deletion of output file suppressed

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0016   *program_name1***: WARNING: some files have not been processed:** *program_name2***:** *number_of_file_name* **specified on command line,** *number_of_not_process* **not processed yet.**

Explanation: bzip2 did not process all of the specified files.

program_name1
    One of bzip2 bunzip2 or bzcat

program_name2
    One of bzip2 bunzip2 or bzcat

number_of_file_name
    Number of specified files

number_of_not_process
    Number of files not processed

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that all the input files are regular or compressed files and can be processed independently. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0016 bzip2: WARNING: some files have not been processed: bzip2: 2 specified on command line, 1 not processed yet.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0017 *program_name***: PANIC -- internal consistency error:** *message* **Please follow local procedures for reporting problems to IBM**

Explanation: Internal consistency error.

program_name
> One of bzip2 bunzip2 or bzcat

message
> Error information

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an internal error. Follow local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0017 bzip2: PANIC -- internal consistency error: Please follow local procedures for reporting problems to IBM

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0018 *program_name***: Data integrity error when decompressing.**

Explanation: bzip2 has detected that data in the compressed file is corrupted. The file cannot be decompressed.

program_name
> One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check whether the compressed file is corrupted. If it is, try using the bzip2recover program to recover data from the uncorrupted sections, and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0018 bzip2: Data integrity error when decompressing.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0019 *program_name***: Compressed file ends unexpectedly; perhaps it is corrupted? *Possible* reason follows.**

Explanation: There will be another message that immediately follows this message that provides more information.

program_name
> One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may want to also view the message description for this message that followed for more information on this problem. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0019 bzip2: Compressed file ends unexpectedly; perhaps it is corrupted? *Possible* reason follows.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0020   *program_name*: **I/O or other error, bailing out. Possible reason follows.**

Explanation: bzip2 is terminating immediately ("bailing out"). There will be another message that immediately follows this message that provides more information.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may want to also view the message description for the message that follows for more information on this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0020 bzip2: I/O or other error, bailing out. Possible reason follows.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0021   *program_name*: **Control-C or similar caught, quitting.**

Explanation: bzip2 encountered a signal and immediately stopped processing.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Do not enter Control-C while bzip2 is executing unless you want to stop the program.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0021 bzip2: Control-C or similar caught, quitting.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0022   *program_name* : **Caught a SIGSEGV or SIGBUS whilst compressing. Possible causes are (most likely first): (1) This computer has unreliable memory or cache hardware (a surprisingly common problem; try a different machine.) (2) A bug in the compiler used to create this executable (unlikely, if you didn't compile bzip2 yourself.) (3) A real bug in bzip2 -- I hope this should never be the case. The user's manual, Section 4.3, has more info on (1) and (2). If you suspect this is a bug in bzip2, or are unsure about (1)\n or (2), please follow local procedures to report it to IBM. Section 4.3 of the user's manual describes the info a useful bug report should have.**

Explanation: bzip2 encountered a signal and ended immediately while compressing.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The message provides suggestions for possible actions. You may wish to check the system and the compressed or decompressed file and try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0022 bzip2: Caught a SIGSEGV or SIGBUS whilst compressing. Possible causes are (most likely first): (1) This computer has unreliable memory or cache hardware (a surprisingly common problem; try a different machine.) (2) A bug in the compiler used to create this executable (unlikely, if you didn't compile bzip2 yourself.) (3) A real bug in bzip2 -- I hope this should never be the case. The user's manual, Section 4.3, has more info on (1) and (2). If you suspect this is a bug in bzip2, or are unsure about (1) or (2), please follow local procedures to report it to IBM. Section 4.3 of the user's manual describes the info a useful bug report should have.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0023   *program_name* : **Caught a SIGSEGV or SIGBUS whilst decompressing. Possible causes are (most likely first): (1) The compressed data is corrupted, and bzip2's usual checks failed to detect this. Try bzip2 -tvv my_file.bz2. (2) This computer has unreliable memory or cache hardware (a surprisingly common problem; try a different machine.) (3) A bug in the compiler used to create this executable (unlikely, if you didn't compile bzip2 yourself.) (4) A real bug in bzip2 -- I hope this should never be the case. The user's manual, Section 4.3, has more info on (2) and (3). If you suspect this is a bug in bzip2, or are unsure about (2) or (3), follow local procedures to report this to IBM. Section 4.3 of the user's manual describes the info a useful bug report should have.**

Explanation: bzip2 encountered a SEGV or BUS signal and quit immediately while decompressing. This message originates from the bzip2 open source code and contains some information that is not accurate in the z/OS Unix environment. Specifically, the reference to Section 4.3 in the user's manual is not correct and should be ignored. This message will be corrected in future releases.

program_name
     One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The message provides suggestions for possible actions. You may wish to check the system and the compressed or decompressed file and try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0023 bzip2: Caught a SIGSEGV or SIGBUS whilst decompressing. Possible causes are (most likely first): (1) The compressed data is corrupted, and bzip2's usual checks failed to detect this. Try bzip2 -tvv my_file.bz2. (2) This computer has unreliable memory or cache hardware (a surprisingly common problem; try a different machine.) (3) A bug in the compiler used to create this executable (unlikely, if you didn't compile bzip2 yourself.) (4) A real bug in

bzip2 -- I hope this should never be the case. The user's manual, Section 4.3, has more info on (2) and (3). If you suspect this is a bug in bzip2, or are unsure about (2) or (3), follow local procedures to report this to IBM. Section 4.3 of the user's manual describes the info a useful bug report should have.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0024   *program_name*: **couldn't allocate enough memory**

Explanation: bzip2 could not allocate enough memory.

program_name
     One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the system has enough memory and try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0024 bzip2: couldn't allocate enough memory

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0026   **bzip2: file name `*file_name*' is suspiciously (more than 1024 chars) long. Try using a reasonable file name instead. Sorry! :-)**

Explanation: bzip2 encountered a file name that was too long.

file_name
     Input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: Make the file name shorter.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0026 bzip2: file name `'/u/spring/bzt/dest_files/*1000_char_filename*'` is suspiciously (more than 1024 chars) long. Try using a reasonable file name instead. Sorry! :-)

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0027 *program_name*: **Internal error, *function_name*() failed with return code=***return_code***, errno=***error_no error_info***.**

Explanation: The function "fldata()" encountered an error when checking the input file. This message is an internal error. The "error_info" will provide additional information about the cause of this error

program_name
    One of bzip2 bunzip2 bzcat or bzip2recover

function_name
    The function name: fldata

return_code
    The return code of the function

error_no
    The system error number

error_info
    The system error information

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an internal error. Follow local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0027 bzip2: Internal error, fldata() failed with return code=1, errno=111 Permission denied.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0028 *program_name*: **Can't open input file** *input_file_name*: *error_info*.

Explanation: The input file did not exist. The "error_info" will provide additional information about the cause of this error.

program_name
    One of bzip2 bunzip2 bzcat or bzip2recover

intput_file_name
    Input file name

error_info
    Error information

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional message for more information on why the expected file or directory does not exist.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0028 bzip2: Can't open input file non_exist_file: No such file or directory.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0029 *program_name*: **Input file** *input_file_name* **already has** *suffix_name* **suffix.**

Explanation: The input file had .bz2, .bz, .tbz2 and .tbz suffix.

program_name
    One of bzip2 bunzip2 or bzcat

input_file_name
    Input file name

suffix_name
    A bzip2 file suffix

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check that the input files do not have the bzip2 file suffix. If it has, copy the input file to another file name without the bzip2 suffix or rename the file, and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0029 bzip2: Input file /u/wellie/bzt/dest_files/29.txt.bz2 already has .bz2 suffix.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0030 *program_name*: **Input file** *directory_name* **is a directory.**

Explanation: The input file is a directory but a file is required.

program_name
    One of bzip2 bunzip2 or bzcat

directory_name
    Directory name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the input file is a file, not a directory.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0030 bzip2: Input file /u/spring/bzt/dest_files is a directory.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0031 *program_name*: **Input file** *input_file_name* **is not a normal file.**

Explanation: The input file is not a regular (normal) file; it is a block special or character special or socket

file, etc. bzip2 can only compress regular files.

program_name
    One of bzip2 bunzip2 or bzcat

input_file_name
    Input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The command "ls -l *filename* can be used to determine the type of file. If the first character in the output of that is a dash ("-"), then the file is a regular file. You may wish to make sure the input file is a regular file and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0031 bzip2: Input file /dev/null is not a normal file.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0032 *program_name*: **Output file** *output_file_name* **already exists.**

Explanation: The output file which bzip2 wants to create already exists

program_name
    One of bzip2 bunzip2 or bzcat

output_file_name
    Output file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Either make sure that the output files do not exist, or use the "-f" or "--force" options to overwrite them.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0032 bzip2: Output file /u/spring/bzt/dest_files/32.txt.bz2 already exists.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0033 *program_name*: **Input file** *input_file_name* **has** *link_num* **other link(s).**

Explanation: The input file has one or more linked files.

program_name
　　One of bzip2 bunzip2 or bzcat

input_file_name
　　Input file name

link_num
　　Number of linked files

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Either make sure that the input file does not have a linked file, or use the "-f" or "--force" options to compress or decompress it.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0033 bzip2: Input file /u/spring/bzt/dest_files/33.txt has 1 other link.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0034 *program_name*: **I won't write compressed data to a terminal.**

Explanation: This message indicates that bzip2 cannot print compressed data to a terminal.

program_name
　　One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to write the compressed data to a file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0034 bzip2: I won't write compressed data to a terminal.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0035 *program_name*: **For help, type: `program_name --help'.**

Explanation: This is an informational message. It explains how bzip2 gets the help information.

program_name
　　One of bzip2 bunzip2 or bzcat

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: To find the correct usage, you could issue bzip2 with either the "-h" or "--help" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0035 bzip2: For help, type: `bzip2 --help'.

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0036 *program_name*: **Can't create output file** *output_file_name*: *err_info*.

Explanation: bzip2 cannot create the output file.

program_name
　　One of bzip2 bunzip2 or bzcat

output_file_name
　　Output file name

err_info
　　Error information

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check if the output file should be created. Or make sure that the output file does not exist. If it exists, you could use the "-f" or "--force" options to overwrite it.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0036 bzip2: Can't create output file /u/wellie/bzt/dest_files/36.txt.bz2: File exists.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0037   *program_name*: **Can't guess original name for** *input_file_name* **-- using** *ouput_file_name*

Explanation: bzip2 could not figure out what the original file name was because the compressed file did not have the correct suffix, such as ".bz2".

program_name
    One of bzip2 bunzip2 or bzcat

input_file_name
    Input file name

output_file_name
    Output file name

System action: Displays the warning and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Change the compressed file name to a regular bzip2 file name and then try again, or pay attention to the output file name. You can suppress this message by specifying "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0037 bzip2: Can't guess original name for /u/wellie/bzt/dest_files/37.txt -- using /u/wellie/bzt/dest_files/37.txt.out

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be

an error or could be normal behavior.

Automation: Not applicable.

HPUB0038   *program_name*: **I won't read compressed data from a terminal.**

Explanation: The data cannot be decompressed because bzip2 cannot read the compressed data from a terminal.

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to use an input file instead of data from a terminal.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0038 bzip2: I won't read compressed data from a terminal.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0039   **done**

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 1 or more times. It indicates bzip2 successfully decompressed a file.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. You can suppress this message by not specifying the "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0039 done

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0040   not a bzip2 file.

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 1 or more times. It indicates the compressed file was not created by bzip2 and could not be decompressed.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the compressed file is a bzip2 file. You can suppress this message by not specifying the "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0040 not a bzip2 file.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0041   *program_name*: *input_file_name* **is not a bzip2 file.**

Explanation: This message indicates the compressed file was not created by bzip2 and could not be decompressed.

program_name
    One of bzip2 bunzip2 or bzcat

input_file_name
    Input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the compressed file is a bzip2 file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0041 bzip2: /u/wellie/bzt/dest_files/41.txt.bz2 is not a bzip2 file.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0042   ok

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 1 or more times. It indicates the tested file is a bzip2 file.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. You can suppress this message by not specifying the "-v" or "--verbose" option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0042 ok

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0043   *program_name*: **The input file "***file_name***" is an MVS file and not supported.**

Explanation: bzip2 cannot compress, decompress or recover an MVS file.

program_name
    One of bzip2 bunzip2 bzcat or bzip2recover

file_name
    Input MVS file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the input file is not an MVS file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0043 bzip2: The input file "//'RRLIN.BZIP2.FCT.PDSE(MEM1)'" is an MVS file and not supported.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0045   *program_name*: *option_name* **is redundant in versions 0.9.5 and above**

Explanation: "--repetitive-fast" and "--repetitive-best " are obsolete flags. They were occasionally useful in versions earlier than 0.9.5 (which has an improved sorting algorithm) for providing some control over the algorithm. They are ignored now.

program_name
> One of bzip2 bunzip2 or bzcat

option_name
> bzip2 old option name

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message and does not indicate an error. To avoid this message, do not specify the "--repetitive-fast" and "--repetitive-best" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0045 bzip2: --repetitive-fast is redundant in versions 0.9.5 and above.

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0046   *program_name*: **Bad flag** `*bad_option*'

Explanation: bzip2 encountered an incorrect option.

program_name
> One of bzip2 bunzip2 or bzcat

bad_option
> The invalid option

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Issue bzip2 with the "-h" or "--help" options to get the correct bzip2 options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0046 bzip2: Bad flag `-M'

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0047   *program_name*: **-c and -t cannot be used together.**

Explanation: You cannot specify the "-c" and "-t" options together.

program_name
> One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may use only one of the options. If the program name is "bzcat", you never use "-t" or "--test" options because bzcat has the "-c" option by default.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0047 bzip2: -c and -t cannot be used together.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0048   You can use the `bzip2recover' program to attempt to recover data from undamaged sections of corrupted files.

Explanation: The input file is corrupted. bzip2 can not decompress it.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Use the bzip2recover program to attempt to recover data from undamaged sections of the corrupted file. You can suppress this message by specifying the "-q" or "--quiet" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0048 You can use the `bzip2recover' program to attempt to recover data from undamaged sections of corrupted files.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0049   internal error

Explanation: This message will always be followed by another message(s). It indicates that the following message(s) are an internal error.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an internal error. Follow local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0049 internal error: bzip2 HPUB0012 Input file =/u/wellie/bzt/dest_files/11.txt.bz2, output file = /u/wellie/bzt/dest_files/11.txt. HPUB0011 It is possible that the compressed file(s) have become corrupted.You can use the -tvv option to test integrity of such files.You can use the `bzip2recover' program to

attempt to recover data from undamaged sections of corrupted files.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0050   *program_name*: I/O error reading `*input_file_name*', possible reason follows.

Explanation: The program was unable to read the input file. There will be another message that immediately follows this message that provides more information.

program_name
    bzip2recover

input_file_name
    Input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: View the message description of the following message for more information on this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0050 bzip2recover: I/O error reading `/u/wellie/bzt/dest_files/50.txt.bz2', possible reason follows.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0051   *program_name*: malloc failed on request for *byte_num*: bytes.

Explanation: bzip2recover cannot allocate memory.

program_name
    bzip2recover

byte_num
    Number of bytes

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Contact your system administrator to review the memory allocation of your system. If your system has sufficient memory, please report this problem to IBM using your normal procedures.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0051 bzip2recover: malloc failed on request for 1000 bytes.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0052 *program_name*: `*input_file_name*' **appears to contain more than** *block_num* **blocks**

Explanation: The input file has too many blocks; bzip2recover cannot handle a file that contains more than 50000 blocks.

program_name
    bzip2recover

input_file_name
    Input file name

block_num
    Number of bzip2 compressed blocks

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: If possible, you may wish to reduce the size of the source file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0052 bzip2recover: `/u/wellie/bzt/dest_files/52.txt.tmp.bz2' appears to contain more than 50000 blocks

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0053 **bzip2recover 1.0.4: extracts blocks from damaged .bz2 files.**

Explanation: This is an informational message which is displayed when bzip2recover is issued.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0053 bzip2recover 1.0.4: extracts blocks from damaged .bz2 files.

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0054 *program_name1*: **usage is** `*program_name2* **damaged_file_name'.**

Explanation: This is an informational message. It is displayed when bzip2recover is not invoked correctly.

program_name1
    bzip2recover

program_name2
    bzip2recover

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Invoke the bzip2recover program as shown in the message.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0054 bzip2recover: usage is `bzip2recover damaged_file_name'.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0055 **restrictions on size of recovered file: 512 MB**

Explanation: This message indicates the current system configuration.

System action: bzip2recover immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0055 restrictions on size of recovered file: 512 MB

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0056 **sizeof(MaybeUInt64) is not 4 or 8 -- configuration error.**

Explanation: This message indicates that the system is not configured correctly.

System action: bzip2recover immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check whether the current system configuration is correct and reconfigure it.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0056 sizeof(MaybeUInt64) is not 4 or 8 -- configuration error.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0057 *program_name*: **supplied filename is suspiciously (>=** *char_num* **chars) long. Bye!**

Explanation: This message indicates that the name of the input file is too long.

program_name
    bzip2recover

char_num
    Length of input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: You may wish to shorten the length of the input file name. It should be less than 1980 characters.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0057 bzip2recover: supplied filename is suspiciously (>= 1980 chars) long. Bye!

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0058 *program_name*: **can't read `**input_file_name

Explanation: The bzip2recover program cannot read the input file name.

program_name
    bzip2recover

input_file_name
    Input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the input file exists and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0058 bzip2recover: can't read `non_exist_file'

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0059 *program_name*: **searching for block boundaries ...**

Explanation: It explains that bzip2recover is currently performing searching for block boundaries on the compressed file being recovered.

program_name
    bzip2recover

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message. No action is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0059 bzip2recover: searching for block boundaries ...

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0060 **block** *block_num* **runs from**

Explanation: This message indicates the current block of the recovered file runs from byte A to byte B, but the current block is incomplete and could not be recovered.

block_num
    The current block number

byte_begin
    The first byte number of the current block

byte_end
    The last byte number of the current block

System action: Displays the warning and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0060 block 1 runs from 80 to 2584 (incomplete)

Source: bzip2

Routing code: Not applicable.

Descriptor code: W- A warning (bzip2 continues).

Automation: Not applicable.

HPUB0061 **block** *block_num* **runs from**

Explanation: This is an informational message which is displayed. It indicates the current block of the recovered file runs from byte A to byte B.

block_num
    The current blcok number

byte_begin
    The first byte number of the current block

byte_end
    The last byte number of the current block

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0061 block 1 runs from 80 to 210

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0062 *program_name*: **sorry, I couldn't find any block boundaries.**

Explanation: bzip2recover could not find any block boundaries in the input file. All of blocks in the input file may be corrupted.

program_name
    bzip2recover

System action: bzip2recover immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check whether the input file was created by bzip2.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0062 bzip2recover: sorry, I couldn't find any block boundaries.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0063 *program_name*: **splitting into blocks**

Explanation: This is an informational message indicating that bzip2recover is beginning the action of attempting to split the input data into blocks.

program_name
    bzip2recover

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0063 bzip2recover: splitting into blocks

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0064 **bzip2recover: can't open `**input_file_name**'**

Explanation: The input file name cannot be read by bzip2recover.

input_file_name
    input file name

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check that the input file exists and also check that you have the appropriate permission to access the file, and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0064 bzip2recover: can't open `cannot_open_file'

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0065 **writing block** *block_num* **to `**output_file_name**' ...**

Explanation: This is an informational message which indicates that bzip2recover is writing a block of data to the output file.

block_num
    The block number

output_file_name
    Output file name

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0065 writing block 1 to `/u/spring/bzt/dest_files/rec0000165.txt.bz2'...

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0066   *program_name*: **can't write**
`output_file_name`**'**

Explanation: bzip2recover cannot create the output file.

program_name
    bzip2recover

output_file_name
    Output file name

System action: bzip2recover cannot create the output file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check the input file, the current directory, and the system and then try again.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0066 bzip2recover: can't write `/u/wellie/bzt/dest_files/rec0000.bz2'

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0067   **bzip2recover: finished**

Explanation: bzip2recover extracted all the blocks from the input file.

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0067 bzip2recover: finished

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0068   **bzip2/libbzip2: internal error number**
error_num. **This is a bug in**
bzip2/libbzip2, *program_name*. **Please**
follow local procedures for reporting
problems to IBM.

Explanation: An internal error occurred.

error_num
    Error number

program_name
    One of bzip2 bunzip2 or bzcat

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check the system and follow local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0068 bzip2/libbzip2: internal error number 1007.This is a bug in bzip2/libbzip2, bzip2.Please follow local procedures for reporting problems to IBM.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0069   *** **A special note about internal error**
number 1007 *** **Experience suggests**
that a common cause of i.e. 1007 is
unreliable memory or other hardware.
The 1007 assertion just happens to
cross-check the results of huge numbers
of memory reads/writes, and so acts
(unintendedly) as a stress test of your
memory system. Try the following: try
compressing the file again, possibly
monitoring progress in detail with the
-vv flag. * If the error cannot be
reproduced, and/or happens at different
points in compression, you may have a
flaky memory system. * If the error can
be repeatedly reproduced, this is a bug
in bzip2, and should be reported. Please
follow local procedures for reporting
problems to IBM.

Explanation: An Internal error occurred.

System action: bzip2 immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check the system and follow local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0069 *** A special note about internal error number 1007 *** Experience suggests that a common cause of i.e. 1007 is unreliable memory or other hardware. The 1007 assertion just happens to cross-check the results of huge numbers of memory reads/writes, and so acts (unintendedly) as a stress test of your memory system. Try the following: try compressing the file again, possibly monitoring progress in detail with the -vv flag. * If the error cannot be reproduced, and/or happens at different points in compression, you may have a flaky memory system.* If the error can be repeatably reproduced, this is a bug in bzip2, and should be reported. Please follow local procedures for reporting problems to IBM.

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

HPUB0070   {*hex_value1*, *hex_value2*}

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 3 or more times. It indicates what the stored and calculated CRC values of the current block are, while the input file is decompressed.

hex_value1
> Value in hexadecimal of stored block CRC

hex_value2
> Value in hexadecimal of calculated block CRC

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 3.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0070 {0xbafa99a5, 0xbafa99a5}

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0071   combined CRCs: stored = *hex_value1*, computed = *hex_value2*

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 3 or more times. It indicates what the stored and calculated CRC values of all the blocks are, while the input file is decompressed.

hexvalue1
> Value in hexadecimal of stored combined CRC

hexvalue2
> Value in hexidecimal of calculated combined CRC

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 3.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0071 combined CRCs: stored = 0xbafa99a5, computed = 0xbafa99a5

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0072   *block_num* in block, *mtf* after MTF & 1-2 coding, *in_used*+2 syms in use

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 3 or more times.

block_num
> The block number

mtf
> Value of coding the MTF

in_used
    Value of map of bytes used in block

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 3.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0072 665 in block, 415 after MTF & 1-2 coding, 63+2 syms in use

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0073   **block** *block_num*: **crc =** *hex_value1*, **combined CRC =** *hexvalue2*, **size =** *size_value*

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 2 or more times.

block_num
    The block number

hex_value1
    Value in hexadecimal of the current block CRC

hex_value2
    Value in hexadecimal of the combined block CRC

size_value
    Value of the current block suze

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 2.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0073 block 1: crc = 0x6804ac83, combined CRC = 0x6804ac83, size = 665

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0074   **final combined CRC = 0x***hex_value*

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 2 or more times. It indicates what the final value of CRC is while the input file is compressed.

hex_value
    Value of final combined CRC

System action: Displays the message and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 2.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0074 final combined CRC = 0x6804ac83

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0075

Explanation:

System action:

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response:

Problem determination: No additional information.

Module: Not applicable.

Example:

Source: bzip2

Routing code: Not applicable.

Descriptor code:

Automation: Not applicable.

HPUB0076   rt+rld

Explanation: This is an informational message which is displayed when the "-v" or "--verbose" option is specified 2 or more times.

System action: Displays the warning and continues processing the file.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. To suppress this informational message, reduce the number of "-v" or "--verbose" options to less than 2.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0076 rt+rld

Source: bzip2

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUB0077   restrictions on size of recovered file: None

Explanation: This message indicates the current system configuration.

System action: bzip2recover immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required

Problem determination: No additional information.

Module: Not applicable.

Example: HPUB0077 restrictions on size of recovered file: None

Source: bzip2

Routing code: Not applicable.

Descriptor code: F- A fatal error (bzip2 exits immediately).

Automation: Not applicable.

Chapter 5. cURL command reference

Name

curl - transfer a URL

Synopsis

curl [options] [URL...]

Description

curl is a tool to transfer data from or to a server, using one of the supported protocols (HTTP, HTTPS, FTP, FTPS, TFTP, DICT, TELNET, LDAP or FILE). The command is designed to work without user interaction.

curl offers a busload of useful tricks like proxy support, user authentication, ftp upload, HTTP post, SSL connections, cookies, file transfer resume and more. As you will see below, the amount of features will make your head spin!

curl is powered by curl for all transfer-related features.

URL

The URL syntax is protocol dependent. You'll find a detailed description in RFC 3986.

You can specify multiple URLs or parts of URLs by writing part sets within braces that are surrounded by double quote symbols, as in:

  http://site."{one,two,three}".com

or you can get sequences of alphanumeric series by using [] as in:

  ftp://ftp.numericals.com/file[1-100].txt   ftp://ftp.numericals.com/file[001-100].txt (with leading zeros)   ftp://ftp.letters.com/file[a-z].txt

No nesting of the sequences is supported at the moment, but you can use several ones next to each other:

  http://any.org/archive[1996-1999]/vol[1-4]/part"{a,b,c}".html

You can specify any amount of URLs on the command line. They will be fetched in a sequential manner in the specified order.

Since curl 7.15.1 you can also specify step counter for the ranges, so that you can get every Nth number or letter:

  http://www.numericals.com/file[1-100:10].txt   http://www.letters.com/file[a-z:2].txt

If you specify URL without protocol:// prefix, curl will attempt to guess what protocol you might want. It will then default to HTTP but try other protocols

based on often-used host name prefixes. For example, for host names starting with "ftp." curl will assume you want to speak FTP. Curl will attempt to re-use connections for multiple file transfers, so that getting many files from the same server will not do multiple connects / handshakes. This improves speed. Of course this is only done on files specified on a single command line and cannot be used between separate curl invokes.

Progress Meter

curl normally displays a progress meter during operations, indicating amount of transfered data, transfer speeds and estimated time left etc.

However, since curl displays data to the terminal by default, if you invoke curl to do an operation and it is about to write data to the terminal, it disables the progress meter as otherwise it would mess up the output mixing progress meter and response data.

If you want a progress meter for HTTP POST or PUT requests, you need to redirect the response output to a file, using shell redirect (>), -o [file] or similar.

It is not the same case for FTP upload as that operation is not spitting out any response data to the terminal.

If you prefer a progress "bar" instead of the regular meter, -# is your friend.

Options

-a/ – –append

(FTP) When used in an FTP upload, this will tell curl to append to the target file instead of overwriting it. If the file doesn't exist, it will be created.

If this option is used twice, the second one will disable append mode again.

-A/ – –user-agent <agent string>

(HTTP) Specify the User-Agent string to send to the HTTP server. Some badly done CGIs fail if its not set to "Mozilla/4.0". To encode blanks in the string, surround the string with single quote marks. This can also be set with the -H/ – –header option of course.

If this option is set more than once, the last one will be the one that's used.

– –anyauth

(HTTP) Tells curl to figure out authentication method by itself, and use the most secure one the remote site claims it supports. This is done by first doing a request and checking the response-headers, thus inducing an extra network round-trip. This is used instead of setting a specific authentication method, which you can do with – –basic, – –digest, – –ntlm, and – –negotiate.

Note that using – –anyauth is not recommended if you do uploads from stdin, since it may require data to be sent twice and then the client must be able to rewind. If the need should arise when uploading from stdin, the upload operation will fail.

If this option is used several times, the following occurrences make no difference.

-b/ – –cookie <name=data>

(HTTP) Pass the data to the HTTP server as a cookie. It is supposedly the data previously received from the server in a "Set-Cookie:" line. The data should be in the format "NAME1=VALUE1; NAME2=VALUE2".

If no '=' letter is used in the line, it is treated as a filename to use to read previously stored cookie lines from, which should be used in this session if they match. Using this method also activates the "cookie parser" which will make curl record incoming cookies too, which may be handy if you're using this in combination with the -L/ – –location option. The file format of the file to read cookies from should be plain HTTP headers or the Netscape/Mozilla cookie file format.

The file specified with -b/ – –cookie is only used as input. No cookies will be stored in the file. To store cookies, use the -c/ – –cookie-jar option or you could even save the HTTP headers to a file using -D/ – –dump-header!

If this option is set more than once, the last one will be the one that's used.

-B/ – –use-ascii

Enable ASCII transfer when using FTP or LDAP. For FTP, this can also be enforced by using an URL that ends with ";type=A". This option causes data sent to stdout to be in text mode for win32 systems.

If this option is used twice, the second one will disable ASCII usage.

– –basic

(HTTP) Tells curl to use HTTP Basic authentication. This is the default and this option is usually pointless, unless you use it to override a previously set option that sets a different authentication method (such as – –ntlm, – –digest and – –negotiate).

If this option is used several times, the following occurrences make no difference.

– –ciphers <list of ciphers>

(SSL) Specifies which ciphers to use in the connection. The list of ciphers must be using valid ciphers. Read up on SSL cipher list details on this URL: http://www.openssl.org/docs/apps/ciphers.html

If this option is used several times, the last one will override the others.

– –compressed

(HTTP) Request a compressed response using one of the algorithms curl supports, and return the uncompressed document. If this option is used and the server sends an unsupported encoding, Curl will report an error.

If this option is used several times, each occurrence will toggle it on/off.

– –connect-timeout <seconds>

Maximum time in seconds that you allow the connection to the server to take. This only limits the connection phase, once curl has connected this option is of no more use. See also the -m/ – –max-time option.

If this option is used several times, the last one will be used.

-c/ – –cookie-jar <file name>

Specify to which file you want curl to write all cookies after a completed operation. Curl writes all cookies previously read from a specified file as well as all cookies received from remote server(s). If no cookies are known, no file will be written. The file will be written using the Netscape cookie file format. If you set the file name to a single dash, "-", the cookies will be written to stdout.

If the cookie jar can't be created or written to, the whole curl operation won't fail or even report an error clearly. Using -v will get a warning displayed, but that is the only visible feedback you get about this possibly lethal situation.

If this option is used several times, the last specified file name will be used.

-C/ – –continue-at <offset>

Continue/Resume a previous file transfer at the given offset. The given offset is the exact number of bytes that will be skipped counted from the beginning of the source file before it is transferred to the destination. If used with uploads, the ftp server command SIZE will not be used by curl.

Use "-C -" to tell curl to automatically find out where/how to resume the transfer. It then uses the given output/input files to figure that out.

If this option is used several times, the last one will be used.

– –create-dirs

When used in conjunction with the -o option, curl will create the necessary local directory hierarchy as needed. This option creates the dirs mentioned with the -o option, nothing else. If the -o file name uses no dir or if the dirs it mentions already exist, no dir will be created.

To create remote directories when using FTP, try – –ftp-create-dirs.

– –crlf

(FTP) Convert LF to CRLF in upload. Useful for MVS (OS/390).

If this option is used several times, the following occurrences make no difference.

-d/ – –data <data>

(HTTP) Sends the specified data in a POST request to the HTTP server, in a way that can emulate as if a user has filled in a HTML form and pressed the submit button. Note that the data is sent exactly as specified with no extra processing (with all newlines cut off). The data is expected to be "url-encoded". This will cause curl to pass the data to the server using the content-type application/x-www-form-urlencoded. Compare to -F/ – –form. If this option is used more than once on the same command line, the data pieces specified will be

merged together with a separating &-letter. Thus, using '-d name=daniel -d skill=lousy' would generate a post chunk that looks like 'name=daniel &skill;=lousy'.

If you start the data with the letter @, the rest should be a file name to read the data from, or - if you want curl to read the data from stdin. The contents of the file must already be url-encoded. Multiple files can also be specified. Posting data from a file named 'foobar' would thus be done with – –data @foobar".

To post data purely binary, you should instead use the – –data-binary option.

-d/ – –data is the same as – –data-ascii.

If this option is used several times, the ones following the first will append data.

Note: This option converts the data from EBCDIC to ASCII.

– –data-ascii <data>

(HTTP) This is an alias for the -d/ – –data option.

If this option is used several times, the ones following the first will append data.

Note: This option converts the data from EBCDIC to ASCII.

– –data-binary <data>

(HTTP) This posts data in a similar manner as – –data-ascii does, although when using this option the entire context of the posted data is kept as-is. If you want to post a binary file without the strip-newlines feature of the – –data-ascii option, this is for you.

If this option is used several times, the ones following the first will append data.

Note: This option does not convert the data from EBCDIC to ASCII.

– –digest

(HTTP) Enables HTTP Digest authentication. This is a authentication that prevents the password from being sent over the wire in clear text. Use this in combination with the normal -u/ – –user option to set user name and password. See also – –ntlm, – –negotiate and – –anyauth for related options.

If this option is used several times, the following occurrences make no difference.

– –disable-eprt

(FTP) Tell curl to disable the use of the EPRT and LPRT commands when doing active FTP transfers. Curl will normally always first attempt to use EPRT, then LPRT before using PORT, but with this option, it will use PORT right away. EPRT and LPRT are extensions to the original FTP protocol, may not work on all servers but enable more functionality in a better way than the traditional PORT command.

If this option is used several times, each occurrence will toggle this on/off.

– –disable-epsv

(FTP) Tell curl to disable the use of the EPSV command when doing passive FTP transfers. Curl will normally always first attempt to use EPSV before PASV, but with this option, it will not try using EPSV.

If this option is used several times, each occurrence will toggle this on/off.

-D/ – –dump-header <file>

Write the protocol headers to the specified file.

This option is handy to use when you want to store the headers that a HTTP site sends to you. Cookies from the headers could then be read in a second curl invoke by using the -b/ – –cookie option! The -c/ – –cookie-jar option is however a better way to store cookies.

When used on FTP, the ftp server response lines are considered being "headers" and thus are saved there.

If this option is used several times, the last one will be used.

-e/ – –referer <URL>

(HTTP) Sends the "Referer Page" information to the HTTP server. This can also be set with the -H/ – –header flag of course. When used with -L/ – –location you can append ";auto" to the – –referer URL to make curl automatically set the previous URL when it follows a Location: header. The ";auto" string can be used alone, even if you don't set an initial – –referer.

If this option is used several times, the last one will be used.

– –engine <name>

Note: This option is not supported.

Select the OpenSSL crypto engine to use for cipher operations. Use – –engine list to print a list of build-time supported engines. Note that not all (or none) of the engines may be available at run-time.

– –environment

Note: This option is not supported.

(RISC OS ONLY) Sets a range of environment variables, using the names the -w option supports, to easier allow extraction of useful information after having run curl.

If this option is used several times, each occurrence will toggle this on/off.

– –egd-file <file>

Note: This option is not supported.

(SSL) Specify the path name to the Entropy Gathering Daemon socket. The socket is used to seed the random engine for SSL connections. See also the – –random-file option.

-E/ – –cert <certificate[:password]>

(SSL) Tells curl to use the specified certificate file when getting a file with HTTPS or FTPS. The certificate must be in PEM format. If the optional password isn't specified, it will be queried for on the terminal. Note that this option assumes a "certificate" file that is the private key and the private certificate concatenated! See – –cert and – –key to specify them independently.

If this option is used several times, the last one will be used.

– –cert-type <type>

(SSL) Tells curl what certificate type the provided certificate is in. PEM, DER and ENG are recognized types. If not specified, PEM is assumed.

If this option is used several times, the last one will be used.

– –cacert <CA certificate>

(SSL) Tells curl to use the specified certificate file to verify the peer. The file may contain multiple CA certificates. The certificate(s) must be in PEM format.

curl recognizes the environment variable named 'CURL_CA_BUNDLE' if that is set, and uses the given path as a path to a CA cert bundle. This option overrides that variable.

The windows version of curl will automatically look for a CA certs file named ´curl-ca-bundle.crt´, either in the same directory as curl.exe, or in the Current Working Directory, or in any folder along your PATH.

If this option is used several times, the last one will be used.

– –capath <CA certificate directory>

(SSL) Tells curl to use the specified certificate directory to verify the peer. The certificates must be in PEM format, and the directory must have been processed using the c_rehash utility supplied with openssl. Using – –capath can allow curl to make SSL-connections much more efficiently than using – –cacert if the – –cacert file contains many CA certificates.

If this option is used several times, the last one will be used.

-f/ – –fail

(HTTP) Fail silently (no output at all) on server errors. This is mostly done like this to better enable scripts etc to better deal with failed attempts. In normal cases when a HTTP server fails to deliver a document, it returns an HTML document stating so (which often also describes why and more). This flag will prevent curl from outputting that and return error 22.

This method is not fail-safe and there are occasions where non-succesful response codes will slip through, especially when authentication is involved (response codes 401 and 407).

If this option is used twice, the second will again disable silent failure.

– **–ftp-account [data]**

Note: This option is not supported by most FTP servers.

(FTP) When an FTP server asks for "account data" after user name and password has been provided, this data is sent off using the ACCT command. (Added in 7.13.0)

If this option is used twice, the second will override the previous use.

– **–ftp-create-dirs**

(FTP) When an FTP URL/operation uses a path that doesn't currently exist on the server, the standard behavior of curl is to fail. Using this option, curl will instead attempt to create missing directories.

If this option is used twice, the second will again disable directory creation.

– **–ftp-method [method]**

(FTP) Control what method curl should use to reach a file on a FTP(S) server. The method argument should be one of the following alternatives:

multicwd

curl does a single CWD operation for each path part in the given URL. For deep hierarchies this means very many commands. This is how RFC1738 says it should be done. This is the default but the slowest behavior.

nocwd

curl does no CWD at all. curl will do SIZE, RETR, STOR etc and give a full path to the server for all these commands. This is the fastest behavior.

singlecwd

curl does one CWD with the full target directory and then operates on the file "normally" (like in the multicwd case). This is somewhat more standards compliant than 'nocwd' but without the full penalty of 'multicwd'.

– **–ftp-pasv**

(FTP) Use PASV when transferring. PASV is the internal default behavior, but using this option can be used to override a previous —ftp-port option. (Added in 7.11.0)

If this option is used several times, the following occurrences make no difference.

– **–ftp-alternative-to-user <command>**

Note: This option is not supported.

(FTP) If authenticating with the USER and PASS commands fails, send this command. When connecting to Tumbleweed's Secure Transport server over FTPS using a client certificate, using "SITE AUTH" will tell the server to retrieve the username from the certificate. (Added in 7.15.5)

– –ftp-skip-pasv-ip

(FTP) Tell curl to not use the IP address the server suggests in its response to curl's PASV command when curl connects the data connection. Instead curl will re-use the same IP address it already uses for the control connection. (Added in 7.14.2)

This option has no effect if PORT, EPRT or EPSV is used instead of PASV.

If this option is used twice, the second will again use the server's suggested address.

– –ftp-ssl

(FTP) Try to use SSL/TLS for the FTP connection. Reverts to a non-secure connection if the server doesn't support SSL/TLS. See also – –ftp-ssl-control and – –ftp-ssl-reqd for different levels of encryption required. (Added in 7.11.0)

If this option is used twice, the second will again disable this.

– –ftp-ssl-control

(FTP) Require SSL/TLS for the ftp login, clear for transfer. Allows secure authentication, but non-encrypted data transfers for efficiency. Fails the transfer if the server doesn't support SSL/TLS. (Added in 7.16.0)

If this option is used twice, the second will again disable this.

– –ftp-ssl-reqd

(FTP) Require SSL/TLS for the FTP connection. Terminates the connection if the server doesn't support SSL/TLS. (Added in 7.15.5)

If this option is used twice, the second will again disable this.

– –ftp-ssl-ccc

Note: This option is not supported.

(FTP) Use CCC (Clear Command Channel) Shuts down the SSL/TLS layer after authenticating. The rest of the control channel communication will be unencrypted. This allows NAT routers to follow the FTP transaction. (Added in 7.16.1)

If this option is used twice, the second will again disable this.

-F/ – –form <name=content>

(HTTP) This lets curl emulate a filled in form in which a user has pressed the submit button. This causes curl to POST data using the Content-Type multipart/form-data according to RFC1867. This enables uploading of binary files etc. To force the 'content' part to be a file, prefix the file name with an @ sign. To just get the content part from a file, prefix the file name with the letter <. The difference between @ and < is then that @ makes a file get attached in the post as a file upload, while the < makes a text field and just get the contents for that text field from a file.

curl

Example, to send your password file to the server, where 'password' is the name of the form-field to which /etc/passwd will be the input:

curl -F password=@/etc/passwd www.mypasswords.com

To read the file's content from stdin instead of a file, use - where the file name should've been. This goes for both @ and < constructs.

You can also tell curl what Content-Type to use by using 'type=', in a manner similar to:

curl -F "web=@index.html;type=text/html" url.com, or curl -F "name=daniel;type=text/foo" url.com

You can also explicitly change the name field of an file upload part by setting filename=, like this:

curl "file=@localfile;filename=nameinpost" url.com

This option can be used multiple times.

– –form-string <name=string>

(HTTP) Similar to – –form except that the value string for the named parameter is used literally. Leading '@' and '<' characters, and the ';type=' string in the value have no special meaning. Use this in preference to – –form if there's any possibility that the string value may accidentally trigger the '@' or '<' features of – –form .

-g/– –globoff

This option switches off the "URL globbing parser". When you set this option, you can specify URLs that contain the letters {}[] without having them being interpreted by curl itself. Note that these letters are not normal legal URL contents but they should be encoded according to the URI standard.

-G/ – –get

When used, this option will make all data specified with -d/ – –data or – –data-binary to be used in a HTTP GET request instead of the POST request that otherwise would be used. The data will be appended to the URL with a '?' separator.

If used in combination with -I, the POST data will instead be appended to the URL with a HEAD request.

If this option is used several times, the following occurrences make no difference.

-h/ – –help

Usage help.

-H/ – –header <header>

(HTTP) Extra header to use when getting a web page. You may specify any number of extra headers. Note that if you should add a custom header that has the same name as one of the internal ones curl would use, your externally set header

will be used instead of the internal one. This allows you to make even trickier stuff than curl would normally do. You should not replace internally set headers without knowing perfectly well what you're doing. Remove an internal header by giving a replacement without content on the right side of the colon, as in: -H "Host:".

curl will make sure that each header you add/replace get sent with the proper end of line marker, you should thus not add that as a part of the header content: do not add newlines or carriage returns they will only mess things up for you.

See also the -A/ – –user-agent and -e/ – –referer options.

This option can be used multiple times to add/replace/remove multiple headers.

– –ignore-content-length

(HTTP) Ignore the Content-Length header. This is particularly useful for servers running Apache 1.x, which will report incorrect Content-Length for files larger than 2 gigabytes.

-i/ – –include

(HTTP) Include the HTTP-header in the output. The HTTP-header includes things like server-name, date of the document, HTTP-version and more...

If this option is used twice, the second will again disable header include.

– –interface <name>

Perform an operation using a specified interface. You can enter interface name, IP address or host name. An example could look like the following:

curl – –interface eth0:1 http://www.netscape.com/

If this option is used several times, the last one will be used.

-I/ – –head

(HTTP/FTP/FILE) Fetch the HTTP-header only! HTTP-servers feature the command HEAD which this uses to get nothing but the header of a document. When used on a FTP or FILE file, curl displays the file size and last modification time only.

If this option is used twice, the second will again disable header only.

-j/ – –junk-session-cookies

(HTTP) When curl is told to read cookies from a given file, this option will make it discard all "session cookies". This will basically have the same effect as if a new session is started. Typical browsers always discard session cookies when they're closed down.

If this option is used several times, each occurrence will toggle this on/off.

-k/ – –insecure

(SSL) This option explicitly allows curl to perform "insecure" SSL connections and transfers. All SSL connections are attempted to be made secure by using the CA certificate bundle installed by default. This makes all connections considered "insecure" to fail unless -k/ − –insecure is used.

See this online resource for further details: http://curl.haxx.se/docs/sslcerts.html

If this option is used twice, the second time will again disable it.

– –key <key>

(SSL) Private key file name. Allows you to provide your private key in this separate file.

If this option is used several times, the last one will be used.

– –key-type <type>

(SSL) Private key file type. Specify which type your – –key provided private key is. DER, PEM and ENG are supported. If not specified, PEM is assumed.

If this option is used several times, the last one will be used.

– –krb4 <level>

Note: This option is not supported.

(FTP) Enable kerberos4 authentication and use. The level must be entered and should be one of 'clear', 'safe', 'confidential' or 'private'. Should you use a level that is not one of these, 'private' will instead be used.

This option requires that the library was built with kerberos4 support. This is not very common. Use -V/—version to see if your curl supports it.

If this option is used several times, the last one will be used.

-K/ – –config <config file>

Specify which config file to read curl arguments from. The config file is a text file in which command line arguments can be written which then will be used as if they were written on the actual command line. Options and their parameters must be specified on the same config file line. If the parameter is to contain white spaces, the parameter must be enclosed within quotes. If the first column of a config line is a '#' character, the rest of the line will be treated as a comment.

Specify the filename as '-' to make curl read the file from stdin.

Note that to be able to specify a URL in the config file, you need to specify it using the – –url option, and not by simply writing the URL on its own line. So, it could look similar to this:

url = "http://curl.haxx.se/docs/"

This option can be used multiple times to load multiple config files.

When curl is invoked, it always (unless -q is used) checks for a default config file and uses it if found. The default config file is checked for in the following places in this order:

1. curl tries to find the "home dir": It first checks for the CURL_HOME and then the HOME environment variables. Failing that, it uses getpwuid() on unix-like systems (which returns the home dir given the current user in your system). On Windows, it then checks for the APPDATA variable, or as a last resort the '%USERPROFILE%Application Data'.

2. On windows, if there is no _curlrc file in the home dir, it checks for one in the same dir the executable curl is placed. On Unix-like systems, it will simply try to load .curlrc from the determined home dir.

– –curl <file>

Append this option to any ordinary curl command line, and you will get a curl-using source code written to the file that does the equivalent operation of what your command line operation does!

If this option is used several times, the last given file name will be used.

– –limit-rate <speed>

Specify the maximum transfer rate you want curl to use. This feature is useful if you have a limited pipe and you'd like your transfer not use your entire bandwidth.

The given speed is measured in bytes/second, unless a suffix is appended. Appending 'k' or 'K' will count the number as kilobytes, 'm' or M' makes it megabytes while 'g' or 'G' makes it gigabytes. Examples: 200K, 3m and 1G.

The given rate is the average speed, counted during the entire transfer. It means that curl might use higher transfer speeds in short bursts, but over time it uses no more than the given rate.

If you are also using the -Y/ – –speed-limit option, that option will take precedence and might cripple the rate-limiting slightly, to help keeping the speed-limit logic working.

If this option is used several times, the last one will be used.

-l/ – –list-only

(FTP) When listing an FTP directory, this switch forces a name-only view. Especially useful if you want to machine-parse the contents of an FTP directory since the normal directory view doesn't use a standard look or format.

This option causes an FTP NLST command to be sent. Some FTP servers list only files in their response to NLST; they do not include subdirectories and symbolic links.

If this option is used twice, the second will again disable list only.

– –local-port <num>[-num]

Set a prefered number or range of local port numbers to use for the connection(s). Note that port numbers by nature is a scarce resource that will be busy at times so setting this range to something too narrow might cause unnecessary connection setup failures. (Added in 7.15.2)

-L/ – –location

(HTTP/HTTPS) If the server reports that the requested page has moved to a different location (indicated with a Location: header and a 3XX response code) this option will make curl redo the request on the new place. If used together with -i/ – –include or -I/ – –head, headers from all requested pages will be shown. When authentication is used, curl only sends its credentials to the initial host. If a redirect takes curl to a different host, it won't be able to intercept the user+password. See also —location-trusted on how to change this. You can limit the amount of redirects to follow by using the – –max-redirs option.

If this option is used twice, the second will again disable location following.

– –location-trusted

(HTTP/HTTPS) Like -L/ – –location, but will allow sending the name + password to all hosts that the site may redirect to. This may or may not introduce a security breach if the site redirects you do a site to which you'll send your authentication info (which is plaintext in the case of HTTP Basic authentication).

If this option is used twice, the second will again disable location following.

– –max-filesize <bytes>

Specify the maximum size (in bytes) of a file to download. If the file requested is larger than this value, the transfer will not start and curl will return with exit code 63.

Note: The file size is not always known prior to download, and for such files this option has no effect even if the file transfer ends up being larger than this given limit. This concerns both FTP and HTTP transfers.

-m/ – –max-time <seconds>

Maximum time in seconds that you allow the whole operation to take. This is useful for preventing your batch jobs from hanging for hours due to slow networks or links going down. See also the – –connect-timeout option.

If this option is used several times, the last one will be used.

-M/ – –manual

Note: This option is not supported.

Manual. Display the huge help text.

-n/ – –netrc

Makes curl scan the .netrc file in the user's home directory for login name and password. This is typically used for ftp on unix. If used with http, curl will enable user authentication. See netrc(4) or ftp(1) for details on the file format. Curl will

not complain if that file hasn't the right permissions (it should not be world nor group readable). The environment variable "HOME" is used to find the home directory.

A quick and very simple example of how to setup a .netrc to allow curl to ftp to the machine host.domain.com with user name 'myself' and password 'secret' should look similar to:

machine host.domain.com login myself password secret

If this option is used twice, the second will again disable netrc usage.

– –netrc-optional

Very similar to – –netrc, but this option makes the .netrc usage optional and not mandatory as the – –netrc does.

– –negotiate

Note: This option is not supported.

(HTTP) Enables GSS-Negotiate authentication. The GSS-Negotiate method was designed by Microsoft and is used in their web applications. It is primarily meant as a support for Kerberos5 authentication but may be also used along with another authentication methods. For more information see IETF draft draft-brezak-spnego-http-04.txt.

This option requires that the library was built with GSSAPI support. This is not very common. Use -V/ – –version to see if your version supports GSS-Negotiate.

When using this option, you must also provide a fake -u/ – –user option to activate the authentication code properly. Sending a '-u :' is enough as the user name and password from the -u option aren't actually used.

If this option is used several times, the following occurrences make no difference.

-N/ – –no-buffer

Disables the buffering of the output stream. In normal work situations, curl will use a standard buffered output stream that will have the effect that it will output the data in chunks, not necessarily exactly when the data arrives. Using this option will disable that buffering.

If this option is used twice, the second will again switch on buffering.

– –no-sessionid

(SSL) Disable curl's use of SSL session-ID caching. By default all transfers are done using the cache. Note that while nothing ever should get hurt by attempting to reuse SSL session-IDs, there seem to be broken SSL implementations in the wild that may require you to disable this in order for you to succeed. (Added in 7.16.0)

If this option is used twice, the second will again switch on use of the session cache.

– –ntlm

(HTTP) Enables NTLM authentication. The NTLM authentication method was designed by Microsoft and is used by IIS web servers. It is a proprietary protocol, reversed engineered by clever people and implemented in curl based on their efforts. This kind of behavior should not be endorsed, you should encourage everyone who uses NTLM to switch to a public and documented authentication method instead. Such as Digest.

If you want to enable NTLM for your proxy authentication, then use – –proxy-ntlm.

This option requires that the library was built with SSL support. Use -V/ – –version to see if your curl supports NTLM.

If this option is used several times, the following occurrences make no difference.

-o/ – –output <file>

Write output to <file> instead of stdout. If you are using {} or [] to fetch multiple documents, you can use '#' followed by a number in the <file> specifier. That variable will be replaced with the current string for the URL being fetched. Like in:

curl http://"{one,two}".site.com -o "file_#1.txt"

or use several variables like:

curl http://"{site,host}".host[1-5].com -o "#1_#2"

You may use this option as many times as you have number of URLs.

See also the – –create-dirs option to create the local directories dynamically.

-O/ – –remote-name

Write output to a local file named like the remote file we get. (Only the file part of the remote file is used, the path is cut off.)

The remote file name to use for saving is extracted from the given URL, nothing else.

You may use this option as many times as you have number of URLs.

– –pass <phrase>

(SSL) Pass phrase for the private key

If this option is used several times, the last one will be used.

– –proxy-anyauth

Tells curl to pick a suitable authentication method when communicating with the given proxy. This will cause an extra request/response round-trip. (Added in 7.13.2)

If this option is used twice, the second will again disable the proxy use-any authentication.

– –proxy-basic

Tells curl to use HTTP Basic authentication when communicating with the given proxy. Use – –basic for enabling HTTP Basic with a remote host. Basic is the default authentication method curl uses with proxies.

If this option is used twice, the second will again disable proxy HTTP Basic authentication.

– –proxy-digest

Tells curl to use HTTP Digest authentication when communicating with the given proxy. Use – –digest for enabling HTTP Digest with a remote host.

If this option is used twice, the second will again disable proxy HTTP Digest.

– –proxy-ntlm

Tells curl to use HTTP NTLM authentication when communicating with the given proxy. Use – –ntlm for enabling NTLM with a remote host.

If this option is used twice, the second will again disable proxy HTTP NTLM.

-p/ – –proxytunnel

When an HTTP proxy is used (-x/ – –proxy), this option will cause non-HTTP protocols to attempt to tunnel through the proxy instead of merely using it to do HTTP-like operations. The tunnel approach is made with the HTTP proxy CONNECT request and requires that the proxy allows direct connect to the remote port number curl wants to tunnel through to.

If this option is used twice, the second will again disable proxy tunnel.

-P/ – –ftp-port <address>

(FTP) Reverses the initiator/listener roles when connecting with ftp. This switch makes Curl use the PORT command instead of PASV. In practice, PORT tells the server to connect to the client's specified address and port, while PASV asks the server for an ip address and port to connect to. <address> should be one of:

interface

for example, "eth0" to specify which interface's IP address you want to use (Unix only)

IP address

for example, "192.168.10.1" to specify exact IP number

host name

for example, "my.host.domain" to specify machine

-

make curl pick the same IP address that is already used for the control connection

If this option is used several times, the last one will be used. Disable the use of PORT with – –ftp-pasv. Disable the attempt to use the EPRT command instead of PORT by using – –disable-eprt. EPRT is really PORT++.

-q

If used as the first parameter on the command line, the curlrc config file will not be read and used. See the -K/ – –config for details on the default config file search path.

-Q/ – –quote <command>

(FTP) Send an arbitrary command to the remote FTP server. Quote commands are sent BEFORE the transfer is taking place (just after the initial PWD command to be exact). To make commands take place after a successful transfer, prefix them with a dash '-'. To make commands get sent after curl has changed working directory, just before the transfer command(s), prefix the command with '+'. You may specify any amount of commands. If the server returns failure for one of the commands, the entire operation will be aborted. You must send syntactically correct FTP commands as RFC959 defines.

This option can be used multiple times.

– –random-file <file>

(SSL) Specify the path name to file containing what will be considered as random data. The data is used to seed the random engine for SSL connections. See also the – –egd-file option.

-r/ – –range <range>

(HTTP/FTP) Retrieve a byte range (for example, a partial document) from a HTTP/1.1 or FTP server. Ranges can be specified in a number of ways.

0-499 specifies the first 500 bytes

500-999 specifies the second 500 bytes

-500 specifies the last 500 bytes

9500- specifies the bytes from offset 9500 and forward

0-0,-1 specifies the first and last byte only(*)(H)

500-700,600-799 specifies 300 bytes from offset 500(H)

100-199,500-599 specifies two separate 100 bytes ranges(*)(H)

(*) = this will cause the server to reply with a multipart response!

You should also be aware that many HTTP/1.1 servers do not have this feature enabled, so that when you attempt to get a range, you'll instead get the whole document.

FTP range downloads only support the simple syntax 'start-stop' (optionally with one of the numbers omitted). It depends on the non-RFC command SIZE.

Also, some FTP range download errors are caused by a specific feature of the remote FTP server. For example, an FTP server might substitute all "/n" symbols with "/r/n" symbols in the user's file before transferring it to the client. In this case, the range download contents will not be the user's expected results since the substitution has changed the content length without any notification.

If this option is used several times, the last one will be used.

-R/ – –remote-time

When used, this will make curl attempt to figure out the timestamp of the remote file, and if that is available make the local file get that same timestamp.

If this option is used twice, the second time disables this again.

– –retry <num>

If a transient error is returned when curl tries to perform a transfer, it will retry this number of times before giving up. Setting the number to 0 makes curl do no retries (which is the default). Transient error means either: a timeout, an FTP 5xx response code or an HTTP 5xx response code.

When curl is about to retry a transfer, it will first wait one second and then for all forthcoming retries it will double the waiting time until it reaches 10 minutes which then will be the delay between the rest of the retries. By using – –retry-delay you disable this exponential backoff algorithm. See also – –retry-max-time to limit the total time allowed for retries. (Added in 7.12.3)

If this option is used multiple times, the last occurrence decide the amount.

– –retry-delay <seconds>

Make curl sleep this amount of time between each retry when a transfer has failed with a transient error (it changes the default backoff time algorithm between retries). This option is only interesting if – –retry is also used. Setting this delay to zero will make curl use the default backoff time. (Added in 7.12.3)

If this option is used multiple times, the last occurrence decide the amount.

– –retry-max-time <seconds>

The retry timer is reset before the first transfer attempt. Retries will be done as usual (see – –retry) as long as the timer hasn't reached this given limit. Notice that if the timer hasn't reached the limit, the request will be made and while performing, it may take longer than this given time period. To limit a single request´s maximum time, use -m/ – –max-time. Set this option to zero to not timeout retries. (Added in 7.12.3)

If this option is used multiple times, the last occurrence decide the amount.

-s/ – –silent

Silent mode. Don't show progress meter or error messages. Makes Curl mute.

If this option is used twice, the second will again disable silent mode.

-S/ − –show-error

When used with -s it makes curl show error message if it fails.

If this option is used twice, the second will again disable show error.

− –socks4 <host[:port]>

Use the specified SOCKS4 proxy. If the port number is not specified, it is assumed at port 1080. (Added in 7.15.2)

This option overrides any previous use of -x/ − –proxy, as they are mutually exclusive.

If this option is used several times, the last one will be used.

− –socks5 <host[:port]>

Use the specified SOCKS5 proxy. If the port number is not specified, it is assumed at port 1080. (Added in 7.11.1)

This option overrides any previous use of -x/ − –proxy, as they are mutually exclusive.

If this option is used several times, the last one will be used. (This option was previously wrongly documented and used as − –socks without the number appended.)

− –stderr <file>

Redirect all writes to stderr to the specified file instead. If the file name is a plain '-', it is instead written to stdout. This option has no point when you're using a shell with decent redirecting capabilities.

If this option is used several times, the last one will be used.

− –tcp-nodelay

Turn on the TCP_NODELAY option.

If this option is used several times, each occurrence toggles this on/off.

-t/ − –telnet-option <OPT=val>

Pass options to the telnet protocol. Supported options are:

TTYPE=<term> Sets the terminal type.

XDISPLOC=<X display> Sets the X display location.

NEW_ENV=<var,val> Sets an environment variable.

-T/ − –upload-file <file>

This transfers the specified local file to the remote URL. If there is no file part in the specified URL, Curl will append the local file name. NOTE that you must use a

trailing / on the last directory to really prove to Curl that there is no file name or curl will think that your last directory name is the remote file name to use. That will most likely cause the upload operation to fail. If this is used on a http(s) server, the PUT command will be used.

Use the file name "-" (a single dash) to use stdin instead of a given file.

You can specify one -T for each URL on the command line. Each -T + URL pair specifies what to upload and to where. curl also supports "globbing" of the -T argument, meaning that you can upload multiple files to a single URL by using the same URL globbing style supported in the URL, like this:

curl -T "{file1,file2}" http://www.uploadtothissite.com

or even

curl -T "img[1-1000].png" ftp://ftp.picturemania.com/upload/

– –trace <file>

Enables a full trace dump of all incoming and outgoing data, including descriptive information, to the given output file. Use "-" as filename to have the output sent to stdout.

If this option is used several times, the last one will be used.

– –trace-ascii <file>

Enables a full trace dump of all incoming and outgoing data, including descriptive information, to the given output file. Use "-" as filename to have the output sent to stdout.

This is very similar to – –trace, but leaves out the hex part and only shows the ASCII part of the dump. It makes smaller output that might be easier to read for untrained humans.

If this option is used several times, the last one will be used.

– –trace-time

Prepends a time stamp to each trace or verbose line that curl displays. (Added in 7.14.0)

If this option is used several times, each occurrence will toggle it on/off.

-u/– –user <user:password>

Specify user and password to use for server authentication. Overrides -n/ – –netrc and – –netrc-optional.

If you use an SSPI-enabled curl binary and do NTLM autentication, you can force curl to pick up the user name and password from your environment by simply specifying a single colon with this option: "-u :".

If this option is used several times, the last one will be used.

-U/– –proxy-user <user:password>

Specify user and password to use for proxy authentication.

If you use an SSPI-enabled curl binary and do NTLM autentication, you can force curl to pick up the user name and password from your environment by simply specifying a single colon with this option: "-U :".

If this option is used several times, the last one will be used.

– –url <URL>

Specify a URL to fetch. This option is mostly handy when you want to specify URL(s) in a config file.

This option may be used any number of times. To control where this URL is written, use the -o/ – –output or the -O/ – –remote-name options.

-v/ – –verbose

Makes the fetching more verbose/talkative. Mostly usable for debugging. Lines starting with '>' means "header data" sent by curl, '<' means "header data" received by curl that is hidden in normal cases and lines starting with '*' means additional info provided by curl.

Note that if you only want HTTP headers in the output, -i/ – –include might be option you're looking for.

If you think this option still doesn't give you enough details, consider using – –trace or – –trace-ascii instead.

If this option is used twice, the second will again disable verbose.

-V/ – –version

Displays information about curl and the curl version it uses.

The first line includes the full version of curl, curl and other 3rd party libraries linked with the executable.

The second line (starts with "Protocols:") shows all protocols that curl reports to support.

The third line (starts with "Features:") shows specific features curl reports to offer. Available features include:

SSL

HTTPS and FTPS are supported.

libz

Automatic decompression of compressed files over HTTP is supported.

NTLM

NTLM authentication is supported.

Debug

This curl uses a curl built with Debug. This enables more error-tracking and memory debugging etc. For curl-developers only!

AsynchDNS

Note: This feature is not supported.

Asynchronous name resolves.

SPNEGO

Note: This feature is not supported.

SPNEGO Negotiate authentication.

Largefile

This curl supports transfers of large files, files larger than 2GB.

IDN

Note: This feature is not supported.

IDN - international domain names.

SSPI

Note: This feature is not supported.

SSPI is not supported.

CharConv

On z/OS UNIX, curl supports automatic data codepage conversion between EBCDIC and ASCII based on target platform and network connection context. Refer to "ASCII and EBCDIC considerations in data transfer" on page 68for more details.

GSS-Negotiate

Note: This feature is not supported.

Negotiate authentication.

IPv6

Note: This feature is not supported.

You can use IPv6 with this.

krb4

Note: This feature is not supported.

Krb4 for ftp.

-w/ – –write-out <format>

Defines what to display on stdout after a completed and successful operation. The format is a string that may contain plain text mixed with any number of variables. The string can be specified as "string", to get read from a particular file you specify it "@filename" and to tell curl to read the format from stdin you write "@-".

The variables present in the output format will be substituted by the value or text that curl thinks fit, as described below. All variables are specified like %{variable_name} and to output a normal % you just write them like %%. You can output a newline by using n, a carriage return with r and a tab space with t.

The %-letter is a special letter in the win32-environment, where all occurrences of % must be doubled when using this option.

Available variables are at this point:

url_effective: The URL that was fetched last. This is mostly meaningful if you've told curl to follow location: headers.

http_code: The numerical code that was found in the last retrieved HTTP(S) page.

http_connect: The numerical code that was found in the last response (from a proxy) to a curl CONNECT request. (Added in 7.12.4)

time_total: The total time, in seconds, that the full operation lasted. The time will be displayed with millisecond resolution.

time_namelookup: The time, in seconds, it took from the start until the name resolving was completed.

time_connect: The time, in seconds, it took from the start until the connect to the remote host (or proxy) was completed.

time_pretransfer: The time, in seconds, it took from the start until the file transfer is just about to begin. This includes all pre-transfer commands and negotiations that are specific to the particular protocol(s) involved.

time_redirect: The time, in seconds, it took for all redirection steps include name lookup, connect, pretransfer and transfer before final transaction was started. time_redirect shows the complete execution time for multiple redirections. (Added in 7.12.3)

time_starttransfer: The time, in seconds, it took from the start until the first byte is just about to be transferred. This includes time_pretransfer and also the time the server needs to calculate the result.

size_download: The total amount of bytes that were downloaded.

size_upload: The total amount of bytes that were uploaded.

size_header: The total amount of bytes of the downloaded headers.

size_request: The total amount of bytes that were sent in the HTTP request.

speed_download: The average download speed that curl measured for the complete download.

speed_upload: The average upload speed that curl measured for the complete upload.

content_type: The Content-Type of the requested document, if there was any.

num_connects: Number of new connects made in the recent transfer. (Added in 7.12.3)

num_redirects: Number of redirects that were followed in the request. (Added in 7.12.3)

ftp_entry_path: The initial path curl ended up in when logging on to the remote FTP server. (Added in 7.15.4)

If this option is used several times, the last one will be used.

-x/ − –proxy <proxyhost[:port]>

Use specified HTTP proxy. If the port number is not specified, it is assumed at port 1080.

This option overrides existing environment variables that sets proxy to use. If there's an environment variable setting a proxy, you can set proxy to "" to override it.

All operations that are performed over a HTTP proxy will transparently be converted to HTTP. It means that certain protocol specific operations might not be available. This is not the case if you can tunnel through the proxy, as done with the -p/—proxytunnel option.

Starting with 7.14.1, the proxy host can be specified the exact same way as the proxy environment variables, include protocol prefix http:// and embedded user + password.

If this option is used several times, the last one will be used.

-X/ − –request <command>

(HTTP) Specifies a custom request method to use when communicating with the HTTP server. The specified request will be used instead of the method otherwise used (which defaults to GET). Read the HTTP 1.1 specification for details and explanations.

(FTP) Specifies a custom FTP command to use instead of LIST when doing file lists with ftp.

If this option is used several times, the last one will be used.

-y/ − –speed-time <time>

If a download is slower than speed-limit bytes per second during a speed-time period, the download gets aborted. If speed-time is used, the default speed-limit will be 1 unless set with -y.

This option controls transfers and thus will not affect slow connects etc. If this is a concern for you, try the – –connect-timeout option.

If this option is used several times, the last one will be used.

-Y/ – –speed-limit <speed>

If a download is slower than this given speed, in bytes per second, for speed-time seconds it gets aborted. speed-time is set with -Y and is 30 if not set.

If this option is used several times, the last one will be used.

-z/ – –time-cond <date expression>

(HTTP/FTP) Request a file that has been modified later than the given time and date, or one that has been modified before that time. The date expression can be all sorts of date strings or if it doesn't match any internal ones, it tries to get the time from a given file name instead! See section "Specifying dates and times for curl" for date expression details.

Start the date expression with a dash (-) to make it request for a document that is older than the given date/time, default is a document that is newer than the specified date/time.

If this option is used several times, the last one will be used.

– –max-redirs <num>

Set maximum number of redirection-followings allowed. If -L/ – –location is used, this option can be used to prevent curl from following redirections "in absurdum". By default, the limit is set to 50 redirections. Set this option to -1 to make it limitless.

If this option is used several times, the last one will be used.

-0/ – –http1.0

(HTTP) Forces curl to issue its requests using HTTP 1.0 instead of using its internally preferred: HTTP 1.1.

-1/ – –tlsv1

(SSL) Forces curl to use TSL version 1 when negotiating with a remote TLS server.

-2/ – –sslv2

(SSL) Forces curl to use SSL version 2 when negotiating with a remote SSL server.

-3/ – –sslv3

(SSL) Forces curl to use SSL version 3 when negotiating with a remote SSL server.

-4/ – –ipv4

If curl is capable of resolving an address to multiple IP versions (which it is if it is ipv6-capable), this option tells curl to resolve names to IPv4 addresses only.

-6/ – –ipv6

Note: This option is not supported.

If curl is capable of resolving an address to multiple IP versions (which it is if it is ipv6-capable), this option tells curl to resolve names to IPv6 addresses only.

-#/—progress-bar

Make curl display progress information as a progress bar instead of the default statistics. If this option is used twice, the second will again disable the progress bar.

Environment

http_proxy [protocol://]<host>[:port]

Sets proxy server to use for HTTP.

HTTPS_PROXY [protocol://]<host>[:port]

Sets proxy server to use for HTTPS.

FTP_PROXY [protocol://]<host>[:port]

Sets proxy server to use for FTP.

ALL_PROXY [protocol://]<host>[:port]

Sets proxy server to use if no protocol-specific proxy is set.

NO_PROXY <comma-separated list of hosts> list of host names that shouldn't go through any proxy. If set to a asterisk '*' only, it matches all hosts.

Files

~/.curlrc

Default config file, see -K/—config for details.

Using network configuration files

Besides by putting a `.netrc` file into home directory when using **-n** or **—netrc** option, you can also set the environment variable $CURL_DEBUG_NETRC value to a specified network configuration file. The configuration file name or location can be arbitrary if you have the correct read or write permissions. The $CURL_DEBUG_NETRC specified file will override the contents of `.netrc` under the home directory. For example, if you run the following shell command:

```
$ export CURL_DEBUG_NETRC=/dir1/dir2/dir3/my_netrc
```

the command **curl –n** or **curl –netrc** will read the contents of `/dir1/dir2/dir3/my_netrc` for server connection instead of the `.netrc` file under the home directory.

The file specified by $CURL_DEBUG_NETRC will have the same format as `.netrc` under your home directory. The format is as follows:

```
machine host.domain.com login myself password secret
```

For more details about the **-n** or **—netrc** options, refer to the section "Options" on page 42.

ASCII and EBCDIC considerations in data transfer

When transferring data using cURL for z/OS, there are cases when it will be necessary to convert files from ASCII to EBCDIC format or vice versa. These circumstances are listed below:

- Except for FTP/FTPS, by default, cURL for z/OS will convert the received information from ASCII to EBCDIC instead of demanding you to do conversion yourself.
- For HTTP/HTTPS downloading, cURL for z/OS will convert all contents with type of "text/html", which is specified in the HTTP header field "Content-Type: text/html". For other types of downloaded contents, cURL for z/OS will not do the conversion.
- For HTTP/HTTPS uploading, if you want to upload form data to a remote HTTP server by reading the contents from a local file with option **-F** or **—form**, cURL for z/OS will not convert the local file that is in EBCDIC to ASCII. In this case, you should do the conversion manually before uploading.
- For FTP/FTPS/TFTP downloading or uploading, by default, cURL for z/OS will set the transfer mode as Binary Mode and not convert the content's codepage. If you want cURL for z/OS to convert the codepage automatically in data transfers, you should explicitly specify the option **-B** or **—use-ascii** in the command.

SSL and Certification Authority (CA) default settings

To make a successful connection with HTTPS or FTPS server, cURL for z/OS as a network client, needs to authorize the remote server's certification. By default, cURL for z/OS has included a bundle file that contains many common servers' certificates collected from popular public Web sites. Assuming cURL for z/OS has been correctly installed, the bundle file should be located in `/usr/lpp/ported/share/curl-ca-bundle.crt`.

cURL for z/OS also provides, by default, the ability to use an alternate bundle file located at `/usr/local/share/curl/curl-ca-bundle.crt`. If this bundle file does not exist, then the installed (and often read-only) `/usr/lpp/ported/share/curl-ca-bundle.crt` bundle file will be used. The alternate bundle file location allows you to more easily use a bundle file that is customized for your needs.

Note: The alternate bundle file location is only supported when the PTF for APAR OA32717 is applied.

Because SSL certificates are occasionally changed, the installed `/usr/lpp/ported/share/curl-ca-bundle.crt` bundle file may not be current. As a result, using an expired SSL certificate in the bundle file may cause cURL for z/OS to fail with the following error:

```
curl: (60) HPUC0400 SSL certificate problem, verify that
the CA cert is OK. Details:
error:14090086:SSL routines:SSL3_GET_SERVER_CERTIFICATE:
certificate verify failed
HPUC0403 More details here:
http://curl.haxx.se/docs/sslcerts.html
```

This problem can often be resolved by using a more current bundle file. The cURL web site provides a current bundle file in PEM format that is available for download at http://curl.haxx.se/ca/cacert.pem. In addition, to assist in checking the currency of a bundle file, a sample shell script is available for download from http://www.ibm.com/systems/z/os/zos/features/unix/ported/suptlk/. See the shell script prolog for usage information. The shell script is not supported by IBM, and is provided as is and without warranty.

Note: cURL for z/OS will only support server certification in PEM and DER formats.

Specifying dates and times

If you are using options such as **-z** or **—time-cond** to specify a time and date expression for cURL, there are certain rules to be aware of before composing the expression. A *date* is a string containing several items separated by white space. The order of the items is immaterial. A *date* string may contain many types of items, as listed below:

Calendar dates
> These can be specified several ways. Month names can only be three- letter English abbreviations, numbers can be zero-prefixed and the year may use 2 or 4 digits, for example:
>
> `06 Nov 1994, 06-Nov-94 and Nov-94 6`

Time of day
> This specifies the time on a given day. You must specify it with 6 digits with two colons: HH:MM:SS, for example:
>
> `18:19:21`
>
> If you do not include the time in a date string, the function assume 00:00:00.

Time zone
> This specifies the international time zone. There are a few acronyms supported, but in general you should instead use the specific relative time compared to UTC. The supported formats include the following: .
>
> `-1200, MST, +0100`

Day of the week
> This specifies the day of the week. Days of the week may be spelled out in full (using English): `Sunday', `Monday', and so on, or they may be abbreviated to their first three letters.

Pure numbers
> This is a decimal number of the form YYYYMMDD, where YYYY is read as the year, MM as the month number and DD as the day of the month, for the specified calendar date.

Here are some example formats for the date and time expressions in cURL:

```
Sun, 06 Nov 1994 08:49:37 GMT

Sunday, 06-Nov-94 08:49:37 GMT

Sun Nov 6 08:49:37 1994

06 Nov 1994 08:49:37 GMT

06-Nov-94 08:49:37 GMT

Nov 6 08:49:37 1994

06 Nov 1994 08:49:37

06-Nov-94 08:49:37

1994 Nov 6 08:49:37

GMT 08:49:37 06-Nov-94 Sunday

94 6 Nov 08:49:37

1994 Nov 6

06-Nov-94

Sun Nov 6 94

1994.Nov.6

Sun/Nov/6/94/GMT

Sun, 06 Nov 1994 08:49:37 CET

06 Nov 1994 08:49:37 EST

Sun, 12 Sep 2004 15:05:58 -0700

Sat, 11 Sep 2004 21:32:11 +0200

20040912 15:05:58 -0700

20040911 +0200
```

The time and date formats comply with several Internet standards. The date formats are specified in RFC 822 (including the update in RFC 1123) using time zone name or time zone delta and RFC 850 (obsolete by RFC 1036) and ANSI C's asctime() format. According to RFC2616, these formats are the only ones acceptable for use by HTTP applications.

Restrictions

The following restrictions apply to Supplementary Toolkit for z/OS: cURL feature:

- cURL for z/OS does not support MVS dataset access when trying to read from MVS datasets for uploads or writing into MVS datasets for downloads on the cURL command line. Neither of these will be successful. Also, the MVS dataset will be truncated if your using cURL for z/OS to access it.
- You cannot specify the year number greater than 2037 for cURL options that require time conditions such as **-z** or **—time-cond**.
- cURL on z/OS does not support `ftps://` style URL composition. To connect with FTPS server, you should specify option **—ftp-ssl** in the command line, for example:

```
curl —ftp-ssl ftp://
```

- cURL for z/OS does not support certificates in PCKCS12 format.
- cURL for z/OS does not support ENG certificates and keys.
- There is one known bug for cURL. It has a problem connecting with TELNET servers on Microsoft Windows when using the TELNET protocol. You can refer here for more information: http://curl.haxx.se/docs/knownbugs.html

Exit codes

There exists a bunch of different error codes and their corresponding error messages that may appear during bad conditions. At the time of this writing, the exit codes are:

1

Unsupported protocol. This build of curl has no support for this protocol.

2

Failed to initialize.

3

URL malformat. The syntax was not correct.

4

URL user malformatted. The user-part of the URL syntax was not correct.

5

Couldn't resolve proxy. The given proxy host could not be resolved.

6

Couldn't resolve host. The given remote host was not resolved.

7

Failed to connect to host.

8

FTP weird server reply. The server sent data curl couldn't parse.

9

FTP access denied. The server denied login or denied access to the particular resource or directory you wanted to reach. Most often you tried to change to a directory that doesn't exist on the server.

10

FTP user/password incorrect. Either one or both were not accepted by the server.

11

FTP weird PASS reply. Curl couldn't parse the reply sent to the PASS request.

12

FTP weird USER reply. Curl couldn't parse the reply sent to the USER request.

13

FTP weird PASV reply, Curl couldn't parse the reply sent to the PASV request.

14

FTP weird 227 format. Curl couldn't parse the 227-line the server sent.

15

FTP can't get host. Couldn't resolve the host IP we got in the 227-line.

16

FTP can't reconnect. Couldn't connect to the host we got in the 227-line.

17

FTP couldn't set binary. Couldn't change transfer method to binary.

18

Partial file. Only a part of the file was transferred.

19

FTP couldn't download/access the given file, the RETR (or similar) command failed.

20

FTP write error. The transfer was reported bad by the server.

21

FTP quote error. A quote command returned error from the server.

22

HTTP page not retrieved. The requested url was not found or returned another error with the HTTP error code being 400 or above. This return code only appears if -f/—fail is used.

23

Write error. Curl couldn't write data to a local filesystem or similar.

24

Malformed user. User name badly specified.

25

FTP couldn't STOR file. The server denied the STOR operation, used for FTP uploading.

26

Read error. Various reading problems.

27

Out of memory. A memory allocation request failed.

28

Operation timeout. The specified time-out period was reached according to the conditions.

29

FTP couldn't set ASCII. The server returned an unknown reply.

30

FTP PORT failed. The PORT command failed. Not all FTP servers support the PORT command, try doing a transfer using PASV instead!

31

FTP couldn't use REST. The REST command failed. This command is used for resumed FTP transfers.

32

FTP couldn't use SIZE. The SIZE command failed. The command is an extension to the original FTP spec RFC 959.

33

HTTP range error. The range "command" didn't work.

34

HTTP post error. Internal post-request generation error.

35

SSL connect error. The SSL handshaking failed.

36

FTP bad download resume. Couldn't continue an earlier aborted download.

37

FILE couldn't read file. Failed to open the file. Permissions?

38

LDAP cannot bind. LDAP bind operation failed.

39

LDAP search failed.

40

Library not found. The LDAP library was not found.

41

Function not found. A required LDAP function was not found.

42

Aborted by callback. An application told curl to abort the operation.

43

Internal error. A function was called with a bad parameter.

44

Internal error. A function was called in a bad order.

45

Interface error. A specified outgoing interface could not be used.

46

Bad password entered. An error was signaled when the password was entered.

47

Too many redirects. When following redirects, curl hit the maximum amount.

48

Unknown TELNET option specified.

49

Malformed telnet option.

51

The remote peer's SSL certificate wasn't ok

52

The server didn't reply anything, which here is considered an error.

53

SSL crypto engine not found

54

Cannot set SSL crypto engine as default

55

Failed sending network data

56

Failure in receiving network data

57

Share is in use (internal error)

58

Problem with the local certificate

59

Couldn't use specified SSL cipher

60

Problem with the CA cert (path? permission?)

61

Unrecognized transfer encoding

62

Invalid LDAP URL

63

Maximum file size exceeded

64

Requested FTP SSL level failed

65

Sending the data requires a rewind that failed

66

Failed to initialise SSL Engine

67

User, password or similar was not accepted and curl failed to login

68

File not found on TFTP server

69

Permission problem on TFTP server

70

Out of disk space on TFTP server

71

Illegal TFTP operation

72

Unknown TFTP transfer ID

73

File already exists (TFTP)

74

No such user (TFTP)

75

Character conversion failed

76

Character conversion functions required

77

Problem with reading the SSL CA cert (path? access rights?)

78

The resource referenced in the URL does not exist

79

An unspecified error occurred during the SSH session

80

Failed to shut down the SSL connection

81

gmtime() returns NULL pointer for error

XX There will appear more error codes here in future releases. The existing ones are meant to never change.

Chapter 6. cURL messages

Message numbers

To enhance serviceability, IBM assigns a unique message number to each informational, warning and error message generated by cURL. These message numbers are of the form HPUC*xxxx* where *xxxx* is a unique four digit number. Message numbers starting with HPU0 are related to product enablement (see "Enabling Supplementary Toolkit for z/OS components" on page 8).

If your script or process needs to compare these messages against an expected message, the presence of the message number can cause the message to not match. For this reason, message numbering can be disabled by setting the _CURL_NOMSGID environment variable to 1 prior to running the script. For example:

```
export _CURL_NOMSGID=1
```

HPU00000   *command_name* **exited — cannot be used until defined in enablement policy.**

Explanation: The command *command_name* cannot be used until it is enabled.

In the message text:

command_name
    The name of the command that is not enabled.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The component of Supplementary Toolkit for z/OS must be enabled before it can be used. Use the product registration services to enable the command's component and have the user try the request again. See *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information on enabling the component. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00001   *command_name* **exited — registration service not available on this system.**

Explanation: The command *command_name* cannot be run on a system that does not provide product registration services.

In the message text:

command_name
    The name of the command that cannot be run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The components of Supplementary Toolkit for z/OS cannot be run on a system that does not provide product registration services. See *z/OS MVS Programming: Product Registration* for more information on product registration services.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00002   *command_name* **exited — registration request limit exceeded.**

Explanation: The product registration request limit has been exceeded.

In the message text:

command_name
> The name of the command that generated the error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Use the product deregistration service to remove unneeded product registrations and have the user try the request again. See *z/OS MVS Programming: Product Registration* for more information on the product deregistration service. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00003   *command_name* **exited — product registration function** *function***() failed with unexpected return code** *return_code***.**

Explanation: The product registration function *function* failed with return code *return_code*.

In the message text:

command_name
> The name of the command that generated the error.

function
> The name of the product registration function that failed.

return_code
> The return code of the product registration function that failed.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00004   **Product deregistration failed with unexpected return code** *return_code***.**

Explanation: The product registration function ifaeddrg() failed with return code *return_code*.

In the message text:

command_name
> The name of the command that generated the error.

return_code
> The return code of the ifaeddrg() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00005   **Internal error – atexit() failed with return code** *return_code***.**

Explanation: The atexit() system call failed with return code *return_code*.

In the message text:

return_code
> The return code of the atexit() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate

action based on the system error. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUC0001   couldn't find my own IP address (*IP_address***)**

Explanation: cURL cannot interpret character strings representing host addresses expressed in standard dotted-decimal notation.

IP_address
    An IP address

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure that the IP address is specified in standard dotted decimal format notation. For example, it is in one of the following forms:

    a.b.c.d
    a.b.c
    a.b
    a

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0001 couldn't find my own IP address (100.100.100.100.100)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0002   getsockname() failed

Explanation: This is an internal error, cURL cannot determine the correct server IP address.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0002 getsockname() failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0003   bind failure: *error_msg*

Explanation: cURL cannot bind to the address associated with the interface specified on the '--interface' option.

error_msg
    Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify if the given binding parameter is valid or reachable. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0003 bind failure: EDC8116I Address not available

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0006   Failed to connect to *host_name***:** *error_msg*

Explanation: cURL connection to the specified server failed with unknown error.

host_name
> Host name

error_msg
> Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify if the server is valid. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0006 Failed to connect to 100.100.100.100: EDC8116I Address not available

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0007   Connection time-out

Explanation: This message indicates that cURL has timed-out before it could perform a network connection. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option, and then verify that the network is functioning correctly. If the

problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0007 Connection time-out

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0008   connect() timed out!

Explanation: cURL created a connection to the specified IP address, but the connection timed-out. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option, and then verify that the network is functioning correctly. If the problem persists, the user may require assistance from their system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0008 connect() timed out!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0009   couldn't connect to host

Explanation: cURL could not connect to the remote host successfully.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and that the remote host is valid. If the problem persists, the user may

require assistance from the system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0009 couldn't connect to host

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0010   Bind local address to *address*

Explanation: This is an informational message and indicates that the bind to *address* was successful.

address
    Local address

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0010 Bind local address to 100.100.100.100

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0011   Local port: *port*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates this connection's binded local port number.

port
    Local port number

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0011 Local port: 100

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0012   Bind to local port *port* **failed, trying next**

Explanation: This is an informational message, cURL cannot bind to the specified local port and will try next port.

port
    Local port number

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0012 Bind to local port 100 failed, trying next

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0014   Could not set TCP_NODELAY: *error_msg*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL cannot turn on the TCP_NODELAY option by using '--tcp-nodelay' option, and if setting this option cURL will disable TCP's Nagle algorithm.

error_msg
> Additional error message from the Language Environment or C runtime environment

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: To suppress this informational message, the user should remove "-v" or "--verbose" options. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0014 Could not set TCP_NODELAY: EDC8116I unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0015   TCP_NODELAY set

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has successfully set the '--tcp-nodelay' option.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0015 TCP_NODELAY set

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0016   Trying *address*...

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL is attempting to connect to the specified remote host.

address
> Remote host address

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0016 Trying 100.100.100.100...

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0017   connected

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has successfully connected to the remote host.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0017 connected

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be

an error or could be normal behavior.

Automation: Not applicable.

HPUC0018   Timeout

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL verified the connection timeout.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0018 Timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0019   Error while processing content unencoding: *error_msg*

Explanation: The decoding of the content received from the HTTP server failed because it had an incorrect zlib format. This is usually the result of a problem with the zlib functions on the remote server, or because the data being received from the remote server has been corrupted.

error_msg
    Additional error message from zlib library

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that your network is operating correctly and the HTTP server is valid. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0019 Error while processing content unencoding: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0020   Error while processing content unencoding: Unknown failure within decompression software.

Explanation: The decoding of the content received from the HTTP server failed because it had an incorrect zlib format.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that your network is operating correctly and the HTTP server is valid. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0020 Error while processing content unencoding: Unknown failure within decompression software.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0021   skipped cookie with illegal dotcount domain: *cookie_content*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL skipped this cookie because the domain format contained too few dots.

cookie_content
    Skipped cookie content

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

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User response: cURL supports Netscape-style cookie format, RFC2109 cookie format and RFC2965 cookie format. Make sure that the cookie conforms to one of these formats.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0021 skipped cookie with illegal dotcount domain: skipped content

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0022   skipped cookie with bad tailmatch domain: *cookie_content*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. cURL will skip this cookie because that it cannot get a tailmatch and then the attempted set domain is not a domain to which the current host belongs.

cookie_content
　　Skipped cookie content

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: cURL supports Netscape-style cookies format RFC2109 and RFC2965. Make sure that the cookie conforms to one of these formats.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0022 skipped cookie with bad tailmatch domain: skipped content

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0023　　*string* **cookie** *cookie_name*=**"***cookie_value*"** **for domain** *domain_name*, **path** *cookie_path*, **expire** *cookie_expire*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL can only show the

cookie's detail content when it cannot read the cookies from a file.

string
　　One of Replaced or Added

cookie_name
　　Cookie name

cookie_value
　　Cookie value

domain_name
　　Domain name

cookie_path
　　Cookie path

cookie_expire
　　Cookie expire, show as time stamp

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0023 Added cookie cook_name="some_value" for domain localhost, path /tmp, expire 2147483647

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0024   lookup word is missing

Explanation: The attempted connection to the DICT server failed because the specified URL did not contain the required "lookup word" instruction.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the specified URL has the correct format. The DICT URL scheme that is used to refer to definitions or word lists available using the DICT protocol:

dict://[user];[auth]@[host]:[port]/
d:[word]:[database]:[n]

dict://[user];[auth]@[host]:[port]/
m:[word]:[database]:[strat]:[n]

For more information, refer to a Dictionary Server Protocol as defined by Network Working Group RFC (Request for Comment) 2229.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0024 lookup word is missing

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0025   Failed sending DICT request

Explanation: cURL will report this message when cURL sends a request to a DICT server that has failed. This could be due to the network not functioning correctly, or the DICT server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0025 Failed sending DICT request

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

**HPUC0026   CURLOPT_CONV_TO_NETWORK_
FUNCTION callback returned** *error_num*:
error_msg

Explanation: This is an internal error. This indicates that a failure occurred during the byte sequence conversion from the local code set to the network code set.

error_num
    Additional error value from the call-back function

error_msg
    Additional error message from the call-back function

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0026 CURLOPT_CONV_TO_NETWORK_FUNCTION callback returned 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0027   The iconv_open("*to_code_page***",
"***from_code_page***") call failed with errno**
error_num: ***error_msg***

Explanation: This is an internal error. cURL cannot allocate a conversion descriptor suitable for converting byte sequences.

to_code_page
    To code set

from_code_page
    From code set

error_num
    Additional error value from the Language Environment or C runtime environment

error_msg
    Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be

corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0027 The iconv_open("IBM1047", "ISO8859-1") call failed with errno 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0028 **The Curl_convert_to_network iconv call failed with errno** *error_num***:** *error_msg*

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion from the local code set to the network code set.

error_num
  Additional error value from the Language Environment or C runtime environment

error_msg
  Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0028 The Curl_convert_to_network iconv call failed with errno 1: unknown

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0029 **CURLOPT_CONV_FROM_NETWORK _FUNCTION callback returned** *return_num***:** *return_msg*

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion from the network code set to the local code set.

return_num
  Additional error value from the call-back function

return_msg
  Additional error message from call-back function

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0029 CURLOPT_CONV_FROM_NETWORK_FUNCTION callback returned 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0030 **The Curl_convert_from_network iconv call failed with errno** *error_num***:** *error_msg*

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion from the network code set to the local code set.

error_num
  Additional error value from the Language Environment or C runtime environment

error_msg
  Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0030 The Curl_convert_from_network iconv call failed with errno 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0031 CURLOPT_CONV_FROM_UTF8 _FUNCTION callback returned *error_num***:** *error_msg*

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion from the UTF8 code set to the local code set.

error_num
    Additional error value from the call-back function

error_msg
    Additional error message from the call-back function

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0031 CURLOPT_CONV_FROM_UTF8_FUNCTION callback returned 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0032 The Curl_convert_from_utf8 iconv call failed with errno *error_num***:** *error_msg*

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion from the UTF8 code set to the local code set.

error_num
    Additional error value from the Language Environment or C runtime environment

error_msg
    Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0032 The Curl_convert_from_utf8 iconv call failed with errno 1: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0033 Couldn't open file *file_name*

Explanation: cURL cannot open the specified file. This may be because the user does not have the appropriate 'read' permissions to the file or the file is not a regular file.

file_name
    File name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the file is a regular file and that you have read access to it. If you are not the owner of the file, you will need to contact the owner or your system administrator to correct this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0033 Couldn't open file tmp_file

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0034   Can't open *file_name* **for writing**

Explanation: cURL cannot open the destination file when using the FILE protocol to upload the file. This may be because the user does not have the appropriate 'write' permissions to the file when the specified file exists, or the user does not have the appropriate 'write' permission to the directory when the specified file does not exist.

file_name
    File name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the file is a regular file and that you have write access to this file or this directory. If you are not the owner of the file, you will need to contact the owner or your system administrator to correct this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0034 Can't open tmp_file for writing

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0035   Can't get the size of *file_name*

Explanation: cURL cannot display the specified file's status. This may be because the user does not have the appropriate 'read' permission to the file's working directory, or the file is not a regular file.

file_name
    File name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the file is a regular file and that you have read access to its working directory. If you are not the owner of its working directory, you will need to contact the owner or your system administrator to correct this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0035 Can't get the size of /u/youdir/youfile

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0036   failed to resume file:// transfer

Explanation: cURL cannot continue or resume a file transfer with the offset specified on the '--continue-at' option.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the given offset is less than the specified file's size.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0036 failed to resume file:// transfer

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0037   Timed out before server could connect to us

Explanation: The PORT mode FTP connection failed because a time-out occurred before the connection could be established. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option and verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0037 Timed out before server could connect to us

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0038 Error while waiting for server connect

Explanation: The PORT mode FTP connection failed because an initial response was never received from the remote FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the remote FTP server is functioning correctly and the network is operating correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0038 Error while waiting for server connect

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0039 Timeout while waiting for server connect

Explanation: The PORT mode FTP connection failed because a time-out occurred before cURL received an initial response from the remote FTP server. The default connection timeout value is 60 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option and verify that the network is functioning correctly and that the FTP server supports PORT mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0039 Timeout while waiting for server connect

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0040 Error accept()ing server connect

Explanation: This message indicates that a failure occurred during a call to the "accept()" system function on a socket.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0040 Error accept()ing server connect

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0043 FTP response aborted due to select() error: *error_num*

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a socket.

error_num
    Additional error value from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error value which may provide more specific and useful information about the cause of this problem. The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0043 FTP response aborted due to select() error: 1

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0044   getsockname() failed: *error_msg*

Explanation: cURL will report this message when it cannot get a local IP address during a call to the "getsockname()" system function on a socket.

error_msg
   Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error value which may provide more specific and useful information about the cause of this problem. The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0044 getsockname() failed: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0045   listen(2) failed on socket

Explanation: This message indicates that a failure occurred during a call to the "listen()" system function on a stream socket.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0045 listen(2) failed on socket

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0046   bind(2) failed on socket

Explanation: This message indicates that a failure occurred during a call to the "bind()" system function on a socket.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0046 bind(2) failed on socket

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0047   socket(2) failed (*error_msg*)

Explanation: This message indicates that cURL cannot create a socket for the FTP transfer connection.

error_msg
     Additional error message from the Language
     Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0047 socket(2) failed (unknown error)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0048   couldn't find IP address to use

Explanation: This message indicates that cURL cannot get the remote server IP address.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0048 couldn't find IP address to use

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0049   Could only read *count* bytes from the input

Explanation: The current size of the requested file is smaller than the size specified on the '--continue-at' option. This may be because the wrong value was specified or because the requested file has become smaller.

count
     Readed data size

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the correct value was specified on the '--continue-at' option. If the requested file has become smaller, a smaller value can be defined on the '--continue-at' option. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0049 Could only read 200 bytes from the input

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0050   Weirdly formatted EPSV reply

Explanation: cURL received an incorrectly formatted EPSV response while using the 'Extended Passive Mode Entered' mode. This may indicate that the FTP server does not support EPSV mode.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is valid and it supports EPSV mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0050 Weirdly formatted EPSV reply

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0051   Couldn't interpret the 227-response

Explanation: This message indicates that a bad EPSV response was received.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is valid and the FTP server supports PASV mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0051 Couldn't interpret the 227-response

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0054   Failed to do PORT

Explanation: This message indicates that cURL has received a bad PORT response.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is valid and it supports PORT mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0054 Failed to do PORT

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0055   Given file does not exist

Explanation: This message indicates that the requested file or directory does not exist on the remote FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the file or directory is specified correctly and that it exists on the remote FTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0055 Given file does not exist

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0057   Maximum file size exceeded

Explanation: The current size of the requested file is bigger than the size specified on the '--max-filesize' option.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should set a larger limit using '--max-filesize' option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0057 Maximum file size exceeded

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0058   Offset (*offset*) was beyond file size (*file_size*)

Explanation: When the user resumed a FTP downloading transfer, the current size of the requested file was smaller than the offset specified on the '--continue-at' option. This may be because the wrong value was specified or because the requested file has become smaller.

offset
    Offset

file_size
    File size

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the correct offset was specified on the '--continue-at' option. If the requested file has become smaller, a smaller value can be defined on the '--continue-at' option. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0058 Offset (200) was beyond file size (100)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0059   Couldn't use REST

Explanation: This message indicates that cURL has received a bad REST response. This may be because the remote FTP server cannot support the REST command.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the remote FTP server

is valid and that it supports REST mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0059 Couldn't use REST

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0060   Failed FTP upload: *resp_code*

Explanation: This message indicates that cURL failed to upload the file to the FTP server. This may be because the network is not functioning correctly or because the user does not have the appropriate 'write' permissions to the directory.

resp_code
    FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the user has the appropriate 'write' permissions to the directory. If you are not the owner of the directory, you will need to contact the owner or your system administrator to correct this problem. The user should find the additional response code in this message, this may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0060 Failed FTP upload: 400

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0061   RETR response: *resp_code*

Explanation: This message indicates that cURL has received a bad RETR response. This may be because the requested file does not exist or the network is not functioning correctly.

resp_code
 Response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is functioning correctly, and that the requested file is a regular file. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0061 RETR response: 400

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0062 ACCT requested but none available

Explanation: This message indicates that the remote FTP server requires account data to be provided in addition to the user name and password. However, no account data was provided to cURL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should set the account correctly by using the '--ftp-account' option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0062 ACCT requested but none available

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0063 Access denied: *resp_code*

Explanation: This message indicates that the specified user cannot logon onto the FTP server. This may be because that the specified user is not valid or the password is wrong.

resp_code
 FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the user name is valid and the password is right. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0063 Access denied: 530

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0064 ACCT rejected by server: *resp_code*

Explanation: This message indicates that cURL has received a bad ACCT response.

resp_code
 FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the remote FTP server supports the ACCT command, that the user inputs the correct account, and that the FTP server is functioning correctly. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0064 ACCT rejected by server: 400

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

___

HPUC0065   **This doesn't seem like a nice ftp-server response**

Explanation: This message indicates that cURL has received a bad response while attempting to connect to the FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the network and the FTP server are functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0065 This doesn't seem like a nice ftp-server response

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

___

HPUC0066   **unsupported parameter to CURLOPT_FTPSSLAUTH:** *FTPS_auth_type*

Explanation: This message indicates that an unsupported authentication type was specified on the requested FTPS connection. cURL supports the following authentication types for FTPS connections:

   SSL

   TLS

FTPS_auth_type
   FTPS authentication type

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that a supported

authentication type is specified when attempting an FTPS connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0066 unsupported parameter to CURLOPT_FTPSSLAUTH: 8

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

___

HPUC0067   **QUOT command failed with** *resp_code*

Explanation: The quote command specified using the -Q or --quote option failed on the remote FTP server. This may be because the quote statement (QUOT) is not supported on the remote FTP server or because the specified command is not valid.

resp_code
   FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the the FTP server supports QUOT command and the specified command is valid. The user should find the additional response code in this message, this may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0067 QUOT command failed with 500

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

___

HPUC0068   **Server denied you to change to the given directory**

Explanation: This message indicates that cURL received a bad response when it attempted to change the current directory on the FTP server. This may be because the user does not have the appropriate permissions to the specified directory.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the network is functioning correctly and that you have appropriate permissions to the specified directory. If you are not the owner of the directory, you will need to contact the owner or your system administrator to correct this problem. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0068 Server denied you to change to the given directory

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0069   Failed to MKD dir: *resp_code*

Explanation: This message indicates that cURL was unable to create the directory on the remote FTP server. This may be because the user does not have the appropriate 'write' permissions to the directory or the FTP server does not support MKD command.

resp_code
     FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that that the user has appropriate 'write' permissions to the directory and the FTP server supports MKD command. If you are not the owner of the directory, you will need to contact the owner or your system administrator to correct this problem. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0069 Failed to MKD dir: 400

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0070   select error

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a socket.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0070 select error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0071   control connection looks dead

Explanation: This message indicates that cURL lost the FTP control connection. This may be due to a timeout.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server and network are both functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0071 control connection looks dead

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0072   **server did not report OK, got** *resp_code*

Explanation: This message indicates that cURL failed to receive a response when it verified the completed transfer. This may be because the FTP server is not functioning correctly or the network is not functioning correctly.

resp_code
    FTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the network and the FTP server are both functioning correctly. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0072 server did not report OK, got 300

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0073   **Uploaded unaligned file size (**_uploaded_size_ **out of** _expected_size_ **bytes)**

Explanation: This message indicates that the upload of the file appears to have failed because the size of the uploaded file is different from the expected size.

uploaded_size
    Uploaded size

expected_size
    Expected size

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL

command line in case there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environments. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0073 Uploaded unaligned file size (100 out of 200 bytes)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0074   **Received only partial file:** *received_size* **bytes**

Explanation: This message indicates that the download of the file appears to have failed because the size of the uploaded file is different from the expected size.

received_size
    Received size

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0074 Received only partial file: 200 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0075   No data was received!

Explanation: This message indicates that cURL did not receive any data from the FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0075 No data was received!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0076   QUOT string not accepted: *string*

Explanation: This message indicates that cURL failed to receive the response from the remote FTP server after it sent the arbitrary command specified on the '--quote' option. This may be because the specified command is incorrect or the FTP server does not support this command.

cmd
     User specified command

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specified command is correct and that the remote FTP server supports this command.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0076 QUOT string not accepted: ACCT ttt

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0077   out of memory

Explanation: This message indicates that cURL requires more memory than is currently available.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL, and then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0077 out of memory

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0078   no memory

Explanation: This message indicates that cURL requires more memory than is currently available.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. The user can then re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory

problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0078 no memory

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0079   Uploading to a URL without a file name!

Explanation: This message indicates that the target URL for the FTP upload does not specify a filename.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the target URL includes a filename.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0079 Uploading to a URL without a file name!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0080   Connection accepted from server

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the FTP server accepted a cURL's request.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0080 Connection accepted from server

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0081   FTP *address* **state change from** *prev_state* **to** *curr_state*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL changes the FTP server's state successfully.

address
    FTP connection address

prev_state
    FTP server previous state

curr_state
    FTP server current state

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0081 FTP 0x00000001 state change from CWD to REST

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0082   Failed to resolve host name *address*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the host name specified on

the -ftp-port option could not be resolved.

address
    Host address

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the host name is correct, and the host address should be one of: interface, IP address, host name. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0082 Failed to resolve host name www.tmp.com

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0083   Telling server to connect to
                IP_address:port

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL is using the I.P. address resolved from the address specified on the -P or --ftp-port option.

IP_address
    An IP address in the form n.n.n.n

port
    Port

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0083 Telling server to connect to 192.168.1.1:8800

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0084   Connect data stream passively

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL create a data connection when using PASV mode.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0084 Connect data stream passively

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0085   File already completely uploaded

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has successfully uploaded a file to the FTP server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0085 File already completely uploaded

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0086 **Skips** *IP_remote* **for data connection, uses** *IP_control* **instead**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the --ftp-skip-pasv-ip option has been specified which causes cURL to ignore (skip) the remotely given IP, but instead use the same IP address it already uses for the control connection.

IP_remote
    The IP address specified by the remote server (in the form n.n.n.n)

IP_control
    The IP used by the control connection (in the form n.n.n.n)

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0086 Skips 192.168.1.1 for data connection, uses 192.168.1.2 instead

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0087 **disabling EPSV usage**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL failed using EPSV (enhanced passive) mode, and so will use PASV (passive) mode instead. If there are additional transfers to be done, PASV mode will also be used for those.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0087 disabling EPSV usage

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0088 **got positive EPSV response, but can't connect. Disabling EPSV**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL received a positive response to EPSV (enhanced passive) mode (meaning that the remote server supports EPSV), however, a data connection could not be created, and so PASV mode will be used instead. If there are additional transfers to be done, PASV mode will also be used for those.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0088 got positive EPSV response, but can't connect. Disabling EPSV

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0089   disabling EPRT usage

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL received a bad PORT response, and it will disable EPRT usage.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0089 disabling EPRT usage

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0090   Connect data stream actively

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL created a data connection to the FTP server successfully.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0090 Connect data stream actively

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0091   unsupported MDTM reply format

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL received a bad MDTM response. This may be because the FTP server does not support the MDTM command.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is valid and that it supports the MDTM command and that the user does not send a MDTM command by using '--quote' option. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0091 unsupported MDTM reply format

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0092   The requested document is not new enough

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. This message indicates that the local document is newer than the requested document specified on the '--time-cond +' option. This may be because the wrong value was specified or because the local document has been changed.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the correct value was specified on the '---time-cond +' option. If the local document has been changed, the user can use a larger time specified on the '---time-cond +' option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0092 The requested document is not new enough

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0093   The requested document is not old enough

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. This message indicates that the local document is older than the requested document specified on the '--time-cond -' option. This may be the wrong value was specified or because the local document has been changed.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the correct value was specified on the '---time-cond -' option. If the local document has been changed, the user can use a smaller time specified on the '---time-cond -' option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0093 The requested document is not old enough

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0094   Skipping time comparison

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL skip this time comparison while using '--time-cond' option. This may be because that cURL cannot get date expression or cannot get file modified date.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0094 Skipping time comparison

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0095   Got a *resp_code* response code instead of the assumed 200

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL received a bad TYPE response.

resp_code
     FTP response code

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server supports the 'TYPE' command and that the FTP server is functioning correctly. The user can get a response code in this message, and you may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0095 Got a 400 response code instead of the assumed 200

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0096   ftp server doesn't support SIZE

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL received a bad SIZE response. This may be because the FTP server does not support the 'SIZE' command.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0096 ftp server doesn't support SIZE

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0097   File already completely downloaded

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has previously downloaded this file completely and so it does not need to download it again.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0097 File already completely downloaded

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0098   Instructs server to resume from offset
offset

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL set an offset for resuming or continuing a file transfer.

offset
    A offset for resuming or continuing a transfer

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0098 Instructs server to resume from offset 200

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0099   Doing the SSL/TLS handshake on the data stream

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL is creating an FTPS data connection with SSL/TLS mode.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0099 Doing the SSL/TLS handshake on the data stream

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0100   Maxdownload = *limit*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the maximum size in bytes of a file being download (specified on the '--max-filesize' option).

limit
    File download limit

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0100 Maxdownload = 100000

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0101   Getting file with size: *size*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the expected filesize of the file being downloaded.

size
    Expected downloading size

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0101 Getting file with size: 200

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0102   Entry path is '*path***'**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the current work directory on the remote FTP server.

path
    Current directory on remote server

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0102 Entry path is '/u/user/ttt'

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0103   Failed to figure out path

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL cannot determine the current work directory on the remote FTP server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0103 Failed to figure out path

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0104   protocol connect phase DONE

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the FTP connection phase has completed successfully.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0104 protocol connect phase DONE

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0105   Remembering we are in dir *position*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has recorded in memory the current work directory on the remote FTP server. If there are additional transfers to be done, cURL will start from this position.

position
    Current work directory

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0105 Remembering we are in dir /tmp/ttt

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0106   Connecting to *host* **(**IP_address**) port** *port*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. This message occurs when using PASV mode. It indicates that cURL is connecting to the remote FTP server using the address provided by the remote server.

host
    Host name

IP_address
    IP address in the form n.n.n.n

port
    Port

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0106 Connecting to www.test.com (192.168.11.1) port 8090

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0107   FTP RANGE *begin_pos* **to end of file**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the byte range that will be downloaded as a result of the user specifying a download which begins at the specified byte and continues to the end of the file.

begin_pos
  Begin position

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0107 FTP RANGE 200 to end of file

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0108   FTP RANGE the last *expected_size* **bytes**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL is downloading the specified number of bytes which had been specified as an offset from the end of the file.

expected_size
  Expected downloading size

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0108 FTP RANGE the last 300 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0109   FTP RANGE from *begin_pos* **getting** *expected_size* **bytes**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the byte range that will be downloaded as a result of the user specifying a download which begins at the specified byte and continues for the specified size/number of bytes.

begin_pos
  Begin position

expected_size
  Expected downloading size

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0109 FTP RANGE from 10 getting 300 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0110   range-download from *begin_pos* **to** *end_pos*, **totally** *size* **bytes**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates the byte range that will be

downloaded as a result of the user specifying the begin byte position and the end byte position in the target file.

begin_pos
　　Begin position

end_pos
　　End position

size
　　Expected download size

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0110 range-download from 20 to 100, totally 80 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0111   DO-MORE phase starts

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the FTP data connection phase (as opposed to the control phase) has started.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0111 DO-MORE phase starts

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0112   DO-MORE phase ends with *ret*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the FTP data connection phase (as opposed to the control phase) has ended with the specified return value.

ret
　　return value

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0112 DO-MORE phase ends with 25

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0113   DO phase starts

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that an FTP control connection phase (as opposed to a data connection phase) has started.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0113 DO phase starts

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0114   DO phase is complete

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the FTP control connection phase (as opposed to the data phase) has completed successfully.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0114 DO phase is complete

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0115   Request has same path as previous transfer

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that for the current FTP file transfer, the directory path of the file being transfered is the same as for the previous transfer.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0115 Request has same path as previous transfer

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0118   gethostbyname(2) failed for *host*

Explanation: This message indicates that the call to the system function "gethostbyname()" to retrieve information about the specified host name has failed. This is most likely because the host name is not defined in the system's name server or in local host tables.

host
     host name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0118 gethostbyname(2) failed for localhost111

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0119   name lookup timed out

Explanation: This indicates that cURL has timed-out before receiving a response from the name server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0119 name lookup timed out

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0126   The requested URL returned error:
          resp_code

Explanation: This message indicates that the remote HTTP server has rejected the connection request from cURL. This may be because the specified URL is not valid or the remote HTTP server is not functioning correctly.

resp_code
    HTTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the remote HTTP server is functioning correctly or the specified URL is valid. Refer to the additional server response code for more information the specific reason for the failure. You may require assistance from your system's, or the remote system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0126 The requested URL returned error: 440

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0127   Failed sending CONNECT to proxy

Explanation: This message indicates that cURL failed to send a CONNECT request to the HTTP proxy server. This could be due to the network not functioning correctly, or the HTTP proxy server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP proxy server is valid. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0127 Failed sending CONNECT to proxy

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0128   Proxy CONNECT aborted due to
          timeout

Explanation: This message indicates that cURL has timed-out before it could perform a network connection to connect to the HTTP proxy server. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option, and then verify that the network is functioning correctly and the HTTP proxy server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0128 Proxy CONNECT aborted due to timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0129   Proxy CONNECT aborted due to select() error

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a socket that connects to the HTTP proxy server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0129 Proxy CONNECT aborted due to select() error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0130   Proxy CONNECT aborted

Explanation: This message indicates that cURL cannot receive data from the HTTP proxy server, so it has terminated this connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the network is functioning correctly and the HTTP proxy server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0130 Proxy CONNECT aborted

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0131   Received HTTP code *resp_code* from proxy after CONNECT

Explanation: This message indicates that the HTTP proxy server refused the current connection. This may be because the user or password is not valid.

resp_code
    HTTP response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the HTTP proxy server is functioning correctly, and that the user inputs the correct user name and password. The user should find the additional response code in this message. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0131 Received HTTP code 400 from proxy after CONNECT

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0132   Empty reply from server

Explanation: This message is displayed when cURL has closed the current transfer and has not received a response from the HTTP server and the user had not specified that cURL retry the transfer using --retry option. This could be due to the network not functioning correctly or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

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User response: The user should verify that the network is functioning correctly and the HTTP server is correct. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0132 Empty reply from server

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0133   failed creating formpost data

Explanation: This message indicates that cURL was unable to process the form data specified using the --form option. This could be due to causes such as an "out of memory" condition if too much form data was specified, or it could also be due to the form data being specified incorrectly. In many cases, another message will have also been displayed prior to this message with more information on the specific cause of this problem.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Check if additional messages have been provided which offer information as to the cause of this problem. If so, follow the instructions documented for those messages to resolve this problem. If there are no additional messages and you have verified that the form data has been entered correctly, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0133 failed creating formpost data

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0134   File already completely uploaded

Explanation: This message indicates that the file to be uploading already exists on the HTTP server. This may be because cURL had previously uploaded this file.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the uploaded file exists as expected on the HTTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0134 File already completely uploaded

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0135   Failed sending POST request

Explanation: This message indicates that cURL failed to send a POST request to the HTTP server. This could be due to the network not functioning correctly, or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0135 Failed sending POST request

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0136   Internal HTTP POST error!

Explanation: This is an internal error, cURL cannot initialize Form object.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. It should be reported to IBM following their local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0136 Internal HTTP POST error!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0137   Could not get Content-Type header line!

Explanation: This is an internal error, cURL cannot get content-type content from the HTTP requested packet, and the HTTP requested packet is created by cURL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. It should be reported to IBM following their local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0137 Could not get Content-Type header line!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0138   Failed sending PUT request

Explanation: This message indicates that cURL failed to send a PUT request to the HTTP server. This could be due to the network not functioning correctly, or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0138 Failed sending PUT request

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0139   Failed sending HTTP POST request

Explanation: This message indicates that cURL failed to send a POST request to the HTTP server. This could be due to the network not functioning correctly, or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0139 Failed sending HTTP POST request

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0140   Failed sending HTTP request

Explanation: This message indicates that cURL failed to send a GET request to the HTTP server. This could be due to the network not functioning correctly, or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0140 Failed sending HTTP request

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0141   NTLM send, close instead of sending *size* **bytes**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that NTLM authentication has failed and so cURL has closed the connection instead of sending the data that would have been sent next.

size
    The size in bytes of the data that was to be sent next

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the user name and the password is valid. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0141 NTLM send, close instead of sending 300 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0142   Proxy auth using *auth_mode* **with user '***user_name***'**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the authentication to the HTTP proxy server was successful and displays the authentication mode and user name used in the authentication process.

auth_mode
    Proxy server authentication mode

user_name
    User name

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0142 Proxy auth using Digest with user 'temp_user'

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0143   Server auth using *auth_mode* **with user '***user_name***'**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that the authentication to the HTTP server was successful and displays the

authentication mode and user name used in the authentication process.

auth_mode
    HTTP server authentication mode

user_name
    User name

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0143 Server auth using Basic with user 'temp_user'

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0144   Authentication problem. Ignoring this.

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL ignored an authentication problem.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0144 Authentication problem. Ignoring this.

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0145   Ignoring duplicate digest auth header.

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL ignored duplicate digest authentication header.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0145 Ignoring duplicate digest auth header.

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0146   Establish HTTP proxy tunnel to
    host_name:*port*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has started to create a tunnel to connect to HTTP proxy server.

host_name
    HTTP proxy host name

port
    HTTP proxy port

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0146 Establish HTTP proxy tunnel to www.proxy.com:9000

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0147   Ignore *length* bytes of response-body

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. cURL has received a 407 response code from the remote HTTP proxy server indicating that proxy authentication is required. cURL is ignoring the remainder of the response.

length
    Content length

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0147 Ignore 25 bytes of response-body

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0148   Proxy replied OK to CONNECT request

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has successfully connected to the HTTP proxy server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0148 Proxy replied OK to CONNECT request

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0149   Unrecognized content encoding type. libcurl understands `identity', `deflate' and `gzip' content encodings.

Explanation: This message indicates that the content received from the remote HTTP server has an encoding type that is not supported by cURL. cURL supports the following content encoding types for HTTP content:

    identity

    deflate

    gzip

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Content of this encoding type cannot be received using cURL. You may wish to contact the owner of the content to request that the data be offered using an encoding type supported by cURL or you may want to use another http client (such as a web-browser) that supports that encoding type.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0149 Unrecognized content encoding type. libcurl understands `identity', `deflate' and `gzip' content encodings.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0150   user + domain + host name too big

Explanation: This indicates that the total length of the domain, user and host strings is bigger than the maximum length of 1024 bytes.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the total length of the domain, user and host strings does not exceed 1024.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0150 user + domain + host name too big

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0151   gethostname() failed, continuing without!

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. This message indicates that cURL could not determine the local host name from a call to the "gethostname()" system function.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0151 gethostname() failed, continuing without!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0152   LDAP local: Cannot connect to
                host_name:*port*

Explanation: This message indicates that cURL cannot connect to the specified LDAP server. This may be because the specified LDAP server is not functioning correctly or the specified host is not an LDAP server.

host_name
    LDAP server host name

port
    LDAP server port

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specified LDAP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0152 LDAP local: Cannot connect to 192.168.1.1:76

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0153   LDAP remote: *LDAP_error_msg*

Explanation: The attempted connection to the LDAP server failed because the specified URL did not contain the required "search filter" instruction.

LDAP_error_msg
    Additional error message from the LDAP library

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the specified LDAP URL conforms to the following LDAP URL protocol:

    ldap://[hostname]:[hostport]/[dn ["?" [attributes]
    ["?" [scope] ["?" [filter] "?" extensions]]]]]

Refer to the additional error message from the LDAP library for more specific details on the cause of the problem. For more information, refer to the LDAP URL format as defined by Network Working Group RFC (Request for Comment) 2255.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0153 LDAP remote: Search filter is not valid

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0154 LDAP local: *string*

Explanation: The attempted connection to the LDAP server failed. This may be because cURL cannot parse the specified URL or cURL cannot bind to the LDAP server.

LDAP_error_msg
    Additional error message from the LDAP library

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the LDAP library for more specific details on the cause of the problem. For more information, refer to the LDAP URL format as defined by Network Working Group RFC (Request for Comment) 2255.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0154 LDAP local: URL search scope is not valid

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0155 There are more than *num* **entries**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. This message indicates that the remote LDAP server cannot return all entries because the number of entries to be returned exceeds the maximum limit of

num entries as defined by the remote LDAP server.

num
    The maximum limit of entries that can be returned as defined by the remote LDAP server

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0155 There are more than 500 entries

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0156 LIMIT *file*:*line function_name* **reached memlimit**

Explanation: This is an internal error, cURL found memory leak on debug mode.

file
    Source file name

line
    Line number

function_name
    Function name

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. It should be reported to IBM following their local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0156 LIMIT main.c:2000 test reached memlimit

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0157   NETRC: overridden .netrc file: *path*

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. If the environment variable "CURL_DEBUG_NETRC" is defined, cURL uses this value instead of the specified path for finding ".netrc" file.

path
    The ".netrc" file's path

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0157 NETRC: overridden .netrc file: /tmp/temp.netrc

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0158   Warning: date specified is later than the maximum date supported

Explanation: This message indicates that the year specified on the -z or --time-cond option is equal to or later than 2038. The maximum year supported is 2037. When a date is given which has a year of 2038 or later, cURL will not be able to support it and will automatically replace it with the maximum date and time supported which is use 'Tue, 19 Jan 2038 03:14:07 GMT'. The maximum date limitation is due to a restriction for applications which use system date services which use 31 bits to represent the date and time in memory.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: A date with year greater than 2037 cannot be specified on the -z or --time-cond option. If acceptable, use only dates with a year earlier than 2038.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0158 Warning: date specified is later than the maximum date supported

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0159   Callback aborted

Explanation: This is an internal error. It indicates that a failure occurred during the cURL output detail transfer information in ProgressBar.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. It should be reported to IBM following their local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0159 Callback aborted

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0160   Send failure: *error_msg*

Explanation: This message indicates that cURL failed to send data to the remote server. This could be due to the network not functioning correctly.

error_msg
    Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0160 Send failure: unknown error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0161   Failed writing body

Explanation: This message indicates that when the "-o/--output <file>" or "-O/--remote-name" options are used to request that cURL store the data being retrieved from the remote HTTP server to a file, that the data could not be written to the file. This is most likely due to the user not having enough disk space to store all of the data.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that there is enough available disk space to store the data requested.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0161 Failed writing body

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0162   Failed writing header

Explanation: This message indicates that when the "-I/--head" option is used with either the "-o/--output <file>" or the "-O/--remote-name" option to specify that cURL store the header data being retrieved from the remote HTTP server to a file, that the data could not be written to the file. This is most likely due to the user not having enough disk space to store all of the data.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that there is enough available disk space to store the data requested.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0162 Failed writing header

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0163   Failed to resolve "*host_name*" for SOCKS4 connect.

Explanation: It indicates that the specified host name could not be resolved on a SOCKS4 connection.

host_name
    Host name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specified host name is valid, and the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0163 Failed to resolve "www.xxxx.com" for SOCKS4 connect.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0164   Failed to send SOCKS4 connect request.

Explanation: cURL will report this message when cURL sends a connection request to a SOCKS4 server that has failed. This could be due to the network not functioning correctly, or the SOCKS4 server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the SOCKS4 server is valid. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0164 Failed to send SOCKS4 connect request.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0165   Failed to receive SOCKS4 connect request ack.

Explanation: This message indicates that cURL fails to receive a SOCKS4 server's response for a connection request.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0165 Failed to receive SOCKS4 connect request ack.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0166   SOCKS4 reply has wrong version, version should be 4.

Explanation: This message indicates that cURL received a response from the remote SOCKS server which contains a different version number than expected. This is most likely because the remote server is a SOCKS5 server instead of a SOCKS4 server as expected.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS4 server is valid and its version is 4.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0166 SOCKS4 reply has wrong version, version should be 4.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0167   Can't complete SOCKS4 connection to *IP_address*:*port*. (*resp_code*), **request rejected or failed.**

Explanation: This message indicates that the remote SOCKS4 server has rejected the connection request from cURL.

IP_address
   An IP address in the form n.n.n.n

port
   Port

resp_code
   SOCKS4 server response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the remote SOCKS4 server is functioning correctly. Refer to the additional server response code for more information the specific reason for the failure. You may require assistance from your system's, or the remote system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0167 Can't complete SOCKS4 connection to 192.168.1.1:7000. (91), request rejected or failed.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0168 **Can't complete SOCKS4 connection to** *IP_address*:*port*. (*resp_code*), **request rejected because SOCKS server cannot connect to identd on the client.**

Explanation: This message indicates that cURL failed to connect to the SOCKS4 server because the SOCKS4 server could not connect to the identd (Identification Daemon) on the client's (the user's) system.

IP_address
    An IP address in the form n.n.n.n

port
    Port

resp_code
    SOCKS4 server response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS4 server is functioning correctly and the SOCKS4 server can connect to identd on this client. Refer to the additional server response code for more information the specific reason for the failure. You may require assistance from your system's, or the remote system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0168 Can't complete SOCKS4 connection to 192.168.1.1:7000. (92), request rejected because SOCKS server cannot connect to identd on the client.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0169 **Can't complete SOCKS4 connection to** *IP_address*:*port*. (*resp_code*), **request rejected because the client program and identd report different user-ids.**

Explanation: This message indicates that cURL failed to connect to the SOCKS4 server because the client program and identd (Identification Daemon) report different user-ids.

IP_address
    An IP address in the form n.n.n.n

port
    Port

resp_code
    SOCKS4 server response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS4 server is functioning correctly. Refer to the additional server response code for more information the specific reason for the failure. You may require assistance from your system's, or the remote system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0169 Can't complete SOCKS4 connection to 192.168.1.1:7000. (93), request rejected because the client program and identd report different user-ids.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0170   Can't complete SOCKS4 connection to *IP_address*:*port*. (*resp_code*), **Unknown.**

Explanation: This message indicates that cURL failed to connect to the SOCKS4 server because the remote SOCKS4 server sent an unknown response code.

IP_address
    An IP address in the form n.n.n.n

port
    Port

resp_code
    SOCKS4 server response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS4 server is functioning correctly. Refer to the additional server response code for more information the specific reason for the failure. You may require assistance from your system's, or the remote system's, network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0170 Can't complete SOCKS4 connection to 192.168.1.1:7000. (94), Unknown.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0171   SOCKS5: no connection here

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a SOCKS5 connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the remote SOCKS5 server is functioning correctly and the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0171 SOCKS5: no connection here

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0172   SOCKS5: connection timeout

Explanation: The SOCKS5 connection failed because a time-out occurred before cURL could send an initial request to the remote SOCKS5 server. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option. Also, verify that the network is functioning correctly and that the SOCKS5 server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0172 SOCKS5: connection timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0173   SOCKS5: error occured during connection

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a SOCKS5 connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote SOCKS5

server. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0173 SOCKS5: error occured during connection

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0174   Unable to send initial SOCKS5 request.

Explanation: This message indicates that cURL failed to send an initial request to the SOCKS5 server. This may be because the network is not functioning correctly.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0174 Unable to send initial SOCKS5 request.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0175   SOCKS5 nothing to read

Explanation: This message indicates that the remote SOCKS5 server did not receive data from cURL. More specifically, this means that the call to the select() function failed in the Curl_select() function. This may be because the network or the SOCKS5 server is not functioning correctly.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the remote SOCKS5 server is functioning correctly and that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0175 SOCKS5 nothing to read

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0176   SOCKS5 read timeout

Explanation: The SOCKS5 connection failed because a time-out occurred before cURL received a response from the remote SOCKS5 server. The default connection timeout value is 300 seconds.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option and verify that the network is functioning correctly and that the SOCKS5 server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0176 SOCKS5 read timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0177   SOCKS5 read error occured

Explanation: This message indicates that the remote SOCKS5 server did not receive data from cURL. More specifically, this means that the call to the select() function failed in the Curl_select() function. This may be because the network or the SOCKS5 server is not functioning correctly.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote SOCKS5 server. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0177 SOCKS5 read error occured

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0178   Unable to receive initial SOCKS5 response.

Explanation: This message indicates that cURL fails to receive an initial response from the SOCKS5 server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0178 Unable to receive initial SOCKS5 response.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0179   Received invalid version in initial SOCKS5 response.

Explanation: This message indicates that cURL received a response from the remote SOCKS server which contains a different version number than expected. This is most likely because the remote server is a SOCKS4 server instead of a SOCKS5 server as expected.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server is valid and its version is 5.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0179 Received invalid version in initial SOCKS5 response.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0180   Failed to send SOCKS5 sub-negotiation request.

Explanation: cURL will report this message when cURL sends a sub-negotiation request to a SOCKS5 server that has failed. This could be due to the network not functioning correctly, or the SOCKS5 server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the SOCKS5 server is valid. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0180 Failed to send SOCKS5 sub-negotiation request.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0181   Unable to receive SOCKS5 sub-negotiation response.

Explanation: This message indicates that cURL fails to receive a SOCKS5 server's response for a connection request.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the SOCKS5 server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0181 Unable to receive SOCKS5 sub-negotiation response.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0182   User was rejected by the SOCKS5 server (*error_value_1 error_value_2***).**

Explanation: This message indicates that cURL failed to connect to the SOCKS5 server because the SOCKS5 server rejected this connection request. This may be because the user specified the wrong user name or password.

error_value_1
     First additional error value from SOCKS5 proxy

error_value_2
     Next additional error value from SOCKS5 proxy

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server is functioning correctly and that the user has specified the correct user name and password. Refer to the additional error message which may provide more specific and useful information about the cause of this problem, this may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0182 User was rejected by the SOCKS5 server (1 2).

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0183   SOCKS5 GSSAPI per-message authentication is not supported.

Explanation: This message indicates that the SOCKS5 server requires cURL to use GSSAPI per-message authentication mode for this connection, however, cURL does not support GSSAPI authentication mode. For more information, refer to SOCKS Protocol Version 5 as defined by Network Working Group RFC (Request for Comment) 1928.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server is valid and it does not use GSSAPI per-message authentication mode for this connection. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0183 SOCKS5 GSSAPI per-message authentication is not supported.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0184 **No authentication method was acceptable. (It is quite likely that the SOCKS5 server wanted a username/password, since none was supplied to the server on this connection.)**

Explanation: This message indicates that authentication with the remote SOCKS5 server failed. Also, because no username/password was provided to send to the server, the reason for the authentication failure is most likely due to not having specified a username/password.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Validate that the authentication method being used by cURL matches what is expected by the remote SOCKS5 server. In particular, verify that a username and password is provided, if required. For more information, refer to SOCKS Protocol Version 5 as defined by Network Working Group RFC (Request for Comment) 1928.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0184 No authentication method was acceptable. (It is quite likely that the SOCKS5 server wanted a username/password, since none was supplied to the server on this connection.)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0185 **No authentication method was acceptable.**

Explanation: This message indicates that the SOCKS5 server does not support authentication method.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server support authentication method.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0185 No authentication method was acceptable.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0186 **Undocumented SOCKS5 mode attempted to be used by server.**

Explanation: This message indicates that the SOCKS5 server sent an undocumented response id to cURL. This may be because that the network is not functioning correctly or the SOCKS5 server is not functioning correctly. More information on this can be found in the SOCKS Protocol Version 5 document as defined by Network Working Group RFC (Request for Comment) 1928.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the network is functioning correctly and the SOCKS5 server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0186 Undocumented SOCKS5 mode attempted to be used by server."

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0187 **Failed to resolve "*host_name*" for SOCKS5 connect.**

Explanation: It indicates that the specified host name could not be resolved on a SOCKS5 connection.

host_name
    Host name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specified host name is valid, and the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0187 Failed to resolve "www.xxxx.com" for SOCKS5 connect.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0188   Failed to send SOCKS5 connect request.

Explanation: cURL will report this message when cURL has sent a connection request to a SOCKS5 server that has failed. This could be due to the network not functioning correctly, or the SOCKS5 server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the SOCKS5 server is valid. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0188 Failed to send SOCKS5 connect request.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0189   Failed to receive SOCKS5 connect request ack.

Explanation: This message indicates that cURL fails to receive a SOCKS5 server's response for a connection request.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0189 Failed to receive SOCKS5 connect request ack.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0190   SOCKS5 reply has wrong version, version should be 5.

Explanation: This message indicates that cURL received a response from the remote SOCKS server which contains a different version number than expected. This is most likely because the remote server is a SOCKS4 server instead of a SOCKS5 server as expected.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server is valid and its version is 5.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0190 SOCKS5 reply has wrong version, version should be 5.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0191   **Can't complete SOCKS5 connection to** *IP_address***:***port***. (***resp_code***)**

Explanation: This message indicates that cURL failed to connect to the SOCKS5 server.

IP_address
     An IP address in the form n.n.n.n

port
     Port

resp_code
     SOCKS5 server response code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the SOCKS5 server is functioning correctly. For more information, refer to SOCKS Protocol Version 5 as defined by Network Working Group RFC (Request for Comment) 1928. The user should find the additional response code in this message, this may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0191 Can't complete SOCKS5 connection to 100.100.100.100:100. (4)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0192   **SOCKS4 request granted.**

Explanation: This is an informational message which is only displayed when the -v or --verbose option is specified. It indicates that cURL has successfully connected to the SOCKS4 server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0192 SOCKS4 request granted.

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0193   **Operation too slow. Less than** *speed_limit* **bytes/sec transfered the last** *speed* **seconds**

Explanation: This message is displayed when the '--speed-limit' and '--speed-time' options are used and cURL has determined that the transfer speed is lower than the requested transfer speed. In this case, cURL terminates the download. This problem may be due to a data transfer performance problem with the network, local server or remote server. It may also indicate that the user has specified an unreasonably slow speed time and limit combination.

speed_limit
     Specified transfer speed limit

speed_time
     Specified transfer speed time

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the speed limits and time were specified correctly and, if possible, determine that the network, local server, and remote server are not experiencing performance problems. Additionally, larger speed limit and time values can be defined using the '--speed-limit' and '--speed-time' options, respectively. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0193 Operation too slow. Less than 3000 bytes/sec transfered the last 10 seconds

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0194   unable to use client certificate (no key found or wrong pass phrase?)

Explanation: This message indicates that the specified client certificate file is not valid. This may be because the key or the password is not valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the user-provided client certificate file is correct.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0194 unable to use client certificate (no key found or wrong pass phrase?)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0195   file type ENG for certificate not implemented

Explanation: This message indicates that the specified certificate's type 'ENG' (specified by using the '--cert-type ENG' option) is not supported. cURL supports the following certificate's types for SSL connections:

    PEM

    DER

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that a supported certificate's type is specified when attempting an SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0195 file type ENG for certificate not implemented

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0199   not supported file type '*cert_type*' for certificate

Explanation: This message indicates that the certificate type specified on the '--cert-type' option is not supported. cURL supports the following certificate types for SSL connections:

    PEM

    DER

cert_type
    The certificate type

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that a supported certificate's type is specified when attempting an SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0199 not supported file type 'ERR' for certificate

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0200   unable to set private key file: '*file_name*' type *file_type*

Explanation: cURL will report this message when it fails to use the user-provided private key file.

file_name
    user-provided private key file name

file_type
    user-provided private key file type

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a correct private key file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0200 unable to set private key file: 'my-key.crt' type PEM

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0201   no key set to load from crypto engine

Explanation: cURL will report this message when it detects that there is no private key being set in the user-defined cryptographic engine for SSL connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a correct user-defined engine with private key file for SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0201 no key set to load from crypto engine

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0202   failed to load private key from crypto engine

Explanation: cURL will report this message when it fails to load the private key from the user-defined cryptographic engine for SSL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a correct user-defined engine with a loadable private key file for SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0202 failed to load private key from crypto engine

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0203   unable to set private key

Explanation: This message indicates that cURL fails to use the user-provided private key file for the current SSL connection. cURL supports three formats for the private key file: PEM, ASN1 and a user-defined engine. All elements and contents in the private key file must be correct.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should validate the format and correctness of the input private key file in the cURL command line.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0203 unable to set private key

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0204   crypto engine not set, can't load private key

Explanation: cURL will report this message when the user does not set the correct cryptographic engine for SSL and private key loading fails.

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System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correct cryptographic engine (usually it is a user-defined engine) for the SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0204 crypto engine not set, can't load private key

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0205   file type P12 for private key not supported

Explanation: cURL will report this message when the user provides a private key in the unsupported format of "P12".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a supported format of the private key file. Usually the private key will be in format of PEM, ASN1 or user-defined engine.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0205 file type P12 for private key not supported

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0206   not supported file type for private key

Explanation: This message indicates that the user provided a private key in an unknown format. cURL supports three formats for the private key file: PEM,

ASN1 and a user-defined engine. All elements and contents in the private key file must be correct.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a private key file in the supported format.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0206 not supported file type for private key

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0207   unable to create an SSL structure

Explanation: This message indicates that cURL failed to create or allocate the data structure associated with the SSL connection. The most common failure reason is the user's system is out of memory.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0207 unable to create an SSL structure

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0208   Private key does not match the certificate public key

Explanation: This message indicates that the user-provided private key does not match with the public key in the user's client certificate file.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correct private key file and client certificate file. The client certificate file is generated from the user's private key file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0208 Private key does not match the certificate public key

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0210   SSL read: *fail_reason*, **errno** *err_no*

Explanation: cURL will report this message when it fails to read data from a connected SSL socket.

fail_reason
    failure detailed information printed by SSL

err_no
    error number printed by SSL

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case there is any temporary unavailability in the network or remote host. If the problem persists, the user should consult their system administrator to verify their network. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0210 SSL read: network broken, errno 12345

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0211   SSL shutdown timeout

Explanation: cURL will report this message to indicate that the SSL connection has timed-out and closed before the "curl" command line operation finished.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0211 SSL shutdown timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0212   select on SSL socket, errno: *number*

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on an SSL socket.

number
    error number for the failure

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0212 select on SSL socket, errno: 1234

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0213   SSL: unable to obtain common name from peer certificate

Explanation: This message indicates that cURL failed to extract the "Common name" of a remote server from the received certificate sent by the server. The "common name" is one field in the server's certificate. It records the server's name in URL address format.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should not take any action for this message because the error occurred on the remote server side. The user can use cURL's option "-k" to ignore this error and continue the processing. Note: user's caution is advised because this message indicates there might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0213 SSL: unable to obtain common name from peer certificate

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0214   SSL: certificate subject name '*url*' does not match

Explanation: This message indicates that the remote server's name in the recieved HTTP header field does not match with the one in the received server's certificate.

url
    subject name exacted from the received server's certificate

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should not take any action for this message because the error occurred on the remote server side. The user can use cURL's option "-k" to ignore this error and continue the processing. Note: user's caution is advised because this message indicates there might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0214 SSL: certificate subject name 'HOST01' does not match

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0215   SSL: couldn't create a context!

Explanation: This message occurs when it fails to create the context data structure for the SSL connection. The most common failure reason is that the user's system is out of memory.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0215 SSL: couldn't create a context!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0216   failed setting cipher list

Explanation: This message indicates that cURL fails to set the cipher list for the user's "curl" command line SSL connection request. The cipher list can be cURL's default setting or given by the user's input with option "--ciphers".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: If the ciphers are given by user's input, the user needs to provide the correct cipher. If the failure is caused by cURL's default cipher, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0216 failed setting cipher list

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0217   error setting certificate verify locations: CAfile: *path1* **CApath:** *path2*

Explanation: This message indicates that cURL failed to get the Certificates Authorization (CA) files from the designed location set by cURL's default or by the user's input file path, or both.

path1
    CA file to verify received server's certificate

path2
    directory to contains the CA file

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure that the Certificates Authorization files are put in the directories printed after "CAfile" and "CApath". The user can get help from their system's network administrator to put

the correct CA files into designated directories.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0217 error setting certificate verify locations: CAfile: /usr/lpp/ported/share/curl-ca-bundle.crt CApath: /u/myhome/cacert/ca.crt

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0218   error signaled by ssl ctx callback

Explanation: This is an internal error. cURL will report this message when it fails to call the callback function for SSL context setting.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability for cURL command. If the problem persists, the user should follow their local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0218 error signaled by ssl ctx callback

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0219   SSL: couldn't create a context (handle)!

Explanation: This message indicates that cURL failed to create a new session handler for the SSL connection. The most common failure reason is that the user's system is out of memory.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0219 SSL: couldn't create a context (handle)!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0220   SSL: SSL_set_session failed: *error_info*

Explanation: This message indicates that cURL's internal function "SSL_set_session()" call failed with the printed failure reason.

error_info
    error information associated with the failure

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network or local system is operating correctly. This may require assistance from your system's network administrator. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0220 SSL: SSL_set_session failed: permission denied

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0221   SSL: SSL_set_fd failed: *error_msg*

Explanation: This message indicates that cURL fails to pass the connection socket handler number to SSL layers with the printed failure reason.

error_msg
    Additional error message from the Language Environment or C runtime environment

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or local system. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. If the problem persists, the user should consult their system administrator to verify their network and SSL environment. For more information on SSL and Certificates with cURL, refer to "SSL and Certification Authority (CA) default settings" on page 68. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0221 SSL: SSL_set_fd failed: permission denied.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0222   SSL connection timeout

Explanation: This message indicates that the current SSL connection failed because a time-out occurred during the operation.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option, and then verify that the network is functioning correctly. If the problem persists, the user may require assistance from

your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0222 SSL connection timeout

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0223   Unknown SSL protocol error in connection to *string***:***number*

Explanation: This message indicates that cURL failed to make a successful SSL connection session to a remote server with an unknown error.

string
    remote server name as the destination of SSL connection

number
    remote server's port number to accept SSL connection

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and SSL environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0223 Unknown SSL protocol error in connection to Remote-Host:12345

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0224   failed to store ssl session

Explanation: This message indicates that cURL failed to save the ID of the current SSL connection session to the user's local system. The most common failure reason is that the user's system is out of memory.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0224 failed to store ssl session

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0225   SSL: couldn't get peer certificate!

Explanation: This message indicates that cURL failed to receive a certificate from the remote server in order to verify its identification

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user does need not take any action for this message because the error occurred on the remote server side. Note: user's caution is advised because this message indicates there might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0225 SSL: couldn't get peer certificate!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0226   SSL: couldn't get X509-subject!

Explanation: This message indicates that a certificate (in X.509 format) has been received from the server, however, the "subject" field cannot be found in the certificate.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side. Note: user's caution is advised because this message indicates the "subject" field is missing or not readable in the received certificate. It might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0226 SSL: couldn't get X509-subject!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0227   SSL: couldn't get X509-issuer name!

Explanation: This message indicates that a certificate (in X.509 format) has been received from the server. However, the "issuer name" field cannot be found in the certificate.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side. Note: user's caution is advised because this message indicates the "issuer name" field is missing or not readable in the received certificate. It might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0227 SSL: couldn't get X509-issuer name!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0228   SSL certificate verify result: *string* **(***number***)**

Explanation: This message reports the failure reason and error code for the verification error on the received certificate .

string
    certificate verification failure text information

number
    certificate verification failure error code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side. Note: user's caution is advised because this message indicates the "subject" field is missing or not readable in the received certificate. It might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0228 SSL certificate verify result: SSL3_GET_SERVER_CERTIFICATE:certificate verify failed (14090086)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0229   SSL_write() returned SYSCALL, errno = *number*

Explanation: This message indicates that cURL fails to send data via the SSL socket to a remote server and gets the returned failure reason "SYSCALL" and error number. The "errno" value is returned by the socket operation related C function "SSL_write()" in the OpenSSL library.

number
> error number to indicate the failure reason. Usually the user can refer to head file "/usr/include/errno.h" for more information

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0229 SSL_write() returned SYSCALL, errno = ENOTSOCK

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0230   SSL_write() error: *error_msg*

Explanation: This message indicates that cURL fails to send data via the SSL socket to a remote server and gets the returned failure reason.

error_msg
> Additional error message from the Language Environment or C runtime

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0230 SSL_write() error: TIMEOUT

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0231   SSL_write() return error *err_msg*

Explanation: This message indicates that cURL fails to send data via the SSL socket to a remote server and gets the returned failure reason.

error_msg
> Additional error message from the Language Environment or C runtime

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0231 SSL_write() return error 1234

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0232   libcurl is now using a weak random seed!

Explanation: This is an informational message and indicates that the random seed input by user is not enough to generate a strong encryption for the SSL connection.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error but just a potential risk. The user can change the input random seed or choose to do nothing about it. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0232 libcurl is now using a weak random seed!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0233   SSL_ERROR_WANT_READ

Explanation: This is an informational message and indicates that cURL is shutting down the SSL connection but there is data left be to read.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error but just a potential risk. The user can re-run the cURL command line or choose to do nothing about it. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0233 SSL_ERROR_WANT_READ

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0234   SSL_ERROR_WANT_WRITE

Explanation: This is an informational message and indicates that cURL is shutting down the SSL connection but there is data left be to written.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error but just

a potential risk. The user can re-run the cURL command line or choose to do nothing about it. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0234 SSL_ERROR_WANT_WRITE

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0235   SSL_get_shutdown() returned SSL_SENT_SHUTDOWN

Explanation: This is an informational message and indicates that SSL layer is shutting down with the return code.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0235 SSL_get_shutdown() returned SSL_SENT_SHUTDOWN

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0236   SSL_get_shutdown() returned SSL_RECEIVED_SHUTDOWN

Explanation: This is an informational message and indicates that the SSL layer is shutting down.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0236 SSL_get_shutdown() returned SSL_RECEIVED_SHUTDOWN

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0237   SSL_get_shutdown() returned SSL_SENT_SHUTDOWN"SSL _RECEIVED__SHUTDOWN

Explanation: This is an informational message and indicate that the SSL layer is shutting down.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0237 SSL_get_shutdown() returned SSL_SENT_SHUTDOWN"SSL_RECEIVED__SHUTDOWN

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0238   *prefixyear_num-month_num-day_num hour_num:minute_num:second_num time_zone*

Explanation: This is an informational message and indicate the values of "start date" and "expire date" information in the received server's certificate.

prefix
    prefix of date, either "start date" or "expire date"

year_num
    year

month_num
    month

day_num
    day

hour_num
    hour

minute_num
    minute

second_num
    second

time_zone
    time zone

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0238 start date: 2005-10-19 16:27:28 GMT

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0239   subjectAltName: *name* matched

Explanation: This is an informational message and indicate that the host name recorded in the server's certificate is matched with the URL address input in the "curl" command line.

name
    an alternative host name of remote SSL secured server

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0239 subjectAltName: remote.server.com matched

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0240   common name: WARNING couldn't obtain

Explanation: This is an informational message and indicate that cURL cannot obtain the host name from the received server's certificate file.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0240 common name: WARNING couldn't obtain

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0241   common name: *name1* (does not match '*name2*')

Explanation: This message indicates that the host name included in the server's certificate is not matched with the URL address input in the cURL command line.

name1
   host name of remote SSL secured server included in server's certificate

name2
   user input host name in the cURL command line

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: User may want to change the host name in the cURL command line and make it match with the remote server's host name.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0241 common name: remote.host.com (does not match 'remote2.host.com')

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0242   common name: *name* (matched)

Explanation: This is an informational message and indicates that the host name included in the server's certificate matches the URL address input in the cURL command line.

name
   host name of remote SSL secured server

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0242 common name: remote.host.com (matched)

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0243   SSL: couldn't set callback!

Explanation: This is an informational message and indicates that cURL failed to set the SSL trace callback function in order to get verbose logging record.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0243 SSL: couldn't set callback!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0244   SSL: couldn't set callback argument!

Explanation: This is an informational message and indicates that cURL failed to set the SSL trace callback argument in order to get verbose logging record.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0244 SSL: couldn't set callback argument!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0245   error setting certificate verify locations, continuing anyway:

Explanation: cURL will report this message to indicate there is something wrong with the directory location where the Certification Authorization files for server SSL connection are stored. cURL will continue the SSL connection if no strict certificate verification is required.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message. User does not need to take any action for it.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0245 error setting certificate verify locations, continuing anyway:

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0246   successfully set certificate verify locations:

Explanation: This is an informational message and indicates the directory location where the Certification Authorization files for server SSL connection are stored.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0246 successfully set certificate verify locations:

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

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Automation: Not applicable.

___

HPUC0247   CAfile: *string1* **CApath:** *string2*

Explanation: This is an informational message and indicates that the directory location where the Certification Authorization files for server SSL connection are stored.

string1
   absolute path for Certificate Authorization file

string2
   path name where the Certificate Authorization file is stored

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0247 CAfile: /usr/lpp/ported/share/curl-ca-bundle.crt CApath: /usr/lpp/ported/share/

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

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HPUC0248   SSL re-using session ID

Explanation: This is an informational message and indicates that one SSL security connection is re-using the SSL session ID saved from the previous connection.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0248 SSL re-using session ID

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

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HPUC0249   SSL connection using *string*

Explanation: This is an informational message and indicates the encryption algorithm name used for the current secured (SSL) connection.

string
   name of the encryption algorithm used to secure the connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0249 SSL connection using AES256-SHA

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

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HPUC0250   Server certificate:

Explanation: This is an informational message and indicates the beginning of the server's certificate contents received from a remote server by a secured (SSL) connection.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or
"--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0250 Server certificate:

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be
an error or could be normal behavior.

Automation: Not applicable.

HPUC0251   subject: *string*

Explanation: This is an informational message and
indicates the "subject" content for the server's certificate
that is received from a remote server by a secured (SSL)
connection.

string
    the server ceritificate subject's content

System action: Displays the message and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: This does not indicate an error. No
user response is required. To suppress this
informational message, the user should remove "-v" or
"--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0251 subject: /C=US/ST=New
York/O=IBM/CN=w3.ibm.com

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be
an error or could be normal behavior.

Automation: Not applicable.

HPUC0252   issuer: *name*

Explanation: This is an informational message and
indicates who the issuer is for the server's certificate
received from the remote server via a SSL connection.

name
    the server ceritificate issuer's identification

System action: Displays the message and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: This does not indicate an error. No
user response is required. To suppress this
informational message, the user should remove "-v" or
"--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0252 issuer: /C=US/O=Equifax/
OU=Equifax Secure Certificate Authority

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be
an error or could be normal behavior.

Automation: Not applicable.

HPUC0253   SSL certificate verify result: *error_msg*
(*number* **), continuing anyway.**

Explanation: This is an informational message and
indicates that there is a problem with the received
certificate of the remote server. If the user adds the
option "-k/--insecure" in the cURL command line,
cURL will continue to process the connection instead of
closing it.

error_msg
    additional error message from OpenSSL library

number
    the error code for server certificate verification
    failure

System action: Displays the message and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: This does not indicate an error. No
user response is required. To suppress this
informational message, the user should remove "-v" or
"--verbose" options. Note: user's caution is advised
because this message indicates the issue for the
received certificate verification. It might be some
security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0253 SSL certificate verify result: self
signed certificate (18), continuing anyway.

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0254   SSL certificate verify ok.

Explanation: This is an informational message and indicates that the cURL has verified the received server's certificate.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0254 SSL certificate verify ok.

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0255   Sending data failed (*error_no*)

Explanation: This message indicates that cURL fails to send the TELNET data to the remote TELNET server.

error_no
   error number returned by Language Environment or C Runtime environment to indicate the failure reason

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0255 Sending data failed (EDC8116I)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0256   Unknown telnet option *error_info*

Explanation: This message indicates that an unsupported option was specified for the TELNET protocol. cURL only accepts "TTYPE", "XDISPLOC" and "NEW_ENV" as its options for the TELNET protocol in the current release. (7.16.1)

err_info
   the name of unsupported option

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Use one of the cURL TELNET options ("TTYPE", "XDISPLOC" and "NEW_ENV") in the cURL command line.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0256 Unknown telnet option NO_SUCH_OPT=tt

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0257   Syntax error in telnet option: *err_info*

Explanation: This message indicates that the user has not correctly specified a TELNET option in the format of "option=value" or "option value".

err_info
   the wrong input format of TELNET option

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should specify the supported

cURL TELNET option ("TTYPE", "XDISPLOC" or "NEW_ENV") and the corresponding value using the format of "option=value" or "option value" in the cURL command line.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0257 Syntax error in telnet option: XDISPLOC*30

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0258   Time-out

Explanation: This message indicates that the cURL TELNET connection could not complete an operation before a time-out occurred.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user can define a larger timeout value using the '--connect-timeout' option, and then verify that the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0258 Time-out

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0259   tftp_send_first: internal error

Explanation: This is an internal error. This message indicates that the event type associated with current TFTP data sending is not any one of TFTP_EVENT_INIT, TFTP_EVENT_TIMEOUT, TFTP_EVENT_ACK, TFTP_EVENT_DATA or TFTP_EVENT_ERROR.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. This may require assistance from your system's network administrator. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0259 tftp_send_first: internal error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0260   tftp_rx: giving up waiting for block
number

Explanation: This message indicates that cURL TFTP connection fails to receive data from a remote server after the maximum number of retry times has been exhausted.

number
    the index number of the current data block

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0260 tftp_rx: giving up waiting for block 5

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0261   tftp_tx: giving up waiting for block *number* **ack**

Explanation: This message indicates that cURL TFTP connection is sending data but fails to get the acknowledgement message from the remote server after the maximum number of retry times has been exhausted.

integer
>   the index number of the current data block

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0261 tftp_tx: giving up waiting for block 5 ack"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0262   bind() failed; *reason*

Explanation: This message indicates that the cURL TFTP connection fails to bind to the given address.

reason
>   the bind failure reason printed from the operating system

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correctly formatted and accessible destination address for TFTP connection. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0262 bind() failed; EDC8116I Address not available

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0263   Received too short packet

Explanation: This message indicates that cURL TFTP has received a data packet whose length is less than 4 bytes.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0263 Received too short packet

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0264   set timeouts for state *tftp_state*; **Total** *num1*, **retry** *num2* **maxtry** *num3*

Explanation: This is an informational message and indicates that cURL TFTP has set up the time-out threshold for one of its operation state.

tftp_state
>   one of cURL TFTP operation states either TFTP_STATE_START, TFTP_STATE_RX, TFTP_STATE_TX or TFTP_STATE_FIN

num1
>   the total time set for the operation

num2
>   the number of retry times which cURL TFTP has made

num3
    the maximum of retry number allowed for this operation

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0264 set timeouts for state TFTP_STATE_RX; Total 300, retry 0 maxtry 5

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0265   Received unexpected DATA packet block *num*

Explanation: This is an informational message and indicates that cURL TFTP received an unexpected data packet block from a remote server. TFTP server will divide the data into blocks. The blocks will be sent in sequence and cURL will receive one block at a time. The size of one TFTP data block is 512 byte.

num
    index number of the data block which cURL TFTP did not expect to receive

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case this was caused by a temporary problem with the network or the remote host. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0265 Received unexpected DATA packet block 5

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0266   Timeout waiting for block *num1* **ACK. Retries =** *num2*

Explanation: This is an informational message and indicates that cURL TFTP did not receive the acknowledgment from the remote server before time-out occurred. TFTP server will divide the data into blocks. The blocks will be sent in sequence and cURL will receive one block at a time. The size of one TFTP data block is 512 byte.

num1
    index number of the data block to be received

num2
    number of retry times which cURL TFTP has made

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0266 Timeout waiting for block 5 ACK. Retries = 3

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0267   Received ACK for block *num1*, **expecting** *num2*

Explanation: This is an informational message and indicates that cURL TFTP did not receive the acknowledgment from a remote server for the current sending block. FTP server will divide the data into blocks. The blocks will be sent in sequence and cURL will receive one block for one time. The size of one TFTP data block is 512 byte.

num1

the index number of data block that gets acknowledgment

num2

the index number of data block that does not get acknowledgment

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0267 Received ACK for block 3, expecting 5

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0268   Timeout waiting for block *integer1* **ACK.**
              Retries = *integer2*

Explanation: This is an informational message and indicates that cURL TFTP did not receive the acknowledgment from a remote server before time-out. cURL TFTP will divide the data into blocks and send one block for one time. The size of a TFTP data block is 512 byte.

integer1

the index number of data block to be sent

integer2

the number of retry times which cURL TFTP has made

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. To suppress this informational message, the user should

remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0268 Timeout waiting for block 2 ACK. Retries = 1

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0269   TFTP_STATE_START

Explanation: This is an informational message and indicates that cURL TFTP is starting the data transfer with the remote server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0269 TFTP_STATE_START

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0270   TFTP_STATE_RX

Explanation: This is an informational message and indicates that cURL TFTP is reading data from a remote server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this

informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0270 TFTP_STATE_RX

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0271   TFTP_STATE_TX

Explanation: This message indicates that cURL TFTP is sending data to a remote server.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0271 TFTP_STATE_TX

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0272   STATE: *num*

Explanation: This message indicates that cURL TFTP received an unknown status code for its internal processing. The allowed statuses for TFTP protocol in cURL are START, SEND, RECEIVE and EXIT, which are represented by integer number "0", "1", "2" and "3".

num
> the unknown status number other than 0, 1, 2 or 3

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0272 STATE: 127

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0273   timeout: *integer1* **>** *integer2*

Explanation: cURL will report this message when the elapsed time of the TFTP data transfer has exceeded the allowed maximum timeout duration..

integer1
> TFTP data transfer acutal used time

integer2
> maximum of allowed timeout duration

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The most possible cause of this error is the network condition is bad or remote TFTP server is not responsive. User can re-run her/his "curl" command line. If the error still persists, user need get help from system administrator or contact with the local IBM support by following the local IBM support procedure.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0273 timeout: 400 > 300

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0274 operation aborted by callback

Explanation: This message indicates that cURL fails to read data from a local file or the command line standard input. The most common reason is that the user has no permission to read the file or the file is damaged.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the user has the necessary permission to read file and the file is readable. This may require assistance from your system's administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0274 operation aborted by callback

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0275 Failed to calloc memory for conversion!

Explanation: This message indicates that cURL requires more memory than is currently available.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0275 Failed to calloc memory for conversion!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0276 ioctl callback returned error *num*

Explanation: This message indicates that cURL fails to rewind the reading of the data stream in a network transfer.

num
    returned error code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0276 ioctl callback returned error 17

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0277 necessary data rewind wasn't possible

Explanation: This message indicates that cURL cannot rewind the reading of the data stream in a network transfer.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system

environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0277 necessary data rewind wasn't possible

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0278   select/poll returned error

Explanation: This message indicates that a failure occurred during a call to the "select()" system function on a socket.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0278 select/poll returned error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0279   Failed to alloc memory for big header!

Explanation: This message indicates that there is no more memory left for cURL command memory allocation.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0279 Failed to alloc memory for big header!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0280   HTTP server doesn't seem to support byte ranges. Cannot resume.

Explanation: This message indicates that the user wants to resume a data download with HTTP GET method but the remote server does not support "Content-Range:" field in the HTTP connection request. This field is required for resume downloading.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not an error caused by cURL. The user should change one remoter HTTP server that supports the "Content-Range" setting in a connection request.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0280 HTTP server doesn't seem to support byte ranges. Cannot resume.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0281   Failed writing data

Explanation: This message indicates that cURL fails to write out the received "chunked" data after decoding it. The common failure reason could be the user has no write permission or the local disk space is full.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure she or he has the necessary permission and the local system disk has space for the file. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0281 Failed writing data

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0282   Received problem *num* in the chunky parser

Explanation: This message indicates that cURL is decoding the received "chunked" data but encounters an error. The common failure reason could be the data is damaged during the course of network transfer or the "chunked" data is badly encoded on the remote host.

num
    the returned error number from chunked data decoding

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary problem in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0282 Received problem 5 in the chunky parser

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0283   Failed to alloc scratch buffer!

Explanation: This message indicates that there is no more memory left for cURL command memory allocation.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0283 Failed to alloc scratch buffer!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0284   Operation timed out after *num1* seconds with *num2* out of *num3* bytes received

Explanation: This message indicates that a time-out occurred and the data receiving is uncompleted.

num1
    number of time spent for operation

num2
    bytes of received data before timed-out

num3
    total bytes of data to be read

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0284 Operation timed out after 300 seconds with 512 out of 1024 bytes received

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0285 **Operation timed out after** *num1* **seconds with** *num2* **bytes received**

Explanation: This message indicates that a time-out occurred and the data received is incomplete.

num1
   number of time spent for operation

num2
   bytes of received data when timed-out occured

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0285 Operation timed out after 300 seconds with 512 bytes received

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0286 **transfer closed with** *num* **bytes remaining to read**

Explanation: This message indicates that the current HTTP connection is closed but there is data left to be read.

num
   byte of remaining data when connection closed

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0286 transfer closed with 512 bytes remaining to read

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0287 **transfer closed with outstanding read data remaining**

Explanation: This message indicates that the current HTTP connection is closed but there is additional data left to be read. The common reasons could be that the transfer is timeout before finishing all operations or the user cancels the command during the course.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0287 transfer closed with outstanding read data remaining

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0288   No URL set!

Explanation: This message indicates that the command line URL argument is missing or malformed.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Specify a URL in the correct format.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0288 No URL set!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0289   Maximum (*num*) redirects followed

Explanation: This message indicates that the redirection-followings of the current HTTP connection has exceeded the maximum number of allowed redirection-followings. The maximum allowed is set by default to 50 unless it has been overridden by the use of the '--max-redirs' option.

num
    maximum of allowed redirection-followings

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user may choose to increase the maximum number of allowed redirect-followings using the "--max-redirs" option. Note, however, that this limit is set to prevent unnecessary and possibly non-terminating processing in situations where the number of redirects is extremely high or limitless, so it is adviseable to increase the number in small increments.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0289 Maximum (52) redirects followed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0290   unspecified error *num*

Explanation: This message indicates that cURL receives an error return code without any interpretation and cURL cannot interpret the error code with the known error code and message matching list.

num
    the error code

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0290 unspecified error ECA345

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0291   the ioctl callback returned *integer*

Explanation: This is an informational message and indicates the returned error code from a cURL internal I/O control function call. This message is only displayed when "-v" or "--verbose" option is specified.

integer
    error code

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0291 the ioctl callback returned CURLIOE_FAILRESTART

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0292   Buffer after stream rewind (read_pos = *num***): [***string***]**

Explanation: This is an informational message and indicates the current position from which cURL will start to do rewind reading and the left data contents in the buffer for rewind reading. This message is only displayed when "-v" or "--verbose" option is specified.

num
    position in the stream from which rewind starts to read

string
    data left in the buffer for rewind reading

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0292 Buffer after stream rewind (read_pos = 4): [abcdefghijk]

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0293   Keep sending data to get tossed away!

Explanation: This is an informational message and indicates that cURL will continue sending data to a remote HTTP server if the rewind operation after a complete sending is requested. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0293 Keep sending data to get tossed away!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0294   Negative content-length: *num***, closing after transfer**

Explanation: This message indicates that the "Content-Length:" field in the received HTTP reply header contains the negative value. For example, it happens when some older Apache servers send large files in HTTP connection and the "Content-Length" field will be filled with negative value.

num
     negative content length value

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0294 Negative content-length: -9, closing after transfer

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0295   HTTP/1.0 proxy connection set to keep alive!

Explanation: This is an informational message and indicates that cURL receives a HTTP/1.0 reply from a proxy with 'Proxy-Connection: keep-alive' content in the replied data. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0295 HTTP/1.0 proxy connection set to keep alive!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0296   HTTP/1.1 proxy connection set close!

Explanation: This is an informational message and indicates that cURL receives a HTTP/1.1 response from a proxy with message to say the proxy will close down the HTTP connection after this transfer. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0296 HTTP/1.1 proxy connection set close!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0297   HTTP/1.0 connection set to keep alive!

Explanation: This is an informational message and indicates that cURL receives a HTTP/1.0 reply with the content of "Connection: keep-alive" in the reply. By default HTTP/1.0 protocol will close the connection after HTTP request is done. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0297 HTTP/1.0 connection set to keep alive!

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0298   Ignoring the response-body

Explanation: This is an informational message and indicates that cURL is reusing the current HTTP link to connect to a new URL and it will ignore the received data in the HTTP "body" (comparing to HTTP "head" data) from current connection. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0298 Ignoring the response-body

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0299   The requested document is not new enough

Explanation: This is an informational message and indicates that the user is using "-z/--time-cond <date-expression>" option to download a file that is newer than the given date but cURL detects the file to be retrieved is older than the given date. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should modify the input time condition for "-z/--time-cond" option. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0299 The requested document is not new enough

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0300   The requested document is not old enough

Explanation: This is an informational message and indicates that the user is using "-z/--time-cond <date-expression>" option to download a file that is older than the given date but cURL detects the file to be retrieved is newer than the given date. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should modify the input time condition for "-z/--time-cond" option. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0300 The requested document is not old enough

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0301   Rewinding stream by : *num1* **bytes on url** *name* **(size =** *num2*, **maxdownload =** *num3*, **bytecount =** *num4*, **nread =** *num5*)

Explanation: This is an informational message and indicates the data records associated with the rewind downloading from an established connection. This message is only displayed when "-v" or "--verbose" option is specified.

num1
    excess byte number for rewind downloading

name
    URL for downloading data

num2
    total byte number to be downloaded

num3
    maximum byte number allowed for downloading

num4
    total downloaded byte number

num5
    byte number for current downloading

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0301 Rewinding stream by : 640 bytes on url www.no-such-site.com (size = 768, maxdownload = 128, bytecount = 512, nread = 256)

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0302   Pre readwrite setting chunky header values to default

Explanation: This message indicates that cURL assigns the default value (FALSE) to HTTP chunky header. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0302 Pre readwrite setting chunky header values to default

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0303   Issue another request to this URL: '*name*'

Explanation: This message indicates that the user is using "-L/--location" option to ask cURL to redirect the HTTP connection to a new website from the current website. This message is only displayed when "-v" or "--verbose" option is specified.

name
    new URL of website for redirection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0303 Issue another request to this URL: 'http://www.ibm.com/us/'

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0304   Violate RFC 2616/10.3.2 and switch from POST to GET

Explanation: This is an informational message and indicates that a HTTP connection request receives the return code "301" from a remote website. It means the POST method has been disabled by the site and cURL will change to GET method for data uploading. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0304 Violate RFC 2616/10.3.2 and switch from POST to GET

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0305   Disables POST, goes with *name*

Explanation: This is an informational message and indicates that a HTTP connection request receives the return code "303" from a remote website. It means the POST method has been disabled by this site and cURL will change to other HTTP methods such as GET or HEAD. This message is only displayed when "-v" or "--verbose" option is specified.

name
　　HTTP supported methods (GET, HEAD)

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0305 Disables POST, goes with HEAD

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0306   Connection died, retrying a fresh connect

Explanation: This is an informational message and indicates that cURL trying to reuse one established network connection but detects the connection has been closed. Then cURL will set up a new connection instead. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0306 Connection died, retrying a fresh connect

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0307   Warning: curl didn't find new line (0x0a) in the header

Explanation: HTTP protocol requires its header data must use new line symbol ("\n" or "0x0a" in ASCII value) to indicate the end of HTTP header. This message indicates that cURL does not find a new line symbol in the the received HTTP header data.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0307 Warning: curl didn't find new line (0x0a) in the header

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0308   **Warning: the received content may have error**

Explanation: HTTP protocol requires its header data must use newline symbol ("\n" or "0x0a" in ASCII value) to indicate the end of HTTP header. This message indicates that cURL does not find a newline symbol in the the received HTTP header data.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user need not take any action for this message because the error occurred on the remote server side.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0308 Warning: the received content may have error

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0310   **<url> malformed**

Explanation: This message indicates that the URL (or a URL if more than one was given) specified on the cURL command line is not in the correct format. This is mostly likely due to an unexpected character (such as a newline) in the URL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should examine the URL(s) specified on the command line for any unsupported characters.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0310 <url> malformed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0311   **"LIBCURL_NAME " was built without LIBSSH2, scp: not supported!**

Explanation: This message indicates that the current cURL release does not support the "sftp" protocol since cURL has not being built with the ssh2 library.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should use one protocol that is supported by current cURL release. The user can run command "curl -V" to see what protocol is supported.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0311 "LIBCURL_NAME " was built without LIBSSH2, scp: not supported!"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0312   **Unsupported protocol:** *name*

Explanation: This message indicates that the user requests cURL to connect with a remote server using an unsupported protocol. The user can check the supported network protocols for the current cURL release by executing command "curl -V".

name
   unsupported protocol input by the user

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should change the protocol type for connection request and select one that is supported by current cURL release.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0312 Unsupported protocol: sip

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0313   memory shortage

Explanation: This message indicates that cURL fails to allocate memory for execution.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0313 memory shortage

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0314   Port number too large: *num*

Explanation: This message indicates that the port number specified for this connection is larger than the maximum supported port number of 65535.

num
     the illegal remote host port number

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should input the port number between 0-65535.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0314 Port number too large: 70000

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0315   Couldn't resolve host '_name_**'**

Explanation: This message indicates that cURL fails to resolve the remote host's name.

name
     remote host's name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should input the correct remote host's name and make sure the host is reachable in user's networking environment. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0315 Couldn't resolve host 'ahost'

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0316   Couldn't resolve proxy '_string_**'**

Explanation: cURL will report this message when it fails to resolve the host name of the input proxy server.

string
     proxy host name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: User needs to input correct proxy server name and/or make sure the proxy server is reachable in user's networking environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0316 Couldn't resolve proxy 'no-such-proxy'

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0317   Previous alarm fired off!

Explanation: This message indicates that a time-out event occurred while trying to create a connection with the remote server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0317 Previous alarm fired off!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0318   WARNING: failed to save cookies in
            jar_name

Explanation: This messages indicates that cURL was unable to save the received cookie(s) into the cookie "jar" file.

jar_name
    cookie jar filename

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: There are many reasons that can cause this error according to the system status and user's input. For example, the user can check if she/he has write privilege for the cookie jar file or if there is enough disk space to save the data in the file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0318 WARNING: failed to save cookies in cookie-jar

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0319   DISCONNECT without easy handle,
            ignoring

Explanation: This is an informational message and indicates that cURL cannot retrieve some key internal data records associated with one connection when it is going to close this network connection. However cURL can ignore this error and proceed to close the connection. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0319 DISCONNECT without easy handle, ignoring

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0320   **Closing connection #***integer*

Explanation: cURL will report this message to prompt user it is closing down the specified connection.

integer
    connection index number

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: User does not need to take any action regarding to this message.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0320 Closing connection #0

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0322   **Examining connection #***conn_index* **for reuse**

Explanation: This is an informational message and indicates that cURL is examining if there is an existing connection that can be reused. This message is only displayed when "-v" or "--verbose" option is specified.

conn_index
    cURL internal index number for an existing network connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0322 Examining connection #0 for reuse

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0324   **Connection #***conn_index* **has its pipeline full, can't reuse**

Explanation: This is an informational message and indicates that cURL cannot reuse one existing connection because the connection's pipes (an operating system I/O function for receiving and sending data) are in using and no available space left. This message is only displayed when "-v" or "--verbose" option is specified.

conn_index
    cURL internal index number for an existing network connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0324 Connection #0 has its pipeline full, can't reuse

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0325   **Connection #***conn_index* **has been marked for close, can't reuse**

Explanation: This is an informational message and indicates that cURL cannot reuse one existing connection because the connection has been marked for close. This message is only displayed when "-v" or "--verbose" option is specified.

conn_index
    cURL internal index number for an existing network connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0325 Connection #0 has been marked for close, can't reuse

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0326   Connection #*conn_index* has different SSL parameters, can't reuse

Explanation: This is an informational message and indicates that cURL cannot reuse one existing SSL connection because the SSL parameters are different. This message is only displayed when "-v" or "--verbose" option is specified.

conn_index
  cURL internal index number for an existing network connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0326 Connection #0 has different SSL parameters, can't reuse

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0327   Connection #*conn_index* seems to be dead!

Explanation: This message indicates that cURL detects a SOCKS proxy server is not responding during the course of connection.

conn_index
  cURL internal index number for an existing network connection

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0327 Connection #0 seems to be dead!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0328   Connection (#*integer1*) was killed to make room (holds *integer2*)

Explanation: This is an informational message and indicates that cURL is trying to store the connection associated data into a "cache" but finds the "cache" is full. cURL will remove one stored data from the "cache" by the given internal policy or algorithm. This message is only displayed when "-v" or "--verbose" option is specified.

integer1
  connection index number

integer2
  connection amount number represented by the connection index number

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0328 Connection (#0) was killed to make room (holds 3)

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0329   This connection did not fit in the connection cache

Explanation: This is an informational message and indicates that cURL is trying to store the connection associated data into a "cache" but finds the "cache" is full. cURL will remove one stored data from the "cache" by applying the given internal policy or algorithm. But now cURL cannot remove the stored data because it does not select any qualified candidate in the "cache" by the given policy or algorithm. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0329 This connection did not fit in the connection cache

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0330   About to connect() to *string1string2* **port** *num1* **(#***num2***)**

Explanation: This is an informational message and indicates that cURL is about to connect to a remote server. It prints out the server's URL and the port number. This message is only displayed when "-v" or "--verbose" option is specified.

string1
    "proxy" for proxy host or empty for non-proxy server

string2
    remote host's URL

num1
    remote host's port number

num2
    cURL internal index number for connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0330 About to connect() to www.ibm.com port 80 (#0)

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0331   Connected to *string1* **(***string2***) port** *num1* **(#***num2***)**

Explanation: This is an informational message and confirms that the cURL's connection to a port of one remote server has been set up. This message is only displayed when "-v" or "--verbose" option is specified.

string1
    remote host's URL

string2
    remote host's IP address

num1
    remote host's port number

num2
    cURL internal index number for connection

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0331 Connected to www.ibm.com (129.42.60.212) port 80 (#0)

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0336   Couldn't find host *string* **in the .netrc file, using defaults**

Explanation: When the user wants to use "user name" and "password" records that are stored in the ".netrc" configuration file for a designated host connection, this message indicates that cURL cannot find such records in ".netrc" file when it is about to connect to the remote server.

string
      remote server's URL

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should add the host name and the related "user name" and "password" into the ".netrc" file if she/he wants to use this file to keep the information and use it for connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0336 Couldn't find host www.not-in-netrc.com in the .netrc file, using defaults

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0337   Re-using existing connection! (#ized*integer***)** **with host** *string*

Explanation: cURL will report this message to let the user know that it is re-using one existing connection to a host for current request. The existing connection is identified by its index number.

integer
      index number for the current connection

string
      remote proxy name or host name

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: User does not need to take any action regarding to this message.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0337 Re-using existing connection! (#1) with host www.have-reached.com

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0338   Connection #*conn_index* **to host** *string* **left intact**

Explanation: This is an informational message and indicates that cURL is closing the current connection but finds the remote proxy or host server has lost response already. This message is only displayed when "-v" or "--verbose" option is specified.

conn_index
      cURL internal index number for an existing network connection

string
      remote proxy name or host name

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0338 Connection #1 to host www.non-reach.com left intact

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0339   Re-used connection seems dead, get a new one

Explanation: This is an informational message and indicates that cURL is trying to re-use a connection but detects a problem with it. cURL will disconnect this connection and create a new connection for writing. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informative message and usually the user should not take other actions. cURL can set up the new connection for its operation. If the re-connection is failed and persisting, it should be reported to IBM by following the user's local reporting procedures.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0339 Re-used connection seems dead, get a new one

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0340   CLOSED when in pipeline!

Explanation: This message indicates that cURL is closing down the current connection and cleaning up the related resources but finds a pipe is still receiving or sending data.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: There are many reasons that can cause this error according to system status and user's input. User can re-run her/his cURL command line to see if the problem still persists. If the problem is persisting, it should be reported to IBM by following end user's local procedures for reporting.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0340 CLOSED when in pipeline!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0341   MAJOR problem we *address1* are still in send pipe for *address2* done *integer*

Explanation: cURL will report this message when it is closing the current connection and cleaning up related resource but finds the pipe is still not closed after sending nbytes data.

address1
  memory address for current cURL's main data structure

address2
  memory address for current cURL's connection data structure

integer
  bytes' number sent by pipe

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: There are many reasons that can cause this error according to system status and user's input. User can re-run her/his cURL command line to see if the problem still persists. If the problem is persisting, it should be reported to IBM by following end user's local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0341 MAJOR problem we 0x12345678 are still in send pipe for 0x1234abcd done 512

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0342   MAJOR problem we *address1* are still in recv pipe for *address2* done *integer*

Explanation: cURL will report this message when it is closing the current connection and cleaning up related resource but finds the pipe is still not closed after receiving nbytes data.

address1
   memory address for current cURL's main data
   structure

address2
   memory address for current cURL's connection
   data structure

integer
   pipe has received bytes' number

System action: Displays the warning and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: There are many reasons that can cause
this error according to system status and user's input.
User can re-run her/his cURL command line to see if
the problem still persists. If the problem is persisting, it
should be reported to IBM by following end user's local
procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0342 MAJOR problem we 0x12345678
are still in recv pipe for 0xabcdef00 done 512

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0344   **curl: try 'curl --help' for more**
              information

Explanation: When a curl detects that it has received
invalid command line options and/or arguments, in
addition to the message specifically identifying the
error, this message will also be displayed. also print
this message to notice user about how to learn more
information about cURL's usage. It explains how to get
additional help for curl's command line syntax.

System action: Displays the warning and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: The user should refer to the
proceeding message for the exact error reason or
information.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0344 curl: try 'curl --help' for more
information

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0345   **\n[***conn_index*/*total_conn***]:** *url*--> *fname*

Explanation: When cURL connects to multiple URLs,
this message indicates that the following received data
belongs to which connection and where the data is
stored, such as the file name or stdout.

conn_index
   cURL internal index number for current connection

total_conn
   the total numbers of cURL connections

url
   the URL of current connection

fname
   file name to store the received data

System action: Displays the message and continues
processing.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: This does not indicate an error. No
user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0345 [3/3]: ftp://mysite/myfile -->
localfile

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be
an error or could be normal behavior.

Automation: Not applicable.

HPUC0346   **Throwing away** *integer* **bytes**

Explanation: cURL will report this message when the
user has set the output file name and retry number for
one connection. If the connection fails, the next retry
will truncate the output file content written by the
previous unsuccessful connection. This message tells
user about how many bytes of data are truncated.

integer
   data size that has been truncated by retry
   connection

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: User need not take any action for this message. It is just printed for user's information.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0346 Throwing away 5497 bytes

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0347   You don't have permission to create *path_name***.**

Explanation: This message indicates that the user has no permission to create the directory on the local host when cURL is trying to write the received data into a local file and keep the file's directory hierarchy as same as the remote site. For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories("dir1", "dir2", ..., "dir5") automatically.

path_name
    directory name which user wants to create

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should get help from your system administrator to have the write permission for the file system or change to another file system where the user has the write privilege to create directory.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0347 You don't have permission to create /root.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0348   The directory name *string* **is too long.**

Explanation: This message indicates that the directory name's length has exceeded user's local host system's limitation when cURL is trying to write the received data into a local file and keep the file's directory hierarchy as same as the remote server . For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories("dir1", "dir2", ..., "dir5") automatically.

string
    directory name which user wants to create

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should change the directory name and shorten the length of it.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0348 The directory name this-is-a-extremely-long-directory-name is too long.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0349   *string* resides on a read-only file system.

Explanation: This message indicates that cURL is trying to write the received data into a local file and to keep the file's directory hierarchy as same as the remote server but the directory resides on a read-only file system. For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories("dir1", "dir2", ..., "dir5") automatically.

string
    directory name which user wants to create

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should get help from system administrator to have the write permission for the file system or change to another file system where the user has write privilege to create the directory.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0349 for-root-only-dir resides on a read-only file system.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0350   **No space left on the file system that will contain the directory** *path_name*

Explanation: This message indicates that there is no disk space left in local host system when cURL is trying to write the received data into a local file and to keep the file's directory hierarchy as same as the remote server. For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories ("dir1", "dir2", ..., "dir5") automatically.

path_name
>   directory name which the user wants to create

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should get help from system administrator to enlarging local file system disk space.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0350 No space left on the file system that will contain the directory /no-space-left-dir

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0351   **Cannot create directory** *string* **because you exceeded your quota.**

Explanation: This message indicates that the disk quota has been exceeded when cURL is trying to write the received data into a local file and to keep the file's directory hierarchy as same as the remote server. For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories ("dir1", "dir2", ..., "dir5") automatically.

string
>   directory name which the user wants to create

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should get help from system administrator to increase the disk quota.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0351 Cannot create directory no-empty-left-dir because you exceeded your quota.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0352   **Error creating directory** *dir*.

Explanation: This message indicates that cURL failed to create the directory when cURL is trying to write the received data into a local file and to keep the file's directory hierarchy as same as the remote server . For example, command line "curl http://my.site/dir[1-5]/file[1-5].txt -o dir#1/file#2.txt" should create all the directories ("dir1", "dir2", ..., "dir5") automatically.

dir
>   The directory name which could not be created

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should get help from system administrator for the reason of creating directory failure.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0352 Error creating directory /baddir.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0353   You can only select one HTTP request!

Explanation: This message indicates that cURL detects that the HTTP submission method is different from the HTTP request method that had been setup at the initialization time when the user is using option "-F/--form name=content" to submit data to a website with HTTP connection . For example, the HTTP request method is set as "POST" (-F or --form) but now the user wants to submit the data by "GET" (-G or --get) method.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should use the same HTTP request method for form data submission.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0353 You can only select one HTTP request!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0354   Illegally formatted content-type field!

Explanation: This message indicates that the "content type" information specified on the "-F/--form type=content-type" option is not in the correct format.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correct format of content type for the input data. The acceptable content type format is like "string1/string2". "string1" and "string2" both can have 127 bytes' length at most. "string1" must not include "/" character and "string2" must not include any of ";", "," and "\n" character.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0354 Illegally formatted content-type field!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0355   Error building form post!

Explanation: This message indicates that cURL fails to assemble the input data from multiple local files when the user is using option "-F/--form name=content" to post the data to a remote website via HTTP connection by consolidating the post data from multiple local files. One most possible reason that can cause the failure is no enough memory left on local host for the assembling operation of all local files' contents.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should reduce the number of local files that is used to assemble the input data in one command line. The use can divide the post of local files' data into several command line executions.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0355 Error building form post!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0356   curl_formadd failed!

Explanation: This message indicates that cURL fails to post local form data to a remote website with option "-F/--form field name=content" option via HTTP connection. The most likely reason that can cause the failure is that the given field name is wrong or the network connection is unstable.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the fields' names and data to be post is correct. The user can also check the website is reachable. The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult

their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0356 curl_formadd failed!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0357   curl_formadd failed, possibly the file *fname* **is bad!**

Explanation: This message indicates that cURL fails to read input data from a local file when the user is using option "-F/--form < filename" to post form data to a remote website by reading "field" value from the local file content.

fname
    file name to read post data

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the file is readable and that the "field" data has been formatted correctly within this file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0357 curl_formadd failed, possibly the file no-such-file is bad!"

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0358   Illegally formatted input field!

Explanation: This message indicates that there are mistakes in the format of fields and values to be posted when the user is using "-F/--form name=content" option to post form data to a website.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should check if the input fields and values are complying with the rules for HTTP form data post.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0358 Illegally formatted input field!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0359   unrecognized ftp file method 'name**', using default**

Explanation: This message indicates that cURL does not recognize the given method when the user is using option "--ftp-method" to specify what method cURL should use to access a file on a FTP or FTPS serve. cURL only accept three methods: "multicwd", "nocwd" and "singlecwd". By default the ftp method is "multicwd" in cURL.

name
    ftp method's name given by user

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give the correct ftp method name by selecting any from "multicwd", "nocwd" or "singlecwd".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0359 unrecognized ftp file method 'badcwd', using default

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0360   can't open the random file input by user

Explanation: This message indicates that cURL fails to open a file that contains the random data. The data is used to seed the random engine for SSL connections when the user is using option "--random-file".

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the given random file is readable and that the user has reading privilege for the file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0360 can't open the random file input by user

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0361   unsupported rate unit. Use G, M, K or B!

Explanation: The "speed" value specified on the --limit-rate option contains a unit character which is not recognized. The speed will be presumed to be in units of "bytes" per second if one of the following unit characters is not appended: 'b' or 'B' (bytes), 'k' or 'K' (kilobytes), 'm' or 'M' (megabytes), or 'g' or 'G' (gigabytes). Examples: 200K, 3m and 1G.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should specify a supported unit character for the speed value specified on the --limit-rate option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0361 unsupported rate unit. Use G, M, K or B!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0362   Failed to open *fname*!

Explanation: This message indicates that cURL was unable to open the file specified on the "--stderr file" option. When correct, all stderr output will be written to this file.

fname
    file to record stderr output

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should check if she/he has the write privilege for this file and directory or if the file is writable.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0362 Failed to open bad-stderr!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0363   bad range input

Explanation: This message indicates that the "start-end" range specified on the "--local-port [start-end]" is not formatted correctly. Possible reasons are that the begin number is not smaller than the end number or that either number contains characters which are not numeric.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide a legal range format for port numbers.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0363 bad range input

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0364   Couldn't read data from file "*fname*", this makes an empty POST.

Explanation: This message indicates that cURL fails to read the contents from a local file when the user is using option "-d", "--data", "--data-ascii" or "--data-binary" to post data read from the local file to a website via HTTP connection. The failure reasons can include that the user has no reading privilege for this file or the directory or the file is damaged.

fname
    the local file that contains data to be posted

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should have reading permission for the file or make sure the file is readable. The user can also ask help from your system administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0364 Couldn't read data from file "damaged-file", this makes an empty POST.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0365   error trying read config from the '*fname*' file

Explanation: This message indicates that cURL fails to parse the user composed configuration file (e.g. ".curlrc").

fname
    user composed configuration file name

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should check if all the items defined in the configuration file are in correct format. For more information about creating cURL configuration files, refer to "Using network configuration files" on page 67. Also, verify that the configuration file is readable with proper read privilege.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0365 error trying read config from the '.curlrc' file

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0366   built-in manual was disabled at build-time!

Explanation: This message indicates that cURL's built-in manual has been disabled at build-time. The user cannot use option "-M" or "--manual" to print out cURL's manual in the command line.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: To view the information that would be displayed if the built-in manual was enabled, refer to Chapter 5, "cURL command reference," on page 41.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0366 built-in manual was disabled at build-time!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0367   A specfied range MUST include at least one dash (-). Appending one for you!

Explanation: This message indicates that a dash was not used between the start and end of range specified on the "-r/--range" option. A dash (-) is necessary as the separator between range start and end.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correct range format with dash (-) to separate the start and end of range.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0367 A specfied range MUST include at least one dash (-). Appending one for you!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0368   **Invalid character is found in given range. A specified range MUST have only digits in 'start'-'stop'. The server's response to this request is uncertain.**

Explanation: This message indicates that cURL is using "-r/--range" option to retrieve certain content range from current connection but there are invalid characters in the user input range. Only numeric characters are acceptable in this case.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should correct the range format in order to get the designated content bytes from connection. The "-r/--range" only accepts numeric character as range type.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0368 Invalid character is found in given range. A specified range MUST have only digits in 'start'-'stop'. The server's response to this request is uncertain.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0369   **Failed to read** *fname*

Explanation: This message indicates that the filename specified using the "-w/--write-out" option cannot be read and so this option will be ignored. The reasons of failure can include that the given file does not exist in the specified directory or the user has no read permission for this file or the file is damaged.

fname
    file that contains the format for "-w" or "--write-out"

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should check if the file that contains the print out format for "-w/--write-out" is readable. The user may need the help from system administrator to recover the damaged file or get proper permission for file reading.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0369 Failed to read bad-file

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0370   **Illegal date format for -z/--timecond (and not a file name). Disabling time condition. See curl_getdate(3) for valid date syntax.**

Explanation: This message indicates that the user did not provide a correct time and date format for "-z" or "--time-cond" option. cURL's time and date formats comply with the standard of RFC 822 "Standard for the Format of ARPA Internet Text Messages" (including the update in RFC 1123 "Requirements for Internet Hosts -- Application and Support") using time zone name or time zone delta and RFC 850 "Standard for Interchange of USENET Messages" (obsoleted by RFC 1036 "Standard for Interchange of USENET Messages ") and ANSI C's asctime() format. Here are some examples of time and date formats which cURL accepts: "Sun, 06 Nov 1994 08:49:37 GMT", "Sunday, 06-Nov-94 08:49:37 GMT", "Sun Nov 6 08:49:37 1994", "06 Nov 1994 08:49:37 GMT", "06-Nov-94 08:49:37 GMT", "Nov 6 08:49:37 1994", "06 Nov 1994 08:49:37", "06-Nov-94 08:49:37", 1"994 Nov 6 08:49:37", "GMT 08:49:37 06-Nov-94 Sunday", "94 6 Nov 08:49:37", "1994 Nov 6", "06-Nov-94", "Sun Nov 6 94", "1994.Nov.6", "Sun/Nov/6/94/GMT", "Sun, 06 Nov 1994 08:49:37 CET", "06 Nov 1994 08:49:37 EST", "Sun, 12 Sep 2004 15:05:58 -0700", "Sat, 11 Sep 2004 21:32:11 +0200", "20040912 15:05:58 -0700", "20040911 +0200".

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should input a correct time and date format for "-z" or "--time-cond" option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0370 Illegal date format for -z/--timecond (and not a file name). Disabling time condition. See curl_getdate(3) for valid date syntax.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0371 *fname:lineno*: **warning: '***option***'** *reason*

Explanation: This message indicates that cURL detects errors in a user defined configuration file (e.g. ".curlrc") for connections. It will print out the file's name, line number, option name and failure reason associated with the error.

fname
    the user defined configuration file name

lineno
    line number of error occured

option
    option name that has error

reason
    reason of error

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should correct the error in the user defined configuration file according to the message indication.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0371 .curlrc:20: warning: '--proxy' requires parameter

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0372 **Failed to create the file** *fname*

Explanation: This message indicates that when the "-o/--output <file>" or "-O/--remote-name" options are used to request that cURL store the data being retrieved from the server to a file, that the data could not be written to the file. This is most likely due to the user not having enough disk space to store all of the data.

fname
    file name to store the connection output

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the user has proper permission to write the file in directory. The user can check if the local disk space is full. This may require assistance from your system's administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0372 Failed to create the file illegal-wrinte

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0373 **Failed to open** *fname* **to write libcurl code!**

Explanation: This message indicates that cURL cannot open a local file specified by the option "--libcurl file" to write output into it.

fname
    file name to store the output

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the user has proper permission to write the file in directory. The user can check if the local disk space is full. This may require assistance from your system's administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0373 Failed to open cannot-write to write libcurl code!

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0374   bad output glob!

Explanation: This message indicates that the user-specified glob pattern(s) is not formatted correctly. The characters within the "[]" or "{}" must identify a valid set, a numeric range, or an alphabet range. A valid set glob pattern example is "curl -T "{file1,file2}" http://www.uploadtothissite.com". A numeric range glob pattern example is "curl -T "img[1-1000].png" ftp://ftp.picturemania.com/upload/".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give a valid type of glob pattern for "[]" or "{}" by input either a set, a numeric range or a alphabet range.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0374 bad output glob!"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0375   Transient problem: *error_msg* **Will retry in** *num1* **seconds.** *num2* **retries left.**

Explanation: This message indicates that cURL detected the transient error (a problem which appears to be temporary) identified by *error_msg*. cURL will retry the operation within the number of seconds shown and will attempt for the number of retries shown before giving up.

error_msg
    the transient failure reason: timeout, HTTP error, FTP error

num1
    number of seconds for retry delay duration

num2
    number of retries left

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the user has input the correct URL, provide the correct user name or password and the network connection is good. The user should verify the correctness and completion of every parameter in the input. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0375 Transient problem: timeout Will retry in 3 seconds. 5 retries left."

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0376   internal error: invalid pattern type (*num***)**

Explanation: This message indicates that the user has specified a glob pattern that is neither a set of "{name1, name2, ...}" , nor a range of "[start-end]".

num
    a cURL internal number representing the glob pattern type

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give a correct glob pattern that is either a set of "{name1, name2, ...}" or a range of "[start-end]" for cURL.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0376 internal error: invalid pattern type (27)"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0377   unmatched brace at pos *num*

Explanation: This message indicates that when the user is using cURL to handle multiple sets of documents or sites with a glob pattern of "{name1, name2, ...}" cURL has detected the pattern is written with an opening "{" but without a closing "}".

num
>   the position number to flag where the "}" is missing

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should provide the correct glob pattern for a set that is started with "{" and ended with "}".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0377 unmatched brace at pos 27

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0378   nested braces not supported at pos *num*

Explanation: This message indicates that when the user is using cURL to handle multiple sets of documents or sites with a glob pattern such as "{name1, name2,...}" cURL detects there are nested braces like "{}" or "[]" within the pattern.

num
>   the position number to flag where the first nested braces are

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give a correct glob pattern that has no nested braces within the pattern.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0378 nested braces not supported at pos 27"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0379   illegal pattern at pos *num*

Explanation: This message indicates that when the user is using cURL to handle multiple sets of documents or sites with a glob pattern such as "{name1, name2}", that cURL has detected braces in the pattern written like "{name1, name2]".

num
>   the position number where the user input "]"

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give a correct glob pattern for a valid set that is started with "{" and ended with "}".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0379 illegal pattern at pos 27

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0380   errpr: bad range specification after pos *pos_num*

Explanation: This message indicates that when the user specifies a range using alphabetical characters (instead of numbers), the range is specified incorrectly. For example, the character identifying the beginning of the range normally appears in alphabetical order after the character identifying the end of the range (ex: "[b-a]"). Another example is that a non-alphabetical character is used (ex: "[a-$]").

pos_num
>   the position of user input bad character

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: The user should give a correct character range format.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0380 errpr: bad range specification after pos 27"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0381   error: unsupported character (*char*) after range at pos *pos_num*\n

Explanation: This message indicates that non-alphabetic characters were used when specifying a range index however, the range was not terminated using an ":" or "]". For example, a series of files can be downloaded using the command "curl ftp://ftp.numericals.com/file[a-z].txt". If the range is specified incorrectly such as "file[a-z%.txt", cURL will display this message.

char
    bad character for range format

pos_num
    the position number where the user inputs bad character

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should input a correct range format and use "]" or ":number]" after the alphabet range.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0381 error: unsupported character (%) after range at pos 27

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0382   error: bad range specification after pos: *pos_num*

Explanation: This message indicates that an incorrect character or format was used when specifying the range for a file name. The value of *pos_num* identifies the position of the first incorrect character. For example, a series of files can be downloaded using the command "curl ftp://ftp.numericals.com/file[1-100].txt". If the range format is specified such as "file[1-sss].txt", cURL will display this message.

pos_num
    the position number to flag where the user input bad character

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give the correct range format for cURL connection request.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0382 error: bad range specification after pos 27

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0383   illegal character in range specification at pos *pos_num*

Explanation: This message indicates that an incorrect character or format was used when specifying the range for a file name. The value of *pos_num* identifies the position of the first incorrect character. For example, a series of files can be downloaded using the command "curl ftp://ftp.numericals.com/file[1-100].txt". If the range format is specified such as "file[%].txt", cURL will display this message.

pos_num
    a number identifying the position of the first incorrect character

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give the correct range format for cURL connection request..

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0383 illegal character in range specification at pos 27

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0384   missing ']'

Explanation: This message indicates that the file-name range specified does not end with a "]". For example, the following range is specified correctly: "http://www.letters.com/file[a-z:2.txt]", however, the following is incorrect and will cause this message to be displayed: "http://www.letters.com/file[a-z:2.txt".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give the correct range format for cURL connection request..

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0384 missing ']'"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0385   curl: unknown --write-out variable: '*name*'

Explanation: This message indicates that cURL detects one unsupported variable name for option "-w" or "--write-out" that is used to print out the information associated with connections. cURL supports the following variables for "-w" or "--write-out" option: "%{url_effective}", "%{http_code}", "%{http_connect}", "%{time_total}", "%{time_namelookup}", "%{time_connect}", "%{time_pretransfer}", "%{time_starttransfer}", "%{size_header}", "%{size_request}", "%{size_download}", "%{size_upload}", "%{speed_download}",

"%{speed_upload}", "%{content_type}", "%{num_connects}", "%{time_redirect}", "%{num_redirects}", "%{ftp_entry_path}".

name
　　the illegal write-out variable name

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should select an acceptable write-out variable for option "-w" or "--write-out".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0385 curl: unknown --write-out variable: 'illegal-none-param'

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0386   error initializing curl library

Explanation: This is an internal error. cURL cannot initialize its dependent libraries at the start of command execution.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0386 error initializing curl library

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0387   **option** *opt_name***:** *hints*

Explanation: This message indicates that there was a problem with the way the option *opt_name* was specified. *hints* will indicate one of the following problems:

"had unsupported trailing garbage"

"is unknown"

"is ambiguous"

"requires parameter"

"is badly used here"

"expected a proper numerical parameter"

"the installed libcurl version doesn't support this"

"out of memory"

"unknown error"

opt_name
   the option that was not specified correctly

hints
   cURL help information about the parameter

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the help provided by the command "curl --help" or refer to Chapter 5, "cURL command reference," on page 41 for more information on how to specify this option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0387 option -o: require parameter"

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0388   **no URL specified!**

Explanation: This message indicates that the user did not specify a URL on the cURL command.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure to specify a URL. If a URL

was specified, make sure that the URL is specified in the correct position.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0388 no URL specified!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0389   **Remote file name has no length!**

Explanation: This message indicates that the user requested a file, however, the URL specified for the filename did not result in a file being returned. This is most likely because the URL does not explicitly name a file.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Correct the URL to explicitly specify a filename.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0389 Remote file name has no length!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0390   **Can't open '***fname***'!**

Explanation: This message indicates that cURL is unable to open the specified file on the local host during downloading or uploading.

fname
   file name on local host

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the user has the proper privilege to access the file on the local host. This may require assistance from your system's administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0390 Can't open 'no-such-file'!

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0391   Couldn't bind to '*dest*'

Explanation: This message indicates that cURL fails to bind to a network interface, an IP address or a host name input by the user.

dest
    a network interface, an IP address or a host name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify the given destination is valid or reachable, and has the proper privilege to bind to it. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0391 Couldn't bind to 'eth123'

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0392   tftp_rx: internal error

Explanation: This message indicates that cURL fails without a specified reason during the course of receiving data from a remote server via TFTP connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System

Programmer response is required.

User response: The user should verify her/his network is operating correctly. This may require assistance from your system's network administrator. This may be a transient problem and it may be helpful to re-run the cURL command. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0392 tftp_rx: internal error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0393   tftp_tx: internal error

Explanation: This message indicates that cURL fails without a specified reason during the course of sending data to a remote server via TFTP connection.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify her/his network is operating correctly. This may require assistance from your system's network administrator. This may be a transient problem and it may be helpful to re-run the cURL command. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0393 tftp_tx: internal error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0394   Internal state machine error

Explanation: This is an internal error. cURL encounters an unknown state in the processing of the internal program for TFTP connections.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0394 Internal state machine error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0395   Internal error: Unexpected packet

Explanation: This message indicates that during a cURL TFTP transfer of data with a remote server, an unexpected packet type was received.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0395 Internal error: Unexpected packet

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0396   Connected for transmit

Explanation: This is an informational message and indicates that the cURL the remote server. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message. No action is required. To suppress this message, the user should remove "-v" or "--verbose" option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0396 Connected for transmit

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0397   Connected for receive

Explanation: This is an informational message and indicates that the cURL TFTP connection is ready for receiving data from the remote server. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message. No action is required. To suppress this message, the user should remove "-v" or "--verbose".

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0397 Connected for receive

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0398   TFTP finished

Explanation: This is an informational message and indicates that the cURL TFTP data transfer has been finished. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is an informational message. No action is required. To suppress this message, the user should remove "-v" or "--verbose" option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0398 TFTP finished

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0399   *error_msg*

Explanation: This message is an additional message from the LE or Runtime environment which provides more detailed information regarding the connection failure reported by the cURL message which precedes or follows this message.

error_msg
    Additional error message from the Language Environment or C runtime

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0399 EDC6105 Not a socket. The file descriptor does not refer to a socket.

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0400   *error_msg*

Explanation: This message indicates that there a fatal error occurred in the SSL connection certification verification failure. The content of this message will be generated dynamically at the run-time of cURL SSL connections.

error_msg
    The dynamically generated error message

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Note: It might be some security issue for the connected remote server. This may require assistance from your system's network administrator. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0400 Unknown certification issuer: Wrong-Issuer

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0401   *passwd*

Explanation: This is an informational message and indicates the password which the user is using to create a PEM certificate with encryption format.

passwd
    the password used to create an encrypted PEM certificate

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0401 123pAssw0rd

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0402 *error_msg*

Explanation: This message is an additional message from the LE or Runtime environment which provides more detailed information regarding the connection failure reported by the cURL message which precedes or follows this message.

error_msg
    Additional error message from the Language Environment or C runtime

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. Refer to the additional error message from the Language Environment or C Runtime environment for more specific details on the cause of the problem. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0402 Unknown Error: EACB15

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0403   More details here...

Explanation: This message indicates that an error occurred during SSL certification. The complete message and explanation is:

More details here http://curl.haxx.se/docs/sslcerts.html. curl performs SSL certificate verification by default, using a "bundle" of Certificate Authority (CA) public keys (CA certs). The default bundle is named curl-ca-bundle.crt; you can specify an alternate file using the --cacert option. If this HTTPS server uses a certificate signed by a CA represented in the bundle, the certificate verification probably failed due to a problem with the certificate (it might be expired, or the name might not match the domain name in the URL). If you'd like to turn off curl's verification of the certificate, use the -k (or --insecure) option.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host.Note: It might be some security issue for the connected remote server. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0403 More details here...

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0404   no error

Explanation: This is an informational message and indicates that the current cURL operation has completed successfully without any error. This message is only displayed when "-v" or "--verbose" option is specified.

System action: Displays the message and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This does not indicate an error. No user response is required. To suppress this informational message, the user should remove "-v" or "--verbose" options.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0404 no error

Source: cURL

Routing code: Not applicable.

Descriptor code: N- An informational notice. Could be an error or could be normal behavior.

Automation: Not applicable.

HPUC0405   unsupported protocol

Explanation: This message indicates that has specified an unsupported protocol. The supported protocols are:

   tftp
   ftp
   telnet
   dict
   ldap
   http
   https
   file
   ftp
   ftp-ssl

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should use option "-V" to check what protocols are supported by the current cURL release. The user should choose one to do the data transfer from the supported list.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0405 unsupported protocol

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0406   failed init

Explanation: This is an internal error. cURL cannot initialize its dependent libraries at the start of command execution. The libraries should have been built and linked with cURL tool by IBM before release.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0406 failed init

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0407   URL using bad/illegal format or missing URL

Explanation: This message indicates that the user did not input a URL or the input URL is in an illegal format for cURL connections.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should give a correct and reachable URL for data transfer by using cURL.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0407 URL using bad/illegal format or missing URL

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0408   couldn't resolve proxy name

Explanation: This message indicates that cURL failed to resolve the user-specified proxy server's name. The most possible failure reasons are the server's name is wrongly composed or the user's local DNS server is unavailable.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the proxy server's name is correct and it is reachable in the user's networking environment. The user might re-run the cURL command line in case that there is any temporary unavailability in your network or local host. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0408 couldn't resolve proxy name

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0409   couldn't resolve host name

Explanation: This message indicates that cURL failed to resolve the user-specified host's name. The most possible failure reasons are the host's name is wrongly composed or the user's local DNS server is unavailable.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the host's name is correct and it is reachable in the user's networking environment. The user might re-run the cURL command line in case that there is any temporary unavailability in your network or local host. If the problem persists, the user should consult their system administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0409 couldn't resolve host name

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0410   couldn't connect to server

Explanation: This message indicates that cURL fails to connect with a remote server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify if the given server's address is valid or reachable. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0410 couldn't connect to server

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0411   FTP: weird server reply

Explanation: This message indicates that cURL received an unknown return code from a remote FTP server during an FTP data transfer.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the FTP connection request was specified correctly. Also the user should verify that the network is operating correctly. This may require assistance from your system's network administrator. The user may use the "ftp" command line to do the same FTP data operation with the same remote FTP server. If this is a remote server error, the use does not need to take any action for cURL. If "ftp" command line can perform the same operation as cURL does but without any error, follow your local procedures for

reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0411 FTP: weird server reply

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0412   FTP: access denied

Explanation: This message indicates that the user has no permission to access a file or a directory on the remote FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the user has the proper permission to access the data on the remote FTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0412 FTP: access denied

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0413   FTP: unknown PASS reply

Explanation: This message always follows message "HPUC0064 ACCT rejected by server". It indicates that the remote FTP server did not reply to the ACCT command with the expected PASS response.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the remote FTP server supports the ACCT command, that the user inputs the correct account, and that the FTP server is functioning correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0413 FTP: unknown PASS reply

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0415   FTP: unknown PASV reply

Explanation: This message indicates that cURL received an incorrectly formatted PASV/EPSV response while using the 'Passive Mode'. Or cURL expected to receive a 227 or 229 PASV/EPSV response code, but another code was received instead. This may indicate that the FTP server does not support PASV/EPSV mode.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the the FTP server support PASV/EPSV mode and that the FTP server is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0415 FTP: unknown PASV reply

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0416   FTP: unknown 227 response format

Explanation: This indicates that cURL expected to receive a 227 PASV response code, but another code was received instead. This may be because the FTP server does not support PASV mode.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the FTP server is valid and it supports PASV mode. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0416 FTP: unknown 227 response format

Source: cURL

Routing code: Not applicable.

Descriptor code:

Automation: Not applicable.

HPUC0417   FTP: can't figure out the host in the PASV response

Explanation: This message indicates that cURL failed to extract the remote server's IP address from the response of the PASV request.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not an error with cURL but with the network or remote server. The user might re-run the cURL command line in case this is due to a temporary problem. If the problem persists, consult the remote server's administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0417 FTP: can't figure out the host in the PASV response

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0419   FTP: couldn't set binary mode

Explanation: This message indicates that the remote server refused a request from cURL to set the FTP data transfer mode to binary.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that this response is expected from the remote FTP server. This may be done by contacting the remote server's administrator or by attempting the same FTP operation using the ftp command (or any ftp client) from outside the cURL command.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0419 FTP: couldn't set binary mode

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0420   Transferred a partial file

Explanation: This message indicates that a data transfer to or from a remote server was not entirely completed. An additional message will be displayed with this message which provides more details on this problem.

System action: Displays the warning and continues processing.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the description of the additional message displayed for more information on the cause and possible solutions to this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0420 Transferred a partial file

Source: cURL

Routing code: Not applicable.

Descriptor code: W- A warning (cURL continues).

Automation: Not applicable.

HPUC0421   FTP: couldn't retrieve (RETR failed) the specified file

Explanation: This message indicates that the remote file or directory specifed on the cURL command does not exist on the remote server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the specified file or directory was typed correctly and that it exists on the remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0421 FTP: couldn't retrieve (RETR failed) the specified file

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0423   FTP: a quote command returned error

Explanation: The quote command specified using the -Q or --quote option failed on the remote FTP server. This may be because the quote statement (QUOT) is not supported on the remote FTP server or because the specified command is not valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the the FTP server supports QUOT command and the specified command is valid. The user should find the additional response code in this message, this may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0423 FTP: a quote command returned error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0424   HTTP response code said error

Explanation: This message indicates that cURL received an error return code in while communicating with the HTTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult the remote HTTP server's administrator to verify their network and system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0424 HTTP response code said error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0425   failed writing received data to disk/application

Explanation: This message indicates that cURL failed to write out the received data into a local file or the local standard output device (stdout).

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the user under which the cURL command is being run has the proper permission to write into a local file and device. Also, verify that the file-system has enough available space to write the file. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0425 failed writing received data to disk/application

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0426   failed FTP upload (the STOR command)

Explanation: This message indicates that cURL failed to upload a local file to the remote FTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the user under which the cURL command has logged onto the remote FTP server has the proper permission to create and write the file on the remote FTP server and that the remote server has enough space for writing the file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0426 failed FTP upload (the STOR command)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0427   failed to open/read local data from file/application

Explanation: This message indicates that cURL failed to open a local file or a local standard input device (stdin) to read data.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the user has the proper permission to open or read the local file and that the local file is not empty or that the application has generated data.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0427 failed to open/read local data from file/application

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0428   conversion failed -or- out of memory

Explanation: This message indicates that cURL failed to allocate enough memory for execution on local system.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: It may help to close one or more running applications or programs in the system in order to free more memory for cURL. Then the user can re-run the cURL command line. If the problem persists, the user should consult their system administrator to verify their environment has sufficient memory allocation. If there appears to be no memory problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0428 conversion failed -or- out of memory

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0429   a timeout was reached

Explanation: This message indicates that a timeout occurred before cURL could complete the requested operation. An additional message will be displayed with this message which provides more details on this problem.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the description of the additional message for more specific information on the cause of the timeout. The user can increase the time-out value with the option "--connect-timeout". Also, verify

that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0429 a timeout was reached

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0431   FTP command PORT failed

Explanation: This message indicates that the remote FTP server returns an error code in response to a PORT command from cURL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that this response is expected from the remote FTP server. This may be done by contacting the remote server's administrator or by attempting the same FTP operation using the ftp command (or any ftp client) from outside the cURL command.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0431 FTP command PORT failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0432   FTP command REST failed

Explanation: This message indicates that the remote FTP server returned an error code in response to a REST command from cURL. An additional message will be displayed with this message which provides more details on this problem.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the description of the additional message for more specific information. Also, verify that this response is expected from the remote FTP server. This may be done by contacting the remote server's administrator or by attempting the same FTP operation using the ftp command (or any ftp client) from outside the cURL command.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0432 FTP command REST failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0434   a range was requested but the server did not deliver it

Explanation: This message indicates that the remote HTTP server does not support the data range request input by cURL option "-r" or "--range". An additional message will be displayed with this message which provides more details on this problem.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Refer to the description of the additional message displayed for more information on the cause and possible solutions to this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0434 a range was requested but the server did not deliver it

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0435   internal problem setting up the POST

Explanation: This is an internal error. cURL was unable to construct the internal data structure from the user's input and post it to a remote HTTP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0435 internal problem setting up the POST

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0436   SSL connect error

Explanation: This message indicates that a cURL SSL connection attempt failed. An additional message will be displayed by cURL which provides a more specific reason for the failure.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This problem is most likely due to an incorrect URL, certificate, or key. Refer to the description of the additional message displayed for more specific information on resolving this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0436 SSL connect error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0437   couldn't resume download

Explanation: This message indicates that cURL failed attempting to resume downloading from the remote server as requested using the "-c" or "--continue-at".

This may be because the wrong range value was specified or because the remote server does not support range request.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure the input range data is valid for the resume downloading. If it is not an error caused by cURL, make sure the remote server support the function of resume downloading in network data transfer.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0437 couldn't resume download

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0438   couldn't read a file:// file

Explanation: This message indicates that cURL failed to read a file either on the local system or on a remoter server (mounted by NFS) with "file://" protocol.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the file exists and that the user has the proper permission to access this file and that the file is not damaged. The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0438 couldn't read a file:// file

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0439   LDAP: cannot bind

Explanation: The attempted connection to the LDAP server failed. This may be because cURL cannot parse the specified URL or cURL cannot bind to the LDAP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the specified LDAP URL conforms to the following LDAP URL protocol:

    ldap://[hostname]:[hostport]/[dn ["?" [attributes]
    ["?" [scope] ["?" [filter] "?" extensions]]]]]]

For more information, refer to the LDAP URL format as defined by Network Working Group RFC (Request for Comment) 2255.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0439 LDAP: cannot bind

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0440   LDAP: search failed

Explanation: The attempted connection to the LDAP server failed because the specified URL did not contain the required "search filter" instruction.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the specified LDAP URL conforms to the following LDAP URL protocol:

    ldap://[hostname]:[hostport]/[dn ["?" [attributes]
    ["?" [scope] ["?" [filter] "?" extensions]]]]]]

For more information, refer to the LDAP URL format as defined by Network Working Group RFC (Request for Comment) 2255.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0440 LDAP: search failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0443   the operation was aborted by an application callback

Explanation: This message indicates that an error occurred during an attempt to transfer the specified file to the target URL. The most common reason is that the user has no permission to read the file or the file is damaged. A less common reason would be due to an internal error in cURL that cannot be corrected by the user.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the file being transferred is not damaged and that you have the authority to read the file. Then retry the cURL command. If this does not fix the problem, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0443 the operation was aborted by an application callback

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0444   a libcurl function was given a bad argument

Explanation: This is an internal error, an invalid argument was passed to one of cURL's internal functions.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. It should be reported to IBM following their local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0444 a libcurl function was given a bad argument

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0445   failed binding local connection end

Explanation: cURL cannot bind to the specified network interface, IP address or host name. This can be caused by a few reasons, for example, the user does not have appropriate privilege to bind the interface, or cURL fails to bind an IP address due to the IP being not reachable.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify if the specified destination to be binded is valid or reachable. Verify that your network is operating correctly. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0445 failed binding local connection end

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0446   number of redirects hit maximum amount

Explanation: This message indicates that the redirection-followings of the current HTTP connection has exceeded the maximum number of allowed redirection-followings. The maximum allowed is set by default to 50 unless it has been overridden by the use of the '--max-redirs' option.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user may choose to increase the maximum number of allowed redirect-followings using the "--max-redirs" option. Note, however, that this limit is set to prevent unnecessary and possibly non-terminating processing in situations where the number of redirects is extremely high or limitless, so it is adviseable to increase the number in small increments.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0446 number of redirects hit maximum amount

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0447   User specified an unknown option

Explanation: This message indicates that an unsupported option was specified for the TELNET protocol. cURL only accepts "TTYPE", "XDISPLOC" and "NEW_ENV" as its options for the TELNET protocol in the current release. (7.16.1)

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Use one of the cURL TELNET options ("TTYPE", "XDISPLOC" and "NEW_ENV") in the cURL command line.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0447 User specified an unknown option

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0448 Malformed telnet option

Explanation: This message indicates that the user has not correctly specified a TELNET option in the format of "option=value" or "option value".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should specify the supported cURL TELNET option ("TTYPE", "XDISPLOC" or "NEW_ENV") and the corresponding value using the format of "option=value" or "option value" in the cURL command line.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0448 Malformed telnet option

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0449 SSL peer certificate was not ok

Explanation: This message indicates that cURL failed to get the remote SSL server's certificate. This may be because cURL cannot receive the certificate sent by the remote SSL server, or the received certificate sent by the server is not valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should not take any action for this message because the error occurred on the remote server side. The user can use cURL's option "-k" to ignore this error and continue the processing. Note: user's caution is advised because this message indicates

there might be some security issue for the connected remote server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0449 SSL peer certificate was not ok

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0450 server returned nothing (no headers , no data)

Explanation: This message is displayed when cURL has closed the current transfer and has not received a response from the HTTP server and the user had not specified that cURL retry the transfer using --retry option. This could be due to the network not functioning correctly or the HTTP server not being valid.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the network is functioning correctly and the HTTP server is correct. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0450 server returned nothing (no headers , no data)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0454 failed sending data to the peer

Explanation: This message indicates that cURL failed to send data to the remote server. This may be because the network is not functioning correctly.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0454 failed sending data to the peer

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0455   failure when receiving data from the peer

Explanation: This message indicates that cURL failed to receive data from the remote server. This may be because the network is not functioning correctly.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure the the network is functioning correctly. If the problem persists, the user may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0455 failure when receiving data from the peer

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0457   problem with the local SSL certificate

Explanation: This message indicates that cURL failed to use the specified local SSL certificate. This may be because this certificate file is not valid or the certificate's type is unsupported. cURL supports the following certificate's types for SSL connections:

  PEM

  DER

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specified local SSL certificate is valid and a supported certificate's type is specified when attempting an SSL connection.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0457 problem with the local SSL certificate

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0458   couldn't use specified SSL cipher

Explanation: This message indicates that cURL fails to set the cipher list for the user's "curl" command line SSL connection request. The cipher list can be cURL's default setting or given by the user's input with option "--ciphers".

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: If the ciphers are given by user's input, the user needs to provide the correct cipher. If the failure is caused by cURL's default cipher, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0458 couldn't use specified SSL cipher

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0459   peer certificate cannot be authenticated with known CA certificates

Explanation: This message indicates that cURL failed to verify the remote Certificates Authorization (CA) files from the designed location set by cURL's default or by the user's input file path, or both.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure that the remote Certificates Authorization files is valid. The user can get help from their system's network administrator to put the correct CA files into designated directories.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0459 peer certificate cannot be authenticated with known CA certificates

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0460   problem with the SSL CA cert (path? access rights?)

Explanation: This message indicates that cURL failed to get the Certificates Authorization (CA) files from the designed location set by cURL's default or by the user's input file path, or both.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure that the Certificates Authorization files are put in the directories printed after "CAfile" and "CApath". The user can get help from their system's network administrator to put the correct CA files into designated directories.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0460 problem with the SSL CA cert (path? access rights?)

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0461   Unrecognized HTTP Content-Encoding

Explanation: This message indicates that the content received from the remote HTTP server has an encoding type that is not supported by cURL. cURL supports the following content encoding types for HTTP content:

identity

deflate

gzip

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Content of this encoding type cannot be received using cURL. You may wish to contact the owner of the content to request that the data be offered using an encoding type supported by cURL or you may want to use another http client (such as a web-browser) that supports that encoding type.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0461 Unrecognized HTTP Content-Encoding

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0462   Invalid LDAP URL

Explanation: The attempted connection to the LDAP server failed. This may be because cURL cannot parse the specified URL or cURL cannot bind to the LDAP server.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should verify that the specified LDAP URL conforms to the following LDAP URL protocol:

ldap://[hostname]:[hostport]/[dn ["?" [attributes]
["?" [scope] ["?" [filter] "?" extensions]]]]]]

For more information, refer to the LDAP URL format as
defined by Network Working Group RFC (Request for
Comment) 2255.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0462 Invalid LDAP URL

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits
immediately).

Automation: Not applicable.

HPUC0463   Maximum file size exceeded

Explanation: The current size of the requested file is
bigger than the size specified on the '--max-filesize'
option.

System action: cURL immediately stops processing
and exits.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: The user should set a larger limit
using '--max-filesize' option.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0463 Maximum file size exceeded

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits
immediately).

Automation: Not applicable.

HPUC0464   Requested FTP SSL level failed

Explanation: This message indicates that cURL was
unable to authenticate to the FTPS server using the
protocol specified by the '--ftp-ssl-reqd' or
'--ftp-ssl-control' options. This indicates that the remote
FTPS server does not support the SSL/TLS protocol.

System action: cURL immediately stops processing
and exits.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: Verify that the remote FTPS server
does not support the SSL/TLS protocol. If not, the
'--ftp-ssl-reqd' or '--ftp-ssl-control' options cannot be
used for connections with this server. You may require
assistance from the network administrator of the
remote server to verify it's configuration and that it is
operating correctly.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0464 Requested FTP SSL level failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits
immediately).

Automation: Not applicable.

HPUC0465   Failed to shut down the SSL connection

Explanation: This message indicates that cURL failed
to shut down the SSL connection. More specifically, this
means that the call to the select() function failed in the
Curl_select() function. This may be because the
network or the remote SSL server is not functioning
correctly.

System action: cURL immediately stops processing
and exits.

Operator response: No System Operator response is
required.

System programmer response: No System
Programmer response is required.

User response: The user should verify that the
network is functioning correctly and the remote SSL
server is functioning correctly. If the problem persists,
the user may require assistance from your system's
network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0465 Failed to shut down the SSL
connection

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits
immediately).

Automation: Not applicable.

**HPUC0466   Send failed since rewinding of the data
stream failed**

Explanation: This message indicates that cURL cannot
rewind the reading of data stream in a network
transfer.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host. If the problem persists, the user should consult their system administrator to verify their network and system environment. If there appears to be no local system problems, follow your local procedures for reporting this problem to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0466 Send failed since rewinding of the data stream failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0467   FTP: login denied

Explanation: This message indicates that the specified user cannot logon onto the FTP server. This may be because that the specified user is not valid or the password is wrong, or if the remote FTP server requires account data to be provided in addition to the user name and password, no account data was provided to cURL.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the user name is valid and the password is right or the user should set the account correctly by using the '--ftp-account' option. This may require assistance from your system's network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0467 FTP: login denied

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0468   TFTP: File Not Found

Explanation: This message indicates that the remote TFTP server returned a response to cURL indicating that the requested file could not be found. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the name of the requested file was typed correctly and that it exists on the remote TFTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0468 TFTP: File Not Found

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0469   TFTP: Access Violation

Explanation: This message indicates that the user does not have the appropriate permissions to the remote file on TFTP server. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should make sure that you have appropriate access to the specified file on TFTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0469 TFTP: Access Violation

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0470 TFTP: Disk full or allocation exceeded

Explanation: This message indicates that a file transfer to the remote TFTP server failed because the remote server's disk is full or cannot allocate sufficient disk space. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the remote TFTP server's disk is full and, if possible, free enough disk space to store the file being transfered. The user may require assistance from the TFTP server's administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0470 TFTP: Disk full or allocation exceeded

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0471 TFTP: Illegal operation

Explanation: This message indicates that the requested operation with the remote TFTP server failed because the remote server returned a response indicating that an illegal operation had been requested. This may be due to a temporary network problem or that the remote TFTP server is at a different service level and does not recognize the request. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary

unavailability in your network or remote host. If this is not successful, contact the remote server's administrator to verify that the requested operation is supported.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0471 TFTP: Illegal operation

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0472 TFTP: Unknown transfer ID

Explanation: This message indicates that the requested operation with the remote TFTP server failed because the remote server returned a response indicating that it had received a block of data associated with an unexpected transfer ID. This may be due to a temporary network error which causing some of the data being transfered to be corrupted. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user might re-run the cURL command line in case that there is any temporary unavailability in your network or remote host.If the problem persists, the user should consult their system administrator to verify the network.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0472 TFTP: Unknown transfer ID

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0473 TFTP: File already exists

Explanation: This message indicates that the file transfer to the remote TFTP server has failed because the specified file already exists on the remote server. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group

RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The TFTP protocol does not provide options for replacing, renaming, or deleting existing files. If you wish to transfer this file, you must rename the file being transfered or contact the administrator of the remote TFTP server to remove or rename the existing file.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0473 TFTP: File already exists

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0474   TFTP: No such user

Explanation: This message indicates that the user is not defined on the remote TFTP server. For more information, refer to the TFTP Protocol (Revision 2) as defined by Network Working Group RFC (Request for Comment) 783.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Make sure that the specific user is defined on the TFTP server.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0474 TFTP: No such user

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0475   conversion failed

Explanation: This is an internal error. It indicates that a failure occurred during the byte sequence conversion between code sets.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: This is not a problem that can be corrected by the user. Follow your local procedures for reporting problems to IBM.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0475 conversion failed

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0479   fldata() fails to open the given file

Explanation: This message indicates that the file specified to be transfered could not be processed because of a failure performing the system function fldata() against the file. This may be because the user does not have the appropriate permissions to the file or the file is not a regular file. This may be because the user does not have the appropriate permissions to the file or the file is not a regular file.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the file is a regular file and that you have read access to it. If you are not the owner of the file, you will need to contact the owner or your system administrator to correct this problem.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0479 fldata() fails to open the given file

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0480 **The input file "***MVS_data_set_name***" is an MVS file and not supported**

Explanation: cURL does not support MVS data sets as the target or source for file transfers.

MVS_data_set_name
    MVS data set name

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Transfer to or from an MVS data set cannot be performed through cURL. First, transfer the file to or from an HFS file and then use a support z/OS UNIX utility to move the file to or from an MVS dataset. Refer to "Handling MVS data sets" section for more information.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0480 The input file "MVS.TEMP.LOCAL"is an MVS file and not supported

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0481 **Fails to transform date and time with gmtime()**

Explanation: This message indicates that the date and time specified by the user with the "-z" or "--time-cond" option or the date and time associated with a local file's properties is in an invalid format. More specifically, it is not recognized by the gmtime() system function. The gmtime() function is used to convert a date and time into a "Coordinated Universal Time" (UTC) format which can then be used by cURL for internal processing.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should specify a time data in

correct format for option "-z" or "--time-cond". If there appears to be no user input problems, the user should consult their system administrator to verify their system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0481 Fails to transform date and time with gmtime()

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0482 **gmtime() returns NULL pointer for error**

Explanation: This message indicates that the date and time specified by the user with the "-z" or "--time-cond" option or the date and time associated with a local file's properties is in an invalid format. More specifically, it is not recognized by the gmtime() system function. The gmtime() function is used to convert a date and time into a "Coordinated Universal Time" (UTC) format which can then be used by cURL for internal processing.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: The user should specify a time data in correct format for option "-z" or "--time-cond". If there appears to be no user input problems, the user should consult their system administrator to verify their system environment.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0482 gmtime() returns NULL pointer for error

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0483   SOCKS5 proxy user name too long

Explanation: This message indicates that the SOCKS5 proxy user name is longer than 255 characters.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the SOCKS5 server is functioning correctly and the user has specified the correct proxy user name. If the problem persists, the user may require assistance from your systems network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0483 SOCKS5 proxy user name too long.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

HPUC0484   SOCKS5 proxy password too long.

Explanation: This message indicates that the SOCKS5 proxy password is longer than 255 characters.

System action: cURL immediately stops processing and exits.

Operator response: No System Operator response is required.

System programmer response: No System Programmer response is required.

User response: Verify that the SOCKS5 server is functioning correctly and the user has specified the correct proxy password. If the problem persists, the user may require assistance from your systems network administrator.

Problem determination: No additional information.

Module: Not applicable.

Example: HPUC0484 SOCKS5 proxy password too long.

Source: cURL

Routing code: Not applicable.

Descriptor code: F- A fatal error (cURL exits immediately).

Automation: Not applicable.

Chapter 7. sudo command reference

This chapter describes the package of sudo utilities:

sudo, sudoedit
> Command used to execute a command as another user.

sudoers
> The main configuration file used by the sudo utilities.

visudo
> Command used by the sudo administrator to edit a `sudoers` file.

Messages sent by the above commands are documented in Chapter 8, "sudo messages," on page 247.

sudo for z/OS is supported on z/OS 1.10 and later. sudo for z/OS does not support MVS data sets.

Differences between the z/OS version and the open source version of sudo

There are important differences between the z/OS version and the open source version of sudo. The list below presents these differences.

1. Default sudoers option value differences
   - *ignore_dot* - The z/OS default value is "on". The open source default value is "off".
   - *mailto* - The z/OS default value is "BPXROOT". The open source default value is "root".
   - *path_info* - The z/OS default value is "off". The open source default value is "on".
   - *runas_default* - The z/OS default value is "BPXROOT". The open source default value is "root".
2. Unsupported functionality on z/OS
   a. sudo options
      - -A askpass
      - -a type
      - -c class
      - -r role
      - -t type
   b. sudoers options
      - askpass
      - ignore_local_sudoers
      - insults
      - long_otp_prompt
      - noexec
      - noexec_file
      - passprompt_override
      - pwfeedback

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- role
- rootpw
- stay_setuid
- sudoers_locale
- type
- use_loginclass
- visiblepw

c. sudoers specifications
- netgroup
- nonunixgroup
- NOEXEC/EXEC

Discussion list

Users of **sudo**, **sudoedit** and **visudo**, discuss sudo issues and questions on the sudo-users mailinglist. This list is not operated or sponsored by IBM.

To subscribe to the discussion or search the archives, see http://www.sudo.ws/mailman/listinfo/sudo-users.

sudo, sudoedit

Name

sudo, **sudoedit** - execute a command as another user

Synopsis

sudo -h | -K | -k | -L | -V

sudo -v [-AknS] [-a *auth_type*] [-p *prompt*]

sudo -l[l] [-AknS] [-a *auth_type*] [-g *groupname*|#*gid*] [-p *prompt*] [-U *username*] [-u *username*|#*uid*] [command]

sudo [-AbEHknPS] [-a *auth_type*] [-C *fd*] [-c *class*|-] [-g *groupname*|#*gid*] [-p *prompt*] [-r *role*] [-t *type*] [-u *username*|#*uid*] [VAR=value] [-i | -s] [command]

sudoedit (or sudo -e) [-AknS] [-a *auth_type*] [-C *fd*] [-c *class*|-] [-g *groupname*|#*gid*] [-p *prompt*][-u *username*|#*uid*] file ...

Description

sudo allows a permitted user to execute a command as a superuser (UID(0)) or another user, as specified in the sudoers file (see "sudoers" on page 220). The real and effective UID and GID are set to match those of the target user as specified in the user database and the group vector is initialized based on the group file (unless the **-P** option was specified). The MVS identity may also be changed to correspond to the target user. There are additional authority requirements unique to z/OS that must be met to change the MVS identity. See the sudoers **zos_set_mvs_identity** option for more information (see "sudoers" on page 220).

sudo requires that users authenticate themselves with a password by default.

Note: By default, this password is the invoking user's password, not the target user's password.

Once a user has been authenticated, a timestamp is updated and the user may then use **sudo** without a password for a period of time (5 minutes, by default, unless overridden in sudoers). Different password authentication settings, such as authenticating with the target user's password, or eliminating authentication entirely, are available by using different sudoers options. Additionally, if changing the MVS ID, password authentication may still be required, even if the user's timestamp has not yet expired. **sudo** can be run from OMVS (which is a 3270 session) when a password input is required. However, if **sudo** is run from a terminal that does not allow echo to be disabled, it will fail.

When invoked as **sudoedit**, the **-e** option is implied.

sudo determines who is an authorized user by consulting the file /etc/sudoers. The current MVS identity of the invoker is used when performing this verification. As a result, **sudo** requires the invoker's MVS identity to match the identity of the process. This is especially a consideration if you use nested **sudo** calls or if you call **sudo** from a shell that was started with **sudo**.

By running **sudo** with the **-v** option, a user can update their timeout timestamp without running a command. The password prompt itself will also time out if the user's password is not entered within 5 minutes (unless overridden by way of sudoers).

If a user who is not listed in the sudoers file tries to run a command by way of **sudo**, mail is sent to the proper authorities using **sendmail** or another mailer as specified in the sudoers file. The mail will not be sent if an unauthorized user tries to run **sudo** with the **-l** or **-v** option (unless the sudoers **mail_always** option is enabled). This allows users to determine for themselves whether or not they are allowed to use **sudo**.

If **sudo** is run by a UID(0) user and the SUDO_USER environment variable is set, **sudo** will use this value to determine who the actual user is when logging commands through **sudo** even when a UID(0) shell has been invoked. It also allows the **-e** option to remain useful, even when being run by way of a **sudo**-run script or command. However, the sudoers lookup is still done for the invoking user, not the user specified by SUDO_USER.

sudo can log both successful and unsuccessful attempts (as well as errors) to syslog, a log file, or both. By default, **sudo** will log by way of syslog, but this is changeable through the sudoers file.

Options

sudo accepts the following command line options:

-A   Not supported on z/OS. Normally, if **sudo** requires a password, it will read it from the current terminal. If the **-A** (askpass) option is specified, a (possibly graphical) helper program is executed to read the user's password and output the password to the standard output. If the SUDO_ASKPASS environment variable is set, it specifies the path to the helper program. Otherwise, the value specified by the askpass option in sudoers is used.

-a *auth_type*
      Not supported on z/OS. The **-a** (authentication type) option causes **sudo** to use

the specified authentication type when validating the user, as allowed by /etc/login.conf. The system administrator may specify a list of **sudo**-specific authentication methods by adding an "auth-sudo" entry in /etc/login.conf. This option is only available on systems that support BSD authentication.

-b The **-b** (background) option tells sudo to run the given command in the background.

  Note: If you use the **-b** option, you cannot use shell job control to manipulate the process.

-C *fd*
    Normally, **sudo** will close all open file descriptors other than standard input, standard output and standard error. The **-C** (close from) option allows the user to specify a starting point above the standard error descriptor. Values less than three are not permitted. This option is only available if the administrator has enabled the close from_override option in sudoers.

-c *class*
    Not supported on z/OS. The **-c** (class) option causes **sudo** to run the specified command with resources limited by the specified login class. The *class* argument can be either a class name as defined in /etc/login.conf, or a single '-' character. Specifying a *class* of - indicates that the command should be run restricted by the default login capabilities for the user the command is run as. If the *class* argument specifies an existing user class, the command must be run as UID(0), or the **sudo** command must be run from a shell that is already UID(0). This option is only available on systems with BSD login classes.

-E The **-E** (preserve environment) option will override the env_reset option in sudoers. It is only available when either the matching command has the SETENV tag or the setenv option is set in sudoers. In addition, it cannot be used in conjunction with the **-i** option.

-e The **-e** (edit) option indicates that, instead of running a command, the user wishes to edit one or more files. In lieu of a command, the string "sudoedit" is used when consulting the sudoers file. If the user is authorized by sudoers, the following steps are taken:

  1. Temporary copies are made of the files to be edited with the owner set to the invoking user. The temporary copies will be located in /var/tmp. If /var/tmp does not exist, then /tmp is used. If permission or other errors prevent making the temporary copies, then the edit will fail. As a result, the /var/tmp and /tmp directories must be writable by the invoking user.

  2. By default, the /bin/vi editor is used to edit the temporary files. However, this may be overridden by the SUDO_EDITOR, VISUAL, or EDITOR environment variables and the **editor** sudoers variable. This allows other editors, such as the **/bin/oedit** editor, to be used. The environment variables are checked in that order. If none of SUDO_EDITOR, VISUAL, or EDITOR are set, the first command listed in the **editor** sudoers variable is used.

    Note: The SUDO_EDITOR, VISUAL, and EDITOR environment variables must be permitted by the sudoers file in order for them to be checked.

  3. If they have been modified, the temporary files are copied back to their original location and the temporary versions are removed.

  If the specified file does not exist, it will be created. Unlike most commands run by **sudo**, the editor is run with the invoking user's environment mostly

unmodified. If, for some reason, **sudo** is unable to update a file with its edited version, the user will receive a warning and the edited copy will remain in a temporary file.

-g *groupname|#gid*

Normally, **sudo** sets the primary group to the one in the user database for the user the command is being run as. The **-g** (group) option causes **sudo** to run the specified command with the primary group set to *groupname*. To specify a GID instead of a group name, use #*gid*. When running commands as a GID, many shells require that the '#' be escaped with a backslash ('\'). If no **-u** option is specified, the command will be run as the invoking user. In either case, the primary group will be set to the group identified. The group name will be resolved into its corresponding entry in the group database. Therefore, it may be entered in any case, as it will be upper-cased by **sudo** before attempting to find a match the to sudoers file.

Note:

1. When using this option to run as a group that has a shared UNIX GID, it is recommended that you specify the groupname instead of #*gid*. If a shared UNIX GID is specified for #*gid*, the MVS group identity chosen for the process from among the MVS group identities sharing the GID is unpredictable.

2. The group name will be resolved into its corresponding entry in the group database or group ID alias table (as mapped by the USERIDALIASTABLE parm in sysparms). Therefore, if the MVS group ID is specified, then it may be entered in any case as it will be uppercased by **sudo** before attempting to find a match the sudoers file. However, group ID alias names must be specified in the correct case.

3. The Runas_Spec specification determines whether or not the **-g** option may be specified.

-H The **-H** (HOME) option sets the HOME environment variable to the home directory of the target user. By default, **sudo** does not modify HOME (see set_home and always_set_home in "sudoers" on page 220).

-h The **-h** (help) option causes **sudo** to print a usage message and exit.

-i [*command*]

The **-i** (simulate initial login) option runs the default shell of the target user as a login shell. This means that login-specific resource files such as .profile or .login will be read by the shell. If a *command* is specified, it is passed to the shell for execution. Otherwise, an interactive shell is executed. **sudo** attempts to change to that user's home directory before running the shell. It also initializes the environment, leaving DISPLAY and TERM unchanged, setting HOME, SHELL, USER, LOGNAME, and PATH. All other environment variables are removed from the new shell (that is, they are not inherited from the invoking shell).

Note: If any of your login-specific resource files should happen to re-invoke the shell, then the command will not be passed along to be run in that new shell. One example of this is the handling of the STEPLIB environment variable by the /etc/profile file. See the section in the z/OS UNIX System Services Planning Guide regarding customizing your /etc/profile for more information. Your administrator may need to add STEPLIB to the **env_keep** option in the sudoers file.

-K The **-K** (sure kill) option is similar to **-k** except that it removes the user's

timestamp entirely and may not be used in conjunction with a command or other option. This option does not require a password.

-k When used by itself, the **-k** (kill) option to **sudo** invalidates the user's timestamp by setting the time on it to the Epoch. The next time **sudo** is run, a password will be required. This option does not require a password. When used in conjunction with a command or an option that may require a password, the **-k** option will cause **sudo** to ignore the user's timestamp file. As a result, **sudo** will prompt for a password (if one is required by sudoers) and will not update the user's timestamp file.

-L The **-L** (list defaults) option will list out the parameters that may be set in a Defaults line along with a short description for each.

-l[l] [_command_**]**
If no _command_ is specified, the **-l** (list) option will list the allowed (and forbidden) commands for the invoking user (or the username specified by the **-U** option) on the current host. If a _command_ is specified and is permitted by sudoers, the fully-qualified path to the command is displayed along with any command line arguments. If a _command_ is specified but not allowed, **sudo** will exit with an exit status value of 1. If the **-l** option is specified with an l argument (for example, **-ll**), or if **-l** is specified multiple times, a longer list format is used. The following examples all assume a sudoers entry similar to the below sample entry:

```
jerry  ALL=(admin:Friends) /bin/ls, NOPASSWD: /bin/id
```

1. Example output (short form):

   ```
   > sudo -l -U jerry
   User jerry may run the following commands on this host:
       (admin : Friends) /bin/ls, (admin : Friends) NOPASSWD: /bin/id
   ```

2. Example output (long form):

   ```
   > sudo -ll -U jerry
   User jerry may run the following commands on this host:
   sudoers entry:
       RunAsUsers: admin
       RunAsGroups: Friends
       Commands:
           /bin/ls
       RunAsUsers: admin
       RunAsGroups: Friends
       Commands:
           NOPASSWD: /bin/id
   ```

3. Example of checking if a command is allowed for the user:

   ```
   > sudo -l -U jerry -u admin id
   /bin/id
   ```

-n The **-n** (non-interactive) option prevents **sudo** from prompting the user for a password. If a password is required for the command to run, **sudo** will display an error message and exit.

-P The **-P** (preserve group vector) option causes **sudo** to preserve the invoking user's group vector unaltered. By default, **sudo** will initialize the group vector to the list of groups the target user is in. The real and effective group IDs, however, are still set to match the target user.

-p _prompt_
The **-p** (prompt) option allows you to override the default password prompt and use a custom one. The following percent ('%') escapes are supported:

%H expanded to the local hostname including the domain name (if the system's hostname is fully qualified or the **fqdn** sudoers option is set)

%h expanded to the local hostname without the domain name

%p expanded to the user whose password is being asked for (respects the *rootpw*, *targetpw* and *runaspw* flags in sudoers)

%U expanded to the login name of the user the command will be run as

%u expanded to the invoking user's login name

%% two consecutive % characters are collapsed into a single % character

-r *role*
> Not supported on z/OS. The **-r** (role) option causes the new (SELinux) security context to have the role specified by *role*.

-S The **-S** (stdin) option causes **sudo** to read the password from the standard input instead of the terminal device.

-s [*command*]
> The **-s** (shell) option runs the shell specified by the SHELL environment variable if it is set or the target user's default shell. If a *command* is specified, it is passed to the shell for execution. Otherwise, an interactive shell is executed.

-t *type*
> Not supported on z/OS. The **-t** (type) option causes the new (SELinux) security context to have the type specified by *type*. If no type is specified, the default type is derived from the specified role.

-U *username*
> The **-U** (other user) option is used in conjunction with the **-l** option to specify the user whose privileges should be listed. Only a UID(0) user or a user with **sudo** ALL on the current host may use this option. The user name will be resolved into its corresponding entry in the user database or user ID alias table (as mapped by the USERIDALIASTABLE parm in sysparms). Therefore, if the MVS user ID is specified, then it may be entered in any case as it will be upper-cased by **sudo** before attempting to find a match the sudoers file. However, user ID alias names must be specified in the correct case.

-u *username*|*#uid*
> The **-u** (user) option causes **sudo** to run the specified command as the user specified. To specify a UID instead of a user name, use *#uid*. When running commands as a UID, many shells require that the '#' be escaped with a backslash ('\'). If **-u** and **-g** are not specified, the default user will be used. If sudoers **runas_default** is set in the sudoers file, then that user ID is used. Otherwise, the default of BPXROOT will be used. If **-u** is not specified and **-g** is specified, the invoking user will be used.

> **Note:**
> 1. When using this option to run as a user that has a shared UNIX UID, it is recommended that you specify the *username* instead of *#uid*. If a shared UNIX UID is specified for *#uid*, the MVS identity chosen for the process from among the MVS identities sharing the UID is unpredictable.
> 2. The user name will be resolved into its corresponding entry in the user database or user ID alias table (as mapped by USERIDALIASTABLE parm in sysparms). Therefore, if the MVS user ID is specified, then it may be entered in any case as it will be upper-cased by **sudo** before attempting to find a match in the sudoers file. However, user ID alias names must be specified in the correct case.

-V The **-V** (version) option causes **sudo** to print the version number and exit. If the invoking user is already UID(0), the **-V** option will print out a list of the

defaults **sudo** was compiled with, default lists of environment variables to check, keep, or delete, as well as the system's local network addresses.

-v If given the **-v** (validate) option, **sudo** will update the user's timestamp, prompting for the user's password if necessary. This extends the **sudo** timeout for another 5 minutes (or whatever the timeout is set to in sudoers) but does not run a command.

-- The **--** option indicates that **sudo** should stop processing command line arguments. It is most useful in conjunction with the **-s** option.

Environment variables to be set for the command may also be passed on the command line in the form of VAR=value. Variables passed on the command line are subject to the same restrictions as normal environment variables with one important exception. If the **setenv** option is set in sudoers, the command to be run has the SETENV tag set, or the command matched is ALL, the user may set variables that would otherwise be forbidden. See "sudoers" on page 220 for more information.

Exit values

Upon successful execution of a command, the exit value from **sudo** will simply be the exit value of the command that was executed.

Otherwise, **sudo** quits with an exit value of 1 if there is a configuration or permission problem, or if **sudo** cannot execute the given command. In the latter case, the error string is printed to stderr. If **sudo** cannot stat() one or more entries in the user's PATH, an error is printed on stderr. (If the directory does not exist or if it is not really a directory, the entry is ignored and no error is printed.) This should not happen under normal circumstances.

Under some circumstances, such as command not found or a permissions issue accessing the command, **sudo** exits with value 127 instead of 1.

Security notes

sudo tries to be safe when executing external commands by doing the following:
1. Handling environment variables:
   a. By default, the **env_reset** sudoers option is enabled. This causes commands to be executed with a minimal environment containing TERM, PATH, HOME, SHELL, LOGNAME, USER and USERNAME in addition to variables from the invoking process permitted by the **env_check** and **env_keep** sudoers options.
   b. If the **env_reset** option is disabled in sudoers, any variables not explicitly denied by the **env_check** and **env_delete** options are inherited from the invoking process. Because it is not possible to deny all potentially dangerous environment variables, use of the default **env_reset** behavior is encouraged.
   c. In most cases, environment variables with a value beginning with *()* are removed as they could be interpreted as shell functions. However, if the variables are set by using the sudoers **env_file** option or by setting them on the **sudo** command line, then they will not be subject to this check.
   d. Some Language Environment environment variables have a unique behavior that allows them to not only be set, unset, or modified, but they will be re-created or added to across an exec. **sudo** is not excluded from this behavior. Therefore, these environment variables may be set in the target environment even though sudoers options indicate that they should not be

      inherited. The _CEE_RUNOPTS environment variable is one example. See the z/OS Language Environment Programming Guide for more information.

2. To prevent command spoofing, **sudo** checks "." and "" (both denoting current directory) last when searching for a command in the user's PATH (if one or both are in the PATH).

   Note: The actual PATH environment variable is not modified and is passed unchanged to the command that **sudo** executes.

3. **sudo** will check the ownership of its timestamp directory and ignore the directory's contents if it is not owned by user specified with the **timestampowner** sudoers option, or if it is writable by a user other than that owner. If the timestamp directory is located in a directory writable by anyone (for example, /tmp), it is possible for a user to create the timestamp directory before **sudo** is run. However, because **sudo** checks the ownership and mode of the directory and its contents, the only damage that can be done is to "hide" files by putting them in the timestamp directory. This is unlikely to happen since once the timestamp directory ownership is established, the user placing files there would be unable to get them back out. To get around this issue, you can use a directory that is not world-writable for the timestamps (/var/adm/sudo, for instance) or create /var/run/sudo with the appropriate owner (UID(0)) and permissions (0700) in the system startup files.

4. **sudo** will not honor timestamps set far in the future. Timestamps with a date greater than current_time + 2 * **timestamp_timeout** will be ignored and **sudo** will log and complain. This is done to keep a user from creating a timestamp with a bogus date on systems that allow users to give away files. Likewise, if the system clock is changed to an earlier time (for example, Daylight savings time), existing "valid" sudo users timestamps will be considered expired even if the timeout value has not actually been reached yet.

5. **sudo** will normally only log the command it explicitly runs. If a user runs a command such as **sudo su** or **sudo sh**, subsequent commands run from that shell will not be logged, nor will **sudo's** access control affect them. The same is true for commands that offer shell escapes (including most editors). Because of this, care must be taken when giving users access to commands by way of **sudo** to verify that the command does not inadvertently give the user shell access. For more information, see "Preventing shell escapes" on page 242.

The **sudo** administrator should also consider the following notes related to security control:

1. There is no easy way to prevent a user from gaining control of a shell if the sudo user is allowed to run arbitrary commands by way of **sudo**. Also, many commands (such as editors) allow the user to run commands by way of shell escapes, thus avoiding **sudo's** checks. See "Preventing shell escapes" on page 242.

2. It is not meaningful to run the `cd` command directly by way of **sudo**, for example, $ sudo cd /usr/local/protected, since when the command exits the parent process (your shell) will still be the same. See the "Examples" on page 219 section for more information.

3. If users have **sudo** `ALL`, there is nothing to prevent them from creating their own command that gives them shell access regardless of any '!' elements in the user specification.

4. It is not recommended to allow users to run the **sudo** command by way of **sudo**, for example, $ sudo sudo cmd, since users could "chain" **sudo** commands together to gain additional **sudo** authority.

Environment

sudo utilizes the following environment variables:

_ZOS_SUDO_DEBUG

Contains z/OS-specific debug information. This environment variable is only used internally and is not for external specification.

_ZOS_SUDO_NOMSGID

Controls whether the IBM unique message ID is prepended onto diagnostic and error messages that are sent to the user. See Chapter 8, "sudo messages," on page 247.

EDITOR

Default editor to use in **-e** (**sudoedit**) mode if neither SUDO_EDITOR nor VISUAL is set.

HOME

In **-s** or **-H** mode, set to home directory of the target user.

LOGNAME

Set to either the target user or invoking user, depending on sudoers `set_logname` option.

PATH This is altered if the `secure_path` sudoers option is set.

SHELL

Used to determine shell to run with **-s** option.

SUDO_ASKPASS

Not supported on z/OS. Specifies the path to a helper program used to read the password if no terminal is available or if the **-A** option is specified.

SUDO_COMMAND

Set to the command run by **sudo**.

SUDO_EDITOR

Default editor to use in **-e** (**sudoedit**) mode.

SUDO_GID

Set to the group ID of the user who invoked **sudo**.

SUDO_PROMPT

Used as the default password prompt.

SUDO_PS1

If set, PS1 will be set to this value for the command being run.

SUDO_UID

Set to the user ID of the user who invoked **sudo**.

SUDO_USER

Set by **sudo** to the MVS identity of the user who invoked **sudo**.

USER Set to the target user.

USERNAME

Set to the target user.

VISUAL

Default editor to use in **-e** (**sudoedit**) mode if SUDO_EDITOR is not set.

Files

/etc/sudoers
> List of who can run what.

/var/run/sudo
> Default directory containing timestamps.

Examples

Note: The following examples assume certain other suitable sudoers options are configured and appropriate security classes (that is, BPX.SRV.xxxx) are configured appropriately. Additional examples are given in the sudoers documentation, see "Examples" on page 240.

1. Allow user `jane` to get a file listing of any file or directory:

   - sudoers entry:
   ```
   jane ALL = /bin/ls
   ```

   - sudo command to run:
   ```
   $ sudo ls /usr/local/protected
   ```

2. Allow user `jim` to list the home directory of user `yaz` without entering any password:

   - sudoers entry:
   ```
   jim ALL = (yaz) NOPASSWD: /bin/ls /u/shut/yaz
   ```

   - sudo command to run:
   ```
   $ sudo -u yaz ls /u/shut/yaz
   ```

3. Allow users on a team (BACKUPS) the ability to run a specific **pax** command as a specific UID(0) administrator (admin) with specific arguments determined by the administrator:

   - sudoers entry:
   ```
   Defaults umask=077
   User_Alias BACKUPS = june, fred, mary
   BACKUPS ALL = (admin) /bin/pax -x pax -wf /u/code/src.pax /u/code/src
   ```

   - Users june, fred, or mary could run this sudo command:
   ```
   $ sudo -u admin pax -x pax -wf /u/code/src.pax /u/code/src
   ```

4. List and kill processes of members of a specific group of users:

   - sudoers entry:
   ```
   User_Alias  MYTEAM = panda, koala
   kodiak      ALL = (MYTEAM) /bin/ps, /bin/kill
   ```

   User `kodiak` could run the ps and kill commands by way of sudo:
   ```
   $ sudo -u panda ps
         PID TTY        TIME CMD
    16908494 ttyp0044   0:02 /bin/sh
      131325 ttyp0044   0:02 /bin/ps
    67240817 ttyp0044   0:45 /bin/longrun
   $ sudo -u panda kill 67240817
   ```

5. Log all commands run by UID(0) users:

   - sudoers entry:
   ```
   #0    ALL = (#0)  ALL
   ```

   - Any UID(0) user's sudo commands to be logged:
   ```
   $ sudo rm -rf /u/baduser
   ```

6. Non-UID(0) user (john) editing a UID(0) owned file to which he doesn't have UNIX authority:

   - sudoers entry:
   ```
   john ALL = sudoedit /u/root/sharedFiles/file1
   ```

   - User john could run this sudo command:
   ```
   $ sudoedit /u/root/sharedFiles/file1
   ```

7. Allow user (sec) to use **grep** to search for strings in files owned by a group (WATCH) of users:

   - sudoers entry:
   ```
   User_Alias   WATCH = user1, user2, user3
   sec          ALL = (WATCH) /bin/grep
   ```

   - User sec could run this sudo command:
   ```
   $ sudo -u user1 grep "virus" /u/user1/private/*
   ```

8. Allow user (tester) to run other user's (dvlp1, dvlp2) commands as those users. This example will let user tester:
   a. run the withdrawal and deposit commands as user dvlp1
   b. run any commands in /u/dvlp2/mycmds directory as user dvlp2.

   - sudoers entry:
   ```
   Cmnd_Alias   DVLP1CMDS = /u/dvlp1/cmds/withdraw, /u/dvlp1/cmds/deposit
   tester       ALL = (dvlp1) DVLP1CMDS, (dvlp2) /u/dvlp2/mycmds/
   ```

   - User tester could run this sudo command:
   ```
   $ sudo -u dvlp1 /u/dvlp1/cmds/withdraw
   ```

Related information

su, **"sudoers"**, **"visudo" on page 243**

Authors

Many people have worked on **sudo** over the years; this version consists of code written primarily by: Todd C. Miller.

Visit http://www.sudo.ws/sudo/history.html for a short history of **sudo**.

sudoers

Name

sudoers - list of which users may execute what

Description

The sudoers file is composed of two types of entries: aliases (basically variables) and user specifications (which specify who may run what).

When multiple entries match for a user, they are applied in order. Where there are multiple matches, the last match is used (which is not necessarily the most specific match).

The sudoers grammar will be described below in Extended Backus-Naur Form (EBNF).

The contents of the sudoers file must be in the IBM-1047 code set.

Quick guide to EBNF

EBNF is a concise and exact way of describing the grammar of a language. Each EBNF definition is made up of production rules. For example,

```
symbol ::= definition | alternate1 | alternate2 ...
```

Each production rule references others and thus makes up a grammar for the language. EBNF also contains the following operators, which many readers will recognize from regular expressions. Do not, however, confuse them with "wildcard" characters, which have different meanings.

?   Means that the preceding symbol (or group of symbols) is optional. That is, it may appear once or not at all.

*   Means that the preceding symbol (or group of symbols) may appear zero or more times.

+   Means that the preceding symbol (or group of symbols) may appear one or more times.

Parentheses may be used to group symbols together. For clarity, we will use single quotes (') to designate what is a verbatim character string (as opposed to a symbol name).

Aliases

There are four kinds of aliases: User_Alias, Runas_Alias, Host_Alias and Cmnd_Alias. The syntax of these are as follows:

```
Alias ::= 'User_Alias'  User_Alias  (':' User_Alias)* |
          'Runas_Alias' Runas_Alias (':' Runas_Alias)* |
          'Host_Alias'  Host_Alias  (':' Host_Alias)* |
          'Cmnd_Alias'  Cmnd_Alias  (':' Cmnd_Alias)*
User_Alias ::= NAME '=' User_List
Runas_Alias ::= NAME '=' Runas_List
Host_Alias ::= NAME '=' Host_List
Cmnd_Alias ::= NAME '=' Cmnd_List
NAME ::= [A-Z]([A-Z][0-9]_)*
```

Each alias definition is of the form

```
Alias_Type NAME = item1, item2, ...
```

where Alias_Type is one of User_Alias, Runas_Alias, Host_Alias, or Cmnd_Alias. A NAME is a string of uppercase letters, numbers, and underscore characters ('_'). A NAME must start with an uppercase letter. It is possible to put several alias definitions of the same type on a single line, joined by a colon (':'). For example,

```
Alias_Type NAME1 = item1, item2, item3 : NAME2 = item1, item4, item5
```

A value may be prefixed with zero or more '!' operators. An odd number of '!' operators negates the value of the item; an even number just cancels each other out.

The definitions of what constitutes a valid alias member follow.

User_List

```
        User_List ::= User |
                      User ',' User_List
        User ::= '!'* username |
                 '!'* '#'uid |
                 '!'* '%'group |
                 '!'* '+'netgroup |
                 '!'* '%:'nonunixgroup |
                 '!'* User_Alias
```

A `User_List` is made up of one or more user names, UIDs (prefixed with '#'), system groups (prefixed with '%'), netgroups (prefixed with '+') and `User_Aliases`.

Note: When specifying a user that has a shared UNIX UID, it is recommended that you specify the *username* instead of #*uid*. If a shared UNIX UID is specified for #*uid*, the MVS identity chosen for the process from among the MVS identities sharing the UID is unpredictable.

The *username* must be in the same alphabetical case as is stored in the user database or user ID alias table (as mapped by the USERIDALIASTABLE parm in sysparms). Therefore, if the MVS user ID is specified, then it must be entered in all uppercase. User ID alias names must be specified in the correct case.

Note: If a user ID has a user ID alias activated by the USERIDALIASTABLE, then that alias name must be specified in the `User_List` if using the *username* format. Users of **sudo** will have their MVS ID resolved into a corresponding user ID alias name, if one exists, before being matched against the `User_List` in a User Specification.

A *username*, *group* and *netgroup* may be enclosed in double quotes to avoid the need for escaping special characters. Alternately, special characters may be specified in escaped hex mode, for example, \x40 for an EBCDIC space.

The *netgroup* and *nonunixgroup* formats are not supported on z/OS.

Quotes around group names are optional. Non-quoted strings must use a backslash (\) to escape spaces and the '@' symbol.

Runas_List

```
Runas_List ::= Runas_Member |
               Runas_Member ',' Runas_List
Runas_Member ::= '!'* username |
                 '!'* '#'uid |
                 '!'* '%'group |
                 '!'* +netgroup |
                 '!'* Runas_Alias
```

A `Runas_List` is similar to a `User_List` except that instead of `User_Aliases` it can contain `Runas_Aliases`. Note that user names and groups are matched as strings. In other words, two users (groups) with the same UID (GID) are considered to be distinct. If you wish to match all user names with the same UID , you can use a UID instead. This also pertains to IDs that have a user ID alias (as mapped by the USERIDALIASTABLE parm in sysparms), they are considered distinct names in the `Runas_List`.

Note:

1. When specifying a user that has a shared UNIX UID, it is recommended that you specify the *username* instead of #*uid*. If a shared UNIX UID is specified for #*uid*, the MVS identity chosen for the process from among the MVS identities sharing the UID is unpredictable.

2. The *username* must be in the same alphabetical case as is stored in the user database or user ID alias table (as mapped by the USERIDALIASTABLE parm in sysparms). Therefore, if the MVS user ID is specified, then it must be entered in all uppercase. User ID alias names must be specified in the correct case.

A *username*, *group* and *netgroup* may be enclosed in double quotes to avoid the need for escaping special characters. Alternatively, special characters may be specified in escaped hex mode, for example \x40 for an EBCDIC space.

Quotes around group names are optional. Non-quoted strings must use a backslash (\) to escape spaces and the '@' symbol.

The *netgroup* format is not supported on z/OS.

Host_List

```
Host_List ::= Host |
              Host ',' Host_List
Host ::= '!'* hostname |
         '!'* ip_addr |
         '!'* network(/netmask)? |
         '!'* '+'netgroup |
         '!'* Host_Alias
```

A `Host_List` is made up of one or more *hostnames*, IP addresses (IPv4 or IPv6), network numbers, *netgroups* (prefixed with '+') and other aliases. If you do not specify a netmask along with the network number, **sudo** will query each of the local host's network interfaces and, if the network number corresponds to one of the hosts' network interfaces, the corresponding *netmask* will be used. The *netmask* may be specified either in standard IP address notation (e.g. 255.255.255.0 or ffff:ffff:ffff:ffff::), or CIDR notation (number of bits, for example, 24 or 64). A *hostname* may include shell-style wildcards (see "Wildcards" on page 226), but unless the hostname command on your system returns the fully qualified hostname, you'll need to use the **fqdn** option for wildcards to be useful.

The *netgroup* format is not supported on z/OS.

Cmnd_List

```
Cmnd_List ::= Cmnd |
              Cmnd ',' Cmnd_List
commandname ::= filename |
                filename args |
                filename '""'
Cmnd ::= '!'* commandname |
         '!'* directory |
         '!'* "sudoedit" |
         '!'* Cmnd_Alias
```

A `Cmnd_List` is a list of one or more *commandnames*, *directories*, and other aliases. A *commandname* is a fully qualified filename which may include shell-style wildcards (see "Wildcards" on page 226). A simple filename allows the user to run the command with any arguments. However, you may also specify command line arguments (including wildcards). Alternately, you can specify to indicate that the command may only be run without command line arguments by specifying "" following the command. A directory is a fully qualified pathname ending in a '/'. When you specify a directory in a `Cmnd_List`, the user will be able to run any file within that directory (but not in any subdirectories therein).

If a `Cmnd` has associated command line arguments, then the arguments in the `Cmnd` must match exactly those given by the user on the command line (or match the wildcards if there are any). Note that the following characters must be escaped with a '\' if they are used in command arguments: ',', ':', '=', '\'. The special command "**sudoedit**" is used to permit

a user to run **sudo** with the **-e** option (or as **sudoedit**). It may take command line arguments just as a normal command does.

Default option specification

Certain configuration options may be changed from their default values at runtime by way of one or more `Default_Entry` lines. These may affect all users on any host, all users on a specific host, a specific user, a specific command, or commands being run as a specific user. Per-command entries may not include command line arguments. If you need to specify arguments, define a `Cmnd_Alias` and reference that instead.

```
Default_Type ::= 'Defaults' |
                 'Defaults' '@' Host_List |
                 'Defaults' ':' User_List |
                 'Defaults' '!' Cmnd_List |
                 'Defaults' '>' Runas_List
Default_Entry ::= Default_Type Parameter_List
Parameter_List ::= Parameter |
                   Parameter ',' Parameter_List
Parameter ::= Parameter '=' Value |
              Parameter '+=' Value |
              Parameter '-=' Value |
              '!'* Parameter
```

Parameters may be flags, integer values, strings, or lists. Flags are implicitly boolean and can be turned off by way of the '!' operator. Some integer, string and list parameters may also be used in a boolean context to disable them. Values may be enclosed in double quotes (") when they contain multiple words. Special characters may be escaped with a backslash (\).

Lists have two additional assignment operators, += and -=. These operators are used to add to and delete from a list respectively. It is not an error to use the -= operator to remove an element that does not exist in a list.

Defaults entries are parsed in the following order: generic, host, and user Defaults first, then runas Defaults and finally command defaults.

See "Options" on page 228 for a list of supported Defaults parameters.

User specification

```
User_Spec ::= User_List Host_List '=' Cmnd_Spec_List \
              (':' Host_List '=' Cmnd_Spec_List)*
Cmnd_Spec_List ::= Cmnd_Spec |
                   Cmnd_Spec ',' Cmnd_Spec_List
Cmnd_Spec ::= Runas_Spec? Tag_Spec* Cmnd
Runas_Spec ::= '(' Runas_List? (':' Runas_List)? ')'
Tag_Spec ::= ('NOPASSWD:' | 'PASSWD:' | 'NOEXEC:' | 'EXEC:' |
              'SETENV:' | 'NOSETENV:' | 'ZOS_SET_MVS_IDENTITY:' | 'NO_ZOS_SET_MVS_IDENTITY:' )
```

A user specification determines which commands a user may run (and as what user) on specified hosts. By default, commands are run as a UID(0) profile, but this can be changed on a per-command basis.

The basic structure of a user specification is `who where = (as_whom) what'. Breaking that down into its basic constituent parts:

- Runas_Spec
- Tag_Spec

Runas_Spec

A Runas_Spec determines the user and/or the group that a command may be run as. A fully-specified Runas_Spec consists of two Runas_Lists (as defined above) separated by a colon (':') and enclosed in a set of parentheses. The first Runas_List indicates which users the command may be run as by way of **sudo's -u** option. The second defines a list of groups that can be specified by way of **sudo's -g** option. If both Runas_Lists are specified, the command may be run with any combination of users and groups listed in their respective Runas_Lists. If only the first is specified, the command may be run as any user in the list but no **-g** option may be specified. If the first Runas_List is empty but the second is specified, the command may be run as the invoking user with the group set to any listed in the Runas_List. If no Runas_Spec is specified, the command may be run as the default runas user (**runas_default** sudoers option) and no group may be specified.

A Runas_Spec sets the default for the commands that follow it. What this means is that for the entry:

```
dgb boulder = (operator) /bin/ls, /bin/kill, /bin/ps
```

The user dgb on system boulder may run /bin/ls, /bin/kill, and /bin/ps -- but only as operator. For example,

```
$ sudo -u operator /bin/ls
```

It is also possible to override a Runas_Spec later on in an entry. If we modify the entry like so:

```
dgb boulder = (operator) /bin/ls, (root) /bin/kill, /bin/ps
```

Then user dgb is now allowed to run /bin/ls as operator, but /bin/kill and /bin/ps as root.

We can extend this to allow dgb to run /bin/ls with both the user set to operator and the group set to oppool:

```
dgb boulder = (operator : oppool) /bin/ls, (root) /bin/kill, \
    /bin/ps
```

In the following example, user tcm may run certain commands with the dialer group. In this example, only the group will be set, the command still runs as user tcm.

```
tcm boulder = (:dialer) /bin/df, /bin/du
```

Note:

1. When a group is specified in the first Runas_list, either directly or through an alias, then that indicates for **sudo** to let the user run as any user in that group.

2. When a group is specified in the second Runas_list, either directly or through an alias, then it should be specified without the leading '%'. These groups are interpreted as group names identifying groups that this user may run as.

Tag_Spec

A command may have zero or more tags associated with it. There are eight possible tag values, NOPASSWD, PASSWD, NOEXEC, EXEC, SETENV, NOSETENV, ZOS_SET_MVS_IDENTITY, and NO_ZOS_SET_MVS_IDENTITY. Once a tag is set on a Cmnd, subsequent Cmnds in the Cmnd_Spec_List, inherit the tag unless it is overridden by the opposite tag (that is: PASSWD overrides NOPASSWD and NOEXEC overrides EXEC).

EXEC and NOEXEC

Not supported on z/OS.

The NOEXEC tag can be used to prevent a dynamically-linked executable from running further commands itself.

See "Preventing shell escapes" on page 242 for more information.

PASSWD and NOPASSWD

By default, **sudo** requires that a user authenticate before running a command. This behavior can be modified by way of the NOPASSWD tag. Like a Runas_Spec, the NOPASSWD tag sets a default for the commands that follow it in the Cmnd_Spec_List. Conversely, the PASSWD tag can be used to reverse things. For example:

```
ray rushmore = NOPASSWD: /bin/kill, /bin/ls, /usr/bin/lprm
```

would allow the user ray to run /bin/kill, /bin/ls, and /usr/bin/lprm as the default runas user (**runas_default** sudoers option) on the host rushmore without authenticating. If we only want ray to be able to run /bin/kill without a password, the entry would be:

```
ray rushmore = NOPASSWD: /bin/kill, PASSWD: /bin/ls, /usr/bin/lprm
```

The PASSWD tag has no effect on users who are in the group specified by the **exempt_group** option.

By default, if the NOPASSWD tag is applied to any of the entries for a user on the current host, they will be able to run **sudo -l** without a password if the proper authority requirements are met (see next paragraph). Additionally, a user may only run **sudo -v** without a password if the NOPASSWD tag is present for all user's entries that pertain to the current host. This behavior may be overridden by way of the **verifypw** and **listpw** options.

Note: Password authentication is not requested for UID(0) users of **sudo**, regardless of authentication settings, except under certain conditions when using the sudoers **zos_set_mvs_identity** option. See "zos_set_mvs_identity" on page 236 for more information.

SETENV and NOSETENV

These tags override the value of the **setenv** option on a per-command basis. If SETENV has been set for a command, any environment variables set on the command line are not subject to the restrictions imposed by **env_check**, **env_delete**, or **env_keep**. As such, only trusted users should be allowed to set variables in this manner. If the command matched is ALL, the SETENV tag is implied for that command; this default may be overridden by use of the NOSETENV tag.

ZOS_SET_MVS_IDENTITY and NO_ZOS_SET_MVS_IDENTITY

These tags override value of **zos_set_mvs_identity** option on a per-command basis. Specifying NO_ZOS_SET_MVS_IDENTIY is equivalent to a **zos_set_mvs_identity** setting of **never**. Likewise, ZOS_SET_MVS_IDENTIY is equivalent to a **zos_set_mvs_identity** setting of **always**.

Wildcards

sudo allows shell-style wildcards (also known as meta or glob characters) to be used in hostnames, pathnames and command line arguments in the sudoers file. Wildcard matching is done by way of internal interfaces similar to the glob() and fnmatch() C Runtime routines.

*	Matches any set of zero or more characters.
?	Matches any single character.
[...]	Matches any character in the specified range.
[!...]	Matches any character not in the specified range.
\x	For any character "x", evaluates to "x". This is used to escape special characters such as the following: "*", "?", "[", and "}".

POSIX character classes may also be used. However, because the ':' character has special meaning in sudoers, it must be escaped. For example:

```
/bin/ls [[\:alpha\:]]*
```

The above would match any filename beginning with a letter.

A forward slash ('/') will only be matched one level deep by wildcards used in the pathname. When matching the command line arguments, a slash also gets matched by wildcards. This is to make a path like the following:

```
/usr/bin/*
```

match `/usr/bin/who` and `/usr/bin/subdir/who` but not `/usr/bin/subdir/anotherdir/who`.

Exceptions to wildcard rules: The following exceptions apply to the above rules:

""	If the empty string is the only command line argument in the sudoers entry it means that command is not allowed to be run with any arguments.

Including other files from within sudoers

It is possible to include other sudoers files from within the sudoers file currently being parsed using the `#include` and `#includedir` directives.

This can be used, for example, to keep a site-wide sudoers file in addition to a local, per-host file. For the sake of this example, the site-wide sudoers will be /etc/sudoers and the per-host one will be /etc/sudoers.local. To include /etc/sudoers.local from within /etc/sudoers, we would use the following line in /etc/sudoers:

```
#include /etc/sudoers.local
```

When **sudo** reaches this line it will suspend processing of the current file (/etc/sudoers) and switch to /etc/sudoers.local. Upon reaching the end of /etc/sudoers.local, the rest of /etc/sudoers will be processed. Files that are included may themselves include other files. A hard limit of 128 nested include files is enforced to prevent infinite include file recursion.

The filename may include the %h escape, signifying the short form of the hostname. For example, if the system's hostname is "xerxes", then

```
#include /etc/sudoers.%h
```

will cause **sudo** to include the file /etc/sudoers.xerxes.

The `#includedir` directive can be used to create a sudo.d directory that the system admin can drop sudoers rules into. For example, given:

```
#includedir /etc/sudoers.d
```

sudo will read each file in /etc/sudoers.d, skipping file names that end in ~ or contain a . character. Files are parsed in sorted lexical order. That is, /etc/sudoers.d/01_first will be parsed before /etc/sudoers.d/10_second. Because the sorting is lexical, not numeric, /etc/sudoers.d/1_whoops would be loaded after /etc/sudoers.d/10_second. Using a consistent number of leading zeroes in the file names can be used to avoid such problems.

Unlike files included by way of #include, **visudo** will not edit the files in a #includedir directory unless one of them contains a syntax error. It is still possible to run **visudo** with the **-f** flag to edit the files directly.

Other special characters and reserved words

The pound sign ('#') is used to indicate a comment (unless it is part of a #include directive or unless it occurs in the context of a user name and is followed by one or more digits, in which case it is treated as a UID). Both the comment character and any text after it, up to the end of the line, are ignored.

The reserved word ALL is a built-in alias that always causes a match to succeed. It can be used wherever one might otherwise use a Cmnd_Alias, User_Alias, Runas_Alias, or Host_Alias. You should not try to define your own alias called ALL as the built-in alias will be used in preference to your own.

Note: Using ALL can be dangerous since in a command context, it allows the user to run any command on the system.

An exclamation point ('!') can be used as a logical not operator both in an alias and in front of a Cmnd. This allows one to exclude certain values.

Note: Using a ! in conjunction with the built-in ALL alias to allow a user to run "all but a few" commands rarely works as intended (see "Security notes" on page 242).

Long lines can be continued with a backslash ('\') as the last character on the line.

Whitespace between elements in a list, as well as special syntactic characters in a User Specification ('=', ':', '(', ')'), are optional.

The following characters must be escaped with a backslash ('\') when used as part of a word (for example, a username or hostname): '@', '!', '=', ':', ',', '(', ')', '\'.

Options

sudo's behavior can be modified by Default_Entry lines. See "Default option specification" on page 224 for more details about how to specify these options.

The option keywords and their values are case sensitive (unless the value is such that it can be interpreted in any casing).

A list of all supported Defaults parameters, grouped by type, are listed below.

Flags: Flag options may be prefixed with zero or more '!' operators. An odd number of '!' operators negates the value of the item (that is, turns the flag off); an even number just cancel each other out (that is, turns the flag on).

> **always_set_home**
> If set, **sudo** will set the HOME environment variable to the home directory of the target user. This flag is off by default.

authenticate

If set, users must authenticate themselves by way of a password before they may run commands. This default may be overridden by way of the PASSWD and NOPASSWD tags. This flag is on by default.

Password authentication is not requested for the following users, regardless of authentication settings, except under certain conditions when using the **zos_set_mvs_identity** option. See "zos_set_mvs_identity" on page 236 for more information.

- **sudo** is invoked by a UID(0) user.
- The target user's UID and GID are the same as the invoking user's UID and GID.
- The invoker's group is a member of the group specified by the **exempt_group** option.

closefrom_override

If set, the user may use **sudo's -C** option which overrides the default starting point at which **sudo** begins closing open file descriptors. This flag is off by default.

env_editor

If set, **visudo** will use the value of the EDITOR or VISUAL environment variables before falling back on the default editor list.

Note: This may create a security hole as it allows the user to run any arbitrary command as UID(0) without logging. A safer alternative is to place a colon-separated list of editors in the **editor** variable. **visudo** will then only use the EDITOR or VISUAL if they match a value specified in **editor**.

This flag is off by default.

env_reset

If set, **sudo** will reset the environment to only contain the LOGNAME, SHELL, USER, USERNAME, and SUDO_xxxx variables. Any variables in the caller's environment that match the **env_keep** and **env_check** lists are then added. The default contents of the **env_keep** and **env_check** lists are displayed when **sudo** is run by UID(0) with the **-V** option. If the **secure_path** option is set, its value will be used for the PATH environment variable. This flag is on by default.

fast_glob

Normally, **sudo** uses the glob() function to do shell-style globbing when matching pathnames. However, since it accesses the file system, glob() can take a long time to complete for some patterns, especially when the pattern references a remote file system. The **fast_glob** option causes **sudo** to use the fnmatch() function, which does not access the file system to do its matching. The disadvantage of **fast_glob** is that it is unable to match relative pathnames such as `./ls` or `../bin/ls`. This has security implications when path names that include globbing characters are used with the negation operator, '!', as such rules can be trivially bypassed. As such, this option should not be used when sudoers contains rules that contain negated path names which include globbing characters. This flag is off by default.

fqdn   Set this flag if you want to put fully qualified hostnames in the

sudoers file. For example, instead of myhost you would use myhost.mydomain.edu. You may still use the short form if you wish (and even mix the two).

Note: Turning on **fqdn** requires **sudo** to make DNS lookups which may make **sudo** unusable if DNS stops working (for example, if the system is not plugged into the network). Also, you must use the host's official name as DNS knows it. That is, you may not use a host alias (CNAME entry) due to performance issues and the fact that there is no way to get all aliases from DNS. If your system's hostname (as returned by the hostname command) is already fully qualified, you shouldn't need to set **fqdn**.

This flag is off by default.

ignore_dot

If set, **sudo** will ignore '.' or '' (current directory) in the PATH environment variable; the PATH itself is not modified. This flag is on by default.

ignore_local_sudoers

Not supported on z/OS. If set by way of LDAP, parsing of /etc/sudoers will be skipped. This is intended for enterprises that wish to prevent the usage of local sudoers files so that only LDAP is used. This thwarts the efforts of rogue operators who would attempt to add roles to /etc/sudoers. When this option is present, /etc/sudoers does not even need to exist. Since this option tells **sudo** how to behave when no specific LDAP entries have been matched, this **sudo** option is only meaningful for the cn=defaults section. This flag is off by default.

insults

Not supported on z/OS. If set, **sudo** will insult users when they enter an incorrect password. This flag is off by default.

log_host

If set, the hostname will be logged in the (non-syslog) **sudo** log file. This flag is off by default.

log_year

If set, the four-digit year will be logged in the (non-syslog) **sudo** log file. This flag is off by default.

long_otp_prompt

Not supported on z/OS. When validating with a One Time Password (OTP) scheme such as S/Key or OPIE, a two-line prompt is used to make it easier to cut and paste the challenge to a local window. It's not as pretty as the default, but some people find it more convenient. This flag is off by default.

mail_always

Send mail to the **mailto** user every time a user runs **sudo**, including use of the **-l** and **-v** options by an unauthorized user. This flag is off by default.

mail_badpass

Send mail to the **mailto** user if the user running **sudo** does not enter the correct password. This flag is off by default.

mail_no_host

If set, mail will be sent to the **mailto** user if the invoking user

exists in the `sudoers` file, but is not allowed to run commands on the current host. This flag is off by default.

mail_no_perms

If set, mail will be sent to the **mailto** user if the invoking user is allowed to use **sudo** but the command they are trying is not listed in their `sudoers` file entry or is explicitly denied. This flag is off by default.

mail_no_user

If set, mail will be sent to the **mailto** user if the invoking user is not in the `sudoers` file. This flag is on by default.

noexec

Not supported on z/OS. If set, all commands run by way of **sudo** will behave as if the `NOEXEC` tag has been set, unless overridden by a `EXEC` tag. This flag is off by default.

path_info

Normally, **sudo** won't tell the user when a command cannot not be found in their PATH environment variable, since this could be used to gather information on the location of executables that the normal user does not have access to. The disadvantage is that if the executable is simply not in the user's PATH, **sudo** will tell the user that they are not allowed to run it, which can be confusing. This flag is off by default.

passprompt_override

Not supported on z/OS. The password prompt specified by **passprompt** will normally only be used if the password prompt provided by systems such as PAM matches the string "Password:". If **passprompt_override** is set, **passprompt** will always be used. This flag is off by default.

preserve_groups

By default, **sudo** will initialize the group vector to the list of groups the target user is in. When **preserve_groups** is set, the user's existing group vector is left unaltered. The real and effective group IDs, however, are still set to match the target user. This flag is off by default.

pwfeedback

Not supported on z/OS. By default, **sudo** reads the password like most other UNIX commands, by turning off echo until the user hits the return (or enter) key. Some users become confused by this as it appears to them that **sudo** has hung at this point. When **pwfeedback** is set, **sudo** will provide visual feedback when the user presses a key.

Note: This does have a security impact as an onlooker may be able to determine the length of the password being entered.

This flag is off by default.

requiretty

If set, **sudo** will only run when the user is logged in to a real tty. When this flag is set, **sudo** can only be run from a login session and not by way of other means such as **cron** or cgi-bin scripts. This flag is off by default.

root_sudo

If set, UID(0) users are allowed to run **sudo** too. Disabling this prevents users from "chaining" **sudo** commands to get a UID(0) shell by doing something like "`sudo sudo /bin/sh`".

Note: Turning off **root_sudo** will also prevent UID(0) from running **sudoedit**. Disabling **root_sudo** provides no real additional security; it exists purely for historical reasons.

This flag is on by default.

rootpw

Not supported on z/OS. If set, **sudo** will prompt for a UID(0) user's password instead of the password of the invoking user. This flag is off by default.

runaspw

If set, **sudo** will prompt for the password of the user defined by the **runas_default** option instead of the password of the invoking user, even if **targetpw** was also set. This flag is off by default.

set_home

If set and **sudo** is invoked with the **-s** option, the HOME environment variable will be set to the home directory of the target user (which is the default runas user (**runas_default** sudoers option) user unless the **-u** or **-g** options are used). This effectively makes the **-s** option imply **-H**. This flag is off by default.

set_logname

Normally, **sudo** will set the LOGNAME, USER and USERNAME environment variables to the name of the target user. However, since some commands use LOGNAME to determine the real identity of the user, it may be desirable to change this behavior. This can be done by negating the **set_logname** option.

Note: If the **env_reset** option has not been disabled, entries in the **env_keep** list will override the value of **set_logname**.

This flag is on by default.

setenv Allow the user to disable the **env_reset** option from the command line. Additionally, environment variables set by way of the command line are not subject to the restrictions imposed by **env_check**, **env_delete**, or **env_keep**. Therefore, only trusted users should be allowed to set variables in this manner. This flag is off by default.

shell_noargs

If set and **sudo** is invoked with no arguments, it acts as if the **-s** option had been given. That is, it runs a shell (the shell is determined by the SHELL environment variable if it is set, falling back on the invoking user's default shell). This flag is off by default.

stay_setuid

Not supported on z/OS. Normally, when **sudo** executes a command, the real and effective UIDs are set to the target user. This option changes that behavior such that the real UID is left as the invoking user's UID. In other words, this makes **sudo** act as a setuid wrapper. This flag is off by default.

targetpw

> If set, **sudo** will prompt for the password of the user specified by the **-u** option instead of the password of the invoking user.
>
> **Note:** This precludes the use of a UID not listed in the user database as an argument to the **-u** option.
>
> If a UID (instead of a username) is specified, and it is a shared UNIX UID, the MVS identity used for authentication is unpredictable. This flag is off by default.
>
> If **runaspw** is also set, then **targetpw** is ignored.

tty_tickets

> If set, users must authenticate on a per-tty basis. Normally, **sudo** uses a directory in the timestamp directory with the same name as the user running it. With this flag enabled, **sudo** will use a file named for the tty the user is logged in on in that directory. This flag is off by default.

umask_override

> If sudoers **umask** is either negated or set to 0777, then **umask_override** is ignored. Otherwise, if **umask_overide** is set, **sudo** will set the umask as specified by sudoers without modification. This makes it possible to specify a more permissive umask in sudoers **umask** than the user's own umask and matches historical behavior. If **umask_override** is not set, **sudo** will set the umask to be the union of the user's umask and what is specified in sudoers **umask**. This flag is off by default.

use_loginclass

> Not supported on z/OS. If set, **sudo** will apply the defaults specified for the target user's login class if one exists. This flag is off by default.

visiblepw

> Not supported on z/OS. The password will always be hidden. If it is not possible to disable echo on the terminal, then **sudo** will fail.
>
> By default, **sudo** will refuse to run if the user must enter a password but it is not possible to disable echo on the terminal. If the **visiblepw** flag is set, **sudo** will prompt for a password even when it would be visible on the screen. This flag is off by default.

Integers:

Integer values are positive signed numeric values. Negative values will be treated as if 0 was specified, unless stated otherwise below.

closefrom

> Before it executes a command, **sudo** will close all open file descriptors other than standard input, standard output and standard error. The **closefrom** option can be used to specify a different file descriptor at which to start closing. The default is 3.

passwd_tries

> The number of tries a user gets to enter the password before **sudo** logs the failure and exits. Negative values are not valid. The default is 3.

Integers that can be used in a boolean context:

Integer values are positive signed numeric values. Negative values will be

treated as if 0 was specified, unless stated otherwise below. These are similar to the **Integers** option type except that these can also be boolean, in that they can be negated with the '!' character.

loglinelen

Number of characters per line for the file log. This value is used to decide when to wrap words to new lines for nicer log files. This has no effect on the syslog log file, only the file log. The default is 80 (use 0 or negate the option to disable word wrap). Negative values are not valid.

passwd_timeout

Number of minutes before the **sudo** password prompt times out. The default is 5; set this to 0 for no password timeout. Negative values are not valid.

timestamp_timeout

Number of minutes that can elapse before sudo will ask for a password again. The default is 5. Set this to 0 to always prompt for a password. If set to a value less than 0, the user's timestamp will never expire. This can be used to allow users to create or delete their own timestamps by way of **sudo -v** and **sudo -k** respectively.

umask

Umask to use when running the command. Negate this option or set it to 0777 to preserve the user's umask. The actual umask that is used will be the union of the user's umask and 022. This guarantees that **sudo** never lowers the umask when running a command.

Strings:

The values for these options are character strings in the IBM-1047 code set.

badpass_message

Message that is displayed if a user enters an incorrect password. The default is `Sorry, try again`.

editor A colon (':') separated list of editors allowed to be used with **sudoedit** and **visudo**. Those operations will choose the editor that matches the user's SUDO_EDITOR (for **sudoedit** only), VISUAL or EDITOR environment variable first, if possible. Otherwise, the first editor in the list that exists and is executable will be used. The default is `/bin/vi`.

mailsub

Subject of the mail sent to the **mailto** user. The escape `%h` will expand to the hostname of the system. Default is `*** SECURITY information for %h ***`.

noexec_file

Not supported on z/OS. Path to a shared library containing dummy versions of the execv(), execve() and fexecve() library functions that just return an error. This is used to implement the **noexec** functionality on systems that support LD_PRELOAD or its equivalent. Defaults to `/usr/local/libexec/sudo_noexec.so`.

passprompt

The default prompt to use when asking for a password; can be overridden by way of the **-p** option or the SUDO_PROMPT environment variable. The following percent ('%') escapes are supported:

%H   expanded to the local hostname including the domain name if the system's hostname is fully qualified or the **fqdn** option is set.

%h   expanded to the local hostname without the domain name.

%p   expanded to the user whose password is being asked for (respects the **rootpw**, **targetpw** and **runaspw** flags in sudoers).

%U   expanded to the login name of the user the command will be run as.

%u   expanded to the invoking user's login name.

%%   two consecutive % characters are collapsed into a single % character.

The default value is `Password:`.

role   Not supported on z/OS. The default SELinux role to use when constructing a newsecurity context to run the command. The default role may be overridden on a per-command basis in sudoers or by way of command line options.

runas_default

The default user to run commands when the **-u** and **-g** options are not specified on the command line. This may be either a user name, or a UID. To specify a UID instead of a user name, use #*uid*. However, if specifying a user that has a shared UNIX UID, it is recommended that you specify the *username* instead of the #*uid*. If a shared UNIX UID is specified for #*uid*, the MVS identity chosen for the process from among the MVS identities sharing the UID is unpredictable.

This defaults to BPXROOT. For better control of which user ID is selected as the default user, this option should be explicitly set to your desired user ID.

The `Runas_Spec` and `Runas_Alias` specifications can be used to specify other users for specific entries or groups of entries in the sudoers file.

The user name will be resolved into its corresponding entry in the user database or user ID alias table (as mapped by the USERIDALIASTABLE parm in sysparms). Therefore, if the MVS user ID is specified, then it may be entered in any case as it will be upper-cased by **sudo** before attempting to find a match the sudoers file. However, user ID alias names must be specified in the correct case.

syslog_badpri

Syslog priority to use when user authenticates unsuccessfully. Valid values are: alert, crit, debug, emerg, err, info, notice, warning. Refer to syslog() in the z/OS XL C/C++ Run-time Library Reference for more information about the related priority values. Defaults to `alert`.

syslog_goodpri

Syslog priority to use when user authenticates successfully. See the list of valid values in **syslog_badpri**. Defaults to `notice`.

sudoers_locale

Not supported on z/OS. Locale to use when parsing the sudoers file.

Note: Changing the locale may affect how sudoers is interpreted. Defaults to "C" (and therefore all characters in the sudoers file must be in IBM-1047 in this default case).

timestampdir

The directory in which **sudo** stores its timestamp files. The default is /var/run/sudo.

Note: sudo will create the timestamp directory if it does not exist. In addition, if the sudoers **timestampowner** is a UID(0) user and /var/run does not exist, it will also be created by **sudo** with a UID(0) owner and a 0755 permission mode.

timestampowner

The owner of the timestamp directory and the timestamps stored therein. The default is a UID(0) user. This may be either a user name or a UID. To specify a UID instead of a user name, use #*UID*.

type Not supported on z/OS. The default SELinux type to use when constructing a new security context to run the command. The default type may be overridden on a per-command basis in sudoers or by way of command line options.

zos_set_mvs_identity

Determines whether the MVS ID of the user invoking **sudo** should be kept or changed when running a command. The default value is never. The following values are supported:

always

Always change the MVS ID in addition to changing the real and effective UIDs. **sudo** will fail if it cannot be changed. The reason for such a failure is usually due to insufficient authority (that is, the user invoking **sudo** did not authenticate using the target user's password and does not have surrogate authority to the target user's MVS ID).

Changing the MVS ID requires one of the following:
- authentication with the target user's password, or
- surrogate authority to the target user.

sudo offers several different password authentication mechanisms. Regardless of which one is in effect, if the target user is the same as the user for which password authentication is being performed, then no additional authority is needed for authentication. However, if the password authentication is not for the target user, then the invoking user must also have READ access to the BPX.SRV.*userid* profile in the SURROGAT class, where *userid* is the target user's name.

Note:

1. When running a command as a UID(0) target user, by default, **sudo** will use the BPXROOT MVS ID. For better control of which MVS ID is selected as the target

UID(0) user, the sudoers **runas_default** should be specified and then it will be used instead of the default.

2. Some users are not required to perform password authentication (see the **authenticate** option). However, if the MVS ID is being changed and the user invoking **sudo** does not have surrogate authority to the target user, the user will be prompted to authenticate by password. This will occur when the sudoers options are set such that the target user's password would have been requested, had the user not been allowed to bypass authentication.

3. Changing the MVS ID requires either surrogate authority or password authentication during every **sudo** invocation that is going to set the MVS ID. This means that even if the **sudo** user's timestamp is valid (that is, not expired), password authentication to the target user needs to occur again if the user does not have surrogate authority to the target user.

4. If you use the OMVS interface when running a shell created by **sudo**, any attempt to execute TSO commands (PF6) results in the command running back in your TSO address space. When these TSO commands run, they run with your TSO identity, not the identity specified by **sudo**.

never   Never change the MVS ID. Only the real and effective UIDs are changed.

Strings that can be used in a boolean context:

The values for these options are character strings in the IBM-1047 code set. These are similar to the **Strings** option type except that these can also be boolean, in that they can be negated with the '!' character.

askpass

Not supported on z/OS. The **askpass** option specifies the fully qualified path to a helper program used to read the user's password when no terminal is available. This may be the case when **sudo** is executed from a graphical (as opposed to text-based) application. The program specified by **askpass** should display the argument passed to it as the prompt and write the user's password to the standard output. The value of **askpass** may be overridden by the SUDO_ASKPASS environment variable.

env_file

The **env_file** option specifies the fully qualified path to a file containing variables to be set in the environment of the command being run. Entries in this file should either be of the form `VARIABLE=value` or `export VARIABLE=value`. The value may optionally be surrounded by single or double quotes. Variables in this file are not subject to other **sudo** environment settings or value validation.

The contents of this file must be in the IBM-1047 code set.

exempt_group

Users in this group name are exempt from password and PATH requirements except under certain conditions when using the

zos_set_mvs_identity option. See "zos_set_mvs_identity" on page 236 for more information. The **exempt_group** option is not set by default.

lecture

This option controls when a short lecture will be printed along with the password prompt. It has the following possible values:

always

Always lecture the user.

never   Never lecture the user.

once   Only lecture the user the first time they run **sudo**.

If no value is specified, a value of **once** is implied. Negating the option results in a value of **never** being used. The default value is **once**.

lecture_file

Path to a file containing an alternate **sudo** lecture that will be used in place of the standard lecture if the named file exists. By default, **sudo** uses a built-in lecture.

listpw This option controls when a password will be required when a user runs **sudo** with the **-l** option. It has the following possible values:

all   All the user's sudoers entries for the current host must have the NOPASSWD flag set to avoid entering a password.

always

The user must always enter a password to use the **-l** option.

any   At least one of the user's sudoers entries for the current host must have the NOPASSWD flag set to avoid entering a password.

never   The user need never enter a password to use the **-l** option.

If no value is specified, a value of **any** is implied. Negating the option results in a value of **never** being used. The default value is **any**.

logfile Path to the **sudo** log file (not the syslog log file). Setting a path turns on logging to a file; negating this option turns it off. By default, **sudo** logs by way of syslog.

mailerflags

Flags to use when invoking mailer, identified by the **mailerpath** option. Defaults to **-t**.

mailerpath

Path to mail command used to send warning mail. Input options and arguments for this mail command may be specified on **mailerflags**. Defaults to /bin/sendmail.

mailfrom

Address to use for the "from" address when sending warning and error mail. The address should be enclosed in double quotes (") to protect against **sudo** interpreting the @ sign. Defaults to the name of the user running **sudo**.

mailto Address to send warning and error mail to. The address should be enclosed in double quotes (") to protect against **sudo** interpreting the @ sign.

> This defaults to BPXROOT. For better control of which user ID (and corresponding MVS user ID) is selected as the UID(0) user, this option should be explicitly used.

secure_path
> Path used for every command run from **sudo**. If you don't trust the people running **sudo** to have a sane PATH environment variable, you may want to use this. Another use is if you want to have the "UID(0) superuser path" be separate from the "user path." Users in the group specified by the **exempt_group** option are not affected by **secure_path**. This is not set by default.

syslog Syslog facility if syslog is being used for logging (negate to disable syslog logging). Valid values are: auth, daemon, user, and local0, local1, local2, local3, local4, local5, local6, local7. Defaults to local2.

verifypw
> This option controls when a password will be required when a user runs **sudo** with the **-v** option. It has the following possible values:

> **all** All the user's sudoers entries for the current host must have the NOPASSWD flag set to avoid entering a password.

> **always**
> > The user must always enter a password to use the **-v** option.

> **any** At least one of the user's sudoers entries for the current host must have the NOPASSWD flag set to avoid entering a password.

> **never** The user need never enter a password to use the **-v** option.

> If no value is specified, a value of **all** is implied. Negating the option results in a value of **never** being used. The default value is **all**.

Lists that can be used in a boolean context:
> The values for these options are lists containing one or more values. Read each option description for syntax details. These are similar to the **Strings** option type except that these can also be boolean, in that they can be negated with the '!' character.

env_check
> Environment variables to be removed from the user's environment if the variable's value contains % or / characters. This can be used to guard against printf-style format vulnerabilities in poorly-written commands. The argument may be a double-quoted, space-separated list or a single value without double-quotes. The list can be replaced, added to, deleted from, or disabled by using the =, +=, -=, and ! operators respectively. Regardless of whether the **env_reset** option is enabled or disabled, variables specified by **env_check** will be preserved in the environment if they pass the aforementioned check. The default list of environment variables to check is displayed when **sudo** is run by UID(0) with the **-V** option.

> **env_delete**
>> Environment variables to be removed from the user's environment when the **env_reset** option is not in effect. The argument may be a double-quoted, space-separated list or a single value without double-quotes. The list can be replaced, added to, deleted from, or disabled by using the =, +=, -=, and ! operators respectively. The default list of environment variables to remove from the new shell (that is, not preserved in the environment that the command is running in) is displayed when **sudo** is run by UID(0) with the **-V** option.

> **env_keep**
>> Environment variables to be preserved in the user's environment when the **env_reset** option is in effect. This allows fine-grained control over the environment **sudo**-spawned processes will receive. The argument may be a double-quoted, space-separated list or a single value without double-quotes. The list can be replaced, added to, deleted from, or disabled by using the =, +=, -=, and ! operators respectively. The default list of variables to keep is displayed when **sudo** is run by UID(0) with the **-V** option.

Files

/etc/sudoers
> List of who can run what

Examples

Below are example sudoers entries.

Note: The purpose of these examples is to demonstrate the syntax of aliases, options, and other related items, that can be configured in the sudoers file. Some of these examples may not be applicable (that is, installed or supported) for your system installation.

Aliases

```
User_Alias      FULLTIMERS = millert, mikef, dowdy
User_Alias      PARTTIMERS = bostley, jwfox, crawl
Runas_Alias     OP = BPXROOT, OPERATOR
Runas_Alias     DB = db2, lotus
Runas_Alias     ADMINGRP = adm, oper
Host_Alias      DEVSYS = bigtime, eclipse, moet, anchor :\
                INTSYS = blue, dandelion, black :\
                HPPA = boa, nag, python
Host_Alias      CSNETS = 128.138.243.0, 128.138.204.0/24, 128.138.242.0
Host_Alias      SERVERS = master, mail, www, ns
Cmnd_Alias      KILL = /usr/bin/kill
Cmnd_Alias      PRINTING = /usr/lpp/Printsrv/bin/cancel, \
                           /usr/lpp/Printsrv/bin/lpstat
Cmnd_Alias      SHELLS = /bin/sh, /bin/tcsh
Cmnd_Alias      SU = /bin/su
Cmnd_Alias      EDITOR_EXITS = /bin/vi, /bin/ex
```

Examples of default options

Here we override some of the compiled in default values. Some of these make use of aliases that were defined in the examples earlier.

1. We want **sudo** to log by way of syslog using the **auth** facility in all cases.

   ```
   Defaults        syslog=auth
   ```

2. We don't want to subject the full time staff to the **sudo** lecture.

```
             Defaults:FULLTIMERS        !lecture
```

3. User `millert` need not give a password.

```
   Defaults:millert          !authenticate
```

4. Do not reset the LOGNAME, USER or USERNAME environment variables when running commands as BPXROOT.

```
   Defaults>BPXROOT          !set_logname
```

5. Keep an additional local log file and log the year in each log line since the log entries will be kept around for several years.

```
   Defaults          log_year, logfile=/var/log/sudo.log
```

Examples of specifications

1. The User specification is the part that actually determines who may run what. For example, the following will let BPXROOT and any user in group `wheel` run any command on any host as any user.

```
   BPXROOT     ALL = (ALL) ALL
   %wheel      ALL = (ALL) ALL
```

2. Full time sysadmins may run any command on any host without authenticating themselves:

```
   FULLTIMERS        ALL = NOPASSWD: ALL
```

3. Part time sysadmins may run any command on any host but they must authenticate themselves first (since this entry lacks the NOPASSWD tag):

```
   PARTTIMERS        ALL = ALL
```

4. The user `jack` may run any command on systems with a network address matching those in the CSNETS alias:

```
   jack         CSNETS = ALL
```

5. The OPERATOR user may run commands limited to simple maintenance. Here, those are commands related to killing processes, the printing system, and any commands in the directory /usr/sbin:

```
   OPERATOR        ALL = KILL, PRINTING, /usr/sbin/
```

6. The user `joe` may only **su** to the user OPERATOR.

```
   joe         ALL= /bin/su OPERATOR
```

7. Users in the `opers` group may run commands in /usr/sbin as themselves with any group in the ADMINGRP `Runas_Alias`:

```
   %opers        ALL = (: ADMINGRP) /usr/sbin/
```

8. The user `pete` is allowed to change anyone's password except for BPXROOT on the HPPA systems.

   Note: This assumes **passwd** does not take multiple usernames on the command.

```
   pete          HPPA = /bin/passwd [A-Za-z]*, !/bin/passwd BPXROOT
```

9. The user `bob` may run anything on the DEVSYS and INTSYS systems as any user listed in the OP `Runas_Alias`:

```
   bob          DEVSYS = (OP) ALL : INTSYS = (OP) ALL
```

10. The user `fred` may run any commands as any user in the DB `Runas_Alias` without providing a password:

```
    fred          ALL = (DB) NOPASSWD: ALL
```

11. The user `john` may switch user (by way of the **su** command) to any explicitly entered user name except `secadm` and is not allowed to enter any **su** options either:

```
    john          ALL = /bin/su [!-]*, !/bin/su secadm
```

12. The user `jen` may run any commands except for those in the SERVERS
    `Host_Alias`:

    ```
    jen          ALL, !SERVERS = ALL
    ```

13. For any system in the SERVERS `Host_Alias`, `jill` may run any commands in
    the directory `/bin` except for those commands belonging to the SU, SHELLS
    and EDITOR_EXITS `Cmnd_Aliases`:

    ```
    jill         SERVERS = /bin/, !SU, !SHELLS, !EDITOR_EXITS
    ```

14. The user `steve` may run any commands in the directory `/usr/local/`
    `op_commands/` but only as user `OPERATOR`:

    ```
    steve          ALL = (OPERATOR) /usr/local/op_commands/
    ```

15. The user `matt` may kill hung processes on the system `prodsys` using
    commands defined by the KILL `Cmnd_Alias`:

    ```
    matt           prodsys = KILL
    ```

Security notes

It is generally not effective to "subtract" commands from ALL using the '!' operator.
A user can trivially circumvent this by copying the desired command to a different
name and then executing that. For example:

```
bill           ALL = ALL, !SU, !SHELLS
```

doesn't really prevent `bill` from running the commands listed in SU or SHELLS
since he can simply copy those commands to a different name, or use a shell
escape from an editor or other command. Therefore, these kind of restrictions
should be considered advisory at best (and reinforced by system security policy).
Furthermore, if the **fast_glob** option is in use, it is not possible to reliably negate
commands where the path name includes globbing (that is, wildcard) characters.
This is because the fnmatch() function cannot resolve relative paths. While this is
typically only an inconvenience for rules that grant privileges, it can result in a
security issue for rules that subtract or revoke privileges.

For example, given the following sudoers entry:

```
john ALL = /usr/bin/passwd [a-zA-Z0-9]*, /usr/bin/chsh [a-zA-Z0-9]*,
/usr/bin/chfn [a-zA-Z0-9]*, !/usr/bin/* root
```

user john can still run /usr/bin/passwd root if **fast_glob** is enabled by changing to
/usr/bin and running ./passwd root instead.

Preventing shell escapes

Once **sudo** executes a command, that command is free to do whatever it pleases,
including run other commands. This can be a security issue since it is not
uncommon for a command to allow shell escapes, which lets a user bypass **sudo's**
access control and logging. Common commands that permit shell escapes include
shells, editors, ftp, sftp, paginators, mail and terminal commands.

One approach to solving this problem is to avoid giving users access to commands
that allow the user to run arbitrary commands. Many editors have a restricted
mode where shell escapes are disabled, though **sudoedit** is a better solution to
running editors by way of **sudo**. However, due to the large number of commands
that offer shell escapes, restricting users to the set of commands that do not offer
them is often unworkable.

Note: Restricting shell escapes is not a panacea. Commands running as UID(0) are
still capable of many potentially hazardous operations (such as changing or

overwriting files) that could lead to unintended privilege escalation. In the specific case of an editor, a safer approach is to give the user permission to run **sudoedit**.

Related information

su, "sudo, sudoedit" on page 210, "visudo"

Caveats

The sudoers file should always be edited by the **visudo** command which locks the file and does grammatical checking. It is imperative that sudoers be free of syntax errors since **sudo** will not run with a syntactically incorrect sudoers file.

visudo

Name

visudo - edit the sudoers file

Synopsis

visudo [-c] [-q] [-s] [-V] [-f *sudoers*]

Description

visudo edits the sudoers file in a safe fashion. **visudo** locks the sudoers file against multiple simultaneous edits, provides basic sanity checks, and checks for parse errors. If the sudoers file is currently being edited, you will receive a message to try again later.

visudo will use the **/bin/vi** editor by default to edit the sudoers file. However, this may be overridden by using the **editor** sudoers *Default* variable. This allows other editors, such as the **/bin/oedit** editor, to be used. **visudo** honors the VISUAL or EDITOR environment variables if the editor specified by either of them is in the sudoers **editor** list.

visudo creates a temporary file, with the .tmp extension, in the same directory as the sudoers file being edited. This file is locked, and changes are only saved to the original upon user request.

visudo parses the sudoers file after the edit and will not save the changes if there is a syntax error. Upon finding an error, **visudo** will print a message stating the approximate line number(s) where the error occurred and the user will receive the "What now?" prompt. At this point, the user may enter "e" to re-edit the sudoers file, "x" to exit without saving the changes, or "Q" to quit and save changes. The "Q" option should be used with extreme care because if **visudo** believes there to be a parse error, so will **sudo** and no one will be able to **sudo** again until the error is fixed. If "e" is typed to edit the sudoers file after a parse error has been detected, the cursor will be placed on the line where the error occurred (if the editor supports this feature).

If the **-f** option is not used, then /etc/sudoers is edited. Upon saving changes to the default /etc/sudoers file or any other sudoers files edited due to #include and #includedir directives, if the ownership and permissions mode are not secure, **visudo** will change them to the defaults (that is, *uid* 0, *gid* 0, *mode* 0440). However, if no changes are made to the file, the ownership and permissions mode are left

unchanged. If the file was created by **visudo** and changes are not saved for that file, its permissions will be 0440 and the ownership is determined by the file system.

Options

visudo accepts the following command line options:

-c   Enable check-only mode. The existing sudoers file will be checked for syntax and a message will be printed to standard output detailing the status of sudoers. If the syntax check completes successfully, **visudo** will exit with a value of 0. If a syntax error is encountered, information about the error will be printed to stderr and **visudo** will exit with a value of 1.

-f *sudoers*
> Specify an alternate sudoers file location. With this option, **visudo** will edit (or check) the sudoers file of your choice, instead of the default, /etc/sudoers. The lock file used is the specified sudoers file with ".tmp" appended to it.
>
> Specifying the **-f** option also prevents **visudo** from altering the file's ownership and permissions mode to the default values, regardless of whether changes were saved. This pertains to existing sudoers file and new files created by **visudo**.

-q   Enable quiet mode. In this mode, details about syntax errors are not printed. This option is only useful when combined with the **-c** option.

-s   Enable strict checking of the sudoers file. If an alias is used before it is defined, **visudo** will consider this a parse error.

> **Note:** It is not possible to differentiate between an alias and a hostname or username that consists solely of uppercase letters, digits, and the underscore ('_') character.
>
> If the **-s** option is used with the **-c** option, then the sudoers file's ownership and permissions mode are also validated. If they are not set to the default values, **visudo** will print an error message and return non-zero.

-V   The **-V** (version) option causes **visudo** to print its version number and exit.

Exit values

Upon finding no errors, the exit value from **visudo** will be 0. Otherwise, it will be 1 if a syntax error was found, or if an alias error was found when using the **-s** option. Additionally, if the file's ownership or permissions mode are not set to the default values, and the **-s** option is used with the **-c** option, the exit value will be 1.

Environment

visudo utilizes the following environment variables:

_ZOS_SUDO_DEBUG
> Contains z/OS-specific debug information. This environment variable is only used internally and is not for external specification.

_ZOS_SUDO_NOMSGID
> Controls whether the IBM unique message ID is prepended onto diagnostic and error messages that are sent to the user. See Chapter 8, "sudo messages," on page 247.

EDITOR
> Used by **visudo** if VISUAL is not set.

VISUAL
> Invoked by **visudo** as the editor to use.

Files

/etc/sudoers
> List of who can run what.

/etc/sudoers.tmp
> Lock file for visudo.

Related information

vi, "sudoers" on page 220, "sudo, sudoedit" on page 210

Authors

Many people have worked on **sudo** over the years; this version of **visudo** was written by: Todd Miller

Visit http://www.sudo.ws/sudo/history.html for a short history of **sudo**.

Caveats

There is no easy way to prevent a user from gaining control of a shell while running as UID(0) if the editor used by **visudo** allows shell escapes. Therefore, use of **visudo** should be restricted to UID(0) users only.

visudo

Chapter 8. sudo messages

Message numbers

To enhance serviceability, IBM assigns a unique message number to each informational, warning and error message generated by sudo. These message numbers are of the form HPUD*xxxx* where *xxxx* is a unique four digit number. Message numbers starting with HPU0 are related to product enablement (see "Enabling Supplementary Toolkit for z/OS components" on page 8).

If your script or process needs to compare these messages against an expected message, the presence of the message number can cause the message to not match. For this reason, message numbering can be disabled by setting the _ZOS_SUDO_NOMSGID environment variable to 1 prior to running the script. For example:

```
export _ZOS_SUDO_NOMSGID=1
```

HPUD0001   must be setuid 0

Explanation: The **sudo** command must be owned by UID(0) and have the set–user–ID permission mode flag set.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Have the system programmer correct the permissions on the **sudo** binary executable and then try the command again.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0002   you are not permitted to use the –C option

Explanation: The sudoers settings do not allow you to use the –C (close from) option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: If this user should be allowed to use the –C option, then set the closefrom_override sudoers option for this user.

Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

User response: If you need to use the –C option, have your system programmer grant you permission to use the –C option.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –C fd

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0003   SUDO_USER '*user_name*' is not valid

Explanation: The SUDO_USER environment variable does not contain a valid user name.

In the message text:

user_name
  Name of user that used **sudo** on previous invocation.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0004 **ignoring '**command**' found in '.' Use 'sudo ./**command**' if this is the '**command**' you wish to run.**

Explanation: The command was found only in the current directory but was not specified with a preceding './'.

In the message text:

command
    Name of the command to run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error by specifying the command in the described format and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0005 command **not found**

Explanation: The command was not found.

In the message text:

command
    Name of the command to run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error by specifying the correct command name or fully qualified command name and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0006 **unable to execute** command

Explanation: The command can not be executed. No further information is available.

In the message text:

command
    Name of the command to run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Check the specified command, correct any errors, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0007 function**: Unable to get current ID:** error_message

Explanation: The current user's identity could not be obtained. The __getlogin1() system call failed.

In the message text:

function
　Name of the function where the error occurred.

error_message
　Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the system error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo command

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0008 *function*: **__spawn2() failed with** *error_code*, *error_code2*

Explanation: The system call failed. See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the error code value.

In the message text:

function
　Name of the function where the error occurred.

error_code
　Error code returned from the __spawn2() system call. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

error_code2
　Reason code information for the error code. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0009 *function*: **File name too long**

Explanation: The length of the command to run exceeds 255 characters.

In the message text:

function
　Name of the function where the error occurred.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the command to run and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0010 *function*: **Unknown user:** *user_name*

Explanation: The user name is not in the user database.

In the message text:

function
　Name of the function where the error occurred.

user_name
　Name of the user that was not found.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Try the command again. If unable to

resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0011   internal error, init_vars() overflow

Explanation: Internal error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0012   unknown user: *user_name*

Explanation: The user name is not in the user database.

In the message text:

user_name
   Name of the user specified on the –U option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the user name specified and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –U user_name

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0013   unable to change directory to *pathname*:
                   error_message

Explanation: Changing to the target user's home directory failed. The chdir() system call failed. The current directory was left unchanged in the target environment.

In the message text:

pathname
   Pathname that was used on the change directory system call.

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify that the home directory for the target user is valid. If it is needed, then correct it and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0014   unable to execute *command*: *error_message*

Explanation: The command can not be executed. The execve() system call failed. No further information is available.

In the message text:

command
   Name of the command to run.

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Check the specified command, correct any errors, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo command

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0015 unable to set group on *pathname*: *error_message*

Explanation: The group could not be changed on the sudoers file. The chown() system call failed.

In the message text:

pathname
  Pathname to the sudoers file whose group could not be changed.

error_message
  Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is writable by a UID(0) user. The group could not be changed, so the sudoers file may be accessible by unintended users. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0016 unable to fix mode on *pathname*: *error_message*

Explanation: The permissions mode could not be changed on the sudoers file. The chmod system call failed.

In the message text:

pathname
  Pathname to the sudoers file whose mode could not be changed.

error_message
  Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is writable by a UID(0) user. The permissions mode could not be changed, so the sudoers file may be accessible by unintended users. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0017 cannot get working directory

Explanation: The getcwd() system call failed. See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Ensure that you have the necessary permission to all components of your current working directory and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0018   Option '*option*' not supported.

Explanation: The option is not supported on z/OS. The option is ignored.

In the message text:

option
    Option that is not supported.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Remove the option from your **sudo** command's arguments and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0019   the argument to –C must be at least 3

Explanation: The value specified for –C was not valid. The **sudo** command's closefrom option does not support closing the standard input, standard output, and standard error descriptors.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the value specified with the –C option and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0020   you may not specify both the '–i' and '–s' options

Explanation: These options may not be specified at the same time.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –is command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0021   you may not specify both the '–i' and '–E' options

Explanation: These options may not be specified at the same time.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –Ei command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0022   **the '–E' option is not valid in edit mode**

Explanation: The user can not preserve the environment when using sudo in edit mode.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudoedit –E file

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0023   **you may not specify environment variables in edit mode**

Explanation: The user can not specify environment variables on the command line when using **sudo** in edit mode.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Remove the environment variable specification from the command and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –e VAR=value file

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0024   **the '–U' option may only be used with the '–l' option**

Explanation: The options specified may not be used together.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0025   **the '–A' and '–S' options may not be used together**

Explanation: These options may not be specified at the same time.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0026   fixed mode on *pathname*

Explanation: The permissions mode on the sudoers file was changed to the default mode.

In the message text:

pathname
  Pathname to the sudoers file whose mode was changed.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0027   set group on *pathname*

Explanation: The group ID on the sudoers file was changed to 0.

In the message text:

pathname
  Pathname to the sudoers file whose group was changed.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0028   Only one of the –e, –h, –i, –K, –l, –s, –v or –V options may be specified

Explanation: Only one option from this set may be specified at a time.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the options specified and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0029   no valid sudoers sources found, quitting

Explanation: No valid sudoers file was found. The **sudo** command can not run without a valid sudoers file describing what commands users may run and as which users.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Create and properly configure a sudoers file in the /etc directory. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0030   timestamp owner (*user_name***): No such user**

Explanation: The owner specified to own the timestamp directory and files is not valid.

In the message text:

user_name
     Name of the owner.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the user specified by the Defaults timestampowner sudoers option. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0031   sorry, you must have a tty to run sudo

Explanation: The sudoers options indicate that you are only allowed to run **sudo** from a real tty.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Running **sudo** from a **cron** job.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0032   sorry, you are not allowed to preserve the environment

Explanation: The user running **sudo** is not allowed to preserve their environment.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: If you want to allow this user to preserve their environment, enable the setenv sudoers option. Otherwise, this failure is the correct behavior for this user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Remove the –E option and try the command again. If you need to be allowed to preserve the environment, contact your system programmer to change the sudoers options. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: sudo –E command

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0033   can't get group vector: *error_message*

Explanation: The getgroups() or getgroupsbyname() system call failed.

In the message text:

error_message
     Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error for the user and have them try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0034   can't get hostname

Explanation: The host name could not be obtained. "localhost" is used.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0035   can't stat *pathname***:** *error_message*

Explanation: The sudoers file is not accessible. The stat() system call failed.

In the message text:

pathname
    Pathname to the sudoers file that is not accessible.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is accessible by a UID(0) user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0036   *pathname*: is not a regular file

Explanation: The sudoers file must be a regular file.

In the message text:

pathname
    Pathname to the sudoers file that is not a regular file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that all files identified as sudoers source files are regular files. Correct any incorrect files or specifications. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0037   *pathname* is mode 0*file_mode*, should be 0*required_mode*

Explanation: The permissions mode is incorrect on the sudoers file.

In the message text:

pathname
    Pathname to the sudoers file whose mode is incorrect.

file_mode
    Existing permissions mode of the sudoers file.

required_mode
    Required permissions mode of the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the permissions mode on the sudoers file. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0038   *pathname* **is owned by uid** *UID***, should be** *required_UID*

Explanation: The sudoers file owner must be UID(0).

In the message text:

pathname
>Pathname to the sudoers file whose owner is incorrect.

UID
>User ID that owns the sudoers file.

required_UID
>User ID that must own the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Change the owner of the sudoers file to UID(0). If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0039   *pathname* **is owned by gid** *GID***, should be** *required_GID*

Explanation: The sudoers file group must be GID(0).

In the message text:

pathname
>Pathname to the sudoers file whose group is incorrect.

GID
>Group ID that owns the sudoers file.

required_GID
>Group ID that must own the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Change the group of the sudoers file to GID(0). If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0040   **can't open** *pathname***:** *error_message*

Explanation: The sudoers file can not be opened. The fopen() system call failed.

In the message text:

pathname
>Pathname to the sudoers file.

error_message
>Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error described. Also, verify that the sudoers file is accessible by a UID(0) user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0041   can't read *pathname***:** *error_message*

Explanation: The sudoers file was successfully opened, but read attempts failed. The read() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is accessible by a UID(0) user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0042   unable to resolve host *host_name*

Explanation: The host name could not be resolved into an address.

In the message text:

host_name
> Host name that could not be resolved into an address.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Fix any possible network or host name resolution errors on the system. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0043   unknown user: *user_name*

Explanation: The user name is not in the user database.

In the message text:

user_name
> Name of the user specified on the –u option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the user name specified and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0044   unknown group: *group_name*

Explanation: The group name is not in the group database.

In the message text:

group_name
> Name of the group specified on the –g option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the group name specified and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0045   unknown user: *user_name*

Explanation: The user name is not in the user database.

In the message text:

user_name
    Name of the sudoers runas_default user in the sudoers file.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the user name specified on the sudoers runas_default option. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0046   unknown uid: *UID*

Explanation: The target user's UID is not in the user database.

In the message text:

UID
    Target user's UID that is not in the user database.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Check if the UID should be valid, and correct the user database if needed. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the target user's UID specified on the –u option and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0047   *function*: invoking user identity (*user_name*,*user_UID*,*user_GID*) does not match the invoking process identity (*process_real_UID*,*process_real_GID*).

Explanation: The identity of the process must match the identity of the invoking user. An identity mismatch can occur after a successful call to the **sudo** command that does not change the MVS identity.

In the message text:

function
    Internal function that issued the message.

user_name
    User name of the invoking user.

user_UID
    User ID of the invoking user.

user_GID
    Group ID of the invoking user.

process_real_UID
    Real user ID of the process.

process_real_GID
    Real group ID of the process.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Ensure that the indentity of the invoking user matches the identity of the invoking process and try the command again.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0048   can't set group vector: *error_message*

Explanation: The initgroups() system call failed.

In the message text:

error_message
>   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error for the user and have them try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0100   User is not a surrogate of "*user_name***".**

Explanation: The user does not have read access to the SURROGAT class profile for the target user, and the target user's password was not going to be used for sudo authentication.

In the message text:

user_name
>   Target user's name.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Verify that the user has read access to the appropriate SURROGAT class profile. Alternatively, the sudoers configuration could be altered to perform sudo authentication with the target user's password. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0101   No password entered.

Explanation: A password is required for sudo authentication.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Try the command again, entering a valid password when prompted.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0102   Invalid password entered: reason code = *error_code2*.

Explanation: The password entered was not a valid password.

In the message text:

error_code2
>   Reason code information for the error. See the __errno2() system call in *z/OS XL C/C++ Runtime Library Reference* for further information.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is needed unless the user is unable to resolve the problem. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Try the command again, entering a valid password when prompted.

If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0103   **Program loaded from an uncontrolled library.**

Explanation: When the BPX.DAEMON profile is defined in the FACILITY class, any program loaded in the address space where the **sudo** command is running must be defined to program control. Because an uncontrolled program has been loaded, the address space is marked "dirty".

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Check the system log for any messages from the security product indicating that the environment has become uncontrolled. (For example, ICH420I may be issued by RACF.) Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0105   **User ID "***user_name***" does not exist, or the RACF profile does not contain an OMVS segment.**

Explanation: The specified user ID used for sudo authentication was either not defined to RACF or the RACF profile does not contain an OMVS segment.

In the message text:

user_name
    User name.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Verify that the RACF profile for the user ID exists and contains an OMVS segment.

User response: Contact the system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0106   **Password incorrect for "***user_name***".**

Explanation: The password entered is incorrect for sudo authentication.

In the message text:

user_name
    User's name.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Try the command again, entering the correct password when prompted.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0121   **can't reset** *pathname* **to Epoch:**
      error_message

Explanation: The timestamp used for sudo authentication expiration could not be reset to the Epoch. The touch() system call failed.

In the message text:

pathname
    Path to the affected timestamp directory or file.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0122   sorry, a password is required to run *command*

Explanation: The **sudo** command requires password authentication, but non–interactive (–n) mode was specified.

In the message text:

command
> Command to run with **sudo**.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Remove the –n option and run the **sudo** command interactively, performing password authentication when requested. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0123   internal error, expand_prompt() overflow

Explanation: An internal error has occurred.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0124   Can't open *pathname***:** *error_message*

Explanation: The timestamp file used for sudo authentication expiration could not be opened. The open() system call failed.

In the message text:

pathname
> Path to the affected timestamp file.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0125   **Can't mkdir** *pathname***:** *error_message*

Explanation: The timestamp directory used for sudo authentication expiration could not be created. The mkdir() system call failed.

In the message text:

pathname
> Path to the timestamp directory.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0126   **timestamp path too long:** *pathname*

Explanation: The timestamp directory or file pathname is too long.

In the message text:

pathname
> Path to the timestamp directory or file.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the timestampdir sudoers option to specify a pathname that is less than 256 bytes long, allowing room for subdirectories and files within those subdirectories to be appended to the specified path name. After correcting the error, have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0127   *pathname* **exists but is not a directory (0***mode***)**

Explanation: The timestamp directory used for sudo authentication expiration could not be created.

In the message text:

pathname
> Path to the timestamp directory.

mode
> Existing mode of the pathname indicating the type.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0128   *pathname* **owned by uid** *UID***, should be** *required_UID*

Explanation: The timestamp directory's owner is not correct.

In the message text:

pathname
> Pathname to the directory whose owner is incorrect.

UID
> User ID that owns the timestamp directory.

required_UID
> User ID that must own the timestamp directory.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Change the owner of the timestamp directory. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0129 *pathname* **writable by non–owner (0***file_mode***), should be mode 0700**

Explanation: The timestamp directory's permissions mode is incorrect.

In the message text:

pathname
  Path to the timestamp directory.

file_mode
  Existing permissions mode of the timestamp directory.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the permissions of the timestamp directory. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0130 **can't stat** *pathname***:** *error_message*

Explanation: Attributes could not be retrieved from the timestamp directory or file used for sudo authentication expiration. The stat() system call failed.

In the message text:

pathname
  Path to the timestamp directory.

error_message
  Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0131 **can't mkdir** *pathname***:** *error_message*

Explanation: The timestamp directory used for sudo authentication expiration could not be created. The mkdir() system call failed.

In the message text:

pathname
  Path to the timestamp directory.

error_message
  Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0132   *pathname* **exists but is not a regular file (0***file_mode***)**

Explanation: The timestamp file must be a regular file.

In the message text:

pathname
    Path to the timestamp file.

file_mode
    Existing permissions mode of the timestamp file.

mode
    Existing mode value indicating the permissions and file type.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Remove or rename the identified file and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0133   *pathname* **writable by non–owner (0***file_mode***), should be mode 0600**

Explanation: The timestamp file's permissions mode is incorrect.

In the message text:

pathname
    Path to the timestamp file.

file_mode
    Existing permissions mode of the timestamp file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the permissions of the timestamp file. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0134   **timestamp too far in the future:** *timestamp*

Explanation: The timestamp directory or file used for sudo authentication expiration has a last modified timestamp that is not valid.

In the message text:

timestamp
    Timestamp that is not valid.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: This error is usually a result of either the system clock being altered or the timestamp on the directory or file being changed incorrectly. A common response for this problem is to delete the timestamp directory or file and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0135   **can't remove** *pathname* **(***error_description***), will reset to Epoch**

Explanation: The timestamp directory or file used for sudo authentication expiration could not be removed. Its last modified timestamp will be set to the Epoch.

In the message text:

pathname
    Path to the timestamp directory or file.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error and have the user try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0150   unable to change to sudoers gid: *error_message*

Explanation: The **sudo** command was not able to change the effective group ID for the process. The setregid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0151   cannot set gid to runas gid: *error_message*

Explanation: The **sudo** command was not able to change the real and effective group IDs for the process. The setgid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0152   too many processes: *error_message*

Explanation: The **sudo** command was not able to change user IDs or group IDs at this time. The EAGAIN error number was returned from a system call.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the system error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0153   setreuid(–1, ROOT_UID): *error_message*

Explanation: The **sudo** command was not able to change the effective user ID of the process to UID(0). The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0154   setuid(ROOT_UID): *error_message*

Explanation: The **sudo** command was not able to change the real user ID of the process to UID(0). The setuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the

attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0155   setreuid(user_uid,0) failed: *error_message*

Explanation: The **sudo** command was not able to change the real user ID of the process to the invoking user's user ID. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0156   setreuid(ROOT_UID, user_uid):
> *error_message*

Explanation: The **sudo** command was not able to change the real and effective user IDs of the process to

UID(0) and the invoker's user ID, respectively. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0157   setreuid(user_uid, user_uid):
                 error_message

Explanation: The **sudo** command was not able to change the real and effective user IDs of the process to the invoker's user ID. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0158   unable to change to runas uid:
                 error_message

Explanation: The **sudo** command was not able to change the effective user ID of the process to the target user's user ID. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0159   Unable to change real UID to runas
                 user: *error_message*

Explanation: The **sudo** command was not able to change the real user ID of the process to the target user's user ID. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0160   Unable to change effective UID to runas user: *error_message*

Explanation: The **sudo** command was not able to change the effective user ID of the process to the target user's user ID. The setreuid() system call failed.

In the message text:

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0161   setreuid(ROOT_UID, timestamp_uid): *error_message*

Explanation: The **sudo** command was not able to change the real and effective user IDs of the process to UID(0) and the timestamp directory owner's user ID, respectively. The setreuid() system call failed.

In the message text:

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0162   can't set runas group vector: *error_message*

Explanation: The **sudo** command was not able to initialize the supplementary group list for the process. The initgroups() system call failed.

In the message text:

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0163   can't get runas group vector:
error_message

Explanation: The **sudo** command was not able to retrieve the supplementary group list for the process. The getgroups() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0164   can't reset user group vector:
error_message

Explanation: The **sudo** command was not able to change the supplementary group list for the process. The setgroups() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0180   *pathname*: *error_message*

Explanation: The pathname could not be accessed. Either the stat() or open() system call failed.

In the message text:

pathname
> Pathname of file.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0165   setreuid(timestamp_uid,0) failed: *error_message*

Explanation: The **sudo** command was not able to change the real user ID of the process to the timestamp directory owner's user ID. The setreuid() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0166   *function***: MVS identity change from** *original_MVS_identity* **to** *target_MVS_idenity* **not allowed.**

Explanation: The specified MVS identity change is not allowed.

In the message text:

original_MVS_identity
> Original MVS identity.

target_MVS_idenity
> Target MVS identity.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Ensure that the attributes for the **sudo** binary executable are correct. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for the correct installation setup. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0181   mkstemp: *error_message*

Explanation: A unique temporary file could not be created by the mkstemp() system call.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0182   *pathname***:** *error_message*

Explanation: The write() system call failed when writing to the file.

In the message text:

pathname
> Pathname of file.

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0183   fork: *error_message*

Explanation: The fork() system call failed.

In the message text:

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0184   unable to execute *command*: *error_message*

Explanation: The execvp() system call failed when trying to execute the command.

In the message text:

command
    Command being executed.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0185   unable to write to *pathname*: *error_message*

Explanation: The pathname could not be opened for writing. The write() system call failed.

In the message text:

pathname
    Pathname of file.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0186 *pathname*: *error_message*

Explanation: The read() system call failed when trying to read from *pathname*.

In the message text:

pathname
    Pathname of file.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0187   **unable to read temporary file:**
              error_message

Explanation: The temporary file used by **sudoedit** could not be read. The read() system call failed.

In the message text:

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0188   *pathname*: **not a regular file**

Explanation: The pathname is not a regular file. The editing capabilities of **sudo** do not support the specified file's type.

In the message text:

pathname
    Pathname of file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0189   *pathname*: **short write**

Explanation: A write to the pathname could not write all bytes requested.

In the message text:

pathname
    Pathname of file.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Ensure there is enough free space in the file system. Once corrected, try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0190 *pathname* **left unmodified**

Explanation: An error occurred. See previous error message for more information.

In the message text:

pathname
  Pathname of file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: No user programmer response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0191 *pathname* **unchanged**

Explanation: No changes were made to the file.

In the message text:

pathname
  Pathname of file.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0192 **contents of edit session left in** *pathname*

Explanation: An error occurred. See previous error message for more information.

In the message text:

pathname
  Pathname of file where the contents of the failed edit session were retained.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Before correcting the error and trying the command again, you may want to save a copy of the retained edit session or move it to its original location. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0193 **unable to write to** *pathname*: *error_message*

Explanation: The write() system call failed.

In the message text:

pathname
  Pathname of file.

error_message
  Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0210   internal error, tried to emalloc(0)

Explanation: An attempt was made to allocate zero bytes of storage.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit, visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0211   internal error, tried to emalloc2(0)

Explanation: An attempt was made to allocate zero bytes of storage.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit, visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0212   internal error, tried to erealloc(0)

Explanation: An attempt was made to reallocate zero bytes of storage.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit, visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0213   internal error, tried to erealloc3(0)

Explanation: An attempt was made to reallocate zero bytes of storage.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, sudoedit, visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0214   unable to allocate memory

Explanation: Memory could not be allocated.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0215   internal error, emalloc2() overflow

Explanation: A memory allocation request was made that exceeds the maximum allowed.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0216   internal error, erealloc3() overflow

Explanation: A memory reallocation request was made that exceeds the maximum allowed.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Verify your command for correctness and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0230   internal error, sudo_setenv() overflow

Explanation: An internal error has occurred when trying to set up environment variables for the process.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0231   sorry, you are not allowed to set the following environment variables: *environment_variables*

Explanation: The sudoers configuration does not allow you to set these environment variables when running the command with **sudo**.

environment_variables
  List of environment variables that you are not allowed to set.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Verify whether the environment variables listed should be allowed for this

user's **sudo** command environment. Adjust the sudoers configuration file, if needed. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Remove the environment variables from your **sudo** command or do not attempt to preserve your environment with the –E option and try the command again. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0250 >>> *pathname*: *error_description* **near line** *line_number* <<<

Explanation: An error was found in the sudoers file.

In the message text:

pathname
    Pathname of the sudoers file.

error_description
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

line_number
    Line number in the sudoers file near where the error exists.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file before allowing further use of the **sudo** command. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0300 *function*: *system_call* **failed:** *error_message*

Explanation: A system call failed. The system error is displayed with the message. The failure occurred in *function*.

In the message text:

function
    Internal function that issued the message.

system_call
    The system call that failed.

error_message
    The error message for the failure.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the system error. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0301 *function*: *system_call* **failed:** *error_message*

Explanation: A system call failed. The system error is displayed with the message. The failure occurred in *function*.

In the message text:

function
    Internal function that issued the message.

system_call
    The system call that failed.

error_message
    The error message for the failure.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the system error. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0315 **cannot fork:** *error_message*

Explanation: The fork() system call failed.

In the message text:

error_message
> Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error, if possible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0316 **internal error: insufficient space for log line**

Explanation: An internal error has occurred while trying to log.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0317 *user_name* **is not in the sudoers file. This incident will be reported.**

Explanation: The user is not authorized to run **sudo**.

In the message text:

user_name
> Name of user that is not in the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify if the user should be allowed to use the command and update the sudoers file, if needed. If the user should not be allowed to use the command, then this failure is the correct behavior. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0318 *user_name* **is not allowed to run sudo on** *host_name*. **This incident will be reported.**

Explanation: The user is not authorized to run **sudo** on this host system.

In the message text:

user_name
> Name of user that is not in the sudoers file.

host_name
> Name of host where **sudo** was run by the user.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify if the user should be allowed to use the command and update the sudoers file, if needed. If the user should not be allowed to use the command, then this failure is the correct behavior. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0319   Sorry, user *user_name* **may not run sudo on** *host_name***.**

Explanation: The user is not authorized to run **sudo** on this host system.

In the message text:

user_name
Name of user that is not in the sudoers file.

host_name
Name of host where **sudo** was run by the user.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify if the user should be allowed to use the command and update the sudoers file, if needed. If the user should not be allowed to use the command, then this failure is the correct behavior. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0320   Sorry, user *user_name* **is not allowed to execute '***command command_args***' as** *runas_user_name***:***runas_group_name* **on** *host_name***.**

Explanation: The user is not authorized to run **sudo**.

In the message text:

user_name
Name of user running **sudo**.

command
Name of command to be run with **sudo**.

command_args
Command arguments for command to be run with **sudo**.

runas_user_name
Name of user to have run the command.

runas_group_name
Name of group to have run the command.

host_name
Name of host where **sudo** was run by the user.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify if the user should be allowed to use the command and update the sudoers file, if needed. If the user should not be allowed to use the command, then this failure is the correct behavior. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0321   setsid: *error_message*

Explanation: The setsid() system call failed.

In the message text:

error_message
Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

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Operator response: No system operator response is required.

System programmer response: Correct the error, if possible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0330   parse error in *pathname* **near line** *line_number*

Explanation: An error was found in the sudoers file.

In the message text:

pathname
    Pathname of the sudoers file.

line_number
    Line number in the sudoers file near where the error exists.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file before allowing further use of the **sudo** command. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0350   unable to cache uid *UID* **(***user_name***), already exists**

Explanation: An internal error has occurred when updating the sudo user ID cache.

In the message text:

UID
    User ID.

user_name
    Name of user.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0351   unable to cache uid *UID***, already exists**

Explanation: An internal error has occurred when updating the sudo user ID cache.

In the message text:

UID
    User ID.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0352   **unable to cache gid** *GID* **(***group_name***), already exists**

Explanation: An internal error has occurred when updating the sudo group ID cache.

In the message text:

GID
     Group ID.

group_name
     Name of group.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0353   **unable to cache gid** *GID***, already exists**

Explanation: An internal error has occurred when updating the sudo group ID cache.

In the message text:

GID
     Group ID.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0380   *number_of_attempts* **incorrect password attempts**

Explanation: The maximum number of incorrect password attempts has been reached.

In the message text:

number_of_attempts
     Number of incorrect password attempts made by the user.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Try the command again, specifying the correct password when prompted for it.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0381   *incorrect_password_message*

Explanation: The message that is displayed if the user enters an incorrect password.

In the message text:

incorrect_password_message
     Incorrect password message. This is customizable by the system programmer.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Enter the correct password.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0400   unknown defaults entry '*option_name*'

Explanation: An unknown sudoers option was found on a Defaults entry in a sudoers file.

In the message text:

option_name
>   Name of option that was specified.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0401   value '*option_value*' is invalid for '*option_name*'

Explanation: The value specified may not be used for this sudoers option.

In the message text:

option_value
>   Option value that was specified.

option_name
>   Name of option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0402   no value specified for '*option_name*'

Explanation: A value is required for this sudoers option.

In the message text:

option_name
>   Name of option that needs a value.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0403   values for '*option_name*' must start with a '/'

Explanation: Valid values for this option are absolute path names.

In the message text:

option_name
>   Name of option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0404   option '*option_name***' does not take a value**

Explanation: A value was specified for the sudoers option, however, this option is a boolean flag that does not take a value.

In the message text:

option_name
     Name of option.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0405   defaults entry '*option_name***' not supported**

Explanation: This option is not supported on z/OS.

In the message text:

option_name
     Option name.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Remove the option from the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and*

Reference for more information. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPUD0430   *password_prompt*

Explanation: Password prompt.

In the message text:

password_prompt
     Password prompt. This is customizable by the system programmer.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Enter the password.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **sudo**, **sudoedit**

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0450   write error: *error_message*

Explanation: An error occurred while copying the sudoers file to a temporary file. The write() system call may have failed, or it may have been unable to completely write all data requested.

In the message text:

error_message
     Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error and try the command again. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0451   unable to run *editor_pathname*:
error_message

Explanation: The fork() system call failed before the *editor_pathname* could be run.

In the message text:

editor_pathname
   Pathname to the editor.

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error, if possible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0452   unable to run *editor_pathname*:
error_message

Explanation: The execv() system call failed trying to run *editor_pathname*.

In the message text:

editor_pathname
   Pathname to the editor.

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error, if possible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0453   unable to stat editor (*editor_pathname***):**
error_message

Explanation: The editor could not be accessed. The stat() system call failed.

In the message text:

editor_pathname
   Pathname to the editor.

error_message
   Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Correct the error, if possible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command

again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0454 **unable to set (uid, gid) of** *pathname* **to** **(***UID***,** *GID***):** *error_message*

Explanation: The owning user ID and group ID of the temporary sudoers file could not be changed to the values listed. The chown() system call failed.

In the message text:

pathname
    Pathname to the file.

UID
    User ID.

GID
    Group ID.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is writable by a UID(0) user. Since the file ownership could not be changed, the sudoers file may be accessible by unintended users. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Changes to the sudoers file remain in the temporary file. If they are needed, the temporary file should be copied or renamed prior to running **visudo** again. Next, correct the error and try the **visudo** command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0455 **unable to change mode of** *pathname* **to** **0***file_mode***:** *error_message*

Explanation: The permissions mode of the temporary sudoers file could not be changed to the value listed. The chmod() system call failed.

In the message text:

pathname
    Pathname to the file.

file_mode
    Permissions mode to set on the temporary sudoers file.

error_message
    Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is writable by a UID(0) user. The permissions mode could not be changed, so the sudoers file may be accessible by unintended users. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Changes to the sudoers file remain in the temporary file. If they are needed, the temporary file should be copied or renamed prior to running **visudo** again. Next, correct the error and try the **visudo** command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0456 **error renaming** *temporary_pathname*, *sudoers_pathname* **unchanged:** *error_message*

Explanation: The temporary sudoers file used by **visudo** could not be moved back to the permanent sudoers file pathname. Changes made during the edit session are discarded and the temporary file is

removed. The rename() system call failed.

In the message text:

temporary_pathname
Pathname to the temporary sudoers file being edited.

sudoers_pathname
Pathname to the permanent sudoers file being edited.

error_message
Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and parent directory containing the sudoers file is writable by a UID(0) user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Changes to the sudoers file were discarded. Correct the error and try the **visudo** command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0457   unable to open *pathname***:** *error_message*

Explanation: The sudoers file could not be opened. The fopen() system call failed.

In the message text:

pathname
Pathname of the sudoers file.

error_message
Description of the system error. Refer to *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the error and try the command

again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0458   you don't exist in the passwd database

Explanation: The user that called **visudo** could not be found in the user database.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Determine if there is a problem with the user's user ID and correct the problem, if necessary. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0459   can't re–open temporary file (*temporary_pathname***),** *sudoers_pathname* **unchanged.**

Explanation: The temporary sudoers file used by **visudo** could not be opened again.

In the message text:

temporary_pathname
Pathname to the temporary sudoers file being edited.

sudoers_pathname
Pathname to the permanent sudoers file being edited.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Verify that the file

system and parent directory containing the sudoers file is still accessible. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Changes to the sudoers file remain in the temporary file. If they are needed, the temporary file should be copied or renamed prior to running **visudo** again. Next, correct the error and try the **visudo** command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0460   internal error, can't find *pathname* **in list!**

Explanation: An internal error occurred when trying to re–edit the sudoers file.

In the message text:

pathname
    Pathname to the sudoers file being edited.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Changes to the sudoers file remain in the temporary file. If they are needed, the temporary file should be copied or renamed prior to running **visudo** again. Try the **visudo** command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0461   *pathname* busy, try again later

Explanation: The sudoers file is locked by another process and can not be edited by **visudo** at this time.

In the message text:

pathname
    Pathname to the sudoers file.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Wait until the file is no longer in use, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0462   specified editor (*editor_pathname***) doesn't exist!**

Explanation: The editor for **visudo** to use was not found.

In the message text:

editor_pathname
    Pathname to the editor.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Follow local procedures for reporting problems to IBM.

User response: Correct the editor that is specified, ensure you have authority to use it, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends immediately).

Automation: Not applicable.

HPUD0463   no editor found (editor path =
                *editor_pathname***)**

Explanation: The editor for **visudo** to use was not
found.

In the message text:

editor_pathname
      Pathname to the editor.

System action: The command ends.

Operator response: No system operator response is
required.

System programmer response: Follow local
procedures for reporting problems to IBM.

User response: Correct the editor that is specified,
ensure you have authority to use it, and try the
command again. Refer to the **visudo** documentation for
more information about the different ways to specify an
editor. If unable to resolve, contact your system
programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: F– A fatal error (command ends
immediately).

Automation: Not applicable.

**HPUD0464   *pathname*: wrong owner (uid, gid) should
                be (***UID***, ***GID***)**

Explanation: The ownership of the sudoers file is
incorrect.

In the message text:

pathname
      Pathname to the sudoers file.

UID
      User ID that should own the sudoers file.

GID
      Group ID that should own the sudoers file.

System action: The command continues.

Operator response: No system operator response is
required.

System programmer response: The system
programmer should correct the ownership of the
sudoers file before allowing any users on the system to
use the **sudo** command.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

**HPUD0465   *pathname*: bad permissions, should be
                mode 0***file_mode*

Explanation: The permissions mode of the sudoers file
are incorrect.

In the message text:

pathname
      Pathname of the sudoers file.

file_mode
      Permissions mode that should be set on the
      sudoers file.

System action: The command continues.

Operator response: No system operator response is
required.

System programmer response: The system
programmer should correct the permissions mode of
the sudoers file before allowing any users on the
system to use the **sudo** command.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

**HPUD0466   cannot stat temporary file
                (***temporary_pathname***),** *sudoers_pathname*
                unchanged

Explanation: The temporary sudoers file is not
accessible.

In the message text:

temporary_pathname
      Pathname to the temporary sudoers file being
      edited.

sudoers_pathname
      Pathname to the permanent sudoers file being
      edited.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: Verify that the file system and pathname containing the sudoers file is accessible by a UID(0) user. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0467   zero length temporary file
(*temporary_pathname*), *sudoers_pathname*
unchanged

Explanation: After editing the sudoers file, **visudo** detected that the temporary sudoers file was empty. The temporary file is removed and the permanent sudoers file remains unchanged.

In the message text:

temporary_pathname
     Pathname to the empty temporary sudoers file.

sudoers_pathname
     Pathname to the permanent sudoers file being edited.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0468   editor (*editor_pathname*) failed,
**   *sudoers_pathname* unchanged**

Explanation: The editor used by **visudo** to edit the sudoers file has failed.

In the message text:

editor_pathname
     Pathname to the editor used by **visudo**.

sudoers_pathname
     Pathname to the sudoers file being edited.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Look for error messages preceding this message to determine if there is anything that needs to be corrected, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0469   *temporary_pathname* unchanged

Explanation: After editing the sudoers file, **visudo** determined that no changes were made. The temporary file is removed and the permanent sudoers file remains unchanged.

In the message text:

temporary_pathname
     Pathname to the temporary sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0470 **unabled to parse temporary file (***temporary_pathname***), unknown error**

Explanation: After editing the sudoers file, **visudo** encountered an unknown error while parsing the temporary sudoers file's contents.

In the message text:

temporary_pathname
    Pathname to the temporary sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: This message will be followed by a message prompting the user to respond with how to proceed.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0471 *temporary_pathname* **and** *sudoers_pathname* **not on the same file system, using mv to rename**

Explanation: The temporary sudoers file and the permanent sudoers file reside in different file systems. The mv command will be used to move the temporary sudoers file into the permanent sudoers file's.

In the message text:

temporary_pathname
    Pathname to the temporary sudoers file.

sudoers_pathname
    Pathname to the permanent sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0472 **command failed:** **'***move_command_pathname temporary_pathname sudoers_pathname***',** *sudoers_pathname* **unchanged**

Explanation: The temporary sudoers file could not be moved to replace the permanent sudoers file. The move command failed. The temporary file is removed and the permanent sudoers file remains unchanged.

In the message text:

move_command_pathname
    Pathname name to the move command.

temporary_pathname
    Pathname to the temporary sudoers file.

sudoers_pathname
    Pathname to the permanent sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Look for error messages preceding this message to determine if there is anything that needs to be corrected, and try the command again. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0473 **failed to parse** *sudoers_pathname* **file, unknown error**

Explanation: After editing the sudoers file, **visudo** encountered an unknown error while parsing the permanent sudoers file's contents.

In the message text:

sudoers_pathname
     Pathname to the permanent sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: This message will be followed by a message prompting the user to respond with how to proceed.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0474   *severity*: *alias_type*_**Alias** '*token_name*'
                 referenced but not defined

Explanation: The token follows the naming convention of a sudoers alias name. However, an alias by that name is not found.

In the message text:

severity
     Severity of the error. This is determined by the presence of the **visudo** –s option.

alias_type
     Type of alias.

token_name
     Name of the token that appears to be an undefined alias.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: Determine if the usage of the name is valid. If it is intended to be an alias name, then define the alias in the sudoers file before using it. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0475   *severity*: **unused** *alias_type*_**Alias**
                 '*alias_name*'

Explanation: The alias is defined but is not used within the sudoers files.

In the message text:

severity
     Severity of the error. This is determined by the presence of the **visudo** –s option.

alias_type
     Type of alias.

alias_name
     Name of the alias that is unused.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required. However, if the alias is not needed, removing it from the sudoers file will improve sudoers parsing performance. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0476   **What now?**

Explanation: This message asks the user how to proceed after **visudo** detects an error in the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: A valid user response is required. Valid responses are:
- e – Edit sudoers file again

- x – Exit **visudo** without saving changes to the permanent sudoers file
- Q – Quit **visudo**, saving changes to the permanent sudoers file. This can be dangerous, as you are saving the sudoers file with errors in it. The **sudo** command will not function properly without a valid sudoers file.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0477 *sudoers_pathname*: **parsed OK**

Explanation: No syntax errors were detected in the sudoers files.

In the message text:

sudoers_pathname
    Pathname to the sudoers file.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0478 **parse error in** *sudoers_pathname* **near line** *line_number*

Explanation: An error was found in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

In the message text:

sudoers_pathname
    Pathname to the sudoers file. If this is blank, then the error may be related to a possible alias usage problem.

line_number
    Line number in the sudoers file near where the error exists. If this is negative, then the error may not be related to a specific line.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0479 **parse error in** *sudoers_pathname*

Explanation: An error was found in the sudoers file. Refer to *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information.

In the message text:

sudoers_pathname
    Pathname to the sudoers file. If this is blank, then the error may be related to a possible alias usage problem.

System action: The command continues.

Operator response: No system operator response is required.

System programmer response: No system programmer response is required.

User response: No user response is required.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: N– An informational notice (command continues).

Automation: Not applicable.

HPUD0480   *severity*: *alias_type*_**Alias** '*token_name*'
references self

Explanation: The token follows the naming
convention of a sudoers alias name. However, an alias
by that name references itself.

In the message text:

severity
> Severity of the error. This is determined by the
> presence of the **visudo** –s option.

alias_type
> Type of alias.

token_name
> Name of the token that appears to be referencing
> itself.

System action: The command continues.

Operator response: No system operator response is
required.

System programmer response: No system
programmer response is required.

User response: Determine if the usage of the name is
valid. If it is intended to be an alias name, then the
alias name should not reference itself. Refer to *IBM
Ported Tools for z/OS: Supplementary Toolkit for z/OS
Feature User's Guide and Reference* for more information.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: visudo

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0600   debug level '*value*' is not valid

Explanation: The debug level value is incorrect in the
_ZOS_SUDO_DEBUG environment variable.

In the message text:

level
> Debug level.

System action: The command continues.

Operator response: No system operator response is
required.

System programmer response: No system
programmer response is required.

User response: Correct the debug level and try the
command again.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: W– A warning (command continues).

Automation: Not applicable.

HPUD0601   *function*: not supported on *os_name*
os_version.*os_release*

Explanation: The sudo for z/OS component of the
Supplementary Toolkit for z/OS is not supported on
the underlying operating system. The failure occurred
in *function*.

In the message text:

function
> Internal function that issued the message.

os_name
> The name of the operating system that is not
> supported.

os_version
> The version of the operating system that is not
> supported.

os_release
> The release of the operating system that is not
> supported.

System action: The command ends.

Operator response: No system operator response is
required.

System programmer response: Take appropriate
action based on the failure. If unable to resolve, follow
local procedures for reporting problems to IBM.

User response: Run the sudo for z/OS component of
the Supplementary Toolkit for z/OS on a supported
operating system. See *IBM Ported Tools for z/OS:
Supplementary Toolkit for z/OS Feature User's Guide and
Reference* for more information on the operating system
requirements for the component. If unable to resolve,
contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: sudo, **sudoedit**, **visudo**

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits
immediately).

Automation: Not applicable.

HPU00000 *command_name* **exited— cannot be used until defined in enablement policy.**

Explanation: The command *command_name* cannot be used until it is enabled.

In the message text:

command_name
> The name of the command that is not enabled.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The component of Supplementary Toolkit for z/OS must be enabled before it can be used. Use the product registration services to enable the command's component and have the user try the request again. See *IBM Ported Tools for z/OS: Supplementary Toolkit for z/OS Feature User's Guide and Reference* for more information on enabling the component. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00001 *command_name* **exited— registration service not available on this system.**

Explanation: The command *command_name* cannot be run on a system that does not provide product registration services.

In the message text:

command_name
> The name of the command that cannot be run.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: The components of Supplementary Toolkit for z/OS cannot be run on a system that does not provide product registration services. See *z/OS MVS Programming: Product Registration* for more information on product registration services.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00002 *command_name* **exited— registration request limit exceeded.**

Explanation: The product registration request limit has been exceeded.

In the message text:

command_name
> The name of the command that generated the error.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Use the product deregistration service to remove unneeded product registrations and have the user try the request again. See *z/OS MVS Programming: Product Registration* for more information on the product deregistration service. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: Contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00003 *command_name* **exited— product registration function** *function***() failed with unexpected return code** *return_code***.**

Explanation: The product registration function *function* failed with return code *return_code*.

In the message text:

command_name
> The name of the command that generated the error.

function
> The name of the product registration function that failed.

return_code
> The return code of the product registration function that failed.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00004   Product deregistration failed with unexpected return code *return_code***.**

Explanation: The product registration function ifaeddrg() failed with return code *return_code*.

In the message text:

command_name
> The name of the command that generated the error.

return_code
> The return code of the ifaeddrg() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the failure. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS MVS Programming: Product Registration* for an explanation of the failure. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

HPU00005   Internal error– atexit() failed with return code *return_code***.**

Explanation: The atexit() system call failed with return code *return_code*.

In the message text:

return_code
> The return code of the atexit() function.

System action: The command ends.

Operator response: No system operator response is required.

System programmer response: Take appropriate action based on the system error. If unable to resolve, follow local procedures for reporting problems to IBM.

User response: See *z/OS XL C/C++ Runtime Library Reference* for an explanation of the system error. If unable to resolve, contact your system programmer.

Problem determination: Not applicable.

Module: Not applicable.

Example: Not applicable.

Source: Not applicable.

Routing code: Not applicable.

Descriptor code: F– A fatal error (command exits immediately).

Automation: Not applicable.

Appendix A. Code pages

There are two code pages that are commonly used when porting applications to z/OS UNIX: IBM-1047 and ISO-8859. They are displayed below.

Codepage 1047 - Open Systems - EBCDIC

	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-A	-B	-C	-D	-E	-F
0-	0000	0001	0002	0003	009C	0005	0086	0007	0097	008D	008E	000B	000C	000D	000E	000F
1-	0010	0011	0012	0013	009D	0085	0016	0087	0018	0019	0092	008F	001C	001D	001E	001F
2-	0080	0081	0082	0083	0084	000A	0017	001B	0088	0089	008A	008B	008C	0005	0006	0007
3-	0090	0091	0016	0093	0094	0095	0096	0004	0098	0099	009A	009B	0014	0015	009E	001A
4-	(space) 0020	00A0	â 00E2	ä 00E4	à 00E0	á 00E1	ã 00E3	å 00E5	ç 00E7	ñ 00F1	¢ 00A2	. 002E	< 003C	(0028	+ 002B	| 007C
5-	& 0026	é 00E9	ê 00EA	ë 00EB	è 00E8	í 00ED	î 00EE	ï 00EF	ì 00EC	ß 00DF	! 0021	$ 0024	* 002A	) 0029	; 003B	^ 005E
6-	- 002D	/ 002F	Â 00C2	Ä 00C4	À 00C0	Á 00C1	Ã 00C3	Å 00C5	Ç 00C7	Ñ 00D1	¦ 00A6	, 002C	% 0025	_ 005F	> 003E	? 003F
7-	ø 00F8	É 00C9	Ê 00CA	Ë 00CB	È 00C8	Í 00CD	Î 00CE	Ï 00CF	Ì 00CC	` 0060	: 003A	# 0023	@ 0040	' 0027	= 003D	" 0022
8-	Ø 00D8	a 0061	b 0062	c 0063	d 0064	e 0065	f 0066	g 0067	h 0068	i 0069	« 00AB	» 00BB	ð 00F0	ý 00FD	þ 00FE	± 00B1
9-	° 00B0	j 006A	k 006B	l 006C	m 006D	n 006E	o 006F	p 0070	q 0071	r 0072	ª 00AA	º 00BA	æ 00E6	¸ 00B8	Æ 00C6	¤ 00A4
A-	µ 00B5	~ 007E	s 0073	t 0074	u 0075	v 0076	w 0077	x 0078	y 0079	z 007A	¡ 00A1	¿ 00BF	Ð 00D0	[005B	Þ 00DE	® 00AE
B-	¬ 00AC	£ 00A3	¥ 00A5	· 00B7	© 00A9	§ 00A7	¶ 00B6	¼ 00BC	½ 00BD	¾ 00BE	Ý 00DD	¨ 00A8	¯ 00AF	] 005D	´ 00B4	× 00D7
C-	{ 007B	A 0041	B 0042	C 0043	D 0044	E 0045	F 0046	G 0047	H 0048	I 0049	00AD	ô 00F4	ö 00F6	ò 00F2	ó 00F3	õ 00F5
D-	} 007D	J 004A	K 004B	L 004C	M 004D	N 004E	O 004F	P 0050	Q 0051	R 0052	¹ 00B9	û 00FB	ü 00FC	ù 00F9	ú 00FA	ÿ 00FF
E-	\ 005C	÷ 00F7	S 0053	T 0054	U 0055	V 0056	W 0057	X 0058	Y 0059	Z 005A	² 00B2	Ô 00D4	Ö 00D6	Ò 00D2	Ó 00D3	Õ 00D5
F-	0 0030	1 0031	2 0032	3 0033	4 0034	5 0035	6 0036	7 0037	8 0038	9 0039	³ 00B3	Û 00DB	Ü 00DC	Ù 00D9	Ú 00DA	009F

Figure 1. IBM-1047 Code page

Codepage 819 - Latin 1 - ISO 8859-1

	-0	-1	-2	-3	-4	-5	-6	-7	-8	-9	-A	-B	-C	-D	-E	-F
0-	0000	0001	0002	0003	0004	0005	0006	0007	0008	0009	000A	000B	000C	000D	000E	000F
1-	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	001A	001B	001C	001D	001E	001F
2-	 0020	! 0021	" 0022	# 0023	$ 0024	% 0025	& 0026	' 0027	(0028	) 0029	* 002A	+ 002B	, 002C	- 002D	. 002E	/ 002F
3-	0 0030	1 0031	2 0032	3 0033	4 0034	5 0035	6 0036	7 0037	8 0038	9 0039	: 003A	; 003B	< 003C	= 003D	> 003E	? 003F
4-	@ 0040	A 0041	B 0042	C 0043	D 0044	E 0045	F 0046	G 0047	H 0048	I 0049	J 004A	K 004B	L 004C	M 004D	N 004E	O 004F
5-	P 0050	Q 0051	R 0052	S 0053	T 0054	U 0055	V 0056	W 0057	X 0058	Y 0059	Z 005A	[005B	\ 005C	] 005D	^ 005E	_ 005F
6-	` 0060	a 0061	b 0062	c 0063	d 0064	e 0065	f 0066	g 0067	h 0068	i 0069	j 006A	k 006B	l 006C	m 006D	n 006E	o 006F
7-	p 0070	q 0071	r 0072	s 0073	t 0074	u 0075	v 0076	w 0077	x 0078	y 0079	z 007A	{ 007B	| 007C	} 007D	~ 007E	007F
8-	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	008A	008B	008C	008D	008E	008F
9-	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099	009A	009B	009C	009D	009E	009F
A-	00A0	¡ 00A1	¢ 00A2	£ 00A3	¤ 00A4	¥ 00A5	¦ 00A6	§ 00A7	¨ 00A8	© 00A9	ª 00AA	« 00AB	¬ 00AC	- 00AD	® 00AE	¯ 00AF
B-	° 00B0	± 00B1	² 00B2	³ 00B3	´ 00B4	µ 00B5	¶ 00B6	· 00B7	¸ 00B8	¹ 00B9	º 00BA	» 00BB	¼ 00BC	½ 00BD	¾ 00BE	¿ 00BF
C-	À 00C0	Á 00C1	Â 00C2	Ã 00C3	Ä 00C4	Å 00C5	Æ 00C6	Ç 00C7	È 00C8	É 00C9	Ê 00CA	Ë 00CB	Ì 00CC	Í 00CD	Î 00CE	Ï 00CF
D-	Ð 00D0	Ñ 00D1	Ò 00D2	Ó 00D3	Ô 00D4	Õ 00D5	Ö 00D6	× 00D7	Ø 00D8	Ù 00D9	Ú 00DA	Û 00DB	Ü 00DC	Ý 00DD	Þ 00DE	ß 00DF
E-	à 00E0	á 00E1	â 00E2	ã 00E3	ä 00E4	å 00E5	æ 00E6	ç 00E7	è 00E8	é 00E9	ê 00EA	ë 00EB	ì 00EC	í 00ED	î 00EE	ï 00EF
F-	ð 00F0	ñ 00F1	ò 00F2	ó 00F3	ô 00F4	õ 00F5	ö 00F6	÷ 00F7	ø 00F8	ù 00F9	ú 00FA	û 00FB	ü 00FC	ý 00FD	þ 00FE	ÿ 00FF

Figure 2. ISO-8859 Code page

Appendix B. Accessibility

Accessible publications for this product are offered through the z/OS Information Center.

If you experience difficulty with the accessibility of any z/OS information, please send a detailed message to mhvrcfs@us.ibm.com or to the following mailing address:

IBM® Corporation
Attention: MHVRCFS Reader Comments
Department H6MA, Building 707
2455 South Road
Poughkeepsie, NY 12601-5400
USA

Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size.

Using assistive technologies

Assistive technology products, such as screen readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using such products to access z/OS interfaces.

Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. Refer to *z/OS TSO/E Primer*, *z/OS TSO/E User's Guide*, and *z/OS ISPF User's Guide Vol I* for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.

Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users accessing the z/OS Information Center using a screen reader. In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), they can appear on the same line, because they can be considered as a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that your screen reader is set to read out punctuation. All the syntax elements that have the same dotted decimal number (for example, all the syntax elements that have the number 3.1) are mutually

exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, you know that your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, it is preceded by the backslash (\) character. The * symbol can be used next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element *FILE with dotted decimal number 3 is given the format 3 * FILE. Format 3* FILE indicates that syntax element FILE repeats. Format 3* * FILE indicates that syntax element * FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol giving information about the syntax elements. For example, the lines 5.1*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, this indicates a reference that is defined elsewhere. The string following the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you should refer to separate syntax fragment OP1.

The following words and symbols are used next to the dotted decimal numbers:
- ? means an optional syntax element. A dotted decimal number followed by the ? symbol indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element, (for example 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that syntax elements NOTIFY and UPDATE are optional; that is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.
- ! means a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicates that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the same dotted decimal number can specify a ! symbol. For example, if you hear the lines 2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the default option for the FILE keyword. In this example, if you include the FILE keyword but do not specify an option, default option KEEP will be applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, default FILE(KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1!

(KEEP), and 2.1.1 (DELETE), the default option KEEP only applies to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

- * means a syntax element that can be repeated 0 or more times. A dotted decimal number followed by the * symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1* data area, you know that you can include one data area, more than one data area, or no data area. If you hear the lines 3*, 3 HOST, and 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

  Note:
  1. If a dotted decimal number has an asterisk (*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.
  2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you could write HOST STATE, but you could not write HOST HOST.
  3. The * symbol is equivalent to a loop-back line in a railroad syntax diagram.

- + means a syntax element that must be included one or more times. A dotted decimal number followed by the + symbol indicates that this syntax element must be included one or more times; that is, it must be included at least once and can be repeated. For example, if you hear the line 6.1+ data area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. Similar to the * symbol, the + symbol can only repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loop-back line in a railroad syntax diagram.

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