Dumpster
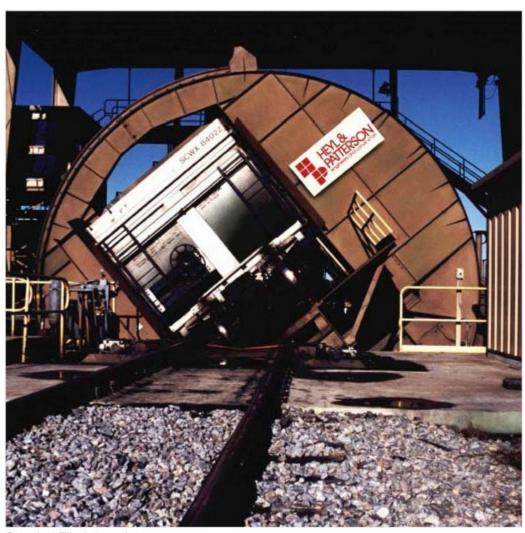
Programmer's Guide and Reference
Licensed Program 2A55DMP V1R6M0

Spooled File Internals

Edition

Sixth Edition (April 2009)

This edition applies to the licensed program Dumpster (Program 2A55DMP), Version 1 Release 6 Modification 0, and to all subsequent releases and modifications until otherwise indicated in new editions. This revision makes all previous editions obsolete. Make sure you are using the proper edition for the level of the product.

A version of this manual in Adobe's Portable Document Format (PDF) is available on the web.

We welcome your comments. Send them to:

Contents

Chapter 1 Introduction

What's In This Chapter

This chapter introduces you to Dumpster. The chapter:

- Describes the features of Dumpster.
- Describes what Dumpster does.
- Outlines future directions for the product.

Dumpster Features

Dumpster is a software utility that dumps the internals of OS/400 spooled files.

Now you can use the same tools we use to inspect a spooled file and print resource internals. It isn't pretty but with it you can gain insight into the inner workings of OS/400's spool support. This can be useful for increasing printer through put or determining the exact effect of various DDS keyword combinations.

Dumpster supports most of the OS/400 spooled file print data streams:

- *SCS (SNA Character String)
- *IPDS (Intelligent Printer Data Stream)
- *AFPDS (Advanced Function Printing Data Stream)

Dumpster generates the following formatted dumps:

- *ATTRIB - The spooled file's complete attributes, equivalent to WRKSPLFA on steriods.
- *RSCLST - A list of external resources referenced by the spooled file. This is the output of OS/400's QGSLRSC api.
- *DTASTR - The raw data stream in readable form.
- *BUFFER - Complete information on the spooled file's buffer's. This is the output of OS/400's QSPGETSP api for format SPFR0200.

Dumpster includes a work-a-like for i5/OS's Work with Spooled File (WRKSPLF) command called Work with Gumbo Spooled Files (WRKGSISPLF). It also includes a work-a-like for i5/OS's Work with Output Queue (WRKOUTQ) command called Work with Gumbo Output Queue (WRKGSIOUTQ). These commands provide the same functions as their i5/OS equivalent. In addition they provide an option that allows you to access the function of Dumpster by entering an option number.

Best of all it is free.

What Dumpster Does

The main function of Dumpster is accessed by running the Dump Spooled File (DMPSPLF) command. The command takes a spooled file and generates a formatted dump of the internal information. You can use this information to optimize your printed output.

Future Directions

Future releases of Dumpster will include enhanced functionality based on customer feedback. Additionally, enhancements are often added to a current release by Program Temporary Fix (PTF). Candidate enhancements include:

- Improved print formatting

Contact Gumbo Software Inc for information on scheduling or to suggest additional enhancements.

Chapter 2 Installation

What's In This Chapter

This chapter describes

- How to install Dumpster.
- API authority granted during installation
- How to include the DUMPSTER library in a job's library list.
- How to determine release dependencies.
- How to test a new release while leaving the old in production.
- How to remove Dumpster from the system.
- How to find additional installation information.
- How to contact technical support.

Installing Dumpster

Follow these instructions to install Dumpster V1R6M0 on your System i:

Note: If you have downloaded this software from the web, instructions specific to installing from the download can be found in the file "readme.htm" which is included in the download.

1. Sign on to the system as the security officer (QSECOFR).
2. Verify that your machine is at i5/OS V5R4M0 or later by running:

   ```
   DSPDTAARA DTAARA(QGPL/QSS1MRI)
   ```

   Note: If you are running a version of i5/OS earlier than V5R4M0 you can not install Dumpster V1R6M0 on your machine. You must install an earlier version of Dumpster or upgrade the operating system.

3. Verify that user domain objects are allowed in the libraries DUMPSTER and QSRV, by running:

   ```
   WRKSYSVAL   SYSVAL(QALWUSRDMN)
   ```

   Take option 5 to display the value. If the value is not *ALL, use option 2 to add libraries DUMPSTER and QSRV to the list of libraries where user domain objects are allowed.

   Note: QSRV is required to correctly process PTFs when they are loaded and applied.

4. Insure that i5/OS will be able to verify the signatures that we apply to our product's objects by installing our Signing Certificate and Root CA Certificate using Digital Certificate Manager. Alternately, insure that signature verification will not prevent the restore operation by running:

   ```
   WRKSYSVAL SYSVAL(QVFYOBJRST)
   ```

   Take option 5 to display the value. If the value is 3 or higher, use option 2 to temporarily change the value to 1.

5. Mount the distribution media in the appropriate device.
6. Submit the Restore Licensed Program (RSTLICPGM) command to batch:

   ```
   RSTLICPGM   LICPGM(2A55DMP) DEV(device-name) LNG(2924)
   ```

   Note: "device-name" is the device the media was mounted on and is usually OPT01.

   Note: During the restore operation the system operator message queue may receive inquiry message CPA3DE4 "Directory not registered. (C G)". Unless you are using a directory naming convention similar

to ours (that is the directory specified in the CPA3DE4's second level text is unrelated to our software), You can safely respond with a "G" to reestablish the relationship between the directory and the product. Typically the message will occur three times.

When the RSTLICPGM command finishes a new library DUMPSTER and a new directory '/Gumbo/ProdData/2A55DMP' are on the system. You can access the Dumpster menu by entering the following command:

```
GO  MENU(DUMPSTER/DUMPSTER)
```

You can determine which PTFs were included on the media by entering the following command:

```
DSPPTF  LICPGM(2A55DMP)
```

A list of current PTFs can be found at www.gumbo.com. If there are newer PTFs available, download and install them. The bottom of our PTF web page also includes a listing of any IBM PTFs that affect the product.

Note: Gumbo Software recommends downloading the current cumulative PTF package after installing the software.

API Authority Granted During Installation

The first time Dumpster is installed on a system, public authority *USE is granted to 3 of the i5/OS supplied spooling APIs. These are QSPOPNSP, QSPGETSP, and QSPCLOSP. The APIs are used by Dumpster to open, read and close spooled files. This is required to perform the product's functions.

Security restrictions and authority requirements pertaining to spooled files and output queues remain in effect and are enforced by i5/OS during use of the APIs. However, if you are operating a highly secured environment you may wish to review and revise the authority granted during installation.

No authority is granted during installation if Dumpster exists on the system. This prevents new releases from altering changes made after the initial installation.

Library List Considerations

Library DUMPSTER must be in the library list of jobs using Dumpster commands, or the commands must be qualified with library DUMPSTER. Depending on your installation and intended use you can choose to:

- Add library DUMPSTER to the system library list. This insures every job in the system has access to Dumpster commands. However this introduces problems with installing new releases and is not recommended.
- Add library DUMPSTER to the initial library list parameter of job descriptions controlling jobs which will use Dumpster commands. (recommended)
- Run a ADDLIBLE DUMPSTER command in individual threads requiring Dumpster commands.
- Qualify the command names on each use:

  ```
  DUMPSTER/CHGDMPAUT
  ```

  Library DUMPSTER will be temporarily added to the product portion of the current thread's library list.

Determine the best method for your installation and perform any changes required.

Release Considerations

Dumpster operates under i5/OS V5R4M0 or higher. Releases occur on a different schedule than IBM releases. Once Dumpster is installed the following considerations apply:

- A new release of i5/OS may be installed without installing a new release of Dumpster.

Dumpster uses only published or IBM sanctioned interfaces and is upward compatible with all releases of i5/OS. The Dumpster authorization code does not change.

- A new release of Dumpster may be installed without installing a new release of i5/OS.

  Any change in the requirements for operating system release level will be noted in the documentation accompanying the Dumpster release. The new authorization code must be entered.

- More than one release of Dumpster may be installed on a system at one time.

  By restoring Dumpster to a library other than DUMPSTER a new release can be installed for testing while the current release remains in production. Any release to release considerations that may apply will be noted in the documentation accompanying the new release. Additional operational considerations may apply. For more information on renaming a library during licensed program installation see the Restore Licensed Program (RSTLICPGM) command and the New Release Testing section of this chapter.

- When a new release of Dumpster is installed in the same library as an old release the following processing is performed in order to preserve data and Dumpster authorization information:
    1. The Dumpster library is saved to QGPL/DMPVxRyMz. Where VxRyMz is the current release.
    2. Product objects that contain default settings and operational information are copied to library QTEMP.
    3. The Dumpster library is cleared.
    4. Dumpster is restored.
    5. Default settings and operational information are copied back to the product objects.
    6. All objects duplicated to QTEMP are deleted.
    7. Save file QGPL/DMPVxRyMz is deleted.

Note: Gumbo Software recommends making a backup of the current release before installing a new release of Dumpster.

New Release Testing

Unlike IBM licensed programs, Gumbo Software licensed programs are packaged in a way that allows multiple release to be installed on your System i at the same time. This feature allows you to test a new release while the current release remains in production.

The key to new release testing are the LIB() and CODHOMEDIR() parameters of i5/OS's Restore License Program (RSTLICPGM) command which allow you to restore the product to a library name and directory different than the those used during packaging.

To test a new release, follow this procedure:

1. Review the Enhancement Summary for any release to release considerations that could affect your installation.
2. Install the new release in library DMPV1R6M0 and directory '/Gumbo/ProdData/2A55DMPV1R6M0':

```
RSTLICPGM  LICPGM(2A55DMP) DEV(device-name) LNG(2924)
           LIB(DMPV1R6M0) REPLACERLS(*NO)
           CODHOMEDIR('/Gumbo/ProdData/2A55DMPV1R6M0')
```

   where device-name is the device the media was mounted on.

3. Perform your new release testing.

4. When testing is complete you must delete the new release.

```
DLTLICPGM  LICPGM(2A55DMP) RLS(V1R6M0) OPTION(*ALL)
```

Note: Do not delete nor rename libraries and directories to move the new release into production. Doing so will corrupt the license program information kept internally by i5/OS. If this has already occurred, see the Software Installation Problems section of the "Trouble Shooting" chapter.

5. Follow the installation instructions to place the new release into production.

Deleting Dumpster

Follow these instructions to remove Dumpster from your System i:

1. Sign on to the system as the security officer (QSECOFR).
2. Delete the Dumpster library by using the Delete Licensed Program (DLTLICPGM) command:

```
DLTLICPGM  LICPGM(2A55DMP) OPTION(*ALL)
```

Additional Installation Information

Additional detailed installation information and instructions can be found in the InfoCenter i5/OS and related software > Install, upgrade, or delete i5/OS and related software SC41-5120.

Technical Support

If you encounter a problem with Dumpster you should:

- Review the information in Chapter 6 Trouble Shooting for a description of and solution to common problems.
- Load and apply the current cumulative PTF package for the software. You can obtain the current package by visiting the web site listed below.

If the problem remains unresolved, contact:

GUMBO
Software, Inc.

```
809 W Howe St
Seattle, WA 98119
United States of America
Phone:  (206) 284-5078
Email:  support2009@gumbo.com
Web:    www.gumbo.com
```

If your problem involves spooled file processing, the best method for getting it resolved is to capture the spooled file using the Create Spool Save File (CRTSPLSAVF) command and email the resulting save file along with a description of the problem to the address listed above. Be sure to include contact information.

Note: See Chapter 6 Trouble Shooting for details on creating and sending spool save files.

Chapter 3 Menu

What's In This Chapter

This chapter describes how to access the Dumpster menu, and reviews the functions that can be performed from the menu.
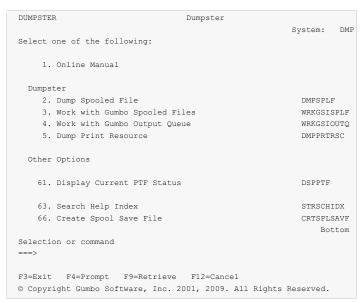
Accessing The Menu

The Dumpster commands and functions that you will use most often are collected on a menu named DUMPSTER. To access this menu use the Go To Menu (GO) command:

```
GO   MENU(DUMPSTER/DUMPSTER)
```

Library DUMPSTER is added to the product portion of the current thread's library list while the menu is displayed.

Menu Options

```
DUMPSTER                        Dumpster
                                                     System:    DMP
 Select one of the following:

      1. Online Manual

   Dumpster
      2. Dump Spooled File                            DMPSPLF
      3. Work with Gumbo Spooled Files                WRKGSISPLF
      4. Work with Gumbo Output Queue                 WRKGSIOUTQ
      5. Dump Print Resource                          DMPPRTRSC

    Other Options

      61. Display Current PTF Status                  DSPPTF

      63. Search Help Index                           STRSCHIDX
      66. Create Spool Save File                      CRTSPLSAVF
                                                            Bottom
 Selection or command
 ===>

 F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
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```

The Dumpster (DUMPSTER) menu options are summarized below:

Note: See the detailed descriptions in chapters 5 and 6 for a complete explanation of each option.

Option 1. Online Manual

The online manual allows you to view the contents of the Dumpster Manual from a work station.

Option 2. Dump Spooled File

The Dump Spooled File (DMPSPLF) command dumps the contents or attributes of an OS/400 spooled file.

Option 3. Work with Gumbo Spooled Files

The Work with Gumbo Spooled Files (WRKGSISPLF) command works like i5/OS's Work with Spooled Files (WRKSPLF) command but provides additional options to access the functions of this product.

Option 4. Work with Gumbo Output Queue

The Work with Gumbo Output Queue (WRKGSIOUTQ) command works like i5/OS's Work with Output Queue (WRKOUTQ) command but provides additional options to access the functions of this product.

Option 5. Dump Print Resource

The Dump Print Resource (DMPPRTRSC) command dumps the contents or print resources including *OVL, *FORMDF, *PAGSEG, *FCT, *FNTRSC, *PAGDFN, and *PGD.

Option 61. Display Current PTF Status

Displays the Dumpster PTFs that have been applied to the software.

Option 63. Search Help Index

Search help index allows you to access the Dumpster help index and search for specific information.

Option 66. Create Spool Save File

The Create Spool Save File (CRTSPLSAVF) command creates a save file containing a spooled file and all its related resources. The save file is suitable for emailing with a problem report.

Chapter 4 Implementation

What's In This Chapter

This chapter describes how to implement Dumpster in your environment. The chapter:

- Gives an overview of implementation choices.

Overview

The main function of Dumpster is accessed by running the Dump Spooled File (DMPSPLF) command. The command takes a spooled file and generates a formatted dump of the requested information.

There really isn't too much to it, simply run the Dump Spooled File (DMPSPLF) command specifying the spooled file to dump. Then use WRKSPLF to view the results.

Chapter 5 Commands

What's In This Chapter

This chapter describes the control language (CL) commands supplied by Dumpster. The commands are arranged in alphabetic order by command name (mnemonic). Each description includes environment and threadsafe classification, a brief general description, detailed parameter explanations, examples and message information.

Archive Spooled File (ARCSPLF)

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

The Archive Spooled File (ARCSPLF) command creates a spooled file archive which can be saved and restored, and from which the spooled file can be retrieved (recreated).

Parameters

Keyword	Description	Choices	Notes
FILE	Spooled file name	*Name*	Required, Positional 1
ARC	Spooled file archive	*Qualified object name*	Optional
	Qualifier 1: Spooled file archive	*Name*, ***GEN**	
	Qualifier 2: Library	*Name*, ***CURLIB**	
JOB	Job name	Single values: ***** Other values: *Qualified job name*	Optional
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
SPLNBR	Spooled file number	1-999999, *ONLY, ***LAST**	Optional

Spooled file name (FILE)

Specifies the name of the spooled file to be archived.

This is a required parameter.

Spooled file archive (ARC)

Specifies the name of the archive that contains the spooled file.

The possible values are:

*GEN	Generate the archive name from the supplied FILE, JOB, and SPLNBR parameters.
archive-name	Specify the name of the archive.

The possible library values are:

*CURLIB	Use the current library for the job. If no library is specified as the current library for the job, QGPL is used.
library-name	Specify the name of the library.

Job name (JOB)

Specifies the name of the job that created the spooled file to archive.

The possible values are:

*	The name of the job that issued the command is used.
job-name	Specify the name of the job.
user-name	Specify the user name associated with the job.
job-number	Specify the system assigned job number.

Spooled file number (SPLNBR)

Specifies the number of the spooled file to archive.

The possible values are:

*LAST	The highest numbered spooled file with the specified file name is used.

*ONLY	The number of the only spooled file with the specified file name is used.
spooled-file-number	Specify the number of the spooled file.

Examples

Example 1:

```
ARCSPLF   FILE(QSYSPRT)
```

This command archives the last spooled file named QSYSPRT. The current job is searched to locate the file. The archive is placed in the job's *CURLIB.

Example 2:

```
ARCSPLF   FILE(QPQUPRFIL) ARC(QGPL/*GEN) SPLNBR(3)
```

The file named QPQUPRFIL which is spooled file number 3 in the job executing this command is archived. The archive is placed in library QGPL.

Create Spool Save File (CRTSPLSAVF)

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

The Create Spool Save File (CRTSPLSAVF) command creates a save file containing a spooled file and all its related resources. The save file is suitable for emailing with a problem report.

Parameters

Keyword	Description	Choices	Notes
FILE	Spooled file name	*Name*	Required, Positional 1
SAVF	Save file	*Qualified object name*	Required, Positional 2
	Qualifier 1: Save file	*Name*	
	Qualifier 2: Library	*Name*, ***CURLIB**	
JOB	Job name	Single values: ***** Other values: *Qualified job name*	Optional
	Qualifier 1: Job name	*Name*	
	Qualifier 2: User	*Name*	
	Qualifier 3: Number	000000-999999	
SPLNBR	Spooled file number	1-999999, *ONLY, ***LAST**	Optional
SAVRSC	Save resources	***YES**, *NO, Y, N	Optional
MSG	Message	*Character value*, ***NONE**	Optional

Spooled file name (FILE)

Specifies the name of the spooled file to be saved.

This is a required parameter.

Save file (SAVF)

Specifies the name of the save file that is used to contain spooled file data. The saved file must not exist and will be created by the command.

This is a required parameter.

The possible library values are:

*CURLIB	Use the current library for the job. If no library is specified as the current library for the job, QGPL is used.
library-name	Specify the name of the library.

Job name (JOB)

Specifies the name of the job that created the spooled file.

The possible values are:

*	The name of the job that issued the command is used.
job-name	Specify the name of the job.
user-name	Specify the user name associated with the job.
job-number	Specify the system assigned job number.

Spooled file number (SPLNBR)

Specifies the number of the spooled file to saved.

The possible values are:

*LAST	The highest numbered spooled file with the specified file name is used.

| ***ONLY** | The number of the only spooled file with the specified file name is used. |
| *spooled-file-number* | Specify the number of the spooled file. |

Save resources (SAVRSC)

Specifies if external resource such as overlays and page segments are included in the save file.

The possible values are:

| ***YES** | Resources are saved. |
| ***NO** | Resources are not saved. |

Message (MSG)

Specifies a short message to include in the save file.

The possible values are:

| ***NONE** | No message is included. |
| *message* | Specify a short message to include in the save file. |

Examples

Example 1:

```
CRTSPLSAVF  FILE(QSYSPRT) SAVF(QGPL/PRBRPT)
```

This command creates save file PRBRPT in library QGPL. The last spooled file named QSYSPRT is saved along with its resources. The current job is searched to locate the file.

Example 2:

```
CRTSPLSAVF  FILE(QPQUPRFIL) SAVF(NEWPRB) SPLNBR(3)
```

The file named QPQUPRFIL which is spooled file number 3 in the job executing this command is saved to save file NEWPRB. The save file is placed in job's *CURLIB.

Dump Print Resource (DMPPRTRSC)

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

The Dump Print Resource (DMPPRTRSC) command dumps the contents or print resources including *OVL, *FORMDF, *PAGSEG, *FCT, *FNTRSC, *PAGDFN, and *PGD.

Parameters

Keyword	Description	Choices	Notes
RSC	Resource	*Qualified object name*	Required, Positional 1
	Qualifier 1: Resource	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
OBJTYPE	Object type	*PAGSEG, *OVL, *FCT, *FNTRSC, *FNTTBL, *FORMDF, *PAGDFN, *PGD	Required, Positional 2

Resource (RSC)

Specifies the name of the resource to dump.

This is a required parameter.

Object type (OBJTYPE)

Specifies the type of the resource to dump.

This is a required parameter.

Examples

Example 1:

```
DMPPRTRSC  RSC(QFNTCDEPAG/T1V00037) OBJTYPE(*FNTRSC)
```

This command dumps contents of the font resource T1V00037 in library QFNTCDEPAG.

Example 2:

```
DMPPRTRSC  RSC(RSCLIB/LOGO) OBJTYPE(*PAGSEG)
```

This command dumps the page segment LOGO in library RSCLIB.

Dump Spooled File (DMPSPLF)

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

The Dump Spooled File (DMPSPLF) command dumps the contents or attributes of an OS/400 spooled file.

Parameters

Keyword	Description	Choices	Notes
FILE	Spooled file name	*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**	Optional, Positional 3
OPTION	Dump options	Single values: *ALL Other values (up to 4 repetitions): ***DTASTR**, *RSCLST, *ATTRIB, *BUFFER	Optional, Positional 4

Spooled file name (FILE)

Specifies the name of the spooled file to convert. CHAR(10)

This is a required parameter.

Job name (JOB)

Specifies the name of the job that created the spooled file to convert. CHAR(10), CHAR(10), CHAR(6)

The possible values are:

*	The name of the job that issued the command is used.
job-name	Specify the name of the job.
user-name	Specify the user name associated with the job.
job-number	Specify the system assigned job number.

Spooled file number (SPLNBR)

Specifies the number of the spooled file to convert. BIN(4)

The possible values are:

*LAST	The highest numbered spooled file with the specified file name is used.
*ONLY	The number of the only spooled file with the specified file name is used.
spooled-file-number	Specify the number of the spooled file.

Dump options (OPTION)

Specifies the information to be dumped.

The possible values are:

*DTASTR	The spooled file's print data streaam is dumped.
*RSCLST	The spooled file's resource list is dumped.
*ATTRIB	The spooled file's attributes are dumped.
*BUFFER	The spooled file's buffers are dumped.
*ALL	All of the spooled file's information is dumped.

Examples

Example 1:
```
DMPSPLF  FILE(QSYSPRT) JOB(033194/QPGMR/MONTHEND) SPLNBR(2)
```

This command dumps spooled file number 2, QSYSPRT from job 033194/QPGMR/MONTHEND. The spooled file's data stream is dumped.

Example 2:
```
DMPSPLF  FILE(QSYSPRT) OPTION(*RSCLST)
```

This command dumps the list of resources used by the last spooled file with name QSYSPRT from the job running the command.

Work with Gumbo Output Queue (WRKGSIOUTQ)

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

The Work with Gumbo Output Queue (WRKGSIOUTQ) command works like i5/OS's Work with Output Queue (WRKOUTQ) command but provides additional options to access the functions of this product.

Parameters

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

Output queue (OUTQ)

Specifies the name of the Output queue and the library where it resides.

This is a required parameter.

The possible library values are:

*LIBL	All libraries in the thread's library list are searched.
*CURLIB	Use the current library for the job. If no library is specified as the current library for the job, QGPL is used.
library-name	Specify the name of the library.

Output (OUTPUT)

Specifies the kind of output generated by the command. CHAR(10)

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.

Examples

Example 1:
```
WRKGSIOUTQ   OUTQ(PRT01)
```

This command allows you to work with all of the spooled files on the PRT01 output queue.

Example 2:
```
WRKGSIOUTQ   OUTQ(QGPL/QPRINT)
```

This command allows you to work with all of the spooled files on the QPRINT output queue in library QGPL.

Work with Gumbo Spooled Files (WRKGSISPLF)

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

The Work with Gumbo Spooled Files (WRKGSISPLF) command works like i5/OS's Work with Spooled Files (WRKSPLF) command but provides additional options to access the functions of this product.

Parameters

Keyword	Description	Choices	Notes
SELECT	Select files for	*Element list*	Optional, Positional 1
	Element 1: User	*Name*, ***CURRENT**, *ALL	
	Element 2: Print device	*Name*, ***ALL**, *OUTQ	
	Element 3: Form type	*Character value*, ***ALL**, *STD	
	Element 4: User data	*Character value*, ***ALL**	
OUTPUT	Output	*****, *PRINT	Optional, Positional 2

Select files for (SELECT)

Specifies the criteria used to further select spooled files for display. Selection criteria consist of 4 elements. Only spooled files that match each of the values are selected.

The possible values are:

Element 1 User

*CURRENT	Spooled files created by the user of the current job are selected.
*ALL	All spooled files are selected regardless of the user creating them.
user-name	Specify a user name. Only spooled files created by the user are selected.

Element 2 Print device

*ALL	All spooled files are selected regardless of the device or output queue.
*OUTQ	All files on any user-created output queue are selected. A user-created output queue is any output queue that is not automatically created by a device. A user-created output queue does not generally have the same name as a device, but if it does, it does not reside in library QUSRSYS.
device-name	Specify a device name. Only files on the device created output queue for that device are selected. A device created output queue is one that has the same name as a device and resides in the QUSRSYS library. Unless it already exists, it will automatically be created by the system when the device is created. A device created output queue cannot be deleted.

Element 3 Form type

*ALL	All spooled files are selected regardless of their form type.
*STD	Only files that specify the standard form type are selected.
form-type	Specify the form type to select the file.

Element 4 User data

*ALL	All spooled files are selected regardless of their user data.
user-data	Specify the user data to select the file.

Output (OUTPUT)

Specifies the kind of output generated by the command. CHAR(10)

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.

Examples

Example 1:

```
WRKGSISPLF   SELECT(*ALL *ALL *ALL *ALL)
```

This command allows you to work with all of the spooled files on the system.

Example 2:

```
WRKGSISPLF   SELECT(CASMITH *ALL *ALL MEMO)
```

This command allows you to work with all of the spooled files on the system for the user named CASMITH that have MEMO specified in the user data for the spooled file.

Chapter 6 Trouble-Shooting

What's In This Chapter

This chapter provides information and procedures useful for correcting or reporting Dumpster problems. The chapter:

- Describes general trouble-shooting.
- Describes software installation problems.
- Describes how to create a spool save file.
- Describes how to email a spool save file.

General Trouble-Shooting

If a command from Dumpster fails to run to completion or if the results you receive are different than those expected, perform these items:

- Check the messages in your job log:
    - Run the DSPJOBLOG command.
    - Press F10 to display detailed messages.
    - Locate the messages related to the error.
    - Place your cursor on each message in turn and press F1.
    - Take any corrective actions suggested by the messages.
- Download the current cumulative PTF package from www.gumbo.com.
- Check the bottom of the PTF page at www.gumbo.com for IBM PTFs that may be required.
- Review the detailed trouble shooting procedures in this chapter for solutions related to your problem.

If you are unable to correct the problem, prepare a problem report and contact your service provider.

Software Installation Problems

This sections describes problems, causes, and solutions specific to software installation.

- Installation Generates "Directory not registered. (C G)"

Symptom	During installation inquiry message id CPA3DE4 "Directory not registered. (C G)" is issued.
Cause	i5/OS has lost the relationship between the product and the directory and hence the message.
Solution	You can safely take a "G" to this message. You will receive the message 3 times.

- Installation Fails

Symptom	Installation fails and diagnostic message id CPF9898 "Unable to clear old release. Is the software being used?." appears in the job log. Or, when the installation verification option is run, verification fails with diagnostic message id CPD0C2E appearing in the job log.
Cause	This usually arises from attempting to install a new release over an old release while objects in the old release are in use.
Solution	End the jobs that are holding locks on (using) objects from the old release and perform the installation again.

- Installation Fails or Installation Verification Fails

Symptom	Installation or installation verification fails and messages in the job log do not help in recovering.

Cause	The software is not installed correctly or the installation is damaged. This can be caused for a variety of reasons including renaming of libraries, directories, or objects that make up the product.
Solution	Get the system to a stable, consistent state completely removing the product then re-install the product by performing the following:

1. Delete the licensed program by running:
   ```
   DLTLICPGM  LICPGM(2A55DMP) RLS(*ALL)
                OPTION(*ALL)
   ```

   Note: It is okay if this fails with diagnostic CPD3D91 "Product 2A55DMP option *ALL release *ALL not installed."

2. Delete the product's library by running:
   ```
   DLTLIB  LIB(DUMPSTER)
   ```

   Note: It is okay if this fails with escape CPF2110 "Library DUMPSTER not found."

3. Delete the product's directories by running:
   ```
   RMVDIR  DIR('/Gumbo/ProdData/2A55DMP/doc') RMVLNK(*YES)
   RMVDIR  DIR('/Gumbo/ProdData/2A55DMP/tmp') RMVLNK(*YES)
   RMVDIR  DIR('/Gumbo/ProdData/2A55DMP') RMVLNK(*YES)
   ```

   Note: It is okay if these fail with escape CPFA0A9 "Object not found. ...". But if any fail because a directory is not empty, delete the contents using WRKLNK.

   If there are no other **GUMBO** products installed:

   ```
   RMVDIR  DIR('/Gumbo/ProdData')
   RMVDIR  DIR('/Gumbo')
   ```
4. Rebuild i5/OS's internal licensed program information by running:
   ```
   CALL  PGM(QSYS/QSZRECOV)
   ```

   Note: This takes several minutes depending on machine size.

5. Install the product according to the instructions in the Installation chapter.
6. Enter your authorization code.

Creating a Spool Save File

A save file containing all the information needed to transport and reproduce a spooled file on a Gumbo Software, Inc. development system can be produced using the Create Spool Save File (CRTSPLSAVF) command. To create a spool save file:

- Determine the identity of the spooled file to be saved. A spooled file's identity consists of the file's name, the name/user/number of the job that created it, and the spooled file's number within the job. You can find this information using option 8 from the Work with Spooled Files (WRKSPLF) or Work with Output Queue (WRKOUTQ) commands among others.
- Determine a library to contain the save file. Typically this is your test library. If you do not have a test library, QGPL can be used.
- Determine a name for the save file. It must be a file name that does not exist in the library determined above.
- Run the Create Spool Save File (CRTSPLSAVF) command entering the information from the preceding steps.

   Note: The command allows for a short message to be included in the save file. Use this to describe the reason for the save file and to include contact information such as your name and phone number.

In saving the spooled file the command creates a temporary library. It retrieves the contents and attributes of the spooled file and stores these in a user space. Any resources used (such as page segments or overlays) are duplicated to the temporary library. Data areas containing various system values and the message are placed in the library. After creating the requested save file, the library is saved to it and finally the temporary library is deleted.

Emailing A Spool Save File

Once a spool save file has been created using the Create Spool Save File (CRTSPLSAVF) command you can download it to your PC and email it to Gumbo Software, Inc. by following these steps:

Note: [PC] denotes an operation performed on your PC. [i] denotes an operation performed on your System i.

1. [i] Insure the FTP server is active by running:

   ```
   STRTCPSVR SERVER(*FTP)
   ```

2. [PC] Choose Start > Programs > Accessories > Command Prompt to open a command prompt (DOS session).
3. [PC] Create a temporary directory and change to it:

   ```
   md c:\gumbo
   cd c:\gumbo
   ```

4. [PC] Open an FTP connection to the System i by substituting your system's host name and running:

   ```
   ftp host_name
   ```

5. [PC] Enter a user name and password as prompted.
6. [PC] Change to binary (image) mode by running:

   ```
   binary
   ```

7. [PC] Change to library/file/member mode by running:

   ```
   quote site namefmt 0
   ```

8. [PC] Download the spool save file by running (in this example the save file's name is QGPL/TEST):

   ```
   get qgpl/test
   ```

9. [PC] End the ftp session and the command prompt by running:

   ```
   quit
   exit
   ```

10. [PC] Send email to support2009@gumbo.com after attaching file c:\gumbo\test.

Include in your email a description of the problem encountered and the command parameter values you were using when it happened.

Appendix A Notices

Notices

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