IBM

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iSeries

Operating System/400 Commands
Starting with DSPOPTSVR (Display Optical Server)

Version 5 Release 3

IBM

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Starting with DSPOPTSVR (Display Optical Server)

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Note

Before using this information and the product it supports, be sure to read the information in "Notices," on page 361.

First Edition (May 2004)

This edition applies to version 5, release 3, modification 0 of Operating System/400 (product number 5722-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.

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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.

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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.

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Examples

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

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

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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.

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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.

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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.

overridden-file-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** prompt (MRGOVR parameter) and *ALL is specified on the **File being overridden** prompt (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** prompt (MRGOVR parameter), and a file override name is specified on the **File being overridden** prompt (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.

call-level-number
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. Valid values range from 1 through 999.

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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.

activation group name
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.

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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.

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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.

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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.

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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 5 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:

1. You must have object management authority to the user profile.
2. 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)

This is a required parameter.

The name of the user profile whose authorities are adopted.

Top

Object type (OBJTYPE)

The type of object shown.

***ALL** All objects that adopt the user profile specified on the **User profile** prompt (USRPRF parameter) are shown.

***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)

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 the file is created, the public authority to 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 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.

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.

The possible name values are:

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.

member-name
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 already exists, the user has the option to add new records to the end of the existing member or clear the member and then add the new records.

Element 2: Operation to Perform on Member

***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:

BASIC
*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

CL *FILE, *PGM, and *DTAARA

CLE *SRVPGM

CLLE *FILE, *PGM, *DTAARA, and *SRVPGM

COBOL
*FILE and *PGM (literal names on CALL command)

CSP *FILE, *PGM, *MSGF, *CSPMAP, and *CSPTBL

PASCAL
no information is provided for programs in PASCAL

PL/I *FILE and *PGM

RPG *FILE, *DTAARA, and *PGM

RPGLE
*FILE, *PGM, *DTAARA, and *SRVPGM

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.

Restrictions:

1. The user must have object operational authority for the program.
2. Also, of the libraries specified by the library qualifier, only the libraries for which the user has read 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 4 repetitions): ***PGM**, *SQLPKG, *SRVPGM, *MODULE	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 name and library of the programs whose information is shown.

This is a required parameter.

The possible values for program name are:

program-name
Specify the full name of a program. Information is shown only for the specified program.

generic-program-name*
Specify a generic program name. Information is shown for all programs whose names begin with the specified characters.

***ALL** The information is shown for all programs in the library or libraries.

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

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 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 output file specified on the **File to receive output** prompt (OUTFILE parameter).

Top

Object type (OBJTYPE)

Specifies the object type for which information is displayed.

The possible values are:

***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.

Top

File to receive output (OUTFILE)

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

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 current entry exists in the library list, QGPL is used.

library-name
Specify the name of the library where the file is located.

Note: The outfile format must be the same as QWHDRPPR of the system file QADSPPGM. More information on the OUTFILE format is in the Database information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter book.

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 no members exist in the file, the system creates a member with the name of the file specified in the **File to receive output** prompt (OUTFILE parameter).

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

The possible values for how information is stored are:

***REPLACE**
The output data replaces any existing records in the specified file member.

***ADD** The output data is added to the end of existing records in the specified file member.

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.

Top

Error messages

***ESCAPE Messages**

CPF3033
Object &1 in library &2 not found.

CPF3034
Object &1 in library &2 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 the names of up to ten program variables whose values are shown. The variables can be in a high-level language (HLL) or machine instruction (MI) program.

This is a required parameter.

***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.

program-variable
Specify the names of up to ten program variables 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.

basing-pointer
Specify a basing-pointer name. 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.

program-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 being 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.

starting position
Specify the first position in the string being 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.

display-length
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 being 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 being 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.

recursion-level-number
Specify the recursion level of the program that contains the variable whose value is being 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
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.

***ALL** All types of status of problem log entries are shown.

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

***ALL** All problem log entries are shown.

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.

The possible **starting time** values are:

***AVAIL**
Problem entries created on the specified starting date are shown.

start-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.

The possible **starting date** values are:

***BEGIN**
Problems available at the beginning of the log are shown. If *BEGIN is specified, time values other than *AVAIL for start-time are ignored.

***CURRENT**
The problem log entries created for the current day between the specified start-time and end-time (if specified) are displayed.

start-date
Specify the date after which the problem log entries can be shown. The date must be specified in the job date format.

The possible **ending time** values are:

***AVAIL**
Problem log entries created on the specified ending date are shown.

end-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.

The possible **ending date** values are:

***END** The last day on which a problem log entry was created is the last day for which problems are shown. If *END is specified, then any time value other than *AVAIL for end-time is ignored.

***CURRENT**
The current date is used for the date of the last problem opened to show.

end-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.

The possible **machine type** values are:

***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.

The possible **model number** values are:

***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.

The possible **serial number** values are:

***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 a decimal character ranging from 0 through 9.

- nnnnn
- nnnnnnn
- nn-nnnnn
- nn-nnnnnnn

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.

resource-name
Specify the resource name.

Top

Product (LICPGM)

Specifies that problem log entries that identify the specified failing software are shown.

The possible **program ID** values are:

***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.

program-ID
Specify the identification number of the licensed program.

The possible **release** values are:

***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.

release-level
Specify the release level of the licensed program.

The possible **modification** values are:

***ALL** All entries that identify failing software from the specified licensed program and release are shown.

modification
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-id
Specify the complete function ID. If blank characters are included, the character string must be enclosed in apostrophes (').

The possible 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 AS/400 BASIC

BGU AS/400 Business Graphics Utility

BSC Binary synchronous communications

CBL AS/400 COBOL and COBOL/400

CGU Character generator utility

CL Control language

CRYPT
Cryptographic Support/400

CSM Communications and Systems Management

C400 C/400

DDM Distributed data management

DFU Data file utility

DHCF Distributed host command facility

DICT Language Dictionaries/400

DSNX Distributed system node executive

ECS Electronic customer support

FINANCE
Finance Communications

FTN FORTRAN/400

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 for AS/400

OSP Operating System/400

PAS AS/400 Pascal

PASSTHRU
Pass-through

PC400 Client Access/400

PDM Programming development manager

PL1 AS/400 PL/I

POSCOM
Point-of-Sale Communications Utility/400

QRY Query/400

RETAIL
Retail Communications

REXX REXX/400

RJE Remote job entry

RLU Report layout utility

RPFT Performance Tools/400

RPG RPG/400

RSCS Remote spooling communications subsystem

RWS Remote work station

SDA Screen design aid

SDLC Synchronous Data Link Control

SEU Source entry utility

SMU SystemView System Manager/400

SNADS
SNA distribution services

SNUF SNA upline facility

SORT AS/400 sort

SQL SQL/400

SUU System upgrade utility

TCPIP TCP/IP Connectivity Utilities/400

TRLAN
Token ring network

TXT38 System/38 compatible Text Management

VMC Vertical 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*-program-name
Specify a generic program name. A generic name is a character string containing one or more characters followed by an asterisk (*).

program-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*-msg-id
Specify a generic message identifier (ID). A generic ID is a character string containing one or more characters followed by an asterisk (*).

message-identifier
Specify the message identifier.

Top

Origin (ORIGIN)

Specifies that only problem log entries that originated at the specified systems are shown.

The possible **network ID** values are:

***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.

network-ID
Specify a network ID. Only entries that originated on systems with this local network ID are shown.

The possible **control point name** values are:

***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.

control-point-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.

service-assigned-number
Specify the service assigned number.

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 name and library of 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.

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, QGPL is used.

library-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 to which the output of the command is directed and whether the output to that member replaces or is added to existing records.

The possible methods for adding new records 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 (OUTFILE)** parameter.

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

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.

Note: The **OUTFILE** and **OUTMBR** keywords are conditioned on **OUTPUT(*OUTFILE)**.

If **OUTPUT(*OUTFILE)** is specified, a database file name is required.

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.

Restriction: This command is shipped with public *EXCLUDE authority and the QPGMR, QSYSOPR, QSRV, and QSRVBAS user profiles have private authorities to use the command.

Top

Parameters

Keyword	Description	Choices	Notes
LICPGM	Product	*Character value*, ***ALL**	Optional, Positional 1
SELECT	PTF numbers to select	*Character value*, ***ALL**, *PTFSAVF, *ONORDER, *ACTRQD	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.

The possible values are:

***ALL** The PTFs of all installed and supported 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** prompt (LICPGM parameter) if a PTF number is specified on the **PTF numbers to select** prompt (SELECT 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. The possible values are:

***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.

PTF-number
Specify the PTF identification number of the PTF that is shown.

Top

Release (RLS)

Specifies the release level of the PTFs being displayed.

The possible values are:

***ALL** The PTFs for all releases of the supported and installed products are displayed.

release-level
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.

The possible values are:

***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 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. 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** prompt (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.

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 library where the file is located.

The possible values are:

file-name
Specify the name of the file that receives the PTFs.

Top

Output member options (OUTMBR)

Specifies the name of the database file member where the output of the command is directed. A second value specifies whether the new data replaces the existing data or is added to the end of the data already in the file member.

The possible member name 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 member in the file that receives the output. If the specified member name does not exist, the system creates it.

The possible placement 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: Printing Status of PTFs

```
DSPPTF   LICPGM(5722SS1)  OUTPUT(*PRINT)
```

This command produces a printout containing the status of PTFs for the product 5722SS1.

Example 2: Printing Information

```
DSPPTF   LICPGM(5722SS1)  SELECT(SI00034)  OUTPUT(*PRINT)
```

This command produces a printout containing detailed information about PTF SI00034 for the product 5722SS1.

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.

Restriction: This command is shipped with public *EXCLUDE authority and the QPGMR, QSYSOPR, QSRV, and QSRVBAS user profiles have private authorities to use the 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.

The possible values are:

***ALL** The cover letters for all installed or supported products are displayed.

licensed-program
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** prompt (LICPGM parameter) if a PTF number is specified on the **PTF numbers to select** prompt (SELECT 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. The possible values are:

***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.

PTF-number
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.

The possible values are:

***ALL** The cover letters for all releases of the installed or supported products are displayed.

release-level
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).

The possible values are:

***ALL** All cover letters are displayed.

***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.

The possible values are:

***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.

language-feature-code
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 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. The name of the spooled output file is QSYSPRT.

Top

Examples

Example 1: Print PTF Cover Letters

```
DSPPTFCVR   LICPGM(5722SS1)  SELECT(SI00034)  OUTPUT(*PRINT)
```

This command produces a printout of the cover letter for PTF SI00034 in the product 5722SS1.

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 iSeries Information Center at http://www.ibm.com/eserver/iseries/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.

This is a required parameter.

The possible values are:

***ALL** All entries in the relational database directory.

generic*-relational-database-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 (*).

relational-database-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 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 an output file.

Top

File to receive output (OUTFILE)

Specifies the name and library of the output file to which the output of this command is directed. If the file does not exist, it is created. 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.

This parameter is valid only if you specify *OUTFILE on the **Output** prompt (OUTPUT parameter).

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 is used to locate the output file. If no library is specified as the current library for the job, QGPL is used.

library-name
Specify the name of the library in which the output file is to be located.

database-file-name
Specify the name of the file in which the output is to be located.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when *OUTFILE is specified for the **Output (OUTPUT)** parameter.

The possible **member to receive output** values are:

***FIRST**
The first member of the specified file is used.

member-name
Specify a maximum of 10 characters for the name of the output file member in which the requested information is to be located.

The possible **replace or add records** 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: Directing Information to an Output 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 an Output 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 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

***ESCAPE Messages**

CPFB304

User does not have required special authorities.

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 special authority to use 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 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

```
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.

Top

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 name of the spooled file which has its records displayed.

This is a required parameter.

spooled-file-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.

The possible values are:

***** The job that issued this command is the job that created the spooled file.

job-name
Specify the name of the job that created the spooled file.

user-name
Specify the user name that identifies the user profile under which the job is run.

number
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.

The possible values are:

***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.

spooled-file-number
Specify the number of the spooled file having the specified file name whose data records are displayed.

Top

Job system name (JOBSYSNAME)

Specifies the name of 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.

job-system-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.

The possible single values are:

***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.

The possible create date value is:

spooled-file-create-date
Specify the date the spooled file was created.

The possible create time values are:

***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.

spooled-file-create-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.

The possible values are:

***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.

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

Parameters
Examples
Error messages

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

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.

Top

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, *INV, *MAINT, *PRDACTLOG, *SRVREGINF	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.

***INV** Information about Service Agent inventory transmission is to be 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(*INV) 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 8 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 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, 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, QMAXACTLVL, QMAXJOB, QMAXSGNACN, QMAXSIGN, QMAXSPLF, QMCHPOOL, QMINUTE, QMLTTHDACN, QMODEL, QMONTH, QPASTHRSVR, QPFRADJ, QPRBFTR, QPRBHLDITV, QPRCFEAT, QPRCMLTTSK, QPRTDEV, QPRTKEYFMT, QPRTTXT, QPWDEXPITV, QPWDLMTAJC, QPWDLMTCHR, QPWDLMTREP, QPWDLVL, QPWDMAXLEN, QPWDMINLEN, QPWDPOSDIF, QPWDRQDDGT, QPWDRQDDIF, QPWDVLDPGM, QPWRDWNLMT, QPWRRSTIPL, QQRYDEGREE, QQRYTIMLMT, QRCLSPLSTG, QRETSVRSEC, QRMTIPL, QRMTSIGN, QRMTSRVATR, QSAVACCPTH, QSCANFS, QSCANFSCTL, QSCPFCONS, QSECOND, QSECURITY, QSETJOBATR, QSFWERRLOG, QSHRMEMCTL, QSPCENV, QSPLFACN, QSRLNBR, QSRTSEQ, QSRVDMP, 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

Top

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.

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.

- *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.

- *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. Valid values range from 1 through 100 or the special value *SYS which means that 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. 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.

- *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.
- *JOBDTA - Actions that affect a job are audited.
- *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.
- *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 OS/400 Security Reference 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.

- *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.
- *JOBDTA - Actions that affect a job are audited.
- *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.
- *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 OS/400 Security Reference 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. 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.

- *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 iSeries 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 on

iSeries hardware. 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 and objects with validation errors will 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 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. Changes made to this system value take effect immediately.

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 information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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.

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 OS/400 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. Changes made to this system value take effect immediately.

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.

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 is *NONE.

- *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.

QLMTDEVSSN
Limits concurrent device sessions. Changes made to this system value take effect immediately.

- 0 means you can sign on at multiple devices.
- 1 means you cannot sign on at more than one device.

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.

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.

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, iSeries 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. If enabled, more than one set of task data will be resident in each CPU. Some workloads may experience increased performance due to caching implications. **Note:** The operating system will set the system value to 0 on the next IPL if it detects that the hardware does not support multitasking. Setting the value to system controlled will allow the system to manage the multitasking. Changes made to this system value take effect at the next IPL.

- 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 iSeries Information Center at http://www.ibm.com/eserver/iseries/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.

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.

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.

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.

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.

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 OS/400 Security Reference 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. iSeries 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. iSeries 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.

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.

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.

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.

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.

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 a partitioned system, this system value can only be changed from the primary partition or the hardware management console. 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.

For more information on partitions, see the Logical Partitions topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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 topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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 a partitioned system, this system value can only be changed from the primary partition or the hardware management console. 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.

For more information on partitions, see the Logical Partitions topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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 system-detected software problems are entered in the error log, 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.
- *NOLOG means system-detected software problems are not entered in the error log.

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 1) or in a basic user ASP (ASPs 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 (ASPs 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 OS/400 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.

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. The system value QUTCOFFSET will be changed as well 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 at the next 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 powers only the PRC, IOP cards, and Load Source Disk.
- *CALC means the appropriate wait time will be calculated.
- *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 iSeries Information Center at http://www.ibm.com/eserver/iseries/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, then the volume specified should be the cartridge identifier to be mounted and used.

The possible values are:

***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.

volume-identifier
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.

The possible values are:

***ALL** All data file identifiers on the tape specified on the **Tape device** prompt (DEV parameter) are shown.

data-file-identifier
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.

This parameter can be specified as a list of two values (Elements 1 and 2) or as a single value (*ALL).

Element 1: Starting File Sequence Number

The possible values are:

***FIRST**
The data file labels being displayed begin with the first file (or the only file) on the tape.

start-file-sequence-number
The valid range of sequence numbers is 1 through 16777215. 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.

end-file-sequence-number
The valid range of sequence numbers is 1 through 16777215. 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.

Other Single Values

***ALL** All data file labels on the tape are displayed.

Top

Data type (DATA)

Specifies the type of information that is shown.

The possible values are:

***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 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.

Note: Each file on the tape that was created by the Save (SAV) command is printed as a separate listing.

***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.

The possible values are:

***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.

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 values are:

database-file-name
Specify the name of the database file to be used.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

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 name of the file member that is to receive 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 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.

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.

CPF3792
Information not displayed. Error occurred.

CPF3793
Machine 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

Parameters
Examples
Error messages

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.

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.

database-file-name
Specify the name of the database file to be used.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

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 name of the file member that is to receive 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 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 name of the library device to be used. The device name must have been created previously on the system using the Create Device Media Library (CRTDEVMLB) command.

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.

***ALL** All tape cartridges in the device or in the category specified are displayed.

generic-cartridge-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.

cartridge-identifier
Specify the cartridge identifier.

Top

Category (CGY)

Specifies the category of tape cartridges to be shown.

The possible Category Name values are:

***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.

category-name
Specify the name of a user-defined category. This category name must have been created previously with the Create Tape Category (CRTTAPCGY) command.

The possible Category System values:

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.

system-name
Specify the name of the system that the category belongs to.

The possible single values are:

***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.

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.

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.

database-file-name
Specify the name of the database file to be used.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

The possible Member to Receive Output values are:

***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.

member-name
Specify the name of the file member that is to receive 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 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 ID 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.

device-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 qualified name of 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.

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.

database-file-name
Specify the name of the database file to be used.

Top

Output member options (OUTMBR)

Specifies the name of the database file member to which the output is directed when OUTPUT(*OUTFILE) is specified.

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 name of the file member that is to receive 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 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.

Display Trademarks (DSPTM)

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

Parameters
Examples
Error messages

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.

program-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.

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

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.

Output (OUTPUT) - Help

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.

Top

Display Upgrade Preparation (DSPUPGPRP)

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

Parameters
Examples
Error messages

The Display Upgrade Preparation (DSPUPGPRP) command displays upgrade preparation information when upgrading to a new release of OS/400.

Restrictions:

1. The STRUPGPRP command must have completed successfully and file QUSRSYS/QAIZADSK must exist or an error message is issued.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type of information	***ALL**, *OBJ, *PRB, *STG, *DSK, *SFW, *HDW, *OWN, *ORD, *TIMEEST	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional, Positional 2

Top

Type of information (TYPE)

Specifies the type of preparation information to include in the report.

***ALL** All preparation information is displayed.

***OBJ** Information about unsupported objects is displayed.

***PRB** Information about potential problems is displayed.

***STG** Information about disk storage estimates is displayed.

***SFW** Information about installed licensed programs is displayed.

***HDW**
Information about hardware resources is displayed.

***ORD** Recommendations for your upgrade order are displayed.

***OWN**
Information about objects and their owners is displayed for use in cleaning up system.

***DSK** Disk configuration information is displayed.

***TIMEEST**
Downtime estimates are displayed.

Top

Output (OUTPUT)

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

***** or **_**
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

None

Top

Error messages

Unknown

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 and perform OfficeVision/400-related 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.

user-profile-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.

The possible values are:

***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 possible values are:

***** 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.

The possible values are:

***CURRENT**
The user profile under which the current job is running is used.

user-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 concepts and reference topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter book.

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.

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

Parameters
Examples
Error messages

The Display Work Station User (DSPWSUSR) command allows you to display information about your current session. Information shown includes:

- Display station
- Number of interactive jobs in session
- 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 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

```
DSPWSUSR   OUTPUT(*)
```

This command displays the information describing the current job.

Top

Error messages

None

Top

Duplicate Diskette (DUPDKT)

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

Parameters
Examples
Error messages

The Duplicate Diskette (DUPDKT) command copies the contents of a single diskette onto one or more diskettes. The volume table of contents (VTOC) and initial program load (IPL) record information and the data records can be copied to a diskette in a specified device. Diskette data in either the basic exchange data format or the save/restore E-format can be copied. The volume identifiers of the diskettes do not have to be unique.

If the diskettes to which data is being copied do not have the same sector size as the diskette from which data is being copied, then a message is sent to the system operator. The copying of diskettes may then be stopped, or the output diskette may be initialized to the same sector size as the input diskette before the copying continues.

Deleted sectors on the input diskette are ignored when copying. They are not copied to the new diskette. The address of the last data record in the file label containing the deleted sector is adjusted on the output diskette, according to the number of sectors found deleted. Therefore, if the input diskette has deleted sectors, the output diskette is not an exact copy.

Diskettes that have an extended label area (up to nine cylinders, in addition to cylinder 0, which are allocated as system area for data set labels), can be copied if the following conditions are followed:

- The RGZVOL option must be *NO.
- No deleted sectors can exist on the input diskette. If deleted sectors are found on the input diskette with an extended label area, a message is sent and the copying function is stopped.

Once a diskette has been copied, the Rename Diskette (RNMDKT) command can be used to rename the copied diskettes so that they have unique volume identifiers.

Restriction: A diskette cannot be copied if it contains control records that indicate records have been relocated, but not in sequence, or that sequential sector addresses are not in consecutive, ascending order. If deleted sectors are found on a diskette with an extended label area, the diskette cannot be copied.

In addition, the following restrictions apply to the type of diskette allowed by the Duplicate Diskette command:

1. A Type 1 diskette may only be copied to another Type 1 diskette.
2. A Type 2 diskette may be copied to a Type 2 diskette or Type 2D diskette. A Type 2D diskette is allowed because it was made for double-density recording. Thus, it is acceptable to use a Type 2D diskette for single-density recording. A message is sent to the system operator if an attempt is made to copy from a Type 2 diskette to a Type 2D diskette. The operator may then use the Initialize Diskette (INZDKT) command to initialize the Type 2D diskette to a Type 2 and continue processing. Note that the Type 2D now logically appears as a Type 2 diskette.
3. A Type 2D diskette may be copied to a Type 2 diskette or a Type 2D diskette. A Type 2 diskette is made for single-density recording and is more prone to media errors if used for double-density recording (Type 2D). If copying from a Type 2D diskette to a Type 2 diskette, a message is sent to the system operator. The operator may then cancel processing or use the Initialize Diskette (INZDKT) command to initialize the Type 2 diskette to a Type 2D diskette and continue processing. Note that the Type 2 diskette now logically appears as a Type 2D diskette and is more prone to media errors since it is meant for single-density recording.

Note: Results when copying to or from a diskette with labels that are not IBM standard labels are unpredictable. The diskette should be initialized by specifying CHECK(*NO) on the Initialize Diskette (INZDKT) command.

Top

Parameters

Keyword	Description	Choices	Notes
FROMDEV	From device	*Name*	Required, Positional 1
TODEV	To device	*Name*	Required, Positional 2
COPIES	Copies	1-999, **1**	Optional
RGZVOL	Reorganize volume	***NO**, *YES	Optional

Top

From device (FROMDEV)

Specifies the name of the device where the diskette being copied from is located.

This is a required parameter.

Top

To device (TODEV)

Specifies the name of the device where the diskette being copied to is located.

This is a required parameter.

Top

Copies (COPIES)

Specifies the number of copies to make.

The possible values are:

1 One copy is made.

number-of-copies
Specify the number of diskette copies to make. Valid values range from 1 through 999.

Top

Reorganize volume (RGZVOL)

Specifies whether the unused space between files is deleted to allow space for additional files to be written on the diskette.

The possible values are:

***NO** The unused space remains as it exists on the input diskette. If no deleted sectors are found, the output diskette is an exact copy of the input diskette.

***YES** The unused space between files is moved to the end of the last file, making all files on the output diskette connected.

Top

Examples

Example 1: Copying Diskette Contents

```
DUPDKT   FROMDEV(DKT1)  TODEV(DKT2)
```

This command copies the entire contents of the diskette in device DKT1 onto the diskette in device DKT2.

Example 2: Copying Diskette Contents

```
DUPDKT   FROMDEV(DKT2)  TODEV(DKT2)
```

This command copies the entire contents of the diskette in device DKT2, prompts for the next diskette being inserted in device DKT2, and copies the contents on that diskette.

Example 3: Compressing Unused Space

```
DUPDKT   FROMDEV(DKT2)  TODEV(DKT1)  RGZVOL(*YES)
```

This command copies the contents of the diskette in device DKT2 to the diskette in device DKT1. The unused space of the data area is compressed at the end of the diskette. If unused space exists between files on the input diskette, the files on the output diskette reside at different physical locations.

Top

Error messages

***ESCAPE Messages**

CPF5102
Permanent I/O error on volume &9 in device &4.

CPF6151
Cannot duplicate diskette in device &1.

CPF6157
Duplicate diskette ended; previous error occurred.

CPF6716
Device &1 not a diskette device.

CPF6718
Cannot allocate device &1.

CPF9814
Device &1 not found.

CPF9825
Not authorized to device &1.

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.

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.

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) 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.

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.

***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.

***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.

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.

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.

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:

1. You must have two tape drives or a tape media library device with two tape resources to use this command.
2. 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.

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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 name of the device from which the tape is copied.

This is a required parameter.

Top

To device (TODEV)

Specifies the name of the device to which the tape is copied.

This is a required parameter.

Top

From sequence number (FROMSEQNBR)

Specifies which data file sequence numbers are to be copied.

The possible **Starting file sequence number** values are:

***FIRST**
All files starting with the first file sequence are duplicated.

***ALL** All files are duplicated.

file-sequence-number
Specify the starting file sequence number to be duplicated. The valid range of sequence numbers is 1 through 16777215. Only the files in the specified sequence number range are duplicated.

The possible **Ending file sequence number** values are:

***LAST**
All files ending with the last file sequence are duplicated.

***ONLY**
Only the file specified in the starting file sequence is duplicated. If *ALL is specified in the first element, then this parameter is ignored.

file-sequence-number
Specify the ending file sequence number of the range to be duplicated. The valid range of sequence numbers is 1 through 16777215.

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.

file-sequence-number
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 valid range of sequence numbers is 1 through 16777215. 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, then the volume specified should be the cartridge identifier to be mounted and used.

***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.

volume-identifier
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, then the volume specified should be the cartridge identifier 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.

***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.

volume-identifier
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
3590	*FMT3590
3590-Exx	*FMT3590E
3590-Hxx	*FMT3590H
4685-001	*VXA2
6335	*QIC3040
6343	*QIC1000
6344	*QIC2GB
6348	*QIC1000
6349	*QIC2GB
6368	*QIC1000
6369	*QIC2GB
6379	*QIC1000
6380	*QIC2GB
6381	*QIC2DC
6382	*QIC4DC

6383 *QIC5010

6384 *SLR60

6385 *QIC5010

6386 *MLR3

6387 *SLR100

6390 *FMT7GB

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.

tape-density
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.

***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.

***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.

***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.

Note: Self-configured tape devices may define additional valid values for the density parameter. Use iSeries 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 only if the file being read from the device specified on the **From device (FROMDEV)** parameter was written using device data compaction.

***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.

***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.

user-label-program-name
Specify the name and library of the user program that processes the user tape labels.

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 user label program. If no library is specified as the current library for the job, QGPL is used.

library-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.

expiration-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**

CPF67E8
FROMVOL and TOVOL parameters 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.

CPF6703
Duplication to *END of partial file not correct.

CPF6704
Set not duplicated.

CPF6708
Command ended due to error.

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.

CPF6734
File sequence number &3 not found on volume &2.

CPF6740
TODEV and FROMDEV must be different.

CPF6741
Nonlabeled tape format not valid on device &1.

CPF6745
Device &1 not a media library device.

CPF6751
Load failure occurred on device &4.

CPF6754
Active file &4 found on volume &2.

CPF6760
Device &1 not ready.

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

Parameters
Examples
Error messages

The Edit Backup List (EDTBCKUPL) command allows the user to select libraries and folders for backup. More information on backup is in the Backup and Recovery 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.

Top

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

Parameters
Examples
Error messages

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 authority to the document or folder to change the authority or *ALLOBJ special authority.
2. You must have authority to use the ADDDLOAUT, CHGDLOAUT, and the 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** prompt (SYSOBJNAM parameter).

***ROOT**
The public authority value of the *ROOT folder is changed.

document-or-folder-name
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.

The possible values are:

***NONE**
A folder name is not specified. If a name is specified on the **Document library object** prompt (DLO parameter), and the object is located in a folder, *NONE cannot be specified.

folder-name
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** prompt (DLO parameter).

object-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 ″CL concepts and reference″ in the CL concepts and reference topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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

Parameters
Examples
Error messages

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, *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 Operation information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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

Parameters
Examples
Error messages

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 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 ″Backup and recovery″ topic in the iSeries Information Center at http://www.ibm.com/eserver/iseries/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 OS/400 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	

Top

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.

Top

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.

Top

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.

Top

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.

Top

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
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

Top

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 characters that can be in the character string is 5000.

***NAME**
The list item is a character string that represents a name. The maximum length of the name is 256 characters. 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 characters. 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 **Special values (SPCVAL)** parameter.

***CNAME**
The list item is a character string that represents a name. The maximum length of the name is 256 characters. 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 characters.

***GENERIC**
The list item is a character string that represents a generic name. A generic name contains a maximum of 255 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 is a variable name that is passed as a character string. The name can contain a maximum of 11 characters, including the initial ampersand (&).

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.

Top

Value length (LEN)

Specifies the length of the list item value that is passed to the command processing program (CPP).

If *INT2, *INT4, *UINT2, *UINT4, *DATE, *TIME, *ZEROELEM, or statement label is specified on the **Type of value (TYPE)** parameter, this parameter is not allowed.

If *DEC is specified on the **Type of value (TYPE)** parameter, the decimal length is specified in the form (n1 n2), where n1 specifies the total number of digits in the value (including the decimal portion), and n2 specifies the number of allowable decimal digits to the right of the decimal point. (The value for n2 is optional. Zero is assumed if n2 is not entered.)

If *X is specified for the **Type of value (TYPE)** parameter, the LEN parameter is used as follows:

- For character data, length1 specifies the minimum length to be passed. If a longer value is entered, the entire value is passed.
- For decimal data, length2 and length3 specify the length and decimal positions for a constant value. If a variable is entered, it is passed according to the variable attributes.
- For a logical value, length1 specifies the length of the value, which is always 1.

If TYPE is other than *DEC or *X, the second and third list elements must be omitted and simply the number of characters must be specified.

Top

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 characters. 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.

Top

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.

Top

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 have no more than 32 characters.
- 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 characters. 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 of value (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 characters.

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 characters.

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 characters. 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 characters. 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 characters above X'FF' and those in the range of 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 characters 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 characters 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 characters in the list item can be less than that specified by the **Value length (LEN)** parameter.

***YES** The number of characters in the list item must equal the number specified by the **Value length (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 characters 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 characters 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 characters entered for the command parameter 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 Program variables. The length value defines how many characters in the character string data field were actually entered for the command parameter.

Element 2: Value length

***INT2** The element value is an integer passed as a 2-byte signed binary number.

***INT4** The element value is an integer passed as a 4-byte signed binary number.

Top

Pass attribute byte (PASSATR)

(For IBM-supplied commands) 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.

***NO** No attribute byte is passed with the list item.

***YES** An attribute byte is passed with the list item; the attribute byte indicates if the data value came from the default, the data type of the value, and, if TYPE(*CHAR) was specified, whether or not the character string was enclosed in apostrophes.

Top

CASE (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

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.

Top

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 characters 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 characters, enclosed in apostrophes.

Top

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.

Top

Error messages

None

Top

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 procedure. It must have an associated IF command preceding it.

Top

Parameters

Keyword	Description	Choices	Notes
CMD	Command	*Command string*	Optional, Positional 1

Top

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 CL procedures, 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.

Top

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

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

Parameters
Examples
Error messages

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.

Top

End Cleanup (ENDCLNUP)

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

Parameters
Examples
Error messages

The End Cleanup (ENDCLNUP) command allows you to end the cleanup operation. The cleanup operation allows items on the system to be deleted automatically after they are a specified number of days old. Any active batch cleanup jobs, either processing or on the job queue, are ended immediately.

This command does not alter any of the parameters specified on the Change Cleanup (CHGCLNUP) command. The cleanup operation can be restarted by specifying the Start Cleanup (STRCLNUP) command.

More information is in the Basic System Operation information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter.

Restriction: You must have job control (*JOBCTL) special authority to use this command.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
ENDCLNUP
```

This command ends the cleanup operation.

Top

Error messages

***ESCAPE Messages**

CPF1E2A
Unexpected error in QSYSSCD job.

CPF1E2B
Power scheduler and cleanup options not found.

CPF1E33
Cleanup options or power schedule in use by another user.

CPF1E35
Not authorized to end cleanup.

CPF1E36
Cleanup has not been started.

CPF1E99
Unexpected error occurred.

Top

End Cluster Node (ENDCLUNOD)

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

Parameters
Examples
Error messages

The End Cluster Node (ENDCLUNOD) command is used to end Cluster Resource Services on one or all the nodes in the membership list of an existing cluster. The status of each node that is ended is set to Inactive. In order to restart Cluster Resource Services on nodes that have been ended, the Start Cluster Node (STRCLUNOD) command is used.

When a node in the cluster is ended, it is not removed from the cluster membership list.

This command can be called on the node which is to be ended, or it can be called on any node in the cluster which has a status of Active. If this command is called when the cluster is partitioned, only nodes in the partition running the command will process the request.

The cluster resource group exit program on the node being ended will be called with an action code of End Node. The exit program on all other nodes in the recovery domain will be called with an action code of Failover. If all the nodes in the cluster are being ended, cluster resource group exit programs will not be called with an indication to failover.

The recovery domain of cluster resource groups on the node that had ended will indicate a node status of Active even though the node is inactive. For all the other nodes in the recovery domain, the status of the node will be Inactive. If the node being ended is the primary node for an active device cluster resource group, ownership of the hardware associated with the cluster resource group will be moved to a backup node. If the cluster resource group is not active, there are no backup nodes, or all backup nodes are either inactive or in a different cluster partition, the ownership of the hardware is left with the node being ended.

Restrictions:

1. You must have input/output system configuration (*IOSYSCFG) special authority to run this command.
2. This command cannot be called from a cluster resource group exit program.
3. The node being ended must be active.

Top

Parameters

Keyword	Description	Choices	Notes
CLUSTER	Cluster	*Name*	Required, Positional 1
NODE	Node identifier	*Name*, *ALL	Required, Positional 2
OPTION	Option	***IMMED**, *CNTRLD	Optional

Top

Cluster (CLUSTER)

Specifies the cluster that contains the node or nodes to be ended.

This is a required parameter.

name Specify the name of the cluster.

Top

Node identifier (NODE)

Specifies the node identifier(s) to be ended.

This is a required parameter.

***ALL** End all active nodes in the cluster.

name Specify the name of the node to be ended.

Top

Option (OPTION)

Specifies the method to end the node.

***IMMED**
Immediate. The request to end Cluster Resource Services on the node will be processed immediately.

***CNTRLD**
Controlled. Pending cluster resource group actions will complete before the request to end Cluster Resource Services is processed.

Top

Examples

```
ENDCLUNOD   CLUSTER(MYCLUSTER)  NODE(NODE01)  OPTION(*IMMED)
```

This command ends Cluster Resource Services on node NODE01 for cluster MYCLUSTER. The request is processed immediately without waiting for any pending cluster resource group actions to complete.

Top

Error messages

Unknown

Top

End Communications Server (ENDCMNSVR)

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

Parameters
Examples
Error messages

The End Communications Server (ENDCMNSVR) command is used to end the target display station pass-through server. The target display station pass-through server processes AS/400 display station pass-through, AS/400 Client Access work station function (WSF), and other 5250 emulation programs on programmable workstations.

Restriction: You must have job control (*JOBCTL) special authority to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
OPTION	How to end	***CNTRLD**, *IMMED	Optional
DELAY	Controlled end delay time	1-86400, ***NOMAX**	Optional

Top

How to end (OPTION)

Specifies whether the target display station pass-through server is ended in an immediate or controlled manner.

The possible values are:

***CNTRLD**
The server is ended in a controlled manner. Active sessions are allowed to complete their processing. New sessions are not allowed. After the specified period of time elapses, the processing for ENDCMNSVR OPTION(*IMMED) is performed.

***IMMED**
The server is ended in an immediate fashion. All active sessions that were started through the target display station pass-through server are ended immediately.

Top

Controlled end delay time (DELAY)

Specifies the amount of time (in seconds) allowed in which to complete a controlled end of the target display station pass-through server. After this period of time all the target display station pass-through server jobs are ended immediately.

The possible values are:

***NOMAX**
There is no maximum amount of time to wait. The servers will not end until all active sessions end normally.

delay-time

Specify the number of seconds in which the end operation is completed. Valid values range from 1 through 86400 seconds.

Top

Examples

Example 1: Ending Target Display Station Pass-through Server

```
ENDCMNSVR
```

This command ends the target display station pass-through server in a controlled manner. Any active sessions that are using the target display station pass-through server are not affected. New sessions are not allowed through the target display station pass-through server. Once all of the active sessions have ended, the target display station pass-through server will end.

Top

Error messages

None

Top

End Communications Trace (ENDCMNTRC)

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

Parameters
Examples
Error messages

The End Communications Trace (ENDCMNTRC) command ends the trace running on the specified line, network interface, or network server description.

Restrictions:

- You must have use (*USE) authority to the line, network interface or network server to be traced.
- You must have service (*SERVICE) special authority, or be authorized to the Service Trace function of OS/400 through iSeries Navigator's Application Administration support. The Change Function Usage (CHGFCNUSG) command, with a function ID of QIBM_SERVICE_TRACE, can also be used to change the list of users that are allowed to perform trace operations.
- The following user profiles have authority to this command:
  - QSECOFR
  - QSRV

Top

Parameters

Keyword	Description	Choices	Notes
CFGOBJ	Configuration object	*Name*	Required, Positional 1
CFGTYPE	Type	*LIN, *NWI, *NWS	Required, Positional 2

Top

Configuration object (CFGOBJ)

Specifies the configuration object being traced. The object is either a line description, or a network interface description, or a network server description.

This is a required parameter.

name Specify the name of the configuration object for which communications tracing is to be ended.

Top

Type (CFGTYPE)

Specifies the type of configuration description being traced.

This is a required parameter.

***LIN** The type of configuration object is a line description.

***NWI** The type of configuration object is a network interface description.

***NWS** The type of configuration object is a network server description.

Top

Examples

```
ENDCMNTRC   CFGOBJ(*QESLINE)  CFGTYPE(*LIN)
```

This command ends the communications trace of line description QESLINE.

Top

Error messages

***ESCAPE Messages**

CPF2601
Line description &1 not found.

CPF2634
Not authorized to object &1.

CPF26AE
Network server description &1 not found.

CPF39AE
Trace already ended.

CPF39AF
Trace is ending - please wait

CPF39A7
Trace storage not available in communications processor

CPF39A8
Not authorized to communications trace service tool

CPF39A9
Error occurred during communications trace function

CPF39BD
Network interface description &1 not found

CPF39B0
No communications traces exist.

CPF39B1
Trace &1 type &2 does not exist

CPF39B6
Communications trace function cannot be performed

CPF39C3
Trace &1 type &2 cannot be ended.

CPF98A2
Not authorized to &1 command.

Top

End Commitment Control (ENDCMTCTL)

Where allowed to run: All environments (*ALL)
Threadsafe: Yes

Parameters
Examples
Error messages

The End Commitment Control (ENDCMTCTL) command ends the commitment definition associated with the activation group for the program that issued the command. Changes to commitment resources associated with the commitment definition are no longer made after this command is processed.

This command either ends the activation group level or the job level commitment definition associated with the activation group for the program that issued the command. A commitment definition is first established by the Start Commitment Control (STRCMTCTL) command.

If there are uncommitted changes for an interactive job, a message is sent asking the user whether the changes should be committed or rolled back before a commitment definition is ended. For a batch job, the changes are rolled back.

More information on commitment control is in the ″Commitment control″ article is in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
ENDCMTCTL
```

This command specifies that the commitment definition established with the STRCMTCTL command is to end. The system determines if any changes have been made to the commitment resources after the last commitment boundary (at the last completed Commit (COMMIT) command or Rollback (ROLLBACK) command). If changes have been made for an interactive job, a message is sent asking the user whether the changes should be made permanent (committed) or removed (rolled back). For batch jobs, any changes are rolled back.

Top

Error messages

***ESCAPE Messages**

CPF83E4
Commitment control ended with resources not committed.

CPF835A
End of commitment definition &1 canceled.

CPF835B
Errors occurred while ending commitment control.

CPF835C
Commitment control ended with remote changes not committed.

CPF8350
Commitment definition not found.

CPF8355
ENDCMTCTL not allowed. Pending changes active.

CPF8356
Commitment control ended with &1 local changes not committed.

CPF8367
Cannot perform commitment control operation.

Top

End Copy Screen (ENDCPYSCN)

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

Parameters
Examples
Error messages

The End Copy Screen (ENDCPYSCN) command ends the copy screen image operation for the specified display device.

Note: The target display station can also stop the copy screen image operation if the user presses the System Request key and types ENDCPYSCN on the command line. No parameters can be specified.

Top

Parameters

Keyword	Description	Choices	Notes
SRCDEV	Source device	*Name*, ***REQUESTER**	Optional, Positional 1

Top

Source device (SRCDEV)

Specifies the display device that is currently having its screen images copied.

***REQUESTER**
Ends the copy screen image operation for the display device running this command.

name Specifies the device name of the display station that is having its screen images copied.

Top

Examples

```
ENDCPYSCN   SRCDEV(CHARLIE)
```

The command sends a message to 'CHARLIE' (the source display station). The message indicates the copy screen image operation is about to end. The target work station display is restored to the same display image that was shown before the operation started. The sign-on display is normally shown.

Top

Error messages

***ESCAPE Messages**

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

CPF7AF7
Device name &1 not correct.

CPF7AF8

Device name &1 not being copied.

Top

End Cluster Resource Group (ENDCRG)

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

Parameters
Examples
Error messages

The End Cluster Resource Group (ENDCRG) command disables resiliency of the specified cluster resource group. The cluster resource group status is set to Inactive. The resources associated with the cluster resource group are no longer resilient. That is, there is no failover or switchover action provided for these resources while the cluster resource group is ended.

Ending a device cluster resource group will not change the ownership of devices. The devices remain on whatever nodes owns them at the time the command is run. Also, the devices are not varied off when the cluster resource group is ended.

If an exit program is specified for the cluster resource group, it is called with an action code of End on each active node in the recovery domain. When the exit program is called, the cluster resource group status is set to End Pending. Successful completion of the exit program sets the cluster resource group status to Inactive. In addition, for an application cluster resource group:

1. The current exit program job on the primary node will be cancelled with the *IMMED option.
2. The takeover IP interface for the cluster resource group will be ended for the application cluster resource group.

If the exit program fails and the original state of the cluster resource group cannot be recovered, the cluster resource group status is set to Indoubt.

Top

Parameters

Keyword	Description	Choices	Notes
CLUSTER	Cluster	*Name*	Required, Positional 1
CRG	Cluster resource group	*Name*	Required, Positional 2
EXITPGMDTA	Exit program data	*Character value*, ***SAME**	Optional

Top

Cluster (CLUSTER)

Specifies the cluster containing the cluster resource group.

This is a required parameter.

name Specify the name of the cluster.

Top

Cluster resource group (CRG)

Specifies the cluster resource group to be ended.

This is a required parameter.

name Specify the name of the cluster resource group to end.

Top

Exit program data (EXITPGMDTA)

Specifies up to 256 bytes of data that is passed to the cluster resource group exit program when it is called. This parameter may contain any scalar data except pointers. For example, it can be used to provide state information. This data will be stored with the specified cluster resource group and copied to all nodes in the recovery domain. Pointers in this area will not resolve correctly on all nodes and should not be placed in the data. The data specified will replace the existing exit program data stored with the cluster resource group. If blanks are specified, then the exit program data stored with the cluster resource group will be cleared. This parameter must be set to *SAME if no exit program is specified for the cluster resource group.

***SAME**
The exit program data stored with the cluster resource group specified will be passed to the exit program.

character-value
Specify the data that is to be passed to the exit program.

Top

Examples

```
ENDCRG   CLUSTER(MYCLUSTER)  CRG(MYCRG)
         EXITPGMDTA('important information')
```

This command ends resiliency of the cluster resource group called MYCRG in the cluster called MYCLUSTER. When the cluster resource group exit program is called, it will be passed the exit program data 'important information' on all active nodes in the recovery domain.

Top

Error messages

***ESCAPE Messages**

CPF0001
Error found on &1 command.

Top

End Controller Recovery (ENDCTLRCY)

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

Parameters
Examples
Error messages

The End Controller Recovery (ENDCTLRCY) command ends automatic error recovery procedures for a specific controller. If any type of failure occurs after this command is run, an inquiry message is sent to the system operator.

Use the Resume Controller Recovery (RSMCTLRCY) command to reestablish error recovery procedures for the controller.

Top

Parameters

Keyword	Description	Choices	Notes
CTL	Controller	*Name*	Required, Positional 1

Top

Controller (CTL)

Specifies the controller whose recovery is to be ended.

This is a required parameter.

Top

Examples

```
ENDCTLRCY   CTL(TROLL3)
```

This command ends error recovery procedures for the controller TROLL3.

Top

Error messages

***ESCAPE Messages**

CPF2703
Controller description &1 not found.

CPF5924
Controller &1 does not allow automatic error recovery.

CPF5928
Controller &1 not varied on.

CPF5929
Controller &1 assigned to another job.

CPF5935
Error occurred during command processing.

CPF5936
Not authorized to controller &1.

Top

End Debug Mode (ENDDBG)

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

Parameters
Examples
Error messages

The End Debug (ENDDBG) command ends debug mode for a job, removes all breakpoints and traces, clears any trace data, and removes all programs from debug mode. This command cannot be entered when one or more of the programs in the call stack are stopped at a breakpoint. All breakpoints must be canceled by Resume Breakpoint (RSMBKP) or End Request (ENDRQS) commands. After this command has been entered, all database files in production libraries can be updated normally.

If ENDDBG is not done before the job has ended, all trace data is printed.

Restriction: This command is valid only in debug mode. To start debug mode, refer to the STRDBG (Start Debug) command.

If you are servicing another job and you are operating in debug mode, this command must be specified before you can use the End Service Job (ENDSRVJOB) command.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
ENDDBG
```

Assuming that this command is entered interactively and no program in the call stack is stopped at a breakpoint, debug mode for the job is ended.

Top

Error messages

***ESCAPE Messages**

CPF1931
Command not valid at this time.

CPF1999
Errors occurred on command.

Top

End Debug Server (ENDDBGSVR)

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

Parameters
Examples
Error messages

The End Debug Server (ENDDBGSVR) command ends the debug server router function. If there are active server jobs running when the router function is ended, the servers remain active until the connection with the client is ended. Subsequent connection requests fail until the debug server router function is started again.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
ENDDBGSVR
```

This command ends the debug server router function.

Top

Error messages

None

Top

End Database Monitor (ENDDBMON)

Where allowed to run: All environments (*ALL)
Threadsafe: Conditional

Parameters
Examples
Error messages

The End Database Monitor (ENDDBMON) command ends the collection of database performance statistics for a specified job or all jobs on the system.

Restrictions:

- You cannot end database monitoring for a specific job by using JOB(*ALL) on the ENDDBMON command.
- If JOB(*ALL) was specified on the Start Database Monitor (STRDBMON) command, you cannot end database monitoring for a specific job unless a STRDBMON command was run for that specific job.
- This command is conditionally threadsafe. It is not threadsafe (and may fail) when the OUTFILE parameter for the STRDBMON command specified a distributed file or a Distributed Data Management (DDM) file of type *SNA.

Top

Parameters

Keyword	Description	Choices	Notes
JOB	Job name	Single values: *, *ALL Other values: *Qualified job name*	Optional, Positional 1
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
COMMENT	Comment	*Character value*, ***BLANK**	Optional

Top

Job name (JOB)

Specifies the job for which the database monitor is to be ended.

Single values

***** The data monitor for the job running the ENDDBMON command is to be ended.

***ALL** The data monitors for all jobs are to be ended. This value can only be specified if JOB(*ALL) was specified on a prior Start Database Monitor (STRDBMON) command.

Qualifier 1: Job name

name Specify the name of the job whose database monitor is to be ended. If no job user name or job number qualifiers are specified, all of the jobs currently in the system are searched for the specified simple job name. If duplicates of the specified job name are found, you need to specify a job user name or job number that uniquely identifies the job to be changed.

Qualifier 2: User

name Specify the name of the user of the job whose database monitor is to be ended.

Qualifier 3: Number

000000-999999
Specify the number of the job whose database monitor is to be ended.

Top

Comment (COMMENT)

Specifies the description that is associated with the database monitor record whose ID is 3018.

***BLANK**
Text is not specified.

character-value
Specify up to 100 characters of text.

Top

Examples

Example 1: Ending Database Monitoring for All Jobs

```
ENDDBMON   JOB(*ALL)
```

This command ends database monitoring for all jobs on the system.

Example 2: Ending Database Monitoring for a Specific Job

```
ENDDBMON   JOB(*)
```

This command ends database monitoring for the current job.

Top

Error messages

***ESCAPE Messages**

CPF1321
Job &1 user &2 job number &3 not found.

CPF436D
Job &1 is not being monitored.

CPF436E
Job &1 user &2 job number &3 is not active.

Top

End Device Recovery (ENDDEVRCY)

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

Parameters
Examples
Error messages

The End Device Recovery (ENDDEVRCY) command ends automatic error recovery procedures for a specific device. If any type of failure occurs after this command is run, an inquiry message is sent to the system operator. The user must have object operational authority for the device.

Use the Resume Device Recovery (RSMDEVRCY) command to reestablish error recovery procedures for the device.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	*Name*	Required, Positional 1

Top

Device (DEV)

Specifies the device whose recovery is to be ended. Specify the name specified for the device in the device description.

Top

Examples

```
ENDDEVRCY   DEV(WSPR03)
```

This command ends error recovery procedures for the device WSPR03.

Top

Error messages

***ESCAPE Messages**

CPF5923
Device &1 does not allow automatic error recovery.

CPF5925
Device &1 not varied on.

CPF5935
Error occurred during command processing.

CPF9814

Device &1 not found.

Top

End Directory Shadowing (ENDDIRSHD)

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

Parameters
Examples
Error messages

The End Directory Shadowing (ENDDIRSHD) command ends the directory shadow controlling job in the system work subsystem (QSYSWRK).

Any active collector or supplier jobs running are allowed to complete. No new collector jobs are started. Supplier jobs are prevented from starting if a collector system requests data through directory shadowing. The Start Directory Shadowing (STRDIRSHD) command can be used to re-start directory shadowing.

Restriction: You must have job control (*JOBCTL) authority to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
OPTION	How to end	***CNTRLD**, *IMMED	Optional, Positional 1
DELAY	Controlled end delay time	1-999999, **30**	Optional, Positional 2

Top

How to end (OPTION)

Specifies whether the directory shadow controlling job is ended in a controlled manner or immediately.

***CNTRLD**
The directory shadow controlling job is ended in a controlled manner. This allows the directory shadow controlling job to perform cleanup (end-of-job processing).

***IMMED**
The directory shadow controlling job is ended immediately. The directory shadow controlling job is not allowed to perform any cleanup.

Note: Using the *IMMED option can cause unexpected results if data has been only partially updated.

This is a required parameter.

Top

Controlled end delay time (DELAY)

Specifies the amount of time (in seconds) allowed for the directory shadow controlling job to complete its cleanup processing during a controlled end. This parameter is not valid if OPTION(*IMMED) is specified. If the cleanup is not complete before the end of the delay time, the directory shadow controlling job is immediately ended.

30 A maximum delay time of 30 seconds is allowed for cleanup before the directory shadow controlling job is ended.

delay-time
Specify the maximum amount of delay time in seconds before the directory shadow controlling job is ended. Valid values range from 1 through 999999.

This is a required parameter.

Top

Examples

Example 1: Ending Directory Shadowing in a Controlled Manner

```
ENDDIRSHD   OPTION(*CNTRLD)  DELAY(60)
```

The directory shadow controlling job is ended in the system work subsystem in a controlled manner and will have 60 seconds to complete its end-of-job processing.

Example 2: Ending Directory Shadowing Immediately

```
ENDDIRSHD   OPTION(*IMMED)
```

The directory shadow controlling job is ended in the system work subsystem immediately. The directory shadow controlling job does not perform end-of-job processing.

Top

Error messages

***ESCAPE Messages**

CPF89A9
Unable to end job that controls directory shadowing.

Top

End Do Group (ENDDO)

Where allowed to run:

- Batch program (*BPGM)
- Interactive program (*IPGM)

Threadsafe: Yes

Parameters
Examples
Error messages

The End Do (ENDDO) command is used with the DO command to identify a group of commands that are processed together as a group. The ENDDO command specifies the end of the Do group that is started with an associated DO command. The ENDDO command must be specified after the last command in the Do group.

When Do groups are nested, each group must have its own ENDDO command at its end. Every ENDDO command must be associated with a DO command; if too many ENDDO commands occur in the CL procedure source, a message is issued and the program is not created.

Restrictions: This command is valid only within a CL procedure.

There are no parameters for this command.

Top

Parameters

None

Top

Examples

Example 1: Processing a Group of Commands Unconditionally

```
DO
 :   (group of CL commands)
ENDDO
```

The commands between the DO and ENDDO commands are processed once, as a group of commands.

Example 2: Processing a Group of Commands Conditionally

```
IF &SWITCH DO
 :   (group of CL commands)
ENDDO
```

The commands between the DO and ENDDO commands are processed if the value in the logical variable &SWITCH is '1'. If &SWITCH is not '1', then control passes immediately to the next command following the ENDDO command.

Top

Error messages

None

End Disk Reorganization (ENDDSKRGZ)

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

Parameters
Examples
Error messages

The End Disk Reorganization (ENDDSKRGZ) command allows the user to end the disk reorganization function started using the Start Disk Reorganization (STRDSKRGZ) CL command. The user can select to end disk reorganization for all auxiliary storage pools (ASPs) or for one or more specific ASPs. A message is sent to the system history (QHST) log when the reorganization function is ended for each ASP.

Restriction: You must have *ALLOBJ special authority to use 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	Values (up to 32 repetitions): *Name*, *ALLAVL	Optional

Top

Auxiliary storage pool ID (ASP)

Specifies for which auxiliary storage pools the disk reorganization function is to be ended. A value must be specified for the ASP parameter or the ASPDEV parameter.

***ALL** Disk reorganization will be ended for the system ASP (ASP number 1) and all basic ASPs (ASP numbers 2-32) defined to the system.

auxiliary-storage-pool-number
Specify the ASP for which disk reorganization is to be ended. Valid ASP numbers are 1 to 32. Up to 32 ASP numbers may be specified.

Top

ASP device (ASPDEV)

Specifies the name of the auxiliary storage pool (ASP) device for which the disk reorganization is to be ended. A value must be specified for the ASP parameter or the ASPDEV parameter.

***ALLAVL**
Disk reorganization will be ended for all ASP devices that currently have a status of 'Available'.

auxiliary-storage-device-name
Specify the name of the independent ASP device for which disk reorganization is to be ended. Up to 32 ASP device names may be specified.

Top

Examples

Example 1: Ending Disk Reorganization for ASP 1

```
ENDDSKRGZ   ASP(1)
```

This command allows the user to end the disk reorganization function for ASP 1.

Example 2: Ending Disk Reorganization for All ASPs

```
ENDDSKRGZ   ASP(*ALL)
```

This command allows the user to end the reorganization function for each ASP that is currently being reorganized.

Example 3: Ending Disk Reorganization for All ASP Devices

```
ENDDSKRGZ   ASPDEV(*ALLAVL)
```

This command allows the user to end the reorganization function for each ASP device that is currently being reorganized.

Top

Error messages

***ESCAPE Messages**

CPF1889
Disk reorganization not active for ASP &1

CPF1890
*ALLOBJ authority required for requested operation.

Top

End EPM Environments (ENDEPMENV)

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

Parameters
Examples
Error messages

The End EPM Environment (ENDEPMENV) command is used with extended program model (EPM) languages to delete a user-controlled environment. The C/400*, FORTRAN/400*, and AS/400* Pascal languages are part of the extended program model.

You can use this command to delete a run-time environment for an EPM language application that you created with the STREPMENV command. See the Extended Program Model User's Guide and Reference for more detailed information on the EPM and this command.

Error messages for ENDEPMENV

None

Top

Parameters

Keyword	Description	Choices	Notes
EPMENV	Environment Name	*Character value*, *INACT, *MAIN, *REENT	Required, Positional 1
ENVNBR	Environment Number	1-65535	Optional, Positional 2

Top

Environment Name (EPMENV)

Specifies which user-controlled environment is to be deleted. You must specify one of the special values (*INACT, *REENT, or *MAIN) or an environment name. There is no default for this parameter.

***INACT**
All EPM user-controlled environments that are not invoked are deleted.

***REENT**
The reentrant environment with the corresponding ENVNBR is deleted. You must specify a value for ENVNBR if you specify this parameter.

***MAIN**
The *MAIN user-controlled environment is deleted.

environment-name
Enter the name of the environment that you want to delete. The environment name must not begin with an asterisk (*).

Top

Environment Number (ENVNBR)

Specifies the environment number for the *REENT environment that is to be deleted. This parameter is only valid if *REENT is specified on EPMENV.

environment-number
Enter the number of the reentrant environment.

Top

Examples

None

Top

Error messages

None

Top

End Group Job (ENDGRPJOB)

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

Parameters
Examples
Error messages

The End Group Job (ENDGRPJOB) command ends a single job within a group and resumes another job within the group. You can specify the following:

- Which job in the group is ended
- Which job in the group gains control (this is valid only when a job is ending itself)
- Whether a job log is created for the job being ended

Top

Parameters

Keyword	Description	Choices	Notes
GRPJOB	Group job	*Name*, *	Optional, Positional 1
RSMGRPJOB	Group job to be resumed	*Name*, ***PRV**	Optional
LOG	Job log	***NOLIST**, *LIST	Optional

Top

Group job (GRPJOB)

Specifies the group job name of the job being ended.

***** The group job that issued this command is ended.

name Specify the group job name of the job being ended.

Top

Group job to be resumed (RSMGRPJOB)

Specifies the group job name of the job that is resumed after the active job in the group has ended. This parameter is valid only when the job that issues this command is ending itself.

***PRV** The most recently active group job is resumed.

name Specify the group job name of the job that is resumed after the active job in the group ends.

Top

Job log (LOG)

Specifies whether to produce the job log for the ending group job.

***NOLIST**
The information in the job log is not spooled to an output queue.

***LIST** The information in the job log is spooled to an output queue.

Top

Examples

Example 1: Ending Group Job that Issued Command

```
ENDGRPJOB   GRPJOB(*)  LOG(*LIST)  RSMGRPJOB(GROUPJOB1)
```

This command ends the job that is currently running. Its job log is spooled to an output file for printing. When the job completes running, group job GROUPJOB1 becomes the active job in the group.

Example 2: Printing Output of Ended Job

```
ENDGRPJOB   GRPJOB(GROUPJOB2)  LOG(*LIST)
```

Assume that the job issuing the ENDGRPJOB command is group job GROUPJOB1, which wants to end GROUPJOB2. Group job GROUPJOB2 ends. Its job log is spooled to an output file for printing.

Example 3: Ending a Job That's Part of a Secondary Job Pair

```
ENDGRPJOB   GRPJOB(*)  LOG(*NOLIST)
```

Assume that the job issuing the ENDGRPJOB command is the only job in the group and is part of a secondary job pair. The job issuing the command ends. The job's job log is not spooled to an output file. When the job ends, the other job in the secondary job pair is resumed.

Top

Error messages

***ESCAPE Messages**

CPF1309
Subsystem cannot complete the &1 command.

CPF1314
Value &1 for parameter &2 not allowed.

CPF1317
No response from subsystem for job &3/&2/&1.

CPF1322
The End Group Job command not allowed at this time.

CPF1323
Group job &1 not ended; parameters do not agree.

CPF1324
Group job &1 not ended; parameters do not agree.

CPF1325
Group job &1 not ended; group job &2 does not exist.

CPF1326
Group job &1 does not exist.

CPF1327
Cannot end group job &1 with ENDGRPJOB.

CPF1351

Function check occurred in subsystem for job &3/&2/&1.

Top

End Host Server (ENDHOSTSVR)

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

Parameters
Examples
Error messages

The End Host Server (ENDHOSTSVR) command is used to end the optimized host server daemons. One or more server daemons can be ended and the server mapper daemon can be ended. Optionally, active connections to the *DATABASE and *FILE servers can be ended with this command.

If a server daemon is ended, and there are servers of that type that have active connections to client applications, the server jobs will remain active until communication with the client application is ended, unless the optional ENDACTCNN parameter is specified. Subsequent connection requests from the client application to that server daemon will fail however until the server daemon is started again.

If the server mapper daemon is ended, any existing client connections to the server jobs are unaffected. Subsequent requests from a client application to connect to the server mapper daemon (to obtain a server's port number) will fail however until the server mapper is started again.

A request to end *ALL host server daemons will end any active daemons.

The ENDACTCNN parameter may be specified in order to end active connections to the *DATABASE and *FILE servers. This will cause the server jobs which are servicing these connections to be ended. The active connections can only be ended if the corresponding daemon job is also being ended. If the *DATABASE keyword is specified, the QZDASOINIT and QZDASSINIT jobs which have active connections will be ended. If the *FILE keyword is specified, the QPWFSERVSO and QPWFSERVSS jobs which have active connections will be ended.

Error messages for ENDHOSTSVR

None

Top

Parameters

Keyword	Description	Choices	Notes
SERVER	Server type	Single values: *ALL Other values (up to 8 repetitions): *CENTRAL, *DATABASE, *DTAQ, *FILE, *NETPRT, *RMTCMD, *SIGNON, *SVRMAP	Required, Positional 1
ENDACTCNN	End active connections	Single values: ***NONE** Other values (up to 2 repetitions): *DATABASE, *FILE	Optional, Positional 2

Top

Server type (SERVER)

Specifies the server daemons to be ended.

The possible values are:

***ALL** All of the server daemons and the server mapper daemon are ended.

***CENTRAL**
The central server daemon in the QSYSWRK subsystem, if active, is ended.

***DATABASE**
The database server daemon in the QSERVER subsystem, if active, is ended.

***DTAQ**
The data queue server daemon in the QSYSWRK subsystem, if active, is ended.

***FILE** The file server daemon in the QSERVER subsystem, if active, is ended.

***NETPRT**
The network print server daemon in the QSYSWRK subsystem, if active, is ended.

***RMTCMD**
The remote command and distributed program call server daemon in the QSYSWRK subsystem, if active, is ended.

***SIGNON**
The signon server daemon in the QSYSWRK subsystem, if active, is ended.

***SVRMAP**
The server mapper daemon in the QSYSWRK subsystem, if active, is ended.

Top

End active connections (ENDACTCNN)

Specifies whether or not the active connections for the specified servers will be ended.

Single Value

***NONE:**
No active connections will be ended.

Specific Server Values

***DATABASE:**
The active connections being serviced by the QZDASOINIT and QZDASSINIT server jobs will be ended. The server jobs servicing these connections will be ended.

***FILE:** The active connections being serviced by the QPWFSERVSO and QPWFSERVSS server jobs will be ended. The server jobs servicing these connections will be ended.

Top

Examples

None

Top

Error messages

None

Top

End Input (ENDINP)

Where allowed to run:

- Batch job (*BATCH)

Threadsafe: No

Parameters
Examples
Error messages

The End Input (ENDINP) command is a delimiter in a batch input stream that indicates the end of the input data. The End Input (ENDINP) command also can indicate the end of an inline data file provided the command is detected while the inline file is being processed. If the inline file is using ending characters which are not defaults (//) the End Input (ENDINP) command is embedded without being recognized.

Restrictions: This command cannot be entered at a work station. Two slashes (//) in positions 1 and 2 must go before the End Input (ENDINP) command in the data record, for example //ENDINP. Blanks can separate the slashes from the command line (// ENDINP).

There are no parameters for this command.

Top

Parameters

None

Top

Examples

```
//BCHJOB
 :
//DATA
 :
//ENDINP
```

The ENDINP command indicates the end of a input stream that began with the Batch Job (BCHJOB) command.

Top

Error messages

***ESCAPE Messages**

CPF1753
Command cannot be run.

Top

End IP over SNA Interface (ENDIPSIFC)

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

Parameters
Examples
Error messages

The End IP over SNA Interface (ENDIPSIFC) command is used to end an AF_INET sockets over SNA interface (an IP address by which this local host is known on the SNA transport).

Note: Ending an interface causes all routes associated with this interface to be deactivated immediately unless there are other active interfaces that the routes can switch to.

Top

Parameters

Keyword	Description	Choices	Notes
INTNETADR	Internet address	*Character value*	Required, Positional 1

Top

Internet address (INTNETADR)

Specifies the internet address of an active (started) interface that had previously been added to the IP SNA configuration with the Add IP over SNA Interface (ADDIPSIFC) CL command. The internet address is specified in the form *nnn.nnn.nnn.nnn*, where *nnn* is a decimal number ranging from 0 through 255. If the internet address is entered from a command line, the address must be enclosed in apostrophes.

This is a required parameter.

Top

Examples

```
ENDIPSIFC   INTNETADR('9.5.1.248')
```

This command deactivates (ends) the interface with IP address 9.5.1.248.

Top

Error messages

***ESCAPE Messages**

CPFA114
IP over SNA interface &1 not ended.

Top

End Job (ENDJOB)

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

Parameters
Examples
Error messages

The End Job (ENDJOB) command ends the specified job and any associated inline data files. The job can be on a job queue, it can be active, or it can have already completed running.

You can specify that the application program is given time to control end-of-job processing. If no time is given or if cleanup cannot be performed within the given time, the system performs minimal end-of-job processing, which can include:

- Closing the database files.
- Spooling the job log to an output queue.
- Cleaning up internal objects in the operating system.
- Showing the end-of-job display (for interactive jobs).
- Completing commitment control processing

  Before ending the job, you should verify that no logical unit of work is in an in doubt state due to a two-phase commit operation that is in progress. If it is, then the value of the Action if ENDJOB commitment option can greatly impact the ENDJOB processing. For example, if the Action if ENDJOB commitment option is the default value of WAIT, this job will be held up and will not complete its end of job processing until the commitment control operation is completed. This ensures database integrity on all related systems. For specific instructions on how to determine these conditions, and for a description of all the impacts of ending this job under these conditions, see the Backup and Recovery book.

Restrictions: The issuer of the command must be running under a user profile which is the same as the job user identity of the job being ended, or the issuer of the command must be running under a user profile which has job control (*JOBCTL) special authority.

The job user identity is the name of the user profile by which a job is known to other jobs. It is described in more detail in the Work Management book.

Top

Parameters

Keyword	Description	Choices	Notes
JOB	Job name	*Qualified job name*	Required, Positional 1
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
OPTION	How to end	*CNTRLD, ***IMMED**	Optional, Positional 2
DELAY	Controlled end delay time	1-999999, **30**	Optional, Positional 3
SPLFILE	Delete spooled files	***NO**, *YES	Optional, Positional 4
LOGLMT	Maximum log entries	*Integer*, ***SAME**, *NOMAX	Optional

Keyword	Description	Choices	Notes
ADLINTJOBS	Additional interactive jobs	***NONE**, *GRPJOB, *ALL	Optional
DUPJOBOPT	Duplicate job option	***SELECT**, *MSG	Optional

Top

Job name (JOB)

Specifies the qualified job name of the job to be ended.

This is a required parameter.

Qualifier 1: Job name

name Specify the name of the job.

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.

Note: If no user name or job number is specified, all jobs currently in the system are searched for the job name. If more than one occurrence of the specified name is found, a qualified job name must be specified.

Top

How to end (OPTION)

Specifies whether the job ends immediately or in a controlled manner that lets the application program perform end-of-job processing. In either case, the system performs certain job cleanup processing.

***CNTRLD**
The job ends in a controlled manner. This allows the program running to perform cleanup (end-of-job processing). When a job being ended has a signal handling procedure for the asynchronous signal SIGTERM, the SIGTERM signal is generated for that job. The application has the amount of time specified on the DELAY parameter to complete cleanup before the job is ended.

***IMMED**
The job ends immediately and the system performs end-of-job cleanup. System cleanup can take from a brief amount of time to several minutes. When a job being ended has a signal handling procedure for the asynchronous signal SIGTERM, the SIGTERM signal is generated for that job and the QENDJOBLMT system value specifies the time limit. Other than by handling the SIGTERM signal, the program that is running is not allowed to perform any cleanup.

Note: The *IMMED value might cause undesirable results if data has been partially updated. This value should be used only after a controlled end has been attempted unsuccessfully.

Note: When a SIGTERM signal handler is running during the immediate ending of a job, an ENDJOB command with OPTION(*IMMED) can be used to end the SIGTERM signal handler. This is only allowed if the SIGTERM signal handler has already had at least two minutes to run.

Top

Controlled end delay time (DELAY)

Specifies the amount of time (in seconds) allowed for the job to complete its cleanup processing during a controlled end. If the cleanup is not completed before the end of the delay time, the job is ended immediately. (Only system cleanup is performed.)

The delay time does not start until the job becomes active if the job is suspended because of one of the following conditions:

- The system request option 1 is selected.
- The job is held by the Hold Job (HLDJOB) command.
- The job is transferred by the Transfer Secondary Job (TFRSECJOB) command.
- The job is transferred by the Transfer to Group Job (TFRGRPJOB) command.

Note: This parameter is valid only when OPTION(*CNTRLD) is specified.

30 A maximum delay time of 30 seconds is allowed for cleanup before the job ends.

1-999999
Specify the maximum amount of delay time (in seconds) before the job ends.

Top

Delete spooled files (SPLFILE)

Specifies whether spooled output files created by this job are kept for normal processing or deleted. Regardless of whether the spooled files are deleted, the job logs are kept.

***NO** The spooled output files created by the job being ended are kept for normal processing by a writer. When the job ends, the spooled file action (SPLFACN) job attribute determines whether spooled files are detached from the job or kept with the job.

***YES** The spooled output files created by the job being ended and which are on output queues in the library name space of the thread issuing this command are deleted. The job log is not deleted. If the job has already ended and the spooled file action for the job is to detach the spooled files, the End Job (ENDJOB) command will not find the job and the spooled files will not be deleted.

Top

Maximum log entries (LOGLMT)

Specifies the maximum number of entries in the message queue of the job being ended that are written to the job log. This parameter can be used to limit the number of messages written to the job log printer file, QPJOBLOG, for a job that ends.

If a job to be ended with this command is already ending, the value specified on this parameter can change the logging limit of the job that is ending. The following are examples of how the logging limit can be changed:

1. If the value specified is greater than the number of messages written at the time the command is issued, messages continue to be written until the new limit is reached.
2. If the value specified is less than the number of messages already written to the spooled file, a message indicating that the limit has been reached is immediately put in the spooled file as the last entry. The remaining messages on the queue are ignored.

3. If 0 (zero) is specified before any messages are written to the spooled file, no job log is produced for the job that is ending.

***SAME**
The message logging limit does not change. If the logging limit does not change for this job on a previous command, *NOMAX is the value used by the system.

***NOMAX**
There is no limit to the number of messages logged; **all** messages on the job message queue are written to the job log.

integer-number
Specify the maximum number of messages that can be written to the job log.

Top

Additional interactive jobs (ADLINTJOBS)

Specifies whether the additional interactive jobs associated with the job specified in the **Job name (JOB)** parameter are ended.

***NONE**
Only the job specified in the JOB parameter is ended.

***GRPJOB**
If the job specified in the JOB parameter is a group job, all group jobs associated with the group are ended. If the job is not a group job, the job specified in the JOB parameter is ended.

***ALL** All interactive jobs running on the workstation associated with the job specified in the JOB parameter are ended. This includes group jobs and secondary jobs.

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, a message is issued.

***MSG** A message is issued when duplicate jobs are found.

Top

Examples

Example 1: Ending a Job Immediately

```
ENDJOB   JOB(JOB1)  OPTION(*IMMED)  SPLFILE(*YES)
```

This command ends a job named JOB1 immediately. Spooled output produced by the job is deleted; the job log is saved.

Example 2: Saving Spooled Output

```
ENDJOB   JOB(001234/XYZ/JOB2)  OPTION(*CNTRLD)
         DELAY(50)  SPLFILE(*NO)
```

This command ends a job named 001234/XYZ/JOB2. Spooled output is saved for normal processing by the spooling writer. The job has 50 seconds to perform any cleanup routines, after which it is ended immediately.

Top

Error messages

***ESCAPE Messages**

CPF1317
No response from subsystem for job &3/&2/&1.

CPF1321
Job &1 user &2 job number &3 not found.

CPF1332
End of duplicate job names.

CPF1340
Job control function not performed.

CPF1341
Reader or writer &3/&2/&1 not allowed as job name.

CPF1342
Current job not allowed as job name on this command.

CPF1343
Job &3/&2/&1 not valid job type for function.

CPF1344
Not authorized to control job &3/&2/&1.

CPF1351
Function check occurred in subsystem for job &3/&2/&1.

CPF1352
Function not done. &3/&2/&1 in transition condition.

CPF135D
ENDJOB OPTION(*IMMED) not allowed at this time.

CPF1360
&3/&2/&1 already ending because of ENDJOBABN.

CPF1361
Job &3/&2/&1 already ending with *IMMED option.

CPF1362
Job &3/&2/&1 has completed.

CPF1363
Job &3/&2/&1 is already ending *CNTRLD.

CPF8172
Spool control block for job &10/&9/&8 damaged.

Top

End Job Abnormal (ENDJOBABN)

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

Parameters
Examples
Error messages

The End Job Abnormal (ENDJOBABN) command ends a job that cannot be ended successfully by running the End Job (ENDJOB) command with *IMMED specified for the **How to end (OPTION)** parameter. The ENDJOBABN command cannot be issued against a job until 10 minutes have passed following the request for immediate ending. This allows sufficient time for normal job ending functions to be attempted.

When the ENDJOBABN command is issued, most of the end-of-job processing is bypassed (including spooling of the job log, the end of job display for interactive jobs, and the end-of-job processing for the specific functions that are being performed). The part of the end-of-job processing that is attempted is allowed only five minutes to complete. If it does not do so in five minutes, the job is forced to end at that point. Because some of the job cleanup is not performed, the ENDJOBABN command should only be used when a job that is in the process of immediate ending does not finish ending and resources in use by the job are needed by another job or by the system. When the ENDJOBABN command is used, some resources in use by the ended job may be left unavailable until the next IPL.

Use of the ENDJOBABN command causes the next system end to be marked as ABNORMAL. Certain system functions are then called during the subsequent IPL to clear up conditions that may have resulted from running the ENDJOBABN command. This does not, however, cause any machine recovery functions to be called, nor do any access paths need to be rebuilt. Some storage in use by the job may become unavailable after the ENDJOBABN command is run and that available storage can be reclaimed by using the Reclaim Storage (RCLSTG) command.

Bypassing the job log writing process causes the job to have the status of JOBLOG PENDING (as shown on the DSPJOB status attributes display) after it has been ended with the ENDJOBABN command. The job log writing is not performed until the next IPL. However, the contents of the job log can be printed or shown by using the Display Job Log (DSPJOBLOG) command.

When the ENDJOBABN command is run, the following functions are performed successfully:

- Journaling entries
- Commitment control

  Before ending the job abnormally, you should verify that no logical unit of work is in an in doubt state due to a two-phase commit operation that is in progress. If it is, then pending committable changes at this system will not be committed or rolled back. Therefore, database integrity may not be maintained on all related systems. For specific instructions on how to determine these conditions, and for a description of all the impacts of ending this job abnormally under these conditions, see the Commitment control article in the Information Center.
- Making database files available for use by others
- Releasing file locks

This command fails to end a job or takes more than five minutes to do so in the following situations:

- When the job runs under a subsystem monitor that is hung, is abnormally slow, or has ended abnormally (the subsystem monitor performs part of the ending function).
- When the machine interface (MI) instruction running in the job is hung or is abnormally slow. The job cannot end until the MI instruction that is currently running completes or reaches a point of interruption.

Restrictions:

1. The issuer of the command must be running under a user profile which is the same as the job user identity of the job being ended, or the issuer of the command must be running under a user profile which has job control (*JOBCTL) special authority.
2. The issuer of the command must be running under a user profile which is the same as the job user identity of the job being ended, or the issuer of the command must be running under a user profile which has job control (*JOBCTL) special authority. The job user identity is the name of the user profile by which a job is known to other jobs. It is described in more detail in the Work Management book.
3. After the ENDJOBABN command is run, subsequent ENDJOBABN commands cannot be issued against the job.
4. Users cannot end a reader, writer, subsystem monitor, or system job.
5. Users cannot run the ENDJOBABN command until ten minutes after immediate ending of the job is started. Immediate ending of the job is started in the following ways:
   - When the End Job (ENDJOB) command with OPTION(*CNTRLD) is specified and the delay time ends.
   - When the ENDJOB command with OPTION(*IMMED) is issued.
   - When the End Subsystem (ENDSBS) command with OPTION(*CNTRLD) is issued against the subsystem in which the job is running and the delay time ends.
   - When the ENDSBS command with OPTION(*IMMED) is issued against the subsystem in which the job is running.
   - When the End System (ENDSYS) command with OPTION(*IMMED) is issued, or OPTION(*CNTRLD) is issued and the delay time ends.
   - When the Power Down System (PWRDWNSYS) command with OPTION(*IMMED) is issued.
6. If the job defines a handler for the asynchronous signal SIGTERM, the immediate ending of the job was delayed to allow the SIGTERM signal handler to run. For more information, refer to system value QENDJOBLMT. An ENDJOBABN command is not allowed while the SIGTERM signal handler is running. If the SIGTERM signal handler has run for at least 2 minutes, use ENDJOB command with OPTION(*IMMED) to stop the SIGTERM signal handler.

Top

Parameters

Keyword	Description	Choices	Notes
JOB	Job name	*Qualified job name*	Required, 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 the qualified job name of the job to be ended.

This is a required parameter.

Qualifier 1: Job name

name Specify the name of the job.

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.

Note: If no user name or job number is specified, all jobs currently in the system are searched for the job name. If more than one occurrence of the specified name is found, a qualified job name must be specified.

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, a message is issued.

***MSG** A message is issued when duplicate jobs are found.

Top

Examples

```
ENDJOBABN   JOB(000310/SMITH/PAYROLL)
```

This command ends the batch job 000310/SMITH/PAYROLL after the failure of an earlier attempt to end it with the ENDJOB command. The ENDJOBABN command can be issued only after waiting at least ten minutes for the job to end after issuing the ENDJOB command.

Top

Error messages

***ESCAPE Messages**

CPF1317
No response from subsystem for job &3/&2/&1.

CPF1321
Job &1 user &2 job number &3 not found.

CPF1332
End of duplicate job names.

CPF1340
Job control function not performed.

CPF1341
Reader or writer &3/&2/&1 not allowed as job name.

CPF1342
Current job not allowed as job name on this command.

CPF1343
Job &3/&2/&1 not valid job type for function.

CPF1351
Function check occurred in subsystem for job &3/&2/&1.

CPF1359
ENDJOBABN not allowed at this time for job &3/&2/&1.

CPF1360
&3/&2/&1 already ending because of ENDJOBABN.

CPF1362
Job &3/&2/&1 has completed.

Top

End Journal (ENDJRN)

Where allowed to run: All environments (*ALL)
Threadsafe: Yes

Parameters
Examples
Error messages

The End Journal (ENDJRN) command is used to end the journaling of changes for an object or list of objects. The object types which are supported through this interface are Data Areas (*DTAARA), Data Queues (*DTAQ), Byte Stream Files (*STMF), Directories (*DIR), and Symbolic Links (*SYMLNK). Only objects of type *STMF, *DIR, or *SYMLNK that are in the root ('/'), QOpensys, and user-defined file systems are supported.

All objects of the supported types that are currently being journaled to a specific journal may also have journaling stopped.

For other ways to end journaling see the following commands:

1. Access Paths - End Journal Access Path (ENDJRNAP)
2. Physical Files - End Journal Physical File (ENDJRNPF)
3. Other Objects - End Journal Object (ENDJRNOBJ)

Restrictions:

- Objects specified on the command cannot be in use for any reason at the time the command is running.
- If OBJ(*ALL) is specified, a journal name must be specified (JRN parameter).
- If a journal name and a list of object names are specified, all objects must be currently journaled to the indicated journal.
- The specified journal must be a local journal.
- At least one of parameter OBJ or OBJFID must be specified.

Top

Parameters

Keyword	Description	Choices	Notes
OBJ	Objects	Single values: *ALL Other values (up to 300 repetitions): *Element list*	Optional
	Element 1: Name	*Path name*, *****	
	Element 2: Include or omit	***INCLUDE**, *OMIT	
OBJFID	File identifier	Values (up to 300 repetitions): *Hexadecimal value*	Optional
SUBTREE	Directory subtree	*ALL, ***NONE**	Optional
PATTERN	Name pattern	Values (up to 20 repetitions): *Element list*	Optional
	Element 1: Pattern	*Character value*, *****	
	Element 2: Include or omit	***INCLUDE**, *OMIT	
JRN	Journal	*Path name*, ***OBJ**	Optional

Top

Objects (OBJ)

Specifies a maximum of 300 object path names for which changes will no longer be journaled. Only objects whose path name identifies an object of type *STMF, *DIR, *SYMLNK, *DTAARA or *DTAQ are supported.

Single values

***ALL** All objects of the supported type that are currently being journaled to the indicated journal are to stop having their changes journaled. If *ALL is specified parameter OBJFID must not be specified.

Element 1: Name

'object-path-name'
Specify the path name of the object for which changes are no longer journaled.

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. Symbolic links within the path name will not be followed. If the path name begins with the tilde character, then the path is assumed to be relative to the appropriate home directory.

Additional information about path name patterns is in the Integrated file system information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter.

Element 2: Include or omit

The second element specifies whether names that match the pattern should be included or omitted from the operation. Note that in determining whether a name matches a pattern, relative name patterns are always treated as relative to current working directory.

***INCLUDE**
The objects that match the object name pattern are to stop having their changes journaled unless overridden by an *OMIT specification.

***OMIT**
The objects that match the object name pattern are not to be included with the objects that are to stop having their changes journaled. This overrides an *INCLUDE specification and is intended to be used to omit a subset of a previously selected path.

Top

File identifier (OBJFID)

Specifies a maximum of 300 file identifiers (FID) for which changes are no longer journaled. FIDs are a unique identifier associated with integrated file system related objects. This field is input in hexadecimal format. Only objects whose FID identifies on object of type *STMF, *DIR, *SYMLNK, *DTAARA or *DTAQ are supported.

file-identifier
Objects identified with the FID are no longer journaled.

Top

Directory subtree (SUBTREE)

Specifies whether the objects in directory subtrees are to stop having their changes journaled.

Note: This parameter is ignored unless object-path-name is a directory object.

Note: This parameter is ignored if the OBJFID parameter is specified.

***NONE**
Only the objects that match the selection criteria are processed. The objects within selected directories are not implicitly processed.

***ALL** All objects that meet the selection criteria are processed in addition to the entire subtree of each directory that matches the selection criteria. The subtree includes all sub-directories and the objects within those sub-directories.

Top

Name pattern (PATTERN)

Specifies a maximum of 20 patterns to be used to include or omit objects for the end journal operation.

Only the last part of the path name will be considered for the name pattern match. Path name delimiters are not allowed in the name pattern. 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. Symbolic links within the path name will not be followed.

If this parameter is not specified, the default will be to match all patterns.

Additional information about path name patterns is in the Integrated file system information in the iSeries Information Center at http://www.ibm.com/eserver/iseries/infocenter.

Note: This parameter is ignored if the OBJFID parameter is specified.

Element 1: Name pattern

'*' All objects that match the input OBJ parameter are to be included into the end journal operation or omitted from the end journal operation.

name-pattern
Specify the pattern to either include or omit objects for the end journal operation. Only the last part of the path name will be considered for the name pattern match. Path name delimiters are not allowed in the name pattern.

Element 2: Include or omit

The second element specifies whether names that match the pattern should be included or omitted from the operation. Note that in determining whether a name matches a pattern, relative name patterns are always treated as relative to the current working directory.

Note: The SUBTREE parameter specifies whether directory subtrees are included or omitted.

***INCLUDE**
The objects that match the object name pattern are to stop having their changes journaled unless overridden by an *OMIT specification.

***OMIT**
The objects that match the object name pattern are not to be included with the objects that are to

stop having their changes journaled. This overrides an *INCLUDE specification and is intended to be used to omit a subset of a previously selected pattern.

Top

Journal (JRN)

Specifies the journal to which changes are currently being journaled.

***OBJ** The journal is determined by the system from the specified object path name or object file identifier.

journal-path-name
Specify the path name of the journal to which changes are currently being journaled.

Top

Examples

Example 1: End All Non-Database Journaling

```
ENDJRN   OBJ(*ALL)  JRN('/qsys.lib/mylib.lib/myjrn.jrn')
```

This command stops the journaling of all changes to all objects of type *DIR, *STMF, *SYMLNK, *DTAARA and *DTAQ to journal /qsys.lib/mylib.lib/myjrn.jrn.

Example 2: End Journaling with Omit of Directory

```
ENDJRN   OBJ(('/mypath' *INCLUDE) ('/mypath/myobject' *OMIT))
```

This command stops the journaling of all changes to all first-level objects in directory /mypath except object /mypath/myobject. Object /mypath/myobject will continue to be journaled.

Example 3: End Journaling with Pattern Selection

```
ENDJRN   OBJ(('/mypath' *INCLUDE) ('/mypath/mysubdir' *OMIT))
         SUBTREE(*ALL)  PATTERN(('*.txt' *INCLUDE))
```

This command stops the journaling of all changes to all objects in directory /mypath of type *DIR, *STMF, and *SYMLNK that match pattern '*.txt'. Any objects within directory /mypath/mysubdir will continue to be journaled.

Example 4: End Journaling using File Identifiers

```
ENDJRN   OBJFID(00000000000000007E09BDB000000009
                00000000000000009E09BDB00000000A)
```

This command stops the journaling of all changes to the objects of type *DIR, *STMF, *SYMLNK, *DTAARA or *DTAQ represented by the specified file identifiers.

Example 5: End Journaling on a set of Data Areas

```
ENDJRN   OBJ(('/qsys.lib/mylib.lib/mydata*.dtaara'))
         JRN('/qsys.lib/mylib.lib/myjrn.jrn')
```

This command stops the journaling of all changes to the objects of type *DTAARA in library MYLIB that begin with the characters 'MYDATA'.

Top

Error messages

***ESCAPE Messages**

CPFA0D4
File system error occurred. Error number &1.

CPF700B
&1 of &2 objects have ended journaling.

CPF705A
Operation failed due to remote journal.

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.

CPF9825
Not authorized to device &1.

CPF9830
Cannot assign library &1.

CPF9873
ASP status is preventing access to object.

CPF9875
Resources exceeded on ASP &1.

Top

End Journal Access Path (ENDJRNAP)

Where allowed to run: All environments (*ALL)
Threadsafe: Yes

Parameters
Examples
Error messages

The End Journal Access Path (ENDJRNAP) command is used to end the journaling of the access paths of a journaled file.

All access paths currently being journaled to a specific journal may also have journaling stopped.

For other ways to end journaling see the following commands:

- Integrated file system objects - End Journal (ENDJRN)
- Physical files - End Journal Physical File (ENDJRNPF)
- Other objects - End Journal Object (ENDJRNOBJ)

Restrictions:

- The access paths for the files specified on the command cannot be in use for any reason at the time the command is running.
- Overrides are not applied to the files listed in the FILE parameter.
- If FILE(*ALL) is specified, a journal name must be specified.
- If a journal name and a list of file names are specified, then all the access paths for the listed files must be currently journaled to the indicated journal.
- Journaling entries for any physical file does not end by the running of this command.
- The specified journal must be a local journal.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Journaled file	Single values: *ALL Other values (up to 50 repetitions): *Qualified object name*	Required, Positional 1
	Qualifier 1: Journaled file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
JRN	Journal	Single values: ***FILE** Other values: *Qualified object name*	Optional, Positional 2
	Qualifier 1: Journal	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

Journaled file (FILE)

Specifies a maximum of 50 database files for which the journaling of access paths are to be ended.

This is a required parameter.

Single values

***ALL** All current journaling of access paths to the indicated journal are ended.

Qualifier 1: Journaled file

file-name
Specify the name and library of the database file for which access paths for the journal entry are ended.

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, QGPL is used.

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

Top

Journal (JRN)

Specifies the journal to which journaling of the access paths for the indicated files are being ended.

Single values

***FILE** The journal name is determined by the system from the specified file names.

Qualifier 1: Journal

journal-name
Specify the name of the journal.

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, QGPL is used.

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

Top

Examples

```
ENDJRNAP   FILE(MYLIB/MYFILE)
```

This command ends the journaling for all access paths of the file MYFILE in the library MYLIB.

Error messages

***ESCAPE Messages**

CPF6972
Cannot allocate access path for file &1 in &2.

CPF7008
Cannot start or end access path journaling for file &1.

CPF703C
DDL transaction prevents journaling operation.

CPF703D
DDL transaction prevents journaling operation.

CPF703E
DDL transaction prevents journaling operation.

CPF7032
ENDJRNPF or ENDJRNAP command failed.

CPF7033
Start or end journaling failed for member &3.

CPF7034
Logical damage of file &1 in &2.

CPF705A
Operation failed due to remote journal.

CPF708D
Journal receiver found 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.

CPF9812
File &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

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

CPF9825
Not authorized to device &1.

CPF9830
Cannot assign library &1.

CPF9873
ASP status is preventing access to object.

CPF9875
Resources exceeded on ASP &1.

Top

End Journal Object (ENDJRNOBJ)

Where allowed to run: All environments (*ALL)
Threadsafe: Yes

Parameters
Examples
Error messages

The End Journal Object (ENDJRNOBJ) command is used to end journaling of changes for an object or list of objects.

All objects, of object types *DTAARA and *DTAQ, that are currently being journaled to a specific journal may also have journaling stopped.

For other ways to end journaling see the following commands:

- Access paths - End Journal Access Path (ENDJRNAP)
- Integrated file system objects - End Journal (ENDJRN)
- Physical files - End Journal Physical File (ENDJRNPF)

Restrictions:

- Objects specified on the command cannot be in use for any reason at the time the command is running.
- If OBJ(*ALL) or OBJTYPE(*ALL) is specified, a journal name must be specified (JRN parameter).
- If a journal name and a list of object names are specified, all objects must be currently journaled to the indicated journal.
- The specified journal must be a local journal.

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Parameters

Keyword	Description	Choices	Notes
OBJ	Object	Single values: *ALL Other values (up to 300 repetitions): *Qualified object name*	Required, Positional 1
	Qualifier 1: Object	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OBJTYPE	Object type	*DTAARA, *DTAQ, *ALL	Required, Positional 2
JRN	Journal	Single values: ***OBJ** Other values: *Qualified object name*	Optional, Positional 3
	Qualifier 1: Journal	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

Object (OBJ)

Specifies a maximum of 300 objects for which changes are no longer to be journaled.

This is a required parameter.

Single values

***ALL** All objects of the specified object types that are currently being journaled to the indicated journal are to stop having their changes journaled.

Qualifier 1: Object

object-name
Specify the name of the object for which journaling is to be ended.

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, QGPL is used.

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

Top

Object type (OBJTYPE)

Specifies the object type for which journaling is to be ended.

This is a required parameter.

***DTAARA**
Data area objects are to have their journaling ended.

***DTAQ**
Data queue objects are to have their journaling ended.

***ALL** All objects of the object types that are supported on this command are to have their journaling ended.

Note: If OBJTYPE(*ALL) is specified, then OBJ(*ALL) must also be specified.

Top

Journal (JRN)

Specifies the qualified name of the journal to which changes in the objects are currently being journaled.

Single values

***OBJ** The journal is determined by the system from the specified object name and object type.

Qualifier 1: Journal

journal-name
Specify the name of the journal to which the indicated objects are currently being journaled.

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, QGPL is used.

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

Top

Examples

Example 1: End Journaling All Data Areas and Data Queues

```
ENDJRNOBJ   OBJ(*ALL)  OBJTYPE(*ALL)  JRN(MYLIB/MYJRN)
```

This command stops journaling all changes to all objects of type *DTAARA and *DTAQ to journal MYJRN in library MYLIB.

Example 2: End Journaling for Specific Data Area

```
ENDJRNOBJ   OBJ(DTALIB/MYDTAARA)  OBJTYPE(*DTAARA)
```

This command stops the journaling of all changes to data area MYDTAARA in library DTALIB.

Top

Error messages

***ESCAPE Messages**

CPF700B
&1 of &2 objects have ended journaling.

CPF705A
Operation failed due to remote journal.

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.

CPF9825
Not authorized to device &1.

CPF9830
Cannot assign library &1.

CPF9873
ASP status is preventing access to object.

CPF9875

Resources exceeded on ASP &1.

Top

End Journal Physical File (ENDJRNPF)

Where allowed to run: All environments (*ALL)
Threadsafe: Conditional

Parameters
Examples
Error messages

The End Journal Physical File (ENDJRNPF) command is used to end journaling of changes for a specific physical file and all of its members.

All physical files currently being journaled to a specific journal may also have journaling stopped.

When the file for which journaling is ended is a distributed file, an attempt is made to distribute the ENDJRNPF command if journaling was successfully ended locally. Even if the distribution request fails, the local file is not journaled. In addition, if a journal and file name are specified, and the file is distributed, an attempt to distribute the ENDJRNPF request is made even if the file is not journaled locally.

For other ways to end journaling see the following commands:

- Access paths - End Journal Access Path (ENDJRNAP)
- Integrated file system objects - End Journal (ENDJRN)
- Other objects - End Journal Object (ENDJRNOBJ)

Restrictions:

- Members in the files specified on the command cannot be in use for any reason at the time the command is running.
- Overrides are not applied to the files listed in the FILE parameter.
- If FILE(*ALL) is specified, a journal name must be specified.
- If a journal name and a list of file names are specified, all files must be currently journaled to the indicated journal.
- The specified journal must be a local journal.
- In multithreaded jobs, this command is not threadsafe for distributed files and fails for distributed files that use relational databases of type *SNA.

Top

Parameters

Keyword	Description	Choices	Notes
FILE	Journaled physical file	Single values: *ALL Other values (up to 50 repetitions): *Qualified object name*	Required, Positional 1
	Qualifier 1: Journaled physical file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
JRN	Journal	Single values: ***FILE** Other values: *Qualified object name*	Optional, Positional 2
	Qualifier 1: Journal	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Top

Journaled physical file (FILE)

Specifies a maximum of 50 physical files for which changes will no longer be journaled.

This is a required parameter.

Single values

***ALL** All physical files currently being journaled to the specified journal no longer have their changes journaled.

Qualifier 1: Journaled physical file

file-name
Specify the name of the physical database file for which changes will no longer be journaled.

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, QGPL is used.

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

Top

Journal (JRN)

Specifies the name of the journal to which changes in the indicated files are currently being journaled.

Single values

***FILE** The journal is determined by the system from the specified file names.

Qualifier 1: Journal

journal-name
Specify the name of the journal to which changes in the specified files are currently being journaled.

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, QGPL is used.

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

Top

Examples

```
ENDJRNPF   FILE(MYLIB/MYFILE)
```

This command stops the journaling of all changes to all members of file MYFILE in library MYLIB. Changes made after this command is run are not journaled.

Top

Error messages

***ESCAPE Messages**

CPF6959
Object &1 is not currently journaled.

CPF6970
Access paths built over file &1 are being journaled.

CPF7002
File &1 in library &2 not a physical file.

CPF703B
Implicit end of access path journaling failed.

CPF703C
DDL transaction prevents journaling operation.

CPF703D
DDL transaction prevents journaling operation.

CPF703E
DDL transaction prevents journaling operation.

CPF7031
Cannot allocate member &3 file &1 in &2.

CPF7032
ENDJRNPF or ENDJRNAP command failed.

CPF7033
Start or end journaling failed for member &3.

CPF7034
Logical damage of file &1 in &2.

CPF704C
Journaling ended locally but distributed requests failed.

CPF704D
ENDJRNPF command failed.

CPF705A
Operation failed due to remote journal.

CPF708D
Journal receiver found 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.

CPF9812
File &1 in library &2 not found.

CPF9820
Not authorized to use library &1.

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

CPF9825
Not authorized to device &1.

CPF9830
Cannot assign library &1.

CPF9873
ASP status is preventing access to object.

CPF9875
Resources exceeded on ASP &1.

Top

End Line Recovery (ENDLINRCY)

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

Parameters
Examples
Error messages

The End Line Recovery (ENDLINRCY) command ends automatic error recovery procedures for a specific line. If any type of failure occurs after this command is run, an inquiry message is sent to the system operator.

Use the Resume Line Recovery (RSMLINRCY) command to reestablish error recovery procedures for the line.

Top

Parameters

Keyword	Description	Choices	Notes
LINE	Line	*Name*	Required, Positional 1

Top

Line (LINE)

Specifies the name of the communications line whose recovery is to be stopped.

This is a required parameter.

Top

Examples

```
ENDLINRCY   LINE(NYC2)
```

This command ends error recovery procedures for the line named NYC2.

Top

Error messages

***ESCAPE Messages**

CPF2704
Line description &1 not found.

CPF5917
Not authorized to line description &1.

CPF5932
Cannot access line &1.

CPF5933
Line &1 not varied on.

CPF5935
Error occurred during command processing.

Top

End Mode (ENDMOD)

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

Parameters
Examples
Error messages

The End Mode (ENDMOD) command ends (deactivates) a single mode or all active modes for a specific advanced program-to-program communications (APPC) remote location. The mode remains inactive until a Start Mode (STRMOD) command is run to start the mode. This command can be used to end all the sessions for a particular remote location and to cause an active switched connection to disconnect. The user can also specify how activities that have been requested on the remote system but have not yet been performed are to be handled.

The APPC Programming book, SC41-5443 has more information on the ENDMOD command.

Restriction: This command cannot be used to end (deactivate) Client Access/400 mode (QPCSUPP) at a remote location.

Top

Parameters

Keyword	Description	Choices	Notes
RMTLOCNAME	Remote location	*Communications name*	Required, Positional 1
DEV	Device	*Name*, ***LOC**	Optional
MODE	Mode	*Communications name*, ***NETATR**, *ALL	Optional
LCLLOCNAME	Local location	*Communications name*, ***LOC**, *NETATR	Optional
RMTNETID	Remote network identifier	*Communications name*, ***LOC**, *NETATR, *NONE	Optional
CPLPNDRQS	Complete pended requests	***NO**, *YES	Optional

Top

Remote location (RMTLOCNAME)

Specifies the remote location name for which one or more modes are to be ended.

This is a required parameter.

Top

Device (DEV)

Specifies the device description name.

The possible values are:

***LOC** The device description is determined by the system.

device-name
Specify a device description name.

Top

Mode (MODE)

Specifies the mode that is to be ended.

The possible values are:

***NETATR**
The mode in the network attributes is used.

***ALL** All modes currently in use by the remote location are ended.

BLANK
The mode name (consisting of 8 blank characters) is used.

mode-name
Specify a mode name.

Note: SNASVCMG and CPSVCMG are reserved names and cannot be specified.

Top

Local location (LCLLOCNAME)

Specifies the local location name.

The possible values are:

***LOC** The local location name is determined by the system.

***NETATR**
The LCLLOCNAME value specified in the system network attributes is used.

local-location-name
Specify the name of your location. The local location name is specified if you want to indicate a specific local location name for the remote location.

Top

Remote network identifier (RMTNETID)

Specifies the remote network ID used with the remote location.

The possible values are:

***LOC** The system selects the remote network ID.

***NETATR**
The remote network identifier specified in the network attributes is used.

***NONE**
No remote network identifier (ID) is used.

remote-network-id
Specify the name of the remote network ID used.

Top

Complete pended requests (CPLPNDRQS)

Specifies if the remote location can complete pending work, or if the pended work should be ended before being allowed to start.

The possible values are:

***NO** The requested activities currently in progress at the remote location can complete. Activities that have been requested but not started at the remote location will not be performed.

***YES** All requested activities are allowed to complete before the mode is ended.

Top

Examples

```
ENDMOD   RMTLOCNAME(APPCRLOC)  MODE(APPCMOD)
```

This command ends a mode named APPCMOD for remote location APPCRLOC.

Top

Error messages

***ESCAPE Messages**

CPF598B
The &1 command failed for one or more modes.

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