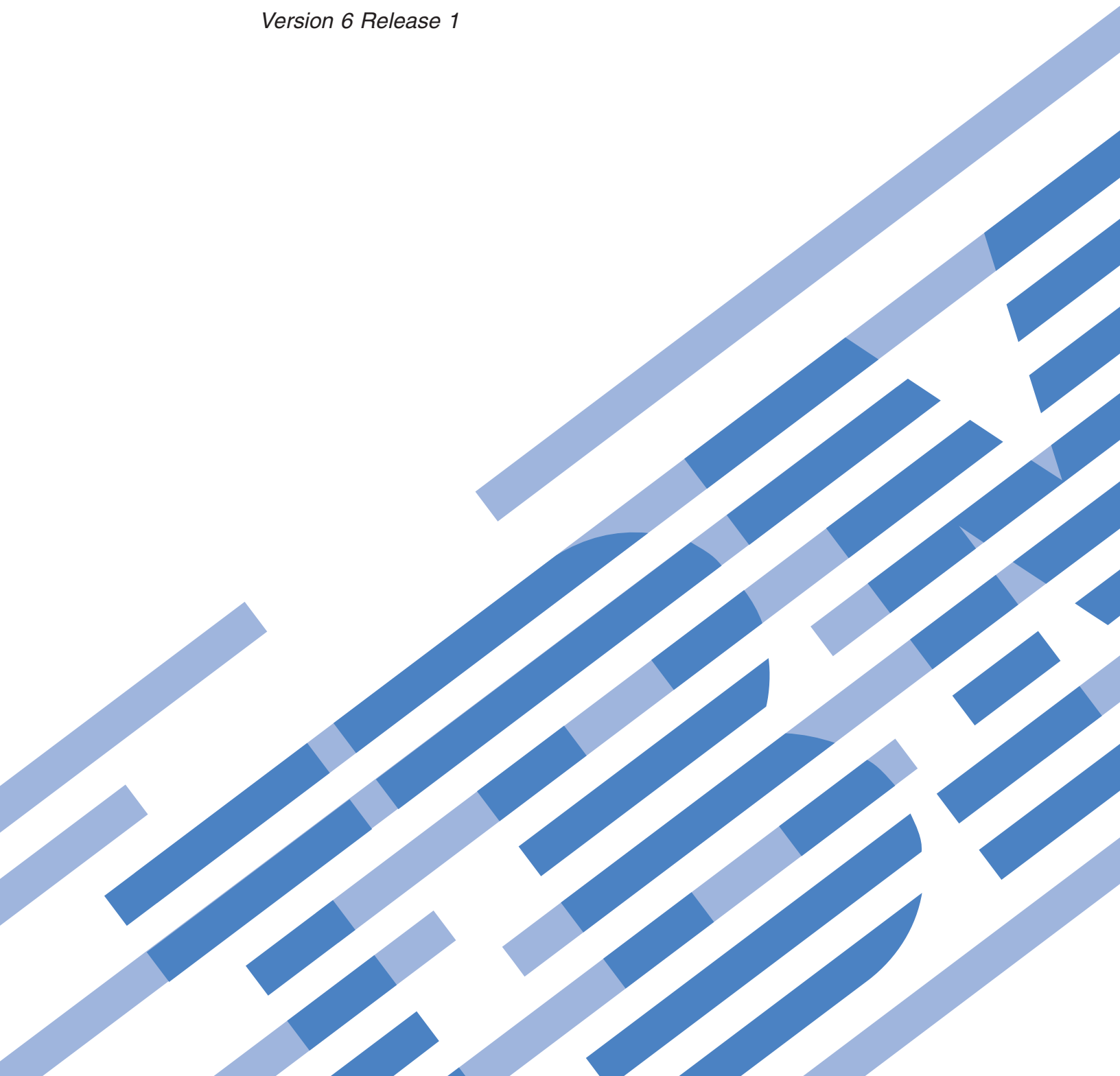
System i

Programming
i5/OS commands
Starting with DSPLIBL (Display Library List)

Version 6 Release 1



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Note

Before using this information and the product it supports, be sure to read the information in "Notices," on page 401.

This edition applies to version 6, release 1, modification 0 of IBM i5/OS (product number 5761-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CICS models.

Contents

Display Library List (DSPLIBL)

Where allowed to run: All environments (*ALL)
Threadsafe: No

The Display Library List (DSPLIBL) command displays the library list for the current thread including the system portion, and, if they exist, the product libraries, the current library entry, and the user portion.

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Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

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Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPLIBL
```

The names, types, auxiliary storage pool (ASP) device names, and text of the libraries that are in the library list for the current thread are displayed.

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Error messages

***ESCAPE Messages**

CPF2113
Cannot allocate library &1.

CPF2148
Library marked *DELETED not found.

CPF2176
Library &1 damaged.

CPF2179
Cannot display library.

CPF2182
Not authorized to library &1.

CPF9847
Error occurred while closing file &1 in library &2.

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Display License Key Info (DSPLICKEY)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display License Key Information (DSPLICKEY) command can be used to show the software license key information from the license repository for products with keyed compliance. Products with ″keyed compliance″ require that you have a software license key from the software provider in order to change the usage limit or the expiration date of the license information.

The license repository is used to store product license information for each unique product, license term, feature, and system. The repository can contain licenses for any system, and the product need not be installed.

The information shown includes the processor group, the serial number, the software license key, the usage limit, the expiration date, and the vendor data.

The Display License Key Information (DSPLICKEY) command also can be used to create an output file, which can be used as input to the Add License Key Information (ADDLICKEY) command or the Remove License Key Information (RMVLICKEY) command.

Restrictions: This command is shipped with public *EXCLUDE authority.

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Parameters

Keyword	Description	Choices	Notes
PRDID	Product identifier	*Character value*, ***ALL**	Optional, Positional 1
LICTRM	License term	*Character value*, ***ALL**	Optional, Positional 2
FEATURE	Feature	*Character value*, ***ALL**	Optional, Positional 3
SERIAL	System serial number	*Character value*, ***LOCAL**, *REMOTE, *ALL	Optional
OUTPUT	Output	*****, *PRINT, *LICKEYFILE	Optional
LICKEYFILE	License key file	*Qualified object name*	Optional
	Qualifier 1: License key file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
LICKEYMBR	License key member	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Product identifier (PRDID)

Specifies the seven-character identifier of the product for which software license key information is shown.

***ALL** The software license key information for all product identifiers is shown.

generic*-product-identifier
Specify the generic identifier for the products to be shown. A generic product identifier is specified in the same manner as a generic name.

A generic name is a character string of one or more characters followed by an asterisk (*); for example, ABC*. The asterisk substitutes for any valid characters. A generic name specifies all objects with names that begin with the generic prefix for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

product-identifier
Specify the seven-character identifier of the product.

Top

License term (LICTRM)

Specifies the license term for which software license key information is shown.

***ALL** The software license key information for all license terms found on the system is shown.

license-term
Specify the license term in Vx, VxRy, or VxRyMz format, where x or y can be a number from 0 through 9, and z can be a number 0 through 9 or a letter A through Z.

Top

Feature (FEATURE)

Specifies the feature of the product specified on the PRDID parameter for which the software license key information is shown.

***ALL** The software license key information for all features of the product specified on the PRDID parameter is shown.

feature
Specify the number of the feature for which software license key information is shown.

Top

System serial number (SERIAL)

Specify the serial number of the system for which software license key information is shown.

***LOCAL**
The software license key information for the local system is shown.

***REMOTE**
The software license key information for all systems except the local system is shown.

***ALL** The software license key information for all systems is shown.

system-serial-number
Specify the serial number of the system for which software license key information is shown.

Top

Output (OUTPUT)

Specifies whether the output from this command is displayed, printed, or directed to a database file.

***** The output is shown on the display if requested by an interactive job, or printed with the job's spooled output if requested by a batch job.

***PRINT**
The output is printed with the job's spooled output.

***LICKEYFILE**
The software license key information is written to an output file.

Top

License key file (LICKEYFILE)

Specifies the qualified name of the file where the software license key information is written. If this file does not exist, it is created using the file QSYS/QALZAKEY as a template. If this file exists it must be in the format of QSYS/QALZAKEY.

The name of the license key file can be qualified by one of the following library values:

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is searched.

library-name
Specify the name of the library to be searched.

The possible value is:

license-key-file
Specify the name of the file to which the software license key information is written.

Top

License key member (LICKEYMBR)

Specifies the name of the database file member to which the output is written. The member is used or created, as follows:

- If the member exists, the system uses the second element of this parameter to determine whether the member is cleared before the new records are added.
- If the member does not exist and a member name is not specified, the system creates a member with the name of the output file specified on the LICKEYFILE parameter.
- If the member does not exist and a database file member name is specified, the system creates the member.

The possible Member to Receive Output values are:

***FIRST**
The first member in the file receives the output.

member-to-receive-output
Specify the name of the member to receive the output.

The possible Operation to Perform on Member values are:

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

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Examples

```
DSPLICKEY   PRDID(*ALL)  LICTRM(*ALL)  FEATURE(*ALL)
            SERIAL(*REMOTE)  OUTPUT(*LICKEYFILE)
            LICKEYFILE(KEYS)  LICKEYMBR(REMOTE *REPLACE)
```

This command shows the software license key information for all of the products, features, and license terms for all of the systems except this system. The output is put in the member REMOTE of the file KEYS. Any existing records are replaced.

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Error messages

***ESCAPE Messages**

CPF9E58
License key information not found.

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Display Line Description (DSPLIND)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Line Description (DSPLIND) command displays a line description.

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Parameters

Keyword	Description	Choices	Notes
LIND	Line description	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2
OPTION	Option	***ALL**, *BASIC, *SWTNWILST, *CTL, *SWTCTLLST, *ACTSWTCTL, *SSAP, *GRPADR, *FCNADR, *EORTBL, *LGLCHLE, *APPN, *PHYCHAR, *THRESHOLD, *TMRRTY	Optional, Positional 3

Top

Line description (LIND)

Specifies the name of the line description to be displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Option (OPTION)

This parameter allows you to display information selectively. You can choose to display all information (*ALL) or specific information.

***ALL** All information associated with this line type is displayed.

***BASIC**
Only the basic characteristics of this line type are displayed.

***SWTNWILST**
Only the information concerning network interface descriptions specified on the **Switched NWI list (SWTNWILST)** parameter of the Create or Change Line IDLC (CRT/CHGLINIDLC) command is displayed.

***CTL** Only the active controller for this line is displayed.

***SWTCTLLST**
Only the controller list for this switched line is displayed.

***ACTSWTCTL**
Only the active controllers for this switched line are displayed.

***SSAP**
Only the information concerning the source service access points for this line is displayed.

***GRPADR**
Only the information concerning grouped addresses for Ethernet lines is displayed.

***FCNADR**
Only the information concerning functional addresses for this token-ring is displayed.

***EORTBL**
Only the information concerning end-of-record tables for asynchronous lines is displayed.

***LGLCHLE**
Only the logical channel entries for an X.25 line are displayed.

***APPN**
Only the information concerning advanced-peer-to-peer networks is displayed.

***PHYCHAR**
Only the information concerning the physical characteristics of an asynchronous line is displayed.

***THRESHOLD**
Only the information concerning the threshold values of an IDLC line is displayed.

***TMRRTY**
Only the information concerning the timer and retry options for this line is displayed.

Top

Examples

```
DSPLIND   LIND(LINE21)
```

This command displays information about the line description named LINE21. The information is shown on the work station display from which the command was submitted. If the command is entered from a batch job, the output from the display is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF2601
Line description &1 not found.

CPF2625
Not able to allocate object &1.

CPF2626
Line description previously deleted.

CPF2634
Not authorized to object &1.

CPF268A
&1 not valid for line &2.

CPF2779
Line description &1 has been damaged.

Top

Display Object Links (DSPLNK)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Object Links (DSPLNK) command shows a list of names of specified objects in directories and options to display information about the objects.

For more information about integrated file system commands, see the Integrated file system topic collection in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Restrictions:

Note: The authority requirements for this command are complex with respect to file systems, object types, requested operations etc.. Therefore, see the System i Security Reference, SC41-5302 book for information about the required authorities for this command.

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Parameters

Keyword	Description	Choices	Notes
OBJ	Object	*Path name*, *	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2
OBJTYPE	Object type	***ALL**, *ALLDIR, *ALRTBL, *AUTL, *BLKSF, *BNDDIR, *CFGL, *CHTFMT, *CHRSF, *CLD, *CLS, *CMD, *CNNL, *COSD, *CRG, *CRQD, *CSI, *CSPMAP, *CSPTBL, *CTLD, *DDIR, *DEVD, *DIR, *DOC, *DSTMF, *DTAARA, *DTADCT, *DTAQ, *EDTD, *EXITRG, *FCT, *FIFO, *FILE, *FLR, *FNTRSC, *FNTTBL, *FORMDF, *FTR, *GSS, *IGCDCT, *IGCSRT, *IGCTBL, *IMGCLG, *IPXD, *JOBD, *JOBQ, *JOBSCD, *JRN, *JRNRCV, *LIB, *LIND, *LOCALE, *MBR, *MEDDFN, *MENU, *MGTCOL, *MODD, *MODULE, *MSGF, *MSGQ, *M36, *M36CFG, *NODGRP, *NODL, *NTBD, *NWID, *NWSD, *OUTQ, *OVL, *PAGDFN, *PAGSEG, *PDG, *PGM, *PNLGRP, *PRDAVL, *PRDDFN, *PRDLOD, *PSFCFG, *QMFORM, *QMQRY, *QRYDFN, *RCT, *SBSD, *SCHIDX, *SOCKET, *SPADCT, *SQLPKG, *SQLUDT, *SRVPGM, *SSND, *STMF, *SVRSTG, *SYMLNK, *S36, *TBL, *TIMZON, *USRIDX, *USRPRF, *USRQ, *USRSPC, *VLDL, *WSCST	Optional
DETAIL	Detail	***PRV**, *NAME, *BASIC, *EXTENDED	Optional
DSPOPT	Display option	***PRV**, *USER, *ALL	Optional

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Object (OBJ)

Specifies which objects are displayed.

* All objects in the current directory are displayed.

object-path-name
Specify the path name of the object or a pattern to match the name of the object to be shown. The object path name can be either a simple name or a name that is qualified with the name of the directory in which the object is located. A pattern can be specified in the last part of the path name. An asterisk (*) matches any number of characters and a question mark (?) matches a single character. If the path name is qualified or contains a pattern, it must be enclosed in apostrophes.

For more information on specifying path names, refer to ″Object naming rules″ in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Object type (OBJTYPE)

Specifies the object type to be displayed.

To see a complete list of object types when prompting this command, position the cursor on the field for this parameter and press F4 (Prompt). For a description of the object types, see ″Object types″ in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

***ALL** All objects whose name matches the pattern specified in the **Object (OBJ)** parameter are displayed.

***ALLDIR**
All directory types (DIR, LIB, FLR, database FILE) are displayed.

object-type
Specifies the object type to be displayed.

Top

Detail (DETAIL)

Specifies the information to be displayed on the Display Object Links (DSPLNK) list.

***PRV** The same information that was displayed when the user ran this command previously is shown. The value *BASIC is used if the user has not used this command or the Work with Object Links (WRKLNK) command before.

***NAME**
Only the name is displayed.

***BASIC**
The name is displayed along with the type, type attribute, and text.

***EXTENDED**
In addition to the basic information noted above, the type field is extended to display more information about symbolic links and an additional option is available to display hard or symbolic links.

Top

Display option (DSPOPT)

Specifies whether to show PC system and hidden objects.

***PRV** The same value is used for this parameter as the previous time the command was run by this user. If this command has not been used before, *USER is used.

***USER**
The PC system and hidden objects are not shown. Objects beginning with a period (.) are not displayed unless the specified pattern begins with a period (.).

***ALL** All objects are shown, including the PC system and hidden objects. Objects beginning with a period (.) are displayed (with asterisk (*) specified for the pattern) including the directory (.) and the parent directory (..) entries.

Top

Examples

Example 1: Displaying an Object Link

```
DSPLNK   OBJ('X/PAY')
```

This command displays the object PAY located in directory X in the current directory.

Top

Error messages

***ESCAPE Messages**

CPF9899
Error occurred during processing of command.

CPFA085
Home directory not found for user &1.

CPFA09C
Not authorized to object. Object is &1.

CPFA0A7
Path name too long.

CPFA0A9
Object not found. Object is &1.

Top

Display Log (DSPLOG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Log (DSPLOG) command shows the system history log (QHST). The history log contains information about the operation of the system and system status.

The display contains the messages sent to the log, the date and time the message was sent, and the name of the job that sent it.

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Parameters

Keyword	Description	Choices	Notes
LOG	Log	**QHST**	Optional, Positional 1
PERIOD	Time period for log output	*Element list*	Optional, Positional 2
	Element 1: Start time and date	*Element list*	
	Element 1: Beginning time	*Time*, ***AVAIL**	
	Element 2: Beginning date	*Date*, ***CURRENT**, *BEGIN	
	Element 2: End time and date	*Element list*	
	Element 1: Ending time	*Time*, ***AVAIL**	
	Element 2: Ending date	*Date*, ***CURRENT**, *END	
OUTPUT	Output	*, *PRINT, *PRTWRAP, *PRTSECLVL	Optional
JOB	Jobs to display	Single values: ***NONE** Other values (up to 5 repetitions): *Qualified job name*	Optional, Positional 3
	Qualifier 1: Jobs to display	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
MSGID	Message identifier	Single values: ***ALL** Other values (up to 100 repetitions): *Name*	Optional

Top

Log (LOG)

Specifies the log on the system that is shown.

QHST The system history log QHST is shown.

Top

Time period for log output (PERIOD)

Specifies the period of time for which the logged message data is shown. This parameter contains two element lists of two elements each. A value or *N must be specified for an element if a subsequent element value will be specified in order to maintain its position in the parameter value sequence. If PERIOD is not specified, the following values are assumed:

```
PERIOD((*AVAIL *CURRENT) (*AVAIL *CURRENT))
```

Element 1: Start time and date

Element 1: Starting time

One of the following is used to specify the starting time at which or after which the data must have been logged. Any entries logged before the specified time and date are not shown.

***AVAIL**
Any logged data that is available for the specified starting date is shown.

start-time
Specify the starting time for the specified starting date that indicates the logged data to be shown. The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (**hhmm** or **hhmmss**) where **hh** = hours, **mm** = minutes, and **ss** = seconds. Hours, minutes, and seconds must each be exactly 2 digits. Use leading zeros if necessary. Valid values for **hh** range from 00 through 23. Valid values for **mm** and **ss** range from 00 through 59.
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Starting date

One of the following is used to specify the starting date on which or after which the data must have been logged. Any entries logged before the specified date are not shown.

***CURRENT**
The logged data for the current day and between the specified starting and ending times (if specified) is shown.

***BEGIN**
The logged data from the beginning of the log is shown.

start-date
Specify the starting date with or without date separators. The date must be entered in the date format that this job uses, as specified in the date format job attribute. If date separators are used then they need to be the same as the date separator that this job uses, as specified in the date separator job attribute.

Element 2: End time and date

Note: The values specified for the ending date and time are ignored if the output is shown on the display. That is, all data in the log that was logged on or after the specified starting date and time can be shown, regardless of the ending date and time specified.

Element 1: Ending time

One of the following is used to specify the ending time before which the data must have been logged.

***AVAIL**
Any logged data that is available for the specified ending date is shown.

end-time
Specify the ending time for the specified ending date that determines the logged data to be printed. See **start-time** for the formats in which time can be entered.

Element 2: Ending date

One of the following is used to specify the ending date before which or on which the data must have been logged.

***CURRENT**
The current day is the last day for which logged data is shown.

***END** The last day on which data was logged is the last day for which the logged data is shown. If *END is specified, an ending time value other than *AVAIL is ignored.

end-date
Specify the ending date with or without date separators. The date must be entered in the date format that this job uses, as specified in the date format job attribute. If date separators are used then they need to be the same as the date separator that this job uses, as specified in the date separator job attribute.

Note: If no output is received after you run the DSPLOG command with *PRINT specified, the dates of some message data may be out of sequence. To print the data in this case, specify:

```
PERIOD((*AVAIL *BEGIN)(*AVAIL *END)).
```

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting display station or printed with the job's spooled output.

***** Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output. Only one line of message text will be printed for each message. This will be the first 105 characters of the first level message text.

***PRTWRAP**
The output is printed with the job's spooled output. If the message does not fit on one line, additional lines are printed to accommodate up to 2000 characters of the first level message text.

***PRTSECLVL**
The output is printed with the job's spooled output. Both the first and second level text of the message are printed. Up to 2000 characters of first level text and 6000 characters of second level text will be printed.

When the output is printed, two or more lines are printed for each message. The last line contains the following information:

- Qualified job name of the job that sent the message. This consists of the following three fields:
  - Job name
  - User name
  - Job number
- The date and time the message was sent.
- The name of the user profile that the thread was running under when the message was sent.

Top

Jobs to display (JOB)

Specifies the jobs (if any) for which messages in the log are shown. The messages for the specified jobs are shown only if they were logged in the period of time specified in this command.

Single values

***NONE**
No job name is used to indicate which messages are shown.

Other values

qualified-job-name
Specify the names of up to five jobs that are to have their logged messages shown. A job name can be qualified with up to three elements. For example:

- job-name
- user-name/job-name
- job-number/user-name/job-name

If a job name is not qualified, all jobs by that name in the log will have their messages shown.

Top

Message identifier (MSGID)

Specifies up to 100 message identifiers (if any) of the logged messages that are shown. These messages are shown only if they were logged in the period of time specified for the **Time period for log output (PERIOD)** parameter and in the jobs specified for the **Jobs to display (JOB)** parameter.

Single values

***ALL** All logged messages, regardless of their identifiers, are shown if they meet the previous job and time specifications.

Other values

message-identifier
Specify the identifiers of messages that are shown.

To display specific generic types of messages, specify the 3-character code that identifies the message file followed by all zeros. For example, CPF0000 specifies that all CPF messages that meet the specifications of the previous parameters are shown. If an identifier is specified as pppnn00, any message beginning with the specified five characters (pppnn) can be shown. Refer to the description of the MSGID parameter in the Add Message Description (ADDMSGD) command for more information on message identifiers.

Top

Examples

Example 1: Displaying Logged Messages for Current Date

```
DSPLOG   LOG(QHST)
```

This command shows all the logged messages (and their associated data) that are available in the history log for the current date.

Example 2: Displaying Logged Messages for September 1988

```
DSPLOG   JOB(MYJOB)  PERIOD((*AVAIL 090199) (*AVAIL 093099))
         MSGID(CPF0000)
```

This command displays all CPF messages, in the history log for MYJOB, that were logged during September 1999.

Top

Error messages

***ESCAPE Messages**

CPF2403
Message queue &1 in &2 not found.

CPF2447
No entries exist in current version of log.

CPF2478
Not authorized to requested version of log.

CPF2480
Requested version of log damaged.

CPF2519
Error occurred while processing message ID list.

CPF2537
Too many records written to file &2 in &3.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847

Error occurred while closing file &1 in library &2.

Top

Display Mounted FS Information (DSPMFSINF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Mounted File System Information (DSPMFSINF) command displays information about a mounted file system.

This command can also be issued using the following alternative command name:

- STATFS

For more information about integrated file system commands, see the Integrated file system topic collection in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Restrictions:

- The user must have execute (*X) authority to each directory in the path.

Top

Parameters

Keyword	Description	Choices	Notes
OBJ	Object	*Path name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

Object (OBJ)

Specifies the path name of an object that is within the mounted file system whose statistics are to be displayed. Any object in the mounted file system can be specified. For example, it can be a directory (*DIR) or a stream file (*STMF).

For more information on specifying path names, refer to "Object naming rules" in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

This is a required parameter.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

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Examples

Example 1: Displaying Statistics of a Mounted File System

```
DSPMFSINF   OBJ('/jsmith/file1')
```

This command displays the statistics for the mounted file system that contains **/jsmith/file1**.

Example 2: Displaying QSYS.LIB File System Statistics

```
DSPMFSINF   OBJ('/QSYS.LIB/MYLIB.LIB/MYFILE.FILE')
```

This command displays the statistics for the QSYS.LIB file system that contains *FILE object MYFILE in library MYLIB.

Top

Error messages

***ESCAPE Messages**

CPFA0A9
Object not found. Object is &1.

CPFA09C
Not authorized to object. Object is &1.

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Display Menu Attributes (DSPMNUA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Menu Attributes (DSPMNUA) command shows the following for the specified menu:

- Menu type
- Program name and library for program menus
- Display file name and library for display file menus
- Message file name and library for display file menus
- The type of the command line to be shown for display file menus
  - *LONG
  - *SHORT
  - *NONE (an option line is used)
- Whether or not a description of the active function keys should be shown for display file menus
- Current library
- Product library
- Descriptive text

Restrictions:

- You must have use (*USE) authority for the menu, and *USE authority for the library where the menu is located.

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Parameters

Keyword	Description	Choices	Notes
MENU	Menu	*Qualified object name*	Required, Positional 1
	Qualifier 1: Menu	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional

Top

Menu (MENU)

Specifies the menu whose attributes are to be shown.

This is a required parameter.

Qualifier 1: Menu

name Specify the name of the menu object.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the menu. If no library is specified as the current library for the job, QGPL is used.

name Specify the library where the menu is located.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPMNUA   MENU(PAYROLL)
```

This command shows the attributes of a menu named PAYROLL at the display station (if the command is running interactively). The menu is found by searching the library list (*LIBL default value).

Top

Error messages

***ESCAPE Messages**

CPF6ACD
Menu &1 in &2 is wrong version for system.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9801
Object &2 in library &3 not found.

CPF9802
Not authorized to object &2 in &3.

CPF9803
Cannot allocate object &2 in library &3.

CPF9807
One or more libraries in library list deleted.

CPF9808
Cannot allocate one or more libraries on library list.

CPF9810
Library &1 not found.

CPF9811
Program &1 in library &2 not found.

CPF9812
File &1 in library &2 not found.

CPF9814
Device &1 not found.

CPF9820
Not authorized to use library &1.

CPF9821
Not authorized to program &1 in library &2.

CPF9822
Not authorized to file &1 in library &2.

CPF9825
Not authorized to device &1.

CPF9830
Cannot assign library &1.

CPF9831
Cannot assign device &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9871
Error occurred while processing.

Top

Display Module (DSPMOD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Module (DSPMOD) command displays information about a module. The display includes information about the compiler, the source from which the module was created, the processing attributes of the module, and the size of the module.

Restrictions:

- You must have use (*USE) authority to the module being displayed and execute (*EXECUTE) authority to the library in which the module is stored.

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Parameters

Keyword	Description	Choices	Notes
MODULE	Module	*Qualified object name*	Required, Positional 1
	Qualifier 1: Module	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
DETAIL	Detail	Single values: ***ALL** Other values (up to 7 repetitions): *BASIC, *SIZE, *EXPORT, *IMPORT, *PROCLIST, *REFSYSOBJ, *COPYRIGHT	Optional, Positional 2
OUTPUT	Output	*****, *PRINT, *OUTFILE	Optional, Positional 3
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Module (MODULE)

Specifies the module for which information is to be displayed.

This is a required parameter.

Qualifier 1: Module

name Specify the name of the module for which information is displayed.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Detail (DETAIL)

Specifies which set of information is displayed for the module.

Single values

***ALL** All the information applicable to the specified module is displayed or printed.

Note: DETAIL(*ALL) is valid only when information is displayed or printed. It is not valid if *OUTFILE is specified for the **Output (OUTPUT)** parameter.

Other values (up to 7 repetitions)

***BASIC**
The basic module information, module compatibility section, and SQL information is shown.

***SIZE** The size and size limits for this module are shown.

***EXPORT**
The symbols defined in this module that are exported to other modules are shown.

***IMPORT**
The symbols defined externally to this module are shown.

***PROCLIST**
A list of the procedure names with their type and priority is shown.

***REFSYSOBJ**
A list of the system objects referred to by this module when the module is bound into a bound program or service program is shown.

***COPYRIGHT**
Copyright information for this module is shown.

Top

Output (OUTPUT)

Specifies whether the output from this command is displayed, printed, or directed to a database file.

***** Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Note: When a procedure name longer than 256 characters is encountered and the value *OUTFILE is specified, the last 253 characters of the procedure name are placed in the output file and are preceded by three less than (<<<) characters. The less than (<<<) characters indicate that this is only a partial name. The diagnostic message CPD5D12, which indicates that not all available information is returned, is sent to the job log. The same message is sent as a status message to the calling program of the command processing program (CPP) that can be monitored. You can use the Retrieve Module Information (QBNRMODI) or the List Module Information (QBNLMODI) APIs to find the complete name of the procedure.

Note: DETAIL(*ALL) is not valid when OUTPUT(*OUTFILE) is specified.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of this command is directed. If the output file does not exist, this command creates a database file in the specified library. If the file is created, the text is ″Output file for DSPMOD″, The public authority of the file is the same as the create authority specified for the library in which the file is created. The record format of the output file will be the same as that used in the IBM-supplied database file.

Note: When a procedure name longer than 256 characters is encountered and the value *OUTFILE is specified, the last 253 characters of the procedure name are placed in the output file and are preceded by three less than (<<<) characters. The less than (<<<) characters indicate that this is only a partial name. The diagnostic message CPD5D12, which indicates that not all available information is returned, is sent to the job log. The same message is sent as a status message to the calling program of the command processing program (CPP) that can be monitored. You can use the Retrieve Module Information (QBNRMODI) or the List Module Information (QBNLMODI) APIs to find the complete name of the procedure.

The IBM-supplied database files and their record formats are as follows:

```
Detail:    File:      Record Format:
*BASIC     QABNDMBA   QBNDMBAS
*SIZE      QABNDMSI   QBNDMSIZ
*EXPORT    QABNDMEX   QBNDMEXP
*IMPORT    QABNDMIM   QBNDMIMP
*PROCLIST  QABNDMPR   QBNDMPRO
*REFSYSOBJ QABNDMRE   QBNDMREF
*COPYRIGHT QABNDMCO   QBNDMCOP
```

Qualifier 1: File to receive output

name Specify the name of the database file that receives the output of this command.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed. If a member already exists, the system uses the second element of this parameter to determine whether the member is cleared before the new records are added. If the member does not exist and a member name is not specified, the system creates a member with the name of the output file specified for the **File to receive output (OUTFILE)** parameter If an output file member name is specified, but the member does not exist, the system creates it.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and a file member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

name Specify the name of the file member that receives the output. If the member does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

```
DSPMOD   MODULE(MYMOD)
```

This command displays module object MYMOD from the library list.

Top

Error messages

***ESCAPE Messages**

CPF5CE7
Error occurred while retrieving *MODULE data

CPF9801
Object &2 in library &3 not found.

CPF9802
Not authorized to object &2 in &3.

CPF9803
Cannot allocate object &2 in library &3.

CPF9807
One or more libraries in library list deleted.

CPF9808
Cannot allocate one or more libraries on library list.

CPF9810
Library &1 not found.

CPF9820
Not authorized to use library &1.

CPF9830
Cannot assign library &1.

CPF9871
Error occurred while processing.

***STATUS Messages**

CPD5D12
One or more records have incomplete values.

Top

Display Mode Description (DSPMODD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Mode Description (DSPMODD) command displays a mode description.

Top

Parameters

Keyword	Description	Choices	Notes
MODD	Mode description	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

Mode description (MODD)

Specifies the name of the mode description to be displayed.

This is a required parameter.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPMODD   MODD(CICS2)
```

This command displays information about mode description CICS2. If the command is entered from a batch job, the output from the display is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF260A
Mode description &1 not found.

CPF262B
Mode description &1 previously deleted.

CPF262C
Mode description &1 damaged.

CPF2625
Not able to allocate object &1.

CPF2634
Not authorized to object &1.

Top

Display Module Source (DSPMODSRC)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

The Display Module Source (DSPMODSRC) command allows the user to show the source debug displays for debugging bound programs.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
DSPMODSRC
```

This command shows the source debug displays for programs that are to be debugged.

Top

Error messages

None

Top

Display Mode Status (DSPMODSTS)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Mode Status (DSPMODSTS) command shows the status of all modes associated with an APPC/APPN device description. The display shows the status of the APPC/APPN device, the current number of source, target, and detached conversations in use, and configured and operational session maximum values.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	*Name*	Required, Positional 1
MODE	Mode	*Communications name*, ***ALL**	Optional, Positional 2
OUTPUT	Output	*, *PRINT	Optional, Positional 3

Top

Device (DEV)

Specifies the name of the APPC device description.

This is a required parameter.

Top

Mode (MODE)

Specifies the name of the mode whose status is being shown.

The possible values are:

***ALL** All the modes used by the specified device are shown.

mode-name
Specify the name (up to 8 characters) of the mode whose status is being shown for the specified device.

BLANK
A mode name of 8 blank characters is shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

The possible values are:

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPMODSTS   DEV(MINN2)  MODE(CICS2)
```

This command shows the status of the mode CICS2 used by the device MINN2. If the command is entered from a batch job, the output from the display is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF2625
Not able to allocate object .

CPF2634
Not authorized to object .

CPF2688
Device is not in a proper status to get mode information.

CPF2698
Mode not found for device .

CPF2702
Device description not found.

CPF2706
Device not *APPC type device.

CPF9850
Override of printer file not allowed.

Top

Display Messages (DSPMSG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Messages (DSPMSG) command is used by the display station user to show the messages received at the specified message queue. If the message queue is not allocated to the job in which this command is entered or to any other job, it is implicitly allocated by this command for the duration of the command. When the messages are shown, options are also shown that allow the user to either remove one or more messages from the queue or to enter a reply to each inquiry message.

Note: Refer to the section entitled ″Handling Messages″ in the Basic system operations topic collection in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/ for a description of how to print a single message description or a group of message descriptions.

Restrictions:

1. DSPMSG cannot be specified when another job has already allocated the message queue by specifying the ALCOBJ command operating in the *EXCL lock state.
2. The DSPMSG command allows the user to see, but not remove, messages for the job when the message queue is in the *BREAK or *NOTIFY mode for another job.
3. When the message queue is in the *BREAK mode for another job, the break handling program for the message queue determines whether the user is allowed to respond to inquiry messages. If PGM(*DSPMSG) is specified, the user can reply to inquiry messages, but if PGM(user-program) is specified, no reply to inquiry messages is allowed.
4. If multiple jobs show the same inquiry message, and all jobs reply to the message, only the first reply to the message is valid. Subsequent replies from other jobs cause error messages to be issued.

Top

Parameters

Keyword	Description	Choices	Notes
MSGQ	Message queue	Single values: ***WRKUSR**, *SYSOPR, *USRPRF, *WRKSTN Other values: *Qualified object name*	Optional, Positional 1
	Qualifier 1: Message queue	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT, *PRTWRAP	Optional
MSGTYPE	Message type	***ALL**, *INFO, *INQ, *COPY	Optional
START	Messages to display first	***LAST**, *FIRST	Optional
SEV	Severity code filter	0-99, **0**, *MSGQ	Optional
ASTLVL	Assistance level	***PRV**, *USRPRF, *BASIC, *INTERMED	Optional

Top

Message queue (MSGQ)

Specifies the message queue from which messages are shown.

Note: The special values *WRKSTN, *WRKUSR, *USRPRF, and *SYSOPR should be specified for this parameter only when you are in an interactive job.

Single values

***WRKUSR**
Messages are shown from the work station's message queue if there are any messages on it. After the user exits that display, messages are shown from the current user's user profile message queue. If there are no messages on the work station's message queue, only the messages from the user profile message queue are shown.

***SYSOPR**
Messages from the system operator message queue (QSYSOPR) are shown.

***WRKSTN**
Messages are shown from the work station's own message queue.

***USRPRF**
Messages from the current user profile message queue are shown.

Qualifier 1: Message queue

message-queue-name
Specify the name of the message queue from which messages are shown.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the message queue. If no current library entry exists in the library list, QGPL is used.

library-name
Specify the library where the message queue is located.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is shown (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job). Immediate messages can be 512 bytes long.

***PRINT**
The output is printed with the job's spooled output.

***PRTWRAP**
The output is printed with the job's spooled output without truncation, compared to the *PRINT value that truncates the message text to one line in the spooled output.

When the output is printed, two or more lines are printed for each message. The last line contains the following information:

- Qualified job name of the job that sent the message. This consists of the following three fields:
  - Job name
  - User name
  - Job number
- Name of the program that sent the message

- Instruction number in program that sent the message. For non-program message queues this is always zeroes.
- The date and time the message was sent.
- The name of the user profile that the thread was running under when the message was sent.

Top

Message type (MSGTYPE)

Specifies the type of messages in the message queue that are shown.

***ALL** All messages that are in the message queue are shown.

***INFO**
Only informational messages (those not requiring a reply) are shown.

***INQ** Only inquiry messages (those requiring a reply) are shown.

***COPY**
Copies of the inquiry messages that were sent to other message queues and still require replies are shown.

Top

Messages to display first (START)

Specifies, whether the newest messages or the oldest messages in the message queue are shown first. The display station user can roll the display up or down to see other messages if the message list occupies more than one display screen.

***LAST**
If the intermediate view (Display Message) is displayed, the last (newest) message on the message queue is shown on the bottom line of the display.

If the Basic view (Work with Messages) is displayed, the last (newest) message on the MSGQ is shown on the top line of the display. The display station user can press the Roll Up key to show older messages.

***FIRST**
If the intermediate view (Display Message) is displayed, the first (oldest) message on the message queue is shown on the top line of the display.

If the basic view (Work with Messages) is displayed the first (oldest) message on the message queue is shown on the bottom of the display. The display station user can press the Roll Down key to show newer messages.

Top

Severity code filter (SEV)

Specifies the lowest severity level that a message can have and still be delivered to a user in break or notify mode. Messages arriving at the message queue whose severities are lower than that specified here do not interrupt the job or turn on the message-waiting light; they are held in the queue until they are displayed by the Display Message (DSPMSG) command.

00 All messages in the specified message queue are shown.

***MSGQ**
All messages having a severity code greater than or equal to the severity code specified for the message queue are shown.

severity-code
Specify a value, 00 through 99, that specifies the lowest severity code that a message can have and still be shown.

Top

Assistance level (ASTLVL)

Specifies which user interface to display.

***PRV** The previous user interface used is displayed.

***USRPRF**
The user interface stored in the current user profile is used.

***BASIC**
The Operational Assistant user interface is used.

Note: This user interface separates messages into two categories: (1) messages needing a reply and (2) messages not needing a reply. New messages are shown at the top of each list.

***INTERMED**
The system user interface is used.

Note: The DSPMSG command online help information assumes the *INTERMED user interface is shown. If the *BASIC user interface is shown, see the online help information for the Work with Messages (WRKMSG) command.

Top

Examples

Example 1: Displaying Messages From Work Station Message Queue and User Profile Message Queue

```
DSPMSG
```

This command displays messages in the requester's work station message queue followed by the user profile message queue. If there are no messages in the work station queue, the user profile message queue is shown immediately.

Example 2: Displaying Informational Messages

```
DSPMSG   MSGQ(SMITH)  MSGTYPE(*INFO)
```

This command displays, at the requester's work station, any informational messages in the message queue named SMITH.

Top

Error messages

***ESCAPE Messages**

CPF2203
User profile &1 not correct.

CPF2204
User profile &1 not found.

CPF2213
Not able to allocate user profile &1.

CPF2217
Not authorized to user profile &1.

CPF2225
Not able to allocate internal system object.

CPF2401
Not authorized to library &1.

CPF2403
Message queue &1 in &2 not found.

CPF2408
Not authorized to message queue &1.

CPF2433
Function not allowed for system log message queue &1.

CPF2450
Work station message queue &1 not allocated to job.

CPF2451
Message queue &1 is allocated to another job.

CPF2477
Message queue &1 currently in use.

CPF2513
Message queue &1 cannot be displayed.

CPF2537
Too many records written to file &2 in &3.

CPF8127
&8 damage on message queue &4 in &9. VLIC log-&7.

CPF8176
Message queue for device description &4 damaged.

CPF9830
Cannot assign library &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

Top

Display Message Description (DSPMSGD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Message Description (DSPMSGD) command shows detailed information about the messages in a message file. The descriptions of specific messages, or a range of messages in one message file, can be specified by their identifiers, or all messages in one message file can be specified.

Top

Parameters

Keyword	Description	Choices	Notes
RANGE	Range of message identifiers	Single values: *ALL Other values: *Element list*	Optional, Positional 1
	Element 1: Lower value	*Name*, ***FIRST**	
	Element 2: Upper value	*Name*, ***ONLY**, *LAST	
MSGF	Message file	*Qualified object name*	Optional, Positional 2
	Qualifier 1: Message file	*Name*, **QCPFMSG**	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB, *USRLIBL	
DETAIL	Detail	*BASIC, ***FULL**	Optional
FMTTXT	Format message text	***YES**, *NO	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Range of message identifiers (RANGE)

Specifies the range of message identifiers in the specified message file for which message descriptions are displayed or printed. All message descriptions in the message file specified for the **Message file (MSGF)** parameter can be displayed or printed by specifying *ALL on this parameter.

If the starting message identifier is not specified, the message descriptions begin with the first message in the specified message file.

Note: The ending message identifier is ignored when DETAIL(*BASIC) is specified with OUTPUT(*) and the list of message identifiers is displayed interactively.

Single values

***ALL** All message descriptions in the message file specified are displayed or printed. This value can only be specified in the first element of this parameter.

Element 1: Lower value

The first element of this parameter, called the starting message identifier, specifies the message identifier of the first message description to display or print.

***FIRST**
The first message in the file specified for the **Message file (MSGF)** parameter is the first message whose description is displayed or printed.

lower-value
Specify the 7-character identifier of the first message description to be displayed or printed.

Element 2: Upper value

The second element of this parameter, called the ending message identifier, specifies the message identifier for the last message description to be printed. This value is ignored if OUTPUT(*) is specified.

***ONLY**
Only the message identifier specified as a starting message identifier has its description printed.

***LAST**
The last message in the file is the last message whose description is printed.

upper-value
Specify the 7-character identifier of the last message description to be printed.

Top

Message file (MSGF)

Specifies the message file from which the message descriptions are to be shown.

Qualifier 1: Message file

QCPFMSG
Message descriptions are shown from message file QCPFMSG.

name Specify the name of the message file from which the message descriptions are shown.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the message file. If no current library entry exists in the library list, QGPL is used.

***USRLIBL**
Only the libraries in the user portion of the job's library list are searched.

name Specify the library where the message file is located.

Top

Detail (DETAIL)

Specifies the amount of detail about the message that is displayed or printed.

***FULL** Detailed message descriptions are displayed or printed. If *PRINT is specified for the **Output (OUTPUT)** parameter, the detailed descriptions are printed. If an asterisk (*) is specified for the **Output (OUTPUT)** parameter, a menu is shown from which the user can select which details to view.

***BASIC**
A list of the specified message identifiers, their severity, and messages are displayed or printed.

Top

Format message text (FMTTXT)

Specifies whether messages and help information are displayed or printed in a formatted style.

***YES** The messages and help information are displayed or printed in a formatted style.

***NO** The messages and help information are displayed or printed in an unformatted style.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying or Printing Descriptions

```
DSPMSGD   RANGE(CPF1100  CPF3600)  MSGF(QSYS/QCPFMSG)
```

If this command is entered from a display station, the descriptions of the specified messages are shown on the display. If this command is entered from a batch job, the descriptions of the messages are sent to the job's spooled output queue.

Example 2: Printing Message Descriptions

```
DSPMSGD   RANGE(*FIRST  IDU0571)  MSGF(QIDU/QIDUMSG)
          FMTTXT(*NO)  OUTPUT(*PRINT)
```

This command prints the message descriptions for message identifiers in the file that are in the following range: from the first message in the QIDUMSG message file through the message whose identifier is IDU0571. The message descriptions are not formatted.

Top

Error messages

***ESCAPE Messages**

CPF2401
Not authorized to library &1.

CPF2407
Message file &1 in &2 not found.

CPF2411
Not authorized to message file &1 in &2.

CPF2483
Message file currently in use.

CPF2510
Message file &1 in &2 logically damaged.

CPF2515
Invalid message ID range.

CPF2516
Unable to open display or printer file &1 in &2.

CPF2519
Error occurred while processing message ID list.

CPF2537
Too many records written to file &2 in &3.

CPF9807
One or more libraries in library list deleted.

CPF9810
Library &1 not found.

CPF9830
Cannot assign library &1.

Top

Display Nickname (DSPNCK)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Nickname (DSPNCK) command is used to display, print, or create a database output file for nicknames in the system distribution directory.

A **nickname** is a short version of either a directory entry or a distribution list name. More information about nicknames is in the SNA Distribution Services book, SC41-5410.

Output from this command is directed as follows:

- For displayed output, the default is to display a list of all nicknames. When a nickname is specified, detailed information on that nickname only is displayed.
- For printed or database file output, the default is to write all nicknames to which the user has access. When a nickname is specified, detailed information on that nickname only is written to the output file.

Restriction: You must be the owner to display a private nickname. No special authority is needed to display a private nickname that you own or a public nickname.

Top

Parameters

Keyword	Description	Choices	Notes
NCK	Nickname	*Element list*	Optional, Positional 1
	Element 1: Nickname	*Character value*, ***ALL**	
	Element 2: Access	***PRV**, *ALL, *PRIVATE, *PUBLIC	
TYPE	Type of nickname	***ALL**, *USER, *LIST	Optional
OWNER	Owner	*Name*, ***ALL**, *CURRENT	Optional, Positional 2
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 3
OUTFILE	File to receive output	*Qualified object name*	Optional, Positional 4
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Nickname (NCK)

Specifies the nicknames to display, print, or write to a database file.

The possible nickname values are:

***ALL** All nicknames in the system distribution directory are directed for output.

nickname
Specify the nickname for which detailed information is to be directed for output.

The possible nickname access values are:

***PRV** The last access specified by the current user for displaying, selecting, or working with nicknames is used.

***ALL** All of the nicknames to which you have access are directed for output. This includes the private nicknames that you own and all of the public nicknames in the system distribution directory.

***PRIVATE**
The private nicknames that you own are directed for output.

***PUBLIC**
All of the public nicknames in the system distribution directory are directed for output.

Top

Type of nickname (TYPE)

Specifies the type of nicknames (user or list) to display, print, or write to a database file.

***ALL** All nicknames of both the user and list types are directed for output.

***USER**
The user nicknames are directed for output.

***LIST** The list nicknames are directed for output.

Top

Owner (OWNER)

Specifies the owner of the nicknames to display, print, or write to a database file.

***ALL** The nicknames owned by all user profiles are directed for output. This does not include the private nicknames to which the user does not have access.

***CURRENT**
The nicknames owned by the current user are directed for output.

user-profile-name
Specify the user profile of the owner whose nicknames are to be directed for output.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting work station, printed with the job's spooled output or written to a database file.

***** The output requested by an interactive job is shown on the display. If the command is run as part of a batch job, the output is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified on the OUTFILE parameter.

Top

File to receive output (OUTFILE)

Specifies the name of the database file to which output is to be directed. If the file does not exist, this command creates the database file in the specified library. Text for the created file is ″OUTFILE for DSPNCK″ and the public authority is *EXCLUDE.

Note: This parameter is required when OUTPUT(*OUTFILE) is specified.

The name of the database file can be qualified by one of the following library values:

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

library-name
Specify the name of the library to be searched.

The possible value is:

database-file-name
Specify the name of the database file to receive the output. If the file does not exist, it is created in the specified library. If the file does not exist and no library is specified, or if the file is qualified with *LIBL and the system cannot find the file, the database file is created in the user default library. The user default library is specified in the user profile of the current user. If no default library is specified in the user profile, the QGPL library is used.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed. If a member already exists, the system uses the second element of this parameter to determine whether the member is cleared before the new records are added. If the member does not exist and a member name is not specified, the system creates a member with the name of the output file specified on the OUTFILE parameter. If an output file member name is specified, but the member does not exist, the system creates it.

The possible Member to Receive Output Values are:

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

member-name
Specify the file member that receives the output. If OUTMBR(member-name) is specified and the member does not exist, the system creates it.

The possible Action on Member values are:

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Displaying a List of Nicknames

```
DSPNCK   NCK(*ALL *PRIVATE)
```

This command shows a list of private nicknames to the owner of the nicknames. The owner can request to show or print additional information for the nicknames shown.

Example 2: Printing a List of Nicknames

```
DSPNCK   NCK(MANAGER *PRIVATE)  OUTPUT(*PRINT)
```

This command prints detailed information on the user's private nickname MANAGER.

Example 3: Directing Nicknames to a Database File

```
DSPNCK   NCK(*ALL *PUBLIC)  OUTPUT(*OUTFILE)  OUTFILE(ALLNICKS)
         OUTMBR(*FIRST *REPLACE)
```

This command directs one record for each public nickname in the directory to the database file ALLNICKS. If this file is not found in the library list (the default library qualifier), it is created in the user's default library or in the QGPL library if no user default library is specified.

Example 4: Directing Nicknames for an Owner to a Database File

```
DSPNCK   NCK(*ALL *PUBLIC)  OWNER(CDJONES)  OUTPUT(*OUTFILE)
         OUTFILE(NICKNAME/CDJONES)
         OUTMBR(*FIRST *REPLACE)
```

This command directs one record for each public nickname owned by the user whose user profile is CDJONES to the database file CDJONES in the library NICKNAME. If this file is not found in the library NICKNAME, it is created.

Top

Error messages

***ESCAPE Messages**

CPF9A89
Nickname function not successful.

CPF9009
System requires file &1 in &2 be journaled.

CPF9820
Not authorized to use library &1.

CPF9822
Not authorized to file &1 in library &2.

CPF9838
User profile storage limit exceeded.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9860
Error occurred during output file processing.

Top

Display Network Attributes (DSPNETA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Attributes (DSPNETA) command displays the network attributes of the system.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNETA   OUTPUT(*)
```

If the job is interactive, this command displays the network attributes of the system at the work station. If the job is batch, the network attributes are printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9871
Error occurred while processing.

Top

Display Node Group (DSPNODGRP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Node Group (DSPNODGRP) command displays the systems or nodes in a node group, as well as the partitioning scheme for the node group.

Top

Parameters

Keyword	Description	Choices	Notes
NODGRP	Node group	*Qualified object name*	Required, Positional 1
	Qualifier 1: Node group	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB, *USRLIBL	
OUTPUT	Output	*, *PRINT	Optional

Top

Node group (NODGRP)

Specifies the node group you want to display.

This is a required parameter.

Qualifier 1: Node group

name Specify the name of node group to be displayed.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is searched.

***USRLIBL**
If a current library entry exists in the library list for the current thread, the current library and the libraries in the user portion of the library list are searched. If there is no current library entry, only the libraries in the user portion of the library list are searched.

name Specify the name of the library to be searched.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying a Node Group

```
DSPNODGRP   NODGRP(LIB1/GROUP1)
```

This command displays the systems in the node group called GROUP1 and the partitioning scheme associated with the node group. The information is shown at the workstation.

Example 2: Printing a Node Group

```
DSPNODGRP   NODGRP(LIB1/GROUP2)  OUTPUT(*PRINT)
```

This command creates a spooled file that contains a list of the systems in the node group called GROUP1 and the associated partitioning scheme.

Top

Error messages

***ESCAPE Messages**

CPF2189
Not authorized to object &1 in &2 type *&3.

CPF3166
Node group &1 in library &2 not found.

CPF9804
Object &2 in library &3 damaged.

CPF9810
Library &1 not found.

CPF9820
Not authorized to use library &1.

Top

Display NetBIOS Description (DSPNTBD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display NetBIOS Description (DSPNTBD) command displays a NetBIOS description object.

Top

Parameters

Keyword	Description	Choices	Notes
NTBD	NetBIOS description	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

NetBIOS description (NTBD)

Specifies the name of the NetBIOS description to be displayed.

This is a required parameter.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNTBD   NTBD(MYNETBIOS)
```

This command displays information about the NetBIOS description named MYNETBIOS. The information is shown at the workstation from which the command was entered. If the command was submitted from a batch job, the output from the command is printed with the job's spool output.

Top

Error messages

***ESCAPE Messages**

CPF26B2

NetBIOS description &1 previously deleted.

Top

Display Network Interface Desc (DSPNWID)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Interface Description (DSPNWID) command displays a network interface description. Output is directed to a display, or a spooled printer file, as determined by the **Output (OUTPUT)** parameter and job type.

Top

Parameters

Keyword	Description	Choices	Notes
NWID	Network interface description	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2
OPTION	Option	***ALL**, *BASIC, *CHLENTRY, *DLCIENTRY, *LINELIST, *NETDIF, *PCLENTRY, *TMRRTY	Optional

Top

Network interface description (NWID)

This is a required parameter.

Specifies the name of the network interface description to be displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Option (OPTION)

This parameter allows you to display information about this network interface description selectively. You can choose to display all information (*ALL) or specific information. Only one value may be specified.

***ALL** All of the information in the network interface description is displayed.

***BASIC**
The values of parameters that are basic to the network interface description are displayed.

***CHLENTRY**
The channel entries associated with the network interface description are displayed. This value is valid only when an integrated services digital network (ISDN) is used.

***DLCI** The data link connection identifier information, including the DLCI numbers, status, and active or attached lines is displayed. This value is valid only when a frame relay network (FR) is used.

***NETDIF**
The values of the network difference parameters in the network interface description are displayed. This value is valid only when ISDN is used.

***PCLENTRY**
The protocol-specific information, including the protocol entries for the network interface description, is displayed. This value is valid only when ISDN is used.

***TMRRTY**
The values of the timer and retry parameters in the network interface description are displayed.

Top

Examples

```
DSPNWID   NWID(THISONE)
```

This command displays information about the network interface description named THISONE. The information is shown an the work station display from which the command was submitted. If the command is entered from a batch job, the output from the display is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPD2637
Not authorized to object &1.

CPF2625
Not able to allocate object &1.

CPF2634
Not authorized to object &1.

CPF27AA
Option not allowed for network interface &1.

CPF27A4
Network interface description &1 not found.

CPF27A5
Network interface description &1 has been damaged.

CPF27A8
&2 not valid for network interface &1.

Display NWS Attributes (DSPNWSA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Server Attributes (DSPNWSA) command displays the network server attributes for the system.

Output is directed to a display or a spooled printer file as indicated by the OUTPUT parameter and job type.

Top

Parameters

Keyword	Description	Choices	Notes
OPTION	Option	*ALL, *WINDOWS, *WINDOWSNT	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

Option (OPTION)

Specifies the displays to be shown.

***ALL** All displays that apply to all server types are shown.

***WINDOWS or *WINDOWSNT**
The displays that apply to the Windows server type are shown, but additional information displays are not shown.

Note: *WINDOWS should be used in V5R4 and later releases. The *WINDOWSNT value is supported for compatibility with releases prior to V5R4.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting workstation or printed with the job's spooled output.

* Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNWSA   OUTPUT(*)
```

If the job is interactive, this command displays the network server attributes of the system at the workstation. If the job is batch, the network server attributes are printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPFA452
Network server attributes not displayed.

Top

Display NWS Configuration (DSPNWSCFG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display NWS Configuration (DSPNWSCFG) command displays a network server configuration.

Top

Parameters

Keyword	Description	Choices	Notes
NWSCFG	Network server configuration	*Communications name*	Required, Positional 1
OPTION	Option	***ALL**, *BASIC, *CNNSEC, *RMTSYS, *RMTIFC, *SRVPRC	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Network server configuration (NWSCFG)

Specifies the name of the network server configuration.

This is a required parameter.

Top

Option (OPTION)

Specifies whether to display all information (*ALL) or specific information.

***ALL** All information concerning the network server configuration is shown.

***BASIC**
Only basic characteristics of the network server configuration are shown.

***CNNSEC**
Only connection security network server configuration characteristics are shown.

***RMTSYS**
Only remote system network server configuration characteristics are shown.

***RMTIFC**
Only the remote interfaces characteristics of the network server configuration are shown.

***SRVPRC**
Only the service processor network server configuration characteristics are shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNWSCFG NWSCFG(MYCONFIG)
```

This command displays information about the network server configuration named MYCONFIG. Since no option was specified, all information is displayed. The information is shown at the work station display from which the command was entered. If the command was submitted from a batch job, the output from the command is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF96CB
Network server configuration &1 not found.

CPF96CC
Option &1 not valid for network server configuration &2.

CPF9899
Error occurred during processing of command.

Top

Display Network Server Desc (DSPNWSD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Server Description (DSPNWSD) command displays a network server description object.

Top

Parameters

Keyword	Description	Choices	Notes
NWSD	Network server description	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2
OPTION	Option	***ALL**, *BASIC, *PORTS, *VRTETHPTH, *VRTETHSEC, *STGLNK, *STGPTH, *STGPTHIQN, *STGPTHSEC, *TCPIP, *RSTDEV, *CLUINFO	Optional

Top

Network server description (NWSD)

Specifies the name of the network server description to be displayed.

This is a required parameter.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Option (OPTION)

Specifies what information you want displayed. You can choose to display all information (*ALL) or specific information.

***ALL** All information concerning the network server description is shown.

***BASIC**
Only basic characteristics of the network server description are shown.

***PORTS**
Only the information concerning attached communication descriptions is shown.

***VRTETHPTH**
Only the information concerning the iSCSI virtual Ethernet paths of the network server description are shown.

***VRTETHSEC**
Only the information concerning the iSCSI virtual Ethernet paths security of the network server description are shown.

***STGLNK**
Only the information concerning linked client storage spaces is shown.

***STGPTH**
Only the information concerning the iSCSI storage paths of the network server description are shown.

***STGPTHIQN**
Only the information concerning the iSCSI storage path qualified names of the network server description are shown.

***STGPTHSEC**
Only the information concerning the iSCSI storage paths security of the network server description are shown.

***TCPIP**
Only the information concerning TCP/IP configuration is shown.

***RSTDEV**
Only the restricted device resources associated with the network server description are shown.

***CLUINFO**
Only the information concerning cluster configuration is shown.

Top

Examples

```
DSPNWSD   NWSD(SERVER1)
```

This command displays information about the network server description named SERVER1. Since no option was specified, all information is displayed. The information is shown at the work station display from which the command was entered. If the command was submitted from a batch job, the output from the command is printed with the job's spooled output.

Top

Error messages

None

Top

Display NWS Storage Space (DSPNWSSTG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Server Storage Space (DSPNWSSTG) command displays a network server storage space. Output is directed to a display or a spooled printer file as indicated on the OUTPUT parameter and by the job type. Information displayed includes the format of the storage space: its size, the amount of free space available, the auxiliary storage pool that it exists in, and the drive at which it is linked to an NWSD (network server description).

Top

Parameters

Keyword	Description	Choices	Notes
NWSSTG	Network server storage space	*Name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

Network server storage space (NWSSTG)

Specifies the name of the storage space to be displayed.

Top

Output (OUTPUT)

Specifies whether the output is shown on the display of the requesting work station or is printed with the job's spooled output.

*****
Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNWSSTG   NWSSTG(STGSPACE1)
```

This command displays a network server storage space named STGSPACE1.

Top

Error messages

None

Top

Display NWS User Attributes (DSPNWSUSRA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Network Server User Attributes (DSPNWSUSRA) command displays the network server user attributes for a user profile.

Output is directed to a display or a spooled printer file as indicated by the OUTPUT parameter and job type.

Top

Parameters

Keyword	Description	Choices	Notes
USRPRF	User profile	*Simple name*, ***CURRENT**	Optional, Positional 1
PRFTYPE	Profile type	***USER**, *GROUP	Optional, Positional 2
OPTION	Option	***ALL**, *WINDOWS, *WINDOWSNT	Optional, Positional 3
OUTPUT	Output	*, *PRINT	Optional

Top

User profile (USRPRF)

Specifies the name of a user or group profile.

***CURRENT**
The user profile attributes for the current user profile are displayed.

user-name
Specify the name of a user profile to be displayed.

Top

Profile type (PRFTYPE)

Specifies whether the information to be displayed is for a user profile or for a group profile.

***USER**
The information to be displayed is for a user profile.

***GROUP**
The information to be displayed is for a group profile.

Top

Option (OPTION)

Specifies the displays to be shown.

***ALL** All displays that apply to all server types are shown.

***WINDOWS or *WINDOWSNT**
The displays that apply to the Windows servers are shown, but additional information displays are not shown.

Note: *WINDOWS should be used in V5R4 and later releases. The *WINDOWSNT value is supported for compatibility with releases prior to V5R4.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting workstation or printed with the job's spooled output.

***** Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPNWSUSRA   USRPRF(NWSUSR1)
```

If the job is interactive, this command displays the network server user attributes defined for user NWSUSR1 at the workstation. If the job is batch, the network server user attributes for user NWSUSR1 is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPFA453
Network server user attributes not displayed.

Top

Display Object Authority (DSPOBJAUT)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Object Authority (DSPOBJAUT) command displays the list of authorized users of an object and their assigned authority. If the object is secured by an authorization list, the name of the authorization list is also displayed. The public authority and primary group authority are also shown.

If the user entering the command does not have object management (*OBJMGT) authority to the object, only that user's name and authorities are shown. The names of the other users and their authorities for the object are not shown. If an object does not have an owner name associated with it, no authorities for the object are shown.

The following are shown for the specified object:

- The object name
- The name of the library containing the object
- The name of the object owner
- The object type
- A list of all the users who are authorized to use the object
- The authority that each user has for the object
- The authorization list name (if the object is secured by an authorization list)

Restrictions: You must have use (*USE) authority to the auxiliary storage pool device if one is specified.

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Parameters

Keyword	Description	Choices	Notes
OBJ	Object	*Qualified object name*	Required, Positional 1
	Qualifier 1: Object	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OBJTYPE	Object type	*ALRTBL, *AUTL, *BNDDIR, *CFGL, *CHTFMT, *CLD, *CLS, *CMD, *CNNL, *COSD, *CRG, *CRQD, *CSI, *CSPMAP, *CSPTBL, *CTLD, *DEVD, *DOC, *DTAARA, *DTADCT, *DTAQ, *EDTD, *EXITRG, *FCT, *FILE, *FLR, *FNTRSC, *FNTTBL, *FORMDF, *FTR, *GSS, *IGCDCT, *IGCSRT, *IGCTBL, *IMGCLG, *IPXD, *JOBD, *JOBQ, *JOBSCD, *JRN, *JRNRCV, *LIB, *LIND, *LOCALE, *M36, *M36CFG, *MEDDFN, *MENU, *MGTCOL, *MODD, *MODULE, *MSGF, *MSGQ, *NODGRP, *NODL, *NTBD, *NWID, *NWSCFG, *NWSD, *OUTQ, *OVL, *PAGDFN, *PAGSEG, *PDFMAP, *PDG, *PGM, *PNLGRP, *PRDAVL, *PRDDFN, *PRDLOD, *PSFCFG, *QMFORM, *QMQRY, *QRYDFN, *RCT, *S36, *SBSD, *SCHIDX, *SPADCT, *SQLPKG, *SQLUDT, *SRVPGM, *SSND, *SVRSTG, *TBL, *TIMZON, *USRIDX, *USRPRF, *USRQ, *USRSPC, *VLDL, *WSCST	Required, Positional 2
ASPDEV	ASP device	*Name*, *****, *SYSBAS	Optional

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 3
OUTFILE	File to receive output	Single values: *NONE Other values: *Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	
AUTTYPE	Authority type	***OBJECT**, *FIELD, *ALL	Optional

Top

Object (OBJ)

Specifies the object for which the authorized users and their authority are to be displayed.

This is a required parameter.

name Specify the name of the object.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Object type (OBJTYPE)

Specifies the object type of the object whose authority is to be displayed, such as program (*PGM), file (*FILE), or library (*LIB). To see a complete list of object types when prompting this command, position the cursor on the field for this parameter and press F4 (Prompt).

This is a required parameter.

Top

ASP device (ASPDEV)

Specifies the auxiliary storage pool (ASP) device name where the library that contains the object (OBJ parameter) is located. If the object's library resides in an ASP that is not part of the library name space associated with the job, this parameter must be specified to ensure the correct object is used as the target of this command's operation.

* The ASPs that are currently part of the job's library name space will be searched to locate the

object. This includes the system ASP (ASP number 1), all defined basic user ASPs (ASP numbers 2-32), and, if the job has an ASP group, all independent ASPs in the ASP group.

***SYSBAS**
The system ASP and all basic user ASPs will be searched to locate the object. No independent ASPs will be searched, even if the job has an ASP group.

name Specify the device name of the independent ASP to be searched to locate the object. The independent ASP must have been activated (by varying on the ASP device) and have a status of AVAILABLE. The system ASP and basic user ASPs will not be searched.

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Note: If a new file is created, the system uses QAOBJAUT in QSYS with a format name of QSYDSAUT as a model.

If AUTTYPE(*FIELD) is specified for a *FILE object and a new outfile is created, the system uses QAFLDAUT in QSYS with a format name of QSYDSFLD as a model.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Authority type (AUTTYPE)

Specifies whether object level authority, field level authority, or both object level and field level authority are displayed. Field level authority information only applies to *FILE objects.

***OBJECT**
The object level authority information is displayed, placed in a spooled file, or placed in an outfile.

If OUTPUT(*) is requested and the object is a file with field level authorities, the F16 key, Display Field Authorities, will be enabled on the display.

***FIELD**
The field level authority information is displayed, placed in a spooled file, or placed in an outfile.

This value is only valid if *FILE is specified for the **Object type (OBJTYPE)** parameter.

***ALL** If OUTPUT(*) is requested, the object level authority information is displayed. If there are field level authorities associated with the file, the F16 key, Display Field Authorities, will be enabled on the display. If OUTPUT(*PRINT) is requested, the object level and field level authority data are included in the spooled file. AUTTYPE(*ALL) is not valid with OUTPUT(*OUTFILE).

This value is only valid if *FILE is specified for the **Object type (OBJTYPE)** parameter.

Top

Examples

Example 1: Displaying Users and Authorities

```
DSPOBJAUT   OBJ(ARLIB/PROG1)  OBJTYPE(*PGM)
```

This command shows the authorized users and their authorities for the object named PROG1 to the user who entered the command, if that user has object management authority for the object. If the user does

not have object management authority, only personal authorities are shown. PROG1 is a program (*PGM) located in the library named ARLIB. The system assumes * for the device that shows the output list. If the command was entered in the batch subsystem, the output is placed in the default output queue for the job. If the command was entered in the interactive subsystem, the output is shown on the device where the user entered the command.

Example 2: Printing List of Users

```
DSPOBJAUT   OBJ(ARLIB/PROG2)  OBJTYPE(*PGM)  OUTPUT(*PRINT)
```

This command causes the list of authorized users of the program named PROG2 in the ARLIB library to be printed. If the user who enters the command does not have object management authority for the program, only that user's name and authorities are printed.

Top

Error messages

***ESCAPE Messages**

CPF2204
User profile &1 not found.

CPF2207
Not authorized to use object &1 in library &3 type *&2.

CPF2208
Object &1 in library &3 type *&2 not found.

CPF2209
Library &1 not found.

CPF2211
Not able to allocate object &1 in &3 type *&2.

CPF2216
Not authorized to use library &1.

CPF224E
The AUTTYPE value of *FIELD is not valid for file &1 in library &2.

CPF2283
Authorization list &1 does not exist.

CPF9843
Object &1 in library &3 type &2 cannot be accessed.

CPF9860
Error occurred during output file processing.

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Display Object Description (DSPOBJD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Object Description (DSPOBJD) command shows the names and attributes of specified objects in the specified library or in the libraries of the library list for the current thread. The command can also show the names and attributes of libraries themselves.

Only the object attributes of each object are shown; the data attributes of data in the object, and the actual data in the object, are not shown. Also indicated is whether an object being shown has been damaged (possibly by a system failure) or is not able to be accessed because it is locked.

Any object for which you have some authority other than *EXCLUDE authority can be shown by this command. Libraries for which you do not have execute (*EXECUTE) authority cannot be shown, even if specified in the command. If only one object is to be shown, you can specify it by entering the object name, object type, the name of the library where it is located, and the auxiliary storage pool (ASP) device where the library is located. Depending on the specified library qualifier, either the first object found in the specified libraries is shown, or all objects in the specified libraries for which you have some authority are shown.

Notes:

- For objects that are damaged or locked, the information shown, printed, or written to the output file is incomplete. If the description of the object is shown or printed, the text for the damaged or locked object indicates either the damaged or locked status. If the description of the object is written to an output file, an indication that the object is locked or damaged is included in the output file.
- The size of the library object shown does not include the sizes of the objects in the library. The total size of the library, including the sizes of the objects in the library, can be obtained using the Display Library (DSPLIB) command with OUTPUT(*PRINT) or the Retrieve Library Description (QLIRLIBD) API.

Restrictions:

1. You must have execute (*EXECUTE) authority for the specified libraries. If you do not have *EXECUTE authority for a library, none of its objects are shown.
2. You must have some authority other than *EXCLUDE authority for each of the objects to be shown.
3. You must have either all object (*ALLOBJ) or audit (*AUDIT) special authority to see a value other than *NOTAVL for the object auditing field.

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Parameters

Keyword	Description	Choices	Notes
OBJ	Object	Single values: *ALLUSR, *IBM Other values: *Qualified object name*	Required, Positional 1
	Qualifier 1: Object	*Generic name, name*, *ALL	
	Qualifier 2: Library	*Name*, ***LIBL**, *USRLIBL, *CURLIB, *ALL, *ALLUSR	

Keyword	Description	Choices	Notes
OBJTYPE	Object type	Single values: *ALL Other values (up to 92 repetitions): *ALRTBL, *AUTL, *BNDDIR, *CFGL, *CHTFMT, *CLD, *CLS, *CMD, *CNNL, *COSD, *CRG, *CRQD, *CSI, *CSPMAP, *CSPTBL, *CTLD, *DEVD, *DOC, *DTAARA, *DTADCT, *DTAQ, *EDTD, *EXITRG, *FCT, *FILE, *FLR, *FNTRSC, *FNTTBL, *FORMDF, *FTR, *GSS, *IGCDCT, *IGCSRT, *IGCTBL, *IMGCLG, *IPXD, *JOBD, *JOBQ, *JOBSCD, *JRN, *JRNRCV, *LIB, *LIND, *LOCALE, *MEDDFN, *MENU, *MGTCOL, *MODD, *MODULE, *MSGF, *MSGQ, *M36, *M36CFG, *NODGRP, *NODL, *NTBD, *NWID, *NWSCFG, *NWSD, *OUTQ, *OVL, *PAGDFN, *PAGSEG, *PDFMAP, *PDG, *PGM, *PNLGRP, *PRDAVL, *PRDDFN, *PRDLOD, *PSFCFG, *QMFORM, *QMQRY, *QRYDFN, *RCT, *SBSD, *SCHIDX, *SPADCT, *SQLPKG, *SQLUDT, *SRVPGM, *SSND, *SVRSTG, *S36, *TBL, *TIMZON, *USRIDX, *USRPRF, *USRQ, *USRSPC, *VLDL, *WSCST	Required, Positional 2
DETAIL	Detail	***BASIC**, *FULL, *SERVICE	Optional, Positional 3
ASPDEV	ASP device	Single values: *, *ALLAVL, *CURASPGRP, *SYSBAS Other values: *Element list*	Optional
	Element 1: Device	*Name*	
	Element 2: Search type	***ASP**, *ASPGRP	
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

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Object (OBJ)

Specifies which objects in the library or libraries are to have their object attributes shown. If library (qualifier 2) is not specified, *LIBL is assumed, and all libraries in the library list for the current thread are searched for the objects. Objects in a library for which you do not have some authority are not shown. This parameter can be specified as a single value or as a list of one or two qualifiers.

This is a required parameter.

Single values

***ALLUSR**
When the object name has a value of *ALLUSR, the object type must be *LIB. All user libraries in the auxiliary storage pools (ASPs) specified for the **ASP device (ASPDEV)** parameter are shown. Refer to *ALLUSR in the description of library (qualifier 2) for a definition of user libraries.

***IBM** When the object name has a value of *IBM, the object type must be *LIB. All libraries in the

auxiliary storage pools (ASPs) defined by the **ASP device (ASPDEV)** parameter which are saved and restored using the SAVLIB and RSTLIB CL commands with *IBM specified for the **Library (LIB)** parameter are shown.

Qualifier 1: Object

***ALL** All objects in the libraries identified in library (qualifier 2) that are of the types specified for the **Object type (OBJTYPE)** parameter and for which you have some authority other than *EXCLUDE authority are shown.

1. If the library (qualifier 2) is *ALL, *ALLUSR, or a library name, all objects of the specified type and that are in the specified libraries are shown.
2. If the library (qualifier 2) is *USRLIBL or *LIBL and the object name is a specific name (not *ALL and not a generic name), only one object type (and not *ALL) can be specified for the OBJTYPE parameter and only the first object found is shown.

generic-name
Specify the generic name of the objects to be shown. A generic name is specified as a character string that contains one or more characters followed by an asterisk (*). A generic name specifies all objects that have names with the same prefix as the generic object name for which you have some authority other than *EXCLUDE authority.

name Specify the name of the object to be shown.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found. If the **ASP device (ASPDEV)** parameter is specified when this value is used, ASPDEV(*) is the only valid value.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is searched. If the **ASP device (ASPDEV)** parameter is specified when this value is used, ASPDEV(*) is the only valid value.

***USRLIBL**
If a current library entry exists in the library list for the current thread, the current library and the libraries in the user portion of the library list are searched. If there is no current library entry, only the libraries in the user portion of the library list are searched. If the **ASP device (ASPDEV)** parameter is specified when this value is used, ASPDEV(*) is the only valid value.

***ALL** All the libraries in the auxiliary storage pools (ASPs) specified for the **ASP device (ASPDEV)** parameter are searched.

***ALLUSR**
All user libraries in the auxiliary storage pools (ASPs) defined by the **ASP device (ASPDEV)** parameter are searched.

User libraries are all libraries with names that do not begin with the letter Q except for the following:

```
#CGULIB     #DSULIB     #SEULIB
#COBLIB     #RPGLIB
#DFULIB     #SDALIB
```

Although the following libraries with names that begin with the letter Q are provided by IBM, they typically contain user data that changes frequently. Therefore, these libraries are also considered user libraries:

```
QDSNX       QRCLxxxxx   QUSRDIRDB   QUSRVI
QGPL        QSRVAGT     QUSRIJS     QUSRVxRxMx
QGPL38      QSYS2       QUSRINFSKR
QMGTC       QSYS2xxxxx  QUSRNOTES
QMGTC2      QS36F       QUSROND
QMPGDATA    QUSER38     QUSRPOSGS
QMQMDATA    QUSRADSM    QUSRPOSSA
QMQMPROC    QUSRBRM     QUSRPYMSVR
QPFRDATA    QUSRDIRCF   QUSRRDARS
QRCL        QUSRDIRCL   QUSRSYS
```

1. 'xxxxx' is the number of a primary auxiliary storage pool (ASP).
2. A different library name, in the format QUSRVxRxMx, can be created by the user for each previous release supported by IBM to contain any user commands to be compiled in a CL program for the previous release. For the QUSRVxRxMx user library, VxRxMx is the version, release, and modification level of a previous release that IBM continues to support.

name Specify the name of the library to be searched.

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Object type (OBJTYPE)

Specifies which types of objects are shown. This parameter can be specified as a single value or as a list of one or more object types.

To see a complete list of object types when prompting this command, position the cursor on the field for this parameter and press F4 (Prompt). For a description of the object types, see "Object types" in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

This is a required parameter.

Single values

***ALL** All types of objects with the specified object name are shown.

Other values

object-type
Specify one or more values for the types of objects that are shown. All objects in the specified libraries, as well as libraries themselves, that have the object type(s) specified have their object attributes shown. If the library qualifier for the **Object (OBJ)** parameter is *USRLIBL or *LIBL and the object name qualifier is a specific name (not *ALL and not a generic name), only one object type (and not *ALL) can be specified here.

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Detail (DETAIL)

Specifies which set of attributes is shown for each object.

Note: When the output is directed to a database file, this parameter is ignored and all object attribute information is written to the file.

***BASIC**
The display or listing contains the name and a basic set of object attributes for each object.

***FULL** The display or listing contains the name and a full set of object attributes for each object (which includes the basic set of attributes).

***SERVICE**
The display or listing contains the service-related attributes for each object.

Top

ASP device (ASPDEV)

Specifies the auxiliary storage pool (ASP) device name where storage is allocated for the library containing the object. If the library resides in an ASP that is not part of the thread's library name space, this parameter must be specified to ensure the correct library is searched. If this parameter is used when the library qualifier specified for the **Object (OBJ)** parameter is *CURLIB, *LIBL, or *USRLIBL, ASPDEV(*) is the only valid value. This parameter can be specified as a single value or a list of one or two elements.

Single values

***** The ASPs that are currently part of the thread's library name space will be searched to find the library. This includes the system ASP (ASP 1), all defined basic user ASPs (ASPs 2-32), and, if the thread has an ASP group, the primary and secondary ASPs in the thread's ASP group.

***ALLAVL**
All available ASPs will be searched. This includes the system ASP (ASP 1), all defined basic user ASPs (ASPs 2-32), and all available primary and secondary ASPs (ASPs 33-255 with a status of 'Available').

***CURASPGRP**
If the thread has an ASP group, the primary and secondary ASPs in the thread's ASP group will be searched to find the library. The system ASP (ASP 1) and defined basic user ASPs (ASPs 2-32) will not be searched. If no ASP group is associated with the thread an error will be issued.

***SYSBAS**
The system ASP (ASP 1) and all defined basic user ASPs (ASPs 2-32) will be searched to find the library. No primary or secondary ASPs will be searched, even if the thread has an ASP group.

Element 1: Device

name

Specify the name of the primary or secondary ASP device to be searched. The primary or secondary ASP must have been activated (by varying on the ASP device) and have a status of 'Available'. The system ASP (ASP 1) and defined basic user ASPs (ASPs 2-32) will not be searched.

Note: To specify a specific auxiliary storage pool (ASP) device name when the search type specified for element 2 is *ASP, you must have execute (*EXECUTE) authority for the specific ASP device.

To specify a specific auxiliary storage pool (ASP) device name when the search type specified for element 2 is *ASPGRP, you must have execute (*EXECUTE) authority for each ASP device in the ASP group.

Element 2: Search type

Specifies whether the single ASP device or the entire ASP group named in element 1 is to be searched.

***ASP** Only the single auxiliary storage pool (ASP) device named in element 1 is to be searched.

***ASPGRP**
The entire group of the primary auxiliary storage pool (ASP) device named in element 1 is to be searched.

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library.

Note: If a new file is created, the text describing that file is ″Output file for DSPOBJD″ and the public authority is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority. The database format (QLIDOBJD) of the output file is the same as that used in the IBM-supplied database file QADSPOBJ.

Qualifier 1: File to receive output

name Specify the name of the file to which the output of the command is directed.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched to find the file. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched to find the file.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to**

receive output (OUTFILE) parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

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Examples

Example 1: Displaying a Basic Description of Objects

```
DSPOBJD   OBJ(X/PAY)  OBJTYPE(*ALL)
```

A basic description of all the objects for which you have some authority (except exclude (*EXCLUDE) authority) that are named PAY in library X are shown. Objects in the library for which you have no authority are not shown.

Example 2: Displaying a Full Description of a Program

```
DSPOBJD   OBJ(X/PAY)  OBJTYPE(*PGM)  DETAIL(*FULL)
```

A full description of the program named PAY in library X is shown. The display includes all the attributes of the program.

Example 3: Displaying Program Information

```
DSPOBJD   OBJ(*USRLIBL/PAY)  OBJTYPE(*PGM)
```

This command shows information about the first program named PAY that is found in the user portion of the library list for the current thread.

Example 4: Displaying a Basic Description of Files

```
DSPOBJD   OBJ(Z/ABC*)  OBJTYPE(*FILE)
```

A basic description of all of the files whose names begin with ABC (generic name) located in library Z for which you have some authority (except exclude (*EXCLUDE) authority) are shown.

Top

Error messages

***ESCAPE Messages**

CPFB8ED
Device description &1 not correct for operation.

CPF2105
Object &1 in &2 type *&3 not found.

CPF2110
Library &1 not found.

CPF2113
Cannot allocate library &1.

CPF2114
Cannot allocate object &1 in &2 type *&3.

CPF2115
Object &1 in &2 type *&3 damaged.

CPF2121
One or more libraries cannot be accessed.

CPF2123
No objects of specified name or type exist in library &2.

CPF2124
No specified objects can be displayed from library &2.

CPF2150
Object information function failed.

CPF2176
Library &1 damaged.

CPF2177
OBJTYPE value not compatible with OBJ value.

CPF218C
&1 not a primary or secondary ASP.

CPF218D
&1 not a primary ASP when *ASPGRP specified.

CPF2182
Not authorized to library &1.

CPF2189
Not authorized to object &1 in &2 type *&3.

CPF326B
Damage to file &1 in library &2.

CPF9809
Library &1 cannot be accessed.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

CPF9827
Object &1 cannot be created or moved into &2.

CPF9833
*CURASPGRP or *ASPGRPPRI specified and thread has no ASP group.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9860
Error occurred during output file processing.

CPF9899
Error occurred during processing of command.

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Display OptiConnect Link Sts (DSPOPCLNK)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display OptiConnect Link Status (DSPOPCLNK) command allows the user to view the status of either the fiber optic link or the high-speed link (HSL) connections between multiple systems. The system will determine if any high-speed links exist, and display them, otherwise the fiber optic links will be displayed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

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Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

Only Printing of the fiber optic links is available. If printed output of the link status is desired, this function is available through the hardware service manager screens.

*****
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPOPCLNK   OUTPUT(*PRINT)
```

This command will produce a listing showing the status of all connections that may be used by OptiConnect.

Top

Error messages

None

Top

Display Optical (DSPOPT)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Optical (DSPOPT) command displays volume, directory, or file attributes depending on the value specified on the DATA parameter. The information can be printed, displayed, or written to an output file. If the output is directed to an outfile it will have one of the following record formats:

- When DATA(*VOLATR) is specified the database file will have a record format named QAMODVA. The fields in the database are the same as the fields in the IBM-supplied format QAMODVA in file QAMODVAF located in library QSYS.
- When DATA(*DIRATR) is specified the database file will have a record format named QAMODPA. The fields in the database are the same as the fields in the IBM-supplied format QAMODPA in file QAMODPAF located in library QSYS.
- When DATA(*FILATR) is specified the database file will have a record format named QAMODFA. The fields in the database are the same as the fields in the IBM-supplied format QAMODFA in file QAMODFAF located in library QSYS.

Restriction: To use this command you must have *USE authority to the authorization list securing the volumes being displayed.

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Parameters

Keyword	Description	Choices	Notes
VOL	Volume identifier	*Character value*, *ALL, *MOUNTED	Required, Positional 1
DEV	Optical device	*Name*, ***ALL**	Optional, Positional 2
DATA	Data type	***VOLATR**, *SAVRST, *FILATR, *DIRATR	Optional, Positional 3
OUTPUT	Output	*, *PRINT, *OUTFILE, *USRSPC	Optional
PATH	Path	*Character value*, *ALL	Optional
USRSPC	User space	*Qualified object name*	Optional
	Qualifier 1: User space	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
REPLACE	Replace user space	***YES**, *NO	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Volume identifier (VOL)

Specifies the identifier of the optical volume which contains the information being shown.

***ALL** The information is shown for all optical volumes on the specified directly-attached optical device (DEV parameter).

***MOUNTED**
The information is shown for the volume mounted on the specified device (DEV parameter).

Note: This value is valid only for directly-attached optical devices, not for library devices.

volume-identifier
Specify the identifier of an optical volume.

generic*-volume-identifier
Specify the generic name of the volume identifier. A generic name is a character string of one or more characters followed by an asterisk (*); for example, ABC*. The asterisk substitutes for any valid characters. A generic name will result in the display of all volumes in directly attached optical devices which begin with the generic prefix and for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

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Optical device (DEV)

Specifies the directly-attached optical device containing the optical volume whose information is displayed.

Note: This parameter is ignored when a specific volume name is specified on the VOL parameter.

***ALL** The volume attributes are displayed for optical volumes in all directly attached optical devices.

Note: This value is valid only when VOL(*ALL) or VOL(generic*) is specified.

optical-device
Specify the name of a directly-attached optical device.

Top

Data type (DATA)

Specifies the type of information that is displayed when specified on the PATH parameter. If DATA(*SAVRST) is specified, the information includes a description of each object saved to the optical file and summary information about the saved objects. To determine whether the volume being displayed contains data in the basic stream file format or in the save and restore format, you can specify DATA(*FILATR) and check the data file identifiers listed.

***VOLATR**
The volume attributes for the specified volume or volumes are displayed.

***DIRATR**
The directory attributes for the specified directory or directories are displayed.

***FILATR**
The file attributes for the specified file or files are displayed.

***SAVRST**
The specified files contain save and restore data. Summary information is displayed for the command and each saved object.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station, printed with the job's spooled output, added to a database file or directed to a user space.

***** Output requested by an interactive job is shown on the display. If the command is run as part of a batch job, the output is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified on the OUTFILE parameter.

***USRSPC**
The output is added to the user space specified on the USRSPC parameter.

Top

Path (PATH)

Specifies the path name of the directory or the file on the volume being displayed. The DATA parameter indicates whether the directory or the file attributes are displayed. The object path name can be either a simple name or a name that is qualified with the name of the directory in which the object is located. A pattern can be specified in the last part of the path name. An asterisk (*) matches any number of characters. If the path name is qualified or contains a pattern, it must be enclosed in apostrophes.

Note: This parameter is ignored if DATA(*VOLATR) is specified.

***ALL** *ALL can have different meanings based on how parameter DATA is specified. Following is a list of combinations and their meanings.

- DATA(*VOLATR) and PATH(*ALL), the PATH parameter is ignored.
- DATA(*SAVRST) and PATH(*ALL), all save/restore files for all directories on the volume will be listed.
- DATA(*SAVRST) and PATH(/directory1/*ALL), all save/restore files in the path /directory1 will be listed.
- DATA(*DIRATR) and PATH(*ALL), all directories attributes for all directories on the volume will be listed.
- DATA(*DIRATR) and PATH(/directory1/*ALL), all directories attributes for directories in the path /directory1 will be listed.
- DATA(*FILATR) and PATH(*ALL), all file attributes for files in the root directory (/) of the volume will be listed.
- DATA(*FILATR) and PATH(/directory1/*ALL), all file attributes for files in /directory1 of the volume will be listed.

path-name
Specify the fully qualified directory or file name which is to have its attributes listed.

generic*-path-name
Specify the generic name of the path identifier. A generic name is a character string of one or more characters followed by an asterisk (*); for example, /directory1/file*. The asterisk

substitutes for any valid characters. A generic name will result in the display of all directories or files attributes which begin with the generic prefix and for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

Top

User space (USRSPC)

Specifies the user space to which the output of the display is added.

Note: This parameter is valid only if OUTPUT(*USRSPC) is specified.

Qualifier 1: User space

user-space-name
Specify the name of the user space that receives the output.

Qualifier 2: Library

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

library-name
Specify the name of the library to be searched.

Top

Replace user space (REPLACE)

Indicates whether to replace an existing user space.

Note: This parameter is valid only if OUTPUT(*USRSPC) is specified and is ignored if the user space is not found in the specified library.

***YES** The user space is replaced if found. The existing authorities of the original user space are retained, but the contents are replaced.

***NO** The user space is not replaced if found. The request ends and a message is sent to the job log indicating that the user space already exists in the library and cannot be created.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Displaying Attributes for All Optical Volumes

```
DSPOPT   VOL(*ALL)  DEV(*ALL)
```

This command displays the volume attributes for all volumes in all local optical devices and libraries.

Example 2: Displaying Attributes Using a Generic Search

```
DSPOPT   VOL(PAY*)  DATA(*DIRATR)  PATH('/*')
```

This command displays the attributes for all directories in the root directory of all optical volumes beginning with the characters PAY.

Example 3: Displaying Attributes of a Specific Directory

```
DSPOPT   VOL(VOL01)  DEV(OPT01)  DATA(*FILATR)
         PATH('/DIR1/DIR2/*')
```

This command displays the file attributes for all files in the directory */DIR1/DIR2* of optical volume VOL01.

Example 4: Displaying Save and Restore Data

```
DSPOPT   VOL(*MOUNTED)  DEV(OPT01)  DATA(*SAVRST)
         PATH('*ALL')
```

This command displays the save and restore data for all files found on the optical volume mounted in device OPT01.

Top

Error messages

***ESCAPE Messages**

CPF1247
Subsystem &1 cannot start prestart job &2.

CPF384C
Error occurred during CCSID conversion.

CPF3864
&2 &1 in &3 not restored.

CPF386A
File not found.

CPF5729
Not able to allocate object &1.

CPF9810
Library &1 not found.

CPF9815
Member &5 file &2 in library &3 not found.

CPF9845
Error occurred while opening file &1.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9860
Error occurred during output file processing.

OPT1115
File not found.

OPT1125
File is in use.

OPT1135
Request failed because number of open files is at the limit.

OPT1140
Unexpected error occurred during file processing.

OPT1185
Cannot access held optical file.

OPT1205
Directory not found.

OPT1212
Directory in use.

OPT1224
Path length exceeds the maximum of 256 bytes.

OPT1247
User space &1 not created in library &2.

OPT1255
File is corrupted.

OPT1317
Directory name is too long.

OPT1320
Optical volume &1 in use.

OPT1325
Optical volume format not recognized.

OPT1330
Optical volume not found or not useable.

OPT1331
Optical volume &1 not found.

OPT1340
Optical volume &1 not initialized.

OPT1346
Operation not allowed to volume located in a remote optical device.

OPT1360
Media directory corrupted on optical volume &1.

OPT1427
A generic or *ALL volume request is not allowed with DATA value.

OPT1460
Optical volume &1 is not in an optical device.

OPT1463
Operation not completed, optical volume is not a primary volume.

OPT1489
Volume parameter is not permitted for device &1.

OPT1530
&1 does not represent a valid optical device.

OPT1555
Optical device &1 in use.

OPT1605
Media or device error occurred.

OPT1640
Error occurred reading files or directories.

OPT1790
Operation not allowed or conflicts with another request.

OPT1805
Error accessing optical volume index file.

OPT1810
Error accessing optical directory index file.

OPT1813
Unexpected error occurred.

OPT1815
Internal program error occurred.

OPT1820
Internal error occurred on optical device &1.

OPT1821
Error occurred on optical device &1.

OPT1825
Optical indexes are incorrect for optical device &1.

OPT1860
Request to optical device &1 failed.

OPT1861
No device description configured for resource &1.

OPT1862
No active device description for resource &1.

OPT1863
Optical libraries need to be reclaimed.

OPT1872
Optical request timed out or was cancelled.

OPT2040
Error accessing backup control file.

OPT2301
Internal system object in use.

OPT2420
Not authorized to optical volume &2.

OPT2422
Not authorized to file or directory.

OPT6713
Display volume details failed.

OPT7740
User not authorized to object &2 in library &3 type &4.

Top

Display Optical Locks (DSPOPTLCK)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Optical Locks (DSPOPTLCK) command displays a list of locks held on an optical volume, directory, or file. If TYPE(*JOB) is specified, this command displays a list of all jobs currently performing an optical request. The information can be printed or displayed.

This command does not identify any locks to volumes, directories, or files which are in remote optical servers. It also does not identify any jobs which are currently using a remote optical server. Use the Display Optical Server (DSPOPTSVR) command with TYPE(*CONV) specified to determine if any jobs are currently using a remote optical server.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	*VOL, *DIR, *FILE, *JOB	Required, Positional 1
VOL	Volume identifier	*Character value*	Optional, Positional 2
PATH	Path	*Character value*	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Type (TYPE)

Specifies the type of locks to be displayed or printed.

***VOL** Job information and locks on the specified optical volume are displayed or printed.

***DIR** Job information and locks on the specified optical directory are displayed or printed.

***FILE** Job information and locks on the specified optical file are displayed or printed.

***JOB** Job information and locks on all jobs currently performing optical requests are displayed or printed.

Top

Volume identifier (VOL)

Specifies the volume identifier of the optical volume for which the locks are listed.

Top

Path (PATH)

Specifies the path name of the directory or file on the volume for which the locks are listed.

Note: This parameter is valid only if TYPE(*DIR) or TYPE(*FILE) is specified.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting workstation or printed with the job's spooled output.

***** Output requested by an interactive job is shown on the display. If the command is run as part of a batch job, the output is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying Locks on a File

```
DSPOPTLCK   TYPE(*FILE)  VOLUME(VOL001)
            PATH('/PAYROLL/JAN1995')
```

This command displays the locks held on the file JAN1995 in the directory /PAYROLL on the VOL001 volume.

Example 2: Displaying Locks for Active Jobs

```
DSPOPTLCK   TYPE(*JOB)
```

This command diplays a list of active jobs performing optical requests.

Top

Error messages

***ESCAPE Messages**

OPT1318
File name is too long.

Top

Display Optical Server (DSPOPTSVR)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Optical Server (DSPOPTSVR) command displays information about the configuration of all optical servers added with the Add Optical Server (ADDOPTSVR) command. The information can be printed or displayed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	***DEST**, *CONV	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

Type (TYPE)

Specifies the type of information to be displayed.

***DEST**
The destination information is displayed. This information includes a listing of all of the optical servers accessible with the hierarchical file system APIs and the current status of each destination.

***CONV**
The conversation information is displayed. This information includes a listing of all active optical conversations, the destination of each conversation, the jobs using the conversation, and the path of each open file.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting workstation or printed with the job's spooled output.

*
The requested data is shown on the display station.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPOPTSVR   TYPE(*DEST)
```

This command displays the current status of each destination of all optical servers that have been started.

Top

Error messages

***ESCAPE Messages**

CPF4101
File &2 in library &3 not found or inline data file missing.

CPF6A1C
Unable to add print function.

CPF9845
Error occurred while opening file &1.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

OPT6710
Optical server support is not active.

Top

Display OSPF (DSPOSPF)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display OSPF State and Configuration (DSPOSPF) command can show the current OSPF configuration or the state of the routing protocol. Current configuration information includes OSPF interfaces, neighbors, areas, and virtual links. Current state information includes neighbor state, adjacencies formed, link state database contents, and OSPF routes.

Top

Parameters

Keyword	Description	Choices	Notes
IPVERSION	OSPF Version	*IPV4, *IPV6	Required, Positional 1
OPTION	Option	***CFG**, *STATE	Optional, Positional 2
CONFIG	Configuration information	***GLOBAL**, *AREA, *IFC, *NBCIFC, *NGH, *VRTLNK	Optional
STATE	State information	***IFC**, *NGH, *LSA, *RTE	Optional
IFC	Interface	*Character value*, ***ALL**	Optional
NGH	Neighbor	*Character value*, ***ALL**	Optional
LSA	Link state advertisement	*Character value*, ***EXTERNAL**	Optional

Top

OSPF Version (IPVERSION)

Specifies which version of OSPF state and configuration information to display.

***IPV4** Display OSPF state and configuration for IPv4.

***IPV6** Display OSPF state and configuration for IPv6.

Top

Option (OPTION)

Specifies the type of OSPF information to be displayed.

***CFG** Display current OSPF configuration information.

***STATE**
Display current OSPF state information.

Top

Configuration information (CONFIG)

Specifies which OSPF configuration options are to be displayed.

***GLOBAL**
Display the global OSPF information such as router identifier and whether or not the OSPF routing protocol has been enabled.

***AREA**
Display the configured OSPF areas.

***IFC** Display the configured OSPF interfaces.

***NBCIFC**
Display the configured OSPF nonbroadcast interfaces.

***NGH** Display the configured OSPF neighbors.

***VRTLNK**
Display the configured OSPF virtual links.

Top

State information (STATE)

Specifies which OSPF state options are to be displayed.

***IFC** Display the current state of OSPF interfaces.

***NGH** Display the current state of OSPF neighbors.

***LSA** Display the contents of the link-state database.

***RTE** Display the generated OSPF routes to other routers.

Top

Interface (IFC)

Display the current state information of OSPF interfaces.

***ALL** This option display the state of all configured OSPF interfaces.

character-value
Specify the internet address of a particular OSPF interface.

An IPv4 internet address is specified in the form *nnn.nnn.nnn.nnn* where *nnn* is a decimal number between 0 and 255. An IPv6 internet address is specified in the form *n:n:n:n:n:n:n:n* where *n* is a hexadecimal number in the range from 0 through X'ffff'. The value "::" indicates that one or more groups of 16 bits are zero.

The interface identifier can also be an alias name of an logical interface.

Top

Neighbor (NGH)

Display the current state of OSPF neighbors.

***ALL** Display the state of all configured OSPF neighbors.

character-value
Specifies the internet address of a particular OSPF neighbor.

An IPv4 internet address is specified in the form *nnn.nnn.nnn.nnn* where *nnn* is a decimal number between 0 and 255. An IPv6 internet address is specified in the form *n:n:n:n:n:n:n:n* where *n* is a hexadecimal number in the range from 0 through X'ffff'. The value "::" indicates that one or more groups of 16 bits are zero.

Top

Link state advertisement (LSA)

Specifies whether to display the external link state advertisements or the link-state database for a particular area.

***EXTERNAL**
Display the external link state advertisements.

character-value
Specify the internet address for the area in the form *a.a.a.a* where *a* is a decimal number between 1 and 255.

Top

Examples

Example 1:Displaying Global Information of OSPF for IPv4

```
DSPOSPF   IPVERSION(*IPV4)  OPTION(*CFG)  CONFIG(*GLOBAL)
```

This command displays the current global configuration panel of IPv4 OSPF, such as router identifier, whether or not the OSPF protocol is enabled, and whether the system has been enabled or not as an autonomous boundary router.

Example 2:Displaying Current Configured IPv4 OSPF Interfaces

```
DSPOSPF   IPVERSION(*IPV4)  OPTION(*CFG)  CONFIG(*IFC)
```

This command displays the current configured IPv4 OSPF interfaces panel. This panel shows, for each OSPF interface, the values of the time intervals for sending of hello packets and the database exchange process.

Example 3:Displaying Currently Configured IPv4 OSPF Areas

```
DSPOSPF   IPVERSION(*IPV4)  OPTION(*CFG)  CONFIG(*AREA)
```

This command displays the currently configured IPv4 OSPF areas within which this system belongs.

Top

Error messages

***ESCAPE Messages**

TCP6512
OSPF state and configuration can not be retrieved because OMPROUTED server is not active.

TCP9999
Internal system error in program &1.

Top

Display Override (DSPOVR)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Override (DSPOVR) command displays file overrides at any active call level for a job. All file overrides, or file overrides for a specific file name, can be displayed.

The file overrides can be merged before being displayed. A merged file override is the result of combining all overrides for a file from call level one to the specified call level, producing the override which is applied when the file is opened at the specified call level.

A call level is associated with each call stack entry in the call stack. Calling a program or procedure adds another call stack entry to the call stack. When a program or procedure is called using the TFRCTL (Transfer Control) command, the call stack entry replaces a call stack entry that is already on the call stack; a new call level number is not created.

Note: This function can also be accessed through option 15 of the Work with Job (WRKJOB) command.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Overridden file name	*Name*, ***ALL**, *PRTF	Optional, Positional 1
MRGOVR	Merge overrides	***YES**, *NO	Optional
LVL	Call level	1-999, *, *JOB	Optional
ACTGRP	Activation group	*Character value*, *	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Overridden file name (FILE)

Specifies whether all file overrides, or file overrides for a specific file, are displayed.

***ALL** All the file overrides from call level one to the specified call level are displayed.

***PRTF** The *PRTF file override, which exists in the call level where this command is entered, is displayed.

name Specify the name of the file for which all the file overrides, from call level one to the specified call level, are displayed.

Top

Merge overrides (MRGOVR)

Specifies whether the file overrides are merged. Only those parameters on the overrides of the same type as the last override used for the merged override are used in determining the effective override for the specified call level.

***YES** The file overrides displayed are merged.

***NO** The file overrides displayed are not merged.

Top

Call level (LVL)

Specifies the call levels of the file overrides displayed. There is a one-to-one correspondence between the call stack entries displayed on the call stack from the WRKJOB command and the call level for that call stack entry.

The first call stack entry name displayed on the call stack (at the top of the list) is the program or procedure at call level one. The second call stack entry name displayed is the program or procedure at call level two. The last call stack entry name displayed is the program or procedure at the highest call level for the job.

- If a merged file override is displayed, file overrides from call level one to the specified call level contribute to the creation of the merged file override.
- If *NO is specified on the **Merge overrides (MRGOVR)** parameter and *ALL is specified on the **File being overridden (FILE)** parameter, all file overrides (and the call levels at which they were found) from call level one to the specified call level are displayed.
- If *NO is specified on the **Merge overrides (MRGOVR)** parameter, and a file override name is specified on the **File being overridden (FILE)** parameter, all file overrides for the file specified (and the call levels at which they were found) from call level one to the specified call level are displayed.

***** The call level of the file override displayed is the call level of the program that called the DSPOVR command processing program. If this command is started by a call to QCMDEXC, the call level is the same call level as the caller of QCMDEXC. Overrides at call level numbers greater than 999 are not displayed.

***JOB** Only overrides at the job level with OVRSCOPE(*JOB) specified are displayed.

1-999 Specify the specific call levels of the file overrides to display. A specific call level is used to display file overrides at call levels lower than the call level at which the user is running.

Top

Activation group (ACTGRP)

Specifies the level overrides to display for an activation group. When MRGOVR(*YES) is specified, the activation group level overrides are processed after all call level overrides that are greater than or equal to the call level of the oldest procedure in the activation group are processed.

***** The level overrides from the requester's activation group will be displayed.

character-value
Specify the name of the activation group that specifies activation group level overrides.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying Merged Overrides

```
DSPOVR   FILE(REPORTS)  MRGOVR(*YES)  LVL(3)  OUTPUT(*)
```

This command produces a display showing the merged override for the file REPORTS at call level 3 with text descriptions of each keyword and parameter. Applicable overrides at call levels 1, 2 and 3 are used to form the merged override.

Example 2: Displaying File Overrides

```
DSPOVR   FILE(REPORTS)  MRGOVR(*NO)  LVL(2)  OUTPUT(*)
```

This command displays all file overrides for the file REPORTS up to call level 2. It produces a display showing the file name, the call level for which the override was requested, the type of override, and the override parameters. If no file overrides are found for the file up to and including the specified call level, escape message CPF9842 is sent.

Top

Error messages

***ESCAPE Messages**

CPF180C
Function &1 not allowed.

CPF1892
Function &1 not allowed.

CPF9842
Overrides not found for file &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9852
Page size too narrow for file &1 in &2.

Top

Display PDG Profile (DSPPDGPRF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Print Descriptor Group Profile (DSPPDGPRF) command displays the print descriptor group (PDG) and print descriptor name currently associated with the user.

Restriction:

You must have *OBJOPR authority to the user's profile.

Top

Parameters

Keyword	Description	Choices	Notes
USER	User	*Name*, *CURRENT	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

User (USER)

Specifies the name of the user whose PDG profile is to be shown on the display.

The possible values are:

***CURRENT**
Checks the user profile of the user of the current job.

user-name
Specify the user whose PDG profile will be shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

The possible values are:

*
The output is shown (if requested by an interactive job) or stored in a spooled file (if requested by a batch job).

***PRINT**
The output is stored in a spooled file.

Top

Examples

```
DSPPDGPRF   USER(TPDEXTER)
```

This command displays the print descriptor and the print descriptor group for user profile TPDEXTER.

Top

Error messages

***ESCAPE Messages**

CPF2204
User profile &1 not found.

CPF2217
Not authorized to user profile &1.

CPF9820
Not authorized to use library &1.

CPF9871
Error occurred while processing.

Top

Display Physical File Member (DSPPFM)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display Physical File Member (DSPPFM) command displays a physical database file member. Records are shown in arrival sequence, even if the file has a keyed access path. You can page through the file, locate a particular record by record number, or specify a starting position in the record. You can also select a character or hexadecimal display of the records.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	File	*Qualified object name*	Required, Positional 1
	Qualifier 1: File	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
MBR	Member	*Name*, ***FIRST**, *LAST	Optional, Positional 2
FROMRCD	From record	*Unsigned integer*, **1**, *END, *ALLDATA	Optional

Top

File (FILE)

Specifies the name and library of the physical file containing the member to be displayed.

This is a required parameter.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Member (MBR)

Specifies the name of the file member displayed.

***FIRST**
The first member of the specified physical file is displayed.

***LAST**
The last member of the specified physical file is displayed.

member-name
Specify the name of the file member.

Top

From record (FROMRCD)

Specifies which record in a physical file is shown on the top line of the initial display. If the specified record number is a deleted record, the display is positioned on the first record that follows the record that has been deleted. You can display as many records as needed using the page-up and page-down keys.

The possible values are:

1 Record number one, or the first non-deleted record, of the physical file is shown. If the file is a distributed file, this will be the first non-deleted record of the local member, and only local data will be shown.

***END** The last non-deleted record in the physical file is shown. The *END value shows the last complete page so that the last record in the physical file appears at the bottom of the screen. If the file is a distributed file, this will be the last non-deleted record of the local member, and only local data will be shown.

***ALLDATA**
All the data for a distributed file, including remote data, is shown. If *ALLDATA is specified for a non-distributed file, it will be treated the same as FROMRCD(1).

record-number
Specify the number of the record shown on the top line of the initial display. If the file is a distributed file, this will be the record number of the local member, and only local data will be shown.

Top

Examples

Example 1: Displaying the First File Member

```
DSPPFM   FILE(TESTA)
```

This command shows the first member of a physical file named TESTA. The library list is used to locate the file.

Example 2: Displaying a File Member

```
DSPPFM   FILE(SAMPLE/TESTB)  MBR(PROGRAM)
```

This command shows member PROGRAM of physical file TESTB in library SAMPLE.

Top

Error messages

***ESCAPE Messages**

CPF8056
File &1 in &2 not a physical file.

CPF9810
Library &1 not found.

CPF9812
File &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

CPF9822
Not authorized to file &1 in library &2.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

Top

Display Program (DSPPGM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Program (DSPPGM) command displays information about a program. The display includes information about the compiler, the source from which the program was created, certain processing attributes of the program, the size of the program, and the number of parameters that must be passed to the program when it is called.

Restrictions:

- You must have read (*READ) authority to the program and execute (*EXECUTE) authority to the library to use this command.
- You must have use (*USE) authority to the program when DETAIL(*MODULE) is specified.

Top

Parameters

Keyword	Description	Choices	Notes
PGM	Program	*Qualified object name*	Required, Positional 1
	Qualifier 1: Program	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional, Positional 2
DETAIL	Detail	Single values: ***ALL** Other values (up to 7 repetitions): *BASIC, *SIZE, *MODULE, *ACTGRPEXP, *ACTGRPIMP, *SRVPGM, *COPYRIGHT	Optional

Top

Program (PGM)

Specifies the program for which information is displayed.

This is a required parameter.

Qualifier 1: Program

name Specify the name of the program.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is used to locate the program. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library where the program is located.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is shown (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Detail (DETAIL)

Specifies the type of information displayed for the service program. More than one value can be specified, but a list of values must not include *ALL. *ALL must be specified as a single value.

Note: DETAIL(*ALL) or DETAIL(*BASIC) are the only values valid for original program model (OPM) programs. All values other than *ALL or *BASIC are ignored for an OPM program.

***ALL** All of the DETAIL information types (*BASIC, *SIZE, *MODULE, *SRVPGM, *ACTGRPEXP, *ACTGRPIMP, and *COPYRIGHT) are shown on the display. If the user has chosen the information to be displayed on the screen, the user can scroll through the information for each DETAIL, but will have to press Enter (or PF12) to go from DETAIL to DETAIL.

***BASIC**
General program information is shown.

***SIZE** The size and size limits for this program are shown.

***MODULE**
A list is shown of the module objects bound by this program. The library shown for each module is the library that the module was in when the program was first created. If the module has been replaced by a module from a different library, this library name remains the name of the library that the module was in when the program was created. To determine the source that the module was created from, use option 5=Display description to see the source file, library, and member names.

***SRVPGM**
A list is shown of the service programs bound by this program.

***ACTGRPEXP**
A list is shown of the data items exported to the activation group specified in the data export entry in the binding specifications.

***ACTGRPIMP**
A list is shown of the imports that are resolved by weak exports that had been exported to the activation group directory.

***COPYRIGHT**
A list is shown of the copyrights for this service program.

Note: The DETAIL values *SIZE, *MODULE, *SRVPGM, and *COPYRIGHT are valid only for integrated language environment (ILE) programs. Specifying one of these values for an original program model (OPM) program results in the *BASIC information being shown.

Top

Examples

Example 1: Displaying Program Information

```
DSPPGM   PGM(LIB01/PAYROLL)
```

This command displays information about the program named PAYROLL in library LIB01. The display is shown at the display station if requested by an interactive job, or printed if requested by a batch job.

Example 2: Printing Program Information

```
DSPPGM   PGM(CUSINQ)  OUTPUT(*PRINT)
```

This command displays information about a program named CUSINQ. The library list is used to find the program, and the information is printed.

Top

Error messages

***ESCAPE Messages**

CPF2150
Object information function failed.

CPF2151
Operation failed for &2 in &1 type *&3.

CPF8122
&8 damage on library &4.

CPF8123
Damage on object information for library &4.

CPF8129
Program &4 in &9 damaged.

CPF9803
Cannot allocate object &2 in library &3.

CPF9806
Cannot perform function for object &2 in library &3.

CPF9807
One or more libraries in library list deleted.

CPF9808
Cannot allocate one or more libraries on library list.

CPF9810
Library &1 not found.

CPF9811
Program &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

CPF9821
Not authorized to program &1 in library &2.

CPF9830
Cannot assign library &1.

CPF9871
Error occurred while processing.

Top

Display Program Adopt (DSPPGMADP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Programs that Adopt (DSPPGMADP) command displays the objects that adopt the special and private authorities of the specified user profile. This is a convenient way to check security exposure due to program adoption.

Restrictions:

- You must have object management (*OBJMGT) authority to the user profile.
- The user profile specified on the command will be locked while the command is running. The lock prevents such things as objects having their ownership changed. If this profile owns a lot of objects, the profile could be locked for an extended period of time.

Top

Parameters

Keyword	Description	Choices	Notes
USRPRF	User profile	*Name*	Required, Positional 1
OBJTYPE	Object type	Single values: ***ALL** Other values (up to 3 repetitions): *PGM, *SQLPKG, *SRVPGM	Optional, Positional 2
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

User profile (USRPRF)

Specifies the user profile whose authorities are adopted.

This is a required parameter.

name Specify the name of a user profile. Objects will be checked to see if they adopt special and private authorities from this user profile.

Top

Object type (OBJTYPE)

Specifies the types of objects to be shown.

Single values

***ALL** All objects that adopt the user profile specified on the **User profile (USRPRF)** parameter are shown.

Other values (up to 3 repetitions)

***PGM** Only programs that adopt the specified user profile are shown.

***SQLPKG**
Only Structured Query Language (SQL) packages that adopt the specified user profile are shown.

***SRVPGM**
Only service programs that adopt the specified user profile are shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Note: If a new file is created, system file QADPGMAD in system library QSYS with a format name of QSYPGMAD is used as a model.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

```
DSPPGMADP   USRPRF(ABC)  OUTPUT(*PRINT)
```

This command prints a list of the objects that adopt the special and private authorities of user profile ABC.

Top

Error messages

***ESCAPE Messages**

CPF2204
User profile &1 not found.

CPF2213
Not able to allocate user profile &1.

CPF2217
Not authorized to user profile &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9860
Error occurred during output file processing.

Top

Display Program References (DSPPGMREF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Program References (DSPPGMREF) command provides a list of the system objects referred to by the specified programs. The following list shows the system objects provided for the respective program types:

BAS *FILE (externally described) and *PGM

C no information is provided for C-language programs except for ILE C-language programs (CLE)

CBLLE
*FILE, *PGM, and *SRVPGM

CLP *FILE, *PGM, and *DTAARA

CLE *SRVPGM

CLLE *FILE, *PGM, *DTAARA, and *SRVPGM

CBL *FILE and *PGM (literal names on CALL command)

CSP *FILE, *PGM, *MSGF, *CSPMAP, and *CSPTBL

PAS no information is provided for programs in PASCAL

PLI *FILE and *PGM

RPG *FILE, *DTAARA, and *PGM

RPGLE
*FILE, *PGM, *DTAARA, and *SRVPGM

QRYDFN
*FILE

This information can be displayed, printed, or placed in a database output file.

If the information is shown or printed, a list (by library) of the specified user-authorized programs, along with the objects referenced by each program, is created. For files, information about how each file is used (input, output, update, unspecified, or any combination of these four) is also shown or printed.

If the information is written to a database file, the database file will have a record format named QWHDRPPR. The fields in record format QWHDRPPR are the same as the fields in the IBM-supplied format QWHDRPPR in file QADSPPGM in the library QSYS. The following information is contained in the database file:

- The name of the program and its text description
- The name of the library containing the program
- The number of objects referenced by the program
- The qualified name of the system object
- The information retrieval dates
- The object type of the referenced object

For files, the record contains the following additional fields:

- The name of the file in the program (possibly different from the system object name if an override was in effect when the program was created)
- The program use of the file (1=input, 2=output, 4=update, 8=unspecified, or a number representing a combination of any of these four; for example, a code of 11 is a combination of 1, 2, and 8, which is input, output, and unspecified)
- The number of record formats referenced, if any
- The name of the record format used by the file and its record format level identifier
- The number of fields referenced for each format

Note: This command lists which objects are referenced when the object is created or updated using UPDPGM or UPDSRVPGM. The referenced object names and libraries listed may be different than the actual names of the objects, since this information is stored when the program is created. Entries can be added as the ILE program or service program is updated using UPDPGM or UPDSRVPGM, but entries are never removed. If the object has been moved since the program was created, or an override was in effect during creation, the names listed may differ from the actual names. For a query definition, this command list which files are referenced when the object is created or updated using some of the Query for i5/OS commands.

Restrictions:

- You must have object operational (*OBJOPR) authority for the program. Also, of the libraries specified by the library qualifier, only the libraries for which you have execute (*EXECUTE) authority are searched for the programs.

Top

Parameters

Keyword	Description	Choices	Notes
PGM	Program	*Qualified object name*	Required, Positional 1
	Qualifier 1: Program	*Generic name, name*, *ALL	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB, *USRLIBL, *ALLUSR, *ALL	
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 2
OBJTYPE	Object type	Single values: *ALL Other values (up to 5 repetitions): ***PGM**, *SQLPKG, *SRVPGM, *MODULE, *QRYDFN	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Program (PGM)

Specifies the programs whose information is shown.

This is a required parameter.

Qualifier 1: Program

***ALL** The information is shown for all programs and query definitions in the library or libraries.

name Specify the full name of a program. Information is shown only for the specified program.

generic-name
Specify a generic program name. Information is shown for all programs whose names begin with the specified characters.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is searched.

***USRLIBL**
If a current library entry exists in the library list for the current thread, the current library and the libraries in the user portion of the library list are searched. If there is no current library entry, only the libraries in the user portion of the library list are searched.

***ALLUSR**
All user libraries are searched. All libraries with names that do not begin with the letter Q are searched except for the following:

```
#CGULIB     #DSULIB     #SEULIB
#COBLIB     #RPGLIB
#DFULIB     #SDALIB
```

Although the following Qxxx libraries are provided by IBM, they typically contain user data that changes frequently. Therefore, these libraries are considered user libraries and are also searched:

```
QDSNX       QRCLxxxxx   QUSRDIRDB   QUSRVI
QGPL        QSRVAGT     QUSRIJS     QUSRVxRxMx
QGPL38      QSYS2       QUSRINFSKR
QMGTC       QSYS2xxxxx  QUSRNOTES
QMGTC2      QS36F       QUSROND
QMPGDATA    QUSER38     QUSRPOSGS
QMQMDATA    QUSRADSM    QUSRPOSSA
QMQMPROC    QUSRBRM     QUSRPYMSVR
QPFRDATA    QUSRDIRCF   QUSRRDARS
QRCL        QUSRDIRCL   QUSRSYS
```

1. 'xxxxx' is the number of a primary auxiliary storage pool (ASP).
2. A different library name, in the format QUSRVxRxMx, can be created by the user for each previous release supported by IBM to contain any user commands to be compiled in a CL program for the previous release. For the QUSRVxRxMx user library, VxRxMx is the version, release, and modification level of a previous release that IBM continues to support.

***ALL** All libraries in the system, including QSYS, are searched.

name Specify the name of the library to be searched.

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

Object type (OBJTYPE)

Specifies the object type for which information is displayed.

***PGM** Only program information is displayed.

***ALL** Program information and SQL package information are displayed.

***SQLPKG**
Only SQL package information is displayed.

***SRVPGM**
Service program information is displayed.

***MODULE**
Module information is displayed.

***QRYDFN**
Query definition information is displayed.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Note: The outfile format must be the same as QWHDRPPR of the system file QADSPPGM in library QSYS. More information on the OUTFILE format is in the Database category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Storing a List of Programs

```
DSPPGMREF   PGM(LIBRARY1/*ALL)  OUTPUT(*OUTFILE)
            OUTFILE(LIB2/FILE2)
```

This command creates a list of all authorized programs found in LIBRARY1, and of the files and other system objects that the programs reference. It stores the list in a database file named FILE2 in LIB2.

Example 2: Printing a List of Objects

```
DSPPGMREF   PGM(LIBRARY1/BILLING)  OUTPUT(*PRINT)
```

This command creates a list of system objects that are referenced by the BILLING program in LIBRARY1. The output is spooled for printing.

Example 3: Displaying a List of Files Used by a Query Definition

```
DSPPGMREF   PGM(LIBRARY1/QUERY1) OBJTYPE(*QRYDFN)  OUTPUT(*)
```

This command displays a list of files that are referenced by the QUERY1 query definition in LIBRARY1.

Top

Error messages

***ESCAPE Messages**

CPF3033
Object &1 in library &2 of type &3 not found.

CPF3034
Object &1 in library &2 of type &3 not displayed.

CPF3052
Description for file &1 not available.

CPF3061
Record format &3 not found for outfile &1.

CPF3063
Output file &1 in &2 not physical file.

CPF3064
Library &1 not found.

CPF3066
Error creating output file &1 in &2.

CPF3067
Error while opening file &1 in &2.

CPF3068
Error while writing to file &1 in &2.

CPF3069
Error while closing file &1 in &2.

CPF3070
Error creating member &3 in file &1.

CPF3072
File &1 in &2 is a system file.

CPF3074
Not authorized to library &1.

CPF3075
Library &1 not available.

CPF3076
Error occurred when on display.

CPF3077
Error occurred when canceling display.

CPF3084
Error clearing member &3 in file &1.

Top

Display Program Variable (DSPPGMVAR)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Program Variable (DSPPGMVAR) command shows the current value of one or more program variables in a program that is being debugged. The variables can be specified either by their variable names or by their machine-instruction object-definition-table-vector (MI ODV) numbers. A maximum of 10 variables can be specified.

Restrictions:

- You can use this command only in debug mode. To start debug mode, refer to the Start Debug (STRDBG) command.
- You cannot use this command if you are servicing another job, and that job is on a job queue, or is being held, suspended, or ended.
- You cannot use this command to display variables in a bound program.
- You cannot use this command to display variables within the system domain unless the user has *SERVICE special authority.

Top

Parameters

Keyword	Description	Choices	Notes
PGMVAR	Program variables	Values (up to 10 repetitions): *Element list*	Required, Positional 1
	Element 1: Program variable	*Character value*, *CHAR	
	Element 2: Basing pointer variable	Values (up to 5 repetitions): *Character value*	
OUTFMT	Output format	***CHAR**, *HEX	Optional
OUTPUT	Output	*****, *PRINT	Optional
PGM	Program	*Name*, ***DFTPGM**	Optional
START	Char output start position	*Integer*, **1**	Optional, Positional 2
LEN	Characters to display	*Integer*, ***DCL**	Optional
RCRLVL	Recursion level	*Integer*, ***LAST**	Optional

Top

Program variables (PGMVAR)

Specifies up to ten program variables whose values are to be shown. The variables can be in a high-level language (HLL) or machine instruction (MI) program.

This is a required parameter.

Element 1: Program variable

***CHAR**
This special value can be specified instead of a variable name if a basing pointer is specified. This shows a character view of a pointer to be shown without the use of a based variable.

character-value
Specify the name of the program variable to be shown. The name must be enclosed in apostrophes if it contains special characters.

If the program variable is an array, the subscripts representing the elements in the array can be specified. If an array name is specified without any subscripts, all of the array elements are recorded. A single-dimensional cross-section can also be specified. Up to 132 characters may be specified for this program variable entry. This includes any qualifiers, subscripts, blanks, parentheses, and commas. It does not include the enclosing apostrophes when special characters are used. An integer, machine-interface object-definition-table-vector (MI ODV) number, asterisk (single-dimensional cross-section), or a numeric variable name can be specified for a subscript.

Element 2: Basing pointer variable

character-value
Specify the name of a basing pointer variable. In some languages, the program variable may be based on a pointer variable. This set of values allows you to explicitly specify the basing pointers for the variable to be recorded. Each basing pointer name must be enclosed in apostrophes if it contains special characters.

If the basing pointer is an array, the subscripts representing an element in the array must be specified. Up to 132 characters can be specified for a basing pointer name. This includes any qualifiers, subscripts, embedded blanks, parentheses, and commas. It does not include the enclosing apostrophes when special characters are used. An integer, MI ODV number, or a numeric variable name can be specified for a subscript.

Top

Output format (OUTFMT)

Specifies the format in which the values of the program variables are shown. Additional descriptive information for some variable types is also shown with the variable values in a format predefined by the system.

***CHAR**
The program variables are shown in character form.

***HEX** The program variables are shown in hexadecimal form.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Program (PGM)

Specifies the name of the program that contains the program variables shown.

***DFTPGM**
The program previously specified as the default program has its variables shown.

name Specify the name of the program whose program variables are shown.

Top

Char output start position (START)

Specifies, for string variables only, the starting position in the string from which the value of the variable is to be shown. If more than one string variable is specified for the **Program variables (PGMVAR)** parameter, the same starting position value is used for each one. For a bit string, the value specifies the starting bit position; for a character string, the value specifies the starting character position.

1 The variable is shown from the first position on through the length specified for the **Characters to display (LEN)** parameter.

integer
Specify the first position in the string to be shown. The value supplied for the **Char output start position (START)** parameter must not be larger than the maximum string length for any variable specified, except that a value of **1** for the START parameter is allowed if the maximum length for a string is zero. The value supplied for the LEN parameter plus the value supplied for the START parameter minus one must not be greater than the maximum string length. These checks are made for each string variable specified for the PGMVAR parameter.

Top

Characters to display (LEN)

Specifies, for string variables only, the length of the string shown when the breakpoint is reached, starting at the position specified by the **Char output start position (START)** parameter. If more than one string variable is specified for the **Program variables (PGMVAR)** parameter, the same value is used for each one. For a bit string, the value specifies the number of bits shown, and for a character string, the value specifies the number of characters shown.

***DCL** The string variable is shown to the end of the string or for a value of 200 bytes, whichever is less. If the string variable has a maximum length of zero, the only allowable value for the LEN parameter is *DCL.

integer
Specify the length of the data shown. The length (as well as the combination of values supplied for the START parameter and the LEN parameter must be no greater than the length of the shortest string specified by the PGMVAR parameter.

Top

Recursion level (RCRLVL)

Specifies which recursion level of the program contains the variable whose value is to be displayed. Recursion level 1 is the first (or earliest) call of the program, recursion level 2 is the second call of the program, and so on to the last (most recent) recursion level in the stack. For example, if program A calls program B, then program B calls program A, a new recursion level of program A is formed. If the first

call of program A contains the variable to be displayed, a value of 1 for the **Recursion level (RCRLVL)** parameter must be specified. Some high-level languages also allow recursive procedures.

***LAST**
The value of the specified variable in the last (most recent) call of the specified program is displayed.

integer
Specify the recursion level of the program that contains the variable whose value is to be displayed.

Top

Examples

Example 1: Displaying Program Variables

```
DSPPGMVAR   PGMVAR('&QUANT')  PGM(MYPROG)
```

Assuming that the program MYPROG is in debug mode, this command shows the name and current value of the CL variable called &QUANT its type and length are also shown.

Example 2: Displaying Program Variables

```
DSPPGMVAR   PGMVAR(TOTSALES  MANHRS)  PGM(REGION)  RCRLVL(1)
```

This command shows the program variables TOTSALES and MANHRS of the first call of the program REGION.

Top

Error messages

***ESCAPE Messages**

CPF1999
Errors occurred on command.

Top

Display Problems (DSPPRB)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Problem (DSPPRB) command allows you to display or print service information related to performing hardware or software maintenance. The service information, contained in the problem log entries, are shown on the DSPPRB display, printed with the job's output, or stored in a database file.

Top

Parameters

Keyword	Description	Choices	Notes
PRBID	Problem identifier	*Character value*, ***ALL**	Optional, Positional 1
STATUS	Status type	Single values: ***ALL** Other values (up to 6 repetitions): *OPENED, *READY, *PREPARED, *SENT, *ANSWERED, *VERIFIED, *CLOSED	Optional
SEV	Severity	Single values: ***ALL** Other values (up to 3 repetitions): 1, 2, 3, 4	Optional
PERIOD	Period	*Element list*	Optional
	Element 1: Start time and date	*Element list*	
	Element 1: Start time	*Time*, ***AVAIL**	
	Element 2: Start date	*Date*, ***BEGIN**, *CURRENT	
	Element 2: End time and date	*Element list*	
	Element 1: End time	*Time*, ***AVAIL**	
	Element 2: End date	*Date*, ***END**, *CURRENT	
HARDWARE	Hardware	*Element list*	Optional
	Element 1: Device type	*Character value*, ***ALL**	
	Element 2: Model number	*Character value*, ***ALL**	
	Element 3: Serial number	*Character value*, ***ALL**	
RESOURCE	Resource name	*Name*, ***ALL**	Optional
LICPGM	Product	*Element list*	Optional
	Element 1: Program identifier	*Character value*, ***ALL**	
	Element 2: Release	*Character value*, ***ALL**	
	Element 3: Modification level	*Character value*, ***ALL**	
FUNCTION	Function	*Character value*, ***ALL**	Optional
PGM	Program	*Generic name, name*, ***ALL**	Optional
MSGID	Message identifier	*Generic name, name*, ***ALL**	Optional

Keyword	Description	Choices	Notes
ORIGIN	Origin	*Element list*	Optional
	Element 1: Network identifier	*Communications name*, ***ALL**, *NETATR	
	Element 2: Control point name	*Communications name*, ***ALL**, *NETATR	
SRVID	Service number	*Character value*, ***ALL**	Optional
BRANCH	Branch number	*Character value*, ***ALL**	Optional
COUNTRY	Country or region number	*Character value*, ***ALL**	Optional
ASNUSER	User assigned	*Simple name*, ***ALL**	Optional
GROUP	Group assigned	*Character value*, ***ALL**	Optional
PRBTYPE	Problem type	***ALL**, 1, 2, 3, 4, 5, 6	Optional
PRBCGY	Problem category	***ALL**, *REPORT, *CRITICAL, *LOGONLY	Optional
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	
TYPE	Type of information	***BASIC**, *CAUSE, *FIX, *USRTXT, *SPTDTA	Optional

Top

Problem identifier (PRBID)

Specifies the ID of the problems to be selected. Problems with different origin systems may have the same identifier. Specifying the **Origin (ORIGIN)** parameter along with this parameter will assure that only one problem is selected.

***ALL** All problems that match the other selection criteria are selected.

problem-ID
Specify the 10-character problem ID of the problem to be selected.

Top

Status type (STATUS)

Specifies the status of problem log entries. There are seven types of status:

***OPENED**
The problem is in Opened status. The problem has been identified and a problem record was created.

***READY**
The problem is in Ready status. Problem analysis information has been added to the problem record.

***PREPARED**
The problem is in Prepared status. The problem has been prepared for reporting.

***SENT**
The problem is in Sent status. The problem has been sent to a service provider, but no answer has been returned.

***ANSWERED**
The problem is in Answered status. An answer has been returned by the service provider or added by an operator on this system.

***VERIFIED**
The problem is in Verified status. The problem was resolved and the system operator has verified that the problem is corrected.

***CLOSED**
The problem was closed.

Single values

***ALL** All types of status of problem log entries are shown.

Other values (up to 6 repetitions)

status-type
Specify the type of status to be shown.

Top

Severity (SEV)

Specifies the severity level of the problem. Severity levels are assigned by the user when the problem is prepared for reporting. The four severity levels are:

1 High

2 Medium

3 Low

4 None

Single values

***ALL** All problem log entries are shown.

Other values (up to 3 repetitions)

severity
Specify the level of severity of problem log entries to be shown.

Top

Period (PERIOD)

Specifies the period of time for which the problem data is selected. The dates and times indicate when the problem log entry was created.

Element 1: Start time and date

Element 1: Start time

***AVAIL**
Problem entries created on the specified starting date are shown.

time Specify the creation time (for the specified date) of the first data record to include.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh = hours, mm = minutes, and ss = seconds. Hours, minutes, and seconds must each be exactly 2 digits (use leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Start date

***BEGIN**
Problems available at the beginning of the log are shown.

Note: If *BEGIN is specified, any time value other than *AVAIL for the start time is ignored.

***CURRENT**
The problem log entries created for the current day between the specified start time and end time (if specified) are displayed.

date Specify the date after which the problem log entries can be shown. The date must be specified in the job date format.

Element 2: End time and date

Element 1: End time

***AVAIL**
Problem log entries created on the specified ending date are shown.

time Specify the time after which problem log entries created are not shown. See the start time description in this parameter description for details on how the time must be specified.

Element 2: End date

***END** The last day on which a problem log entry was created is the last day for which problems are shown.

Note: If *END is specified, any time value other than *AVAIL for the end time is ignored.

***CURRENT**
The current date is used for the date of the last problem opened to show.

date Specify the date after which problem log entries cannot be shown. See the start date description in this parameter for details on how the date must be specified.

Top

Hardware (HARDWARE)

Specifies that only problem log entries that identify the specified failing hardware are shown.

Element 1: Device type

***ALL** All entries are shown, regardless of what hardware is identified as failing.

Note: If *ALL is specified, any value other than *ALL for model and serial number is ignored.

type Specify the 4-character type code for the hardware.

Element 2: Model number

***ALL** All entries that identify failing hardware of the specified type are shown.

Note: If *ALL is specified, any value other than *ALL for serial number is ignored.

model Specify the 3-character model number for the hardware.

Element 3: Serial number

***ALL** All entries that identify failing hardware of the specified type and model are shown.

serial Specify the serial number of the hardware in one of the following formats, where n is any alphabetic or numeric character.

- nnnnn
- nnnnnnn
- nn-nnnnn
- nn-nnnnnnn
- nnnnnnnnnnnn

Top

Resource name (RESOURCE)

Specifies that only problem log entries that identify the specified failing resource name are shown.

***ALL** All entries are shown, regardless of which resource name, if any, is identified by the problem.

name Specify the resource name.

Top

Product (LICPGM)

Specifies that problem log entries that identify the specified failing software are shown.

Element 1: Program identifier

***ALL** All entries are shown regardless of what software is identified as failing.

Note: If *ALL is specified, any value other than *ALL for release and modification is ignored.

character-value
Specify the identification number of the licensed program.

Element 2: Release

***ALL** All entries that identify failing software from the specified licensed program are shown.

Note: If *ALL is specified, any value other than *ALL for modification is ignored.

character-value
Specify the release level of the licensed program.

Element 3: Modification level

***ALL** All entries that identify failing software from the specified licensed program and release are shown.

character-value
Specify the modification number of the release.

Top

Function (FUNCTION)

Specifies that only problem log entries that identify the specified function are to be shown. The function is present only in user-detected problem log entries and represents a major functional area or product.

***ALL** All entries are shown regardless of what function ID, if any, is identified.

generic-function-identifier
Specify a generic function ID. A generic ID is a character string containing one or more of the initial characters of the function ID followed by an asterisk (*). If blank characters are included, the character string must be enclosed in apostrophes (').

function-identifier
Specify the complete function ID. If blank characters are included, the character string must be enclosed in apostrophes (').

Valid values for function ID are:

ID	Description
ALRT	Alerts
APF	Advanced printer function
APPC	Advanced program-to-program communications
APPN	Advanced Peer-to-Peer Networking function
APS	Advanced DBCS Printer Support program
ASYNC	Asynchronous communications
BAS	BASIC compiler
BGU	Business Graphics Utility
BSC	Binary synchronous communications
CBL	COBOL compiler
CGU	Character generator utility
CL	Control language
CSM	Communications and Systems Management
C400	C compiler
DDM	Distributed data management
DFU	Data file utility

DHCF Distributed host command facility

DICT Language dictionaries

DSNX Distributed system node executive

ECS Electronic customer support

FINANCE
Finance Communications

FTN FORTRAN compiler

FTS File transfer support

GDDM
Graphical Data Display Manager

ICF Intersystem Communication Facility

IDU Interactive data definition utility (IDDU)

INTRA
Intrasystem Communication

IPDS Intelligent Printer Data Stream

ITF Interactive terminal facility

LPDA Link Problem Determination and Analysis

MIA MI Assembler

MIGR Migration

OBJD Object distribution

OCL S/36 operator control language

OFC OfficeVision

OSP i5/OS

PAS Pascal compiler

PASSTHRU
Pass-through

PC400 Client Access for Windows

PDM Programming development manager

PL1 PL/I compiler

POSCOM
Point-of-Sale Communications Utility

QRY Query

RETAIL
Retail Communications

REXX REXX interpreter

RJE Remote job entry

RLU Report layout utility

RPFT Performance Tools

RPG RPG compiler

RSCS Remote spooling communications subsystem

RWS Remote work station

SDA Screen design aid

SDLC Synchronous Data Link Control

SEU Source entry utility

SMU IBM System Manager for i5/OS

SNADS
SNA distribution services

SNUF SNA upline facility

SORT Sort utility

SQL SQL

SUU System upgrade utility

TCPIP TCP/IP Connectivity Utilities

TRLAN
Token ring network

TXT38 System/38-compatible Text Management

VMC i5/OS Licensed Internal Code

VNET RSCS/PROFS

WRD Word processing

X21 X.21 public data network

X25 X.25 packet-switching data network

3270EM
3270 device emulation

802.3 Ethernet

Top

Program (PGM)

Specifies whether only problem log entries that identify a specified failing program are shown. For machine detected problems, the failing program, if any, is identified by the most likely possible cause.

***ALL** All entries are shown regardless of whether a program is identified.

generic-name
Specify a generic program name. A generic name is a character string containing one or more characters followed by an asterisk (*).

name Specify the program name.

Top

Message identifier (MSGID)

Specifies whether only problem log entries that identify a specified message are shown.

***ALL** All entries are shown regardless of which message ID is associated with the problem.

generic-name
Specify a generic message identifier (ID). A generic ID is a character string containing one or more characters followed by an asterisk (*).

name Specify the message identifier.

Top

Origin (ORIGIN)

Specifies that only problem log entries that originated at the specified systems are shown.

Element 1: Network identifier

***ALL** All entries are shown regardless of the network ID of the origin system.

***NETATR**
Only entries that originated on systems with the same local network ID as the one defined in the network attributes for this system are shown.

communications-name
Specify a network ID. Only entries that originated on systems with this local network ID are shown.

Element 2: Control point name

***ALL** All entries originating at systems with the specified network ID are shown.

***NETATR**
Only entries that originated on systems with the same local control point name as the one defined in the network attributes for this system are shown.

communications-name
Specify a control point name.

Top

Service number (SRVID)

Specifies whether only problem log entries that have the specified service assigned number are shown. This number was assigned when the problem was reported to IBM service support.

***ALL** All entries are shown regardless of the service assigned number, if any.

character-value
Specify the service assigned number.

Top

Branch number (BRANCH)

Specifies whether only problem log entries that have the specified branch number are shown. This number was assigned when the problem was reported to IBM service support.

***ALL** All entries are shown regardless of the branch number, if any.

character-value
Specify the three-digit branch number for the problem log entry. All three digits must be specified.

Top

Country or region number (COUNTRY)

Specifies whether only problem log entries that have the specified country or region number are shown. This number was assigned when the problem was reported to IBM service support.

***ALL** All entries are shown regardless of the country or region number, if any.

character-value
Specify the three-digit country or region number for the problem log entry. All three digits must be specified.

Top

User assigned (ASNUSER)

Specifies whether only problem log entries assigned to this user are shown.

***ALL** All problem log entries are shown.

user-name
Specify the user ID assigned to the problems to be shown.

Top

Group assigned (GROUP)

Specifies the group in the filter to which the problem is assigned.

***ALL** All problem log entries are shown, regardless of the group assigned to them.

group-name
Specify the 10-character problem filter group assigned to the entry.

Note: The values are blank if problem log filtering is not used.

Top

Problem type (PRBTYPE)

Specifies which type of problems to display.

***ALL** All problem log entries are shown, regardless of the problem type.

1 Only machine-detected problems are shown.

2 Only user-detected problems are shown.

3 Only PTF order problems are shown.

4 Only application-detected problems are shown.

5 Only Client machine-detected problems are shown.

6 Only Client user-detected problems are shown.

Top

Problem category (PRBCGY)

Specifies which category of problems to display.

***ALL** All problems are shown.

***REPORT**
Problems that are logged and reported to the service provider are shown.

***CRITICAL**
Problems that are critical are shown.

***LOGONLY**
Problems that are logged, but not reported to the service provider, are shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file where the output of the command is directed. If the output file does not exist, this command creates a database file in the specified library. If a file is created, the text says **OUTFILE for DSPPRB**, and the authority for users other than those who have specific authority, group authority, or authority from an authorization list is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Note: If OUTPUT(*OUTFILE) is specified, a database file name is required.

Qualifier 1: File to receive output

name Specify the name of the file to which the output of the command is directed.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the file is located.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Type of information (TYPE)

Specifies the type of problem information that is placed in the output file. Only one type of data can be placed in each file. This parameter is valid only when a value is also specified on the **File to receive output (OUTFILE)** parameter.

***BASIC**
Basic problem data including problem type, and status; device type, model, and serial number; product ID; contact information; and tracking data is placed in the output file.

***CAUSE**
Possible problem causes are placed in the output file.

***FIX** Program temporary fixes (PTFs) are placed in the output file.

***USRTXT**
User-supplied text (note records) is placed in the output files.

***SPTDTA**
Supporting data identifiers are placed in the output file.

Top

Examples

Example 1: Displaying Today's Problem Log Entries

```
DSPPRB   PERIOD((*AVAIL *CURRENT) (*AVAIL *CURRENT))
```

This command shows all problem log entries that were created today.

Example 2: Creating an Output File

```
DSPPRB   OUTPUT(*OUTFILE)  OUTFILE(*CURLIB/NEWFILE)
```

This command creates a member in the physical file NEWFILE in the current library which contains a record for each problem log entry in the problem log.

Example 3: Displaying a List of Hardware Problems

```
DSPPRB   SEV(1 2)  HARDWARE(9347 001 10-7523489)
```

This command shows a list containing problems with the hardware specified by the user. The user has specified that the command track medium-to-high levels of severity.

Example 4: Displaying a List of Problems That Have Been Opened

```
DSPPRB   STATUS(*OPENED)
         PERIOD((*AVAIL *CURRENT) (120000  *CURRENT))
         LICPGM(5716SS1  03  00)  PGM(QNOPGM)
```

This command shows a list containing problems that have been opened during the period starting at midnight and ending at noon on the current day, and have not yet been analyzed. This command also identifies the specified licensed program identifier and program name as the probable cause of the failure.

Example 5: Displaying a List of Machine-Detected Problems

```
DSPPRB   RESOURCE(TAP01)  MSGID(CPF6788)
```

This command shows a list containing machine-detected problems that were opened due to the message, CPF6788, having been sent to the system operator message queue. The list of problems includes user-detected problems. To get the user-detected problems, the user specified the resource name and message identifier by using the Analyze Problem (ANZPRB) command.

Example 6: Displaying a List of Reported Problems

```
DSPPRB   SRVID(12345)
```

This command shows a list containing problems that have been reported to an IBM service support center and have 12345 as the service identifier.

Top

Error messages

***ESCAPE Messages**

CPF7A9C
Cannot work with the problem log at this time.

CPF9845
Error occurred while opening file &1.

CPF9847
Error occurred while closing file &1 in library &2.

Top

Display PSF Configuration (DSPPSFCFG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display PSF Configuration (DSPPSFCFG) command displays a Print Services Facility (PSF) configuration object from the specified library.

Restrictions:

- The PSF feature is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
PSFCFG	PSF configuration	*Qualified object name*	Required, Positional 1
	Qualifier 1: PSF configuration	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

PSF configuration (PSFCFG)

Specifies the Print Services Facility (PSF) configuration object to display.

This is a required parameter.

Qualifier 1: PSF configuration

name Specify the name of the PSF configuration object to display.

Qualifier 2: Library

***LIBL** Search all libraries in the job's library list until the first match is found.

***CURLIB**
Search the current job library for the job. If no library is specified as the current library for the job, the QGPL library is used.

name Search the specified library.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting workstation or printed with the job's spooled output.

***** The output is displayed if requested by an interactive job and printed with the job's spooled output if requested by a batch job.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPPSFCFG   PSFCFG(PSFCFG1)  OUTPUT(*PRINT)
```

This command will print a description of the Print Services Facility (PSF) configuration object (*PSFCFG) named named PSFCFG1. The libraries in the job's library list will be searched for the PSFCFG1 configuration object.

Top

Error messages

***ESCAPE Messages**

CPF9801
Object &2 in library &3 not found.

CPF9802
Not authorized to object &2 in &3.

CPF9803
Cannot allocate object &2 in library &3.

CPF9810
Library &1 not found.

CPF9820
Not authorized to use library &1.

Top

Display Program Temporary Fix (DSPPTF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Program Temporary Fix (DSPPTF) command shows the program temporary fixes (PTFs) for a specified product.

Restrictions:

- This command is shipped with exclude (*EXCLUDE) public authority and the QPGMR, QSYSOPR, QSRV, and QSRVBAS user profiles are shipped with private authorities to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
LICPGM	Product	*Character value*, ***ALL**, *FMW	Optional, Positional 1
SELECT	PTF numbers to select	*Character value*, ***ALL**, *PTFSAVF, *ONORDER, *ACTRQD, *NOTAPY, *SAVFONLY, *ONORDONLY	Optional, Positional 2
RLS	Release	*Character value*, ***ALL**	Optional
COVERONLY	Cover letter only	***NO**, *YES	Optional
OUTPUT	Output	*****, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Product (LICPGM)

Specifies the product for the PTFs that are shown. When LICPGM(*ALL) is specified, PTFs for all installed and supported products are shown.

***ALL** The PTFs of all installed and supported products are shown.

***FMW** The PTFs of all installed and supported server firmware products are shown.

licensed-program
Specify the product for which PTFs are shown.

Top

PTF numbers to select (SELECT)

Specifies which PTF is shown for the specified product. *ALL cannot be specified for the **Product (LICPGM)** parameter if a PTF number is specified for this parameter.

When LICPGM(*ALL) and SELECT(*ALL) are specified, all PTFs for all installed and supported products are shown.

When LICPGM(licensed-program) and SELECT(*ALL) are specified, PTFs for all releases of the specified products are shown.

***ALL** The status of all PTFs for the specified product is shown.

***PTFSAVF**
The status of all PTFs for the specified product that have a save file in library QGPL is shown. This special value is useful for determining which PTF save files are no longer needed. It is also useful for the service provider for determining which PTFs can be distributed.

***ONORDER**
The status of all PTFs for the specified product that are on order is shown.

***ACTRQD**
The PTFs that have required actions pending are shown. This special value is useful to the user for determining which PTFs require an action to become active.

Note: If *ACTRQD is specified, the exit programs that run take a long time, resulting in a delay in the appearance of the first screen.

***NOTAPY**
All PTFs that are not already applied or superseded for the specified product are displayed.

***SAVFONLY**
All PTFs with a status of Save file only are displayed for the specified product.

***ONORDONLY**
All PTFs with a status of On order only are displayed for the specified product.

character-value
Specify the PTF identification number of the PTF that is shown.

Top

Release (RLS)

Specifies the release level of the PTFs being displayed.

***ALL** The PTFs for all releases of the supported and installed products are displayed.

character-value
Specify the release level in VxRyMz format where Vx is the version number, Ry is the release number, and Mz is the modification level. The variables x and y can be a number from 0 through 9, and the variable z can be a number from 0 through 9 or a letter from A through Z.

If the release-level specified is the release-level of the installed base option of the product, PTFs for all installed options of the product are displayed regardless of the release-level of the option. All PTFs for options that are supported at this release-level are also displayed.

If the release-level specified is not the release-level of the installed base option of the product, only PTFs for the product options that are supported or installed at that release-level are displayed.

Top

Cover letter only (COVERONLY)

Specifies whether only the cover letter is displayed.

***NO** A cover letter is not displayed.

***YES** The cover letter is displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output. The name of the spooled output file is QSYSPRT.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the physical database file where the PTF records are directed. If the output file already exists, the system attempts to use it. The system creates a physical database file (with the name specified in the OUTFILE parameter) in the designated library. A member is created for the file with the name specified in the **Output member options (OUTMBR)** parameter. If a new file is created, system file QADSPPTF in system library QSYS with a format name of QSCPTF is used as a model.

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library where the file is located.

name Specify the name of the file that receives the PTF records.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to**

receive output (OUTFILE) parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Printing Status of PTFs

```
DSPPTF   LICPGM(5761SS1)  OUTPUT(*PRINT)
```

This command produces a printout containing the status of PTFs for the product 5761SS1.

Example 2: Printing Information

```
DSPPTF   LICPGM(5761SS1)  SELECT(SI00034)  OUTPUT(*PRINT)
```

This command produces a printout containing detailed information about PTF SI00034 for the product 5761SS1.

Top

Error messages

***ESCAPE Messages**

CPF0C4B
Product availability object &2/&1 recovery required.

CPF0C4C
Cannot allocate object &1 in library &2.

CPF0C4D
Error occurred while processing object &1 in library &2.

CPF24B4
Severe error while addressing parameter list.

CPF35BE
Product &1 &3 not supported or installed.

CPF35F5
Cover letter not found for PTF &1-&2 &3.

CPF358A
Release not valid.

CPF3925
Cannot open file &1.

CPF3950
Error message &2 received for file &1. Request ended.

CPF6601
No PTF activity exists for product &1.

CPF6602
PTF &1-&2 &3 not found.

CPF6603
No PTFs found.

CPF6613
No PTFs met selection criteria.

CPF8191
Product definition &4 in &9 damaged.

CPF8193
Product load object &4 in &9 damaged.

CPF9860
Error occurred during output file processing.

Top

Display PTF Cover Letter (DSPPTFCVR)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Program Temporary Fix Cover Letter (DSPPTFCVR) command shows the program temporary fix (PTF) cover letters for a specified product.

Restrictions:

- This command is shipped with exclude (*EXCLUDE) public authority and the QPGMR, QSYSOPR, QSRV, and QSRVBAS user profiles are shipped with private authorities to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
LICPGM	Product	*Character value*, ***ALL**	Optional, Positional 1
SELECT	PTF numbers to select	Values (up to 300 repetitions): *Character value*, ***NOTAPY**, *ALL	Optional, Positional 2
RLS	Release	*Character value*, ***ALL**	Optional
CVRATR	Attributes	Single values: ***ALL** Other values (up to 7 repetitions): *SPCINST, *PREIMM, *PREDLY, *PREOPR, *POSTOPR, *UNKNOWN	Optional
CVRLTRLNG	Cover letter language	*Character value*, ***DFT**, *ALL	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Product (LICPGM)

Specifies the product for which cover letters are displayed.

***ALL** The cover letters for all installed or supported products are displayed.

character-value
Specify the product for which cover letters are displayed.

Top

PTF numbers to select (SELECT)

Specifies which cover letter is displayed for the specified product.

*ALL cannot be specified for the **Product (LICPGM)** parameter if a PTF number is specified for this parameter.

When LICPGM(*ALL) and SELECT(*ALL) are specified, cover letters for all installed or supported products are displayed.

When LICPGM(licensed-program) and SELECT(*ALL) are specified, cover letters for all releases of the specified product are displayed.

***NOTAPY**
All cover letters of the PTFs that are not already applied or superseded for the specified product are displayed.

***ALL** All cover letters for the specified product are displayed.

character-value
Specify the PTF identification number of the cover letter that is displayed. A maximum of 300 PTF numbers can be specified.

Top

Release (RLS)

Specifies the release level of the PTFs being displayed.

***ALL** The cover letters for all releases of the installed or supported products are displayed.

character-value
Specify the release level in VxRyMz format where Vx is the version number, Ry is the release number, and Mz is the modification level. The variables x and y can be a number from 0 through 9, and the variable z can be a number from 0 through 9 or a letter from A through Z.

If the release specified is the release of the installed base option of the product, cover letters for all installed options of the product are displayed regardless of the release of the option. All cover letters for options that are supported at this release are also displayed.

If the release specified is not the release of the installed base option of the product, only cover letters of the product options that are supported or installed at that release are displayed.

Top

Attributes (CVRATR)

Specifies which cover letter to display based on the attributes contained in the cover letter.

Note: The CVRATR parameter can be specified only with SELECT(*ALL) or SELECT(*NOTAPY).

Single values

***ALL** All cover letters are displayed.

Other values (up to 7 repetitions)

***SPCINST**
Only cover letters with special instructions are displayed.

***PREIMM**
Only cover letters with special instructions that need to be followed before being applied or removed immediately are displayed.

***PREDLY**
Only cover letters with special instructions that need to be followed before being applied or removed during an IPL (delayed) are displayed.

***PREOPR**
Only cover letters with special instructions that need to be followed before being applied or removed (immediately or delayed) are displayed.

***POSTOPR**
Only cover letters with special instructions that need to be followed after being applied or removed are displayed.

***UNKNOWN**
Display the cover letters for which the system cannot detect if they have attributes. The most likely reasons are when the PTF cover letter was created prior to operating system release V5R1M0, or the cover letter was created using the System Manager licensed program.

Top

Cover letter language (CVRLTRLNG)

Specifies the language feature code that is used to display the cover letters.

***DFT** Cover letters are displayed in the default language feature code. If there is only one cover letter for the PTF, it will be displayed. If there is more than one cover letter for the PTF, the following criteria will be used to determine which cover letter to display.

The language feature code that matches the service contact information (WRKCNTINF) will be used.

If no language feature code matches the service contact information, the language feature code that matches the primary language of the operating system will be used.

If no cover letters match the language feature code in the service contact information, or the language feature code of the operating system, all cover letters for the PTF will be displayed. The user will be given a list of language feature codes to choose from (if requested by an interactive job) or all cover letters will be printed with the job's spooled output (if requested by a batch job).

***ALL** Cover letters for all languages are displayed.

character-value
Cover letters for the selected language feature code are displayed. If a cover letter for the selected language feature code is not available, no cover letter is displayed for the PTF.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting workstation or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output. The name of the spooled output file is QSYSPRT.

Top

Examples

Example 1: Print PTF Cover Letters

```
DSPPTFCVR   LICPGM(5761SS1)  SELECT(SI00034)  OUTPUT(*PRINT)
```

This command produces a printout of the cover letter for PTF SI00034 in the product 5761SS1.

Top

Error messages

***ESCAPE Messages**

CPF0C4B
Product availability object &2/&1 recovery required.

CPF0C4C
Cannot allocate object &1 in library &2.

CPF0C4D
Error occurred while processing object &1 in library &2.

CPF35BE
Product &1 &3 not supported or installed.

CPF35D5
Cover letter NLV not valid.

CPF35F5
Cover letter not found for PTF &1-&2 &3.

CPF358A
Release not valid.

CPF3586
List of PTFs not correct.

CPF6601
No PTF activity exists for product &1.

CPF6602
PTF &1-&2 &3 not found.

CPF6603
No PTFs found.

Top

Display Power On/Off Schedule (DSPPWRSCD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Power On/Off Schedule (DSPPWRSCD) command allows you to display or print the power on/off schedule.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
STRDATE	Start date	*Date*, ***TODAY**	Optional
DAYS	Days	1-366, **40**	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Start date (STRDATE)

Specifies the first date to be displayed or printed on the power on/off schedule.

***TODAY**
The current date is used.

date
Specify a date in the future or the current date. The date must be entered in the same format as specified by your job attributes.

Top

Days (DAYS)

Specifies the number of days for which the power on/off schedule is to be printed.

40
Forty days of the schedule are printed.

1-366
Specify the number of days.

Top

Examples

Example 1: Displaying Power On/Off Schedule

```
DSPPWRSCD
```

This command displays the power on/off schedule.

Example 2: Printing 30 Days of Power On/Off Schedule

```
DSPPWRSCD   OUTPUT(*PRINT)  DAYS(30)
```

This command prints 30 days of the power on/off schedule, starting with the current date.

Top

Error messages

***ESCAPE Messages**

CPF1E2B
Power scheduler and cleanup options not found.

CPF1E23
Power schedule or cleanup options in use by another user.

CPF1E27
Not authorized to change power on/off schedule.

CPF1E28
Cannot print schedule at specified STRDATE.

CPF1E99
Unexpected error occurred.

Top

Display Record Locks (DSPRCDLCK)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Record Locks (DSPRCDLCK) command allows you to show the current record lock status of a particular database physical file member. This command displays the lock status for a particular relative record number, or the lock status of all locked records in the member.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Physical file	*Qualified object name*	Required, Positional 1
	Qualifier 1: Physical file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
MBR	Member	*Name*, ***FIRST**	Optional, Positional 2
RCDNBR	Record number	1-4294967288, ***ALL**	Optional, Positional 3
OUTPUT	Output	*, *PRINT	Optional

Top

Physical file (FILE)

Specifies the physical file that contains the member whose record locks are shown.

This is a required parameter.

Qualifier 1: Physical file

name Specify the name of physical file.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library, QGPL is used.

name Specify the name of the library to be searched.

Top

Member (MBR)

Specifies the member in the file whose record locks are shown.

***FIRST**
The first member of the specified file is used.

name Specify the name of the physical file member.

Top

Record number (RCDNBR)

Specifies a particular relative record number or all records of a member.

***ALL** The lock status of all records currently locked in a physical file member is shown.

1-4294967288
Specify the record number of the record whose lock status is to be displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPRCDLCK   FILE(MASTER/PAYROLL)  MBR(*FIRST)  RCDNBR(1)
            OUTPUT(*)
```

This command shows the lock status of relative record number 1, in the first member of the physical file named PAYROLL in the MASTER library.

Top

Error messages

***ESCAPE Messages**

CPF3130
Member &2 already in use.

CPF3210
File &1 in library &2 not correct type.

CPF3247
Record number &4 does not exist in member &3.

CPF3275
Member &3 file &1 in &2 not found.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9803
Cannot allocate object &2 in library &3.

CPF9810
Library &1 not found.

CPF9812
File &1 in library &2 not found.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9871
Error occurred while processing.

Top

Dsp Recovery for Access Paths (DSPRCYAP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Recovery for Access Paths (DSPRCYAP) command is used to show or print the access path recovery status information and target access path recovery time for the system and for all auxiliary storage pools (ASPs) that are currently active or have available status on the system. Additionally, the output will include up to 500 access paths with the largest estimated access path recovery time which are not eligible for system-managed access-path protection and why they are not eligible. Also, the output will include up to 500 access paths with the largest estimated access path recovery time which are currently being protected by system-managed access-path protection.

The system uses no more than the specified target access path recovery time when recovering access paths during an initial program load (IPL) or vary on of an independent ASP after an abnormal system end. Because access path recovery time is a target, performance may range around the target.

The time taken to rebuild access paths exposed while running the Copy File (CPYF), the Reorganize Physical File Member (RGZPFM), or the Restore Object (RSTOBJ) commands is not considered in the target access path recovery time of access paths protected with this command.

For more information on using this command, see the "Journal management" article in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Restriction: You must have job control (*JOBCTL) special authority to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
ASP	ASP device	*Character value*, *ALL, *ASPGRP	Optional
ASPGRP	ASP group	*Name*	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting work station or printed with the job's spooled output.

*****
The output requested by an interactive job is shown on the display. The output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output. File QSYSPRT in QSYS is used for printed output.

Top

ASP device (ASP)

Specifies the ASP containing the access paths to be displayed.

Note: This parameter is valid only if OUTPUT(*PRINT) is selected.

***ALL** The output requested will be the top 500 access paths across all active or available ASPs.

***ASPGRP**
The output requested will be the top 500 access paths across the input ASP group.

ASP-identifier
Specify a value ranging from 1 through 32 to specify the identifier of the basic user ASP from which to list the top 500 access paths. Or specify the ASP device name of the independent user ASP from which to list the top 500 access paths. Valid values depend on the ASPs active or available on the system.

Note: The value 1 is the system ASP. Values 2 to 32 denote all basic user ASPs. Independent ASPs are entered as device names.

Top

ASP group (ASPGRP)

Specifies the ASP Group containing the access paths to be displayed.

Note: This parameter is valid only if OUTPUT(*PRINT) and ASP(*ASPGRP) are specified.

ASP-group-name
Specifies the name of the auxiliary storage pool(ASP) group from which to list the top 500 access paths. The ASP group name is the name of the primary independent ASP device within the ASP group.

Top

Examples

Example 1: Displaying All Recovery Times for Access Paths

```
DSPRCYAP
```

This command shows the target access path recovery times and recovery status information for the system and active or available auxiliary storage pools. Output from the command is shown on the workstation if the command is run interactively, or printed with the job's spooled output if the command is run in batch.

Example 2: Printing Recovery Times for Access Paths for an ASP Group

```
DSPRCYAP   OUTPUT(*PRINT)  ASP(*ASPGRP)  ASPGRP(WAREHUS1)
```

This command shows the target access path recovery times and recovery status information for the independent ASP group WAREHUS1. Output from the command is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPF70FB
No authority to use command.

CPF70F4
Error occurred.

CPF700F
Access path recovery time for &1 set to *NONE.

CPF702E
Access path recovery times set to system defaults.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

CPF9871
Error occurred while processing.

CPFB8ED
Device description &1 not correct for operation.

Top

Display RDB Directory Entries (DSPRDBDIRE)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Relational Database Directory Entry (DSPRDBDIRE) command allows you to display one entry, generic entries, or all entries in the relational database (RDB) directory.

Top

Parameters

Keyword	Description	Choices	Notes
RDB	Entry	*Generic name, name*, ***ALL**	Optional, Positional 1
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 2
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Entry (RDB)

Specifies the relational database directory entry. If an entry has no alias, the relational database name is used as the entry name. If an entry has an alias, the alias is used as the entry name.

***ALL** All entries in the relational database directory.

generic-name
Specify the generic name of the relational database entries. A generic name is a character string that contains one or more characters followed by an asterisk (*).

name Specify the name of the relational database directory entry.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to an output file.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

If a new file is created, system file QADSPDE in system library QSYS with a record format name of RWRDDSP is used as a model. If the file already exists, it must have this format.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Directing Information to a Spooled File

```
DSPRDBDIRE   OUTPUT(*PRINT)
```

This command directs information from all of the relational database directory entries to a spooled file.

Example 2: Directing Information to a Database File

```
DSPRDBDIRE   OUTPUT(*OUTFILE)  OUTFILE(SAVEDIR)
```

This command directs all of the relational database directory entries to an output file named SAVEDIR. This is the usual method for backing up the contents of the relational database directory. The entries can be restored using a CL program that reads the information from the output file and issues Add Relational Database Directory Entry (ADDRDBDIRE) commands to add the information back into the relational database directory.

Top

Error messages

***ESCAPE Messages**

CPF3EC3

Display relational database directory entry failed.

Top

Display Remote Definition (DSPRMTDFN)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Remote Definition (DSPRMTDFN) command allows the user to display or print remote definitions for a system. The output can be displayed, printed, or directed to a database file.

Top

Parameters

Keyword	Description	Choices	Notes
SYSTEM	System name	*Element list*	Required, Positional 1
	Element 1: System name	*Character value*, *ANY, *ALL	
	Element 2: System group	*Character value*	
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 2
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	*ADD, ***REPLACE**	

Top

System name (SYSTEM)

Specifies the system name and system group of the remote system being displayed.

The possible values are:

***ANY** Displays the default definition for a remote system not covered by the other entries.

***ALL** Displays all definitions for remote systems.

The possible **System Name** value is:

system-name
Specify the name of the remote system to be displayed.

The possible **System Group** value is:

system-group
Specify the group name of the remote system to be displayed. Do not specify this value if the group name is blank.

Top

Output (OUTPUT)

Specifies whether the output from this command is displayed, printed, or directed to a database file. More information on this parameter is in ″Appendix A, Expanded Parameter Descriptions″ in the CL Reference.

The possible values are:

***** Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified on the **File to receive output** prompt (OUTFILE parameter).

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file to which the output of this command is directed. If the file does not exist, the system creates a file in the specified library. If a new file is created, system file QAOCRMTDFN in system library QSYS with a record format name of RMTDFN is used as a model. If the file already exists, it must have this format.

The possible library values are:

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library for the job, the QGPL library is used.

library-name
Specify the name of the library where the file is located.

The possible value is:

file-name
Specify the name of the output file.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed.

The possible **member to receive output** values are:

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified on the **File to receive output** prompt (OUTFILE parameter).

member-name
Specify the file member that receives the output. If OUTMBR(member-name) is specified and the member does not exist, the system creates it.

The possible **operation to perform on member** values are:

***REPLACE**
The output data replaces existing records in the specified member.

***ADD** The output data is added after existing records in the specified member.

Top

Examples

Example 1: Displaying a Specific Remote Definition

```
DSPRMTDFN   SYSTEM(RCHAS1)
```

This command displays the current attributes for remote system RCHAS1.

Example 2: Writing a Definition to an Output File

```
DSPRMTDFN   SYSTEM(*ALL)  OUTPUT(*OUTFILE)  OUTFILE(RMTDFNOUT)
```

This command writes the current attributes for all defined remote systems to the output file RMTDFNOUT.

Top

Error messages

***ESCAPE Messages**

CPF6A50
Error was found during display file or printer file operation.

CPF6DCA
SYSTEM parameter cannot be local system.

CPF6DCC
Remote definition for system &1 &2 not found.

CPF9860
Error occurred during output file processing.

CPF9899
Error occurred during processing of command.

Top

Display S/36 Configuration (DSPS36)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display System/36 (DSPS36) command allows the user to show or print the description of the System/36 environment configuration. The description includes System/36 printers, display stations, general environment values, and (if the user is authorized) MRT security values.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting work station or printed with the job's spooled output.

***:** The output is displayed at the requesting work station if requested by an interactive job. If this is not an interactive job, the output is printed with the job's spooled output.

***PRINT:**
The output is printed with the job's spooled output.

Top

Examples

```
DSPS36   OUTPUT(*)
```

This command allows the user in an interactive job to display the System/36 environment description.

Top

Error messages

None

Top

Display Save File (DSPSAVF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Save File (DSPSAVF) command displays the save information in a save file. This includes summary information about the save operation and a description of each object saved to the save file.

Restrictions:

- You must have use (*USE) authority for the save file and read (*READ) authority for the specified library.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Save file	*Qualified object name*	Required, Positional 1
	Qualifier 1: Save file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

Save file (FILE)

Specifies the save file to be displayed.

This is a required parameter.

Qualifier 1: Save file

name Specify the name of the save file.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is used to locate the save file. If no current library entry exists in the library list, the QGPL library is used.

name Specify the name of the library where the save file is located.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSAVF   FILE(ONLINE)  OUTPUT(*PRINT)
```

This command shows the objects saved to save file ONLINE. The output is printed with the job's spooled output.

Top

Error messages

***ESCAPE Messages**

CPD375A
Media error on save media.

CPF3704
Request ended; data management error occurred.

CPF3743
File cannot be restored, displayed, or listed.

CPF3782
File &1 in &2 not a save file.

CPF3782
File &1 in &2 not a save file.

CPF3792
Information not displayed. Error occurred.

CPF3793
Machine or ASP storage limit reached.

CPF3812
Save file &1 in &2 in use.

CPF9806
Cannot perform function for object &2 in library &3.

CPF9809
Library &1 cannot be accessed.

CPF9812
File &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

CPF9822
Not authorized to file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

Top

Display Subsystem Description (DSPSBSD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Subsystem Description (DSPSBSD) command displays the information contained in a subsystem description. The types of information (which are shown on separate displays) include: operational attributes, pool definitions, autostart job entries, work station entries (by name and type), job queue entries, routing entries, communications entries, remote location entries, and prestart job entries. If this command is entered in a batch job, **all** available information is printed with the job's spooled output.

Restrictions:

1. To use this command, you must have:
   - object operational (*OBJOPR) and read (*READ) authority to the specified subsystem description and execute (*EXECUTE) authority to the library containing that subsystem description.

Top

Parameters

Keyword	Description	Choices	Notes
SBSD	Subsystem description	*Qualified object name*	Required, Positional 1
	Qualifier 1: Subsystem description	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

Subsystem description (SBSD)

Specifies the name and library of the subsystem description being displayed.

This is a required parameter.

Qualifier 1: Subsystem description

name Specify the name of the subsystem description.

Qualifier 2: Library

***LIBL** All libraries in the thread's library list are searched until a match is found.

***CURLIB**
The current library for the thread is used to locate the subsystem description. If no library is specified as the current library for the thread, library QGPL is used.

name Specify the library where the subsystem description is located.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSBSD   SBSD(LIB6/ORDER)  OUTPUT(*)
```

This command (if entered from a batch job) sends a complete set of display information about the subsystem description named ORDER (stored in LIB6 library) to the job's spooling queue for printing. The information includes the subsystem's attributes, all of the job entries, and all of the routing entries currently in the subsystem description. If the command is entered in an interactive job, the subsystem description menu is shown on a display from which an option may be chosen.

Top

Error messages

***ESCAPE Messages**

CPF1619
Subsystem description &1 in library &2 damaged.

CPF1692
Subsystem description &1 not displayed.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9861
Output file &1 created in library &2.

CPF9871
Error occurred while processing.

Top

Display Security Attributes (DSPSECA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Security Attributes (DSPSECA) command displays security attributes of the system such as:

- The user ID number that will be used the next time a user ID number is generated for a user profile.
- The group ID number that will be used the next time a group ID number is generated for a user profile.
- The security level of the machine. The pending security level is shown if it is different than the current security level.
- The password level of the machine. The pending password level is shown if it is different than the current password level.
- The indicator for whether or not security related system values can be changed.
- The indicator for whether or not digital certificates can be added to a certificate store and whether or not the password for a certificate store can be reset using Digital Certificate Manager (DCM).
- The indicator for whether or not a service tools user ID with a default password that is expired can change its own password.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSECA   OUTPUT(*PRINT)
```

This command prints the current security attributes.

Top

Error messages

None

Top

Display Security Auditing (DSPSECAUD)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Security Auditing (DSPSECAUD) command displays current information about the security audit journal and the current settings for the system values that control what is being audited on the system.

Restriction: You must have audit (*AUDIT) special authority to run this command.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

* The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSECAUD
```

This command displays current information about the security audit journal and the current settings for the system values that control what is being audited on the system.

Top

Error messages

***ESCAPE Messages**

CPFB304
User does not have required special authorities.

Display Software Resources (DSPSFWRSC)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Software Resources (DSPSFWRSC) command allows you to show, print, or write to an output file the list of installed software resources.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 1
OUTFILE	File to receive output	*Qualified object name*	Optional, Positional 2
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

The possible values are:

*****
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Note: If OUTPUT(*OUTFILE) is used, the name of the database file is required.

Top

File to receive output (OUTFILE)

Specifies the name and library of the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If a new file is created, the system uses the physical file QARZLCOF in the library list as a model file. The file has a record format name of QARZLCGD. Field level information can be obtained using the Display File Field Description (DSPFFD) command and specifying QARZLCOF as the file name and *LIBL as the library. If this function creates the file, the text says ″Output file for DSPSFWRSC″. The authority for users other than those who have specific authority, group authority, or authority from an authorization list, is the same as the create authority specified for the library in which the file is created. This parameter is valid only if OUTPUT(*OUTFILE) is specified.

The name of the database file can be qualified by one of the following library values:

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

library-name
Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

The possible values are:

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

member-name
Specify the name of the file member that receives the output. If OUTMBR(member-name) is specified and the member does not exist, the system creates it. If the member exists, you have the option to add records to the end of the existing member, or clear the existing member and then add the new records.

The optional values are:

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

```
DSPSFWRSC   OUTPUT(*OUTFILE)  OUTFILE(*CURLIB/NAMES)
```

This command sends the output from the command to the first member of the file NAMES in the current library. The output replaces the information in the member.

Top

Error messages

***ESCAPE Messages**

CPF0C4A
Product record not found.

CPF0C4B
Product availability object &2/&1 recovery required.

CPF0C4C
Cannot allocate object &1 in library &2.

CPF0C4D
Error occurred while processing object &1 in library &2.

CPF0C54
Data in product record not correct.

CPF9860
Error occurred during output file processing.

CPF9871
Error occurred while processing.

Top

Display Sphere of Control Sts (DSPSOCSTS)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Sphere of Control Status (DSPSOCSTS) command shows the status of the sphere of control including primary, default, back up, and requested nodes.

More information about displaying the sphere of control status and using the DSPSOCSTS command is in the Alerts Support book, SC41-5413.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
DETAIL	Detail	***BASIC**, *FULL	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Detail (DETAIL)

Specifies whether the output from the command is printed as a list of nodes or as a detailed description of each node in the sphere of control. This parameter is valid only when OUTPUT(*PRINT) is specified.

***BASIC**
A list of nodes in the sphere of control is printed.

***FULL** A list of nodes in the sphere of control with detailed information for each node is printed.

Top

Examples

```
DSPSOCSTS
```

This command shows the Sphere of Control Status display at the requesting work station.

Top

Error messages

None

Top

Display Spooled File (DSPSPLF)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display Spooled File (DSPSPLF) command shows the data records in the specified spooled file. The current contents of the file (data records) can be displayed any time an entry for the spooled file is on the output queue. The screen provides various functions to display various parts of the file and to scan for a specific character string.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Spooled file	*Name*	Required, Positional 1
JOB	Job name	Single values: * Other values: *Qualified job name*	Optional, Positional 2
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
SPLNBR	Spooled file number	1-999999, ***ONLY**, *LAST, *ANY	Optional, Positional 3
JOBSYSNAME	Job system name	*Name*, ***ONLY**, *CURRENT, *ANY	Optional
CRTDATE	Spooled file created	Single values: ***ONLY**, *LAST Other values: *Element list*	Optional
	Element 1: Creation date	*Date*	
	Element 2: Creation time	*Time*, ***ONLY**, *LAST	
FOLD	Fold records	***NO**, *YES	Optional

Top

Spooled file (FILE)

Specifies the spooled file which has its records displayed.

This is a required parameter.

name Specify the file name of the spooled file to be displayed.

Top

Job name (JOB)

Specifies the name of the job that created the spooled file whose data records are to be displayed.

Single values

* The job that issued this command is the job that created the spooled file.

Qualifier 1: Job name

name Specify the name of the job that created the spooled file.

Qualifier 2: User

name Specify the user name that identifies the user profile under which the job is run.

Qualifier 3: Number

000000-999999
Specify the system-assigned job number.

Top

Spooled file number (SPLNBR)

Specifies the number of the job's spooled file that is to be displayed.

***ONLY**
Only one spooled file in the job has the specified file name; therefore, the number of the spooled file is not necessary.

***LAST**
The spooled file with the highest number and the specified file name is used.

***ANY** The spooled file number is not used to determine which spooled file is used. Use this value when the job system name parameter or the spooled file create date and time parameter is to take precedence over the spooled file number when selecting a spooled file.

1-999999
Specify the number of the spooled file having the specified file name whose data records are displayed.

Top

Job system name (JOBSYSNAME)

Specifies the system where the job that created the spooled file (JOB parameter) ran. This parameter is considered after the job name, user name, job number, spooled file name, and spooled file number parameter requirements have been met.

***ONLY**
There is one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, and spooled file create date and time.

***CURRENT**
The spooled file created on the current system with the specified job name, user name, job number, spooled file name, spooled file number, and create date and time is used.

***ANY** The job system name is not used to determine which spooled file is used. Use this value when the spooled file create date and time parameter is to take precedence over the job system name when selecting a spooled file.

name Specify the name of the system where the job that created the spooled file ran.

Top

Spooled file created (CRTDATE)

Specifies the date and time the spooled file was created. This parameter is considered after the job name, user name, job number, spooled file name, spooled file number, and job system name parameter requirements have been met.

Single values

***ONLY**
There is one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, and job system name.

***LAST**
The spooled file with the latest create date and time of the specified job name, user name, job number, spooled file name, spooled file number, and job system name is used.

Element 1: Creation date

date Specify the date the spooled file was created.

Element 2: Creation time

***ONLY**
There is one spooled file with the specified job name, user name, job number, spooled file name, spooled file number, job system name, and spooled file create date.

***LAST**
The spooled file with the latest create time of the specified job name, user name, job number, spooled file name, spooled file number, job system name, and spooled file create date is used.

time Specify the time the spooled file was created.

Top

Fold records (FOLD)

Specifies whether the first display has the records folded (wrapped) if they are longer than the length of the display line.

***NO** The records are not folded. When the length of the record is longer than one line, the remaining positions of the record are not shown.

***YES** The initial display shows the first record folded on one or more display lines if it is longer than one line.

Top

Examples

```
DSPSPLF   FILE(QPRINT)  JOB(PAYROLL01)  SPLNBR(4)  FOLD(*NO)
```

In this example, the spooled file QPRINT is displayed. The file is the fourth file produced by the job PAYROLL01. The record positions that are longer than the length of the display line are truncated on the first display.

Top

Error messages

***ESCAPE Messages**

CPF2207
Not authorized to use object &1 in library &3 type *&2.

CPF3303
File &1 not found in job &5/&4/&3.

CPF3308
Error occurred when trying to display data.

CPF3309
No files named &1 are active.

CPF3330
Necessary resource not available.

CPF3340
More than one file with specified name found in job &5/&4/&3.

CPF3342
Job &5/&4/&3 not found.

CPF3343
Duplicate job names found.

CPF3344
File &1 number &8 no longer in the system.

CPF3359
Not able to display data.

CPF3386
File &1 in &2 not a data base file.

CPF3387
Cannot display data in file &1 in &2.

CPF3394
Cannot convert spooled file data.

CPF33F9
Error occurred while displaying file &1 number &6.

CPF3427
Job &5/&4/&3 not interactive job.

CPF3428
DSPSPLF command ended for file &1 number &8.

CPF3429
File &1 number &7 cannot be displayed, copied, or sent.

CPF3434
Data in file &1 in &2 member &3 not in required format.

CPF3435
Requested data not found in file &1 in &2 member &3.

CPF3478
File &1 not found in job &5/&4/&3 on output queue &6 in library &7.

CPF3492
Not authorized to spooled file.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9812
File &1 in library &2 not found.

CPF9815
Member &5 file &2 in library &3 not found.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9871
Error occurred while processing.

Top

Display Service Attributes (DSPSRVA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

The Display Service Attributes (DSPSRVA) command displays information about how the system is set up to:

- The connection number to report to external support
- The connection number to call back this system
- Whether problem analysis routines should run automatically when a failure occurs
- How the specified service provider should be notified of problems
- The connection number to the service provider
- When PTFs should be installed
- Where critical system messages are sent
- Whether PTF save files and cover letters should be copied into *SERVICE when PTFs are loaded from a tape or optical device
- The maximum number of levels of a PTF group to keep on the system
- The message queue used by electronic customer support(ECS) programs

Top

Parameters

None

Top

Examples

```
DSPSRVA
```

This command displays the current service attributes for the system.

Top

Error messages

***ESCAPE Messages**

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9871
Error occurred while processing.

Display Service Agent (DSPSRVAGT)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Service Agent (DSPSRVAGT) command allows a user to display several aspects of Service Agent. The area to be displayed is specified by the **Type (TYPE)** parameter.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	*DEVICE, *SRVINF, *MAINT, *PRDACTLOG, *SRVREGINF, *PRBRPT	Required, Positional 1
DEVICE	Device	*Character value*	Optional
CATEGORY	Category	*DASD, *TAPE, *PROCESSOR, *OPTICAL, *FSIOP, *OTHER	Optional
SENSEFMT	Sense byte format	**0**, 4, 2, 8, C	Optional
SYSNAME	System or logical partition	*Character value*, ***LOCAL**	Optional
OUTPUT	Output	*, *PRINT	Optional
SRVREP	IBM Service representative	*Character value*, ***BLANK**	Optional
SRVTELNBR	IBM Service telephone number	*Character value*, ***BLANK**	Optional
RECOMMEND	Recommendations	*Character value*, ***BLANK**	Optional
ERRLOGID	Error log identifier	*Character value*	Optional

Top

Type (TYPE)

Specifies the aspect of Service Agent to be displayed.

This is a required parameter.

***DEVICE**
Information from the Service Agent threshold table for a device is to be displayed.

***SRVINF**
Information about Service Agent service information collection and transmission is displayed.

***MAINT**
The IBM Service preventive maintenance checklist is to be displayed or printed. This is a list of actions suggested during a preventive maintenance call on the system or logical partition. This list should be printed and given to the customer after each preventive maintenance service call.

***PRDACTLOG**
A record from the Product Activity Log is to be displayed or printed.

***SRVREGINF**
Information needed to register a system or logical partition as a Service Agent is to be displayed.

Top

Device (DEVICE)

Specifies the device for which the threshold table information is to be displayed.

Note: This is a required parameter when TYPE(*DEVICE) is specified.

character-value
Specify the four-character device type for which the threshold table information is to be displayed. For example, DEVICE(2420) might be specified for a 2420 tape device.

Top

Category (CATEGORY)

Specifies the type of device for which the threshold table information is to be displayed.

Note: This is a required parameter when TYPE(*DEVICE) is specified.

***DASD**
The device is a DASD device.

***TAPE** The device is a tape device.

***PROCESSOR**
The device is a processor.

***OPTICAL**
The device is an optical device.

***FSIOP**
The device is an FSIOP device.

***OTHER**
The device is other than one of the above listed devices.

Top

Sense byte format (SENSEFMT)

Specifies the format of the volume statistical data for tape devices.

Note: This parameter is valid only when CATEGORY(*TAPE) is specified.

0 The device does not report removable media statistics.

4 The format is for a 1/4″ cartridge tape device.

2 The format is for a 1/2″ reel tape device.

8 The format is for an 8 mm tape device.

C The format is for a 1/2″ cartridge tape device.

Top

System or logical partition (SYSNAME)

Specifies the name of the system or logical partition for which information is to be displayed.

Note: This parameter is valid only when TYPE(*SRVINF) is specified.

***LOCAL**
Information for the local system or logical partition is to be displayed.

character-value
Specify the name of the system or logical partition for which information is to be displayed.

Top

Output (OUTPUT)

Specifies where the output from the command is to be directed.

Note: This parameter is valid only when TYPE(*MAINT) or TYPE(*PRDACT) is specified.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

IBM Service representative (SRVREP)

Specifies the name of the IBM service representative making this service call or the name of the IBM service representative the customer should contact when they have questions concerning the service performed.

Note: This parameter is valid only when TYPE(*MAINT) and OUTPUT(*PRINT) are specified.

***BLANK**
No value is specified.

character-value
Specify the name of the IBM Service contact. This value will be included in the output when OUTPUT(*PRINT) is specified.

Top

IBM Service telephone number (SRVTELNBR)

Specifies the telephone number the customer should call to contact IBM Service.

Note: This parameter is valid only when TYPE(*MAINT) and OUTPUT(*PRINT) are specified.

***BLANK**
No value is specified.

character-value
Specify the complete telephone number sequence to contact IBM Service. This value will be included in the output when OUTPUT(*PRINT) is specified.

Top

Recommendations (RECOMMEND)

Specifies any recommendations the IBM Service representative has for the customer.

Note: This parameter is valid only when TYPE(*MAINT) and OUTPUT(*PRINT) are specified.

***BLANK**
No value is specified.

character-value
Specify any recommendations IBM Service wishes to make to the customer. This value will be formatted and included in the output when OUTPUT(*PRINT) is specified.

Top

Error log identifier (ERRLOGID)

Specifies the record identifier for the Product Activity Log record that is to be displayed.

Note: This parameter is required when TYPE(*PRDACTLOG) is specified.

character-value
Specify the identifier of the Product Activity Log record to be displayed. Identifiers may be found using the Work with Service Agent (WRKSRVAGT) command with TYPE(*EVENT) specified, or by using the Start Service Tools (STRSST) command.

Top

Examples

```
DSPSRVAGT   TYPE(*DEVICE)  DEVICE(2420)  CATEGORY(*TAPE)
```

This command will display the information in the Service Agent threshold table for device 2420, a tape device.

Top

Error messages

***ESCAPE Messages**

CPF9899
Error occurred during processing of command.

Top

Display Service Program (DSPSRVPGM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Service Program (DSPSRVPGM) command displays information about a service program, including the creation and processing attributes of the service program, information about the compiler, and the size of the service program.

Restrictions:

- You must have execute (*EXECUTE) authority to the service program being displayed, or use (*USE) authority when DETAIL(*MODULE) is specified.
- You must have read (*READ) authority to the library in which the service program exists.

Top

Parameters

Keyword	Description	Choices	Notes
SRVPGM	Service program	*Qualified object name*	Required, Positional 1
	Qualifier 1: Service program	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTPUT	Output	*, *PRINT	Optional, Positional 2
DETAIL	Detail	Single values: ***ALL** Other values (up to 10 repetitions): *BASIC, *SIZE, *MODULE, *SRVPGM, *PROCEXP, *DTAEXP, *ACTGRPEXP, *ACTGRPIMP, *SIGNATURE, *COPYRIGHT	Optional

Top

Service program (SRVPGM)

Specifies the service program for which information is displayed or printed.

This is a required parameter.

Qualifier 1: Service program

name Specify the name of the service program.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting work station or printed with the job's spooled output.

This is a required parameter.

* Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Detail (DETAIL)

Specifies the type of information displayed for the service program.

This is a required parameter.

Single values

***ALL** All of the DETAIL information types (*BASIC, *SIZE, *MODULE, *SRVPGM, *PROCEXP, *DTAEXP, *ACTGRPEXP, *ACTGRPIMP, *SIGNATURE, and *COPYRIGHT) are shown on the display. If you chose to have the information displayed on a screen, you would be able to scroll through the information for each type of information, but would have to press Enter (or PF12) to go from one information section to the next.

Other values (up to 8 repetitions)

***BASIC**
General service program information is shown.

***SIZE** The size and size limits for this service program are shown.

***MODULE**
A list of the module objects bound by this service program is shown. The library shown for each module is the library that the module was in when the service program was first created. If the module has been replaced by a module from a different library, this library name remains the name of the library that the module was in when the service program was created.

***SRVPGM**
A list of the service program objects bound by this service program is shown.

***PROCEXP**
A list of the procedures exported from a service program and specified in the binding language is shown. The exports are only for the current signature.

***DTAEXP**
A list of the data items exported from a service program and specified in the binding language is shown. The exports are only for the current signature.

***ACTGRPEXP**
A list is shown of the data items exported to the activation group specified in the data export entry in the binding specifications.

***ACTGRPIMP**
A list is shown of the imports that are resolved by weak exports that had been exported to the activation group directory.

***SIGNATURE**
A list of the signatures for this service program is shown. The first signature in the list is the current signature.

***COPYRIGHT**
A list of the copyrights for this service program is shown.

Top

Examples

```
DSPSRVPGM   SRVPGM(COACH)
```

This command displays a service program object named COACH.

Top

Error messages

***ESCAPE Messages**

CPF2150
Object information function failed.

CPF2151
Operation failed for &2 in &1 type *&3.

CPF8122
&8 damage on library &4.

CPF8123
Damage on object information for library &4.

CPF813D
Service program &4 in &9 damaged.

CPF9801
Object &2 in library &3 not found.

CPF9802
Not authorized to object &2 in &3.

CPF9803
Cannot allocate object &2 in library &3.

CPF9806
Cannot perform function for object &2 in library &3.

CPF9807
One or more libraries in library list deleted.

CPF9808
Cannot allocate one or more libraries on library list.

CPF9810
Library &1 not found.

CPF9820
Not authorized to use library &1.

CPF9830
Cannot assign library &1.

CPF9871
Error occurred while processing.

Top

Display Service Status (DSPSRVSTS)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display Service Status (DSPSRVSTS) command shows information about the current service status of the specified job. This includes the name of the job it is servicing or the name of the job servicing the specified job.

Restrictions:

- To use this command, you must be signed on as QPGMR, QSYSOPR, QSRV, or QSRVBAS, or have all object (*ALLOBJ) special authority.

Top

Parameters

Keyword	Description	Choices	Notes
JOB	Job name	Single values: * Other values: *Qualified job name*	Optional, Positional 1
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
DUPJOBOPT	Duplicate job option	***SELECT**, *MSG	Optional

Top

Job name (JOB)

Specifies which job is to have its service status shown.

Single values

***** Status information is shown about the job in which the command is entered.

Qualifier 1: Job name

name Specify the job name of the job to be shown. If no user name or job number are specified, all of the jobs currently in the system are searched for the simple job name; the specified job name must be unique within the system.

Qualifier 2: User

name Specify the user name of the job to be shown.

Qualifier 3: Number

000000-999999
Specify the job number of the job to be shown.

Top

Duplicate job option (DUPJOBOPT)

Specifies the action taken when duplicate jobs are found by this command.

***SELECT**
The selection display is shown when duplicate jobs are found during an interactive session. Otherwise, an escape message is issued.

***MSG** An escape message is issued when duplicate jobs are found.

Top

Examples

```
DSPSRVSTS
```

This command shows the service status information for the job from which the command is entered.

Top

Error messages

***ESCAPE Messages**

CPF3520
Job not found.

CPF3524
More than one job with specified name found.

CPF3925
Cannot open file &1.

CPF3950
Error message &2 received for file &1. Request ended.

Top

Display Service Tools User ID (DSPSSTUSR)

Where allowed to run: All environments (*ALL)
Threadsafe: Yes

Parameters
Examples
Error messages

The Display Service Tools User ID (DSPSSTUSR) command shows a list of service tools user identifiers. It can also be used to show detailed information about a specific service tools user ID, including the status and privileges of that user.

When printing the output, the detailed usage information about each service tools user ID will be included in the output.

If a new file is created when sending the output to a physical file, system file QASYDSPDST in system library QSYS with a format name of QSYDSDST is used as a model.

Restrictions: To use this command, you must have either security administrator (*SECADM) or audit (*AUDIT) special authorities.

Top

Parameters

Keyword	Description	Choices	Notes
USRID	Service tools user ID	*Character value*, ***ALL**	Optional, Positional 1
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Service tools user ID (USRID)

Specifies the service tools user ID for which the information is to be shown.

***ALL** All service tools user IDs are shown.

name Specify the name of the service tools user ID to be shown.

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Displaying Basic Information

```
DSPSSTUSR   USRID(11111111)
```

This command shows the status and privileges of the service tools user ID named 11111111. Because OUTPUT(*) is assumed, the information is either displayed or printed, depending on where the command is submitted.

Example 2: Printing All Service Tools User Identities

```
DSPSSTUSR   USRID(*ALL)   OUTPUT(*PRINT)
```

This command causes the status and privileges of all service tools user identities to be printed.

Top

Error messages

***ESCAPE Messages**

CPF4AA8
Service tools user ID &1 not found.

CPF9860
Error occurred during output file processing.

CPFB304
User does not have required special authorities.

Top

Display Server Auth Entries (DSPSVRAUTE)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Server Authentication Entries (DSPSVRAUTE) command shows a list of server authentication entries for a specified user profile.

Top

Parameters

Keyword	Description	Choices	Notes
USRPRF	User profile	*Simple name*, ***CURRENT**	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

User profile (USRPRF)

Specifies the user profile for which the server authentication entries are to be displayed.

***CURRENT**
The server authentication entries for the user running this command are to be displayed.

name Specify the name of the user whose server authentication entries are to be displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSVRAUTE
```

This command will show the server authentication entries for the currently running user.

Top

Error messages

***ESCAPE Messages**

CPFA0AA
Error occurred while attempting to obtain space.

CPF22F0
Unexpected errors occurred during processing.

CPF2204
User profile &1 not found.

CPF2213
Not able to allocate user profile &1.

CPF2217
Not authorized to user profile &1.

Top

Display System Status (DSPSYSSTS)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display System Status (DSPSYSSTS) command allows the user to display or print information about the current status of the system.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
RESET	Reset status statistics	***NO**, *YES	Optional
ASTLVL	Assistance level	***PRV**, *USRPRF, *BASIC, *INTERMED, *ADVANCED	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Reset status statistics (RESET)

Specifies whether system status statistics fields are reset to zero, as if this is the first occurrence of the DSPSYSSTS command in this job. The value specified for this parameter does not affect the information presented for *BASIC assistance level.

***NO** The system status statistics are not reset.

***YES** The system status statistics are reset. This will also reset the status statistics on the Work with System Status (WRKSYSSTS) command and the QWCRSSTS API.

Top

Assistance level (ASTLVL)

Specifies which user interface to use.

***PRV** The previously used assistance level is used.

***USRPRF**
The assistance level defined in the user profile is used.

***BASIC**
The Operational Assistant user interface is used.

***INTERMED**
The system user interface is used.

***ADVANCED**
The system user interface expert mode is used.

Top

Examples

```
DSPSYSSTS   OUTPUT(*PRINT)
```

This command prints the current system status information.

Top

Error messages

None

Top

Display System Value (DSPSYSVAL)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display System Value (DSPSYSVAL) command displays the name and the value of the specified system value.

Top

Parameters

Keyword	Description	Choices	Notes
SYSVAL	System value	QABNORMSW, QACGLVL, QACTJOB, QADLACTJ, QADLSPLA, QADLTOTJ, QALWJOBITP, QALWOBJRST, QALWUSRDMN, QASTLVL, QATNPGM, QAUDCTL, QAUDENDACN, QAUDFRCLVL, QAUDLVL, QAUDLVL2, QAUTOCFG, QAUTORMT, QAUTOSPRPT, QAUTOVRT, QBASACTLVL, QBASPOOL, QBOOKPATH, QCCSID, QCENTURY, QCFGMSGQ, QCHRID, QCHRIDCTL, QCMNARB, QCMNRCYLMT, QCNTRYID, QCONSOLE, QCRTAUT, QCRTOBJAUD, QCTLSBSD, QCURSYM, QDATE, QDATETIME, QDATFMT, QDATSEP, QDAY, QDAYOFWEEK, QDBFSTCCOL, QDBRCVYWT, QDECFMT, QDEVNAMING, QDEVRCYACN, QDSCJOBITV, QDSPSGNINF, QDYNPTYADJ, QDYNPTYSCD, QENDJOBLMT, QFRCCVNRST, QHOUR, QHSTLOGSIZ, QIGC, QIGCCDEFNT, QIGCFNTSIZ, QINACTMSGQ, QINACTITV, QIPLDATTIM, QIPLSTS, QIPLTYPE, QJOBMSGQFL, QJOBMSGQMX, QJOBMSGQSZ, QJOBMSGQTL, QJOBSPLA, QKBDBUF, QKBDTYPE, QLANGID, QLEAPADJ, QLIBLCKLVL, QLMTDEVSSN, QLMTSECOFR, QLOCALE, QLOGOUTPUT, QMAXACTLVL, QMAXJOB, QMAXSGNACN, QMAXSIGN, QMAXSPLF, QMCHPOOL, QMINUTE, QMLTTHDACN, QMODEL, QMONTH, QPASTHRSVR, QPFRADJ, QPRBFTR, QPRBHLDITV, QPRCFEAT, QPRCMLTTSK, QPRTDEV, QPRTKEYFMT, QPRTTXT, QPWDCHGBLK, QPWDEXPITV, QPWDEXPWRN, QPWDLMTAJC, QPWDLMTCHR, QPWDLMTREP, QPWDLVL, QPWDMAXLEN, QPWDMINLEN, QPWDPOSDIF, QPWDRQDDGT, QPWDRQDDIF, QPWDRULES, QPWDVLDPGM, QPWRDWNLMT, QPWRRSTIPL, QQRYDEGREE, QQRYTIMLMT, QRCLSPLSTG, QRETSVRSEC, QRMTIPL, QRMTSIGN, QRMTSRVATR, QSAVACCPTH, QSCANFS, QSCANFSCTL, QSCPFCONS, QSECOND, QSECURITY, QSETJOBATR, QSFWERRLOG, QSHRMEMCTL, QSPCENV, QSPLFACN, QSRLNBR, QSRTSEQ, QSRVDMP, QSSLCSL, QSSLCSLCTL, QSSLPCL, QSTGLOWACN, QSTGLOWLMT, QSTRPRTWTR, QSTRUPPGM, QSTSMSG, QSVRAUTITV, QSYSLIBL, QTHDRSCADJ, QTHDRSCAFN, QTIMADJ, QTIME, QTIMSEP, QTIMZON, QTOTJOB, QTSEPOOL, QUPSDLYTIM, QUPSMSGQ, QUSEADPAUT, QUSRLIBL, QUTCOFFSET, QVFYOBJRST, QYEAR	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

System value (SYSVAL)

Specifies the name of the system value that is displayed.

This is a required parameter.

The system values are:

QABNORMSW
Previous end of system indicator. This value cannot be changed.
- '0' means previous end was normal.
- '1' means previous end was abnormal.

QACGLVL
Accounting level. Changes made to this system value take effect for jobs started after the change is made.
- *NONE - No accounting information is written to a journal.
- *JOB - Job resource use is written to a journal.
- *PRINT - Spooled and printer file resource use is written to a journal.

QACTJOB
Initial number of active jobs for which storage is allocated. Changes made to this system value take effect at the next IPL.

QADLACTJ
Additional number of active jobs for which storage is allocated. Changes made to this system value take effect immediately.

QADLSPLA
Additional storage for extending spooling control block (bytes). The operating system no longer uses this system value. Changes made to this system value have no effect.

QADLTOTJ
Additional total number of jobs for which storage is allocated. Changes made to this system value take effect immediately.

QALWJOBITP
Allow jobs to be interrupted. This system value specifies how the system responds to user initiated requests to interrupt a job to run a user-defined exit program in that job. The Call Job Interrupt Program (QWCJBITP) API in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/ contains information on using job interrupt exit programs. The Change Job Interrupt Status (QWCCJITP) API in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/ contains information on retrieving and changing the interrupt status of a job. The interrupt status of an active job can be changed at any time but will only take effect when the value of QALWJOBITP allows jobs to be interrupted. Changes made to this system value take effect immediately. The shipped value is 0.
- 0 means the system will not allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be uninterruptible. All active jobs are uninterruptible regardless of what the job interrupt status is set to.
- 1 means the system will allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be uninterruptible.
- 2 means the system will allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be interruptible.

QALWOBJRST
Allow object to be restored. This system value determines whether objects with security-sensitive attributes are restored. See Restore options for additional information.

QALWUSRDMN
Allow user domain objects in libraries or directories. This system value specifies which libraries on the system can contain the user domain user objects *USRSPC (user space), *USRIDX (user index), and *USRQ (user queue). Changes made to this system value take effect immediately.

QASTLVL
Assistance level. Indicates the Operational Assistant level of system displays for user profiles where ASTLVL(*SYSVAL) is specified. Changes made to this system value take effect immediately.

- *BASIC - The Operational Assistant user interface is used.
- *INTERMED - The system interface is used.
- *ADVANCED - The expert system interface is used.

If a command does not have an *ADVANCED level interface, *INTERMED is used.

QATNPGM
Attention program. If *ASSIST is specified for this system value, the Operational Assistant main menu is called when the user presses the Attention (Attn) key. This value can be changed to the name of a program, which will be called when the user presses the Attn key in a job where ATNPGM(*SYSVAL) is specified in the user profile. Changes made to this system value take effect immediately.

QAUDCTL
Audit control. This system value contains the on and off switches for object and user action auditing. This system value activates auditing on the system that is selected by the Change Object Auditing (CHGOBJAUD) and Change User Auditing (CHGUSRAUD) commands and the QAUDLVL and QAUDLVL2 system values. Changes made to this system value take effect immediately.

- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL).
- *NONE - No security auditing is done on the system. This is the shipped value.
- *AUDLVL - The actions specified in the QAUDLVL and QAUDLVL2 system values will be logged to the security journal. Also actions specified by a user profile's action auditing values will be audited. A user profile's action auditing values are set through the AUDLVL parameter on the CHGUSRAUD command.
- *OBJAUD - Actions against objects that have an object audit value other than *NONE will be audited. An object's audit value is set through the Change Auditing Value (CHGAUD) command or the CHGOBJAUD command.
- *NOQTEMP - No auditing of most objects in QTEMP is done. You must specify *NOQTEMP with either *OBJAUD or *AUDLVL. You can not specify *NOQTEMP by itself.

QAUDENDACN
Audit journal error action. This system value specifies the action to be taken by the system if errors occur when an audit journal entry is being sent by the operating system to the security audit journal. Changes made to this system value take effect immediately.

- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL).
- *NOTIFY - Notification of failure is sent to the QSYSOPR and QSYSMSG message queues, and then the action that caused the audit attempt continues.
- *PWRDWNSYS - The Power Down System (PWRDWNSYS) command is issued. The system will then be brought up in a restricted state on the following IPL, and then only a user with audit (*AUDIT) and all object (*ALLOBJ) special authority can sign on the system.

QAUDFRCLVL

Force audit journal. This system value specifies the number of audit journal entries that can be written to the security auditing journal before the journal entry data is forced to auxiliary storage.

- 1 through 100.
- *SYS - The system determines when the journal entries are to be written to auxiliary storage based on internal system processing. *SYS cannot be returned in a decimal variable, so the command returns 0 when the value *SYS is specified.
- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL). *NOTAVL cannot be returned in a decimal variable, so the command returns -1 in place of *NOTAVL.

Changes made to this system value take effect immediately.

QAUDLVL

Security auditing level. Controls the level of action auditing on the system. Changes made to this system value take effect immediately for all jobs running on the system.

- *NONE - No security action auditing will occur on the system. This is the shipped value.
- *AUDLVL2 - Both QAUDLVL and QAUDLVL2 system values will be used to determine the security actions to be audited.

  Note:

  – If you wish to use the QAUDLVL2 system value exclusively, set the QAUDLVL system value to *AUDLVL2 and add your auditing values to the QAUDLVL2 system value.

  – If you wish to use both system values you can set your values in the QAUDLVL system value along with the *AUDLVL2 value, then add any additional values to the QAUDLVL2 system value.
- *ATNEVT - Attention events are audited. Attention events are conditions that require further evaluation to determine the condition's security significance. For example, intrusion monitor events need to be examined to determine whether the condition is an intrusion or a false positive.
- *AUTFAIL - Authorization failures are audited.
- *CREATE - All object creations are audited. Objects created into library QTEMP are not audited.
- *DELETE - All deletions of external objects on the system are audited. Objects deleted from library QTEMP are not audited.
- *JOBBAS - Base actions that affect a job are audited.
- *JOBCHGUSR- Actions that change a thread's active user profile or its group profiles are audited.
- *JOBDTA - Actions that affect a job are audited.

  Note: *JOBDTA is composed of two values to allow you to better customize your auditing. If you specify both of the values, you will get the same auditing as if you specified *JOBDTA. The following values make up *JOBDTA.

  – *JOBBAS

  – *JOBCHGUSR
- *NETBAS - Network base functions are audited.
- *NETCLU - Cluster and cluster resource group operations are audited.
- *NETCMN - Networking and communications functions are audited.

  Note: *NETCMN is composed of several values to allow you to better customize your auditing. If you specify all of the values, you will get the same auditing as if you specified *NETCMN. The following values make up *NETCMN.

  – *NETBAS

  – *NETCLU

  - *NETFAIL
  - *NETSCK
- *NETFAIL - Network failures are audited.
- *NETSCK - Socket tasks are audited.
- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL).
- *OBJMGT - Generic object tasks are audited.
- *OFCSRV - OfficeVision tasks are audited.
- *OPTICAL - All optical functions are audited.
- *PGMADP - Adopting authority from a program owner is audited.
- *PGMFAIL - Program failures are audited.
- *PRTDTA - Printing functions are audited.
- *SAVRST - Save and restore information is audited.
- *SECCFG - Security configuration is audited.
- *SECDIRSRV- Changes or updates when doing directory service functions are audited.
- *SECIPC - Changes to interprocess communications are audited.
- *SECNAS - Network authentication service actions are audited.
- *SECRUN - Security run time functions are audited.
- *SECSCKD - Socket descriptors are audited.
- *SECURITY - All security-related functions are audited.

  Note: *SECURITY is composed of several values to allow you to better customize your auditing. If you specify all of the values, you will get the same auditing as if you specified *SECURITY. The following values make up *SECURITY.
  - *SECCFG
  - *SECDIRSRV
  - *SECIPC
  - *SECNAS
  - *SECRUN
  - *SECSCKD
  - *SECVFY
  - *SECVLDL
- *SECVFY - Use of verification functions are audited.
- *SECVLDL - Changes to validation list objects are audited.
- *SERVICE - For a list of all the service commands and API calls that are audited, see the System i Security Reference, SC41-5302 publication
- *SPLFDTA - Spooled file functions are audited.
- *SYSMGT - System management tasks are audited.

QAUDLVL2

Security auditing level extension. This system value is required when more than sixteen auditing values are needed. Specifying *AUDLVL2 as one of the values in the QAUDLVL system value will cause the system to also look for auditing values in the QAUDLVL2 system value. Changes made to this system value take effect immediately for all jobs running on the system.

- *NONE - No auditing values are contained in this system value. This is the shipped value.
- *ATNEVT - Attention events are audited. Attention events are conditions that require further evaluation to determine the condition's security significance. For example, intrusion monitor events need to be examined to determine whether the condition is an intrusion or a false positive.

- *AUTFAIL - Authorization failures are audited.
- *CREATE - All object creations are audited. Objects created into library QTEMP are not audited.
- *DELETE - All deletions of external objects on the system are audited. Objects deleted from library QTEMP are not audited.
- *JOBBAS - Base actions that affect a job are audited.
- *JOBCHGUSR- Actions that change a thread's active user profile or its group profiles are audited.
- *JOBDTA - Actions that affect a job are audited.

  Note: *JOBDTA is composed of two values to allow you to better customize your auditing. If you specify both of the values, you will get the same auditing as if you specified *JOBDTA. The following values make up *JOBDTA.

  – *JOBBAS

  – *JOBCHGUSR
- *NETBAS - Network base functions are audited.
- *NETCLU - Cluster and cluster resource group operations are audited.
- *NETCMN - Networking and communications functions are audited.

  Note: *NETCMN is composed of several values to allow you to better customize your auditing. If you specify all of the values, you will get the same auditing as if you specified *NETCMN. The following values make up *NETCMN.

  – *NETBAS

  – *NETCLU

  – *NETFAIL

  – *NETSCK
- *NETFAIL - Network failures are audited.
- *NETSCK - Socket tasks are audited.
- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL).
- *OBJMGT - Generic object tasks are audited.
- *OFCSRV - OfficeVision tasks are audited.
- *OPTICAL - All optical functions are audited.
- *PGMADP - Adopting authority from a program owner is audited.
- *PGMFAIL - Program failures are audited.
- *PRTDTA - Printing functions are audited.
- *SAVRST - Save and restore information is audited.
- *SECCFG - Security configuration is audited.
- *SECDIRSRV- Changes or updates when doing directory service functions are audited.
- *SECIPC - Changes to interprocess communications are audited.
- *SECNAS - Network authentication service actions are audited.
- *SECRUN - Security run time functions are audited.
- *SECSCKD - Socket descriptors are audited.
- *SECURITY - All security-related functions are audited.

  Note: *SECURITY is composed of several values to allow you to better customize your auditing. If you specify all of the values, you will get the same auditing as if you specified *SECURITY. The following values make up *SECURITY.

  – *SECCFG

  – *SECDIRSRV

  - *SECIPC
  - *SECNAS
  - *SECRUN
  - *SECSCKD
  - *SECVFY
  - *SECVLDL
- *SECVFY - Use of verification functions are audited.
- *SECVLDL - Changes to validation list objects are audited.
- *SERVICE - For a list of all the service commands and API calls that are audited, see the System i Security Reference, SC41-5302 publication
- *SPLFDTA - Spooled file functions are audited.
- *SYSMGT - System management tasks are audited.

QAUTOCFG
Automatic device configuration indicator. Changes made to this system value take effect immediately.
- 0 means auto-configuration is off.
- 1 means auto-configuration is on.

QAUTOSPRPT
Automatic system disabled reporting. The operating system no longer uses this system value. Changes made to this system value have no effect.

QAUTORMT
Automatic configuration for remote controllers. The QAUTORMT system value controls the automatic configuration of remote controllers.
- 0 means auto-configuration is off.
- 1 means auto-configuration is on.

QAUTOVRT
Automatic virtual device configuration indicator. The user must have *ALLOBJ authority to change this system value. Changes made to this system value take effect immediately. See Autoconfigure virtual devices for additional information.

QBASACTLVL
Activity level of base storage pool. Changes made to this system value take effect immediately.

QBASPOOL
Minimum size of base storage pool (in Kilobytes). Changes made to this system value take effect immediately.

QBOOKPATH
Book and bookshelf search path. The operating system no longer uses this system value. Changes made to this system value have no effect.

QCCSID
Coded character set identifier. Changes made to this system value take effect for jobs started after the change is made.

QCENTURY
Century value for the system date.
- 0 indicated years 19**XX**.
- 1 indicates years 20**XX**.

QCFGMSGQ
Configuration message queue used to specify the message queue to receive communication

messages. Both an object name and library name can be specified. A change to this system value takes effect when a line, controller, or device description that supports the MSGQ parameter is varied on.

QCHRID
Default graphic character set and code page used for displaying or printing data. Changes made to this system value take effect for display files, display device descriptions, and printer files that are created, changed, or overridden after the change.

QCHRIDCTL
Character identifier control for the job. This attribute controls the type of CCSID conversion that occurs for display files, printer files, and panel groups. The *CHRIDCTL special value must be specified for the CHRID parameter on the create, change, or override commands for display files, printer files, and panel groups before this attribute is used.

- 0 means the *DEVD special value is used.
- 1 means the *JOBCCSID special value is used.

QCMNARB
Communication arbiters. The number of communication arbiter jobs that are available to process work for controllers and devices. A change to this value takes effect on the next IPL. The shipped value is *CALC.

- *CALC: The operating system calculates the number of communication arbiter jobs.
- 0 - 99: Specifies the number of communication arbiter jobs that are available to process work for controllers and devices.

Note: If this system value is set to zero (0), the work in these jobs is done in QSYSARB and QLUS system jobs as opposed to the communication arbiters.

QCMNRCYLMT
Provides recovery limits for system communications recovery. Specifies the number of recovery attempts to make and when an inquiry message is sent to the device message queue or to the system operator when the specified number of recovery attempts have been reached. Changes made to this system value do not affect a currently varied on device, but is in effect when a device is varied on after the change.

QCNTRYID
Default country or region identifier. Changes to this system value take effect for jobs started after the change is made.

QCONSOLE
System console. This value is not changeable.

QCRTAUT
Public authority for created objects. You must have *ALLOBJ and *SECADM special authorities to change this system value. Changes made to this system value take effect immediately.

- *CHANGE means the user can change the object and perform basic functions on the object. Change authority allows the user to perform all operations on the object except those limited to the owner or controlled by object existence authority and object management authority. Change authority provides object operational authority and all data authority.
- *ALL means the user can control the object's existence, specify the security for the object, change the object, change the owner for the object, and perform basic functions on the object. All authority allows the user to perform all operations on the object except those limited to the owner or controlled by authorization list management rights. If the object is an authorization list, the user cannot add, change, or remove users, or transfer ownership of the authorization list.
- *USE means the user can perform basic operations on the object, such as run a program or read a file. The user is prevented from changing the object. Use authority provides object operational authority and read authority.

- *EXCLUDE authority prevents the user from accessing the object.

QCRTOBJAUD
Create object auditing. This system value specifies the default object auditing value for an object created into a library or directory. The object auditing value determines whether an audit journal entry is sent to the system auditing journal when an object is used or changed. Changes made to this system value take effect immediately.

- *NOTAVL - The user performing the command is not allowed to display the current auditing value. You cannot change the system value to not available (*NOTAVL).
- *NONE - No auditing entries are sent for the object.
- *USRPRF - Auditing entries are sent if the user is currently being audited.
- *CHANGE - Auditing entries are sent if the object is changed.
- *ALL - Auditing entries are sent if the object is used or changed.

QCTLSBSD
Controlling subsystem description name. Both an object name and library name can be specified. Changes made to this system value take effect at the next IPL.

QCURSYM
Currency symbol. Changes made to this system value take effect immediately.

QDATE
System date. Changes made to this system value take effect immediately.

QDATETIME
System date and time. This is the date and time for the local system time as a single value. Retrieving or changing this value is similar to retrieving or changing QDATE and QTIME in a single operation. The format of the field is YYYYMMDDHHNNSSXXXXXX where YYYY is the year, MM is the month, DD is the day, HH is the hours, NN is the minutes, SS is the seconds, and XXXXXX is the microseconds. Changes made to this system value take effect immediately.

QDATFMT
Date format. Changes made to this system value take effect for jobs started after the change is made.

QDATSEP
Date separator. Changes made to this system value take effect for jobs started after the change is made.

QDAY Day of the month (day of the year if the system date format is Julian). Changes made to this system value take effect immediately.

QDAYOFWEEK
The day of the week.

- *SUN - Sunday
- *MON - Monday
- *TUE - Tuesday
- *WED - Wednesday
- *THU - Thursday
- *FRI - Friday
- *SAT - Saturday

QDBFSTCCOL
Database file statistics collection. Specifies the type of statistics collection requests that are allowed to be processed in the background by system job, QDBFSTCCOL. Changes made to this system value take effect immediately.

- *ALL means all user requested database file statistics collection requests and statistics collections automatically requested by the database manager are allowed to be processed by the database statistics system job.
- *SYSTEM means only automatically requested database statistics collection requests by the database manager are allowed to be processed by the database statistics system job.
- *USER means only user requested database file statistics collection requests are allowed to be processed by the database statistics system job.
- *NONE means no database file statistics collection requests are allowed to be processed by the database statistics system job.

QDBRCVYWT

Database recovery wait indicator. Changes to this system value take effect at the next IPL in unattended mode.

- 0 means do not wait.
- 1 means wait.

QDECFMT

Decimal format. Changes made to this system value take effect immediately.

QDEVNAMING

Indicates the device naming convention. Changes made to this system value take effect the next time a device is automatically configured. Existing configured device names are not changed.

- *NORMAL means follow System i standards.
- *S36 means follow S/36 standards.
- *DEVADR means device names are derived from resource names.

QDEVRCYACN

Specifies the action taken when an I/O error occurs for the job's requesting program device. Changes made to this system value take effect for jobs started after the change is made.

- *DSCMSG disconnects the job. On reconnection, an error message will be sent to the user's application program.
- *DSCENDRQS disconnects the job. On reconnection, a cancel request function should be performed to return control of the job back to the last request level.
- *ENDJOB ends the job. A job log will be produced for the job. A message will be sent to the job log and to the QHST log indicating that the job was ended because of device error.
- *ENDJOBNOLIST ends the job. A job log will not be produced for the job. A message will be sent to the QHST log indicating that the job was ended because of device error.
- *MSG signals the I/O error message to the application program. The application program performs error recovery itself.

QDSCJOBITV

Time interval that a job can be disconnected before it is ended. Changes made to this system value take effect immediately. An interactive job can be disconnected with the Disconnect Job (DSCJOB) command when it has been inactive for an interval of time (the system values QINACTIV and QINACTMSGQ), or when an Input/Output error occurs at the interactive job's work station (the system value QDEVRCYACN).

- 5-1440 is the time out interval in minutes.
- *NONE means no time out interval.

QDSPSGNINF

Controls the display of sign-on information. Changes made to this system value take effect immediately.

- 0 means the sign-on information is not displayed.
- 1 means the sign-on information is displayed.

QDYNPTYADJ

Dynamic priority adjustment. The QDYNPTYADJ system value controls whether the priority of interactive jobs is dynamically adjusted to maintain high performance of batch job processing. This adjustment capability is only effective on systems that are rated for both interactive and non-interactive throughput and have Dynamic Priority Scheduling enabled. A change to this value takes effect at the next IPL.

- 0 means the dynamic priority adjustment support is turned off.
- 1 means the dynamic priority adjustment support is turned on.

QDYNPTYSCD

Dynamic priority scheduler. The QDYNPTYSCD system value controls the dynamic priority scheduler algorithm. The value allows the use of dynamic priority scheduling.

- 0 means the dynamic priority scheduler is off.
- 1 means the dynamic priority scheduler is on.

QENDJOBLMT

Maximum time (in seconds) for application clean up during immediate ending of a job.

When a job being ended has a signal handling procedure for the asynchronous signal SIGTERM, the SIGTERM signal is generated for that job. When the signal handling procedure for the SIGTERM signal is given control, the procedure can take the appropriate actions to avoid undesirable results such as application data that has been partially updated. If the SIGTERM signal handler has not completed in the specified time, the system ends the job.

When the job is ended in a controlled manner, the maximum time for the SIGTERM signal handler is specified on the command. When the job is ended in an immediate manner, the maximum time for the SIGTERM signal handler is specified by this system value. This time limit is used when ending one job, when ending all the jobs in a subsystem, or when ending all jobs in all subsystems. After two minutes, the system operator can use the End Job (ENDJOB) command with OPTION(*IMMED) to override the QENDJOBLMT value and end individual jobs immediately.

A change to this value takes effect immediately. Jobs that are already ending are not affected.

QFRCCVNRST

Force conversion on restore. This system value allows you to specify whether or not to convert programs, service programs, SQL packages, and module objects during the restore. It can also prevent some objects from being restored. The default value on the restore commands use the value of this system value. Changes to this system value will take effect immediately.

0 Do not convert anything. Do not prevent anything from being restored.

1 Objects with validation errors will be converted.

2 Objects requiring conversion to be used on the current version of the operating system or on the current machine will be converted. Objects with validation errors will also be converted.

3 Objects suspected of having been tampered with, objects containing validation errors, and objects requiring conversion to be used by the current version of the operating system or on the current machine will be converted.

4 Objects that contain sufficient creation data to be converted and do not have valid digital signatures will be converted. An object that does not contain sufficient creation data will be restored without conversion. NOTE: Objects (signed and unsigned) that have validation errors, are suspected of having been tampered with, or require conversion to be used by the current version of the operating system, but cannot be converted will not be restored.

5 Objects that contain sufficient creation data will be converted. An object that does not contain sufficient creation data will be restored. NOTE: Objects that have validation

errors, are suspected of having been tampered with, or require conversion to be used on the current version of the operating system, but cannot be converted will not be restored.

6 All objects that do not have a valid digital signature will be converted. NOTE: An object with a valid digital signature that also has a validation error, is suspected of having been tampered with, or requires conversion to be used on the current version of the operating system, but cannot be converted will not be restored.

7 Every object will be converted.

When an object is converted, its digital signature is discarded. The state of the converted object is set to user state. After conversion, objects will have a good validation value and are not suspected of having been tampered with.

QHOUR
Hour of the day. Changes made to this system value take effect immediately.

QHSTLOGSIZ
Maximum number of records for each version of the history log. Valid values range from 1 to 10,000,000 or the special value *DAILY which means that a new version of the history log is created each time the date in the history log messages changes, or when the current log version reaches the maximum size of 10,000,000 records. *DAILY cannot be returned in a decimal variable, so the Retrieve System Value (RTVSYSVAL) command returns a value of -1 when the system value is set to *DAILY. Specifying a value of -1 on the Change System Value (CHGSYSVAL) command has the same effect as specifying *DAILY. Changes made to this system value take effect when the next version of the history log is created.

QIGC Indicates whether the double-byte character set (DBCS) version of the system is installed. This value cannot be changed.

- 0 means the DBCS version is not installed.
- 1 means the DBCS version is installed.

QIGCCDEFNT
Double byte character set (DBCS) coded font name. Used when transforming an SNA character string (SCS) into an Advanced Function Printing data stream (AFPDS) and when creating an AFPDS spooled file with shift in/shift out (SI/SO) characters in the data. Changes made to this system value take effect immediately.

QIGCFNTSIZ
Double byte coded font point size. Used along with the system value, QIGCCDEFNT, double byte coded font. They will be used when transforming SNA character string (SCS) into an Advanced Function Printing Data Stream (AFPDS) and when creating an AFPDS spooled file with shift in/ shift out (SI/SO) characters present in the data.

- *NONE means that no point size is identified to the system. The point size is selected by the system based on the type of printer used.
- 000.1 - 999.9 means the point size for the double byte coded font.

QINACTITV
Inactive interactive job time out interval in minutes. When the time interval is changed to a value other than *NONE a new inactivity interval is established and the analysis of job inactivity is started again. The system value QINACTMSGQ determines the action the system takes. For information on enforcement for target pass-through and TELNET sessions, see the Work management topic collection in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/

Local jobs that are currently signed on to a remote system are excluded. For example, a work station is directly attached to system A, and system A has QINACTIV set on. If Display Station

Pass-through or TELNET is used to sign on to system B, this work station is not affected by the QINACTITV value set on system A. Changes made to this system value take effect immediately.

- *NONE means that the system does not check for inactivity.
- 5 - 300 means the number of minutes a job can be inactive before action is taken.

QINACTMSGQ

The qualified name of a message queue to which job inactive messages will be sent if QINACTMSGQ is not *NONE. The message queue must exist before the system value can be changed to a message queue name. Both an object name and library name can be specified. Changes made to this system value take effect immediately.

- *ENDJOB means that interactive jobs, secondary jobs, and group jobs will be ended.
- *DSCJOB means that interactive jobs, secondary jobs, and group jobs will be disconnected.
- Message queue name is the name of a message queue that receives a message when a job has been inactive.

QIPLDATTIM

Date and time for automatic IPL. This system value can be set independently in each partition. If the primary partition is powered down at the time an automatic IPL should occur in a secondary partition, the IPL will not occur. When the primary partition does IPL, the secondary partition will be IPLed if its IPL date and time is past due. The secondary partition will not IPL if it was configured with an IPL action of hold. Changes made to this system value take effect immediately.

QIPLDATTIM is a single system value with two parts:

- Date: The date an IPL automatically occurs on the system. The date is specified in QDATFMT format with no date separators.
- Time: The time an IPL automatically occurs on the system. The time is specified with no time separators.

*NONE, which indicates that no timed automatic IPL is scheduled, can be specified instead of a specific date and time.

The following example shows how to change the IPL date and time to September 10, 1993 (QDATFMT is MDY) at 9:00 a.m.

```
CHGSYSVAL SYSVAL(QIPLDATTIM) VALUE('091093 090000')
```

QIPLSTS

Initial program load (IPL) status indicator.

- 0 means operator panel IPL.
- 1 means auto-IPL after power restored.
- 2 means restart IPL.
- 3 means time of day IPL.
- 4 means remote IPL.

QIPLTYPE

Indicates the type of IPL to perform. Changes made to this system value take effect at the next manual IPL.

- 0 means unattended IPL.
- 1 means attended IPL with dedicated service tools.
- 2 means attended IPL with console in debug mode.

  Note: You should only use this for problem analysis because it prevents other devices on the work station controller from being used.

QJOBMSGQFL

Job message queue full action. This system value specifies how to handle the job message queue when it is considered full. Changes made to this system value take effect for jobs started after the change is made.

- *NOWRAP - The job message queue is not wrapped.
- *WRAP - The job message queue is wrapped.
- *PRTWRAP - The job message queue is wrapped and the messages that are being overlaid are printed.

QJOBMSGQMX

Job message queue maximum size. This system value specifies how large (in megabytes) a message queue can be before it is considered full. Changes made to this system value take effect for jobs started after the change is made.

QJOBMSGQSZ

Initial size of job message queue in kilobytes (KB). The operating system no longer uses this system value. Changes made to this system value have no effect.

QJOBMSGQTL

Maximum size of job message queue (in KB). The operating system no longer uses this system value. Changes made to this system value have no effect.

QJOBSPLA

Initial size of spooling control block for a job (in bytes). Changes made to this system value take effect when a cold start is requested during the installation of the operating system licensed program.

QKBDBUF

Keyboard buffer. Changes made to this system value take effect the next time someone logs on.

- *NO means turn off the type-ahead feature and the attention key buffering option.
- *TYPEAHEAD means turn on the type-ahead feature but turn off the attention key buffering option.
- *YES means turn on the type-ahead feature and the attention key buffering option.

QKBDTYPE

Keyboard language character set. Changes made to this system value take effect immediately.

QLANGID

Default language identifier. Changes to this system value take effect for jobs started after the change is made.

QLEAPADJ

Leap year adjustment. This system value is used to adjust the system calendar algorithm for the leap year in different calendar systems.

This system value is determined by the year offset that is associated with the time zone description specified in the system value QTIMZON. A change to a different time zone description for QTIMZON may result in a different associated adjustment.

QLEAPADJ cannot be changed to a value that is different than its current value. If an attempt is made to do so, the diagnostic message CPD168B will be issued. The value of QLEAPADJ is managed by the system.

QLIBLCKLVL

Library locking level. Specifies whether libraries in a job's library search list are locked by that job. A change to this system value takes effect for all jobs that become active after the change.

- 0 means the libraries in a user job's library search list are not locked.
- 1 means the libraries in a user job's library search list are locked by that job.

QLMTDEVSSN

Limits concurrent device sessions. Changes made to this system value take effect immediately.

- 0 means users are not limited to a specific number of device sessions.
- 1-9 indicates maximum number of concurrent device sessions.

QLMTSECOFR

Limit security officer device access. Changes made to this system value take effect immediately.

- 0 means users with *ALLOBJ or *SERVICE special authority can sign on any work station.
- 1 means users with *ALLOBJ or *SERVICE special authority must have explicit authority to a work station.

QLOCALE

Locale path name. This system value is used to set the locale for the system. The locale path name must be a path name that specifies a locale. A locale is made up of the language, territory, and code set combination used to identify a set of language conventions. The maximum path length allowed for the locale path name on the Change System Value (CHGSYSVAL) command is 1,024 bytes.

A change to this system value takes effect immediately. The shipped value may be different for different countries.

- *NONE means there is no locale path name for the QLOCALE system value.
- *C means the C locale is to be used.
- *POSIX means the POSIX locale is to be used.

QLOGOUTPUT

Job log output. This system value specifies how the job log will be produced when a job completes. This does not affect job logs produced when the message queue is full and the job message queue full action specifies *PRTWRAP. Messages in the job message queue are written to a spooled file, from which the job log can be printed, unless the Control Job Log Output (QMHCTLJL) API was used in the job to specify that the messages in the job log are to be written to a database file.

Changes made to this system value take effect immediately for jobs entering the system after the change is made.

- *JOBEND means the job log will be produced by the job itself. If the job cannot produce its own job log, the job log will be produced by a job log server.
- *JOBLOGSVR means the job log will be produced by a job log server.
- *PND means the job log will not be produced. The job log remains pending until removed.

QMAXACTLVL

Maximum activity level of the system. Changes made to this system value take effect immediately.

QMAXJOB

Maximum number of jobs that are allowed on the system. Changes made to this system value take effect immediately.

QMAXSGNACN

The system's response when the limit imposed by QMAXSIGN system value is reached. Changes made to this system value take effect the next time someone attempts to sign on the system.

- 1 means the device will be disabled.
- 2 means the user profile will be disabled.
- 3 means the device and the user profile will be disabled.

QMAXSIGN

Maximum number of not valid sign-on attempts allowed. Changes made to this system value take effect the next time someone attempts to sign on the system.

QMAXSPLF
Maximum number of spooled files that can be created per job. Changes made to this system value take effect immediately. Spooled files will not be deleted when this value is changed to a lower number. See the Printer Device Programming book for information on how this system value affects spooling for a job.

QMCHPOOL
Machine storage pool size (in KB). Changes made to this system value take effect immediately.

Note: Changes to the size of a pool may require pages to be written to auxiliary storage. The time required for the system to complete a large change may be greater than your default wait time. If this occurs, message CPF1001 (Wait time expired for system response.) is issued, even though the change completes.

QMINUTE
Minute of the hour. Changes made to this system value take effect immediately.

QMLTTHDACN
Multithreaded job action. This value controls the action to be taken when a function that may not be threadsafe is called in a multithreaded job. Changes made to this system value take effect immediately. The shipped value is 2.

- 1 means perform the function that is not threadsafe without sending a message.
- 2 means perform the function that is not threadsafe and send an informational message.
- 3 means do not perform the function that is not threadsafe.

QMODEL
System model number. The number or letters used to identify the model of the system. You cannot change QMODEL, but the 4-character value can be displayed or retrieved in user-written programs. The system model number system value is the same in each partition on a system.

QMONTH
Month of the year (not used for Julian dates). Changes made to this system value take effect immediately.

QPASTHRSVR
Pass-through servers. The number of target display station pass-through server jobs that are available to process display station pass-through, IBM System i Access for Windows workstation function (WSF), and other 5250 emulation programs on programmable workstations. Changes made to this system value take effect immediately. The shipped value is *CALC.

QPFRADJ
Initial program load (IPL) performance adjustment and dynamic performance tuning. Dynamic performance tuning automatically changes storage pool sizes and activity levels for shared storage pools. Private storage pools are not changed. Changes made to this system value take effect immediately.

- 0 means no performance adjustment. Dynamic performance tuning is not started.
- 1 means performance adjustment at IPL. Dynamic performance tuning is not started.
- 2 means performance adjustment at IPL. Dynamic performance tuning is started. If QPFRADJ is changed from 2 to 0 or 1, dynamic performance tuning is stopped.
- 3 means dynamic performance tuning is started. If QPFRADJ is changed from 3 to 0 or 1, dynamic performance tuning is stopped.

If you create journal QPFRADJ in library QSYS, the dynamic tuning program keeps a record of the changes made to storage pool sizes, activity levels, and the performance level of the system when the changes were made (faulting rates per pool, pool sizes, and activity levels).

QPRBFTR
Problem filter name. Specifies the name of the filter object used by the service activity manager when processing problems. Changes to this system value take effect immediately.

QPRBHLDITV
Problem log entry hold interval. Changes made to this system value take effect immediately.

QPRCFEAT
Processor feature. The is the processor feature code level of the system. You cannot change QPRCFEAT, but the 4-character value can be displayed or retrieved in user-written programs. The processor feature system value is the same in each partition on a system.

QPRCMLTTSK
Processor multitasking. If the hardware on your system supports processor multitasking, this system value allows you to set the multitasking capability to be on, off, or System-controlled. Changes to this system value can affect the performance of your system.

An IPL may be required for this system value to take effect. See the System Values topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/ for additional information.

- 0 means that processor multitasking is turned off.
- 1 means that processor multitasking is turned on.
- 2 means that processor multitasking is under system control.

On some partitioned systems, this system value can only be changed from the primary partition. For more information on partitions, see the Logical Partitions topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

QPRTDEV
Default printer device description. Changes made to this system value take effect for jobs started after the change is made.

QPRTKEYFMT
Print key format. Changes made to this system value take effect for jobs started after the change is made.

- *PRTHDR means that header information is printed when the print key is pressed.
- *PRTBDR means that border information is printed when the print key is pressed.
- *PRTALL means that border information and header information are printed when the print key is pressed.
- *NONE means that border information and header information are not printed when the print key is pressed.

QPRTTXT
Up to 30 characters of text that can be printed at the bottom of listings and separator pages. Changes made to this system value take effect for jobs started after the change is made.

QPWDCHGBLK
Specifies the time period during which a password is blocked from being changed following the prior successful password change operation. This system value does not restrict password changes made by the Change User Profile (CHGUSRPRF) command. Changes made to this system value take effect immediately.

- *NONE means there is no restriction on how frequently a user can change a password.
- 1-99 indicates the number of hours a user must wait after the prior successful password change operation before they can change the password again.

QPWDEXPITV
The number of days for which a password is valid. Changes made to this system value take effect immediately.

- *NOMAX means a password can be used an unlimited number of days.
- 1-366 means the number of days before the password ends.

QPWDEXPWRN

Controls the number of days prior to a password expiring to begin displaying password expiration warning messages on the Sign-on Information display.

- 1-99 indicates the number of days prior to the password expiring to begin displaying the password expiration warning message.

QPWDLMTAJC

Limits the use of adjacent numbers in a password. Changes made to this system value take effect the next time a password is changed.

- 0 means adjacent numbers are allowed.
- 1 means adjacent numbers are not allowed.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDLMTCHR

Limits the use of certain characters in a password. Changes made to this system value take effect the next time a password is changed.

- *NONE means there are no restricted characters.
- restricted-characters means up to 10 restricted characters enclosed in apostrophes can be specified. Valid characters are: A-Z, 0-9, and special characters #, $, @, or underscore (_).

Note: This system value is ignored if the system is operating at QPWDLVL 2 or 3.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDLMTREP

Limits the use of repeating characters in a password. Changes made to this system value take effect the next time a password is changed.

- 0 means characters can be used more than once.
- 1 means characters cannot be used more than once.
- 2 means characters cannot be used consecutively.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDLVL

Specifies the password level.

Changing this system value requires careful consideration. If your system connects to other systems in a network then all systems must be able to run with the password rules that will be in effect.

See the System i Security Reference, SC41-5302 publication for additional considerations prior to changing this system value.

Changes to this system value will take effect on the next IPL.

- 0 means passwords from 1-10 characters are allowed.
- 1 means passwords from 1-10 characters are allowed. i5/OS NetServer passwords for Windows 95/98/ME clients will be removed from the system making the product unavailable for use.
- 2 means passwords from 1-128 characters are allowed. Passwords can consist of any character and will be case sensitive.

- 3 means passwords from 1-128 characters are allowed. Passwords can consist of any character and will be case sensitive. i5/OS NetServer passwords for Windows 95/98/ME clients will be removed from the system making the product unavailable for use.

QPWDMAXLEN

The maximum number of characters in a password. Changes made to this system value take effect the next time a password is changed.

- 1-128 means a value from 1 to 128 can be specified as the maximum number of characters in a password.

  If the system is operating at QPWDLVL 0 or 1, the valid range is 1-10. If the system is operating at QPWDLVL 2 or 3, the valid range is 1-128.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDMINLEN

The minimum number of characters in a password. Changes made to this system value take effect the next time a password is changed.

- 1-128 means a value from 1 to 128 can be specified as the minimum number of characters in a password.

  If the system is operating at QPWDLVL 0 or 1, the valid range is 1-10. If the system is operating at QPWDLVL 2 or 3, the valid range is 1-128.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDPOSDIF

Controls the position of characters in a new password. Changes made to this system value take effect the next time a password is changed.

- 0 means the same characters can be used in a position corresponding to the same position in the previous password.
- 1 means the same character cannot be used in a position corresponding to the same position in the previous password.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDRQDDGT

Require number in a new password. Changes made to this system value take effect the next time a password is changed.

- 0 means numbers are not required.
- 1 means one or more numbers are required.

Note: If the QPWDRULES system value specifies any value other than *PWDSYSVAL, this system value will be ignored when new passwords are checked to see if they are formed correctly. In addition, this system value cannot be changed if QPWDRULES has a value other than *PWDSYSVAL.

QPWDRQDDIF

Controls whether the password must be different than the previous passwords. Changes made to this system value take effect the next time a password is changed.

- 0 means a password can be the same as one previously used.

- 1 means a password must be different than the previous 32 passwords.
- 2 means a password must be different than the previous 24 passwords.
- 3 means a password must be different than the previous 18 passwords.
- 4 means a password must be different than the previous 12 passwords.
- 5 means a password must be different than the previous 10 passwords.
- 6 means a password must be different than the previous 8 passwords.
- 7 means a password must be different than the previous 6 passwords.
- 8 means a password must be different than the previous 4 passwords.

QPWDRULES

Specifies the rules used to check whether a password is formed correctly. Changes made to this system value take effect the next time a password is changed.

- *PWDSYSVAL - This system value is ignored and the other password system values are used to check whether a password is formed correctly. Specifically, the QPWDLMTAJC, QPWDLMTCHR, QPWDLMTREP, QPWDMAXLEN, QPWDMINLEN, QPWDPOSDIF, and QPWDRQDDGT system values will be used instead of QPWDRULES.

  Note: If any value other than *PWDSYSVAL is specified for QPWDRULES, the QPWDLMTAJC, QPWDLMTCHR, QPWDLMTREP, QPWDMAXLEN, QPWDMINLEN, QPWDPOSDIF, and QPWDRQDDGT system values are ignored when a new password is checked to see if it is formed correctly.
- *CHRLMTAJC - The password may not contain 2 or more occurrences of the same character that are positioned adjacent (consecutive) to each other. This value cannot be specified if the *CHRLMTREP value is also specified.
- *CHRLMTREP - The password may not contain 2 or more occurrences of the same character. This value cannot be specified if the *CHRLMTAJC value is also specified.
- *DGTLMTAJC - The password may not contain 2 or more adjacent (consecutive) digit characters.
- *DGTLMTFST - The first character of the password may not be a digit character. This value cannot be specified if *LTRLMTFST and *SPCCHRLMTFST values are also specified.
- *DGTLMTLST - The last character of the password may not be a digit character. This value cannot be specified if *LTRLMTLST and *SPCCHRLMTLST values are also specified.
- *DGTMAXn - Where n is a number from 0 to 9. Specifies the maximum number of digit characters that may occur in the password.

  Only one *DGTMAXn value can be specified. If a *DGTMINn value is also specified, the n value specified for *DGTMAXn must be greater than or equal to the n value specified for *DGTMINn.
- *DGTMINn - Where n is a number from 0 to 9. Specifies the minimum number of digit characters that must occur in the password.

  Only one *DGTMINn value can be specified. If a *DGTMAXn value is also specified, the n value specified for *DGTMAXn must be greater than or equal to the n value specified for *DGTMINn.
- *LMTSAMPOS - The same character cannot be used in a position corresponding to the same position in the previous password.
- *LMTPRFNAME - The uppercase password value may not contain the complete user profile name in consecutive positions.
- *LTRLMTAJC - The password may not contain 2 or more adjacent (consecutive) letter characters.
- *LTRLMTFST - The first character of the password may not be a letter character. This value cannot be specified if *DGTLMTFST and *SPCCHRLMTFST values are also specified. If the system is operating with a QPWDLVL of 0 or 1, *LTRLMTFST and *SPCCHRLMTFST cannot both be specified.

- *LTRLMTLST - The last character of the password may not be a letter character. This value cannot be specified if *DGTLMTLST and *SPCCHRLMTLST values are also specified.
- *LTRMAXn - Where n is a number from 0 to 9. Specifies the maximum number of letter characters that may occur in the password.

  Only one *LTRMAXn value can be specified. If a *LTRMINn value is also specified, the n value specified for *LTRMAXn must be greater than or equal to the n value specified for *LTRMINn.
- *LTRMINn - Where n is a number from 0 to 9. Specifies the minimum number of letter characters that must occur in the password.

  Only one *LTRMINn value can be specified. If a *LTRMAXn value is also specified, the n value specified for *LTRMAXn must be greater than or equal to the n value specified for *LTRMINn.
- *MAXLENnnn - Where nnn is a number from 1 to 128 (without leading zeroes). The maximum number of characters in a password.

  If the system is operating at QPWDLVL 0 or 1, the valid range is 1-10. If the system is operating at QPWDLVL 2 or 3, the valid range is 1-128.

  The nnn value specified must be large enough to accommodate all *MIXCASEn, *DGTMAXn, *LTRMAXn, *SPCCHRMAXn, first and last character restrictions, and non-adjacent character requirements.

  If *MINLENnnn is also specified, the nnn value specified for *MAXLENnnn must be greater than or equal to the nnn value specified for *MINLENnnn.

  If no *MAXLENnnn value is specified, a value of *MAXLEN10 is assumed if the system is operating with a QPWDLVL value of 0 or 1 or a value of *MAXLEN128 is assumed if the system is operating with a QPWDLVL value of 2 or 3.
- *MINLENnnn - Where nnn is a number from 1 to 128 (without leading zeroes). The minimum number of characters in a password.

  If the system is operating at QPWDLVL 0 or 1, the valid range is 1-10. If the system is operating at QPWDLVL 2 or 3, the valid range is 1-128.

  If *MAXLENnnn is also specified, the nnn value specified for *MAXLENnnn must be greater than or equal to the nnn value specified for *MINLENnnn.

  If no *MINLENnnn value is specified, a value of *MINLEN1 is assumed.
- *MIXCASEn - Where n is a number from 0 to 9. The password must contain at least n uppercase and n lowercase letters. This value is rejected if the system is operating with a QPWDLVL value of 0 or 1 because passwords are required to be uppercase.

  Only one *MIXCASEn value can be specified.

  If a *LTRMAXn value is specified, the n value specified for *LTRMAXn must be greater than or equal to two times the n value specified for *MIXCASEn.
- *REQANY3 - The password must contain characters from at least three of the following four types of characters.
  - Uppercase letters
  - Lowercase letters
  - Digits
  - Special characters

  When the system is operating with a QPWDLVL of 0 or 1, *REQANY3 has the same effect as if *DGTMIN1, *LTRMIN1, and *SPCCHRMIN1 were all specified.
- *SPCCHRLMTAJC - The password may not contain 2 or more adjacent (consecutive) special characters.
- *SPCCHRLMTFST - The first character of the password may not be a special character. This value cannot be specified if *DGTLMTFST and *LTRLMTFST values are also specified. If the system is operating with a QPWDLVL value of 0 or 1, *LTRLMTFST and *SPCCHRLMTFST cannot both be specified.

- *SPCCHRLMTLST - The last character of the password may not be a special character. This value cannot be specified if *DGTLMTLST and *LTRLMTLST values are also specified.
- *SPCCHRMAXn - Where n is a number from 0 to 9. Specifies the maximum number of special characters that may occur in the password.

  Only one *SPCCHRMAXn value can be specified. If a *SPCCHRMINn value is also specified, the n value specified for *SPCCHRMAXn must be greater than or equal to the n value specified for *SPCCHRMINn.
- *SPCCHRMINn - Where n is a number from 0 to 9. Specifies the minimum number of special characters that must occur in the password.

  Only one *SPCCHRMINn value can be specified. If a *SPCCHRMAXn value is also specified, the n value specified for *SPCCHRMAXn must be greater than or equal to the n value specified for *SPCCHRMINn.

QPWDVLDPGM

Password validation program provides the ability for a user-written program to do additional validation on passwords. Changes made to this system value take effect the next time a password is changed. See Password validation program for additional information.

QPWRDWNLMT

Maximum amount of time (in seconds) allowed for PWRDWNSYS *IMMED. This is the time used to wait for power down to complete normally after either of the following happens:

- A Power Down System (PWRDWNSYS) command with *IMMED specified for the **How to end** (OPTION) parameter is entered.
- A PWRDWNSYS command with *CNTRLD specified for the **How to end** (OPTION) parameter is entered and the time specified for the **Controlled end delay time** (DELAY) parameter has ended.

Changes to this value take effect when a PWRDWNSYS command is entered.

QPWRRSTIPL

Automatic initial program load (IPL) after power restored allowed. Changes made to this system value take effect the next time there is a power failure.

- 0 means no auto-IPL after power restored.
- 1 means auto-IPL after power restored.

On partitioned AS/400 7xx and iSeries 8xx servers, this system value can only be changed from the primary partition. Whether or not a secondary partition is IPLed at the same time as the primary partition depends on the secondary partition's configuration value for IPL action.

On partitioned eServer i5 servers and System i, this system value must be changed from the service processor's Advanced System Management (ASM) interface.

For more information on partitions, see the Logical Partitions topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

QQRYDEGREE

Query parallel processing degree. The value specifies the parallel processing degree available to users of the system.

- *NONE means no parallel processing is allowed for database query processing or database file keyed access path builds or rebuilds.
- *IO means any number of tasks can be used when the database query optimizer chooses to use I/O parallel processing for queries. SMP parallel processing is not allowed, including when building or rebuilding database file keyed access paths.
- *OPTIMIZE means the query optimizer can choose to use any number of tasks for either I/O or SMP parallel processing to process the query or database file keyed access path build or rebuild. Use of parallel processing and the number of tasks used is determined with respect to

the number of processors available in the pool in which the job is run, and whether the expected elapsed time for the query or database file keyed access path build or rebuild, is limited by CPU processing or I/O resources.

- *MAX means the query optimizer can choose to use either I/O or SMP parallel processing to process the query. The choices made by the query optimizer will be similar to those made for the value *OPTIMIZE except the optimizer will assume that all active memory in the pool can be used to process the query or database file keyed access path build or rebuild.

QQRYTIMLMT

Query processing time limit.

- *NOMAX means the maximum query interval is used.
- 0-2147352578 means the number of seconds allowed for query processing.

QRCLSPLSTG

Automatic deletion of empty spooled members is allowed based on the member retention interval. Changes made to this system value take effect immediately.

- *NONE means no retention interval.

  Note: Using this value can have adverse effects on system performance. More information is in the Files and file systems category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.
- *NOMAX means all empty members are kept.
- 1-366 means the number of days that empty spooled members are kept for new spooled file use.

QRETSVRSEC

Retain server security data indicator. This value determines whether the security data needed by a server to authenticate a user on a target system through client/server interfaces can be retained on this system.

- 0 means that the server security data is not retained.
- 1 means that the server security data is retained.

QRMTSRVATR

Remote service attribute. The QRMTSRVATR system value controls the remote service problem analysis ability. The value allows the system to be analyzed remotely.

- 0 means the remote service attribute is off.
- 1 means the remote service attribute is on.

QRMTIPL

Remote power on and IPL indicator. Changes made to this system value take effect immediately.

- 0 means remote power on and IPL are not allowed.
- 1 means remote power on and IPL are allowed.

  Note: Any telephone call will cause the system to IPL.

On partitioned AS/400 7xx and iSeries 8xx servers, this system value can only be changed from the primary partition. Whether or not a secondary partition is IPLed at the same time as the primary partition depends on the secondary partition's configuration value for IPL action.

On partitioned eServer i5 servers and System i, this system value must be changed from the service processor's Advanced System Management (ASM) interface.

For more information on partitions, see the Logical Partitions topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

QRMTSIGN

Remote sign-on control. Changes made to this system value take effect immediately.

- *FRCSIGNON means normal sign-on required.

- *SAMEPRF means when the source and target user profile are the same, the sign-on can be bypassed for remote sign-on attempts.
- *REJECT means no remote sign-on is allowed.
- *VERIFY means after verifying that the user has access to the system, the system allows the user to bypass the sign-on.
- program means you can specify a program to decide which remote sessions will be allowed and which user profiles can be automatically signed-on from which locations.

QSAVACCPTH

Save access paths. Changes made to this system value take effect at the start of the next save operation.

- 0 means do not save logical file access paths that are dependent on the physical files that are being saved.
- 1 means save logical file access paths that are dependent on the physical files that are being saved.

QSCANFS

Scan file systems. This system value specifies the integrated file systems in which objects will be scanned when exit programs are registered with any of the integrated file system scan-related exit points. Changes made to this system value take effect immediately. See Scan file systems for additional information.

QSCANFSCTL

Scan file systems control. This system value controls the integrated file system scanning on the system when exit programs are registered with any of the integrated file system scan-related exit points. These controls apply to integrated file system objects in the file systems covered by the QSCANFS(Scan file systems) system value. Changes made to this system value take effect immediately. See Scan file systems control for additional information.

QSCPFCONS

IPL action with console problem. Changes to this system value take effect before the next IPL.

- 0 means end system.
- 1 means continue the unattended IPL.

QSECOND

Second of the minute. Changes made to this system value take effect immediately.

QSECURITY

System security level. Changes made to this system value take effect at the next IPL.

- 20 means the system requires a password to sign-on.
- 30 means password security at sign-on and object security at each access. You must have authority to access all system resources.
- 40 means password security at sign-on and object security at each access. Programs that try to access objects through interfaces that are not supported will fail.
- 50 means the system requires a password to sign on and users must have authority to access objects and system resources. The security and integrity of the QTEMP library and user domain objects are enforced. Programs that try to access objects through interfaces that are not supported or that try to pass unsupported parameter values to supported interfaces will fail.

QSFWERRLOG

Software error log. Indicates whether system-detected software problems are entered in the error log. Changes made to this system value take effect immediately.

- *LOG means that when a software error is detected by the system, the error is evaluated to determine if it should be logged unconditionally, or if the decision to log the error should be deferred to the policy based Service Monitor.

If the error is to be logged unconditionally, a PARable message is sent to QSYSOPR and an entry is created in the problem log. If the reporting component provides error data, a spooled file is created to contain the data. The spooled file name is stored in the error log and problem log entries.

If the error is to be conditionally logged, the decision to log the error will be made by the policy based Service Monitor. If the decision is to log the problem, an entry is created in the problem log. The problem data will be stored in a problem data library and the problem record entry will be updated with the name of the library.

- *NOLOG means no logging will occur if a software error is detected.

QSHRMEMCTL

Shared memory control. Specifies whether or not users can use shared memory, or use mapped memory that has write capability. Changes made to this system value take effect immediately.

- 0 means that users cannot use shared memory, or use mapped memory that has write capability.
- 1 means that users can use shared memory or mapped memory that has write capability.

QSPCENV

Special environment. The system environment used as the default for all users. Changes made to this system value take effect the next time a user signs on to the system.

- *NONE means no special environment is entered when you sign on.
- *S36 means the System/36 environment is entered when you sign on.

QSPLFACN

Spooled file action. Specifies whether spooled files are kept with a job or detached from the job. Keeping spooled files with jobs allows job commands such as the Work with Submitted Jobs (WRKSBMJOB) command to work with the spooled files even after the job has ended. Detaching spooled files from jobs reduces the use of system resources by allowing job structures to be recycled when the job ends. A change to this system value takes effect for all jobs that become active after the change. The shipped value is *KEEP.

- *KEEP means that when the job ends, as long as at least one spooled file for the job exists in the system auxiliary storage pool (ASP number 1) or in a basic user ASP (ASP numbers 2-32), the spooled files are kept with the job and the status of the job is updated to indicate that the job has completed. If all remaining spooled files for the job are in independent ASPs (ASP numbers 33-255), the spooled files will be detached from the job and the job will be removed from the system.
- *DETACH means the spooled files are detached from the job when the job ends.

QSRLNBR

System serial number. This value cannot be changed. If is retrieved from the data fields by the system when installing the operating system licensed program. You can display QSRLNBR, or you can retrieve this value in user-written programs. The system serial number is the same in each partition on a system.

QSRTSEQ

Sort sequence. This system value specifies the default sort sequence algorithm to be used by the system. Changes made to this system value take effect for jobs started after the change is made.

QSRVDMP

Service dumps. Indicates whether service dumps for escape messages that are not monitored are created. Changes made to this system value take effect immediately.

- *DMPUSRJOB means that service dumps are created only for user jobs, not system jobs.
- *DMPSYSJOB means that service dumps are created only for system jobs, not user jobs. System jobs include the operating system, subsystem monitors, LU service process, spooled readers and writers, and the SCPF job.
- *DMPALLJOB means that service dumps are created for all jobs.

- *NONE means no service dumps are created.

QSSLCSL

Secure Sockets Layer (SSL) cipher specification list. This system value specifies the list of cipher suites that are supported by System SSL. The values are read-only unless the QSSLCSLCTL (SSL cipher control) system value is set to *USRDFN.

For details on System SSL and SSL ciphers, see the SSL section of the Security Reference information in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

A change to this system value takes effect immediately for all subsequent System SSL sessions. The shipped value is *RSA_AES_128_CBC_SHA, *RSA_RC4_128_SHA, *RSA_RC4_128_MD5, *RSA_AES_256_CBC_SHA, *RSA_3DES_EDE_CBC_SHA, *RSA_DES_CBC_SHA, *RSA_EXPORT_RC4_40_MD5, *RSA_EXPORT_RC2_CBC_40_MD5, *RSA_NULL_SHA, and *RSA_NULL_MD5.

Note: You must have *IOSYSCFG, *ALLOBJ, and *SECADM special authorities to change this system value.

A cipher cannot be added to QSSLCSL if the required SSL protocol value for the cipher suite is not set for the QSSLPCL (SSL protocol list) system value.

- *RSA_AES_128_CBC_SHA - Use the RSA encoding algorithms for the Advanced Encryption Standard (AES) cipher with cipher block changing (CBC) and 128 bit keys. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_RC4_128_SHA - Use the RSA encoding algorithms for the Rivest Cipher 4 (RC4) cipher and 128 bit keys. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_RC4_128_MD5 - Use the RSA encoding algorithms for the Rivest Cipher 4 (RC4) cipher and 128 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).
- *RSA_AES_256_CBC_SHA - Use the RSA encoding algorithms for the Advanced Encryption Standard (AES) cipher with cipher block changing (CBC) and 256 bit keys. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_3DES_EDE_CBC_SHA - Use the RSA encoding algorithms for the Triple Data Encryption Standard (3DES) cipher with the encrypt/decrypt/encrypt (EDE) and cipher block changing (CBC) modes and 168 bit keys. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_DES_CBC_SHA - Use the RSA encoding algorithms for the Data Encryption Standard (DES) cipher with the cipher block changing (CBC) mode and 56 bit keys. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_EXPORT_RC2_CBC_40_MD5 - Use the RSA encoding algorithms for the Rivest Cipher 2 (RC2) cipher with the cipher block changing (CBC) mode and 40 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).
- *RSA_EXPORT_RC4_40_MD5 - Use the RSA encoding algorithms for the Rivest Cipher 4 (RC4) cipher and 40 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).
- *RSA_NULL_SHA - Use the RSA encoding algorithms but do not use any cipher. Use Secure Hash Algorithm (SHA) for generating message authentication codes (MAC).
- *RSA_NULL_MD5 - Use the RSA encoding algorithms but do not use any cipher. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).
- *RSA_RC2_CBC_128_MD5 - Use the RSA encoding algorithms for the Rivest Cipher 2 (RC2) cipher with the cipher block changing (CBC) mode and 128 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).

- *RSA_3DES_EDE_CBC_MD5 - Use the RSA encoding algorithms for the Triple Data Encryption Standard (3DES) cipher with the encrypt/decrypt/encrypt (EDE) and cipher block changing (CBC) modes and 168 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).
- *RSA_DES_CBC_MD5 - Use the RSA encoding algorithms for the Data Encryption Standard (DES) cipher with the cipher block changing (CBC) mode and 56 bit keys. Use message digest algorithm 5 (MD5) for generating message authentication codes (MAC).

Note: System SSL uses the sequence of the values in QSSLCSL to order the System SSL default cipher specification list. The default cipher specification list entries are system defined and can change on release boundaries. A default cipher removed from QSSLCSL results in the cipher's removal from the default list. The default cipher is added back to the default cipher specification list when it is added back into QSSLCSL. It is not possible to add other ciphers to the default list beyond the system defined set for the release.

QSSLCSLCTL

Secure Sockets Layer (SSL) cipher control. This system value specifies whether or not the QSSLCSL (SSL cipher specification list) system value is controlled by the system or by the user.

For details on System SSL and SSL ciphers, see the SSL section of the Security Reference information in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

A change to this system value takes effect immediately. The shipped value is *OPSYS.

Note: You must have *IOSYSCFG, *ALLOBJ, and *SECADM special authorities to change this system value.

- *OPSYS - The QSSLCSL (SSL cipher specification list) system value is read only. The values contained in the QSSLCSL (SSL cipher specification list) system value are automatically modified to contain the list of supported cipher suites as determined by the operating system release.

  Note: *OPSYS allows the values to be automatically updated with newer and stronger ciphers when installing to a future release that has new cipher suite capabilities.
- *USRDFN - The QSSLCSL (SSL cipher specification list) system value is modifiable.

  Note: Additional cipher suite capabilities will not be added automatically when moving to a future release. You will have to determine what if any new cipher suites are available and add them to the QSSLCSL (SSL cipher specification list) system value manually.

QSSLPCL

Secure Sockets Layer (SSL) protocols. This system value specifies the SSL protocol versions supported by System SSL.

For details on System SSL and SSL Protocols, see the SSL section of the Security Reference information in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

A change to this system value takes effect immediately for all subsequent System SSL sessions. The shipped value is *OPSYS.

Note: You must have *IOSYSCFG, *ALLOBJ, and *SECADM special authorities to change this system value.

- *OPSYS - The SSL protocols supported are determined by the system. The protocols can be different with each operating system release. See the SSL section of the Security Reference information in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/ for the values supported for your release.
- *TLSV1 - Transport Layer Security version 1.0 will be supported. This value cannot be specified if the *OPSYS value is also specified.
- *SSLV3 - Secure Sockets Layer version 3.0 will be supported. This value cannot be specified if the *OPSYS value is also specified.

- *SSLV2 - Secure Sockets Layer version 2.0 will be supported. This value cannot be specified if the *OPSYS value is also specified.

QSTGLOWACN

Auxiliary storage lower limit action. Specifies the action to take when the available storage in the system ASP goes below the auxiliary storage lower limit. A change to this system value takes effect immediately. The shipped value is *MSG.

- *MSG: Send message CPI099C to QSYSMSG and QSYSOPR message queue. This message is also sent for the other actions.
- *CRITMSG: Send critical message CPI099B to the user specified in the service attribute to receive critical messages.
- *REGFAC: Submit a job to call exit programs registered for the QIBM_QWC_QSTGLOWACN exit point.
- *ENDSYS: End the system to the restricted state.
- *PWRDWNSYS: Power down the system immediately and restart it.

QSTGLOWLMT

Auxiliary storage lower limit. Specifies the percent of available storage remaining in the system ASP when the auxiliary storage lower limit action is taken. A change to this system value takes effect immediately. The shipped value is 5.0.

- Lower limit: Percentage of available storage remaining in the system ASP when the action specified in QSTGLOWACN is taken. The percent of storage currently used in the system ASP can be viewed with the Work with System Status (WRKSYSSTS) command.

QSTRPRTWTR

Start print writers at initial program load (IPL). This system value is set by the system at the time of IPL or is set by the user on the IPL Options display. This system value cannot be changed using the Change System Value (CHGSYSVAL) command.

- 0 means print writers were not started.
- 1 means print writers were started.

QSTRUPPGM

Start-up program name from autostart job in the controlling subsystem. Both an object name and library name can be specified. Changes made to this system value take effect at the next IPL.

QSTSMSG

Indicates whether status messages are shown. Changes made to this system value take effect the next time a user signs on to the system.

- *NORMAL means status messages will be shown.
- *NONE means status messages will not be shown.

QSVRAUTITV

Server authentication interval. The operating system no longer uses this system value. Changes made to this system value have no effect.

QSYSLIBL

System part of the library list. Changes made to this system value take effect for jobs started after the change is made.

QTHDRSCADJ

Thread resources adjustment. This system value specifies whether or not the system should dynamically make adjustments to the affinity or preference of threads currently running in the system to certain processors and memory. If some resources are being utilized more than others, the system may reassign some of the threads running on the more heavily utilized resources to have affinity to the less utilized resources. Changes made to this system value take effect immediately. The shipped value is '1.'

- '0' means no automatic adjustment of threads is made by the system. Threads will continue to have affinity to the resources which they are currently assigned to until they end or until the system value is changed.
- '1' means the system dynamically makes adjustments of threads' affinity to the system's resources. It does not change the grouping or level of affinity in the threads.

QTHDRSCAFN

Thread resources affinity. The affinity or preference of threads to certain processors and memory. Changes made to this system value take effect immediately for threads in jobs that are started after the change, but has no effect on threads currently running.

- *NOGROUP - Secondary threads will not necessarily have affinity to the same group of processors and memory as their initiating thread.
- *GROUP - Secondary threads will have affinity to the same group of processors and memory as their initiating thread.

The thread resources affinity level can be set to the following values:

- *NORMAL - A thread will use any processor or memory if the resources it has affinity to are not readily available.
- *HIGH - A thread will only use the resources it has affinity to, and will wait until they become available if necessary.

QTIMADJ

Time adjustment. This system value can be used to identify software that adjusts the system clock to keep it synchronized with an external time source. This value should be maintained by time adjustment software and is intended as an aid to prevent having multiple time adjustment applications conflict with each other. There are no checks performed by the system to verify this value or that software is or is not performing time adjustments. IBM time adjustment offerings will use identifiers that start with QIBM such as 'QIBM_OS400_SNTP'. Other software suppliers should follow a similar naming convention of company name and product name.

Time adjustment software should check QTIMADJ prior to starting. If QTIMADJ has an identifier for other time adjustment software, then the software being started should notify the user of this potential conflict and confirm that this time adjustment software should be started. When QTIMADJ is *NONE the software should update QTIMADJ to identify that it is now responsible for adjusting the system clock. Time adjustment software should check QTIMADJ again prior to ending. QTIMADJ should be set to *NONE only if the current value identifies this time adjustment software that is ending. Changes made to this system value take effect immediately. The shipped value is *NONE.

- *NONE - Indicates that time adjustment software has not been identified.
- Identifier - Identify the software that will be used to adjust the system clock.

QTIME

Time of day. Changes made to this system value take effect immediately.

QTIMSEP

Time separator. Changes made to this system value take effect for jobs started after the change is made.

This value affects jobs for which *SYSVAL is specified as the time separator. When specifying time on commands, users must use the time separator specified for their job or no time separator. If a time separator different from the job's time separator is used to specify time on a command, the command will fail.

QTIMZON

Time zone. This specifies the name of the time zone description used to calculate local system time. A change to a different time zone description may result in a different offset that is associated with this new time zone description. A different offset would cause the local system

time (system value QTIME) to change. In addition, the system value QUTCOFFSET will be changed to match this new offset. Changes made to this system value take effect immediately.

QTOTJOB
The total number of jobs for which storage must be allocated. Changes made to this system value take effect the next time the job tables are rebuilt during the IPL.

QTSEPOOL
Indicates whether interactive jobs should be moved to another main storage pool when they reach time slice end. Changes made to this system value take effect for jobs started after the change is made.

- *NONE means jobs are not moved when time slice end is reached.
- *BASE means jobs are moved when time slice end is reached.

QUPSDLYTIM
Uninterruptible power supply delay time. Changes made to this system value take effect the next time there is a power failure.

- *BASIC and *CALC cause the Licensed Internal Code (LIC) to assign specific values as the delay time.
- *NOMAX means the system will not start any action on its own.
- 0 means the system will power down automatically when system utility power fails.
- 1-99999 means specify the delay time in seconds before the system powers down.

On some partitioned systems, this system value can only be changed from the primary partition.

For more information on partitions, see the Logical Partitions topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

QUPSMSGQ
Message queue for uninterruptible power supply messages. Changes made to this system value take effect the next time there is a power failure.

QUSEADPAUT
Defines which users can create, change and update programs and service programs with the (use adopted authority) USEADPAUT(*YES) attribute. When a program or service program has a use adopted authority attribute of *YES, the program/service program can use any adopted authority that is being passed to it from a program/ service program higher in the call stack.

This system value has no effect on the following:

- Existing programs/service programs created with the USEADPAUT(*YES) attribute. Users are responsible for deciding which existing programs/service programs should be changed to have USEADPAUT(*NO).
- Restoring a program/service program that uses adopted authority. These program/service programs can still be restored on your system.
- Duplicating a program/service program that uses adopted authority. The USEADPAUT attribute of the existing program/service program is copied to the new object.

The following values can be specified:

- *NONE means there is no restriction on who can create, change or update a program/service program to use adopted authority. Any user can create, change or update a program/service program to have the USEADPTAUT(*YES) attribute.
- Name means you can specify the name of the authorization list which will control which users can set the USEADPAUT(*YES) attribute. The user needs *USE authority to the authorization list to be able to create, change or update programs/service programs with the USEADPAUT(*YES) attribute. Authority to the authorization list cannot come from adopted authority. That is, if you are running a program that adopts authority, the adopted authority is not used when checking authority to the authorization list.

QUSRLIBL
User part of the library list. Changes made to this system value take effect for jobs started after the change is made.

QUTCOFFSET
Indicates the number of hours (in 24-hour format) and minutes that the current system time is offset from the Coordinated Universal Time (UTC).

- +hhmm means that the current system time is hh hours and mm minutes ahead of UTC.
- -hhmm means that the current system time is hh hours and mm minutes behind UTC.

Note: This system value must be the same as the offset that is associated with the time zone description specified in the system value QTIMZON. A change to a different time zone description for QTIMZON may result in a different associated offset. The system value QUTCOFFSET will be changed as well to match this new offset. QUTCOFFSET cannot be changed to a value that is different than the offset currently associated with QTIMZON. If an attempt is made to do so, the diagnostic message CPD1687 will be issued.

QVFYOBJRST
Verify object on restore. This system value specifies the policy to be used for object signature verification during a restore operation. This value applies to objects of types: *CMD, *PGM, *SRVPGM, *SQLPKG and *MODULE. It also applies to *STMF objects which contain Java programs. This value also specifies the policy for PTFs applied to the system including Licensed Internal Code fixes. Changes made to this system value take effect immediately. See Verify object on restore for additional information.

QYEAR
Year. Changes made to this system value take effect immediately.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPSYSVAL   SYSVAL(QHOUR)
```

This command displays the current value of the system value QHOUR.

Top

Error messages

***ESCAPE Messages**

CPF1028
&1 not valid for parameter SYSVAL.

CPF1074
SYSVAL(QMONTH) not valid for Julian date format.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

CPF9871
Error occurred while processing.

Top

Display Tape (DSPTAP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Tape (DSPTAP) command shows the volume label and data file label information that is contained on a standard labeled magnetic tape or the volume type and density. The information can be printed or shown on a display device. Additional information, including a description of each object saved to the tape file and summary information about the saved objects, can be displayed by specifying *SAVRST on the **Data type** prompt (DATA parameter).

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	*Name*	Required, Positional 1
VOL	Volume identifier	*Character value*, ***MOUNTED**	Optional
LABEL	File label	*Character value*, ***ALL**	Optional
SEQNBR	Sequence number	Single values: *ALL Other values: *Element list*	Optional
	Element 1: Starting file sequence number	1-16777215, ***FIRST**	
	Element 2: Ending file sequence number	1-16777215, *ONLY, ***LAST**	
DATA	Data type	***LABELS**, *SAVRST	Optional
OUTPUT	Output	*****, *PRINT, *OUTFILE	Optional
ENDOPT	End of tape option	***REWIND**, *UNLOAD	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Device (DEV)

Specifies the name of the tape or media library device in which the volume being shown is placed.

This is a required parameter.

Top

Volume identifier (VOL)

Specifies the tape volume to be displayed.

Note: If the device specified is a media library device, or a virtual tape device, then the volume specified should be the cartridge identifier or virtual volume name to be mounted and used.

***MOUNTED**
The volume currently placed in the device is used. For a media library device, the volume to be used is the next cartridge in the category mounted by the Set Tape Category (SETTAPCGY) command. For a virtual tape device, the volume to be used is the currently mounted one, or if there is not a currently mounted volume, the next volume in loaded status in the image catalog will be used.

character-value
Specify the volume identifier of the labeled volume. The volume identifier read from the tape is compared to this value. If the volume identifier specified is not found on the tape, an escape message is sent.

Top

File label (LABEL)

Specifies the data file identifiers of the data files on the tape whose labels are shown. The data file identifier is stored in the label ahead of the data in the file.

***ALL** All data file identifiers on the tape specified on the **Tape device** prompt (DEV parameter) are shown.

character-value
Specify the data file identifier (17 alphanumeric characters maximum) of the data file for which label information is shown.

Top

Sequence number (SEQNBR)

Specifies, for volumes with multiple files, the range of sequence numbers of the data files on tape whose label information is displayed. If *ALL is specified on the **File label** prompt (LABEL parameter), all labels for the files within the specified sequence number range are displayed after the specified starting file sequence number.

If a specific LABEL identifier is specified, it is compared with the label identifier of the data file specified by the starting sequence number. If the identifiers do not match, an error message is sent.

Single values

***ALL** All data file labels on the tape are displayed.

Element 1: Starting file sequence number

***FIRST**
The data file labels being displayed begin with the first file (or the only file) on the tape.

1-16777215
Specify the starting file sequence number. If the specified starting file sequence number is not found on the tape, an error message is sent.

Element 2: Ending file sequence number

***LAST**
The range of data file labels being displayed begins with the specified starting file sequence number and ends with the last data file label on tape.

***ONLY**
Only the file specified in the starting sequence is displayed.

1-16777215
Specify the ending file sequence number. The specified ending file sequence number must be greater than or equal to the starting file sequence number.

Note: The ending file sequence number is ignored for OUTPUT(*) for an interactive job. The user has control and can continue to display information or end whenever they desire.

Note: The ending file sequence number is ignored if a specific LABEL identifier is specified.

Top

Data type (DATA)

Specifies the type of information that is shown.

***LABELS**
The volume label and data file labels are shown.

***SAVRST**
Shows the summary information about the command and each saved object.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified on the OUTFILE parameter.

Top

End of tape option (ENDOPT)

Specifies the operation that is automatically performed on the tape volume after the operation ends. If more than one volume is included, this parameter applies only to the last tape volume used; all other tape volumes are rewound and unloaded when the end of the tape is reached.

***REWIND**
The tape is automatically rewound, but not unloaded, after the operation has ended.

***UNLOAD**
The tape is automatically rewound and unloaded after the operation ends.

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file to which the information about the tape files is directed. If the file does not exist, this command creates a database file in the specified library. If a new file is created, the system uses QATADOF in QSYS as a model with the format name of QTADOUTF.

Note: This parameter is valid only when OUTPUT(*OUTFILE) and DATA(*LABELS) is specified.

Qualifier 1: File to receive output

name Specify the name of the database file to be used.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

name Specify the name of the file member that is to receive the output. If a member name is specified and the member does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The existing records in the specified database file member are replaced by the new records.

***ADD** The system adds the new records at the end of the existing member.

Top

Examples

```
DSPTAP   DEV(QTAPE2)  LABEL(*ALL)
```

This command displays the volume label and file labels on the tape volume that is on the tape device named QTAPE2.

Error messages

***ESCAPE Messages**

CPD375A
Media error on save media.

CPF3704
Request ended; data management error occurred.

CPF3743
File cannot be restored, displayed, or listed.

CPF3792
Information not displayed. Error occurred.

CPF3793
Machine or ASP storage limit reached.

CPF6708
Command ended due to error.

CPF6718
Cannot allocate device &1.

CPF6721
Device &1 not a tape device.

CPF6723
File not found on volume &2 on device &1.

CPF6724
File label &5 not found on volume &2.

CPF6745
Device &1 not a media library device.

CPF6751
Load failure occurred on device &4.

CPF6760
Device &1 not ready.

CPF6772
Volume on device &1 cannot be processed.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851

Overflow value for file &1 in &2 too small.

Top

Display Tape Category (DSPTAPCGY)

Where allowed to run: All environments (*ALL)
Threadsafe: No

The Display Tape Category (DSPTAPCGY) command allows the user to display the categories defined through the Create Tape Category (CRTTAPCGY) command.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional, Positional 1
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting workstation, printed to an output file, or printed with the job's spooled output.

*****
The output is displayed if requested by an interactive job or printed with the job's spooled output if requested by a batch job.

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to a database file specified on the OUTFILE parameter. The file must have the same format as database file QATACOF.

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file to which the information about the tape volumes is directed. If the file does not exist, this command creates a database file in the specified library. If a new file is created, the system uses QATACOF in QSYS as a model with the format name of QTACOUTF. This parameter is valid only when OUTPUT(*OUTFILE) is specified.

Qualifier 1: File to receive output

name Specify the name of the database file to be used.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

name Specify the name of the file member that is to receive the output. If a member name is specified and the member does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The existing records in the specified database file member are replaced by the new records.

***ADD** The system adds the new records at the end of the existing member.

Top

Examples

```
DSPTAPCGY   OUTPUT(*)
```

This command displays the user defined categories on this system to the workstation display.

Top

Error messages

***ESCAPE Messages**

CPF67E4
Library device function not successful

Top

Display Tape Cartridge (DSPTAPCTG)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Tape Cartridge (DSPTAPCTG) command displays the attributes of tape cartridges.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Library device	*Name*	Required, Positional 1
CTG	Cartridge ID	Single values: ***ALL** Other values (up to 40 repetitions): *Character value*	Optional
CGY	Category	Single values: *SHARE400, *INSERT, *EJECT Other values: *Element list*	Optional
	Element 1: Category name	*Character value*, ***ALL**, *NOSHARE, *IPL, *NL, *SYSGEN, *CNV	
	Element 2: Category system	*Character value*, ***CURRENT**, *ALL	
OUTPUT	Output	*****, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

Library device (DEV)

Specifies the library device to be used. The device description must have been created previously on the system using the Create Device Media Library (CRTDEVMLB) command.

This is a required parameter.

name Specify the name of the library device.

Top

Cartridge ID (CTG)

Specifies 1 to 40 cartridge identifiers to be displayed.

Note: The cartridge identifier should represent the external identifier if the library device has a bar code scanner to read external identifiers.

Single values

***ALL** All tape cartridges in the device or in the category specified are displayed.

Other values (up to 40 repetitions)

generic-identifier
Specify the generic name of the cartridge identifier. A generic name is a character string of one or more characters followed by an asterisk (*); for example, ABC*. The asterisk substitutes for any valid characters. A generic name specifies all cartridge identifiers with names that begin with the generic prefix. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete cartridge identifier.

identifier
Specify the cartridge identifier.

Top

Category (CGY)

Specifies the category of tape cartridges to be shown.

Single values

***SHARE400**
The cartridge identifiers in the *SHARE400 category are displayed. A cartridge in this category can be shared with other systems attached to the same device.

***INSERT**
The cartridge identifiers in the *INSERT category are displayed. A cartridge in this category has been placed in the library device, but its identifier has not been added to the system.

***EJECT**
The cartridge identifiers in the *EJECT category are displayed. A cartridge in this category has had its identifier removed from the system and is no longer usable.

Element 1: Category name

***ALL** All categories are searched for the cartridge identifiers specified in the CTG parameter and all are displayed.

***NOSHARE**
The cartridge identifiers in the *NOSHARE category are displayed. A cartridge with this identifier cannot be shared with other systems.

***IPL** The cartridge identifiers in the *IPL category are displayed. A cartridge with this identifier can be used for an alternate IPL.

***NL** The cartridge identifiers in the *NL category are displayed. A cartridge with this identifier is used as a non-labeled tape.

***SYSGEN**
The cartridge identifiers in the *SYSGEN category are displayed. If the library device is in *SYSGEN mode, cartridges cannot be moved from the *SYSGEN category.

***CNV** The cartridge identifiers in the *CNV category are displayed. A cartridge in this category is for use with the convenience station.

character-value
Specify the name of a user-defined category. This category name must have been created previously with the Create Tape Category (CRTTAPCGY) command.

Element 2: Category system

This element identifies the system to which the category belongs. The system name is obtained from the pending system name field of a Display Network Attributes (DSPNETA) command. If there is no pending system name, the current system name attribute is used.

```
***** Attention ****************************
If the system name is changed, all category
information associated with all tape
cartridges in library devices are not valid.
*******************************************
```

***CURRENT**
The system currently executing the command.

***ALL** All system names that own categories available to the system running this command are used.

character-value
Specify the name of the system that the category belongs to.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting workstation, printed to an output file, or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to a database file specified on the OUTFILE parameter. The file must have the same format as database file QSYS/QATAVOF.

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file to which the information about the tape volumes is directed. If the file does not exist, this command creates a database file in the specified library. If a new file is created, the system uses QATAVOF in QSYS as a model with the format name of QTAVOLOF.

Note: This parameter is valid only when OUTPUT(*OUTFILE) is specified.

Qualifier 1: File to receive output

name Specify the name of the database file to be used.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If this value is specified and the member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

name Specify the name of the file member that is to receive the output. If a member name is specified and the member does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The existing records in the specified database file member are replaced by the new records.

***ADD** The system adds the new records at the end of the existing member.

Top

Examples

Example 1: Displaying the Tape Cartridges in the *SHARE400 Category

```
DSPTAPCTG   DEV(LIB01)  CGY(*SHARE400)  OUTPUT(*)
```

This command displays the attributes of all tape cartridges in the *SHARE400 category on the work station display.

Example 2: Displaying the Tape Cartridge for VOL3

```
DSPTAPCTG   DEV(LIB01)  CTG(VOL3)  OUTPUT(*)  CGY(*ALL)
```

This command displays the attributes of the cartridge identifier VOL3.

Top

Error messages

***ESCAPE Messages**

CPF6708
Command ended due to error.

CPF6711
Command not allowed

CPF6718
Cannot allocate device &1.

CPF6745
Device &1 not a media library device.

CPF67A6
Category does not exist

CPF67D2
Cartridge command was not successful.

CPF67D4
Category not available

CPF67E4
Library device function not successful

CPF67E6
Volume &2 is not correct

CPF67EA
Function not successful

CPF67EC
Library device description &1 does not exist

CPF67ED
Library device &1 not available

CPF67F5
Duplicate cartridge or virtual volume name found

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

Top

Display Tape Status (DSPTAPSTS)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Tape Status (DSPTAPSTS) command does the following:

- Displays slot information associated with the media library device.
- Displays information about the resources attached to the media library device.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Library device	*Name*, ***ALL**	Optional, Positional 1
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	
OUTFILFMT	Outfile format	***TYPE1**, *TYPE2	Optional

Top

Library device (DEV)

Specifies the name of the media library device in which information is displayed.

***ALL** Specifies that all tape media library devices defined through Create Device Media Library (CRTDEVMLB) command are displayed.

name Specify the device name. The device name must be a tape media library device name or a random access cartridge loader (RACL) device name. The device name must already be known to the system by Create Device Media Library (CRTDEVMLB) command.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting workstation, printed to an output file, or printed with the job's spooled output.

* The requested output is shown on the display. If this value is specified for a batch job, the effect is the same as if *PRINT were entered.

***PRINT**
The requested output is written to a spooled file, which is found in the job's output queue.

***OUTFILE**
The output is directed to a database file specified on the OUTFILE parameter. The file must have the same format as database file QATAIOF or QATAIOF2.

Top

File to receive output (OUTFILE)

Specifies the database file to which the information about the tape media libraries is directed. If the file does not exist, this command creates a database file in the specified library. If a new file is created with OUTFILFMT(*TYPE1), the system uses QATAIOF in QSYS as a model with the format name of QTAIOUTF. If a new file is created with OUTFILFMT(*TYPE2), the system uses QATAIOF2 in QSYS as a model with the format name of QTAIOF2. This parameter is valid only when OUTPUT(*OUTFILE) is specified.

Qualifier 1: File to receive output

name Specify the name of the database file to be used.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is searched. If no library is specified as the current library for the job, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified on the OUTFILE parameter.

name Specify the name of the file member that is to receive the output. If a member name is specified and the member does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The existing records in the specified database file member are replaced by the new records.

***ADD** The system adds the new records at the end of the existing member.

Top

Output member options (OUTFILFMT)

Specifies the format of the output file when OUTPUT(*OUTFILE) is specified.

***TYPE1**
The format is defined by model output file QATAIOF in library QSYS with record format name QTAIOUTF.

***TYPE2**
The format is defined by model output file QATAIOF2 in library QSYS with record format name QTAIOF2.

Top

Examples

```
DSPTAPSTS   DEV(LIB01)  OUTPUT(*)
```

This command displays the valid information about this library device to the workstation display.

Top

Error messages

***ESCAPE Messages**

CPF6718
Cannot allocate device &1.

CPF6745
Device &1 not a media library device.

CPF67E4
Library device function not successful

CPF67E7
No library devices exist

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9860
Error occurred during output file processing.

CPF9871
Error occurred while processing.

Top

Display Trademarks (DSPTM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

The Display Trademarks (DSPTM) command displays a list of trademarks that appear in the names of licensed products.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
DSPTM
```

This command displays a list of trademarks.

Top

Error messages

None

Top

Display Trace (DSPTRC)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Trace (DSPTRC) command shows all of the traces that are currently defined in the programs specified in this command. The following trace information is shown:

- The statement ranges or machine instruction ranges in the program
- The name or MI ODV numbers of all the program variables associated with the trace statements
- If the variables are recorded whenever the trace statement is processed or only when their values are changed

Restriction: This command is valid only in debug mode.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
PGM	Program	Single values: ***DFTPGM**, *ALL Other values (up to 20 repetitions): *Name*	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*****
The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Program (PGM)

Specifies which programs in debug mode have their trace statements and associated program variables shown.

***DFTPGM**
Only the default program has its trace statements shown.

***ALL** All the programs currently in debug mode have their trace statements shown.

name Specify the names of up to 20 programs to have their trace statements shown. The programs specified must already be in debug mode.

Top

Examples

```
DSPTRC
```

This command shows all of the trace data statement ranges currently specified in the default program of this debugging session. Also displayed are the program variables (but not their values) that are associated with the trace data statements.

Top

Error messages

***ESCAPE Messages**

CPF1999
Errors occurred on command.

Top

Display Trace Data (DSPTRCDTA)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Trace Data (DSPTRCDTA) command shows the output of any traces performed since the most recent Clear Trace Data (CLRTRCDTA) command. All of the trace statements and associated program variables within the trace range are shown. The display shows the sequence in which the traced statements or machine instructions were processed and the name or machine-interface object-definition-table-vector (MI ODV) number and value of any program variables defined for the trace at each point in the sequence. Note that the display of variable values is controlled by the **When output (OUTVAR)** parameter on the Add Trace (ADDTRC) command that defined the trace being shown.

If a job is in debug mode, and that job ends before an End Debug (ENDDBG) is done, this command is done automatically, printing the output with the job's spooled output.

Note: A program statement appears in the trace data prior to its processing a variable. Therefore, when a program statement (Statement A) changes a variable specified in the trace, the new value appears in the trace data after the statement that follows Statement A.

Restriction: This command is valid only in debug mode.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1
CLEAR	Clear	***NO**, *YES	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Clear (CLEAR)

Specifies whether the trace data is cleared after it has been shown.

***NO** The trace data is not cleared.

***YES** The trace data is cleared after it has been shown.

Top

Examples

```
DSPTRCDTA
```

This command shows all of the recorded trace data at the requesting display station. All of the trace statements in the trace range and the values of the associated program variables are displayed. The trace data is not cleared after it has been displayed because CLEAR(*NO) is assumed.

Top

Error messages

***ESCAPE Messages**

CPF1999
Errors occurred on command.

Top

Display User-Defined FS (DSPUDFS)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display User-Defined File System (DSPUDFS) command displays the attributes and, optionally, the extended attributes for an existing user-defined file system (UDFS).

Top

Parameters

Keyword	Description	Choices	Notes
UDFS	User-defined file system	*Path name*	Required, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

User-defined file system (UDFS)

Specifies the path name of the file system to be displayed. It must be (or resolve to a pathname) of one of the following two forms:

- */dev/qaspXX/udfsname.udfs*, where *XX* is one of the valid system or basic user auxiliary storage pool (ASP) numbers on the system, and *udfsname* is the name of the user-defined file system. All other parts of the name must appear as in the example above.
- */dev/aspname/udfsname.udfs*, where *aspname* is one of the valid independent ASP names on the system, and *udfsname* is the name of the user-defined file system. All other parts of the name must appear as in the example above.

The name part of the path must be unique within the specified *qaspXX* or *aspname* directory.

This is a required parameter.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed for interactive jobs or printed with the job's spooled output for non-interactive jobs.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying a User-defined File System

```
DSPUDFS   UDFS('/dev/QASP05/joe.udfs')
```

This command displays the attributes of a user-defined file system (UDFS) named **joe** in the user auxiliary storage pool (ASP) 5.

Top

Error messages

***ESCAPE Messages**

CPFA0A9
Object not found. Object is &1.

CPFA09C
Not authorized to object. Object is &1.

Top

Display User Permission (DSPUSRPMN)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display User Permission (DSPUSRPMN) command allows you to show which users are permitted to handle documents or folders or to perform other tasks on behalf of another user, or to show which users have permitted other users to work on their behalf.

Top

Parameters

Keyword	Description	Choices	Notes
USER	User profile	Single values: ***CURRENT**, *ALL Other values (up to 300 repetitions): *Name*	Optional, Positional 1
GRANTED	Granted to/from	*Character value*, ***TO**, *FROM	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

User profile (USER)

Specifies the name of the user profile for which the information is shown. The name on this parameter must be enrolled in the system distribution directory before you run this command.

***CURRENT**
Your user permission information is shown.

***ALL** Information is shown for all users in the information directory.

name Specify the name of the user profile for which information is shown.

Top

Granted to/from (GRANTED)

Specifies whether the output produced should display the granted-to relationships or granted-from relationships of a user or users.

***TO** Users who are permitted to work on behalf of the specified user are shown.

***FROM**
Users that have permitted the specified user to work on their behalf are shown.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*_ The output is displayed at the requesting work station if requested by an interactive job. If this is not an interactive job, the output is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

Example 1: Displaying Names of Users

```
DSPUSRPMN   USER(*CURRENT)  GRANTED(*TO)  OUTPUT(*PRINT)
```

This command prints the names of the users who are permitted to work on behalf of the current user.

Example 2: Printing Names of Users

```
DSPUSRPMN   USER(*ALL)  GRANTED(*TO)  OUTPUT(*PRINT)
```

This command prints the names of all users who have permitted other users to work on their behalf as well as the names of the other users.

Top

Error messages

***ESCAPE Messages**

CPF9043
User permission is not displayed because error occurred.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

CPF9850
Override of printer file &1 not allowed.

CPF9851
Overflow value for file &1 in &2 too small.

Top

Display User Profile (DSPUSRPRF)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display User Profile (DSPUSRPRF) command displays the contents of a user profile. The user profile contains the user's operational limits for system resources. This includes the names of the objects, commands, and devices that the user has specific authority to use and the names of the objects that the user owns, and that the user is the primary group for.

Objects owned by the user profile are not shown on the *CMDAUT, *DEVAUT, *OBJAUT, or *OBJPGP displays.

This command does not show the password, nor does it show information about objects authorized for public use. The document password is not shown on the *BASIC display or on any CL command output. Any user on the system can be authorized to use the DSPUSRPRF command, but the requesting user must have read (*READ) authority for the user profile being displayed.

The DSPUSRPRF function may be a long-running function, depending upon the number of objects the user profile owns and is authorized to use.

Restrictions: The user name can be specified as USRPRF(*ALL) or USRPRF(generic-name) only when TYPE(*BASIC) and OUTPUT(*OUTFILE) are specified.

Top

Parameters

Keyword	Description	Choices	Notes
USRPRF	User profile	*Generic name, name*, *ALL	Required, Positional 1
TYPE	Type of information	***BASIC**, *ALL, *CMDAUT, *DEVAUT, *GRPMBR, *OBJAUT, *OBJOWN, *OBJPGP	Optional, Positional 2
OUTPUT	Output	*, *PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	*Qualified object name*	Optional
	Qualifier 1: File to receive output	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OUTMBR	Output member options	*Element list*	Optional
	Element 1: Member to receive output	*Name*, ***FIRST**	
	Element 2: Replace or add records	***REPLACE**, *ADD	

Top

User profile (USRPRF)

Specifies the user profiles to be displayed.

This is a required parameter.

***ALL** All user profiles are shown.

generic-name
Specify the generic name of the user profiles to be shown. A generic name is a character string that contains one or more characters followed by an asterisk (*). If a generic name is specified, all user profiles that have names with the same prefix as the generic name are shown.

name Specify the name of the user profile to be shown.

Note: *ALL or a generic name can only be specified when TYPE(*BASIC) and OUTPUT(*OUTFILE) are specified.

Top

Type of information (TYPE)

Specifies the types of information that can be displayed. All, or one, of the following can be displayed:

- The basic portion of the user profile that describes the user
- Commands for which the user profile has specific authority
- Devices for which the user profile has specific authority
- All objects (including commands and devices) for which the user has some specific authority and the authorities assigned with those objects
- Objects that are owned by the user
- Objects that the user is the primary group for.
- Members of the group, if the user profile is a group profile

***BASIC**
All parameters as defined in the user profile, are displayed.

***ALL** All of the information in the user profile is displayed.

***CMDAUT**
Displays the control language commands to which the user has specific authority.

***DEVAUT**
Displays the system devices to which the user has specific authority.

***OBJAUT**
Displays the names of the objects (except those authorized for public use) to which the user has specific authority, the user's authority for those objects, and the object types.

***OBJOWN**
Displays the total number of objects this user owns, the object names, the object types, and the libraries in which the objects reside. Also indicates if the object is an authority holder.

***OBJPGP**
Displays the total number of objects the user is the primary group for, the object names, the type, the library the object resides in, and the primary group authority. Also indicates if the object is an authority holder.

***GRPMBR**
Displays the members of a group. This display is available only if the user profile being displayed is a group profile.

Top

Output (OUTPUT)

Specifies where the output from the command is sent.

***** The output is displayed (if requested by an interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

***OUTFILE**
The output is directed to the database file specified for the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the database file to which the output of the command is directed. If the file does not exist, this command creates a database file in the specified library. If the file is created, the public authority for the file is the same as the create authority specified for the library in which the file is created. Use the Display Library Description (DSPLIBD) command to show the library's create authority.

Qualifier 1: File to receive output

name Specify the name of the database file to which the command output is directed.

Qualifier 2: Library

***LIBL** The library list is used to locate the file. If the file is not found, one is created in the current library. If no current library exists, the file will be created in the QGPL library.

***CURLIB**
The current library for the thread is used to locate the file. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Note: If a new file is created and *BASIC is specified on the **Type of information (TYPE)** TYPE parameter, the system uses QADSPUPB in QSYS with a format name QSYDSUPB as a model.

If a new file is created and *OBJAUT is specified on the TYPE parameter, the system uses QADSPUPA in QSYS with a format name QSYDSUPA as a model.

If a new file is created and *OBJOWN is specified on the TYPE parameter, the system uses QADSPUPO in QSYS with a format name QSYDSUPO as a model.

If a new file is created and *OBJPGP is specified on the TYPE parameter, the system uses QADSPUPG in QSYS with a format name QSYDSUPG as a model.

Top

Output member options (OUTMBR)

Specifies the name of the database file member that receives the output of the command.

Element 1: Member to receive output

***FIRST**
The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the system creates a member with the name of the file specified for the **File to receive output (OUTFILE)** parameter. If the member already exists, you have the option to add new records to the end of the existing member or clear the member and then add the new records.

name Specify the name of the file member that receives the output. If it does not exist, the system creates it.

Element 2: Replace or add records

***REPLACE**
The system clears the existing member and adds the new records.

***ADD** The system adds the new records to the end of the existing records.

Top

Examples

Example 1: Displaying Basic Information

```
DSPUSRPRF   USRPRF(THSMITH)
```

This command shows the basic portion of the user profile named THSMITH because TYPE(*BASIC) is assumed. The commands, devices, and objects that the user is authorized to use are not displayed. Because OUTPUT(*) is also assumed, the operational information is either displayed or printed, depending on where the command is submitted.

Example 2: Printing a List of Objects

```
DSPUSRPRF   USRPRF(RTJOHNSON)  TYPE(*OBJOWN)  OUTPUT(*PRINT)
```

This command causes the list of objects that are owned by the user named RTJOHNSON to be printed. The list contains the object names, object types, and the names of the libraries where the objects are located.

Top

Error messages

***ESCAPE Messages**

CPF22DF
Unable to process request for user profile &1.

CPF22D8
Use of generic user profile name not correct.

CPF22D9
No user profiles of specified name exist.

CPF22EB
Unable to process request for user profile &1.

CPF2204
User profile &1 not found.

CPF2213
Not able to allocate user profile &1.

CPF2217
Not authorized to user profile &1.

CPF2257
User profile &1 not a group profile.

CPF9860
Error occurred during output file processing.

Top

Display User Print Info (DSPUSRPRTI)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display User Print Information (DSPUSRPRTI) command displays the user print information for the specified user profile.

Top

Parameters

Keyword	Description	Choices	Notes
USER	User	*Name*, ***CURRENT**	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

User (USER)

Specifies the name of the user whose print information is to be displayed.

***CURRENT**
The user profile under which the current job is running is used.

name Specify the name of the user whose user print information is to be displayed.

Top

Output (OUTPUT)

Specifies whether the output from the command is shown at the requesting work station or printed with the job's spooled output. More information on this parameter is in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/book.

* Output requested by an interactive job is shown on the display. Output requested by a batch job is printed with the job's spooled output.

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPUSRPRTI   USER(FEIST)
```

This command displays the user print information for user profile FEIST.

Top

Error messages

***ESCAPE Messages**

CPF2204
User profile &1 not found.

CPF2217
Not authorized to user profile &1.

CPF2247
Internal security object not available. Reason code &1.

Top

Display Work Station User (DSPWSUSR)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

The Display Work Station User (DSPWSUSR) command allows you to display information about your current session. Information shown includes:

- Display station
- Number of secondary interactive jobs in session
- Secondary interactive job currently active

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional, Positional 1

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by a secondary interactive job) or printed with the job's spooled output (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

```
DSPWSUSR   OUTPUT(*)
```

This command displays the information describing the current job.

Top

Error messages

None

Top

Duplicate Optical (DUPOPT)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Duplicate Optical (DUPOPT) command creates a duplicate optical volume. The duplicate volume is identical to the original volume except for the volume identifier and the time it was created.

Restriction: To use this command you must have *USE authority to the authorization list securing the source volume. You need *ALL authority to the authorization list securing the target volume if it is in an optical media library. You need *CHANGE authority to the authorization list securing the target volume if it is in an optical device.

Top

Parameters

Keyword	Description	Choices	Notes
FROMVOL	From volume identifier	*Character value*, *MOUNTED	Required, Positional 1
TOVOL	To volume identifier	*Character value*, *MOUNTED	Required, Positional 2
NEWVOL	New volume identifier	*Character value*, ***TOVOL**, *FROMVOL	Optional, Positional 3
CLEAR	Clear	***NO**, *YES	Optional
FROMDEV	From device	*Name*	Optional
TODEV	To device	*Name*	Optional
ALWMEDERR	Allow media errors	***NONE**, *FILE	Optional
OUTPUT	Output	***ERROR**, *NONE	Optional
FROMENDOPT	From end of media option	***LEAVE**, *UNLOAD	Optional
TOENDOPT	To end of media option	***LEAVE**, *UNLOAD	Optional

Top

From volume identifier (FROMVOL)

Specifies the volume identifier of the optical volume being duplicated. To determine the volume identifier of media not in an optical media library issue the following Display Optical CL command: DSPOPT VOL(*MOUNTED) DEV(device).

from-volume-identifier
Specify the source volume identifier.

***MOUNTED**
Use the optical volume mounted in the optical device specified by the FROMDEV parameter.

Note: This value is not valid for volumes in optical media library devices.

Top

To volume identifier (TOVOL)

Specifies the volume identifier of the optical volume being created (new volume). This volume must have the same physical characteristics as the volume specified on the FROMVOL parameter, but cannot be the volume on the opposite side of the cartridge. If the volume specified is WORM (write-once-read-many) media, it must be a volume that is not initialized. Use the Display Optical (DSPOPT) CL command to determine the physical characteristics of an optical volume.

Note: If the volume access of the TOVOL is Recordable then the volume specified in the FROMVOL parameter must be in a virtual optical device.

to-volume-identifier
Specify the target volume identifier.

**MOUNTED*
Use the optical volume mounted in the optical device specified by the TODEV parameter.

Note: This value is not valid for volumes in optical media library devices.

Top

New volume identifier (NEWVOL)

Specifies the new volume identifier of the to-volume after the duplication is complete.

TOVOL
The volume identifier will be identical to the to-volume identifier.

FROMVOL
The volume identifier will be identical to the from-volume identifier. This parameter is only allowed for volumes that are not in a library device and either FROMENDOPT or TOENDOPT is *UNLOAD. This is the only valid option if the to-volume media type is *CD-R, *CD-RW, *DVD-R, *DVD+R, *DVD-RW or *DVD+RW.

new-volume-identifier
Specify the new volume identifier of the to-volume.

Top

Clear (CLEAR)

Indicates whether to re-initialize the target optical volume if the volume is found to be already initialized.

Note: This parameter is ignored if the volume is WORM (write-once-read-many), *CD-R, *DVD-R or *DVD+R media.

NO The volume is not re-initialized.

YES The volume is re-initialized.

Note: For media type *ERASE, specifying *YES will result in all existing data being erased prior to the start of the duplication process.

For media type *DVD-RAM, specifying *YES will not result in existing data being erased prior to the start of the duplication process. Though the data is not erased, access to the data is lost. If it is required that data on *DVD-RAM media be erased, initialize the volume using Initialize Optical (INZOPT) prior to running DUPOPT. Specify the CLEAR(*YES) parameter on the Initialize Optical (INZOPT) CL command.

For *CD-RW, *DVD-RW and *DVD+RW, specifying *YES will not result in existing data being erased prior to the duplication process. Though the data is not erased, once the duplication process starts access to the data is lost.

Top

From device (FROMDEV)

Specifies the optical device which contains the from-volume.

Note: This parameter is only required if parameter FROMVOL is specified as *MOUNTED.

from-optical-device
Specify the name of the optical device containing the from-volume.

Top

To device (TODEV)

Specifies the optical device which contains the to-volume.

Note: This parameter is only required if parameter TOVOL is specified as *MOUNTED.

to-optical-device
Specify the name of the optical device containing the to-volume.

Top

Allow media errors (ALWMEDERR)

Specifies whether or not the Duplicate Optical (DUPOPT) command should terminate if an error is encountered while trying to duplicate the file data areas.

Note: This parameter is ignored if the media type is *CD-R, *CD-RW, *DVD-R, *DVD+R, *DVD-RW or *DVD+RW.

***NONE**
When an error is encountered duplicating the file data, stop the duplication and return the error.

***FILE** When an error is encountered duplicating the file data, continue the duplication. A list of files not duplicated may be output by specifying OUTPUT(*ERROR).

Top

Output (OUTPUT)

Specifies whether or not the output from the command is printed with the job's spooled output.

Note: This parameter is valid only when *FILE is specified for the **Allow media errors (ALWMEDERR)** parameter.

***ERROR**
If all of the files are duplicated, there is no output. If there are files that were not duplicated, a list of these files will be printed with the job's spooled output. Escape message OPT2047 will also be returned.

***NONE**
If all of the files are duplicated, there is no output. If there are files that were not duplicated, the number of files not duplicated will be in the escape message OPT2047.

Top

From end of media option (FROMENDOPT)

After the DUPOPT request has completed, specifies whether to leave or unload the from-volume from the optical device in which it is located.

Note: This parameter is ignored if the from-volume is in an optical media library device.

***LEAVE**
The from-volume is left in the optical device.

***UNLOAD**
The from-volume is unloaded from the optical device.

Top

To end of media option (TOENDOPT)

After the DUPOPT request has completed, specifies whether to leave or unload the to-volume from the optical device in which it is located.

Note: This parameter is ignored if the to-volume is in an optical media library device.

Note: TOENDOPT(*UNLOAD) must be specified if the to-volume media type is *CD-R, *CD-RW, *DVD-R, *DVD+R, *DVD-RW or *DVD+RW.

***LEAVE**
The to-volume is left in the optical device.

***UNLOAD**
The to-volume is unloaded from the optical device.

Top

Examples

Example 1: Duplicate an Optical Volume When the Volume Names are Known.

```
DUPOPT   FROMVOL(VOL01)  TOVOL(VOL02)  NEWVOL(*TOVOL)
         CLEAR(*YES)
```

This command creates a duplicate of the optical volume VOL01 on volume VOL02, which keeps the same volume identifier. VOL02 will be re-initialized prior to the duplication process.

Example 2: Duplicate an Optical Volume When the Device Names are Known.

```
DUPOPT   FROMVOL(*MOUNTED)  TOVOL(*MOUNTED)  NEWVOL(BKP001)
         CLEAR(*YES)  FROMDEV(OPT01)  TODEV(OPT02)
         FROMENDOPT(*LEAVE)  TOENDOPT(*UNLOAD)
```

This command duplicates the optical volume in optical device OPT01 onto the volume in device OPT02. The optical volume in device OPT02 is re-initialized prior to the duplication process. The volume in device OPT01 will be left in the device after the duplication process completes. The volume in device OPT02 will be unloaded after the duplication process completes and will have a volume identifier of BKP001.

Example 3: Duplicate an Optical Volume and Continue the Duplication if Damaged Files are Found.

```
DUPOPT   FROMVOL(VOL01)  TOVOL(VOL02)  NEWVOL(*TOVOL)
         CLEAR(*YES)  ALWMEDERR(*FILE) OUTPUT(*ERROR)
```

This command creates a duplicate of the optical volume VOL01 on volume VOL02, which keeps the same volume identifier. VOL02 will be re-initialized prior to the duplication process. If there are any damaged files on VOL01 the duplication will continue and the damaged files will not be duplicated. The names of the damaged files will be printed to the job's spooled output.

Example 4: Duplicate an Exact Copy of a Volume Using NEWVOL(*FROMVOL).

```
DUPOPT   FROMVOL(VOL01)  TOVOL(VOL02)  NEWVOL(*FROMVOL)
         CLEAR(*YES)  TODEV(OPT02) TOENDOPT(*UNLOAD)
```

This command creates a duplicate of the optical volume VOL01 on volume VOL02. VOL02 will be re-initialized prior to the duplication process. The volume in device OPT02 will be unloaded after the duplication process completes and will have a volume identifier of VOL01.

Example 5: Duplicate a Virtual Optical Volume to a Recordable optical volume.

```
DUPOPT   FROMVOL(VIRTVOL)  TOVOL(DVDRW)  NEWVOL(*FROMVOL)
         CLEAR(*YES)  TODEV(OPT02) TOENDOPT(*UNLOAD)
```

This command creates a duplicate of the optical volume VIRTVOL on volume DVDRW. The volume in device OPT02 will be unloaded after the duplication process completes and will have a volume identifier of VIRTVOL.

Top

Error messages

***ESCAPE Messages**

OPT1305
Optical volume &1 is read only.

OPT1315
Optical volume &1 is write protected.

OPT1320
Optical volume &1 in use.

OPT1325
Optical volume format not recognized.

OPT1330
Optical volume not found or not useable.

OPT1331
Optical volume &1 not found.

OPT1335
Volume &1 already initialized.

OPT1337
Operation will result in duplicate volume identifiers.

OPT1338
Operation not supported for library device.

OPT1340
Optical volume &1 not initialized.

OPT1342
Invalid volume identifier specified.

OPT1346
Operation not allowed to volume located in a remote optical device.

OPT1350
Write operation failed to optical volume &1.

OPT1366
Operation failed due to high system activity.

OPT1367
Operation not supported by this device.

OPT1368
Volume &1 is not a virtual volume.

OPT1369
New volume identifier is not valid.

OPT1375
Optical volume &1 already exists.

OPT1460
Optical volume &1 is not in an optical device.

OPT1499
Source and target volumes are in different optical device types.

OPT1515
Unsupported or insufficient configuration on optical device &1.

OPT1530
&1 does not represent a valid optical device.

OPT1555
Optical device &1 in use.

OPT1605
Media or device error occurred.

OPT1790
Operation not allowed or conflicts with another request.

OPT1805
Error accessing optical volume index file.

OPT1810
Error accessing optical directory index file.

OPT1815
Internal program error occurred.

OPT1820
Internal error occurred on optical device &1.

OPT1821
Error occurred on optical device &1.

OPT1825
Optical indexes are incorrect for optical device &1.

OPT1860
Request to optical device &1 failed.

OPT1861
No device description configured for resource &1.

OPT1862
No active device description for resource &1.

OPT1863
Optical libraries need to be reclaimed.

OPT1864
Insufficient allocated and operational optical drives.

OPT1872
Optical request timed out or was cancelled.

OPT2029
TOVOL on opposite side of FROMVOL

OPT2047
Duplicate Optical completed. &3 files were not duplicated.

OPT2050
The duplicate optical volume request from optical volume &1 to optical volume &2 failed.

OPT2301
Internal system object in use.

OPT2420
Not authorized to optical volume &2.

OPT7740
User not authorized to object &2 in library &3 type &4.

Top

Duplicate Tape (DUPTAP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Duplicate Tape (DUPTAP) command copies the contents of one tape to another tape.

Notes:

1. The density field in the file header labels are updated to reflect the true density.
2. Byte 80 in the volume label of a tape written on device type 6157 is reset from a 'Q' to a blank.

Restrictions:

- You must have two tape drives or a tape media library device with two tape resources to use this command.
- A file that spans volumes must have both partial files duplicated at the same time. That is, duplicating a tape that ends in a partial file, followed by appending the second part of the file to the end of the tape is not allowed. You must duplicate both parts of the file at the same time by specifying multiple volumes on the FROMVOL parameter.

Top

Parameters

Keyword	Description	Choices	Notes
FROMDEV	From device	*Name*	Required, Positional 1
TODEV	To device	*Name*	Required, Positional 2
FROMSEQNBR	From sequence number	Single values: *ALL Other values: *Element list*	Optional
	Element 1: Starting file sequence number	1-16777215, ***FIRST**	
	Element 2: Ending file sequence number	1-16777215, *ONLY, ***LAST**	
TOSEQNBR	To sequence number	1-16777215, *END, ***FROMSEQ**	Optional
FROMVOL	From volume identifier	Single values: ***MOUNTED** Other values (up to 300 repetitions): *Character value*	Optional
TOVOL	To volume identifier	Single values: ***MOUNTED**, *FROMVOL Other values (up to 300 repetitions): *Character value*	Optional
TODENSITY	Tape density	*Character value*, ***DEVTYPE**, *CTGTYPE, *FMT3480, *FMT3490E, *FMT3570, *FMT3570E, *FMT3590, *FMT3590E, *FMT3590H, *QIC120, *QIC525, *QIC1000, *QIC2GB, *QIC2DC, *QIC4GB, *QIC4DC, *QIC3040, *QIC5010, *MLR3, *SLR60, *SLR100, *FMT2GB, *FMT5GB, *FMT7GB, *FMT20GB, *FMT60GB, *ULTRIUM1, *ULTRIUM2, *VXA1, *VXA2, 1600, 3200, 6250	Optional
COMPACT	Data compaction	***FROMFILE**, *YES, *NO	Optional
FILES	Files to duplicate	***ALL**, *ACTIVE	Optional

Keyword	Description	Choices	Notes
USRLBLPGM	User label program	Single values: *NONE, ***SYSCOPY** Other values: *Qualified object name*	Optional
	Qualifier 1: User label program	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
FROMENDOPT	From device end option	***REWIND**, *UNLOAD, *LEAVE	Optional
TOENDOPT	To device end option	***UNLOAD**, *REWIND, *LEAVE	Optional
CHECK	Check for active files	***YES**, *NO	Optional
EXPDATE	File expiration date	*Date*, ***FROMFILE**, *PERM	Optional

Top

From device (FROMDEV)

Specifies the device from which the tape is copied.

This is a required parameter.

name Specify the name of the tape device where the tape to be copied is mounted.

Top

To device (TODEV)

Specifies the device to which the tape is copied.

This is a required parameter.

name Specify the name of the tape device where the tape volume to which data is being copied is mounted.

Top

From sequence number (FROMSEQNBR)

Specifies which data file sequence numbers are to be copied.

Single values

***ALL** All files are duplicated.

Element 1: Starting file sequence number

***FIRST**
All files starting with the first file sequence are duplicated.

1-16777215
Specify the starting file sequence number to be duplicated. Only the files in the specified sequence number range are duplicated.

Element 2: Ending file sequence number

***LAST**
All files ending with the last file sequence are duplicated.

***ONLY**
Only the file specified in the starting file sequence is duplicated.

1-16777215
Specify the ending file sequence number of the range to be duplicated.

Top

To sequence number (TOSEQNBR)

Specifies which sequence number the data files are to be copied to.

***FROMSEQ**
The data files are duplicated to the same file sequences as are specified in the from-file sequence number parameter.

***END** The data files are added to the logical end of tape. The next valid sequence number is used.

1-16777215
Specify the sequence number in which the data file will be copied to. This value is not allowed if the device does not have overwriting capabilities and the value specified is not the next logical value to be used at the end of the logical tape volume. The duplication begins at the specified file.

Top

From volume identifier (FROMVOL)

Specifies the volume identifier of the tape being duplicated.

Note: If the device specified is a media library device, or a virtual tape device, then the volume specified should be the cartridge identifier or virtual tape volume name to be mounted and used.

Single values

***MOUNTED**
Any labeled or unlabeled volume placed on the tape device specified on the **From device (FROMDEV)** parameter is duplicated. For a tape media library device, the volume to be used is the next cartridge in the category mounted by the Set Tape Category (SETTAPCGY) command. For a virtual tape device, the volume to be used is the currently mounted one, or if there is not a currently mounted volume, the next volume in loaded status in the image catalog will be used.

Other values (up to 300 repetitions)

character-value
Specify the identifier of the labeled volume being duplicated.

Top

To volume identifier (TOVOL)

Specifies the volume identifiers of the tapes to which data is being copied.

Note: If the device specified is a media library device, or a virtual tape device, then the volume specified should be the cartridge identifier or virtual tape volume name to be mounted and used.

Single values

***MOUNTED**
The volume currently placed in the device is used. For a media library device, the volume to be used is the next cartridge in the category mounted by the Set Tape Category (SETTAPCGY) command. For a virtual tape device, the volume to be used is the currently mounted one, or if there is not a currently mounted volume, the next volume in loaded status in the image catalog will be used.

***FROMVOL**
The volume label of the tape placed in the device specified on the **From device (FROMDEV)** parameter is used to initialize the tape placed in the device specified on the **To device (TODEV)** parameter. Up to eight additional volume labels and nine user volume labels are duplicated. This value is not supported for tape media libary devices and virtual tape devices.

Other values (up to 300 repetitions)

character-value
Specify the volume identifier of the tapes to which data is being copied. At the end of volume time, you are able to reinitialize the tape using this volume identifier. If the volume contains the correct volume identifier but is in the wrong code or density, the tape is reinitialized to the correct code and density. The volume identifier is saved.

Top

Tape density (TODENSITY)

Specifies the density or format in which the copied data is written.

***DEVTYPE**
The highest capacity density or format supported by the tape device will be used.

Device	Highest capacity density or format
3480	*FMT3480
3490E	*FMT3490E
3570-Bxx	*FMT3570
3570-Cxx	*FMT3570E
3580-001	*ULTRIUM1
3580-002	*ULTRIUM2
3580-003	*ULTRIUM3
3580-004	*ULTRIUM4
3590-Bxx	*FMT3590
3590-Exx	*FMT3590E

3590-Hxx
*FMT3590H

3592-E05
*FMT3592A2

3592-J1A
*FMT3592A1

4685-001
*VXA2

5755 *ULTRIUM2

6258 *DAT72

6279 *VXA3

6344 *QIC2GB

6349 *QIC2GB

6369 *QIC2GB

6380 *QIC2GB

6381 *QIC2DC

6382 *QIC4DC

6383 *QIC5010

6384 *SLR60

6386 *MLR3

6387 *SLR100

6390 *FMT7GB

63B0 *VRT256K

7207-122
*QIC4DC

7208-002
*FMT2GB

7208-012
*FMT5GB

7208-222
*FMT7GB

7208-342
*FMT20GB

7208-345
*FMT60GB

9348 6250

***CTGTYPE**
The highest capacity density or format supported by the device for the mounted cartridge type will be used. If the device does not support special cartridge type information, *DEVTYPE is used.

character-value

Specify the density or format to use.

1600 The data density on the tape volume is 1,600 bits per inch, which is used for 1/2 inch reel tapes.

3200 The data density on the tape volume is 3,200 bits per inch, which is used for 1/2 inch reel tapes.

6250 The data density on the tape volume is 6,250 bits per inch, which is used for 1/2 inch reel tapes.

***DAT72**
The format of this tape is DAT72. It is used by 4mm cartridge tape devices that can store 36 gigabytes of data on a standard length cartridge.

***DDS3**
The format of this tape is DDS3. It is used by 4mm cartridge tape devices that can store 12 gigabytes of data on a standard length cartridge.

***DDS4**
The format of this tape is DDS4. It is used by 4mm cartridge tape devices that can store 20 gigabytes of data on a standard length cartridge.

***FMT3480**
The format of this tape is FMT3480. The data density on this tape volume is formatted to support a 3480 device. This density is used for 1/2 inch cartridge tapes.

***FMT3490E**
The format of this tape is FMT3490E. The data density on this tape volume is formatted to support a 3490E device. This density is used for 1/2 inch cartridge tapes.

***FMT3570**
The format of this tape is FMT3570. The data format is written on the tape volume with a 3570 device.

***FMT3570E**
The format of this tape is FMT3570E. The data format is written on the tape volume with a 3570E device.

***FMT3590**
The format of this tape is FMT3590. The data format is written on the tape volume with a 3590 device. This density is used for 1/2 inch cartridge tapes.

***FMT3590E**
The format of this tape is FMT3590E. The data format is written on the tape volume with a 3590E device. This density is used for 1/2 inch cartridge tapes.

***FMT3590H**
The format of this tape is FMT3590H. The data format is written on the tape volume with a 3590H device. This density is used for 1/2 inch cartridge tapes.

***FMT3592A1**
The format of this tape is FMT3592A1. It is used by 3592 tape devices that can store 300 gigabytes of data on a standard length cartridge.

FMT3592A1E
The format of this tape is FMT3592A1E. It is used by 3592 tape devices that can store 300 gigabytes of encrypted data on a standard length cartridge.

***FMT3592A2**
The format of this tape is FMT3592A2. It is used by 3592 tape devices that can store 500 gigabytes of data on a standard length cartridge.

FMT3592A2E
The format of this tape is FMT3592A2E. It is used by 3592 tape devices that can store 500 gigabytes of encrypted data on a standard length cartridge.

***QIC120**
The format of this tape is QIC120, which is used for 1/4 inch cartridge tapes that can hold 120 megabytes of data.

***QIC525**
The format of this tape is QIC525, which is used for 1/4 inch cartridge tapes that can hold 525 megabytes of data.

***QIC1000**
The format of this tape is QIC1000, which is used for 1/4 inch cartridge tapes that can hold 1200 megabytes of data.

***QIC2GB**
The format of this tape is QIC2GB. It is used by 1/4 inch tape devices which can store 2.5 gigabytes of data on a standard length QIC2GB cartridge.

***QIC2DC**
The format of this tape is QIC2DC. It is used to write compacted data to a 1/4 inch cartridge that supports the QIC2GB format.

***QIC4GB**
The format of this tape is QIC4GB. It is used by 1/4 inch tape devices which can store 4 gigabytes of data on a standard length QIC4GB cartridge.

***QIC4DC**
The format of this tape is QIC4DC. It is used to write compacted data to a 1/4 inch cartridge that supports the QIC4GB format.

***QIC3040**
The format of this tape is QIC3040, which is used for 1/4 inch minicartridge tapes that can hold 840 megabytes of data.

***QIC5010**
The format of this tape is QIC5010, which is used for 1/4 inch cartridge tapes that can hold 13.5 gigabytes of data.

***MLR3**
The format of this tape is MLR3. It is used by 1/4 inch tape devices which can store 25 gigabytes of data on a standard length MLR3 cartridge.

***SLR60**
The format of this tape is SLR60. It is used by 1/4 inch tape devices which can typically store 60 gigabytes of compacted data on a standard length SLR60 cartridge.

***SLR100**
The format of this tape is SLR100. It is used by 1/4 inch tape devices which can typically store 100 gigabytes of compacted data on a standard length SLR100 cartridge.

***FMT2GB**
The format of this tape is FMT2GB, which is used for 8 millimeter cartridge tapes that can hold 2 gigabytes of data.

***FMT5GB**
The format of this tape is FMT5GB, which is used for 8 millimeter cartridge tapes that can hold 5 gigabytes of data.

***FMT7GB**
The format of this tape is FMT7GB, which is used for 8 millimeter cartridge tapes that can hold 7 gigabytes of data.

***FMT20GB**
The format of this tape is FMT20GB. It is used by 8 millimeter tape devices that can store 20 gigabytes of data on a standard length cartridge.

***FMT60GB**
The format of this tape is FMT60GB. It is used by 8 millimeter tape devices that can store 60 gigabytes of data on a standard length cartridge.

***ULTRIUM1**
The format of this tape is ULTRIUM1. It is used by 1/2 inch cartridge tape devices that can store 100 gigabytes of data on a standard length cartridge.

***ULTRIUM2**
The format of this tape is ULTRIUM2. It is used by 1/2 inch cartridge tape devices that can store 200 gigabytes of data on a standard length cartridge.

***ULTRIUM3**
The format of this tape is ULTRIUM3. It is used by 1/2 inch cartridge tape devices that can store 400 gigabytes of data on a standard length cartridge.

***ULTRIUM4**
The format of this tape is ULTRIUM4. It is used by 1/2 inch cartridge tape devices that can store 800 gigabytes of data on a standard length cartridge.

***VRT32K**
The format of the volume is VRT32K. It is used to write data to a virtual volume using a maximum data block size of 32KB. Volumes written using this format can be duplicated to all supported tape devices.

***VRT64K**
The format of the volume is VRT64K. It is used to write data to a virtual volume using a maximum data block size of 64KB. Volumes written using this format can only be duplicated to tape devices that support a maximum block size of 64KB or greater.

***VRT240K**
The format of the volume is VRT240K. It is used to write data to a virtual volume using a maximum data block size of 240KB. Volumes written using this format can only be duplicated to tape devices that support a maximum block size of 240KB or greater.

***VRT256K**
The format of the volume is VRT256K. It is used to write data to a virtual volume using a maximum data block size of 256KB. Volumes written using this format can only be duplicated to tape devices that support a maximum block size of 256KB or greater.

***VXA1**
The format of this tape is VXA1. It is used by VXA cartridge tape devices that can store 33 gigabytes of data on a standard length cartridge.

***VXA2**
The format of this tape is VXA2. It is used by VXA cartridge tape devices that can store 80 gigabytes of data on a standard length cartridge.

***VXA3**
The format of this tape is VXA3. It is used by VXA cartridge tape devices that can store 160 gigabytes of data on a standard length cartridge.

Note: Self-configured tape devices may define additional valid values for the density parameter. Use System i5 Navigator (Configuration and Service) (Hardware) (Tape Devices) (Tape Libraries) (Tape Resources) (Properties) or (Configuration and Service)(Hardware) (Tape Devices) (Stand-Alone Devices) (Properties) to find additional valid density values for a specific device, or use the F4=Prompt key on the ″Tape density″ field of the CL command to see a list of all valid density values for the attached tape devices.

Top

Data compaction (COMPACT)

Specifies whether device data compaction is performed. If the device specified does not support compaction, this parameter is ignored.

***FROMFILE**
Device data compaction is performed if the file being read from the device specified on the **From device (FROMDEV)** parameter was written using device data compaction or if the FROMDEV parameter specifies a virtual tape device.

***YES** Device data compaction is performed on all files written to the device specified on the **To device (TODEV)** parameter.

***NO** Device data compaction is not performed.

Top

Files to duplicate (FILES)

Specifies whether expired data files are copied from the tape volume placed in the device specified on the **From device (FROMDEV)** parameter to the tape volume placed on the device specified on the **To device (TODEV)** parameter.

***ALL** All data files on the tape volume are copied. All existing file sequence numbers are saved.

***ACTIVE**
Only data files with an expiration date later than the current system date are copied. Data files are renumbered consecutively, beginning with the number of the first file on the volume and omitting any files that have expired.

Top

User label program (USRLBLPGM)

Specifies the name and library of the user program that processes user tape labels. For the device specified on the **To device (TODEV)** parameter, the user label program sends the user labels that are written to tape. For the device specified on the **From device (FROMDEV)** parameter, the user labels are sent to the user label program.

Single values

***SYSCOPY**
User tape labels are processed to allow proper duplication of System/36 save and restore tapes. If user header labels are present on the tape volume specified on the FROMDEV parameter, they are copied to the tape volume specified on the TODEV parameter. The same is done for the user trailer labels at the end of the file or for the trailer labels at the end of the file section.

If an end-of-volume condition occurs on the device specified on the TODEV parameter before logical end-of-tape is found on the device specified on the FROMDEV parameter, user trailer and user header labels are created and written to the current and next tape volumes that replicate the data from the user header label read at the beginning of the file.

***NONE**
No user program processes user tape labels. No user labels are written to the tape volume.

Qualifier 1: User label program

name Specify the name of the user program that processes the user tape labels.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the user label program. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the user label program is located.

Top

From device end option (FROMENDOPT)

Specifies whether the tape volume placed on the device specified on the **From device (FROMDEV)** parameter is rewound, or rewound and unloaded after the operation is completed.

***REWIND**
The tape is automatically rewound, but not unloaded, after the operation has ended.

***UNLOAD**
The tape is automatically rewound and unloaded after the operation ends.

***LEAVE**
The tape does not rewind or unload after the operation ends. It remains at the current position on the tape drive.

Top

To device end option (TOENDOPT)

Specifies whether the tape volume placed on the device specified on the **To device (TODEV)** parameter is rewound, or rewound and unloaded after the operation is completed.

***UNLOAD**
The tape is rewound and unloaded after the operation is completed.

***REWIND**
The tape is rewound, but not unloaded.

***LEAVE**
The tape does not rewind or unload after the operation ends. It remains at the current position on the tape drive.

Top

Check for active files (CHECK)

Specifies whether a tape file on the volume mounted on the **To device (TODEV)** parameter is checked for active data before it is overwritten. If an unlabeled volume is on the **To device**, this parameter is ignored.

***YES** The file to be overwritten is checked for active data. Only the first file to be overwritten is checked for active data, any subsequent files are not checked. If active files are found, the operation is ended and an error message is sent.

***NO** Tape duplication continues with no checking for active files.

Top

File expiration date (EXPDATE)

Specifies the expiration date to be assigned to all the files when they are copied. This parameter only applies to standard labeled tapes.

***FROMFILE**
The expiration date currently specified for the file to be copied is used.

***PERM**
All the copied files will be assigned a permanent expiration date.

date Specify the expiration date to be assigned to all the files when they are copied.

Top

Examples

Example 1: Duplicating a Single Volume to a Single Volume

```
DUPTAP   FROMDEV(TAPE01)  TODEV(TAPE02)
```

This command duplicates the tape volume mounted on device TAPE01 onto the tape volume mounted on device TAPE02.

Example 2: Appending a Volume Set to the End of a Single Volume

```
DUPTAP   FROMDEV(TAPE01)  TODEV(TAPE02)  FROMVOL( VOL001 VOL002)
         TOVOL(VOLABC)  FROMSEQNBR(*ALL)  TOSEQNBR(*END)
```

This command duplicates all files from the tape volumes VOL001 and VOL002 onto the end of the to-volume VOLABC on device TAPE02.

Top

Error messages

***ESCAPE Messages**

CPF516D
Data overwrite not allowed.

CPF67E6
Volume &2 is not correct

CPF67FA
Volume compatibility not correct.

CPF67FD
File sequence number &3 not correct for volume &2.

CPF67FE
No files found on volume &2.

CPF67F7
Continuation volume cannot be duplicated.

CPF67F8
TOSEQNBR not correct on volume &2.

CPF6708
Command ended due to error.

CPF671C
Not all files duplicated to device &2.

CPF6714
TOVOL(*FROMVOL) not correct.

CPF6718
Cannot allocate device &1.

CPF6720
Incorrect volume &2 found on device &1.

CPF6721
Device &1 not a tape device.

CPF6722
End of tape found on device &1.

CPF6725
Ending file sequence number less than starting sequence number.

CPF6734
File sequence number &3 not found on volume &2.

CPF6740
TODEV and FROMDEV must be different.

CPF6751
Load failure occurred on device &4.

CPF6754
Active file &4 found on volume &2.

CPF676B
Volume on device &4 is write protected.

CPF6760
Device &1 not ready.

CPF6761
Labels not found while processing file.

CPF6768
Volume on device &1 is write protected.

CPF6772
Volume on device &1 cannot be processed.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

Top

Edit Authorization List (EDTAUTL)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Authorization List (EDTAUTL) command shows the list of users and their authorities. From this display, the user can add and remove users and change users' authorities on the authorization list.

Restrictions: You must have authorization list management (*AUTLMGT) authority to, or ownership of, the specified authorization list.

Top

Parameters

Keyword	Description	Choices	Notes
AUTL	Authorization list	*Qualifier list*	Required, Positional 1
	Qualifier 1: Authorization list	*Name*	

Top

Authorization list (AUTL)

Specifies the authorization list to be editted.

This is a required parameter.

name Specify the name of the authorization list to be editted.

Top

Examples

```
EDTAUTL   AUTL(MYLIST)
```

This command shows the authorization list MYLIST and allows it to be changed.

Top

Error messages

***ESCAPE Messages**

CPF22B9
Not authorized to change authorities.

CPF2204
User profile &1 not found.

CPF2207
Not authorized to use object &1 in library &3 type *&2.

CPF2208
Object &1 in library &3 type *&2 not found.

CPF2209
Library &1 not found.

CPF2211
Not able to allocate object &1 in &3 type *&2.

CPF2216
Not authorized to use library &1.

CPF2217
Not authorized to user profile &1.

CPF2283
Authorization list &1 does not exist.

CPF9843
Object &1 in library &3 type &2 cannot be accessed.

Top

Edit Backup List (EDTBCKUPL)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

The Edit Backup List (EDTBCKUPL) command allows the user to select libraries and folders for backup. More information on backup is in the Recovering your system book, SC41-5304.

Top

Parameters

Keyword	Description	Choices	Notes
BCKUPL	Backup list	***LIB**, *FLR	Optional, Positional 1

Top

Backup list (BCKUPL)

Specifies the backup list to be changed.

***LIB** The library backup list is changed.

***FLR** The folder backup list is changed.

Top

Examples

```
EDTBCKUPL   BCKUPL(*LIB)
```

This command displays the library backup list stored in user index QEZBACKUPL in library QUSRSYS, and allows the user to change it.

Top

Error messages

***ESCAPE Messages**

CPF1EEA
Not authorized to library backup list.

CPF1E6B
Folder backup list in use.

CPF1E6D
Folder backup list damaged; new one created.

CPF1E65
Library backup list in use.

CPF1E67
Backup options and library backup list damaged.

CPF1E99
Unexpected error occurred.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9871
Error occurred while processing.

Top

Edit CHKPND Constraints (EDTCPCST)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Check Pending Constraints (EDTCPCST) command shows a list of established constraints that have records that are possibly in violation of the constraints (check pending). From this display, you can verify and select or change the sequence of the constraints to be rebuilt during an initial program load (IPL).

This command is called while you are running an attended IPL if you have check pending constraints. From the display shown, you can select whether the system continues the IPL while verifying selected constraints, or continues the IPL after verifying selected constraints.

There are no parameters for this command.

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Parameters

None

Top

Examples

Example 1: Editing a List of Constraints

```
EDTCPCST
```

This command shows you the referential constraints that are in check pending. You can edit the sequence for verifying the constraints from this display.

Top

Error messages

***ESCAPE Messages**

CPF325C
Database object &1 is in error.

Top

Edit DL File Attributes (EDTDLFA)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

The Edit DataLink File Attributes (EDTDLFA) command allows the user to display and change the status of DataLinks.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

Editing a List of DataLinks

```
EDTDLFA
```

This command shows you the DataLinks that have pending DataLink requests. You can edit the sequence for attempting the pending linking or unlinking requests from this display.

Top

Error messages

None

Top

Edit DLO Authority (EDTDLOAUT)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Document Library Object Authority (EDTDLOAUT) command is used to change user authorization to a document or folder object.

The following information is displayed for the specified document or folder:

- The name of the document or folder
- The owner of the document or folder
- The name of the authorization list securing the document or folder (if there is one)
- Personal status of the document or folder
- A list of specific users authorized for the document or folder
- The authority given to the users with no specific authority (*PUBLIC), who are not on the authorization list, and whose group has no authority for the document or folder

Restrictions:

1. A user must have all (*ALL) authority to the document or folder or all object (*ALLOBJ) special authority to change the authority.
2. You must have authority to use the Add DLO Authority (ADDDLOAUT), Change DLO Authority (CHGDLOAUT) , and the Remove DLO Authority (RMVDLOAUT) commands to use this command.
3. The user must have *ALLOBJ special authority to change the *ROOT folder public authority.

Top

Parameters

Keyword	Description	Choices	Notes
DLO	Document library object	*Character value*, *SYSOBJNAM, *ROOT	Required, Positional 1
FLR	Folder	*Character value*, ***NONE**	Optional
SYSOBJNAM	System object name	*Name*	Optional

Top

Document library object (DLO)

Specifies the name of the document or folder for which user authority is being changed.

***SYSOBJNAM**
User authority is being changed for the document or folder with the system object name specified on the **System object name (SYSOBJNAM)** parameter.

***ROOT**
The public authority value of the *ROOT folder is changed.

character
Specify the user-assigned name of the document or folder for which user authority is being changed. A maximum of 12 characters can be specified.

Top

Folder (FLR)

Specifies the folder where the object specified for the **Document library object (DLO)** parameter is located.

***NONE**
A folder name is not specified. If a name is specified on the DLO parameter, and the object is located in a folder, *NONE cannot be specified.

character
Specify the name of the folder that contains the object. The name can consist of a series of folder names if the folder containing the object is located in another folder. A maximum of 63 characters can be specified.

Top

System object name (SYSOBJNAM)

Specifies the system object name of the folder or document. This parameter is valid only when *SYSOBJNAM is specified on the **Document library object (DLO)** parameter.

name Specify the system object name for the folder or document for which user authority is being changed. You must specify 10 characters.

Top

Examples

```
EDTDLOAUT   DLO(DOCA)  FLR(MYFLR)
```

This command allows the user of this command to change the list of authorized users and their authorities to the document library object named DOCA in folder MYFLR. The user of this command must have *ALL authority to the object or be the owner of the object.

Top

Error messages

***ESCAPE Messages**

CPF8A77
Folder &1 not found.

CPF8A78
Folder &1 in use.

CPF8A79
Folder &1 is logically damaged.

CPF8A80
Document &2 in use in folder &1.

CPF8A82
Document &2 not found in folder &1.

CPF8A88
Operation not allowed on document &2 in folder &1.

CPF8A89
Document &2 in folder &1 is logically damaged.

CPF89C0
You have specified an incorrect value.

CPF90BA
Authority request for document library object failed.

CPF90B6
You have specified an incorrect input value.

CPF9073
No authority to view or change the security of document library object &1.

CPF9079
Request to get document description not successful for user profile &1.

CPF908A
Requester &1 not enrolled.

CPF908B
Document library object not found.

CPF909A
Document &2 in folder &1 is damaged.

CPF9095
Folder &1 is damaged.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

Top

Edit Document (EDTDOC)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Document (EDTDOC) command allows you to edit a document.

Top

Parameters

Keyword	Description	Choices	Notes
DOC	Document	*Character value*, ***PRV**	Optional, Positional 1
FLR	Folder	*Character value*, ***PRV**	Optional, Positional 2
EXITPNL	Display exit panel	***YES**, *NO	Optional, Positional 3

Top

Document (DOC)

Specifies the name of the document to be edited.

***PRV** The name used in the previous session is used.

document-name
Specify the name of the document to be edited.

Top

Folder (FLR)

Specifies the name of the folder that contains the document to be edited.

***PRV** The name used in the previous session is used.

folder-name
Specify the name of the folder that contains the document to be edited.

Top

Display exit panel (EXITPNL)

Specifies whether the Exit Document display is shown when F3(Exit) or F12(Cancel) is pressed to end the editing.

***YES** The Exit Document display is shown when F3(Exit) or F12(Cancel) is pressed to end the editing.

***NO** The Exit Document display is not shown when F3(Exit) or F12(Cancel) is pressed to end the editing.

Top

Examples

```
EDTDOC   DOC(TASK4)  FLR(INSTTXT)
```

This command displays the document TASK4 of the folder INSTTXT, and allows you to edit the document TASK4.

Top

Error messages

***ESCAPE Messages**

OFCFFFC
User storage capacity exceeded.

OFCFFFD
Damaged object found.

OFC8EA3
OfficeVision for AS/400 editor is not available to resolve to a display.

OFC80B5
OfficeVision for OS/400 editor is not available on the system.

OFC800A
Folder is in use.

OFC800B
Document &1 is in use.

OFC800F
Display does not support text.

OFC8006
Folder not found.

OFC8007
Document &1 not found in folder.

OFC8008
Request not allowed with folder.

OFC8009
Request not allowed with document &1.

OFC801A
Document has been saved to diskette, tape or save file.

OFC801D
Maximum number of text sessions active.

OFC801E
DW editor or text assist cannot be loaded.

OFC8010
Document &1 cannot be processed.

OFC8011
Document &1 needs to be recovered.

OFC8016
Document &1 is checked out.

OFC8018
Document &1 is empty.

OFC8019
Required module not on system.

OFC802E
Request failed for PC editor.

OFC821B
Document &1 needs to be reclaimed.

OFC8951
Data name must be specified.

OFC8952
Type must be &9 or &10.

OFC8953
Data &9 does not exist.

OFC8954
Display terminal does not have graphics ability.

OFC8955
PC Text-assist function required to view image.

OFC903A
Document &1 is final form.

OFC9811
Folder needs to be reclaimed.

Top

Edit File (EDTF)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit File (EDTF) command allows you to edit a stream file or a database file. This command can also be used to browse a file or directory.

Top

Parameters

Keyword	Description	Choices	Notes
STMF	Stream file, or	*Path name*	Optional, Positional 1
FILE	Data base file	*Qualified object name*	Optional, Positional 2
	Qualifier 1: Data base file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
MBR	File member	*Name*, ***FIRST**	Optional

Top

Stream file, or (STMF)

Specify the name of the file to be edited.

stream-file-name
Specifies the path name of the object or a pattern to match the name of the object to be edited.

The object path name can be either a simple name or a name that is qualified with the name of the directory in which the object is located. A pattern can be specified in the last part of the path name. An asterisk (*) matches any number of characters. A list of all files or subdirectories that match the specified characters will be displayed. If the path name is qualified or contains a pattern, it must be enclosed in apostrophes. If the file name specified is a directory, a list of the files and subdirectories is displayed. From this list you can edit or display the files in the directory.

For more information on specifying path names, refer to ″Object naming rules″ in the CL topic collection in the Programming category in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Top

Data base file (FILE)

Specifies the name of the database file to be edited.

The possible library values are:

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is searched.

name Specify the name of the library to be searched.

Top

File member (MBR)

Specifies the name of the database file member to be edited.

The possible values are:

***FIRST**
The first member in the database file is edited.

member-name
Specify the name of the member to be edited.

Top

Examples

Example 1: Editing a Stream File

```
EDTF   STMF('/mydir/myfile.txt')
```

This command will start an edit session for file myfile.txt in directory mydir under the root directory.

Example 2: Editing a Database File Member

```
EDTF   FILE(MYLIB/MYFILE) MBR(MYMBR1)
```

This command will start an edit session for member MYMBR1 of file MYFILE in library MYLIB.

Top

Error messages

***ESCAPE Messages**

CPFB601
Display file QDZRUEDT missing or damaged.

CPFB604
Error processing line commands.

CPFB605
Invalid line command.

CPFB609
Cannot allocate work space.

CPFB610
Command not valid.

CPFB611
&1 occurrences of &3 changed. &2 not changed.

CPFB612
Find or replacement string not specified.

CPFB613
Error opening printer file.

CPFB614
File name not specified.

CPFB615
Target line not specified.

CPFB617
CCSID not valid.

CPFB618
Conversion between CCSID &1 and the job's CCSID is not supported.

CPFB619
File is empty.

CPFB620
&2

CPFB621
File cannot be displayed and/or edited.

Top

Edit DBCS Conversion Dict (EDTIGCDCT)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit DBCS Conversion Dictionary (EDTIGCDCT) command lets you add, change, and delete alphanumeric entries and their related double-byte character set (DBCS) words from the specified DBCS conversion dictionary. The system refers to the DBCS conversion dictionary when performing DBCS conversion. The system displays the entries being edited when this command is specified.

Note: Use of the DBCS conversion function is not recommended for Chinese and Korean double-byte character sets.

Top

Parameters

Keyword	Description	Choices	Notes
IGCDCT	DBCS conversion dictionary	*Qualified object name*	Required, Positional 1
	Qualifier 1: DBCS conversion dictionary	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
ENTRY	Dictionary entry	X'40'-X'FE', ***ALL**	Optional

Top

DBCS conversion dictionary (IGCDCT)

Specifies the double-byte character set (DBCS) conversion dictionary to be edited and the library in which it is stored. If you do not specify a library name, the first dictionary found when searching the library list is edited.

The possible library values are:

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the dictionary. If no library is specified as the current library for the job, QGPL is used.

library-name
Specify the library where the dictionary is located.

Top

Dictionary entry (ENTRY)

Specifies the alphanumeric entries being edited with their related double-byte character set (DBCS) words.

***ALL** Any entry in the dictionary can be edited. The system first shows the Work with DBCS Conversion Dictionary display showing all alphanumeric entries in the dictionary. From this display, specific entries are chosen to be edited.

generic*-string
Specify a character string of one or more characters followed by an asterisk (*). All entries starting with the specified string can be edited. The system first shows the Work with DBCS Conversion Dictionary display. From this display, specific entries are chosen to be edited. If you do not include the asterisk, the system assumes that you want to edit a specific string.

The string cannot be longer than 12 characters.

specific-string
Specify a character string. The system shows the DBCS Edit Related Words display, showing a single alphanumeric entry and its related DBCS words. The specified entry can be edited.

The string cannot be longer than 12 characters. You can edit the related words on this display.

Top

Examples

Example 1: Showing the Work with DBCS Conversion Dictionary Display

```
EDTIGCDCT   IGCDCT(DBCSLIB/QUSRIGCDCT)  ENTRY(123*)
```

This command shows the Work with DBCS Conversion Dictionary display showing all the alphanumeric entries that start with 123 in the dictionary QUSRIGCDCT, which is stored in the library DBCSLIB.

Example 2: Showing the Edit Related Words Display

```
EDTIGCDCT   IGCDCT(DBCSLIB/QUSRIGCDCT)  ENTRY(WORDS)
```

This command shows the Edit Related Words display showing the alphanumeric entry WORDS and its related words from the dictionary QUSRIGCDCT, which is stored in library DBCSLIB.

Top

Error messages

***ESCAPE Messages**

CPF2122
Storage limit exceeded for user profile &1.

CPF8138
&8 damage on DBCS conversion dictionary &4 in &9.

CPF8440
Entries cannot be added to the system DBCS conversion dictionary.

CPF8451
Entry value &1 not correct.

CPF8455
Work station is not a DBCS device.

CPF8461
Entry &1 of DBCS conversion dictionary is logically damaged.

CPF9801
Object &2 in library &3 not found.

CPF9802
Not authorized to object &2 in &3.

CPF9803
Cannot allocate object &2 in library &3.

CPF9810
Library &1 not found.

CPF9820
Not authorized to use library &1.

CPF9845
Error occurred while opening file &1.

CPF9846
Error while processing file &1 in library &2.

CPF9847
Error occurred while closing file &1 in library &2.

Top

Edit Library List (EDTLIBL)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

The Edit Library List (EDTLIBL) command shows an entry display that allows you to make changes to the user portion of your library list. The Edit Library List display allows you to add libraries to the user portion of your library list, remove libraries from the user portion of your library list, and change the order of libraries in the user portion of your library list. This is an interactive command only.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
EDTLIBL
```

This command shows the Edit Library List display from which you can add libraries, remove libraries, and change the order of the libraries in the user portion of the library list.

Top

Error messages

***ESCAPE Messages**

CPF2106
Library list not available.

CPF2184
Library list not replaced.

CPF2207
Not authorized to use object &1 in library &3 type *&2.

CPF2255
Command &1 failed the authority test.

Top

Edit Object Authority (EDTOBJAUT)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Object Authority (EDTOBJAUT) command displays the list of authorized users of an object and their associated user authorities. If you own the object, or have *ALLOBJ special authority, you can add, change or remove authority for the object. If you have object management authority for the object, you can remove your specific authorities or grant or remove them for other users.

The following are displayed for the specified object:

- The object name
- The name of the library containing the object
- The name of the object's owner
- The object's type
- A list of all the users who are authorized to use the object
- The authority that each user has for the object
- The authorization list name is displayed when the object is secured by an authorization list.

If an object does not have an owner name associated with it, no authorities for the object are shown.

Restrictions:

1. The user must have object management authority to the object to use this command.
2. If the object is a file, the user must have object operational and object management authorities.
3. You must have *USE authority to the auxiliary storage pool device if one is specified.

Top

Parameters

Keyword	Description	Choices	Notes
OBJ	Object	*Qualified object name*	Required, Positional 1
	Qualifier 1: Object	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OBJTYPE	Object type	*ALRTBL, *AUTL, *BNDDIR, *CFGL, *CHTFMT, *CLD, *CLS, *CMD, *CNNL, *COSD, *CRG, *CRQD, *CSI, *CSPMAP, *CSPTBL, *CTLD, *DEVD, *DTAARA, *DTADCT, *DTAQ, *EDTD, *FCT, *FILE, *FNTRSC, *FNTTBL, *FORMDF, *FTR, *GSS, *IGCDCT, *IGCTBL, *IGCSRT, *IMGCLG, *IPXD, *JOBD, *JOBQ, *JOBSCD, *JRN, *JRNRCV, *LIB, *LIND, *LOCALE, *M36, *M36CFG, *MEDDFN, *MENU, *MGTCOL, *MODD, *MODULE, *MSGF, *MSGQ, *NODGRP, *NODL, *NTBD, *NWID, *NWSCFG, *NWSD, *OUTQ, *OVL, *PAGDFN, *PAGSEG, *PDFMAP, *PDG, *PGM, *PNLGRP, *PRDAVL, *PRDDFN, *PRDLOD, *PSFCFG, *QMFORM, *QMQRY, *QRYDFN, *RCT, *S36, *SBSD, *SCHIDX, *SPADCT, *SQLPKG, *SQLUDT, *SRVPGM, *SSND, *SVRSTG, *TBL, *TIMZON, *USRIDX, *USRPRF, *USRQ, *USRSPC, *VLDL, *WSCST	Required, Positional 2
ASPDEV	ASP device	*Name*, *, *SYSBAS	Optional

Top

Object (OBJ)

Specifies the object for which the authorized users and their authorities are to be shown.

This is a required parameter.

name Specify the name of the object.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the thread is searched. If no library is specified as the current library for the thread, the QGPL library is used.

name Specify the name of the library to be searched.

Top

Object type (OBJTYPE)

The object type, such as command (*CMD), file (*FILE), or program (*PGM), of the object whose authorized users and authorities are to be shown. To see a complete list of object types when prompting this command, position the cursor on the field for this parameter and press F4 (Prompt).

This is a required parameter.

Top

ASP device (ASPDEV)

Specifies the auxiliary storage pool (ASP) device name where the library that contains the object (OBJ parameter) is located. If the object's library resides in an ASP that is not part of the library name space associated with the job, this parameter must be specified to ensure the correct object is used as the target of this command's operation.

* The ASPs that are currently part of the job's library name space will be searched to locate the object. This includes the system ASP (ASP number 1), all defined basic user ASPs (ASP numbers 2-32), and, if the job has an ASP group, all independent ASPs in the ASP group.

***SYSBAS**
The system ASP and all basic user ASPs will be searched to locate the object. No independent ASPs will be searched, even if the job has an ASP group.

name Specify the device name of the independent ASP to be searched to locate the object. The independent ASP must have been activated (by varying on the ASP device) and have a status of AVAILABLE. The system ASP and basic user ASPs will not be searched.

Top

Examples

```
EDTOBJAUT   OBJ(ARLIB/PROG1)  OBJTYPE(*PGM)
```

This command causes the list of authorized users and their authorities for the object named PROG1 to be shown, but only if the user has object management authority for the object. PROG1 is a program (*PGM) located in the library named ARLIB.

Top

Error messages

***ESCAPE Messages**

CPF22B8
Not authorized to change authorities.

CPF22B9
Not authorized to change authorities.

CPF2204
User profile &1 not found.

CPF2207
Not authorized to use object &1 in library &3 type *&2.

CPF2208
Object &1 in library &3 type *&2 not found.

CPF2209
Library &1 not found.

CPF2211
Not able to allocate object &1 in &3 type *&2.

CPF2216
Not authorized to use library &1.

CPF2217
Not authorized to user profile &1.

CPF2283
Authorization list &1 does not exist.

CPF9843
Object &1 in library &3 type &2 cannot be accessed.

Top

Edit Questions and Answers (EDTQST)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Questions and Answers (EDTQST) command allows authorized users to edit questions and answers for publication in a specified database. More information is available in the Basic system operations topic collection in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

Restrictions:

1. This command is shipped with public *EXCLUDE authority.
2. A user must have authority to the command and be a Q & A coordinator for any Q & A database referred to by the command.
3. This command can only be used interactively.

Top

Parameters

Keyword	Description	Choices	Notes
QSTDB	Q/A database	*Name*, ***SELECT**	Optional, Positional 1
LIB	Lib containing Q/A database	*Name*, ***QSTLIB**	Optional, Positional 2

Top

Q/A database (QSTDB)

Specifies the Q & A database in which to edit questions and answers.

The possible values are:

***SELECT**
You are asked to specify a Q & A database. If only one Q & A database exists on the system, it is the default.

question-database
Specify the name of the Q & A database in which to edit questions and answers.

Top

Lib containing Q/A database (LIB)

Specifies the name of the library that contains the Q & A database.

The name of the Q & A database can be qualified by one of the following library values:

***QSTLIB**
The library containing the specified Q & A database is searched. If *SELECT is specified on the QSTDB parameter, any Q & A database in any library to which you are authorized can be selected.

library-name
Specify the name of the library to be searched. If *SELECT is specified on the QSTDB parameter, any Q & A database in the library to which you are authorized can be selected.

Top

Examples

```
EDTQST
```

This command shows the Work with Candidate Questions display.

Top

Error messages

None

Top

Edit Rebuild of Access Paths (EDTRBDAP)

Where allowed to run: All environments (*ALL)
Threadsafe: No

The Edit Rebuild of Access Paths (EDTRBDAP) command displays the Edit Rebuild of Access Paths menu, from which the access path information can be displayed or changed.

Restrictions:

- To use this command, you must be signed on as QSYSOPR or have all object (*ALLOBJ) special authority.

Top

Parameters

None

Top

Examples

```
EDTRBDAP
```

This command shows the controls that are available when editing rebuild access paths.

Top

Error messages

***ESCAPE Messages**

CPF325C
Database object &1 is in error.

Top

Edit Recovery for Access Paths (EDTRCYAP)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Recovery for Access Paths (EDTRCYAP) command shows a list of access path recovery times for the system and for auxiliary storage pools (ASP) that are currently active on the system. From this list, you can change target access path recovery times and view updated recovery status information. Additionally, the command will show up to 500 access paths with the largest estimated access path recovery time which are not eligible for system-managed access-path protection and why they are not eligible. Also, the command will show up to 500 access paths with the largest estimated access path recovery time which are currently being protected by system-managed access-path-protection.

The system uses no more than the specified amount of target access path recovery time when recovering access paths during an initial program load (IPL) or vary on of an independent ASP after an abnormal system end. Because the access path recovery time is a target, performance may range around the target.

The time taken to rebuild access paths exposed while running the Copy File (CPYF), the Reorganize Physical File Member (RGZPFM), or the Restore Object (RSTOBJ) commands is not considered in the target access path recovery time of access paths protected with this command.

You can use this command or the Change Recovery for Access Paths (CHGRCYAP) command to manage the protection of access paths that are not already protected through journaling.

For more information on using this command, see the ″Journal management″ topic in the i5/OS Information Center at http://www.ibm.com/systems/i/infocenter/.

This command has no parameters.

Restrictions:

- You must have job control (*JOBCTL) special authority to use this command.
- This command is shipped with public *EXCLUDE authority, and the QPGMR and QSYSOPR user profiles have private authorities to use this command.
- If the current access path recovery state is *OFF, the user must be in a restricted state to activate system-managed access-path protection by specifying a target access path recovery time value.
- If no user auxiliary storage pools (ASPs) exist on the system, an access path recovery time for ASP 1 cannot be specified. You must specify a system access path recovery time.

Top

Parameters

None

Top

Examples

```
EDTRCYAP
```

This command shows the Edit Recovery for Access Paths display from which you can show or modify the target access path recovery times for your system and configured user auxiliary storage pools (ASPs).

Top

Error messages

***ESCAPE Messages**

CPF70FA
Recovery times reset before changes completed.

CPF70FB
No authority to use command.

CPF70FC
ASP time changes not valid with system time of *OFF.

CPF70FE
ASP time changes not valid when system time is *OFF.

CPF70F4
Error occurred.

CPF70F7
Restricted system required to change recovery times.

CPF70F9
Not all recovery time changes made active.

CPF700F
Access path recovery time for &1 set to *NONE.

CPF701C
Change to system access path recovery time canceled.

CPF701D
Error occurred during change of recovery times.

CPF701E
Access path protection cannot be turned *OFF.

CPF702E
Access path recovery times set to system defaults.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

CPF9871
Error occurred while processing.

CPFB8ED
Device description &1 not correct for operation.

Top

Edit S/36 Program Attributes (EDTS36PGMA)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit System/36 Program Attributes (EDTS36PGMA) command presents the program attributes of the specified program on your display to allow you to change them. The attributes of a specified program or of all programs in the specified library can be changed. The attributes of a specified program, or of all programs in the specified library, can be changed.

Top

Parameters

Keyword	Description	Choices	Notes
PGM	S/36 program	*Qualified object name*	Required, Positional 1
	Qualifier 1: S/36 program	*Name*, *ALL	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

S/36 program (PGM)

Specifies the name of the program having its attributes updated.

This is a required parameter.

***ALL** The attributes of all programs in the library are shown for update. *ALL is not allowed if the library specified is *LIBL.

program-name
Specify the name of the program.

The possible library values are:

***LIBL** The library list is used to locate the program.

***CURLIB**
The current library for the job is used to locate the program. If no library is specified as the current library for the job, QGPL is used.

library-name
Specify the library where the program is located.

Top

Examples

```
EDTS36PGMA   PGM(RPGLIB/*ALL)
```

This command shows the program attributes of all the programs in RPGLIB and allows them to be changed.

Top

Error messages

***ESCAPE Messages**

CPF2C01
Program &1 attributes not changed.

CPF2C02
Changing attributes not allowed for SSP program &1.

CPF2C03
MRTMAX parameter value &3 not correct.

CPF2C05
Program name *ALL not allowed with library *LIBL.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9803
Cannot allocate object &2 in library &3.

CPF9811
Program &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

CPF9830
Cannot assign library &1.

CPF9871
Error occurred while processing.

Top

Edit S/36 Procedure Attributes (EDTS36PRCA)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit System/36 Procedure Attributes (EDTS36PRCA) command presents the attributes of the specified procedure on your display for you to change. The attributes of a specified procedure, or of all procedures in the specified library, can be changed.

Top

Parameters

Keyword	Description	Choices	Notes
MBR	S/36 procedure member	*Name*, *ALL	Required, Positional 1
FILE	Source file	*Qualified object name*	Optional, Positional 2
	Qualifier 1: Source file	*Name*, **QS36PRC**	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

S/36 procedure member (MBR)

Specifies the name of the procedure member having its attributes updated.

This is a required parameter.

***ALL** The attributes of all procedure members in the file are shown for update.

procedure-member-name
Specify the name of the procedure member.

Top

Source file (FILE)

Specifies the name of the physical file containing the procedure member.

QS36PRC
This is the name of the default physical file.

source-file-name
Specify the name of the physical file.

The possible library values are:

***LIBL** The library list is used to locate the file.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library for the job, QGPL is used.

library-name
Specify the library where the file is located.

Top

Examples

```
EDTS36PRCA   MBR(RPGPROC)  FILE(RPGLIB)
```

This command shows the attributes of procedure RPGPROC in file QS36PRC in library RPGLIB and allows them to be changed.

Top

Error messages

***ESCAPE Messages**

CPF2C0A
Member &3 attributes not changed.

CPF2C0B
Changing attributes not allowed for SSP member &3.

CPF2C08
File &1 is not a source file.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9803
Cannot allocate object &2 in library &3.

CPF9812
File &1 in library &2 not found.

CPF9815
Member &5 file &2 in library &3 not found.

CPF9820
Not authorized to use library &1.

CPF9822
Not authorized to file &1 in library &2.

CPF9826
Cannot allocate file &2.

CPF9871
Error occurred while processing.

Top

Edit S/36 Source Attributes (EDTS36SRCA)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit System/36 Source Attributes (EDTS36SRCA) command presents the attributes of the specified source member on your display for you to change. The attributes of a specified source member, or of all source members in the specified library, can be changed.

Top

Parameters

Keyword	Description	Choices	Notes
MBR	S/36 source member	*Name*, *ALL	Required, Positional 1
FILE	Source file	*Qualified object name*	Optional, Positional 2
	Qualifier 1: Source file	*Name*, **QS36SRC**	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

S/36 source member (MBR)

Specifies the name of the source member that is having its attributes updated.

This is a required parameter.

***ALL** The attributes of all source members in the file are shown for update.

source-member-name
Specify the name of the source member.

Top

Source file (FILE)

Specifies the name of the physical file that contains the source member.

QS36SRC
The default physical file, QS36SRC, is used.

source-file-name
Specify the name of the physical file.

The possible library values are:

***LIBL** The library list is used to locate the file.

***CURLIB**
The current library for the job is used to locate the file. If no library is specified as the current library for the job, QGPL is used.

library-name
Specify the library where the file is located.

Top

Examples

```
EDTS36SRCA   MBR(*ALL)  FILE(SDALIB/QS36SRC)
```

This command shows the source attributes of all the source members in file QS36SRC in library SDALIB and allows them to be changed.

Top

Error messages

***ESCAPE Messages**

CPF2C0A
Member &3 attributes not changed.

CPF2C0B
Changing attributes not allowed for SSP member &3.

CPF2C08
File &1 is not a source file.

CPF7D41
Error occurred while logging order assistance request.

CPF7D42
Error occurred while performing database operation.

CPF9803
Cannot allocate object &2 in library &3.

CPF9812
File &1 in library &2 not found.

CPF9815
Member &5 file &2 in library &3 not found.

CPF9820
Not authorized to use library &1.

CPF9822
Not authorized to file &1 in library &2.

CPF9826
Cannot allocate file &2.

CPF9871
Error occurred while processing.

Top

Edit Workstation Object Aut (EDTWSOAUT)

Where allowed to run: Interactive environments (*INTERACT *IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Edit Workstation Object Authority (EDTWSOAUT) command shows a list of authorized users and their associated authorities to a specified workstation object. Workstation objects are used by the i5/OS Graphical Operations program. The owner of the object or the security officer can grant, change, or revoke authority to the object. If you have object management authority for the object, you can revoke your specific authorities, or you can grant them to or remove them from other users.

The following are shown for the specified object:

- The object name
- The name of the library containing the object
- The name of the object owner
- The object type
- A list of all the users who are authorized to use the object
- The authority that each user has for the object
- The authorization list name (if the object is secured by an authorization list)

If the object does not have an owner name associated with it, the authorities for the object are not shown.

Restrictions:

1. The user must have object management authority to the object to use this command.
2. If the object is a file, the user must have object operational and object management authorities to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
WSOTYPE	Workstation object type	*Element list*	Required, Positional 1
	Element 1:	*TPLWRKARA, *WRKARA, *TPLPRTOL, *PRTOL, *TPLPRTL, *PRTL, *TPLOUTQ, *TPLOUTQL, *OUTQL, *TPLJOBL, *JOBL, *TPLJOBQ, *TPLJOBLOG, *JOBLOG, *TPLJOBQL, *JOBQL, *TPLMSGL, *MSGL, *TPLMSGQ, *TPLMSGSND, *MSGSND, *TPLSGNUSL, *SGNUSL, *TPLOBJL, *OBJL, *TPLLIBSL, *LIBSL, *TPLLIB, *LAUNCH, *TPLLAUNCH, *PRSSET	

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Workstation object type (WSOTYPE)

Specifies the workstation objects whose authority is to be editted.

This is a required parameter.

***TPLWRKARA**
The work area template is the workstation object.

***WRKARA**
The work area objects are the workstation objects.

***TPLPRTOL**
The printer output list template is the workstation object.

***PRTOL**
The printer output list objects are the workstation objects.

***TPLPRTL**
The printer list template is the workstation object.

***PRTL** The printer list objects are the workstation objects.

***TPLOUTQ**
The output queue template is the workstation object.

***TPLOUTQL**
The output queue list template is the workstation object.

***OUTQL**
The output queue list objects are the workstation objects.

***TPLJOBL**
The job list template is the workstation object.

***JOBL** The job list objects are the workstation objects.

***TPLJOBQ**
The job queue template is the workstation object.

***TPLJOBLOG**
The job log template is the workstation object.

***JOBLOG**
The job log objects are the workstation objects.

***TPLJOBQL**
The job queue list template is the workstation object.

***JOBQL**
The job queue list objects are the workstation objects.

***TPLMSGL**
The message list template is the workstation object.

***MSGL**
The message list objects are the workstation objects.

***TPLMSGQ**
The message queue template is the workstation object.

***TPLMSGSND**
The message sender template is the workstation object.

***MSGSND**
The message sender objects are the workstation objects.

***TPLSGNUSL**
The signed-on user list template is the workstation object.

***SGNUSL**
The signed-on user list objects are the workstation objects.

***TPLOBJL**
The object list template is the workstation object.

***OBJL** The object list objects are the workstation objects.

***TPLLIBSL**
The library list template is the workstation object.

***LIBSL**
The library list objects are the workstation objects.

***TPLLIB**
The library template is the workstation object.

***TPLLAUNCH**
The job submitter template is the workstation object.

***LAUNCH**
The job submitter objects are the workstation objects.

***PRSSET**
The personal settings objects are the workstation objects.

Top

Examples

```
EDTWSOAUT   WSOTYPE(*TPLMSGQ)
```

This command shows the list of authorized users to the message queue template.

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Error messages

Unknown

Top

Eject Emulation Output (EJTEMLOUT)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Eject Emulation Output (EJTEMLOUT) command forces the last data received from the host system to the spooled file or printer by closing the printer file. After closing, another printer file is opened if *IMMED was specified on the Start Printer Emulation (STRPRTEML) command, so that more data can be spooled or printed. Printing then starts if *FILEEND was specified on the **Spooled output schedule (SCHEDULE)** parameter of the Create Printer File (CRTPRTF) command.

Note: When the emulation printer output is ejected, a page eject is also performed.

More information about device emulation is available in the 3270 Device Emulation Support book, SC41-5408.

Additional Considerations

You must use care when running this command. Before entering the command, you should look at the printed output (if SPOOL(*NO) was specified) or use the Display Spooled File (DSPSPLF) command to look at the spooled file (if SPOOL(*YES) was specified), to determine whether the printer data is at a logical breaking point. If this function is requested when printer emulation is in the middle of a group of print data from the host system, the group is split into separate printer files on the system.

The effect of this command on the printer emulation output varies, depending on the values specified for the SPOOL and SCHEDULE parameters on the printer file.

The possible values and their conditions are:

- SPOOL(*NO): All the data received from the host system is printed, and the printer moves to the top of the next page.
- SPOOL(*YES) and SCHEDULE(*IMMED): If a writer is active to the output queue and is printing this file, all the data received from the host system is printed, and the printer moves to the top of the next page. If a writer is not active (printing this file), the effect is the same as if SCHEDULE(*FILEEND) was specified. Another printer file is opened on the output queue.
- SPOOL(*YES) and SCHEDULE(*FILEEND): The status of the printer file on the output queue changes from *open* to *ready to print*. If a writer is active, the data can be printed. Another printer file is opened on the output queue.
- SPOOL(*YES) and SCHEDULE(*JOBEND): The status of the printer file on the output queue changes from *open* to *closed*. The file is not ready to print until the end of the job is reached. Another printer file is opened on the output queue.

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Parameters

Keyword	Description	Choices	Notes
EMLDEV	Emulation device, or	*Name*	Optional, Positional 1
EMLLOC	Emulation location	*Communications name*	Optional, Positional 2

Keyword	Description	Choices	Notes
PRTDEV	Print device	*Name*	Optional, Positional 3

Top

Emulation device (EMLDEV)

Specifies the name of a printer emulation device that receives data from the host system. This device must be a 3287 Printer (EMLDEV(3287)) or a 3289 Printer (EMLDEV(3289)), and must currently be operating as an LU1 unit. The printer emulation job or session that is using this device will be informed of the request. If the LU1 session is between brackets, printer emulation starts a bracket and sends the PA key signal to the host system with a Change Direction (CD) request. If the LU session is in receive condition, a signal (request for CD) is sent to the host system, and printer emulation waits for the CD. When the CD is received, the PA key signal is sent to the host system with the CD. If the LU session is in send condition, the PA key signal is sent to the host system with the CD.

Either this parameter, or the **Emulation location (EMLLOC)** parameter and the **Print device (PRTDEV)** parameter is required.

Top

Emulation location (EMLLOC)

Specifies the remote location name associated with this session. The location name is defined during device description configuration and refers to the remote location where communication takes place. This value must be the same as the value specified for the Emulation location (EMLLOC) parameter on the Start Printer Emulation (STRPRTEML) command.

Either this parameter and the **Print device (PRTDEV)** parameter, or the **Emulation device (EMLDEV)** parameter, is required.

Top

Print device (PRTDEV)

Specifies the name of a printer device that is used to print the spooled output. This value must be the same as the value specified for the Printer device (PRTDEV) parameter on the Start Printer Emulation (STRPRTEML) command. This parameter must be specified when the EMLLOC parameter is specified.

Either this parameter and the **Emulation location (EMLLOC)** parameter, or the **Emulation device (EMLDEV)** parameter is required.

Top

Examples

```
EJTEMLOUT   EMLDEV(HOSTPRT1)
```

This command closes the printer file in the printer emulation job using the emulation device HOSTPRT1, forcing the latest data from the host system out to the spooled file or printer.

Top

Error messages

***ESCAPE Messages**

CPF8595
Eject emulation output function not performed.

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Element Definition (ELEM)

Parameters
Examples
Error messages

The Element (ELEM) command definition statements are used to define the elements of a mixed list parameter on a command. A list parameter is a parameter that accepts multiple values that are passed together as consecutive values pointed to by a single parameter. The values are preceded by a 2-byte binary value that indicates the number of elements defined for the parameter.

A list item is the value that represents one value among a group of values organized in a specific order in a list. If all of the list elements are not of the same type, one ELEM statement must be used for each element that appears in the list being defined. If all the elements are of the same type (a simple list), individual ELEM statements are not required. For a simple list, all that is necessary is to specify the number of elements in the list on the **Maximum values allowed (MAX)** parameter of the PARM statement.

The order in which the ELEM statements are entered into the source file determines their positional order in the list. The first ELEM statement (for the first list item) must have a statement label that matches the statement label on the **Type of value (TYPE)** parameter of the PARM or ELEM statements for the same list. The remaining ELEM statements in the list must be unlabeled. Lists of elements having different values can be nested to the depth of three levels, including the highest level. A maximum of 300 elements can be included in one list.

Note: The ELEM statement contains certain parameters and predefined values that can be used only when an IBM-supplied command processing program (CPP) is called by the command being defined. Because there are limitations in some high-level languages, these values may not be useful in the definition statements of user-defined commands. If the entire parameter is for IBM-supplied commands only, these parameters and values are identified by the phrase (*For IBM-supplied commands)* that immediately follows the parameter keyword or the predefined value to which it applies.

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Parameters

Keyword	Description	Choices	Notes
TYPE	Type of value	*Simple name*, *DEC, *CHAR, *LGL, *NAME, *VARNAME, *INT2, *GENERIC, *INT4, *DATE, *TIME, *ZEROELEM, *HEX, *SNAME, *PNAME, *UINT2, *UINT4, *X, *CNAME	Required, Positional 1
LEN	Value length	Values (up to 3 repetitions): *Integer*	Optional, Positional 2
CONSTANT	Constant value	*Character value*	Optional
RSTD	Restricted values	*YES, ***NO**	Optional
DFT	Default value	*Character value*	Optional
VALUES	Valid values	Values (up to 300 repetitions): *Character value*	Optional
REL	Relational expression	*Element list*	Optional
	Element 1: Relational operator	*GT, *EQ, *GE, *NL, *LT, *NE, *LE, *NG	
	Element 2: Value	*Character value*	

Keyword	Description	Choices	Notes
RANGE	Range of values	*Element list*	Optional
	Element 1: Lower value	*Character value*	
	Element 2: Upper value	*Character value*	
SPCVAL	Special values	Values (up to 300 repetitions): *Element list*	Optional
	Element 1: From value	*Character value*	
	Element 2: To replacement value	*Character value*	
SNGVAL	Single values	Values (up to 300 repetitions): *Element list*	Optional
	Element 1: From value	*Character value*	
	Element 2: To replacement value	*Character value*	
MIN	Minimum values required	0-300, **0**	Optional
MAX	Maximum values allowed	*Integer*, **1**	Optional
ALWUNPRT	Allow unprintable characters	***YES**, *NO	Optional
ALWVAR	Allow variable names	***YES**, *NO	Optional
PGM	Is ELEM a program	***NO**, *YES	Optional
DTAARA	Is ELEM a data area	***NO**, *YES	Optional
FILE	If a file parameter, how used	***NO**, *IN, *OUT, *UPD, *INOUT, *UNSPFD	Optional
FULL	Full field required	*YES, ***NO**	Optional
EXPR	Value an expression	***NO**, *YES	Optional
VARY	Varying length	Single values: ***NO** Other values: *Element list*	Optional
	Element 1: Return length value	*YES	
	Element 2: Value length	***INT2**, *INT4	
PASSATR	Pass attribute byte	*YES, ***NO**	Optional
CASE	Case of value	***MONO**, *MIXED	Optional
CCSID	CCSID of value	***JOB**, *UTF16	Optional
DSPINPUT	Display input	***YES**, *PROMPT, *NO	Optional
CHOICE	Choice text	*Character value*, ***VALUES**, *NONE, *PGM	Optional
CHOICEPGM	Choice program	Single values: ***NONE** Other values: *Qualified object name*	Optional
	Qualifier 1: Choice program	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
INLPMTLEN	Initial prompt length	***CALC**, *PWD, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 17, 25, 32, 50, 80, 132, 256, 512	Optional
PROMPT	Prompt text or message ID	*Character value*, ***NONE**	Optional

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Type of value (TYPE)

Specifies the type of list item being defined. The element can be an integer, a decimal or logical value, or a quoted or not quoted character string that can be a name, label, date, or time.

***DEC** The list item is a packed decimal number.

***LGL** The list item is a logical value, either a one ('1') or a zero ('0').

***CHAR**

The list item is a character string that can (optionally) be enclosed in apostrophes. If the character string contains any special characters (not including an asterisk (*)), it *must* be enclosed in apostrophes. The maximum number of bytes that can be in the character string is 5000 if *JOB is specified for the CCSID parameter and 10000 if *UTF16 is specified for the CCSID parameter.

***NAME**

The list item is a character string that represents a name. The maximum length of the name is 256 bytes. The first character must be alphabetic or one of the special characters, $, @, or #. The name can also be a string of characters starting and ending with double quotation marks (″) or enclosed in parentheses. If a special value is used (as in *LIBL or *NONE), it should be specified on the **Special values (SPCVAL)** parameter.

***SNAME**

The list item is a character string that represents a name. The maximum length of the name is 256 bytes. The first character must be alphabetic or one of the special characters $, @, or #. The remaining characters can be alphanumeric, an underscore, or one of the special characters $, @, or #. The character string can be enclosed in parentheses. If a special value is used (as in *LIBL or *NONE), it must be specified on the SPCVAL parameter.

***CNAME**

The list item is a character string that represents a name. The maximum length of the name is 256 bytes. The first character must be alphabetic or one of the special characters, $, @, or #. If a special value is used (as in *LIBL or *NONE), it must be specified on the **Special values (SPCVAL)** parameter.

***PNAME**

The list item is a character string that represents a path name string. Optionally the path name string may be enclosed in apostrophes. If the path name string contains any special characters (not including an asterisk (*)), it must be enclosed in apostrophes. The maximum length of the path name string is 5000 bytes if *JOB is specified for the CCSID parameter, or 10000 bytes if *UTF16 is specified for the CCSID parameter.

***GENERIC**

The list item is a character string that represents a generic name. A generic name contains one or more characters followed by an asterisk (*) and must conform to the rules for generic names. The name identifies a group of objects whose names all begin with the characters preceding the asterisk. If an asterisk is not included, the system assumes that the generic name is a complete object name.

***DATE**

The list item is a character string that represents a date. When entering the command, the year may be specified with either 2 digits or 4 digits. If a 2-digit year is specified, the date is assumed to be in the range of January 1, 1940 through December 31, 2039. If a 4-digit year is specified, the date may be in the range of August 24, 1928 through May 9, 2071. When it is passed to the CPP, it is always passed in the format *Cyymmdd*, where C = century, yy = year, mm = month, and dd = day. The century digit is set to 0 (zero) for years 19xx, and it is set to 1 (one) for years 20xx. When a date value is specified in this ELEM statement, it must be specified without quotation marks in one of the following formats: *mmddyy*, *mmddyyyy*, or *Cyymmdd*. If the user enters a date when the command is run, it must be specified in the job-date format. The job date separator may be used when the date is entered. If the separator character is used, the date must be enclosed in apostrophes.

***TIME**

The list item is a character string that represents a time. It is passed to the command processing program in a 6-byte character string as *hhmmss*, where hh = hours, mm = minutes, and ss = seconds. Values specified in this statement must be in the format *hhmmss* When a user types a

time in the command at run time, it must be specified in the format *hhmmss*. The job time separator may be used when the time is entered. If the separator character is used, the time must be enclosed in apostrophes.

***HEX** The list item value is hexadecimal in form. The specified characters must be 0 through F. They are converted to hexadecimal (EBCDIC) characters (2 hex digits per byte), right-justified, and padded with zeros. If the value is enclosed in apostrophes, an even number of digits is required. If the value is not enclosed in apostrophes, the number of digits can be odd or even.

***ZEROELEM**
The list item is always considered as a list of zero elements, for which no value can be specified in the command. It is used to prevent a value from being entered for an element that is a list even though the CPP expects one. An element for which *ZEROELEM is specified is not prompted for, although the other elements in the parameter are prompted and are passed to the CPP as a list.

***X** (For IBM-supplied commands) The list item value is a character string, variable name, or numeric value. The value is passed as a numeric value if it contains only digits, a + or - sign, or a decimal point; otherwise, it is passed as a character string.

***INT2** The list item is an integer that is passed as a 2-byte signed binary number.

***INT4** The list item is an integer that is passed as a 4-byte signed binary number.

***UINT2**
The list item is an integer that is passed as a 2-byte unsigned binary number.

***UINT4**
The list item is an integer that is passed as a 4-byte unsigned binary number.

***VARNAME**
(For IBM-supplied commands) The list item value is a CL variable name that is passed as a character string.

statement-label
The list item accepts a qualified list name or a mixed list of values. The statement label specified here by the TYPE parameter is the statement label that identifies the first of a series of QUAL or ELEM statements that further describe the qualified list name or the mixed list being defined. The label must be the same as the label specified by statement label on the **Type of value (TYPE)** parameter on the PARM statement for this list.

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Value length (LEN)

Specifies the length of the list item value that is passed to the command processing program (CPP). Depending on the value specified for the **Type of value (TYPE)** parameter, the LEN parameter may allow up to three length values to be specified.

- If *INT2, *INT4, *UINT2, *UINT4, *DATE, *TIME, *ZEROELEM, or a statement label is specified for the TYPE parameter, the LEN parameter is not allowed.
- If *DEC is specified for the TYPE parameter, LEN value 1 specifies the total number of digits in the value and LEN value 2 specifies the number of allowable decimal digits to the right of the decimal point. If no value is specified for LEN value 2, a value of zero is assumed.
- If *HEX is specified for the TYPE parameter, only LEN value 1 can be specified. This length specifies the number of **bytes** passed after the hexadecimal digits have been converted to character digits. Because 2 hexadecimal digits are converted to 1 byte, the number of hexadecimal digits allowed is twice the value of LEN value 1.
- If *X is specified for the TYPE parameter, the LEN parameter is used as follows:

  - For character data, LEN value 1 specifies the minimum length to be passed. If a longer value is entered, the entire value is passed.
  - For decimal data, LEN values 2 and 3 specify the length and decimal positions for a constant value. If a decimal CL variable is entered, it is passed according to the variable's attributes.
  - For a logical value, LEN value 1 specifies the length of the value, which is always 1.
- If TYPE is other than *DEC, *HEX, or *X, LEN value 1 specifies the maximum length of the string passed to the CPP, and LEN values 2 and 3 cannot be specified.
  - If *PNAME or *CHAR is specified for the TYPE parameter *and* *UTF16 is specified for the **CCSID of value (CCSID)** parameter, the number of bytes passed to the CPP will be *twice* the number specified for LEN value 1. In UTF16 format, most characters require two bytes, so LEN value 1 will be approximately the maximum number of UTF16 characters allowed. If the UTF16 string is less than two times the value specified for LEN value 1, the value passed to the CPP will be padded on the right with UTF16 blank characters.

    See the description of the CCSID and **Varying length (VARY)** parameters for more information related to handling values in UTF16 form.
  - Otherwise, the value specified for LEN value 1 will be the number of **bytes** passed to the command processing program. Shorter values will be padded on the right with blanks before being passed to the CPP.

If the LEN parameter is allowed but not specified, a default length will be used based on the value specified for the TYPE parameter. The following table shows the default length value for each TYPE and the maximum value that can be specified for the LEN parameter.

TYPE	Default Length	Maximum Length
*DEC	(15 5)	(24 9)
*LGL	1	1
*CHAR	32	5000
*NAME	10	256
*GENERIC	10	256
*SNAME	10	256
*CNAME	10	256
*PNAME	32	5000
*HEX	1	256
*X	(1 15 5)	(256 24 9)
*VARNAME	11	11

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Constant value (CONSTANT)

Specifies that a value is passed to the CPP as a constant for the list item when the command being defined is processed; the element is not to appear externally on the command. If specified, the value must satisfy the requirements specified by the following parameters:

- Type of value (TYPE)
- Value length (LEN)

- Valid values (VALUES)
- Relational expression (REL)
- Range of values (RANGE)
- Special values (SPCVAL)
- Full field required (FULL)

If a character constant is specified in this parameter, it can be no longer than 32 bytes. This parameter is not valid in the following cases:

- If *ZEROELEM is specified for the **Type of value (TYPE)** parameter.
- If *YES is specified for the **Value an expression (EXPR)** parameter.
- If the **Maximum values allowed (MAX)** parameter is specified greater than 1.
- If a value is specified for the **Default value (DFT)** parameter.

If a constant is specified for the element being defined, no prompt text can be specified for the **Prompt text or message ID (PROMPT)** parameter. However, the other elements of the list parameter (of which this list item is a part) are still prompted, and their values along with this constant value are still passed to the CPP as a list.

Variables cannot be coded for this parameter.

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Restricted values (RSTD)

Specifies whether the value entered for the list item (specified in the ELEM statement) is restricted to only one of the values given in the **Valid values (VALUES)** parameter, the **Special values (SPCVAL)** parameter, or the **Single values (SNGVAL)** parameter; or if the value can be any value that satisfies the requirements specified by the following parameters:

- Type of value (TYPE parameter)
- Value length (LEN parameter)
- Relational expression (REL parameter)
- Range of values (RANGE parameter)
- Special values (SPCVAL parameter)
- Single values (SNGVAL parameter)
- Full field required (FULL parameter)

***NO** The value entered for the list item defined by this ELEM statement can be anything that matches the requirements specified by the following parameters:

- Type of value (TYPE parameter)
- Value length (LEN parameter)
- Relational expression (REL parameter)
- Range of values (RANGE parameter)
- Special values (SPCVAL parameter)
- Single values (SNGVAL parameter)
- Full field required (FULL parameter)

***YES** The value entered for the list item in this ELEM statement is restricted to one of the values in the **Valid values (VALUES)** parameter, or to one of the from-values in the **Special values (SPCVAL)** parameter, or the **Single values (SNGVAL)** parameter. *YES cannot be specified if a statement label or *ZEROELEM is specified on the **Type of value (TYPE)** parameter.

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Default value (DFT)

Specifies the default value that is assigned to the list item if the user does not specify a value. That is, the default value is used as the value of the list item if the user omits the parameter that represents this list item, or specifies *N for the element, while coding or entering the command. The default value must satisfy one of the following:

- It must match the element requirements specified by the following parameters:
  - Type of value (TYPE parameter)
  - Value length (LEN parameter)
  - Relational expression (REL parameter)
  - Range of values (RANGE parameter)
  - Full field required (FULL parameter)
- It must be one of the from-values in the **Special values (SPCVAL)** parameter, or the **Single values (SNGVAL)** parameter.
- If the default is a character constant, it can be no longer than 32 bytes.
- If *YES is specified on the **Restricted values (RSTD)** parameter, it must be in the list of values in the **Valid values (VALUES)** parameter, or in the list of from-values of the **Special values (SPCVAL)** parameter, or the **Single values (SNGVAL)** parameter.
- If this ELEM statement itself defines a list, the default value must be specified in the **Single values (SNGVAL)** parameter.

This parameter is valid only if the **Minimum values required (MIN)** parameter is 0, which means the element defined by this ELEM statement for this list is optional. This parameter is not allowed if the **Constant value (CONSTANT)** parameter is specified. A default cannot be specified if *ZEROELEM is specified for the **Type of value (TYPE)** parameter; in that case, an assumed default is passed.

An *assumed* default value is not displayed by the command prompt; a blank input field is shown instead. If a default is specified in this parameter, it is displayed by the prompt exactly as specified.

value Specify the default value that meets the specified requirements or that is one of the values specified in the **Valid values (VALUES)** parameter, the **Special values (SPCVAL)** parameter, or the **Single values (SNGVAL)** parameter.

Variables cannot be coded for this value.

Top

Valid values (VALUES)

Specifies a list of up to 300 constants (fixed values) from which one constant can be specified as the value of the list item. This parameter is valid only if all of the following are true:

- *YES is specified for the **Restricted values (RSTD)** parameter.
- Both the **Range of values (RANGE)** parameter and the **Relational expression (REL)** parameter are *not* specified.
- Each constant matches the attributes specified by the following parameters:
  - Type of value (TYPE parameter)
  - Value length (LEN parameter)
  - Full field required (FULL parameter)

Character constants specified in this parameter can be no longer than 32 bytes. Specify up to 300 constants that can be specified as the value of the list item. This parameter is not valid if a statement label or *ZEROELEM is specified for the TYPE parameter;

If this ELEM statement is defining the first element in a list, the value specified for this parameter cannot be the same as the value specified in the **Single values (SNGVAL)** parameter on either the PARM or ELEM statement that points to this ELEM statement.

Top

Relational expression (REL)

Specifies the relationship between the list item value and the value of another parameter or constant. The value associated with the referred to keyword is the value passed to the CPP, not the user-specified value. To specify the relationship, enter one of the following relational operators followed by a constant or the value of another parameter.

***LT** less than

***LE** less than or equal to

***EQ** equal to

***GE** greater than or equal to

***GT** greater than

***NL** not less than

***NE** not equal to

***NG** not greater than

This parameter is not valid if *LGL, *VARNAME, *ZEROELEM, or a statement label is specified for the **Type of value (TYPE)** parameter, or if either the **Range of values (RANGE)** parameter or the **Valid values (VALUES)** parameter is specified. If *CHAR (character type) is specified by the **Type of value (TYPE)** parameter, the EBCDIC value of the character string is used as an unsigned integer in the comparison. If a character constant is specified in this parameter, it can be no longer than 32 bytes.

Top

Range of values (RANGE)

Specifies the range, or the limits, for the value of the list item. The list item value must be greater than or equal to the lower limit value specified, and it must be less than or equal to the upper limit value specified. The value tested is the value sent to the CPP, not the user-specified value.

For nonnumeric data types, such as *CHAR, the range of values and the data specified will be right-justified and padded on the left with blanks. A numeric range should not be used to define an interval for nonnumeric data unless leading zeros are specified or the data is only 1 character in length.

This parameter is not valid if either the **Relational expression (REL)** parameter or the **Valid values (VALUES)** parameter is specified, or if *LGL, *VARNAME, *ZEROELEM, or statement label is specified on the **Type of value (TYPE)** parameter. Character constants specified in this parameter can be no longer than 32 bytes.

Top

Special values (SPCVAL)

Specifies a list of up to 300 entries that define special values that can be entered for the element defined by this ELEM statement. Each entry specifies a character string (from value) that can be entered even though it may not meet all validity checking requirements. If the entered character string matches the from-value of one of the entries, and the to-value is specified, the string is replaced with the to-value and is then passed to the command processing program (CPP) without further checking. If the to-value is omitted, the from-value is passed to the CPP. This parameter is not valid if a statement label or *ZEROELEM is specified for the **Type of value (TYPE)** parameter.

If a to-value of *CURLIB is specified, the name of the current library is passed to the CPP rather than the value *CURLIB. If the from-value is *CURLIB and no to-value is specified, or if the to-value is *CURLIB and it is enclosed in apostrophes, the value *CURLIB is passed to the CPP.

The from-value is a character string, but the to-value can be anything that is passable. However, if *DATE is specified for the **Type of value (TYPE)** parameter, the to-value must be specified not quoted in one of the following formats: *mmddyy*, *mmddyyyy*, or *cyymmdd*.. If a CL variable is used for the from-value, its type must be *CHAR. If this ELEM statement is defining the first element in a list, the value specified for the from-value cannot be the same as the value specified in the **Single values (SNGVAL)** parameter on either the PARM or ELEM statement that points to this ELEM statement.

The to-value must be no longer than is specified on the **Value length (LEN)** parameter; and, if *DEC, *INT2, *INT4, *UINT2 or *UINT4 is specified for the **Type of value (TYPE)** parameter, the type of the to-value must be the same. If a character type (such as *CHAR, *LGL, or *DATE) is specified for the **Type of value (TYPE)** parameter, the to-value must be a character string. Character constants specified in this parameter can be no longer than 32 bytes. If a to-value is not specified, the from-value must be passable.

Variables cannot be coded for this element.

Top

Single values (SNGVAL)

Specifies a list of up to 300 single values that can be specified for an element being defined as a statement label, or that is to have two or more list items in its nested list (defined by the **Maximum values allowed (MAX)** parameter). Any one of the single values can be used instead of a nested list of values or a qualified name that the element is defined to accept. Each entry specifies a character string (from-value) that can be entered. If an entered character string matches the from-value of one of the entries and the to-value is specified, the data is replaced with the to-value and is then passed to the command processing program (CPP) without further checking. If the to-value is omitted, the from-value is passed to the CPP. If this ELEM statement is defining the first element in a list, the value specified for the from-value cannot be the same as the value specified in the **Single values (SNGVAL)** parameter on either the PARM or ELEM statement that points to this ELEM statement.

The to-value (or the from-value, if the to-value is omitted) must be passable, as specified in the **Special values (SPCVAL)** parameter. Character constants specified in this parameter can be no longer than 32 bytes. This parameter can be specified only if the **Maximum values allowed (MAX)** parameter is greater than one or if a statement label is specified for the **Type of value (TYPE)** parameter. It is not valid if *ZEROELEM is specified for the **Type of value (TYPE)** parameter. Each single value can only substitute for a list of values or a qualified name; it cannot be a list item or qualifier. It is passed as the first element of the list.

If a to-value of *CURLIB is specified, the name of the current library is passed to the CPP rather than the value *CURLIB. If the from-value is *CURLIB and no to-value is specified, or if the to-value is *CURLIB and it is enclosed in apostrophes, the value *CURLIB is passed to the CPP.

Variables cannot be coded for this element.

Top

Minimum values required (MIN)

Specifies the minimum number of values that must be entered for the element being defined. For an element that does not allow multiple like values, only zero (0) for optional and one (1) for required can be specified as the minimum number of values.

For an element that allows multiple like values (because a value greater than one is specified in the **Maximum values allowed (MAX)** parameter), zero (0) indicates that no values must be entered; therefore, it is an *optional* element. A value of one (1) or greater than one indicates the minimum number of values that must be entered for the element, and therefore it is a *required* element. The value specified for this parameter cannot exceed the value specified for the **Maximum values allowed (MAX)** parameter. The number specified tells how many list items are required in another list. If this parameter is not specified, zero (0) is assumed, which means that the element is optional.

0 The list item is optional; it does not have to be entered.

minimum-number
Specify the minimum number of elements that must be specified in the nested list. If 1 is assigned as the value, it specifies that one value is required for the element. If a number greater than 1 is specified, the element contains a list that must have at least as many elements as the number specified.

Top

Maximum values allowed (MAX)

Specifies, if this ELEM statement is defining a simple list item, the maximum number of elements that this list item can have in its nested list. If a value greater than 1 is specified, the element is capable of accepting multiple like values (that is, a simple nested list). All values entered for this element (at the time the command is run) must satisfy the validity checking requirements specified by the other parameter values on this ELEM statement.

Note: The values for a nested list are passed consecutively, preceded by a 2-byte binary value that indicates the number of values entered in the list item by the user. CL programs do not support the handling of binary values in variables.

1 The list item accepts only one value; there is no nested list.

maximum-number
Specify the maximum number of elements that the list item can accept. The specified maximum must be greater than or equal to the value specified in the **Minimum values required (MIN)** parameter and less than or equal to 300. If the maximum is greater than 1 and a statement label that identifies a QUAL statement or another ELEM statement is not specified for the **Type of value (TYPE)** parameter, the parameter, which is also an element, is a simple list of like values (that is, each element in the list has the same requirements, such as type and length). If a statement label is specified for the **Type of value (TYPE)** parameter, and it points to the label of a QUAL statement or another ELEM statement, this parameter should only be specified greater than 1 if a list of lists or a list of qualified names is to be accepted. A maximum greater than 1 is not valid if the **Constant value (CONSTANT)** parameter is also specified.

Top

Allow unprintable characters (ALWUNPRT)

Specifies whether this ELEM statement should accept the hexadecimal value X'FF' and those hexadecimal values in the range X'00' to X'3F'. This parameter is valid only if *CHAR or *X is specified for the **Type of value (TYPE)** parameter.

***YES** Any hexadecimal values can be sent to the display or printer.

***NO** Unprintable characters cannot be passed to the command processing program.

Top

Allow variable names (ALWVAR)

Specifies whether variable names are allowed for the element. *NO is not allowed if *VARNAME, *ZEROELEM, *NULL, or a statement label is specified for the **Type of value (TYPE)** parameter.

***YES** Variable names can be used for the element.

***NO** Variable names cannot be used for the element.

Top

Is ELEM a program (PGM)

Specifies whether this element is a program name. *YES is valid only if a statement label, *CHAR, *NAME, *SNAME, *CNAME, or *GENERIC is specified for the **Type of value (TYPE)** parameter. The specification of *YES on this parameter does not have any effect on the element being defined by the ELEM statement; it only indicates to the compiler that the value for this element is a program name. This information is stored so that it can be included in the output of the Display Program References (DSPPGMREF) command.

***NO** The element (defined in this ELEM statement) is not a program name.

***YES** The element is a program name.

Top

Is ELEM a data area (DTAARA)

Specifies whether the element is a data area name. *YES is valid only if a statement label, *CHAR, *NAME, *SNAME, *CNAME, or *GENERIC is specified for the **Type of value (TYPE)** parameter. The specification of *YES on this parameter does not have any effect on the element being defined by the ELEM statement; it only indicates to the compiler that the value for this element is a data area. This information is stored so that it can be included in the output of the Display Program References (DSPPGMREF) command.

***NO** The element (defined in this ELEM statement) is not a data area name.

***YES** The element is a data area name.

Top

If a file parameter, how used (FILE)

Specifies whether if the list item is a file name and the expected use of the file. The element can be specified as the name of a file that has a specific use so that, at compile time, the names can be used to get file reference information about where the files are used. This parameter is valid only if a statement label, *CHAR, *NAME, *SNAME, *CNAME, or *GENERIC value is specified for the **Type of value (TYPE)** parameter. The specification in this parameter does not have any effect on the list item being defined by the ELEM statement; it only indicates to the compiler that the value for this element is a file name and what type of file it is. This information is stored so that it can be included in the output of the DSPPGMREF (Display Program References) command. One of the following types of files can be specified:

***NO** The list item (defined in this ELEM statement) is not a file name.

***IN** The list item is an input file name.

***OUT** The list item is an output file name.

***UPD** The list item is an update file name.

***INOUT**
The list item value is the name of a file that is to be used for both input and output.

***UNSPFD**
The list item value is the name of a file, but its use cannot be specified.

Top

Full field required (FULL)

Specifies whether the number of bytes in the list item must be exactly the same as the number specified in the **Value length (LEN)** parameter (if specified) or its default length (if LEN is not specified).

***NO** The number of bytes in the list item value can be less than that specified by the LEN parameter.

***YES** The number of bytes in the list item value must equal the number specified by the LEN parameter, or the default length for that type. The exact length is valid only for the following types on the **Type of value (TYPE)** parameter: *LGL, *CHAR, *NAME, *SNAME, *CNAME, *GENERIC, *VARNAME, and *HEX.

Top

Value an expression (EXPR)

Specifies whether the element can accept an expression containing a character concatenation.

***NO** The element value cannot be a concatenation expression.

***YES** The element value can be a concatenation expression. *YES is not valid if a value is specified for the **Constant value (CONSTANT)** parameter.

Top

Varying length (VARY)

Specifies whether the list item value that is passed to the CPP is preceded by a length value that indicates the number of bytes entered for the element's value.

Single values

***NO** The element value is not preceded by a length value.

Element 1: Return length value

***YES** The element value passed to the CPP is preceded by a field that indicates the number of bytes actually specified for the parameter. *YES is valid only for the following parameter types: *CHAR, *NAME, *SNAME, *CNAME, *PNAME, *GENERIC, *LGL, and *VARNAME. *YES must be specified if PASSATR(*YES) and RTNVAL(*YES) are specified.

Note: The length value is the actual number of bytes entered for the list item with trailing blanks removed. The length value passed may be different than the defined parameter length or the declared variable length. The length of the field containing the character string data is determined by the defined length for the parameter or the declared LEN for CL variables. The length value defines how many bytes in the character string data field were actually entered for the command parameter. If *PNAME or *CHAR is specified for the TYPE parameter *and* *UTF16 is specified for the **CCSID of value (CCSID)** parameter, the length value passed to the command processing program represents the number of *bytes* for the element value. This could be up to twice the number specified for the **Value length (LEN)** parameter because the element value will be converted to UTF16 format and most UTF16 characters require two bytes. See the description of the CCSID and LEN parameters for more information related to handling values in UTF16 format.

Element 2: Value length

***INT2** The element length value is an integer passed as a 2-byte signed binary number.

***INT4** The element length value is an integer passed as a 4-byte signed binary number.

Top

Pass attribute byte (PASSATR)

Specifies whether an attribute byte is to be passed to the command processing program (CPP) with the list item data. This parameter is not valid if a statement label or *ZEROELEM is specified for the **Type of value (TYPE)** parameter.

The attribute byte precedes the list item data. If the list item allows multiple values to be specified, an attribute byte precedes each value.

***NO** No attribute byte is passed with the list item.

***YES** An attribute byte is passed with the list item.

The attribute byte has two fields:

1. The leftmost bit of the attribute byte indicates whether or not a value was specified. If the leftmost bit is '0'B, the value passed to the command processing program is a default value and was not specified in the command string. If the leftmost bit is '1'B, the value passed to the command processing program was specified in the command string.
2. The remaining seven bits describe the value passed to the command processing program when *CHAR is specified for the **Type of value (TYPE)** parameter.

```
Attribute    Description
----------   -------------------------------------
'0000010'B   Meets *NAME rules, like A_B
'0000100'B   Meets *GENERIC rules, like AB*
'1000101'B   Quoted character string, like 'A B'
'0000101'B   Unquoted character string, like 5A
'1001000'B   Logical constant, '0' or '1'
'0001100'B   Hexadecimal value, like X'C1C2'
'0100001'B   Unsigned numeric value, like 5
'0101001'B   Unsigned numeric with decimal point,
```

```
                like 5.2
'0110001'B      Signed numeric value, like -5
'0111001'B      Signed numeric with decimal point,
                like -5.2
```

Top

Case of value (CASE)

Specifies whether the value that is passed to the CPP is changed from lowercase to uppercase, or is preserved in the case specified on for the command parameter.

***MONO**
The element value is changed from lowercase to uppercase. Parameters enclosed with apostrophes preserve the case whether or not this value is specified.

***MIXED**
The element value is preserved in the case specified on the command parameter. The value can be specified only for *CHAR and *PNAME parameter types.

Top

CCSID of value (CCSID)

Specifies the coded character set identifier (CCSID) to use when passing the element value to the command processing program.

Note: If the command string is run in batch using the Start Database Reader (STRDBRDR) or Submit Database Jobs (SBMDBJOB) command from a source file created with a CCSID of 1208 (UTF8) or was compiled from a CL source file created with a CCSID of 1208 or is being run using the QCAPCMD API and specifies that the CCSID of the command is either 1200 (UTF16) or 1208, the command string is assumed to be in Unicode format.

***JOB** If the command string is in Unicode format, the value for this element will be converted to the job CCSID before it is passed to the command processing program. Otherwise, the command string is assumed to already be in the CCSID of the job and no conversion is done for this element.

***UTF16**
The element value will be passed as a UTF16 string to the command processing program (CPP). UTF16 is a Unicode format which is the same as CCSID 1200. In UTF16 format, most characters require two bytes (16 bits). If the command string is in a supported Unicode CCSID (1208 or 1200), little or no conversion of the element value will be performed. Otherwise, the command string is assumed to already be in the CCSID of the job, and the element value will be converted from the CCSID of the job to CCSID 1200 (UTF16).

If the parameter is optional and no value is specified in the command string, the defined default value will be converted to UTF16 format before it is passed to the CPP. If the parameter is a constant, the defined constant value will be converted to UTF16 format before it is passed to the CPP. If the parameter value is specified as a hexadecimal literal in the command string, the hexadecimal string is first converted to a character string using the CCSID of the job and the resulting character string is converted to UTF16 format before it is passed to the CPP.

*UTF16 is only allowed if *CHAR or *PNAME was specified for TYPE.

See the description of the **Value length (LEN)** parameter and **Varying length (VARY)** parameter for more information related to handling values in UTF16 format.

Top

Display input (DSPINPUT)

Identifies if the keyword value is to be shown in the job log or in a prompt display.

***YES** The default response, *YES, indicates that the parameter value will be shown on the prompt display and in the job log.

***PROMPT**
The response *PROMPT indicates that the parameter value will be shown on the prompt display but not in the job log.

***NO** The response *NO indicates that the parameter values will not be shown on either the prompt display or in the job log.

Top

Choice text (CHOICE)

Specifies the choices text that is displayed to the right of the input field on the prompt screen. Up to 30 characters of text can be displayed.

***VALUES**
The choices text is generated based on the values specified for the TYPE, RSTD, RANGE, SNGVAL, SPCVAL, and VALUES parameters. If constants are specified for the RANGE parameter, the choices text begins with the minimum value and the maximum value separated by a hyphen. If RANGE is not specified with constants as the minimum and maximum values, and RSTD(*NO) is specified, the choices text begins with a short description of the parameter type based on the value specified for the TYPE parameter. Values specified for the SNGVAL parameter are added to the choices text, in the order the values are defined in the command definition source and separated by a comma and a blank. The last entries added to the choices text are values specified for the SPCVAL or VALUES parameter, in the order the values are defined in the command definition source and separated by a comma and a blank. If there are too many values to fit in 30 characters, the last value is followed by three periods.

The following are examples of possible choices text generated by CHOICE(*VALUES):

- If TYPE(*DEC) and RANGE(1.0 999.9) and SPCVAL((*NOMAX -1)) are specified, the choices text will be:

  ```
  1.0-999.9, *NOMAX
  ```

- If TYPE(*NAME) and RSTD(*NO) and SNGVAL(*ALL) and SPCVAL(*LIBL *CURLIB) are specified, the choices text will be:

  ```
  Name, *ALL, *LIBL, *CURLIB
  ```

- If RSTD(*YES) and SNGVAL(*ALL) and SPCVAL(*ALRTBL *BNDDIR *CHTFMT *CLD *CLS *CMD) are specified, the choices text will be:

  ```
  *ALL, *ALRTBL, *BNDDIR...
  ```

***NONE**
No values are displayed.

***PGM** A program that is called determines the values that are displayed. The program that is called is identified in **Choice program (CHOICEPGM)** parameter of the PARM statement.

message-identifier
Specify the message ID of the message used to retrieve the message containing the text for the possible values field. The message file specified on the **Message file for prompt text (PMTFILE)** parameter of the Create Command (CRTCMD) command is used to find the message.

'choices-text'
Specify no more than 30 characters, enclosed in apostrophes.

Top

Choice program (CHOICEPGM)

Specifies the program to be called during command prompting to fill in the possible choices text and the permissible values. This parameter must be specified if *PGM is specified on the **Choice text (CHOICE)** parameter and may not be specified otherwise.

Single values

***NONE**
No program is identified to fill in the possible choices text and permissible values.

Qualifier 1: Choice program

name Specifies the name of the program to be called during prompting to fill in the possible choices text or permissible values. If an exception occurs when the program is called, no possible choices text is left blank, and the list of permissible values is taken from the command.

Qualifier 2: Library

***LIBL** All libraries in the library list for the current thread are searched until the first match is found.

***CURLIB**
The current library for the job is used to locate the program. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the program is located.

Top

Initial prompt length (INLPMTLEN)

Specifies the length of the input field initially displayed for the element when the command is prompted. The user can extend the field to a maximum length of 512 bytes by entering an ampersand (&) in the first position of the field, followed by a blank. INLPMTLEN is valid only if TYPE is specified as *CHAR, *NAME, *SNAME, *CNAME, *PNAME, *GENERIC, or *HEX. If FULL(*YES), RSTD(*YES), or CONSTANT are specified, INLPMTLEN(*CALC) must be specified or defaulted.

***CALC**
The prompter will determine the length of the prompt field based on the type and length of the parameter.

***PWD** If the current value of system value QPWDLVL is '0' or '1', the prompt field will be 10 bytes long. Otherwise, the length of the prompt field will be determined by the length of the parameter. INLPMTLEN(*PWD) is valid only if TYPE is specified as *CHAR, *NAME, *SNAME, *PNAME, or *CNAME.

initial-prompt-length
Specify the initial length in bytes. Valid values are 1-12, 17, 25, 32, 50, 80, 132, 256, and 512.

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Prompt text or message ID (PROMPT)

Specifies the prompt text, if any, is that used for the list item (defined in this ELEM statement). The prompt text gives a short description of the element which appears next to the element input field when the command is prompted. Prompt text cannot be specified if *ZEROELEM is specified for the **Type of value (TYPE)** parameter, or if a constant value is specified for the **Constant value (CONSTANT)** parameter.

***NONE**
: No prompt text is displayed for the list item defined by this ELEM statement. This list item is still prompted by an input field, but no text is displayed with it.

message-identifier
: Specify the message identifier that specifies the message containing the prompt text of up to 30 bytes that is displayed when the program is prompting for the list item. If a message having the specified identifier cannot be found in the message file specified in the **Message file for prompt text (PMTFILE)** parameter of the Create Command (CRTCMD) command, the message identifier itself is used as the prompt text.

'prompt-text'
: Specify the prompt text that is displayed when the program is prompting for the list item. The text must be a character string of no more than 30 bytes, enclosed in apostrophes.

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Examples

Example 1: Define a Parameter with Two Different Types of Elements

```
      PARM   KWD(JOBDESC)  TYPE(L1)  MIN(1)
L1:   ELEM   TYPE(*NAME)  LEN(10)  MIN(1)
      ELEM   TYPE(*DEC)  LEN(2)  MIN(1)  REL(*LE 60)
```

The parameter named JOBDESC is required and has two elements which must both be specified. The first element is a ten-character name, and the second element is a 2-digit number that is less than or equal to 60.

Example 2: Define a Parameter with Similar Elements

```
      PARM   KWD(RANGE)  TYPE(L1) MIN( DFT(*SAME) +
             SNGVAL((*SAME 101))
L1:   ELEM   TYPE(*DEC)  MIN(1)  REL(*LE 100)
      ELEM   TYPE(*DEC)  MIN(1)  REL(*LE 100)
```

The parameter named RANGE can be omitted, but, if present, it must be a list of two numbers, neither of which can be greater than 100. To allow the command processing program to determine whether the value passed is a user-specified value or the *SAME single value, *SAME is mapped to 101 which is outside the normal range of values being checked for.

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Error messages

None

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Else (ELSE)

Where allowed to run:

- Batch program (*BPGM)
- Interactive program (*IPGM)

Threadsafe: Yes

Parameters
Examples
Error messages

The Else (ELSE) command is used with an IF command to specify another command that is to be conditionally processed. The ELSE command is processed only if the result of evaluating the logical expression on the preceding IF command is false. If the result is true, the ELSE command and commands associated with it are not processed.

The ELSE command can specify a CL command, or a Do group, to be processed for the false condition.

An ELSE command does not have to follow each IF command, but each ELSE command that is coded must have an associated IF command preceding it. If nested levels of IF commands are used, a given ELSE is always matched with the innermost IF command that has not already been matched with another ELSE command. Although the ELSE command is optional, coding all of the matching ELSE commands makes it easier to see where all of the nesting levels start and end.

Restrictions: The ELSE command is valid only in a CL program or ILE CL procedure. It must have an associated IF command preceding it.

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Parameters

Keyword	Description	Choices	Notes
CMD	Command	*Command string*	Optional, Positional 1

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Command (CMD)

Specifies the command or commands (in a Do group) to be processed if the result of evaluating the expression on the corresponding IF command is false.

If the command specified in this parameter is a DO command, all of the commands specified within the Do group are considered to be part of the command specified by the parameter. If no command is specified, no action is taken for a false condition.

If the command specified by the CMD keyword is not coded on the same line as the keyword, the left parenthesis following CMD must be coded on the same line, followed by a + or - to show continuation. The command and the right parenthesis can then be coded on the next line. For example:

```
ELSE  CMD(  +
    GOTO C)
```

If any part of the command continues on the next line, a continuation character (+ or -) must be specified.

If a DO command is specified, only the DO command (not the commands specified as part of the Do group) is placed in parentheses. For example:

```
ELSE  CMD(DO)
    CMD1
    CMD2
      .
      .
      .
    ENDDO
```

The following commands, although valid in a CL program or ILE CL procedure, cannot be specified on the ELSE command:

- ENDDO (End Do)
- MONMSG (Monitor Message)
- PGM (Program)
- ENDPGM (End Program)
- DCL (Declare CL Variable)
- DCLF (Declare File)
- another ELSE command
- WHEN, OTHERWISE, ENDSELECT

In addition, the MONMSG command cannot be specified as the next command after the ELSE command.

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Examples

Example 1: Using ELSE and IF Commands

```
IF   (&A *GT &B)  THEN(CHGVAR  VAR(&A)  VALUE(&B))
ELSE   (CHGVAR &B &A)
```

If the value of &A is greater than the value of &B, &A is set equal to &B. If &A is less than or equal to &B, the test result is false. The CHGVAR command on the ELSE command is processed, and the value of &B is set to the same value as &A. (Refer to the CHGVAR (Change Variable) command for the description of the command and its parameters.)

Example 2: Nested Levels of Commands

```
IF   COND(&A *EQ &B)  +
THEN(IF   (&C *EQ &D)  +
THEN(IF   (&C *EQ &F)   THEN(DO)))
CMD1
CMD2
 :
ENDDO
ELSE   CMDX
ELSE   CMDY
ELSE   DO
```

This example shows the use of nested levels of IF commands where an ELSE command is associated with each IF. The use of the ELSE commands makes the nested levels of IF commands easier to identify.

Top

Error messages

None

Top

Emulate Printer Keys (EMLPRTKEY)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Emulate Printer Key (EMLPRTKEY) command causes the printer emulation job or session that is using the specified printer emulation device to send either a PA1 or PA2 key signal to the host system.

PA keys are program access keys that are used to signal the host system. The host system program determines how these keys work. This command can only be used on 3287 or 3289 emulated printers operating as an LU type 1 session. In addition, the PA key signal, although sent to the host system, may not immediately be received.

Top

Parameters

Keyword	Description	Choices	Notes
EMLDEV	Emulation device, or	*Name*	Optional, Positional 1
EMLLOC	Emulation location	*Communications name*	Optional, Positional 2
PRTDEV	Print device	*Name*	Optional, Positional 3
PRTKEY	Emulated printer key	***PA1**, *PA2	Optional

Top

Emulation device (EMLDEV)

Specifies the name of a printer emulation device that receives data from the host system. This device must be a 3287 Printer (EMLDEV(3287)) or a 3289 Printer (EMLDEV(3289)), and must currently be operating as an LU1 unit. The printer emulation job or session that is using this device will be informed of the request. If the LU1 session is between brackets, printer emulation starts a bracket and sends the PA key signal to the host system with a Change Direction (CD) request. If the LU session is in receive condition, a signal (request for CD) is sent to the host system, and printer emulation waits for the CD. When the CD is received, the PA key signal is sent to the host system with the CD. If the LU session is in send condition, the PA key signal is sent to the host system with the CD.

Either this parameter, or the **Emulation location (EMLLOC)** parameter and the **Print device (PRTDEV)** parameter is required.

Top

Emulation location (EMLLOC)

Specifies the remote location name associated with this session. The location name is defined during device description configuration and refers to the remote location where communication takes place. This value must be the same as the value specified for the Emulation location (EMLLOC) parameter on the Start Printer Emulation (STRPRTEML) command.

Either this parameter and the **Print device (PRTDEV)** parameter, or the **Emulation device (EMLDEV)** parameter is required.

Top

Print device (PRTDEV)

Specifies the name of a printer device that is used to print the spooled output. This value must be the same as the value specified for the Printer device (PRTDEV) parameter on the Start Printer Emulation (STRPRTEML) command. This parameter must be specified when the EMLLOC parameter is specified.

Either this parameter and the **Emulation location (EMLLOC)** parameter, or the **Emulation device (EMLDEV)** parameter is required.

Top

Emulated printer key (PRTKEY)

Specifies the PA key signal that is sent to the host system. The host system program determines how these keys work.

***PA1** The PA1 key signal is sent to the host system.

***PA2** The PA2 key signal is sent to the host system.

Top

Examples

```
EMLPRTKEY   EMLDEV(HOSTPRT2)  PRTKEY(*PA2)
```

This command causes the printer emulation session using emulation device HOSTPRT2 to send the PA2 key signal to the host system.

Top

Error messages

***ESCAPE Messages**

CPF8598
Emulate print key function not performed.

Top

End Agent Services (ENDAGTSRV)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The End Agent Services (ENDAGTSRV) command ends all of the active agent services on this system that are defined in a preferences file. Another preferences file is also used to help define how the services are ended. The preferences files are stream files named *ableplatform.preferences* and *able.preferences* that are located in the directory specified for the **Preferences file directory (PREFDIR)** parameter.

You can restart the agent services by running the Start Agent Services (STRAGTSRV) command.

Restrictions:

- You must have all object (*ALLOBJ) and job control (*JOBCTL) special authorities to run this command.

Top

Parameters

Keyword	Description	Choices	Notes
PREFDIR	Preferences file directory	*Path name*, ***DFT**	Optional

Top

Preferences file directory (PREFDIR)

Specifies the directory that contains the preferences files that define the agent services to be ended and how they are ended. The preferences files must be named *ableplatform.preferences* and *able.preferences*.

***DFT** Use the preferences files located in /QIBM/ProdData/OS400/able/.

path-name
Specify the directory that contains the preferences files to be used to end the agent services.

Top

Examples

Example 1: Ending with Shipped Default Values

```
ENDAGTSRV
```

This command ends all of the agent services defined in the default ableplatform.preferences file in '/qibm/prodData/OS400/able/' in a way defined in the default able.preferences file in '/qibm/prodData/OS400/able/'.

Example 2: Ending with User-Specified Values

```
ENDAGTSRV   PREFDIR('/qibm/userData/OS400/able/test/')
```

This command ends all of the running agent services defined in the ableplatform.preferences file in '/qibm/userData/OS400/able/test/' in a way defined in the default able.preferences file in '/qibm/userData/OS400/able/test/'.

Top

Error messages

***ESCAPE Messages**

CPF1890
*ALLOBJ authority required for requested operation.

CPF90FF
*JOBCTL special authority required to do requested operation.

Error messages from submitted job:

This command submits a batch job which will end the batch jobs where the agent services are running. The following error messages could be signaled from this batch job:

CPF4B03
Java Virtual Machine(JVM) exception has occurred.

CPF4B04
Unable to finish ending agent services. Reason code &1

Top

End ASP Balance (ENDASPBAL)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The End ASP Balance (ENDASPBAL) command allows the user to end the ASP balance function that was started using the Start ASP Balance (STRASPBAL) CL command. A message will be sent to the system history (QHST) log when the ASP balance function is ended for each ASP.

For more information about ASP balancing, see the Hierarchical Storage Management Use, SC41-5351.

Restrictions:

- You must have all object (*ALLOBJ) special authority to run this command.

Top

Parameters

Keyword	Description	Choices	Notes
ASP	ASP number	Single values: *ALL Other values (up to 32 repetitions): 1-32	Optional, Positional 1
ASPDEV	ASP device	Single values: *ALLAVL Other values (up to 32 repetitions): *Name*	Optional

Top

ASP number (ASP)

Specifies the auxiliary storage pool (ASP) number for which the ASP balancing function is to be ended.

Note: A value must be specified for either the **ASP number (ASP)** parameter or the **ASP device (ASPDEV)** parameter. Both parameters may be specified.

Single values

***ALL** ASP balancing will be ended for the system ASP (ASP number 1) and all basic ASPs (ASP numbers 2-32) defined to the system.

Other values (up to 32 repetitions)

1-32 Specify the number of the ASP for which ASP balancing is to be ended.

Top

ASP device (ASPDEV)

Specifies the auxiliary storage pool (ASP) device for which ASP balancing is to be ended.

Note: A value must be specified for either the **ASP number (ASP)** parameter or the **ASP device (ASPDEV)** parameter. Both parameters may be specified.

Single values

***ALLAVL**
ASP balancing will end for all ASP devices that currently have a status of 'Available'.

Other values (up to 32 repetitions)

name Specify the name of the independent ASP device for which ASP balancing is to be ended.

Top

Examples

Example 1: End ASP Balance for ASP 1

```
ENDASPBAL   ASP(1)
```

This command allows the user to end the ASP balancing function for ASP 1.

Example 2: End ASP Balance for ASPs 1-32

```
ENDASPBAL   ASP(*ALL)
```

This command will end the ASP balancing functions for the system ASP (ASP number 1) and each basic ASP (ASP numbers 2-32) that is currently being balanced.

Example 3: End ASP Balance for an ASP Device

```
ENDASPBAL   ASPDEV(MYASP1)
```

This command will end the ASP balancing function for ASP device MYASP1.

Example 4: End ASP Balancing for All ASPs

```
ENDASPBAL   ASP(*ALL)  ASPDEV(*ALLAVL)
```

This command will end the ASP balancing functions that may be active on ASP numbers 1-32 and all ASP devices that have a status of 'Available'.

Top

Error messages

***ESCAPE Messages**

CPF18AC
ASP balancing not active for ASP &1.

CPF18AD
ASP &1 must contain more than a single unit.

CPF1890
*ALLOBJ authority required for requested operation.

CPF9829
Auxiliary storage pool &1 not found.

Top

End Batch Job (ENDBCHJOB)

Where allowed to run:

- Batch job (*BATCH)

Threadsafe: No

The End Batch Job (ENDBCHJOB) command is a delimiter in a batch input stream that indicates the end of a job. The End Batch Job (ENDBCHJOB) command also can indicate the end of an inline data file provided the command is detected while the inline file is being processed.

Restrictions: This command cannot be entered at a work station. The End Batch Job (ENDBCHJOB) command must be preceded by two slashes (//) in positions 1 and 2 of the data record, for example //ENDBCHJOB. Blanks can separate the slashes from the command name (// ENDBCHJOB).

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
//ENDBCHJOB
```

This command indicates the end of a job that began with the BCHJOB command.

Top

Error messages

***ESCAPE Messages**

CPF1753
Command cannot be run.

Top

End CHT Server (ENDCHTSVR)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The End Clustered Hash Table Server (ENDCHTSVR) command is used to end the specified clustered hash table server on the cluster nodes specified by the NODE parameter. This will remove the specified nodes from the clustered hash table domain. If all of the cluster nodes defined in the clustered hash table domain are specified on the NODE parameter the server job will be ended on all cluster nodes and the clustered hash table server will be deleted from the cluster.

The clustered hash table server was started using the Start Clustered Hash Table Server (STRCHTSVR) command. If the clustered hash table server has any active connections, any future requests from those connections fail.

Restrictions:

- Cluster Resource Services must be active on the local node.
- All nodes specified in the NODE parameter must have Cluster Resource Services active.
- If an authorization list was specified when the server was started, the requesting user must have change (*CHANGE) authority to the authorization list to end the server.

Top

Parameters

Keyword	Description	Choices	Notes
SERVER	Server	*Communications name*	Required, Positional 1
NODE	Node	Single values: *ALL Other values (up to 20 repetitions): *Communications name*, ***LOCAL**	Optional

Top

Server (SERVER)

Specifies the clustered hash table server to be ended.

This is a required parameter.

name Specify the name of the clustered hash table server to be ended.

Top

Node (NODE)

Specifies which nodes will end the clustered hash table server. The nodes specified will be removed from the clustered hash table domain. If all nodes in the clustered hash table domain are specified, the server will no longer exist in the cluster. Nodes in this list must be unique. The nodes must be active in the cluster.

***LOCAL**
The clustered hash table server will be ended on the local node only. *LOCAL can be specified only once in the list of nodes specified.

***ALL** The clustered hash table server will be ended on all cluster nodes in the clustered hash table domain. If specified, *ALL must be the only value in the list.

name Specify the name of the nodes to process the end request. Up to 20 cluster nodes can be specified.

Top

Examples

Example 1: Ending a Clustered Hash Table Server on the Local Node

```
ENDCHTSVR   SERVER(CT0)
```

This command ends the clustered hash table server CT0 on the local node only.

Example 2: Ending a Clustered Hash Table Server on One of two Nodes in the Clustered Hash Table Domain

Domain for clustered hash table CT1 is FRED and BARNEY.

```
ENDCHTSVR   SERVER(CT1)  NODE(FRED)
```

This command ends the clustered hash table server CT1 on cluster node FRED. The clustered hash table server is still active on BARNEY.

Example 3: Ending a Clustered Hash Table Server on All Nodes

Domain for clustered hash table CT2 is FRED and BARNEY.

```
ENDCHTSVR   SERVER(CT2)  NODE(*ALL)
```

This command ends the clustered hash table server named CT2 on the local node (i.e. BARNEY) and node FRED. The clustered hash table will not exist in the cluster after this command runs.

Top

Error messages

***ESCAPE Messages**

CPFBD03
End clustered hash table server failed.

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