Report Designer

Programmer's Guide and Reference
Licensed Program 2A55RDA V3R4M0

Application Development

Edition

Twenty Third Edition (December 2016)

This edition applies to the licensed program Report Designer (Program 2A55RDA), Version 3 Release 4 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.

This manual is available as option 1 from the RDA menu, in PDF format in directory /Gumbo/Proddata/2A55RDA/doc on your system, and on the web at www.gumbo.com

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Chapter 1 How to use this manual

What's In This Chapter

This chapter:

- Describes who this manual is written for.
- Describes how this manual is organized.
- Describes how to use this manual to get the information you need.
- Describes conventions used in this manual.

Who This Manual Is Written For

Report Designer Programmer's Guide and Reference Manual is written for programmers. The reader should have experience using IBM i and be familiar with the following:

- DDS
- Printer files
- RPG programming
- IBM's Screen Design Aid (SDA) utility

How This Manual Is Organized

This manual is divided into five parts:

- Chapters 1 through 4 are directed towards first time users of Report Designer.
- Chapters 5 through 10 contain detailed descriptions of the display screens used by Report Designer.
- Chapters 11 and 12 contain detailed examples, showing how to design reports from start to finish using Report Designer.
- Chapters 13 provide diagrams for the commands that make up Report Designer.
- Chapters 14 and 15 are for reference in the event problems are encountered using Report Designer.

How To Use This Manual

If you are familiar with Report Designer or like to jump right into a new utility, you can skip the early chapters and the examples, and use this manual and the on-line Help Text as reference tools.

If you are new to Report Designer, the first chapters of this manual provide you all the information you need to get started and the two example chapters provide a good introduction to the Report Designer features you will use most often.

Manual Conventions

A note on conventions used in this manual. In several places, instructions for entering commands are given. When the command is intended to be run from a PC command prompt, it is flagged by [PC]. When the command is intended to be run from an IBM i command line, it is flagged by [i], or is not flagged at all. [Enter] denotes the enter key.

Chapter 2 Introduction

What's In This Chapter

This chapter:

- Describes Report Designer's features.
- Describes product support features.
- Describes Report Designer's considerations.
- Describes Report Designer's report records.
- Describes Report Designer's DDS creation parameters.
- Describes Report Designer's display flow.
- Describes Report Designer's relationship to other products.
- Outlines future directions for the product.

Report Designer Features

Report Designer is an interactive utility for the IBM i. With Report Designer applications programmers can create and maintain report records coded in DDS, RPG or ILE/RPG. Report Designer replaces report design using printer layout charts and hand coding of DDS, RPG or ILE/RPG source specifications.

Report Designer:

- Features functional equivalence to IBM's Screen Design Aid (SDA), with extensions for printer files.
- Supports all DDS keywords and works with existing printer file source members.
- Supports RPG internally described printer files and works with existing RPG source.
- Supports both RPG and ILE/RPG.
- Supports 27 line by 132 column display mode on the Design Image (Work) Display.
- Provides rolling and windowing capabilities for designing reports larger than the display device in use.
- Handles all report widths up to the DDS maximum of 378 columns.
- Allows field selection from existing database files and from fields defined in an RPG program.
- Allows printing of sample reports (PRTRPTSAM command).
- Allows printing of report information (PRTRPTINF command).
- Provides conversions between RPG and DDS (CVTRPTSRC command).
- Stores and reapplies DDS printer file creation parameters.
- Operates on any system with IBM i V7R2M0 or higher installed, and is compatible with all security levels.

Product Support Features

GUMBO products include a range of standard features that make them easy to use, easy to manage, and easy to live with:

- Extensive manual, both online as menu option 1 and in PDF
- Context sensitive help for every command and parameter.
- Menu that provides organized access to the product's features.

- Products are packaged as licensed programs and participates in the full range of support provided by IBM i Licensed program installation, PTF management, etc. are handled with the same commands used to manage IBM® software.
- Unlike IBM® Licensed Programs, our products are packaged to allow multiple releases to be installed at the same time, which facilitates new release testing.
- Product PTFs are available on the web at www.gumbo.com or can be retrieved and installed in a single step using our Retrieve Gumbo PTF (RTVGSIPTF) command.
- Our products include a hot site friendly automatic authorization function that allows you to immediately move operations to any back up or fail over machine without contacting us for a license key or authorization code.
- We include a Check Report Designer Authorization (CHKRDAAUT) command that allows you to exercise the product's authorization algorithm and insure there are no authorization "surprises".
- An installation verification option is available on the menu. You can easily verify that the product is correctly installed.
- All (applicable) objects in our products are digitally signed allowing you to verify their integrity. Modifications that could jeopardize the security of your system are easily detected with IBM i's Check Object Integrity (CHKOBJITG) command.
- Our products are upward compatible with future releases of IBM i. You can install a new releases of IBM i without installing a new release from us.
- Our products are compatible with all IBM i security levels. We use only published interfaces.

Report Designer Considerations

Consider the following when using existing DDS and RPG source with Report Designer.

- For DDS, Report Designer is designed to handle 92-byte source records. (Eighty bytes of source data, and 12 bytes for source date and sequence number.) Any source records that contain more than 80 bytes of source data are truncated on input and padded with blanks on output.
- For RPG, Report Designer is designed to handle up to 112-byte source records. (One Hundred bytes of source data, and 12 bytes for source date and sequence number.) Any source records that contain more than 100 bytes of source data are truncated on input and padded with blanks on output.
- For DDS source, comment lines are identified by an asterisk (*) in column 7, or by blanks in columns 1 - 5 and 7 - 80. Report Designer retains all DDS source comments. Comment lines which have blanks in columns 1 - 5, 'A*---' in columns 6 - 10, and blanks in columns 11 - 44 have special meaning to Report Designer.

  Comments before the first report record specification are file level comments. Comments between a report record specification and the first field specification of the report record are record level comments. Comments after the last field in the source member are end of file comments. Comments which are not file level, record level, or end of file comments are field comments. Field comments immediately precede the field they are associated with. The first field in a report record can have no associated comments because these are assumed to be record level comments.

  File level and end of file comments are always output to their original locations. Record level and field level comments are tied to their associated report record/field specifications. If a

report record or field is moved within the source member, its comments are moved with it. If a report record or field is deleted, its comments are also deleted.

- For RPG source, comment lines are identified by an asterisk (*) in column 7. Report Designer retains all comments in RPG source. All comments are replaced to their original positions on output, with the exception of comments imbedded within the output specifications of the printer file.

  Comments between a report record specification and the first field specification of the report record are record level comments. See "What Is A Report Record?" later in this chapter for an explanation of report records as they apply to RPG source. Comments after the last field in the printer file being edited are end of file comments. Comments which are not record level or end of file comments are field comments. Field comments immediately precede the field they are associated with. The first field in a report record can have no associated comments because these are assumed to be record level comments.

  End of file comments are always output to their original locations. Record level and field level comments are tied to their associated report record/field specifications. If a report record or field is moved within the source member, its comments are moved with it. If a report record or field is deleted, its comments are also deleted.

- A maximum of 256 lines of comments may be associated with any field (field level comments). There is no limit to the number of file, report record, or end-of-file comments.
- A maximum of 50 characters of text information are carried with any field. DDS text specifications of greater than 50 characters are truncated.
- /COPY statements in RPG source are processed to look for field definitions. However, /COPY statements imbedded within the printer file are treated as comments and ignored. Report Designer requires the output specifications for the printer file be fully contained within a single source member.

What Is A Report Record?

The term "Report Record", is extended by Report Designer.

The meaning of "report record" depends on source type.

For DDS, a report record begins with a record specification (an "R" in column 17) and includes all field specifications up until the next record specification, or the end of the source. For DDS, the entire report record is sent to the print device with a single write statement.

For RPG internally described printer files, Report Designer considers similar, consecutive header specifications--along with their associated field specifications--to be part of the same record. To be considered alike, consecutive header specifications must have the same output type, the same EXCPT name, and must be conditioned by the same indicators.

If the spacing and skipping between two lines in the same logical report record for RPG source nets to zero, the second of the two lines becomes the beginning of a new report record.

DDS Creation Parameters

When updating DDS source with Report Designer, parameters specified for the CRTPRTF command are saved as comments in the source. Each parameter specified on the CRTPRTF command from the Report Designer create display is placed on a separate line in the updated DDS. The parameters are stored as comments that are meaningful to Report Designer. On the next access with Report Designer, these comments are used to establish session values and CRTPRTF default values.

Report Designer stamps its comment lines with a specific signature. Comment lines that do not match the Report Designer signature are processed as regular comments. Report Designer signature comments have blanks in columns 1 - 5, 'A*---' in columns 6 - 10, and blanks in columns 11 - 44.

Report Designer stores the specified CRTPRTF parameters as if they were DDS keywords, specified in columns 45 - 80 of a Report Designer signature comment line. Although these are comment lines, they follow the DDS syntax rules for specifying keywords. The keyword names are the same as those on the CRTPRTF command, and the values specified must be valid on the CRTPRTF command.

The PAGESIZE, OVRFLW, and FOLD keywords are always placed in updated DDS source because they affect the Report Designer interactive session.

Report Designer signature comment lines can be deleted from your DDS source with SEU. Report Designer will use the appropriate defaults for keywords not specified. To specify CRTPRTF parameters directly with SEU:

- Flag them as Report Designer signature comments.
- Follow the DDS syntax rules.
- Specify valid parameter values for the keyword.
- Specify the parameters at the file level.

Only file level Report Designer signature comments are significant. Report Designer signature comments at the record and field levels are treated as regular comments.

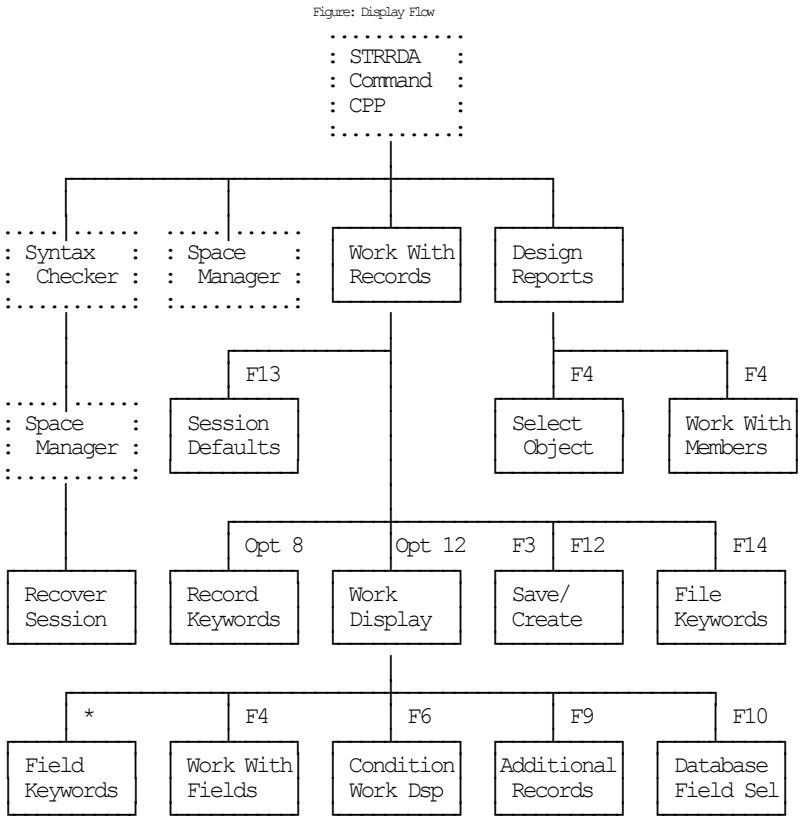
See the Create Report Designer Printer File (CRTRDAPRTF) command description to create printer files in batch using the stored creation parameter values.

Display Flow

This diagram shows the display order when options are selected from the Work with Report Records display. Detailed descriptions of the options appear in the following chapters:

- Chapter 5 Work With Report Records Display
- Chapter 6 File Keywords Displays
- Chapter 7 Record Keywords Displays
- Chapter 8 Design Image (Work) Display
- Chapter 9 Field Keywords Displays
- Chapter 10 Save And Create
- Chapter 14 Recovery

Figure: Display Flow



Product Positioning

Gumbo Software, Inc. has several IBM i based products:

Number	Licensed Program
2A55SAM	Spool-a-Matic - Convert IBM i spooled files to PDF, RTF, HTML, etc. in the Integrated File System
2A55SM1	SpoolMail - Email IBM i spooled files as PDF, RTF, HTML, etc.
2A55XL1	Excel-erator - Convert IBM i database files into spreadsheets in the Integrated File System or as email
2A55SM2	Gumbo Mail - Send email from your applications
2A55DCR	Dicer - Merge/sort/split/duplicate spooled files
2A55RDA	Report Designer - Edit DDS, RPG and ILE/RPG print specifications
2A55RM1	Report Manager - Automate report distribution, bursting and spooled file management

There is some overlap between and unique function within the products. Choose the product or combination of products that provide the function you need:

	Product						
Function	SAM	SM1	XL1	SM2	DCR	RDA	RM1
Primary input to product Primary output from product	SPL IFS	SPL EML	DBF I/E	IFS EML	SPL SPL	SRC SRC	SPL SPL
Monitor output queues for work	YES	YES	—	—	—	—	YES
Spooled file distribution	—	—	—	—	—	—	YES
Burst (split) spooled files	YES	YES	—	—	YES	—	YES
Merge/sort/duplicate spooled files	—	—	—	—	YES	—	YES
Convert spool to TXT stream file	YES	YES	—	—	—	—	YES
Convert spool to PDF/RTF/etc stream file	YES	YES	—	—	—	—	—
Convert DB file to spreadsheet	—	—	YES	—	—	—	—
Email stream file as attachment	—	YES	YES	YES	—	—	YES
Write stream to Integrated File System	YES	—	YES	—	—	—	YES
Set up IBM i SMTP and mailhub	—	YES	YES	YES	—	—	YES
Edit DDS, RPG, ILE/RPG source code	—	—	—	—	—	YES	—

Where: DBF = Database file
EML = Email
IFS = Stream file in the Integrated File System
I/E = Both IFS and EML
SPL = Spooled file
SRC = Source code

Future Directions

Future releases of Report Designer will include enhanced functionality based on customer feedback. Additionally, enhancements may be added to an existing release by Program Temporary Fix (PTF).

Contact ***GUMBO*** to suggest additional enhancements.

Chapter 3 Installation

What's In This Chapter

This chapter describes:

- How to install Report Designer.
- How to verify that Report Designer is installed correctly.
- How to include the RDA 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 tailor the installation
- How to remove Report Designer from the system.
- How to find additional installation information.
- How to contact technical support.
- Hot site installation.
- Permanent Authorization Codes.

Installing Report Designer

Follow these instructions to install Report Designer V3R4M0 on IBM i using physical media or a virtual image:

Prepare

If you are upgrading a previous release (if Report Designer is currently installed), perform these steps before installing the software:

1. Read the Enhancement Summary to determine if any changes affect your installation.
2. Insure that the product is not in use, as the installation process must clear the product's library. This will fail if objects such as menus are in use. If the installation fails, the previous release will be restored.

Install

Note: If you are installing from a save file downloaded as an executable zip (.exe), use the save file specific "readme.htm" instructions included in the download.

1. Sign on to the system as the security officer (QSECOFR).
2. Verify that your machine is at IBM i V7R2M0 or later by running:

   ```
   WRKLICINF
   ```

   Note: If you are running a version of IBM i earlier than V7R2M0 you cannot install Report Designer V3R4M0 on your machine. You must install an earlier version of Report Designer or upgrade the operating system.

3. Verify that user domain objects are allowed in the libraries RDA 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 RDA 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 IBM i 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 physical media or virtual image on the appropriate device.
6. Submit the Restore Licensed Program (RSTLICPGM) command to batch:

   ```
   RSTLICPGM  LICPGM(2A55RDA) DEV(device-name) LNG(2924)
   ```

   Note: Where "device-name" is the device where the media or image was mounted 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 or four times.

Finish

When the RSTLICPGM command completes, library RDA and directory '/Gumbo/ProdData/2A55RDA' contain the new software. To complete the installation:

1. If you have an Authorization or Instructions letter with your permanent authorization code, enter the code now.

   Note: Report Designer automatically grants 30 days usage for new installs or 90 days usage for release upgrades.

2. Retrieve the current cumulative Report Designer PTF package by running the following command:

   ```
   RDA/RTVGSIPTF
   ```

   Note: ***GUMBO*** recommends downloading the current cumulative PTF package after installing the software.

3. Visit our PTF page at www.gumbo.com and check the **Additional IBM i PTF Information** section for IBM PTFs you may need to install.
4. You can access the Report Designer menu by running the following command:

```
GO  MENU(RDA/RDA)
```

Verifying Report Designer Installation

You can verify that Report Designer has been correctly installed by running the Check Product Option (CHKPRDOPT) command:

```
CHKPRDOPT PRDID(2A55RDA) RLS(V3R4M0) CHKSIG(*NONE)
```

Note: If you have installed our digital certificates, specify CHKSIG(*ALL) instead of CHKSIG(*NONE) and digital signatures will be checked.

If the message 'No errors detected by CHKPRDOPT.' is displayed on the bottom of your display when the command finishes, Report Designer is installed correctly.

If the message is not displayed, check your job log messages or see the Recovery Procedures in the *Software Installation Problems* section of the *Trouble-Shooting* chapter of this manual.

Library List Considerations

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

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

  ```
  RDA/CHGRDADFT
  ```

  Library RDA 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

Report Designer operates under IBM i V7R2M0 or higher. Releases occur on a different schedule than IBM releases. Once Report Designer is installed, the following considerations apply:

- A new release of IBM i may be installed without installing a new release of Report Designer.

  Report Designer uses only published or IBM sanctioned interfaces and is upward compatible with all releases of IBM i. The Report Designer authorization code does not change.

- A new release of Report Designer may be installed without installing a new release of IBM i.

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

- A new release of Report Designer may be installed over any prior release of Report Designer.

  You can skip "missed" releases.

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

  By restoring Report Designer to a library other than RDA, a new release can be installed for testing while the old 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 Report Designer is installed in the same library as an old release the following processing is performed in order to preserve data and Report Designer authorization information:
  1. The Report Designer library is saved to QGPL/RDAVxRyMz. Where VxRyMz is the old release.
  2. Product objects that contain default settings and operational information are copied to library QTEMP.
  3. The Report Designer library is cleared.
  4. Report Designer 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/RDAVxRyMz is deleted.

Note: ***GUMBO*** recommends making a backup of the old release before installing a new release of Report Designer.

New Release Testing

Unlike IBM licensed programs, ***GUMBO*** licensed programs are packaged in a way that allows multiple release to be installed at the same time. This feature allows you to test a new release while the old release remains in production.

The key to new release testing are the LIB() and CODHOMEDIR() parameters of IBM i's Restore License Program (RSTLICPGM) command which allow you to restore the product to a library name and directory different from 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 RDAV3R4M0 and directory '/Gumbo/ProdData/2A55RDAV3R4M0':

```
RSTLICPGM  LICPGM(2A55RDA) DEV(device-name) LNG(2924)
           LIB(RDAV3R4M0) REPLACERLS(*NO)
           CODHOMEDIR('/Gumbo/ProdData/2A55RDAV3R4M0')
```

   Where "device-name" is the device where the media or image was mounted.

3. Perform your new release testing.
4. When testing is complete, you must delete the new release.

```
DLTLICPGM  LICPGM(2A55RDA) RLS(V3R4M0) 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 IBM i. If this has already occurred, see the Software Installation Problems section of the *Trouble-Shooting* chapter of this manual.

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

Installation Tailoring

To access the Installation Tailoring display, enter the following command:

```
CHGRDADFT
```

When you press Enter, the Installation Tailoring display appears:

```
RDA                       Installation Tailoring

Type choices, press Enter.
  Default page width. . . . . .    132       1 - 378
  Default page length . . . . . .   66       1 - 255
  Default overflow line . . . . .   60       1 - 255
  Default printer name. . . . . .  *PRTF      Name, *PRTF, *PRTF38, *MBRTYPE.
  Default fold value. . . . . .    N          Y=Yes, N=No
  Display window segments . . . .  3          1 - 9
  Display roll segments . . . . .  3          1 - 9
  Off page fill element . . . . .  .          Character
  Enable 27x132 mode. . . . . .    Y          Y=Yes, N=No
  Always write RPG printer name .  Y          Y=Yes, N=No
  Use field name as image . . . .  N          Y=Yes, N=No
  Preserve record list. . . . . .  Y          Y=Yes, N=No
  Use unsupported interfaces. . .  N          Y=Yes, N=No
  Process overrides . . . . . .    Y          Y=Yes, N=No
  Use DFT keyword . . . . . .      N          Y=Yes, N=No
  Authorized Serial No. . . . . :  *DEMO
  Demo Expires. . . . . :          2016/04/15
  Software Ver/Rel/Mod level. . :  V3R4M0  2A55RDA

F3=Exit   F12=Cancel
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```

The Installation Tailoring display allows you to tailor default values to reflect the standards used at your installation. From the Installation Tailoring display you can:

- Set the default page width.

- Set the default page length.
- Set the default overflow line.
- Set the default printer name.
- Set the default fold value.
- Set the number of display window segments.
- Set the number of display roll segments.
- Set the off page fill element.
- Enable 27x132 mode.
- Control writing of RPG printer name.
- Set the appearance of fields on the Work Display.
- Control clearing of the list of additional records.
- Control the uses of unsupported interfaces.
- Control the processing of overrides.

Default page width

Page width is the number of columns on each line of a page. The maximum page width supported by DDS is 378.

Default page length

Page length is the number of lines on each page. The maximum page length supported by DDS is 255.

Default overflow line

Overflow line is the line number on the page at which printer overflow to a new page occurs. Overflow is signaled when the specified line number becomes the current line number, whether or not printing has occurred on that line. Report Designer uses overflow line when creating source.

Default printer name

Printer name is used by Report Designer to distinguish between RPG and DDS and to determine source code processing. *PRTF and *PRTF38 specify DDS source code with appropriate qualification and parameter syntax for the OS/400 and System/38 environments respectively. When a name is specified RPG source code is used. The name identifies the internally described printer file to process.

***MBRTYPE**	Infer the printer name from the member's source type. Members with source type PRTF are treated as if ***PRTF** were specified. Members with source type PRTF38 are treated as if ***PRTF38** were specified. Members with source type RPG, RPT, RPG36 etc. are treated as if ***FIRST** were specified.
***PRTF**	The source is treated as native IBM i DDS.
***PRTF38**	The source is treated as System/38 compatible DDS.
***FIRST**	The source is treated as RPG and the first printer file name encountered in the source is processed.
name	Specify the name of the RPG internally described printer file.

Default fold value

Fold specifies whether print data that extends beyond the end of the page is folded to the next line or is dropped.

N	Do not fold data to the next line.
Y	Fold data to the next line.

Display window segments

The display window segments parameter governs the number of times you must press the window keys F19/F20 on the Report Designer Work Display to move one display width. A value of 2 would require 2 F19 keys to window the display one display width to the left.

Display roll segments

The display roll segments parameter governs the number of times you must press the page (roll) keys on the Report Designer Work Display to move one display length. A value of 2 would require pressing Page Down twice to roll the display one display length.

Off page fill element

When the Work Display is rolled or windowed beyond the edge of the page, an out-of-bounds area is exposed. The out-of-bounds area is filled with the off page fill character.

Enable 27x132 mode

The Enable 27x132 mode parameter specifies whether 27 line by 132 column display mode is used with display devices that are capable of it. When not enabled, 24 line by 80 column display mode is used.

N	Do not use 27 x 132.
Y	Use 27 x 132 mode if available on device.

Always write RPG printer name

"Always write RPG printer name" governs the writing of the printer name in the generated source code. The parameter has no effect on DDS generation.

N	Write the printer name on the first record identification O-spec only.
Y	Write the printer name on each record identification O-spec.

Use field name as image

The "Use field name as image" parameter governs the appearance of fields on the Work Display. With a value of "N" character fields are displayed as a sequence of O's while numeric fields are shown as a sequence of 6's. With "Y" the field's name is used to represent the field.

Preserve record list

The "Preserve record list" parameter governs clearing of the list of additional records to display on the Work Display. With "N" Report Designer operates as SDA and the record list is cleared on exiting from the Work Display. With "Y" the record list is preserved on exiting the Work Display. This allows switching between records without re-keying the additional records to be displayed.

Use unsupported interfaces

The "Use unsupported interfaces" is an obsolete parameter that controlled the interface used to resolve field references. The problem the switch was designed to address has long since been resolved by IBM and the field is ignored.

Process overrides

The "Process overrides" parameter governs the processing of overrides when field references are resolved. With "N" Report Designer ignores any file overrides when resolving field references. With "Y", file overrides are applied before field references are resolved.

Use DFT keyword

The "Use DFT keyword" parameter provides control over generation of the "DFT" keyword in DDS source code. Use of the keyword is optional in DDS, not used at most installations and by default not placed in generated source code by Report Designer.

When set to "Y" Report Designer adds the DFT keyword. For example, DFT('literal') is generated instead of 'literal'.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Enter default values to reflect the standards used at your installation and press enter. Use F3 to exit Installation Tailoring.

Note: Additional individual tailoring is available to each user from within Report Designer. Press F13=Session defaults from the Work with Report Records Display.

Deleting Report Designer

Follow these instructions to remove Report Designer from IBM i:

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

```
DLTLICPGM  LICPGM(2A55RDA) OPTION(*ALL)
```

These instructions delete an otherwise healthy installation of Report Designer. If the installation has been damaged, follow the instructions for Installation Fails in the *Software Installation Problems* section of the *Trouble-Shooting* chapter of this manual.

Additional Installation Information

Additional detailed installation information and instructions can be found in *IBM i and related software > PDF file... > Installing, upgrading, or deleting IBM i and related software SC41-5120* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html.

Technical Support

If you encounter a problem with Report Designer you should:

- Review the information in the Trouble Shooting chapter 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 support@gumbo.com.

Hot Site Installation

In the event of a catastrophic system failure, an otherwise properly licensed and authorized copy of our product may be copied to a backup or failover machine. The product's authorization algorithm will detect that the software is operating on a machine serial number different from the licensed and authorized serial number and automatically create and install a 30-day temporary authorization code for the backup or failover machine. You do not need to contact Gumbo Software, Inc. in the event of an emergency.

An otherwise properly licensed and authorized copy of this product may be transferred to a backup or failover machine for the purpose of testing your emergency recovery procedures and the product's automatic temporary authorization function.

The correct sequence of steps is as follows:

1. Install the software and enter the permanent authorization code on your production machine.
2. Save the software from your production machine using the Save Licensed Program (SAVLICPGM) command. This creates an authorized copy, save it with your backups.
3. When restoring to the backup or failover machine you must first insure that any previous copies have been deleted. To delete a previous copy use the Delete Licensed Program (DLTLICPGM) command.
4. Restore the authorized copy to the backup or failover machine using the Restore License Program (RSTLICPGM) command.
5. Confirm that the authorized copy was correctly restored by running the Check Product Option (CHKPRDOPT) command.
6. The first time the software is used on the backup or failover machine the product's authorization algorithm will create and install a temporary authorization code running for 30 days. This allows you install the authorized copy in advance of a disaster.

Permanent Authorization Codes

When you purchase a product from us, or when we send you a new release of a product, you receive a permanent authorization code. Here we describe how to determine the information you must give us in order to receive a permanent authorization code and how to determine if the permanent authorization code you have received is correct for your installation.

The overwhelming majority of licenses purchased from us are **System Wide Licenses**. The other possibility, a **Partition Only License**, is described at the end of this section. For a System Wide License, permanent authorization codes are specific to a **Serial Number**, a **Processor Group**, and our product's **Release**. For a Partition Only License, permanent authorization codes are specific to a **Serial Number**, a **Partition ID Number**, the partition's **Maximum Processor Capacity**, and our product's **Release**.

In all cases, our permanent authorization codes are specific to a release of our product. The release of IBM i never makes a difference. To determine the release of our product installed on IBM i, run:

```
DSPPTF LICPGM(2A55RDA)
```

Where the possible LICPGM numbers are:

Number	Licensed Program
2A55SAM	Spool-a-Matic - Convert IBM i spooled files to PDF, RTF, HTML, etc. in the Integrated File System
2A55SM1	SpoolMail - Email IBM i spooled files as PDF, RTF, HTML, etc.
2A55XL1	Excel-erator - Convert IBM i database files into spreadsheets in the Integrated File System or as email
2A55SM2	Gumbo Mail - Send email from your applications
2A55DCR	Dicer - Merge/sort/split/duplicate spooled files
2A55RDA	Report Designer - Edit DDS, RPG and ILE/RPG print specifications
2A55RM1	Report Manager - Automate report distribution, bursting and spooled file management

The 5th line of the panel shows the release you are running. It is V3R4M0 in this example.

```
                          Display PTF Status
                                                              System:   GUMBO4
Product ID  . . . . . . . . . . . . . :   2A55RDA
IPL source  . . . . . . . . . . . . . :   ##MACH#A
Release . . . . . . . . . . . . . . . :   V3R4M0


Type options, press Enter.
  5=Display PTF details   6=Print cover letter   8=Display cover letter

     PTF                                                    IPL
Opt  ID       Status                                        Action

  (No PTFs found.)









                                                                        Bottom
F3=Exit   F11=Display alternate view   F17=Position to   F12=Cancel
```

Note: It is possible that more than one release of a product is installed. To check, press [Enter]. If you are returned to the command line, only one release is installed.

All of our permanent authorization codes are serial number dependent. For a System Wide License they are also Processor Group dependent. To determine your system's serial number and processor group, run:

```
WRKLICINF
```

Lines 3 and 4 of the resulting panel show the serial number and processor group of your system.

```
                      Work with License Information                GUMBO4
                                                             04/06/10  18:08:32
System serial number . . . . . . . . . :   1234567
Processor group  . . . . . . . . . . . :   P10

Type options, press Enter.
  1=Add license key   2=Change   5=Display detail   6=Print detail
  8=Work with license users  ...

              License
Opt  Product   Term    Feature  Description
__   5761SS1  V6R1M0    5050    IBM i
__   5761SS1  V6        5051    IBM i
__   5761SS1  V6R1M0    5103    Media and Storage Extensions
__   5761SS1  V6R1M0    5112    PSF 1-45 IPM Printer Support
__   5761SS1  V6R1M0    5113    PSF 1-100 IPM Printer Support
__   5761SS1  V6R1M0    5114    PSF Any Speed Printer Support
__   5761SS1  V6R1M0    5116    HA Switchable Resources
                                                                       More...
Parameters or command
===>
F3=Exit           F5=Refresh   F11=Display Usage Information   F12=Cancel
F17=Position to   F23=More options
(C) COPYRIGHT IBM CORP. 1980, 2007.
```

For a Partition Only License, permanent authorization codes depend on the Partition ID Number and maximum processor capacity. How you determine the number and processor capacity of partitions on

your system depends on whether or not you use HMC (Hardware Management Console) or SST (System Service Tools) to manage your hardware.

If you use HMC (Hardware Management Console):

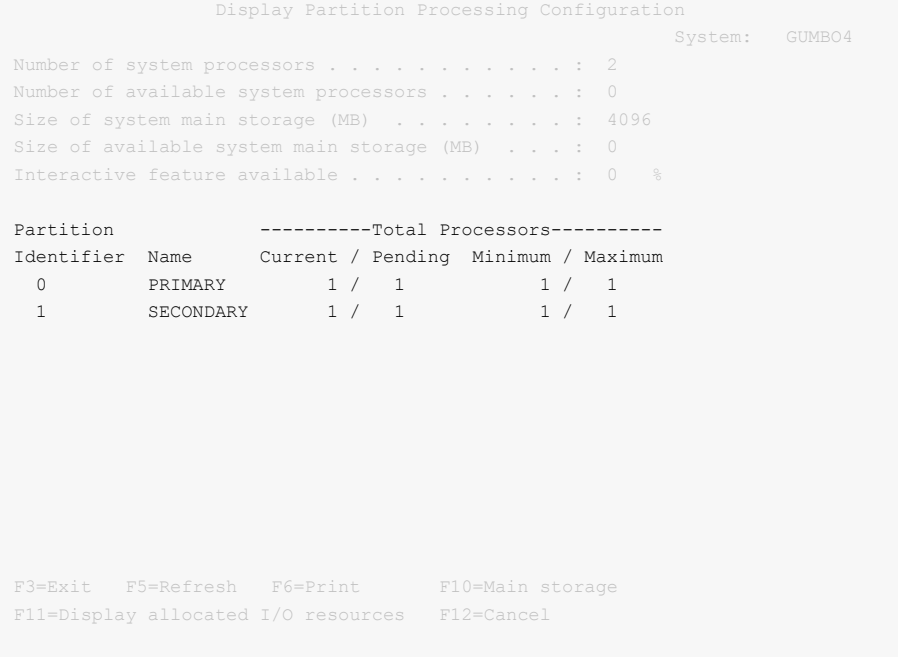
1. Go to Systems Management: Partitions task > Partition Properties > Hardware > Processors.
2. Read the Processing Units, Maximum: value.

If you use SST (System Service Tools):

1. Start system service tools by running:

   ```
   STRSST
   ```

2. After entering a Service tools user ID and Service tools password, select the option to Work with system partitions.
3. Select the option to Display partition information.
4. Select the option to Display partition processing configuration.
5. Note the Partition ID Number and Total Processor Maximum.



```
                Display Partition Processing Configuration
                                                        System:   GUMBO4
Number of system processors . . . . . . . . . . . :  2
Number of available system processors . . . . . . :  0
Size of system main storage (MB)  . . . . . . . . :  4096
Size of available system main storage (MB)  . . . :  0
Interactive feature available . . . . . . . . . . :  0   %

Partition             ----------Total Processors----------
Identifier  Name      Current / Pending  Minimum / Maximum
  0         PRIMARY         1 /   1            1 /   1
  1         SECONDARY       1 /   1            1 /   1









F3=Exit   F5=Refresh   F6=Print       F10=Main storage
F11=Display allocated I/O resources   F12=Cancel
```

Note: A Partition only license is not valid for a machine with only one partition.

Note: Our product's algorithm checks the authorization against the Total Processors Current (aka. Assigned) value. If the maximum configured is larger than the license, the algorithm will grant usage as long as the current configured is within the license's limit, and will issue a warning.

Chapter 4 Accessing Report Designer

What's In This Chapter

This chapter describes how to access Report Designer. It describes the Start Report Designer (STRRDA) command and associated displays, how to create a user defined option for use within the Program Development Manager (PDM) and how to display the Report Designer Menu.

Using the Start Report Designer (STRRDA) Command

Use the STRRDA prompt to review or change the parameter values for the STRRDA command before beginning a Report Designer session. To request the STRRDA prompt:

1. Key in STRRDA on a command line.
2. Press F4.

After completing the display, press Enter. If *PRV is specified for any of the parameters, the Design Reports display appears. Otherwise the Work with Report Records display appears.

```
                      Start Report Designer (STRRDA)

Type choices, press Enter.

Source file  . . . . . .   *PRV         Name, *PRV
  Library  . . . . . .     *PRV         Name, *PRV, *LIBL, *CURLIB
Source member  . . . . .   *PRV         Name, *PRV, *SELECT
*PRTF or RPG printer file  . . .  *PRV  Name, *PRV, *MBRTYPE...
Object library . . . . . .   *PRV       Name, *PRV, *CURLIB
Job description  . . . . .   *PRV       Name, *PRV, *USRPRF
  Library  . . . . . .     *PRV         Name, *PRV, *LIBL, *CURLIB

                                                                  Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

Creating a User-Defined PDM Option

IBM's Program Development Manager (PDM) allows creation of user-defined options. The following steps will create the user-defined option "RD" which can be used to access Report Designer from within PDM by keying "RD" next to a member name:

- Enter PDM by using the WRKMBRPDM command.
- Press F16 to work with user defined options.
- Press F6 to create a new user defined option.

```
                      Create User-Defined Option

Type changes, press Enter.

  Option  . . . . . .   RD   Value to change to

  Command . . . . . .   RDA/STRRDA SRCFILE(&L/&F) SRCMBR(&N)
PRINTER(*MBRTYPE) OBJLIB(&O) JOBD(&J)









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

- Key the user defined option definition as shown above, and press Enter.
- Press F3 to exit the Work with User-Defined Options display. Now key RD in the option field for source members in PDM to edit them with Report Designer.

The Report Designer Menu

Use Report Designer's menu to access all of the available Report Designer functions:

1. Key in GO MENU(RDA/RDA) on a command line.
2. Press Enter

```
RDA                           Report Designer
                                                          System:   GUMBO003
Select one of the following:

     1. Reference Manual

  Report Design
     2. Start Report Designer                                  STRRDA

  Other Report Options
     3. Create Report Designer Printer File                    CRTRDAPRTF
     4. Convert Report Source                                  CVTRPTSRC
     5. Print Report Sample                                    PRTRPTSAM
     6. Print Report Information                               PRTRPTINF

  Other Options
    61. Search Help Index
    62. Change Report Designer Default                         CHGRDADFT
                                                                  More...
Selection or command
===>

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
© Copyright Gumbo Software, Inc. 1989, 2016. All rights Reserved.
```

The Report Designer (RDA) menu allows you to access the commands and functions of Report Designer.

The options on the Report Designer (RDA) menu are divided into 4 categories:

- Reference Manual
- Report Design
- Other Report Options
- Other Options

Option 1. Reference Manual

Provides access to the Report Designer Programmer's Guide and Reference Manual.

Option 2. Start Report Designer

The Start Report Designer (STRRDA) command starts Gumbo Software Inc's Report Designer.

Option 3. Create RDA Printer File

The Create RDA Printer File (CRTRDAPRTF) command creates a DDS printer file using the same Create Printer File (CRTPRTF) command parameter values specified when the printer file was last created on exiting from Report Designer.

Option 4. Convert Report Source

The Convert Report Source (CVTRPTSRC) command converts a report definition contained in a source member from one source type to another.

Option 5. Print Report Sample

The Print Report Sample (PRTRPTSAM) command prints a sample report. The result is similar to pressing F17=Print from the Work Display and the command can be executed in batch.

Option 6. Print Report Information

The Print Report Information (PRTRPTINF) command parses a source member and generates various reports based on the content of the member.

Option 61. Search Help Index

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

Option 62. Change RDA Defaults

The Change RDA Defaults (CHGRDADFT) command changes values used by Report Designer to control processing and as initial defaults.

Option 64. Change Report Designer Authorization

The Change Report Designer Authorization (CHGRDAAUT) command changes the authorization code for Report Designer. The command is used to extend a demonstration period or to permanently authorize Report Designer for a system or a partition.

Option 65. Display RDA Work Space Status

The Display RDA Work Space Status (DSPRDASPC) command prints a listing of the contents of internal work spaces.

Report Designer copies any existing DDS or RPG source into a work space, which is used to keep track of all additions, changes, and deletions that occur during the design session. Upon normal completion, this work space is used to update the DDS or RPG source, and the work space is deleted.

When Report Designer terminates abnormally (for example due to power failure or an ENDRQS command) the work space will usually be intact, and may be recoverable. The next attempt to modify the same source member with Report Designer presents the Recover RDA Session display.

Option 66. Verify the product is installed correctly

Installation verification checks to make sure that Report Designer has been correctly installed by running IBM i's Check Product Option (CHKPRDOPT) command.

Option 67. Check Report Designer Authorization

The Check Report Designer Authorization (CHKRDAAUT) command executes Report Designer's authorization verification function. This allows you to determine whether and how the product is authorized for use.

Option 68. Display Current PTF Status

Displays the Report Designer PTFs that have been applied to the software.

Option 69. Retrieve Gumbo PTF

The Retrieve Gumbo PTF (RTVGSIPTF) command checks a remote system for new product PTFs, and, if available, downloads and installs them.

Option 70. Work with Source Code for Tools and Examples

Access source code found in file RDSOURCE which provides useful functions and demonstrate coding techniques used with Report Designer.

Design Reports Display

The Design Reports display appears when you specify *SELECT for the source member parameter on the STRRDA command, or when you specify *PRV for any of the parameters on the STRRDA command. From the Design Reports display you can:

- Select a source file to work with.
- Select a member for editing.

Field Descriptions

File Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F4=Prompt Provides assistance in typing additional parameter values for an option or in using a command.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

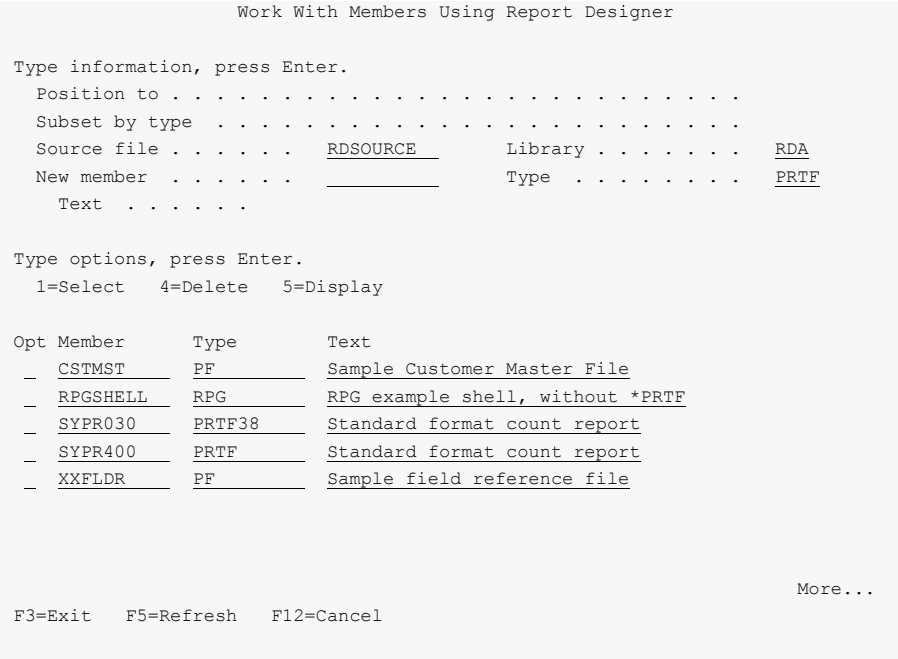
Work With Members Using Report Designer

The Work with Members display appears when F4 is pressed with the cursor positioned in the member name field on the Design Reports display or the Save/Create display. The Work with Members display presents a list of all members in the specified source file. From the Work with Members display you can:

- Position to a specific member in the list.
- Display members for a specific source type only.
- Select a source file to work with.
- Change the text for members in the selected source file.
- Change the source type for members in the selected source file.
- Select an existing member to work with.
- Delete members from the selected source file.
- Display members from the selected source file.
- Specify a new member to work with.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.



Option

Type the number of an option and press the Enter key.

1=Select	Selects the member for processing.
4=Delete	Delete the member from the source file.
5=Display	Display the member's contents.

Field Descriptions

Positioning to To position the list to a specific member, key the name--or partial name--and press Enter. The cursor is positioned to the first member whose name is greater than or equal to the search characters you specify.

	If there is no member name greater than or equal to the specified search characters, the cursor is positioned to the last member in the list.
Subset by type	To include only members with a particular source type in the list, key the source type in the "Subset by type" field and press Enter. Press F5 to refresh the list and include all source types.
Source file	To select a new source file to work with, key the name and library of the source file in the fields provided, and press Enter.
New member	Specifies the name of a new member to create.
Type	Specifies a source type for a new member.
Text	Specifies a description for a new member.
Member	Specifies the name of the source member.
Type	Specifies the member source type. To change the source type for a member, key over the existing source type and press Enter.
Text	Specifies the member's description. To change the text description for a member, key over the existing text and press Enter.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F5=Refresh	Shows the display again with the most recent information and removes any typed selections.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Object Using Report Designer

The Select Object Using Report Designer display appears when a list is requested using F4. From the Select Object Using Report Designer display you can:

- Position to a specific object in the list.
- Display a filtered list of objects.
- Select an object to work with.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                  Select Object Using Report Designer

Library . . . . . .   RDA          Name, *ALL, *LIBL, *USRLIBL, *CURLIB...
Object type . . . . .   *PGM       *ALL, *ALRTBL, *AUTL, *CFGL, *CHTFMT...
Position to . . . . .             Starting character(s)
Subset by name  . . . .   *ALL     *ALL, name, *generic*
Subset by attribute . .   *ALL     *ALL, attribute, *generic*

Type option, press Enter.
  1=Select

Opt Object      Library     Type        Attribute   Text
 _  RDCL000     RDA         *PGM        CLP         RDA Report Designer Command
 _  RDCL001     RDA         *PGM        CLP         RDA Work Space Build
 _  RDCL002     RDA         *PGM        CLP         RDA Create User Information
 _  RDCL006     RDA         *PGM        CLP         RDA Source Syntax Checker
 _  RDCL007     RDA         *PGM        CLP         RDA RTVMSGD for MSGCON Key
 _  RDCL009     RDA         *PGM        CLP         RDA Work Space Empty
 _  RDCL010     RDA         *PGM        CLP         RDA Retrieve Serial Number
 _  RDCL011     RDA         *PGM        CLP         RDA Work Space Recovery
 _  RDCL012     RDA         *PGM        CLP         RDA Change RDA Authorization
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
```

Option

Type the number of an option and press the Enter key.

1=Select Selects the object for processing.

Field Descriptions

Library Enter the name of a specific library to see a list of objects in that library only. Alternatively, specify *ALL to see a list of objects in all libraries; *LIBL to see a list of objects in any of the libraries in the job library list; *USRLIBL to see a list of objects in any of the libraries in the user part of the job library list; *CURLIB to see a list of objects in the job's current library; *ALLUSR to see a list of objects in all user libraries.

Object type Enter *ALL to include all object types in the list, or enter an object type specification.

Position To To locate a particular object in the list, key the name or partial name in the "Position to" field, and press Enter. The cursor will be positioned to the first object name greater than or equal to the name you specify.

Subset by name Enter *ALL to include all object names in the list. Enter a specific object name to include only objects with that name in the list. Key asterisks (*) or question marks (?) in the object name specification to include objects by generic name.

Subset by attribute Enter *ALL to include all object attributes in the list. Enter a specific object attribute to include only objects with that attribute in the list. Key asterisks (*) or question marks (?) in the object attribute specification to include objects generically by attribute.

Object Specifies the object's name.

Library Specifies the library in which the object is located.

Type Specifies the object's type.

Attribute Specifies the object's attribute.

Text Specifies the object's description.

Generic names must be in one of the following formats:

- ABC* includes all objects whose names begins with ABC.
- *ABC includes all objects whose names ends with ABC.
- *ABC* includes all objects whose names contains ABC anywhere in the name.
- A*C includes all objects whose names begins with A and ends with C.

- **ALL includes all objects whose names ends in ALL.

A question mark anywhere in an object name will match any character in the same position of the actual object name. Question marks may be keyed anywhere in the name except for the first character. You can combine the use of question marks with asterisks in specifying a generic object name as in the following examples:

- A?C* includes all objects whose names begins with A-anything-C.
- A??B?C* includes all objects whose names contain a string, anywhere in the name, with A in position 1, B in position 4 and C in position 6 of the string.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F5=Refresh	Shows the display again with the most recent information and removes any typed selections.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 5 Work with Report Records

What's In This Chapter

This chapter describes the Work with Report Records and associated displays.

Work with Report Records Display

From the Work with Report Records display you can:

- Add report records to a source member.
- Edit report record comments with SEU.
- Copy report records in a source member.
- Remove report records from a source member.
- Rename report records in a source member.
- Select record keywords for a report record.
- Design a report record's image.
- Change the Report Designer session defaults.
- Select file-level keywords.
- Edit file-level comments with SEU.

Use this display to work with report records in a file member by selecting options or pressing function keys.

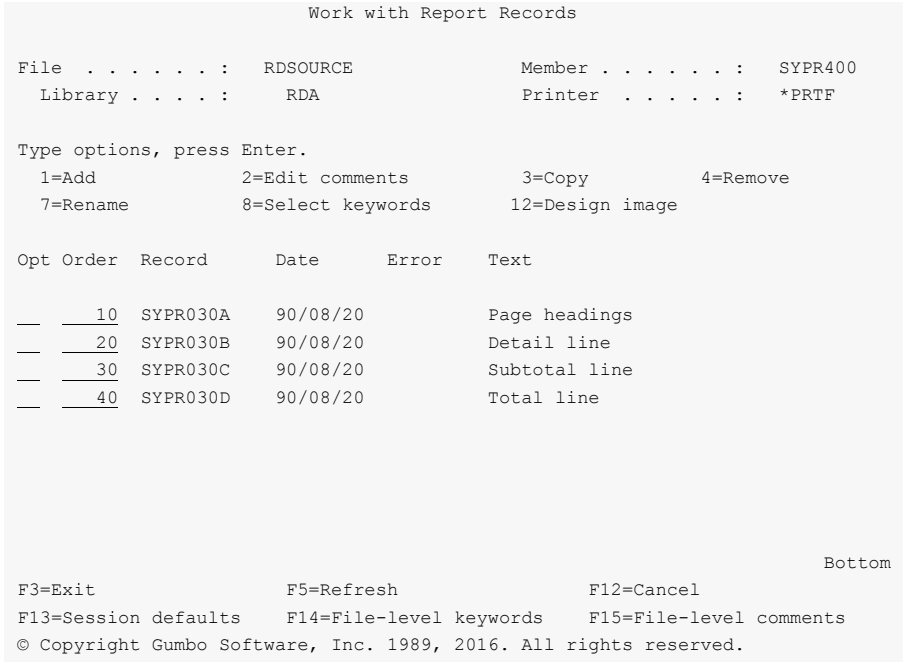
To select an option, type the option number in the Option list area and press Enter. If you know the name of a report record you want to work with, enter the name in the Record prompt of the first list entry and type the option you want in the Option prompt.

Note: You can select additional records to work with when you are using option 12 (Design Image). Press F9 and the Select Additional Records display will appear.

If you press Enter without choosing any options, an exit display appears where you can choose to save and compile your work.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.



Option

Type the number of an option and press the Enter key.

1=Add Type 1 in the top entry of the list area to add a new report record. Type a name for your new report record in the Record prompt, and press Enter.

All new report records are added at the end of the report record list.

2=Edit comments Type 2 to edit the comments associated with the report record. When you press Enter the SEU display will appear.

3=Copy Type 3 to copy an existing report record to a new report record. When you press Enter, the Copy Records display appears.

All new report records are added at the end of the report record list.

4=Remove Type 4 to remove a report record from the member. When you press Enter, the Confirm Remove of Records display appears.

7=Rename Type 7 to change the name of a report record. When you press Enter, the Rename Records display appears.

8=Select keywords Type 8 to change the keyword selections for a report record. When you press Enter, a record-level keyword selection display appears.

12=Design Image Type 12 to change the image of a report record. When you press Enter, the Design Image work screen appears.

Field Descriptions

File Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Order Contains a number (up to five digits) for each report record indicating the position of that report record

in the source member. To change the position of a report record, change the number and Report Designer will renumber all order numbers in multiples of ten. You can type 0 as a number; however, it becomes 10 when you press Enter.

Group the report records that you use most near the beginning of the source member.

Record Specifies the name of the report record.

Date The date the report record was last updated.

Error Indicates whether or not errors were found during syntax checking of the report record. The most common cause of errors is reference in the source statements to files that cannot be located in the library list of the job. If this column indicates errors, compile the source to get a list of errors and correct them using SEU.

Note: This column does not indicate whether an error has already been corrected within Report Designer.

Text Specifies a description of the report record.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F5=Refresh	Shows the display again with the most recent information and removes any typed selections.
F12=Cancel	Cancels this display and returns to the previous display.
F13=Session defaults	Changes the session default values that govern the operations of Report Designer.
F14=File-level keywords	Displays the Select File Keywords display appears.
F15=File-level comments	Edits file-level comments associated with this member using SEU.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Copy Records Display

From the Copy Records display you can:

- Specify a new name for a record you are copying.

Use this display to copy records that you select from the Work with Report Records display in the current member. To copy a record, type a name in the New Name prompt next to a record from the Record list area, and press Enter. If the name of the copied record exists in the member, the Confirm Copy of Record display appears.

Field Descriptions

File Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Record Specifies the name of the report record.

New name Specifies the new name for the report record.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F5=Refresh Shows the display again with the most recent information and removes any typed selections.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

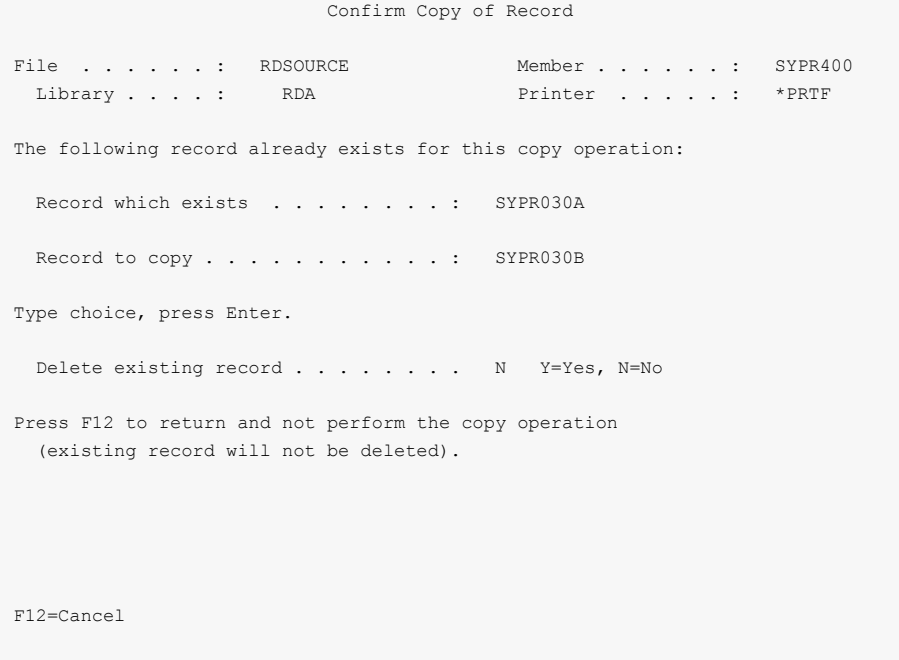
Confirm Copy of Record Display

From the Confirm Copy of Record display you can:

- Confirm the deletion of an existing record by the copy operation.

This display appears when you try to copy a record to another record that already exists in the current member. You can do one of the following:

- Type Y in the Delete existing record prompt and press Enter, to delete the existing record and perform the copy operation.
- Type N in the Delete existing record prompt and press Enter, to bypass the copy operation and process any other options.
- Press F12 to return to the previous display, and to cancel the copy operation and any pending options.



Field Descriptions

File Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Record which exists The name of the existing record.

Record to copy The name of the record that you want to copy.

Delete existing record Choose from the following:

- **Y=YES** Type Y to delete the existing record and copy the new record.
- **N=NO** Leave N if you do not want to delete the existing record. The record is not copied and the existing record is not deleted. The next pending operation is processed.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

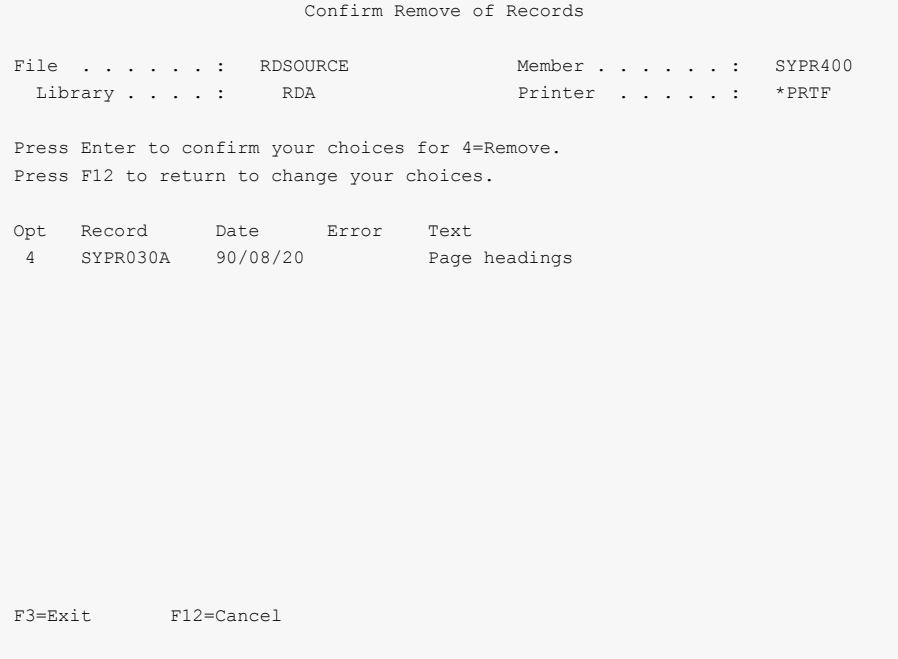
Confirm Remove of Records Display

From the Confirm Remove of Records display you can:

- Confirm the removal of records from a member.

Use this display to confirm the removal of selected records from the current member.

Press Enter to remove the record, or press F12 to cancel the request and return to the Work with Report Records display.



Field Descriptions

File Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Record Specifies the name of the report record.

Date The date the report record was last updated.

Error Indicates whether or not errors were found during syntax checking of the report record. The most common cause of errors is reference in the source statements to files that cannot be located in the library list of the job. If this column indicates errors, compile the source to get a list of errors and correct them using SEU.

Note: This column does not indicate whether an error has already been corrected within Report Designer.

Text Specifies a description of the report record.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Rename Records Display

From the Rename Records display you can:

- Specify a new name for a record you are renaming.

Use this display to change the name of records that you selected on the Work with Report Records display. To rename a record, type a name in the New Name prompt next to a record from the Record list area, and press Enter.

```
                              Rename Records

File  . . . . . :   RDSOURCE              Member . . . . . :   SYPR400
  Library . . . . :     RDA                 Printer  . . . . . :   *PRTF

To rename record, type new name, press Enter.
Press F12=Cancel to return to change your choices.

Record         New name
SYPR030A       SYPR030A









F3=Exit     F5=Refresh     F12=Cancel
```

Field Descriptions

File	Specifies the name of the file containing the source member to be updated or to which a new source member will be added.
Member	Specifies the name of the member containing the source to be updated or the name of a new member to be created.
Printer	The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.
Record	Specifies the name of the report record.
New name	Specifies the new name for the report record.

Function keys

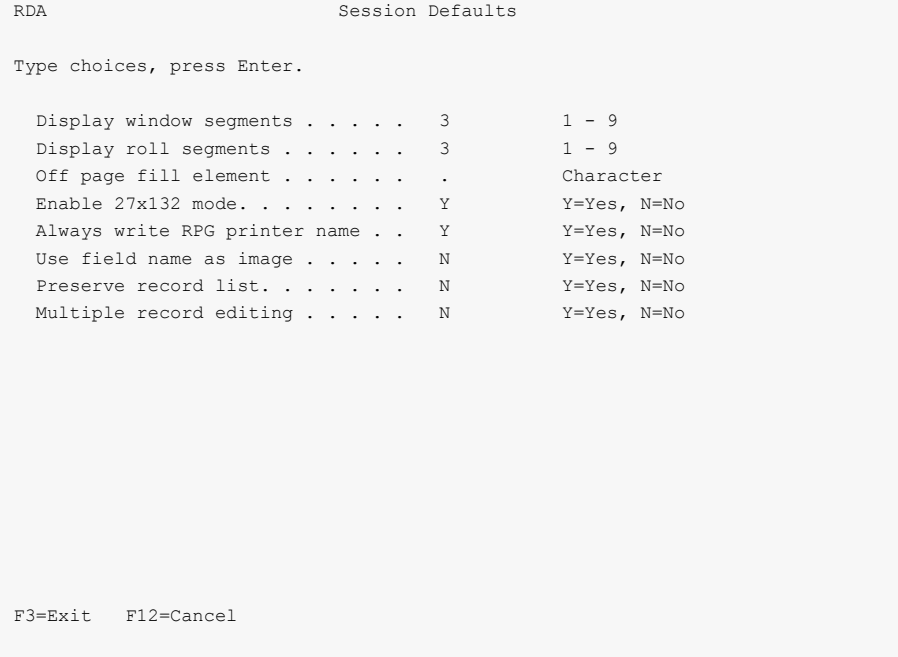
F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F5=Refresh	Shows the display again with the most recent information and removes any typed selections.

F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Session Defaults Display

Report Designer's Session Defaults display tailors default values to reflect your individual preference. From the Session Default display you can:

- Set the number of display window segments.
- Set the number of display roll segments.
- Set the off page fill element.
- Enable 27x132 mode.
- Control writing of RPG printer name.
- Set the appearance of fields on the Work Display.
- Control clearing of the list of additional records.
- Control record editing on the Design Image (Work) Display



Field Descriptions

Display window segments	Governs the number of times you must press the window keys F19/F20 on the Work Display to move one display width. A value of 2 would require 2 F19 keys to window the display one display width to the left.
Display roll segments	Governs the number of times you must press the page (roll) keys on the Work Display to move one display length. A value of 2 would require pressing Page Down twice to roll the display one display length.
Off page fill character	The character specified here will appear in out-of-bounds areas of the Report Designer work display.
Enable 27x132 mode	"Y" enables the 27 x 132 display mode of 27 x 132 capable displays. 27 x 132 capable devices will use 24 x 80 display mode if "N" is entered.
Always write RPG printer name	Governs the writing of the printer name in the generated RPG source code. With a value of "Y" the printer name is written on each record identification O-spec. With a value of

	"N" the printer name is written on the first record identification O-spec only. This value has no effect on DDS generation.
Use field name as image	Governs the appearance of fields on the Work Display. With a value of "N" character fields are displayed as a sequence of O's while numeric fields are shown as a sequence of 6's. With "Y" the field's name is used to represent the field.
Preserve record list	Governs clearing of the list of additional records to display on the Work Display. With "N" Report Designer operates as SDA and the record list is cleared on exiting from the Work Display. With "Y" the record list is preserved on exiting the Work Display. This allows switching between records without re-keying the additional records to be displayed.
Multiple record editing	Governs the report records that can be edited from the Design Image (Work) Display. With "N" Report Designer operates as SDA and only the current record can be edited from the Work Display. With "Y" all records on the Work Display including additional records may be edited.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 6 File Keywords Displays

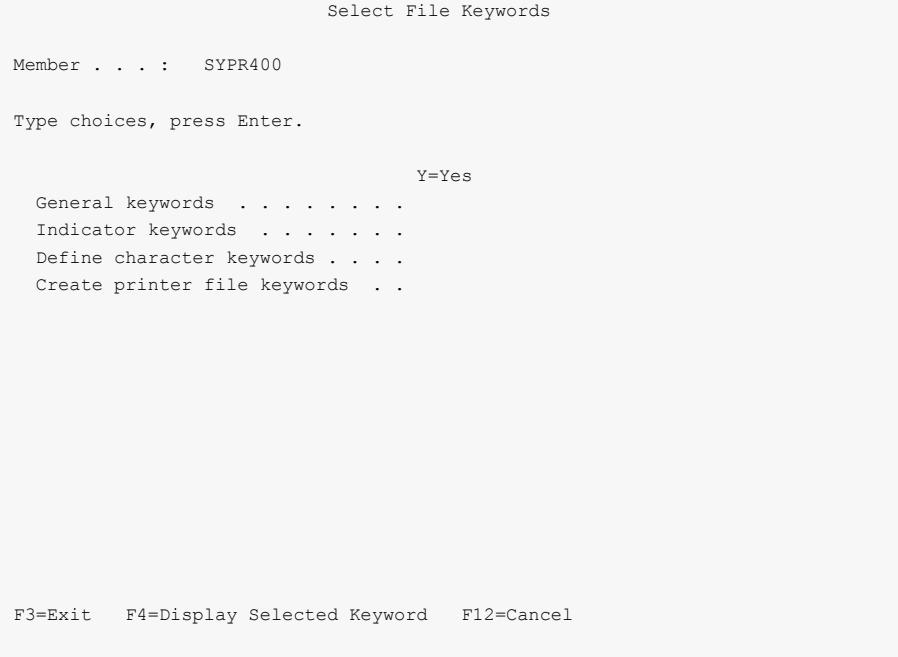
What's In This Chapter

This chapter describes the File Keywords displays - F14 from the Work with Report Records display.

Select File Keywords Display

From the Select File Keywords display you can:

- Select file-level keywords for review or update.
- Select file-level indicator text for review or update.
- Select file-level character definitions for review or update.
- Select create printer file command keywords for review or update.
- Display selected file-level keywords.



Field Descriptions

Member Specifies the name of the member containing the source to be updated or the name of a new member to be created.

General keywords To review or update general keywords key a "Y" and press Enter.

Indicator keywords To review or update indicator text key a "Y" and press Enter.

Define character keywords To review or update define character keywords key a "Y" and press Enter.

Create printer file keywords To review and select create printer file command parameters, key a "Y" in the column, and press Enter.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F4=Display Selected Keywords Causes the Display Selected Keywords window to appear.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select General Keywords Display

From the Select General Keywords display you can:

- Specify a separate buffer area for printer file indicators.
- Specify whether to fold or truncate data extending beyond a line.
- Specify file-level skipping.
- Specify the page size to work with.
- Specify the page overflow information.
- Specify a field reference file.

```
                          Select General Keywords

Member . . . :   SYPR400

Type choices, press Enter.

                                          Keyword    Y=Yes   Indicators/+
  Separate indicator  . . . . . . . . .   INDARA
  Work Display folds records  . . . . .   FOLD        N
  Skip to line before printing records  . .   SKIPB
  Skip to line after printing records . . .   SKIPA
  Page size:                              PAGESIZE
    Length--lines per page  . . . . . .                66    1-255
    Width--positions per line . . . . . .              132    1-378
  Overflow:
    Line number . . . . . . . . . . . . .   OVRFLW      60    1-255
    RPG indicator . . . . . . . . . . . .               OF    OA-OG, OF

  Reference database file . . . . . . .   REF          __________   Name
    Library . . . . . . . . . . . . . .                __________   Name
    Record  . . . . . . . . . . . . . .                __________   Name

F3=Exit   F12=Cancel
```

Field Descriptions

Separate indicator (INDARA)
Key a "Y" if indicators used in the printer file should be placed in a separate 99-byte buffer. This option is not valid with RPG source.

Work Display folds records (FOLD)
Key a "Y" to instruct Report Designer to fold any data that extends beyond a line on the work display. The folded data appears at the beginning of the next line.

Skip to line before printing records (SKIPB)
The value you enter for Skip Before at the file-level will cause the printer to skip to the indicated line before printing each record in the file. A value of zero indicates no Skip Before value.

Skip to line after printing records (SKIPA)
The value you enter for Skip After at the file-level will cause the printer to skip to the indicated line after printing each record in the file. A value of zero indicates no Skip After value.

File-level skipping keywords must be conditioned with indicators. Key the desired indicators in the spaces provided next to the appropriate keyword. Key a plus (+) in any indicator field to obtain more space for indicators.

File-level skipping is not valid with RPG source.

Page Size (PAGESIZE) Specify the page width and page length by keying values in the spaces provided. The values you specify will affect the dimensions of the work display.

Overflow (OVRFLW) Specify the overflow line number and indicator (RPG only) by keying values in the spaces provided.

Reference Database File (REF) To associate a field reference file with your printer file, key the name, library, and record name of the file to use. Within the printer file, referenced fields will look for their definitions in the field reference file indicated, unless this is overridden at the field level with the REFFLD keyword. The REF keyword is not valid with RPG source.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

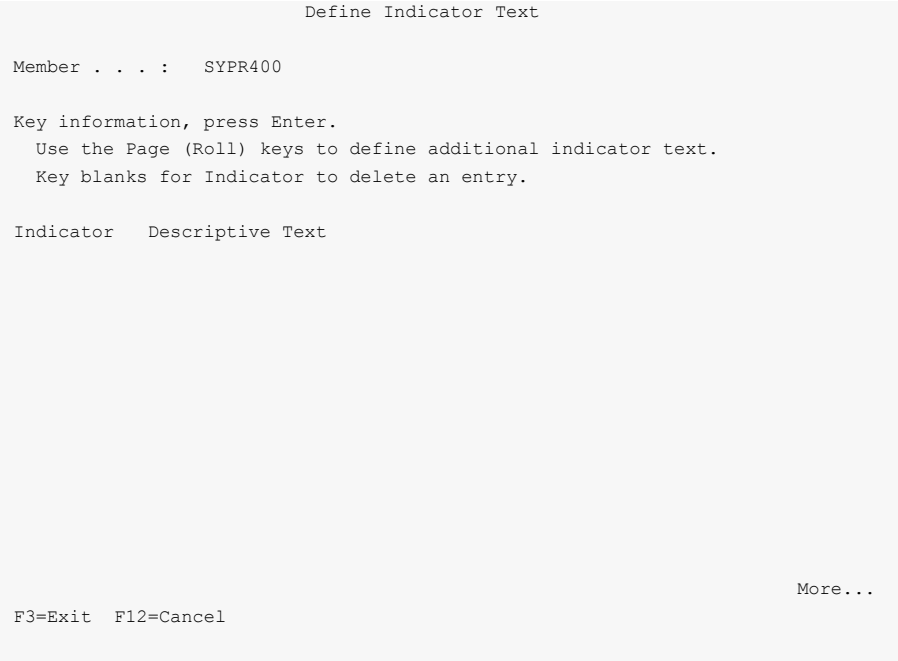
Define Indicator Text Display

From the Indicator Text display you can:

- Associate text with option indicators.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.



Field Descriptions

Indicator Specifies the option indicator to associate with the descriptive text. Indicators 01 - 99 are for this keyword. The keyword is not valid with RPG source.

Use Page Down (Roll Up) to define more indicator text. To delete an indicator text definition, key blanks for the indicator.

Descriptive Text Specifies descriptive text that is associated with the indicator.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.
F3=Exit Ends the current task and returns to the display from which the task was started.
F12=Cancel Cancels this display and returns to the previous display.
Enter Submit information on the display for processing.
Help Provides additional information about using the display or a specific field on the display.
Print Prints information currently shown on the display.

Define Characters Display

From the Define Characters display you can:

- Define customized print characters.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                              Define Characters

Member . . . :   SYPR400

Type information, press Enter.
  Use the Page (Roll) keys to define additional characters.
  Key blanks for Hex Code to delete an entry.
  Key an "X" in character grid positions which are to print.

Hex Code   Character Grid      Indicators/+









                                                                    More...


CF3=Exit  CF12=Cancel
```

Field Descriptions

Hex Code Specifies the character to define. Key in a two-character hex code. (Valid hex characters are "0" - "9" and "A" - "F".)

Use Page Down (Roll Up) to define more characters. To delete a character definition, key blanks for the hex code.

Not valid with RPG source.

Character Grid Specifies the character grid. Key an "X" for each grid position you want to print as part of your character.

	You cannot specify two consecutive horizontal grid positions. At execution time, character data sent to the output device, that matches the two-character hex code you specify, will print with the image you have defined.
Indicators/+	To condition your character definition, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Create Printer File Display

The Create Printer File (CRTPRTF) display appears after selecting Create Printer File Keywords from the Select File Keywords display. From this prompt you can:

- Specify additional Create Printer File Keywords.
- Review additional Create Printer File Keywords specified previously.

```
                         Create Printer File (CRTPRTF)

Type choices, press Enter.

Device specification:
  Printer  . . . . . . . . . . .   *JOB        Name, *JOB, *SYSVAL
Printer device type  . . . . . .   *SCS        *SCS, *IPDS, *USERASCII

                                                                  Bottom
F3=Exit   F4=Prompt   F5=Refresh   F10=Additional parameters   F12=Cancel
F13=How to use this display        F24=More keys
```

Field Descriptions

For a complete explanation of each keyword, see the *Programming* > *Control Language* > *Alphabetic list of CL commands by command name* > *CRTPRTF* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html.

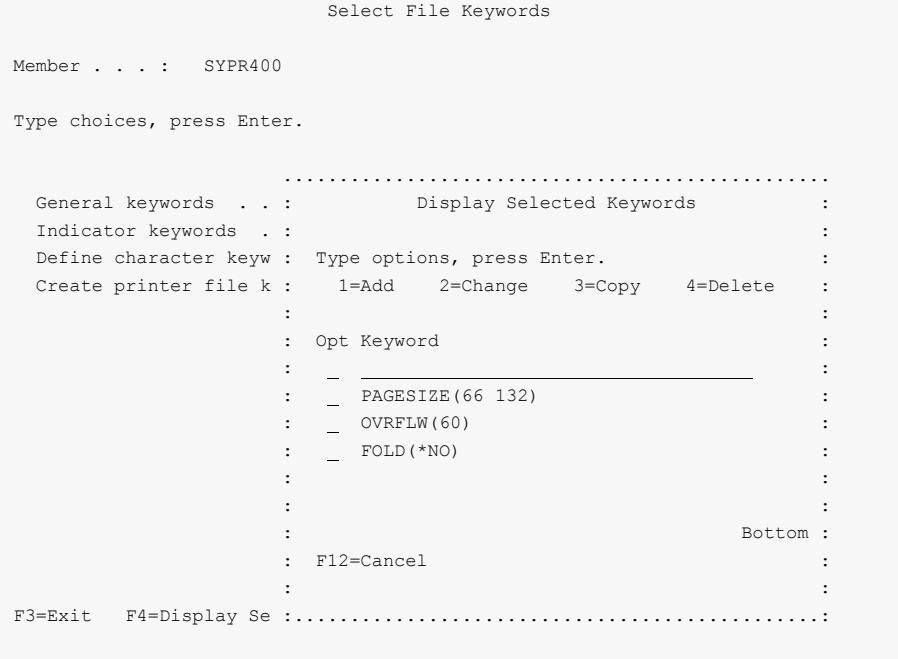
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Display Selected Keywords Window

The Display Selected Keywords window shows a list of currently selected keywords in DDS source code form. From the Display Selected Keywords window you can:

- Add keywords not supported on other displays.
- Change keywords not supported on other displays.
- Copy keywords not supported on other displays.
- Delete keywords not supported on other displays.



Option

Type the number of an option and press the Enter key.

1=Add	Use this option to add a new keyword. Only keywords that cannot be added from other screens are allowed.
2=Change	Use this option to change a keyword. Only keywords that are inaccessible from other screens can be changed.
3=Copy	Use this option to copy a keyword. Only keywords that are inaccessible from other screens can be copied.
4=Delete	Use this option to delete a keyword. Only keywords that are inaccessible from other screens can be deleted.

Field Descriptions

Keyword	The keyword and associated parameter values. **Note:** The associated parameters end in an ellipsis (...) when they do not all fit.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 7 Record Keywords Displays

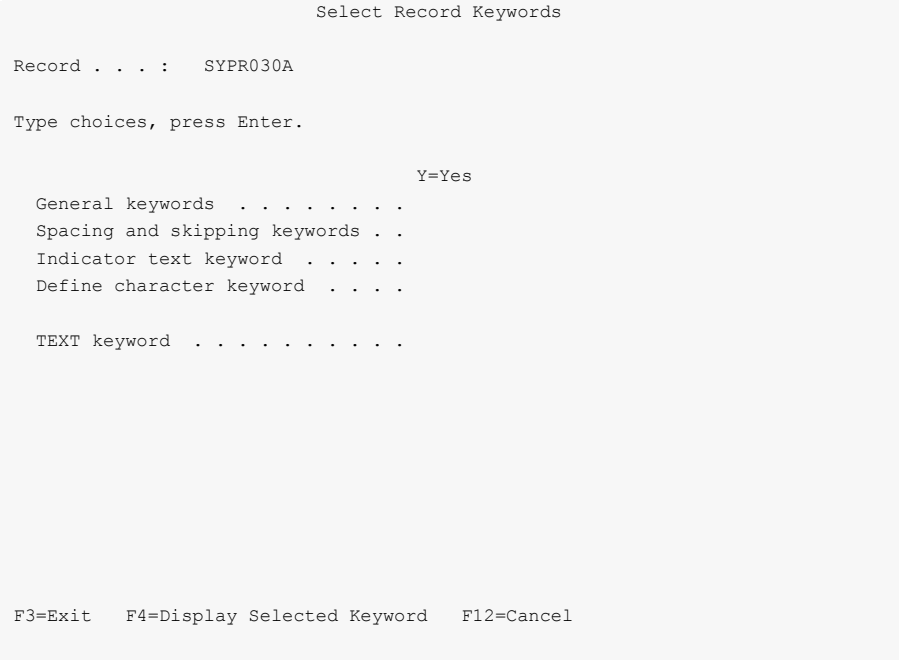
What's In This Chapter

This chapter describes the Record Keywords Displays - option 8 from the Work with Report Records display.

Select Record Keywords Display

From the Select Record Keywords display you can:

- Select record-level general keywords for review or update.
- Select record-level spacing and skipping keywords for review or update.
- Select record-level indicator text for review or update.
- Select record-level character definitions for review or update.
- Change the text associated with the report record.
- Display selected record-level keywords.



Field Descriptions

Record	Specifies the name of the report record.
General keywords	To review or update general keywords key a "Y" and press Enter.
Spacing and skipping keywords	To review or update spacing and skipping keywords key a "Y" and press Enter.
Indicator text keywords	To review or update indicator text key a "Y" and press Enter.
Define character keywords	To review or update define character keywords key a "Y" and press Enter.
Text	Specifies a description of the report record.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F4=Display Selected Keywords	Causes the Display Selected Keywords window to appear.
F12=Cancel	Cancels this display and returns to the previous display.

Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select General Keywords Display

From the Select General Keywords display you can:

- Change the Character Size (CHRSIZ) keyword value.
- Change the Characters Per Inch (CPI) keyword value.
- Change the Printer Drawer (DRAWER) keyword value.
- Change the Printer Font (FONT) keyword values.
- Change the Lines Per Inch (LPI) keyword value.
- Change the Page Rotation (PAGRTT) keyword value.
- Change the Print Quality (PRTQLTY) keyword value.
- Change the RPG line type.
- Change the RPG fetch overflow flag.
- Change the RPG EXCPT name associated with the record.
- Change the RPG record level indicators.
- Indicate that the first RPG indicator line should be blank.

```
                        Select General Keywords

Record . . . :   SYPR030A

Type choices, press Enter.
                              Keyword    Value      Indicators/+
  Character size:             CHRSIZ
    Width . . . . . . . . .                ____                    1.0 - 20.0
    Height  . . . . . . . .                ____                    1.0 - 20.0
  Characters per inch . . . .  CPI         __         ___ ___ ___    10, 15
  Drawer  . . . . . . . . . .  DRAWER      _          ___ ___ ___    1, 2, 3...
  Print font  . . . . . . . .  FONT        __________ ___ ___ ___    Name, ID
    Point size  . . . . . . .              _____                   0.1-999.9
  Lines per inch  . . . . . .  LPI         _                       4, 6, 8, 9
  Page rotation . . . . . . .  PAGRTT      ___        ___ ___ ___    0, 90 ...
  Print quality . . . . . . .  PRTQLTY     __________ ___ ___ ___    *STD ...
  RPG record level parameters:
    Line type . . . . . . . .              _                       H, D, E, T
    Fetch overflow  . . . . .              _                       F, blank
    EXCPT name  . . . . . . .              ______                  Name
    Blank indicator line  . .              _                       Y=Yes

F3=Exit   F12=Cancel
```

Field Descriptions

Character Size	The CHRSIZ keyword allows you to specify the height and width of characters printed in the record. Not valid with RPG source.
Characters Per Inch	With the CPI keyword you specify the horizontal print density of characters in the record. Not valid with RPG source.
Drawer	With the DRAWER keyword, you specify the drawer from which forms will be selected at print time. Not valid with RPG source.
Font	With the FONT keyword, you control the style and appearance of characters printed in the record. Specify either a numeric font id or a graphic font name. If supported specify a point

	size. Not valid with RPG source.
Lines Per Inch	With the LPI keyword you specify the vertical print density of lines within the record. Not valid with RPG source.
Page Rotation	With the PAGRTT keyword, you specify the degree of clockwise rotation of text within the record, with respect to the physical printed form. Zero (or blank) indicates no rotation. Valid values are 0, 90, 180 and 270. Not valid with RPG source.
Print Quality	With the PRTQLTY keyword, you can set the print quality of the fields in the record. Allowable values are *STD (standard), *DRAFT (draft quality), and *NLQ (near letter quality). Not valid with RPG source.
RPG Line Type	Each print line in RPG must be assigned a type. Report Designer assumes that all lines within a logical record have the same type. The valid line types are H (header), D (detail), E (exception) and T (total). If you leave the line type blank for RPG source, a type of D is assumed. This field is ignored for DDS source.
RPG Fetch Overflow Flag	An "F" in this field indicates that detail and header lines, conditioned with the overflow indicator, should be printed before the current record when page overflow is detected. This field is ignored for DDS source.
RPG EXCPT Name	An EXCPT name only has meaning for records with an output type of E (exception) in RPG source. Specifying an EXCPT name allows you to print the current record by name with the RPG EXCPT operation code. This field is ignored for DDS source.
RPG Record-Level Indicators	To condition a record, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators. Record level indicators are ignored for DDS source. When the record is conditioned by indicators, enter a "Y" for "Leave 1st indicator line blank" to cause the first line of indicators to be blank on output. Beginning the record level indicators on the second line can produce different results at print time. See the *Programming > Programming languages > RPG > ILE RPG Language Reference > Specifications > Chapter 17. Output Specifications > Record Identification and Control Entries > Positions 21-29 (File Record ID Indicators)* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html for more information. This field is ignored for DDS source, and when no record level indicators are specified.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Spacing and Skipping Keywords Display

From the Select Spacing & Skipping Keywords display you can:

- Change the record level spacing & skipping values.
- Select fixed or relative line spacing for the record.
- Adjust the spacing & skipping between lines in the record.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                    Select Spacing And Skipping Keywords

Record . . . :   SYPR030A

Type choices, press Enter.
                          Keyword    Value Indicators/+
  Record format level:
    Skip before . . . . .   SKIPB      1
    Skip after  . . . . .   SKIPA
    Space before  . . . .   SPACEB
    Space after . . . . .   SPACEA
    Line spacing  . . . .               2                   1=Fixed line nbrs
                                                            2=Use Spaces/Skips
  Line/field level:
       Skip Before       Skip After        Space Before      Space After
       Val Indicators/+  Val Indicators/+  Val Indicators/+  Val Indicators/+
    1  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    2  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   3
    5  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    6  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1


F3=Exit   F12=Cancel
```

Field Descriptions

Record Level Spacing And Skipping

The value you enter for Skip Before at the record level will cause the printer to skip to the indicated line before printing the record. A value of zero indicates no Skip Before value.

The value you enter for Skip After at the record level will cause the printer to skip to the indicated line after printing the record. A value of zero indicates no Skip After value.

The value you enter for Space Before at the record level will cause the printer to advance the indicated number of lines before printing the record. A value of zero indicates no Space Before value. At execution time, the printer will skip to the line indicated by the Skip Before value (if any) before honoring any Space Before request.

The value you enter for Space After at the record level will cause the printer to advance the indicated number of lines after printing the record. A value of zero indicates no Space After value. At execution time, the printer will skip to the line indicated by the Skip After value (if any) before honoring any Space After request.

Any of the record level spacing and skipping keywords may be conditioned with indicators. Key the desired indicators in the spaces provided next to the appropriate keyword. Key a plus (+) in any indicator field to obtain more space for indicators.

Record level spacing and skipping cannot be specified for RPG source.

Keying a "1" for Line Spacing will cause fields within the DDS report record to be output with fixed line numbers. A value of "2" will cause spacing and skipping keywords to be used to achieve the required spacing within the record. For RPG source, only option "2" is valid.

Line/field Level Spacing And Skipping

A list of lines currently defined for the record is shown, along with spacing and skipping values that would result in the record printing with the lines indicated. You can change the spacing and skipping for any line.

The location of the first line in the record is determined by the record level Skip

Before/Space Before values, and the Skip Before/Space Before values for the line in question. The location of subsequent lines in the record is determined by the Skip After/Space After values of the previous line, and the Skip Before/Space Before values for the line in question.

Any of the line level spacing and skipping keywords may be conditioned with indicators. Key the desired indicators in the spaces provided next to the appropriate keyword. Key a plus (+) in any indicator field to obtain more space for indicators.

Indicators associated with spacing and skipping keywords are not taken into account by Report Designer when calculating line positions for the Work Display.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

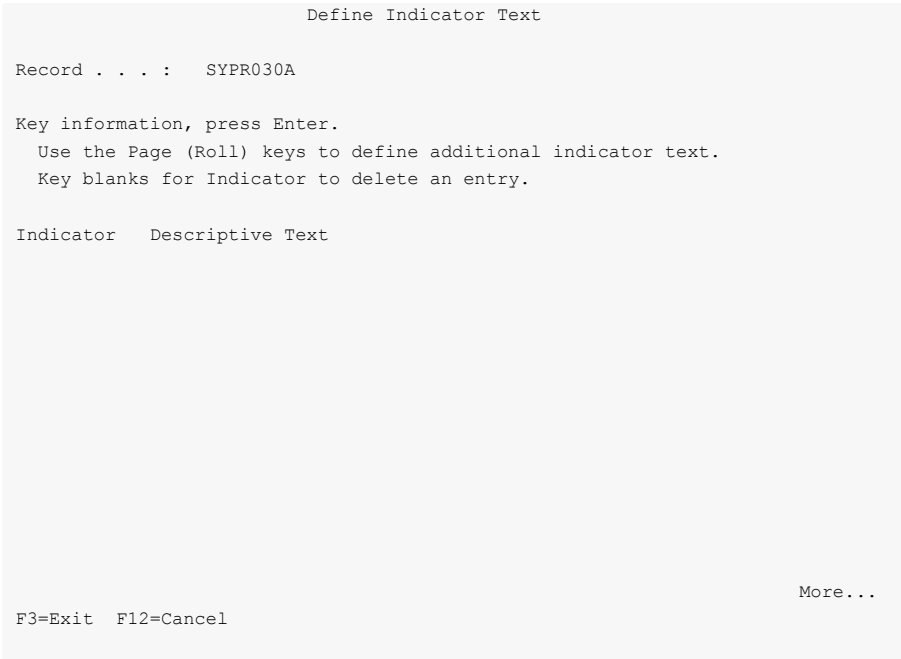
Define Indicator Text Display

From the Indicator Text display you can:

- Associate text with option indicators.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.



Field Descriptions

Indicator Specifies the option indicator to associate with the descriptive text. Indicators 01 - 99 are for this keyword. The keyword is not valid with RPG source.

Use Page Down (Roll Up) to define more indicator text. To delete an indicator text definition, key blanks for the indicator.

Descriptive Text Specifies descriptive text that is associated with the indicator.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.
F3=Exit Ends the current task and returns to the display from which the task was started.
F12=Cancel Cancels this display and returns to the previous display.
Enter Submit information on the display for processing.
Help Provides additional information about using the display or a specific field on the display.
Print Prints information currently shown on the display.

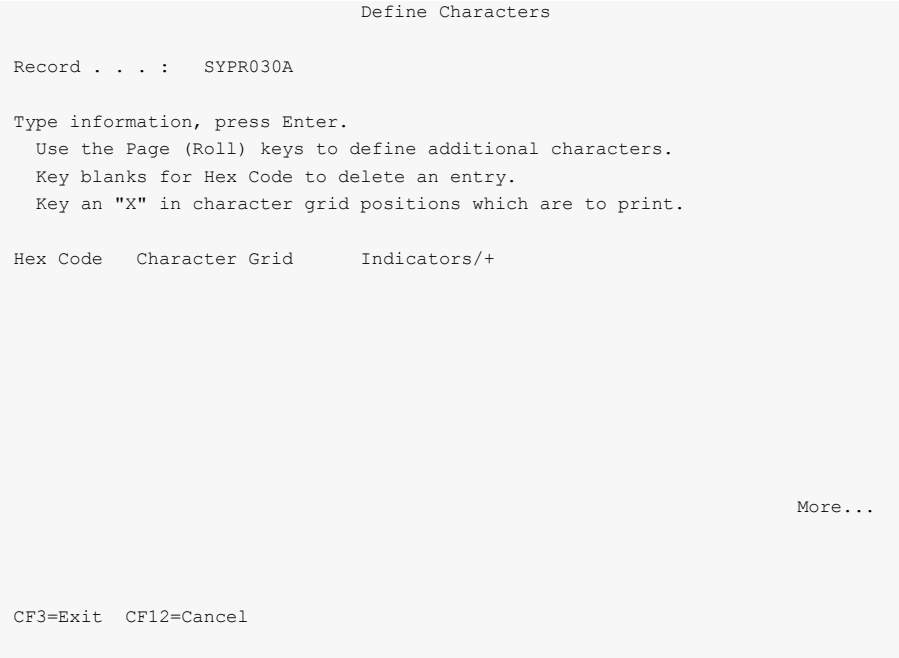
Define Characters Display

From the Define Characters display you can:

- Define customized print characters.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.



Field Descriptions

Hex Code Specifies the character to define. Key in a two-character hex code. (Valid hex characters are "0" - "9" and "A" - "F".)

Use Page Down (Roll Up) to define more characters. To delete a character definition, key blanks for the hex code.

Not valid with RPG source.

Character Grid Specifies the character grid. Key an "X" for each grid position you want to print as part of your character. You cannot specify two consecutive horizontal grid positions. At execution time, character data sent to the output device, that matches the two-character hex code you specify, will print with the image you have defined.

Indicators/+ To condition your character definition, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

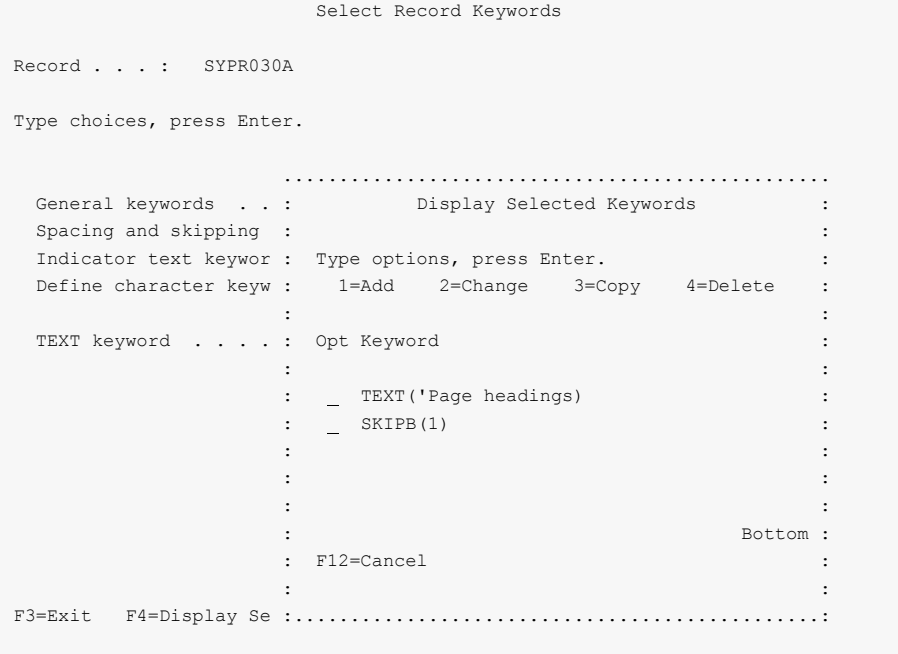
Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

Display Selected Keywords Window

The Display Selected Keywords window shows a list of currently selected keywords in DDS source code form. From the Display Selected Keywords window you can:

- Add keywords not supported on other displays.
- Change keywords not supported on other displays.
- Copy keywords not supported on other displays.
- Delete keywords not supported on other displays.



Option

Type the number of an option and press the Enter key.

1=Add Use this option to add a new keyword. Only keywords that cannot be added from other screens are allowed.

2=Change Use this option to change a keyword. Only keywords that are inaccessible from other screens can be

changed.

3=Copy Use this option to copy a keyword. Only keywords that are inaccessible from other screens can be copied.

4=Delete Use this option to delete a keyword. Only keywords that are inaccessible from other screens can be deleted.

Field Descriptions

Keyword The keyword and associated parameter values.

Note: The associated parameters end in an ellipsis (...) when they do not all fit.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

Chapter 8 Report Image (Work) Display

What's In This Chapter

This chapter describes Design Image (field) definition using the Work Display - option 12 on the Work with Report Records display.

From the Design Image (Work) Display you can:

- Define fields and constants for the selected record.
- Move, copy, delete, and exclude fields on the Work Display.
- Select database fields and place them on the Work Display.
- Add or remove attributes and colors.
- Add or remove editing.
- Review or change the names of fields in a record.
- Condition the Work Display.
- Select additional records to display on the Work Display.
- Add and remove a ruler on the display.
- Center the fields and constants on a line.
- Center a field or constant between its neighbors.
- Print the current Work Display.
- Reverse Image constants on the display.
- Window the Work Display left and right.
- Hide additional records on the Work Display.
- Enter IBM i commands.
- Roll the Work Display up and down.

Defining Fields

To define an alpha field on the Work Display, key in a + followed by one or more O's, and press Enter.

To define a numeric field on the Work Display, key in a + followed by one or more 6's, and press Enter.

To define a floating point field, key in a + followed by one or more 6's, followed by an E (single precision) or a D (double precision).

Field definitions can be entered in either upper or lower case. Field length is determined by the number of characters after the plus sign (+) or by a length specification in brackets after the first character.

After defining a field, you can modify the field's attributes with the extended field definition displays. Key an asterisk (*) in the position preceding a field, and press Enter to see the extended definition displays for the field.

The following examples illustrate defining fields:

+OOO or +o(3)	3 character alpha field.
+66.66 or +6(4,2)	4 character numeric field with 2 decimal positions (set by an edit word).
+6.66E or +6(3,2)e	Single precision floating point field with 3 significant digits and 2 decimal positions.
+66.6d or +6(5,1)D	Double precision floating point field with 5 significant digits and 1 decimal position.

Defining Constants

Key constants without quotes ('), and press Enter to define constants for each group of characters that is followed by a blank.

Surround character groups with quotes to define the constant lengths and boundaries.

Surround constants with quotes to redefine as one constant.

Use double quote (") to stop and start constants in one position.

Use +M and a length specification to define a MSGCON (message constant) field.

To add predefined constants, key *DATE *TIME or *PAGNBR (DDS); or key *DATE *PAGE *PAGE1 *PAGE2 *PAGE3 *PAGE4 *PAGE5 *PAGE6 or *PAGE7 (RPG), at the desired location and press Enter.

The following examples illustrate defining constants:

'x x x"Y Y Y'	Define 2 constant fields.
'xxx YYY zzz'	Combine 3 constant fields.
+MMMMMMM or +m(7)	Define a 7 character MSGCON field.
***TIME**	Define time constant field.
***page**	Define page number constant field.

Moving Fields

To move a single field, key a minus sign (-) in the position preceding the field. Key an equal sign (=) in the position preceding the desired target for the field, and press Enter. There must be adequate space for the field at the target location.

You can move a field to the left by keying one or more less than signs (<) in the positions preceding the field. You can move a field to the right by keying one or more greater than signs (>) in the positions following the field.

To move a group of fields, key a minus sign (-) in a blank position at the upper left corner of the group of fields to move. Key another minus sign in a blank position at the lower right corner of the group of fields to move. Key an equal sign (=) in the position before the desired target location, and press Enter. There must be adequate space for the group of fields at the target location.

The following examples illustrate moving fields:

1. Move a field 3 positions to the right.

```
_____________________________________________________
OOOOO   OOOOOOO>>>    (Before)
_____________________________________________________
_____________________________________________________
OOOOO      OOOOOOO    (After)
_____________________________________________________
```

2. Move a field 1 position to the right and another field 4 positions to the left.

```
_____________________________________________________
OOOOO> <<<<OOOOOOO    (Before)
_____________________________________________________
_____________________________________________________
```

```
 OOOOO OOOOOOO         (After)
_____________________________________________________
```

3. Move a field to a target.

```
_____________________________________________________
-OOOOO OOOOOOO         (Before)
  =
_____________________________________________________
_____________________________________________________
       OOOOOOO         (After)
   OOOOO
_____________________________________________________
```

4. Move a group of fields down 1 line.

```
_____________________________________________________
       OOOOOOO  OO     (Before)
   OOOOO
_____________________________________________________
_____________________________________________________
 -     OOOOOOO  OO     (Indicate group move)
   O=OOO       -
_____________________________________________________
_____________________________________________________
                OO     (After)
           OOOOOOO
       OOOOO
_____________________________________________________
```

Copying Fields

To copy a single field, key a minus sign (-) in the position preceding the field. Key two equal signs (==) beginning in the position preceding the desired target for the field, and press Enter. There must be adequate space for the new field at the target location.

To copy a group of fields, key a minus sign (-) in a blank at the upper left corner of the group of fields to copy. Key another minus sign in a blank position at the lower right corner of the group of fields to copy. Key two equal signs (==) beginning in the position before the desired target location, and press Enter. There must be adequate space for the new group of fields at the target location.

The following examples illustrate copying fields:

1. Copy a single field.

```
_____________________________________________________
 -OOOOO OOOOOOO          (Before)
    ==
_____________________________________________________
_____________________________________________________
  OOOOO  OOOOOOO         (After)
     OOOOO
_____________________________________________________
```

2. Copy a group of fields.

```
_____________________________________________________
- OOOOO  OOOOOOO        (Before)
     OOOOO      -
==
_____________________________________________________
_____________________________________________________
  OOOOO  OOOOOOO        (After)
     OOOOO
  OOOOO  OOOOOOO
     OOOOO
_____________________________________________________
```

Deleting Fields

To delete a field or constant from the Work Display, key a D or d in the position preceding it and press Enter. When you delete a field, the field name is added to the field list displayed at the bottom of the screen. This allows you to add the field to the display again at a later time.

The following example illustrates deleting a field:

```
OOOOO  66/66/66  OOOOOOOOOOO     Before field delete.
OOOOO d66/66/66  OOOOOOOOOOO     Deleting a field.
OOOOO            OOOOOOOOOOO     After field delete.
```

Excluding Fields

To temporarily exclude a field or constant from appearing on the Work Display, key an X or x in the position preceding it and press Enter. When you exclude a field, any overlapped fields reappear. Excluding fields allows creation of overlapped fields. Use the Work with Fields Display to determine the overlap status of fields, and to include fields previously excluded.

The following example illustrates excluding a field:

```
OOOOO  66/66/66  OOOOOOOOOOO     Before field excluded.
OOOOO x66/66/66  OOOOOOOOOOO     Excluding a field.
OOOOO            OOOOOOOOOOO     After field excluded.
```

Working With Database Fields

Use F10 to select database fields. The selected fields are displayed at the bottom of the Work Display. You can add these fields to the Work Display by keying in an & sign, followed by a field number, followed optionally by a column heading position (L, R, C, or P). The field will be placed at the position of the & sign.

You do not have to specify a field number when working in single field mode.

The following example illustrates adding a database field:

&1	Add field number 1. Without column headings.
&2L	Add field number 2. Add column headings to its left.
&3R	Add field number 3. Add column headings to its right.
&4C	Add field number 4. Center column headings above it.
&5P	Add only column headings from field number 5.
&C	Add current database field with centered column headings.

Adding or Removing Attributes or Color

Key an H in the position preceding a field or constant, and press Enter to add the HIGHLIGHT attribute.

Key a U in the position preceding a field or constant, and press Enter to add the UNDERLINE attribute.

Key a - in the position preceding a field or constant followed by a U, H or A, and press Enter to remove the UNDERLINE, HIGHLIGHT or All attributes.

Key a C in the position preceding a field or constant, followed by a color code to add a COLOR attribute.

The valid color codes are:

```
K - Black          P - Pink
B - Blue           R - Red
N - Brown          T - Turquoise
G - Green          Y - Yellow
                   A - All colors (remove only)
```

Key a -C in the position preceding a field or constant, followed by a color code to remove a COLOR attribute.

Note: HIGHLIGHT, UNDERLINE, and COLOR are not supported by all printers.

The following examples illustrate using attributes and color:

```
 OOOOOOOOOO          Alpha field before adding attributes.
hOOOOOOOOOO          Specifying HIGHLIGHT attribute.
 OOOOOOOOOO          Alpha field after adding HIGHLIGHT attribute.
 OOOOOOOOOO          Alpha field before adding attributes.
UOOOOOOOOOO          Specifying UNDERLINE attribute.
 OOOOOOOOOO          Alpha field after adding UNDERLINE attribute.
 Report Heading      Constant before adding COLOR attributes.
CTeport Heading      Specifying Turquoise attribute.
cgeport Heading      Specifying Green attribute.
-caport Heading      Removing all color attributes.
```

How Report Designer Displays Attributes

When you specify UNDERLINE, HIGHLIGHT, or COLOR attributes for a field, Report Designer attempts to display the field with its specified attributes on the Work Display. If part of the field is outside the display window, if the field begins in the first position of the line, or if the field ends in the last position of the line, the attributes are not shown. Where two or more fields are positioned contiguously without any spaces between them, attributes are shown only if they are the same for all of the fields in the group. Color attributes will not display as expected on monochrome displays.

The following chart shows how Report Designer displays fields with different combinations of attributes specified.

Figure: Attribute Rendering

Highlight	Underline	Color	Appearance On Color Display	Appearance On Monochrome Display
X		Any	White	HI
	X	None	Green, UL	UL
X	X	Any	White, UL	HI, UL
		None	Green	Normal
		Black	Green	Normal
		Green	Green	Normal
		Red	Red	Blink
		Brown	Red, RI	Blink, RI
		Turq	Turq	CS
		Yellow	Yellow	CS, HI
		Pink	Pink	CS, Blink
		Blue	Blue	CS, Blink, HI
	X	Black	Green, UL	UL
	X	Green	Green, UL	UL
	X	Red	Red, UL	Blink, UL
	X	Brown	Red, RI, UL	Blink, RI, UL
	X	Turq	Turq, UL	CS, UL
	X	Yellow	Yellow, UL	CS, HI, UL
	X	Pink	Pink, UL	CS, Blink, UL
	X	Blue	Blue, UL	CS, Blink, HI, UL

Adding or Removing Editing

Key an E in the position preceding a numeric field followed by an edit code to add editing to a field.

The valid edit codes are:

	No Sign	CR Sign	- Sign(R)	- Sign(L)
Commas and zero balance	1	A	J	N
Commas	2	B	K	O
Zero Balances	3	C	L	P
No commas or zero balances	4	D	M	Q
User-defined edit codes	5-9			
Date edit	Y			
Suppress leading zeros	Z			

Key a -E in the position preceding a numeric field to remove editing.

Note: Editing is only allowed for numeric fields.

The following examples illustrate using editing:

```
  66666666       Numeric field (8,2) before adding editing.
 E16666666       Specifying edit code 1.
  666,666.66     Numeric field after adding editing.
  66666666       Numeric field (8,2) before adding editing.
 el6666666       Specifying edit code L.
  666666.66-     Numeric field after adding editing.
  666,666.66     Numeric field with editing.
 -e66,666.66     Removing editing.
  66666666       Numeric field with editing removed.
```

Centering a Field or Constant

Key an A in the position preceding a field or constant followed by a C. This command works slightly differently than it does in SDA. The field or constant is centered in the space available between its nearest neighbors on the line. If there are no other field on the line, the field or constant is simply centered.

The following example illustrates centering:

```
OOOOO       66/66/66 OOOOOOOOOO  Before centering.
OOOOO      ac6/66/66 OOOOOOOOOO  Centering a field.
OOOOO    66/66/66    OOOOOOOOOO  After centering.
```

Additional Features

Extended field definition
Key an asterisk (*) in the position preceding the field to add field level attributes and keywords.

Display field name and length
To review the name of a field on the Work Display, key a question mark (?) in the position preceding the field and press Enter. The field name and length are displayed at the bottom of the screen. To change the field name, key over the displayed name and press Enter.

You can also review/change field names from the Work With Fields display (F4).

When you key a question mark in front of a MSGCON (message constant) field, the message id, message file, and message file library are shown at the bottom of the screen. You can change any of these values by keying over them and pressing Enter. See the *Programming > DDS > DDS for printer files > Keyword entries for printer files (positions 45 through 80) > MSGCON (Message Constant) keyword in printer files* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html for more information on MSGCON fields.

Function keys

From the Design Image (Work) Display you can use various function keys to request additional Report Designer displays and functions. The function keys, the display names, and the functions are:

F1=Help
Provides additional information about using the display or a specific field on the display.

F3=Exit
Ends the current task and returns to the display from which the task was started.

F4=Prompt
Causes the Work with Fields display to appear.

F6=Condition
Causes the Condition Work Screen display to appear.

F7=Tab
Moves the cursor to the attribute position of the next field.

F8=Back Tab
Moves the cursor to the attribute position of the previous field.

F9=Select additional records.
Prompts for additional records to display on the Design Image (Work) Display.

F10=Database
Causes the Select Database Files display appear.

F11=Switch
Switches between selected and unselected database field modes.

F12=Cancel
Cancels this display and returns to the previous display.

F14=Ruler
Places a ruler at the cursor or if the ruler is currently displayed, removes the ruler. Defining fields on the ruler may cause results that cannot be predicted.

F15=Center
Centers the fields of a line on the page.

F17=Print
Prints the contents of the Design Image (Work) Display.

F18=Reverse Image constants
Toggles the reverse imaging of constants on and off. This reverse imaging is temporary and does not affect the compiled image. Use F18 to determine the starting and ending points of the constants. When reverse imaged other attribute such as color do not display for constants.

F19=Left
Windows the display to the left.

F20=Right
Windows the display to the right.

F21=Display additional records
Toggles the display of additional records with the primary record. Use F21 to determine which fields on the display belong to the primary record.

F22=System command
Displays a window in which you can enter IBM i commands.

HOME=Home	Positions cursor to current home position, or positions the Work Display to page 1, line 1, position 1.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Work with Fields Display

The Work with Fields display shows a list of fields in the current record on the Design Image (Work) Display. From the Work with Fields display you can:

- Change the order of fields in the DDS or RPG source.
- Rename fields.
- Delete fields.
- Include/Exclude fields.
- Select field keywords.
- Edit field-level comments.
- Sort the fields into line and position order.
- Switch the display between start and end positions

```
                            Work with Fields

Record . . . :   SYPR030A

Type information, press Enter.
  Number of fields to roll . . . . . . . . . . . . . . . . . .   10

Type options, change values, press Enter.
  1=Select keywords   2=Edit comments   4=Delete   9=Include/Exclude

Option   Order   Field       Type  Length  Page/Line/Pos Ref Condition Overlap
  _        10   *DATE         C        8     1    1   1
  _        20   PSEPGM        A       10     1    1  11  R
  _        30   COUNT REPO    C       12     1    1  36
  _        40   JOB#          C        4     1    1  68
  _        50   P0JOB#        A       10     1    1  73
  _        60   **-DECOLLA    C       15     1    1  86         Y
  _        70   PAGE          C        4     1    1 115         Y
  _        80   *PAGNBR       C        5     1    1 121
  _        90   *TIME         C        8     1    2   1         Y
  _       100   P0RTXT        A       30     1    2  36
                                                                More...
F3=Exit   F6=Sort by line/position   F11=Display end positions  F12=Cancel
```

Option

Type the number of an option and press the Enter key.

1=Select keywords	Use this option to select field keywords for a field. The Field Keywords displays appear for each field in turn.
2=Edit comments	Use this option to edit comments associated with a field. The SEU edit display appears.
4=Delete	Use this option to delete a field.
9=Include/Exclude	Use this option to include a field previously excluded or to exclude a field not previously excluded.

Field Descriptions

Record	The name of the record that contains the fields.

Number of fields to roll	Type a number to indicate the number of entries to roll when paging down or up.
Order	To resequence a field, change the Order number for the field and press Enter. This changes the field location in the DDS or RPG source without affecting the print line/position for the field. **Note:** It is not possible to sequence a field before a field on a previous line or after a field on a subsequent line.
Field	Specifies the field's name. To rename a field, key over the field name and press Enter. Constant fields cannot be renamed.
Type	Specified the type of the field. Field types include C-constant, A-alpha, P-packed numeric, S-zoned numeric, etc.
Length	Specifies the length of the field. For numeric fields, the total number of digits in the field and the number of decimal positions are separated by a comma.
Page/Line/Pos	The relative position of the field within the record is shown.
Ref	An "R" is displayed in the REF column if the field is a referenced field.
Condition	A "Y" is displayed if the field is conditioned by indicators.
Overlap	A "Y" is displayed when the field is overlapped by another field. Overlapped fields are not shown on the Work Display. An "X" is displayed when a field has been excluded from the Work Display. Field exclusion takes precedence over field overlapping.

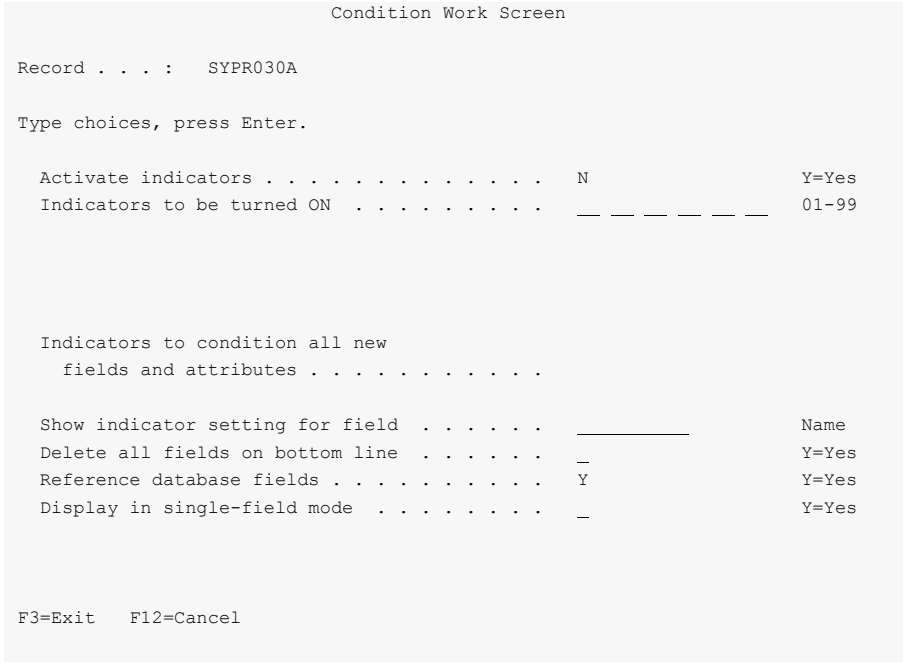
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F6=Sort By line/position	Resequence the fields to appear in order by line and position.
F11=Display start/end positions	Toggles the display from start positions to end positions and back again.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Condition Work Screen Display

From the Condition Work Screen display you can:

- Condition the Work Display with indicators.
- Specify indicators for all new fields and keywords added on the Work Display.
- Display the indicators associated with a particular field.
- Delete all fields from the work display prompt line.
- Indicate whether fields pulled from database files should be reference fields.
- Specify fields on the prompt line display one at a time.



Field Descriptions

Activate indicators — When display conditioning is specified, Report Designer displays only those fields on the Work Display whose conditioning indicators match the Work Display conditioning indicators. Similarly, keywords conditioned by indicators are only in effect when their indicator settings agree with the Work Display conditioning indicator settings. Report Designer always ignores indicator settings for spacing and skipping keywords when positioning fields on the Work Display.

Indicators to be turned on — When "Y" is specified for Activate indicators, the display is conditioned with the indicators listed set on. All other indicators are set off.

Indicators to condition all ... — To condition new fields added to the Work Display, key conditioning indicators. To obtain space for more indicators, key a plus (+) in one of the indicator spaces and press Enter.

Show indicator setting for field — To display the conditioning indicators associated with a field, key the field's name.

Delete all fields on bottom line — To delete all fields from the Work Display prompt line, key "Y".

Reference database fields — If fields selected from database files are reference fields, key a "Y" in the space provided. These fields will reference their definitions from the database field definition. This option is ignored for RPG source.

If the definition for fields selected from database files should be explicit, key "N".

Display in single-field mode — To display fields in the Work Display prompt line singly, key "Y". Otherwise, fields in the prompt line are displayed several across.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Additional Records Display

The Select Additional Records display appears when you press F9 from the Design Image (Work) Display. From the Select Additional Records display you can:

- Select additional report records for display on the Work Display.
- Specify the number of times to repeat an Additional record.
- Specify additional blank lines be displayed after a record.
- Specify the relative position of the current record.

Use this display to select additional records to appear with the current printer record on the Work Display. The current printer record is the printer record selected from the Work with Report Records display.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                    Select Additional Records for Display

File  . . . . . :   RDSOURCE              Member . . . . . :   SYPR400
  Library . . . . :     RDA                 Printer  . . . . . :   *PRTF

Type information, press Enter.
  Current record  . . . . . . . . . . . . . :   SYPR030A
    Blanks  . . . . . . . . . . . . . . . . .   __           00-99
    Position in additional records  . . . . .   __           0-31
Type options, press Enter.
  1,2,3...31=Select for display as additional record

Option   Record       Repeat   Blanks
  __     SYPR030B
  __     SYPR030C
  __     SYPR030D




F3=Exit     F5=Refresh     F12=Cancel
```

Field Descriptions

File
Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member
Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Printer
The name of the printer. For DDS source this contains either ***PRTF** or ***PRTF38**. For RPG source this contains the name of the internally described printer file being edited (for example **QSYSPRT**). IF ***FIRST** was specified as the printer name, the name of the first internally described RPG printer file encountered in the source statements appears. If ***MBRTYPE** was specified, the printer name depends on the member's source type. For DDS source printer is either ***PRTF** or ***PRTF38**. For RPG the name of the first internally described RPG printer file encountered in the source appears.

Current record
The record selected from the Work with Report Records display.

Blanks
The number of blank lines to insert after the current record. Add blanks when you intend to add lines to the record. Unused blanks are dropped when the record is created.

If the current record is the last record on the Work Display, then the value entered for "Blanks" is ignored. All remaining lines in the logical page are available for use by the

record.

Position in additional records When selecting additional records for display with the current record, enter the relative position in which the current record should be displayed. For example, if two additional records are selected, and the current record should display between them, enter 2 for **Position in additional records**. If you do not specify a relative display position, the current record is displayed first.

Option Use **Option** to select up to thirty-one additional records for display with the current printer record. Type the option numbers next to the records you want to select and press Enter. Each additional record has to be selected with a different option number. If more than one record is selected with the same option number, the last one processed is selected. The current record is always selected.

Choose from the following:

1,2,3...31=Select for display as additional record

Type 1, 2, 3, through 31 to select an additional record for display on the Work Display. The option number reflects the order in which the records appear on the Work Display.

Record Specifies the name of the report record.

Repeat The number of times the record should be repeated on the display. Use repeat to give the appearance of repeated detail line printing.

Blanks The number of blank lines to insert after the record.

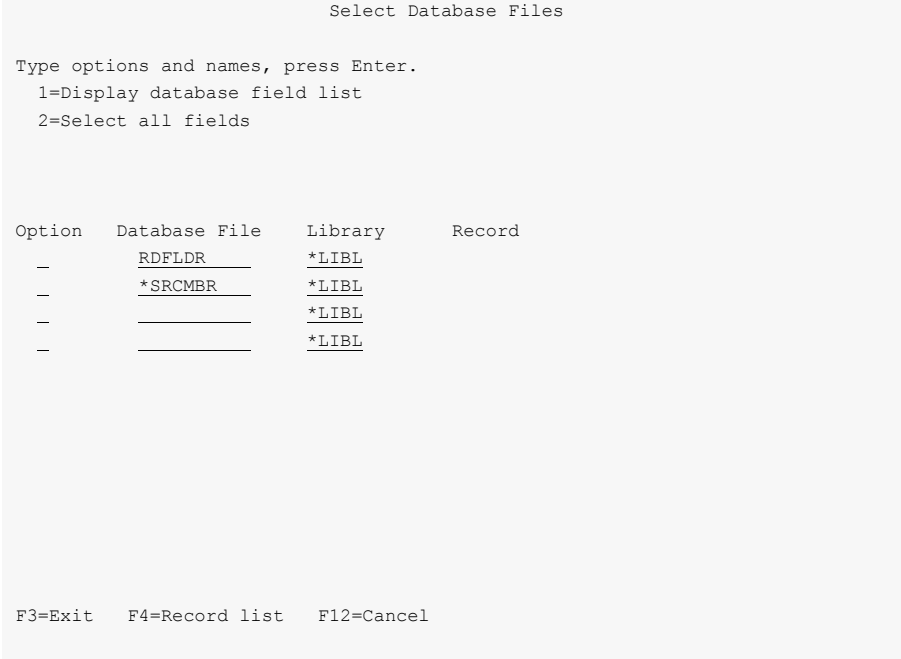
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F5=Refresh	Shows the display again with the most recent information and removes any typed selections.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Database Files Display

The Select Database Files display appears when you press F10 from the Design Image (Work) Display. From the Select Database Files display you can:

- Specify database files to use as reference files.
- Specify the source member as a reference.



Option

Type the number of an option and press the Enter key.

1=Display database field list
2=Select all fields

Field Descriptions

Database File To access a database file as a reference file, key the file's name. To access fields defined within the source member as a reference file, key ***SRCMBR** for file name.

Library Enter the library name of the file to use, let the library default to *LIBL, or enter *CURLIB.

Record Enter the record of the database file to use. Position the cursor in the Record field and press F4 to select from a list of records in the file.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F4=Record list Display a list of records in the database file.

F12=Cancel Cancels this display and returns to the previous display.

Enter Submit information on the display for processing.

Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

Select Database Records Display

The Select Database Records display appears when you prompt for a database record name from the Select Database Files display using F4. From the Select Database Records display you can:

- Select a database file record to use for field referencing.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                          Select Data Base Records

Database file . . . . . :   XXFLDR          Library . . . :   *LIBL

Type options, press Enter.
  1=Select

Option   Record
  _      XXFLDRR









F3=Exit   F12=Cancel
```

Option

Type the number of an option and press the Enter key.

1=Select	Selects the record for use on the Select Database Files display.

Field Descriptions

Record	Specifies the name of the database file's record.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Database Fields Display

The Select Database Fields display appears when you select a database file with a "1" option on the Select Database Files display. From the Select Database Fields display you can:

- Select database fields for further review.
- Select database fields to use as reference fields.
- Search for a field name.

If you see More... on the lower right side of your display, there is more information to view. Press Page Down (Roll Up) to move toward the end of the information. Press Page Up (Roll Down) to move toward the beginning of the information.

If you see Bottom instead of More..., you are at the end of the list.

```
                          Select Database Fields

Record . . . :   XXFLDRR

Type information, press Enter.
  Number of fields to roll  . . . . . . . . . . . . . . . . .   8
  Name of field to search for . . . . . . . . . . . . . . . .

Type options, press Enter.
  1=Display extended field description
  2=Select

Option  Field        Length   Type    Column Heading
  _     NAME            30    A      CUSTOMER NAME
  _     ADDR            30    A      ADDRESS
  _     CITY            23    A      CITY
  _     STATE            2    A      STATE
  _     ZIP              5    A      ZIP CODE
  _     CSTNBR         7,0    P      CUSTOMER NUMBER
  _     PHONE         10,0    P      PHONE NUMBER
  _     PRGM            10    A      PROGRAM NAME
                                                                  More...
F3=Exit   F12=Cancel
```

Option

Type the number of an option and press the Enter key.

1=Display extended field description The Select Extended Database Field display shows further information about the field.

2=Select Selects the field for use as a reference field. Selected fields are displayed on the Design Image (Work) Display field line.

Field Descriptions

Number of fields to roll Type a number to indicate the number of entries to roll when paging down or up.

Name of field to search for To locate a field in the list, key the full name of the field and press F16. If the field exists in the list, the cursor is positioned to the left of the field. Alternatively, key the first letters of the field name, end with an asterisk (*), and press F16. The cursor is positioned to the first field beginning with the letters keyed. Additionally, the wild card character (?) can be used in the search field. All characters match the wild card character.

Field Specifies the field's name.

Length Specifies the length of the field. For numeric fields, the total number of digits in the field and the number of decimal positions are separated by a comma.

Type Specified the type of the field. Field types include C-constant, A-alpha, P-packed numeric, S-zoned numeric, etc.

Column heading Specifies the column headings associated with the field.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F12=Cancel Cancels this display and returns to the previous display.

F16=Search for field Search for the named field.

Enter Submit information on the display for processing.

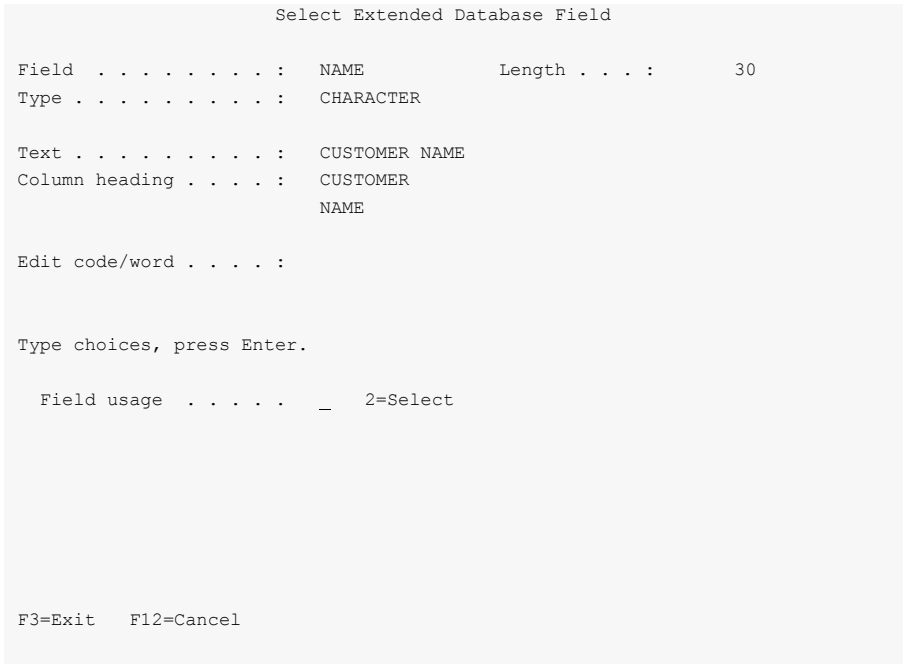
Help Provides additional information about using the display or a specific field on the display.

Print Prints information currently shown on the display.

Select Extended Database Field Display

The Select Extended Database Field display shows additional information for a field when you select option 1 from the Select Database Field display. From the display you can:

- Select the database field to use as reference field.



Field Descriptions

Field	Specifies the field's name.
Length	Specifies the length of the field. For numeric fields, the total number of digits in the field and the number of decimal positions are separated by a comma.
Type	The type for the field is displayed.
TEXT keyword	Specifies the description associated with the field.
Column heading	Specifies the column headings associated with the field.
Edit code/word	The Edit Code or Edit Word associated with the field is displayed.
Field usage	Key a "2" to select the field for use as a reference field. Leave this space blank if you do not want to select the field. Fields selected will be displayed on the Work Display field line.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 9 Field Keywords Displays

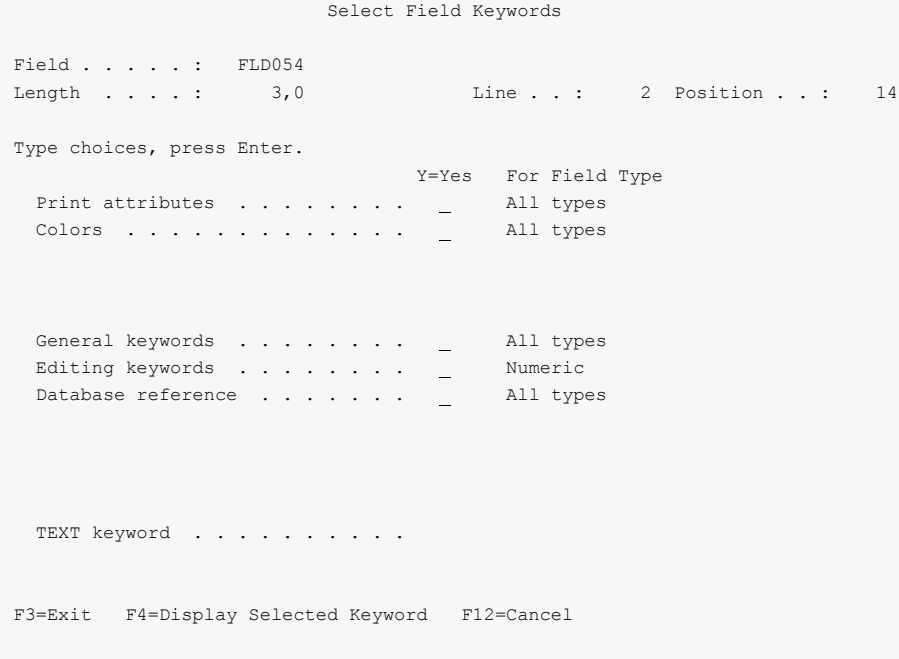
What's In This Chapter

This chapter describes the Field Keywords displays. The Field Keywords displays are accessed using option 1 from the Work with Fields display, or by keying an "*" in front of a field on the Design Image (Work) Display.

Select Field Keywords Display

From the Select Field Keywords display you can:

- Select field-level keywords for review or update.
- Change the text associated with the field.
- Display selected field-level keywords.



Field Descriptions

Field Specifies the field's name.

Length Specifies the length of the field. For numeric fields, the total number of digits in the field and the number of decimal positions are separated by a comma.

Line Specifies the line number on which the field is locate relative to the beginning of the record.

Position Specifies the position of the field within the line.

Keyword Group Choices To select categories of keywords to review or update, key a "Y" in the column following the category description, and press Enter.

TEXT keyword Specifies the description associated with the field.

Function keys

F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit Ends the current task and returns to the display from which the task was started.

F4=Display Selected Keywords Causes the Display Selected Keywords window to appear.

F12=Cancel Cancels this display and returns to the previous display.

Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Print Attributes Display

From the Select Print Attributes display you can:

- Change the indicators that condition printing of the field.
- Specify the field is highlighted.
- Specify the field is underlined.
- Indicate that data in the field should be folded at a blank.
- Indicate that a floating point field is printed as decimal.
- Change the Characters Per Inch (CPI) keyword value.
- Change the Printer Font (FONT) keyword values.
- Change the Print Quality (PRTQLTY) keyword value.
- Change the Character Size (CHRSIZ) keyword value.
- Indicate the field is printed in barcode format.

```
                          Select Print Attributes

Field . . . . . :   FLD054
Length  . . . . :      3,0              Line . . :     2  Position . . :    14

Type choices, press Enter.

                                    Keyword                   Indicators/+
  Field conditioning . . . . . .
  Field highlighting . . . . . .    HIGHLIGHT    _   Y=Yes
  Field underlining  . . . . . .    UNDERLINE    _   Y=Yes
  Records folded at blank  . . .    BLKFOLD      _   Y=Yes
  Float to fixed decimal . . . .    FLTFIXDEC    _   Y=Yes
  Characters per inch  . . . . .    CPI          __  10, 15
  Font ID (number or name) . . .    FONT
    Point size   . . . . . .                     ____  ____  0.1 - 999.9
  Print quality  . . . . . .        PRTQLTY
  Character size . . . . . .        CHRSIZ       ____  ____  1.0 - 20.0
  Barcode id . . . . . .            BARCODE
    Parameters . . . . . .


F3=Exit   F12=Cancel
```

Field Descriptions

Field conditioning
By conditioning a field with indicators, you can control whether the field is printed. Key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

Field highlighting (HIGHLIGHT)
Key a "Y" for the HIGHLIGHT keyword to cause the field to print in bold face. This option is not valid with RPG source. To condition this keyword, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

Field underlining (UNDERLINE)
Key a "Y" for the UNDERLINE keyword to cause the field to print underlined. This option is not valid with RPG source. To condition this keyword, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

Records folded at blank (FOLD)	Key a "Y" for the BLKFOLD to indicate that the field should be folded at a blank if it overflows to another line. BLKFOLD has no effect unless you specify *YES for the FOLD parameter on the CRTPRTF, CHGPRTF, or OVRPRTF commands. This option is not valid for RPG source.
Float to fixed decimal (FLTFIXDEC)	Key "Y" for the FLTFIXDEC keyword to indicate that a floating point field should be printed in fixed decimal format. This option is only valid with floating point fields.
Characters per inch (CPI)	With the CPI keyword you specify the horizontal print density of characters in the field. Not valid with RPG source. To condition this keyword, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.
Font ID (FONT)	With the FONT keyword, you control the style and appearance of characters printed. Specify either a numeric font id or a graphic font name. If supported specify a point size. Not valid with RPG source. To condition this keyword, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.
Print quality (PRTQLTY)	The PRTQLTY keyword allows you to vary the print quality of the field. Valid values are *STD (standard), *DRAFT (draft quality) and *NLQ (near letter quality). Not valid with RPG source.
Character size (CHRSIZ)	The CHRSIZ keyword allows you to specify the height and width of characters printed in the field. Not valid with RPG source.
Barcode ID (BARCODE)	To print a field in barcode format, enter a barcode-id and associated parameters in the space provided. The parameters are not edited and errors will be caught by the CRTPRTF command during compilation. Not valid with RPG source. Additional barcode information can be found in the *Programming > DDS > DDS for printer files* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Colors Display

From the Select Colors display you can:

- Assign colors to the field.

```
                              Select Colors

Field . . . . . :   FLD054
Length  . . . . :      3,0              Line . . :     2  Position . . :    14

Type choices, press Enter.

,                                      Keyword   Order   Indicators/+
,                                                (1-8)
  Colors:                              COLOR
    Black  . . . . . . . . . . . . . . (K) BLK
    Blue . . . . . . . . . . . . . . . (B) BLU
    Brown  . . . . . . . . . . . . . . (N) BRN
    Green  . . . . . . . . . . . . . . (G) GRN
    Pink . . . . . . . . . . . . . . . (P) PNK
    Red  . . . . . . . . . . . . . . . (R) RED
    Turquoise  . . . . . . . . . . . . (T) TRQ
    Yellow . . . . . . . . . . . . . . (Y) YLW



F3=Exit   F12=Cancel
```

Field Descriptions

Order To assign a color to the field, enter a value from 1 to 8 for the sequence number associated with the desired color. You can assign more than one color to the field but only one will be in effect at print time.

When more than one color is specified for a field, the color used at print time is determined by indicator settings and the order of color specifications. At print time, some color specifications may be excluded by indicator settings. Of the specifications that are selected, the color specified first (lowest sequence number) will be the one used. Not valid with RPG source.

Indicator/+ To condition a color specification, key the desired indicators in the spaces provided. Key a plus (+) in any indicator field to obtain more space for indicators.

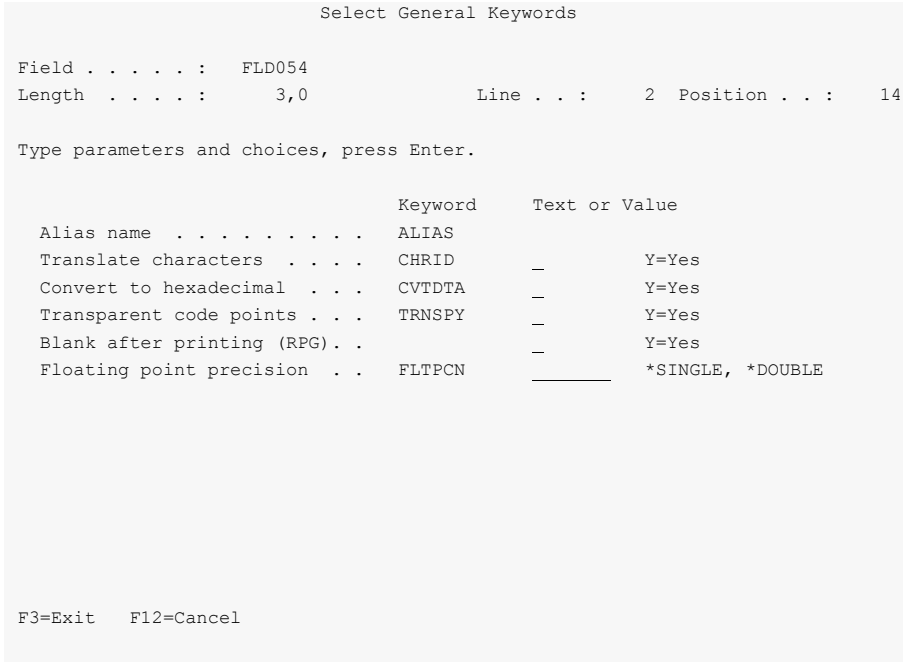
Function keys

F1=Help Provides additional information about using the display or a specific field on the display.
F3=Exit Ends the current task and returns to the display from which the task was started.
F12=Cancel Cancels this display and returns to the previous display.
Enter Submit information on the display for processing.
Help Provides additional information about using the display or a specific field on the display.
Print Prints information currently shown on the display.

Select General Keywords Display

From the Select General Keywords display you can:

- Associate an alias name with the field.
- Associate an alternate graphics character set with the field.
- Indicate character data is interpreted as hexadecimal.
- Insure the printer does not interpret the field as control characters.
- Indicate an RPG field is blanked after printing,
- Specify the precision for a floating point field.



Field Descriptions

Alias Name (ALIAS) To associate an alternate name with the field, key the alias name in the field provided. Some high-level language compilers will bring the alias name into the program instead of the DDS name. See the specific compiler reference manual for more information. Not valid with RPG source.

Translate characters (CHRID) Specify "Y" for CHRID to indicate that a graphics character set other than the device default can be used for this field. Not valid for numeric fields. Not valid for RPG source.

Convert to hexadecimal (CVTDTA) Key a "Y" for the CVTDTA keyword to interpret the field's data as hexadecimal characters. When you specify "Y" for CVTDTA, your field must contain only valid hex characters--0 through 9, and A through F. Each two characters of data in the field are sent to the printer as a single character hex equivalent. Not supported by all printers. Not valid with RPG source.

Transparent code points (TRNSPY) Specify "Y" for the TRNSPY keyword to indicate that hexadecimal data in the field should not be interpreted as control characters by the printer. Not supported by all printers. Not valid with RPG source.

Blank after printing Key "Y" to indicate the field is set to blank/zero after printing. Valid only for RPG source.

Floating point precision (FLTPCN) Use the FLTPCN keyword to indicate double or single precision for a floating point field when printed. The default is *SINGLE. Only valid with floating point fields. Not valid with RPG source.

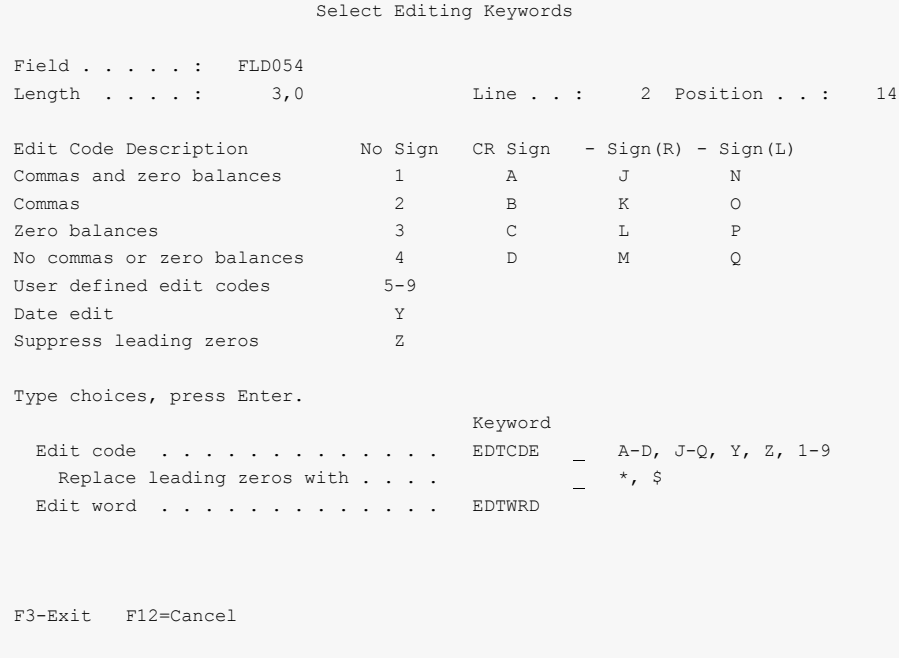
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Select Editing Keywords Display

From the Select Editing Keywords display you can:

- Edit a numeric field with a predefined edit code.
- Edit a numeric field with a customized edit word.



Field Descriptions

Edit Code (EDTCDE) To edit a field with a predefined edit code, key the edit code character (A-D, J-M, Y, Z, 1-9) in the space provided. Each edit code has different features. The features are summarized in the table that appears on the screen. The table groups the edit codes into columns by the way they display negative numbers. The edit code description applies to all edit codes in that row.

When you specify an edit code, you can also specify that leading zeros in the field be replaced with asterisks (*). To do so, key an "*" in the space provided. To cause the currency symbol to print immediately to the left of the first non-zero digit, key a "$" in the space provided for floating currency symbol.

Edit codes and edit words are mutually exclusive.

Edit Word (EDTWRD) You can define an edit word to edit a numeric field in a customized fashion. Key your edit word in the space provided, enclosed in single quotes ('). See the *Programming > DDS > DDS for printer files > Keyword entries for printer files (positions 45 through 80) > EDTWRD* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html for more information on the rules for specifying edit words for DDS. See the *Programming > Programming languages > RPG > ILE RPG Language Reference > Definitions > Chapter 10. Editing Numeric Fields > Edit Words* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html for more information on the rules for specifying edit words for RPG.

For RPG you can specify the name of a constant field that contains an edit word.

Edit words and edit codes are mutually exclusive.

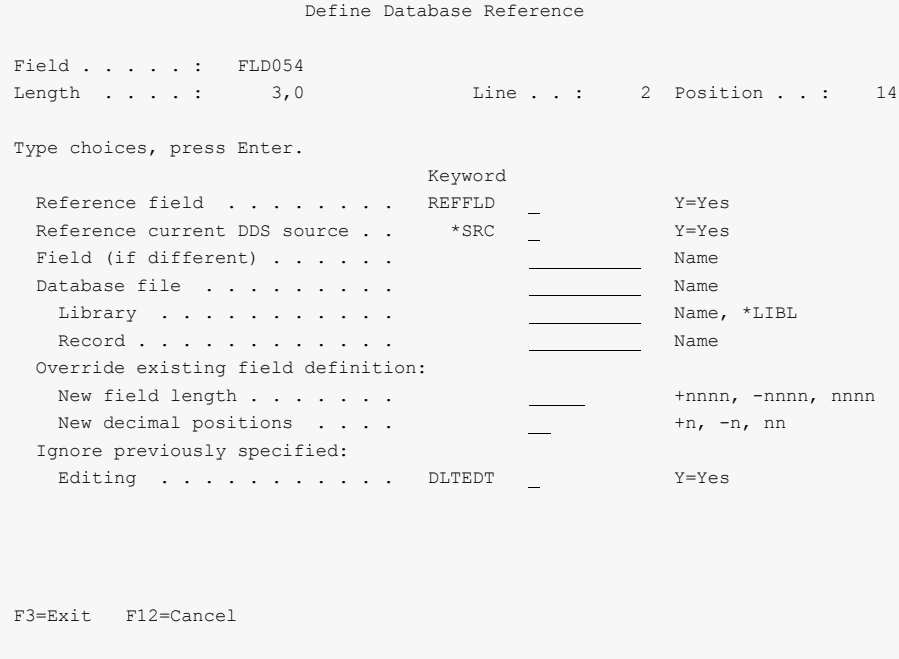
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Define Database Reference Display

From the Define Database Reference display you can:

- Indicate the field is referenced from a database field, or another field in the same source member.
- Override reference attributes and tailor the field definition.



```
                        Define Database Reference

Field . . . . . :   FLD054
Length  . . . . :      3,0              Line . . :     2  Position . . :    14

Type choices, press Enter.
                                    Keyword
  Reference field  . . . . . . . .  REFFLD   _            Y=Yes
  Reference current DDS source . .    *SRC   _            Y=Yes
  Field (if different) . . . . . .           __________   Name
  Database file  . . . . . . . . .           __________   Name
    Library  . . . . . . . . . . .           __________   Name, *LIBL
    Record . . . . . . . . . . . .           __________   Name
  Override existing field definition:
    New field length . . . . . .             _____        +nnnn, -nnnn, nnnn
    New decimal positions  . . . .           __           +n, -n, nn
  Ignore previously specified:
    Editing  . . . . . . . . . . .  DLTEDT   _            Y=Yes




F3=Exit   F12=Cancel
```

Field Descriptions

Reference field (REFFLD)
To base the definition of the current field on another field, key a "Y" to indicate that this is a reference field. Field referencing is not valid with RPG source.

Reference current source (*SRC)
To reference another field in the same source member, key a "Y" in the *SRC field.

Field
Specifies the name of the field referenced. If the name is left blank the name of the referencing field is used.

Database file
Specifies the name of the file, library, and record that contain the field to reference.

Override existing field definition
To override the referenced length of the field, key a new length in the space provided. You can also key a relative increment to the referenced field length by keying a plus (+) or minus (-) sign, followed by the increment amount.

To override the referenced decimal positions of the field, key a new value for decimal positions in the space provided. You can also key a relative increment to the referenced field decimal positions by keying a plus (+) or minus (-) sign, followed by the increment amount.

Ignore previously specified editing
Key a "Y" for DLTEDT if the referenced field's editing does not apply to the current field.

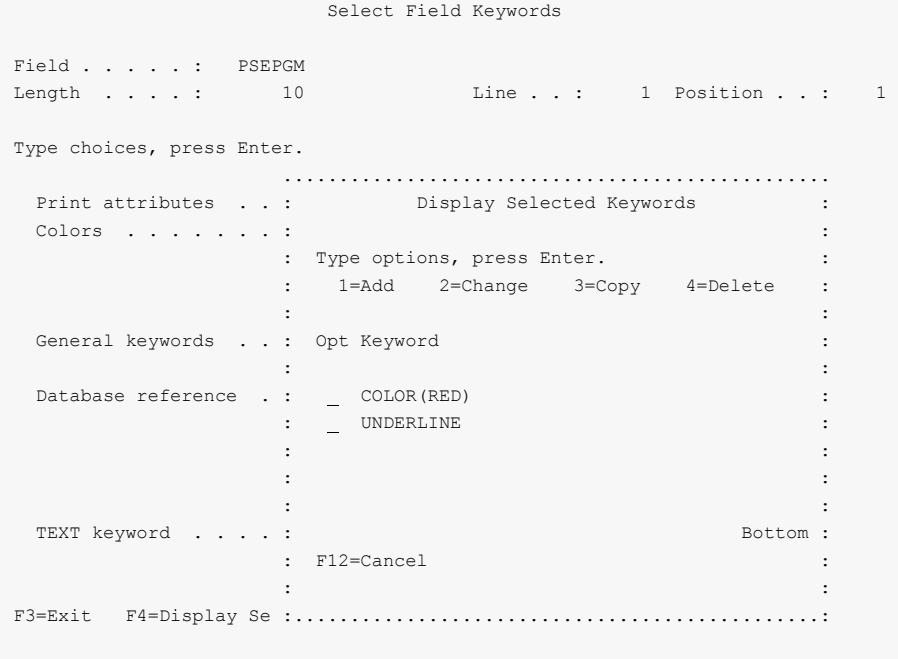
Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Display Selected Keywords Window

The Display Selected Keywords window shows a list of currently selected keywords in DDS source code form. From the Display Selected Keywords window you can:

- Add keywords not supported on other displays.
- Change keywords not supported on other displays.
- Copy keywords not supported on other displays.
- Delete keywords not supported on other displays.



Option

Type the number of an option and press the Enter key.

1=Add	Use this option to add a new keyword. Only keywords that cannot be added from other screens are allowed.
2=Change	Use this option to change a keyword. Only keywords that are inaccessible from other screens can be changed.
3=Copy	Use this option to copy a keyword. Only keywords that are inaccessible from other screens can be copied.
4=Delete	Use this option to delete a keyword. Only keywords that are inaccessible from other screens can be deleted.

Field Descriptions

Keyword	The keyword and associated parameter values. **Note:** The associated parameters end in an ellipsis (...) when they do not all fit.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 10 Save And Create Displays

What's In This Chapter

This chapter describes how to save updated source and how to create objects from it using Save And Create Displays. Report Designer displays one of two screens when you exit the Work with Report Records display. If you are editing a DDS source member, the Save DDS - Create Printer File display appears. If you are editing an RPG source member, the Save RPG Source - Create Program display appears.

Save DDS - Create Printer File Display

The Save DDS - Create Printer File display appears on exiting the Work with Report Records display. From the Save DDS - Create Printer File display you can:

- Save the modified DDS source.
- Create a printer file from the DDS source.

```
                      Save DDS - Create Printer File

Type choices, press Enter.

  Save DDS source  . . . . . .   Y            Y=Yes
    Source file  . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . .   RDA          Name, *LIBL ...
    Member . . . . . . . . . .   DDSEXAMPLE   F4 for list
    Text . . . . . . . . . . .   DDS Example


  Create printer file  . . . . . .   Y            Y=Yes
    Prompt for parameters  . . . . .   _            Y=Yes
    Printer file . . . . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . . . .   QTEMP        Name, *CURLIB
    Replace existing file  . . . . .   Y            Y=Yes

  Submit create job to batch . . . . . .   Y            Y=Yes

  Specify additional
    save or create options . . . . . .   _            Y=Yes

F3=Exit   F4=Prompt   F12=Cancel
Member DDSEXAMPLE already exists in file RDSOURCE. Press Enter to replace.
```

Field Descriptions

Save DDS source — Enter a "Y" to save the modified source.

File — Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Member — Specifies the name of the member containing the source to be updated or the name of a new member to be created.

Text — Specifies a description of the source member.

Create printer file — Enter a "Y" to create a printer file from the modified DDS source.

Prompt for parameters — Enter a "Y" to specify other parameters on the Create Printer File (CRTPRTF) command.

Printer file — Specifies the name and library of the printer file to create.

Replace existing file — Enter a "Y" if the created printer file is to replace an existing file by the same name.

Submit create job to batch Enter a "Y" to execute printer file creation in batch.
Specify additional save or create options. Enter a "Y" to view and change more options.

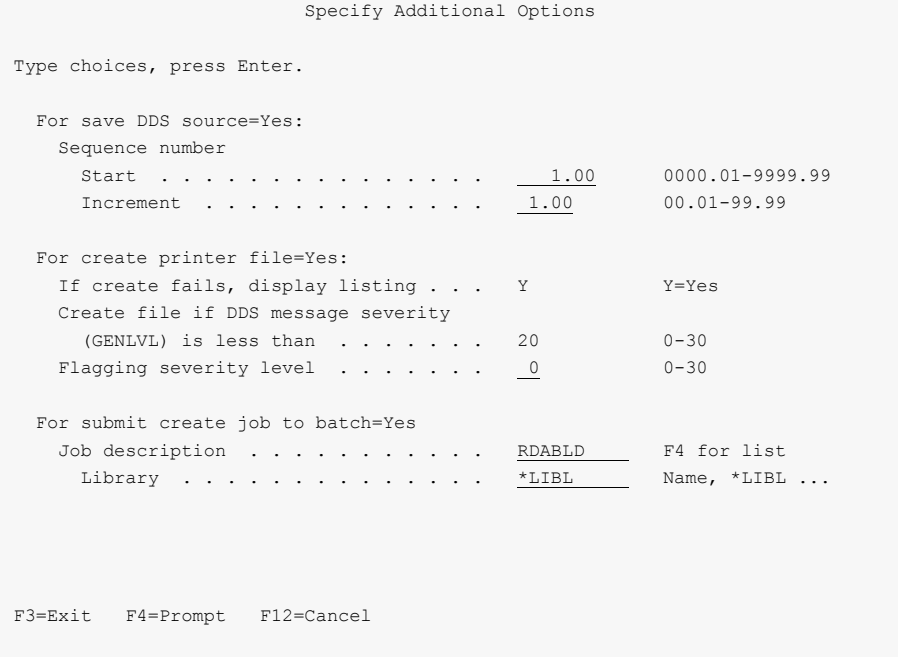
Function keys

F1=Help Provides additional information about using the display or a specific field on the display.
F3=Exit Ends the current task and returns to the display from which the task was started.
F4=Prompt Provides assistance in typing additional parameter values for an option or in using a command.
F12=Cancel Cancels this display and returns to the previous display.
Enter Submit information on the display for processing.
Help Provides additional information about using the display or a specific field on the display.
Print Prints information currently shown on the display.

Specify Additional Options

The Specify Additional Options display appears when additional options are requested from the Save DDS - Create Printer File display. From the Specify Additional Options display you can:

- Specify how to add sequence numbers to the updated source.
- Specify that a listing should display if the create fails.
- Specify the maximum message severity and flagging level on the create.
- Specify a job description to be used for batch creates.



Field Descriptions

Sequence Number Specifies the starting number and an increment amount used to generate source statement sequence numbers.
If create fails, display listing Specify "Y" to view the create listing on the screen in the event that the compile fails. This is only valid for interactive compiles.
Create file if DDS message ... Specifies the maximum message severity allowed in the source before the create fails.
Flagging severity level Specifies the minimum severity level of messages to be listed.
Job Description Specifies the job description used to submit the create to batch.

Function keys

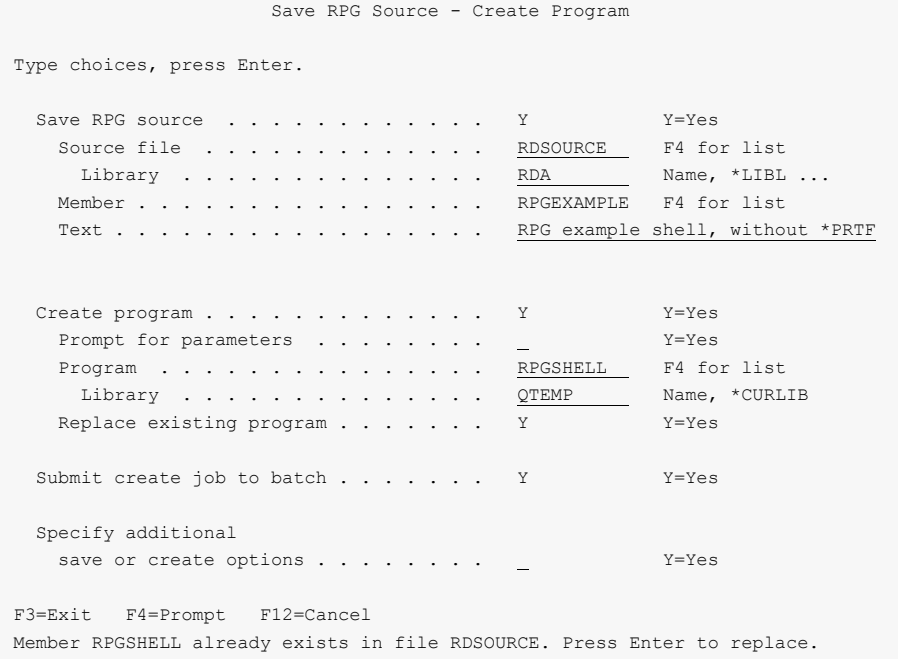
F1=Help Provides additional information about using the display or a specific field on the display.

F3=Exit	Ends the current task and returns to the display from which the task was started.
F4=Prompt	Provides assistance in typing additional parameter values for an option or in using a command.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Save RPG Source - Create Program Display

The Save RPG Source - Create Program display appears on exiting the Work with Report Records display. From the Save RPG Source - Create Program display you can:

- Save the modified RPG source.
- Create a program from the RPG source.



Field Descriptions

Save RPG source	Enter a "Y" to save the modified source.
File	Specifies the name of the file containing the source member to be updated or to which a new source member will be added.
Member	Specifies the name of the member containing the source to be updated or the name of a new member to be created.
Text	Specifies a description of the source member.
Create program	Enter a "Y" to create a program from the modified RPG source.
Prompt for parameters	Enter a "Y" to specify other parameters on the Create RPG Program (CRTRPGPGM) command.
Program	Specifies the name and library of the program to create.
Replace existing program	Enter a "Y" if the created program is to replace an existing program by the same name.
Submit create job to batch	Enter a "Y" to execute program creation in batch.
Specify additional save or create options.	Enter a "Y" to view and change more options.

Function keys

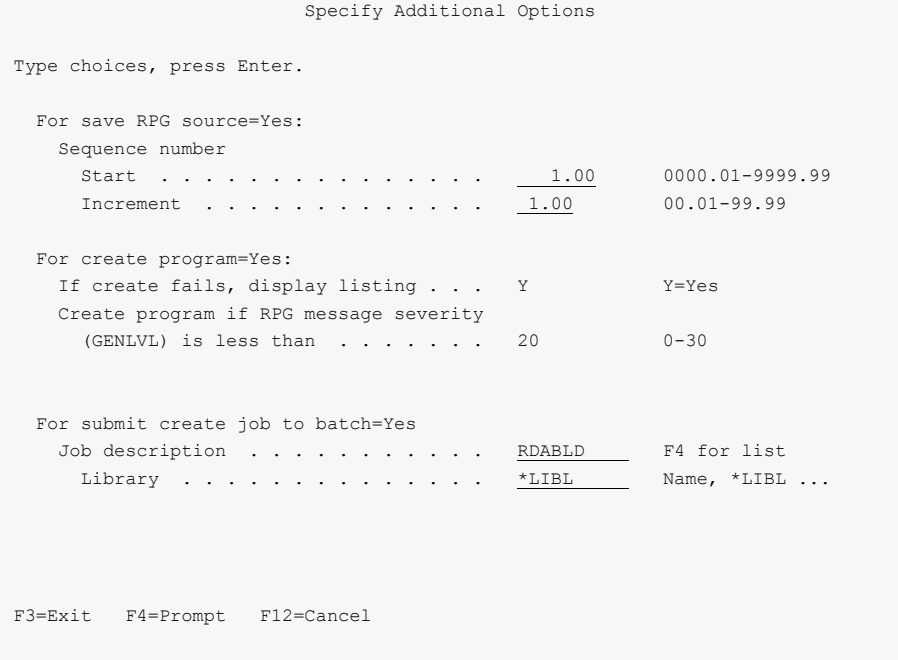
F1=Help	Provides additional information about using the display or a specific field on the display.

F3=Exit	Ends the current task and returns to the display from which the task was started.
F4=Prompt	Provides assistance in typing additional parameter values for an option or in using a command.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Specify Additional Options

The Specify Additional Options display appears when additional options are requested from the Save RPG Source - Create Program display. From the Specify Additional Options display you can:

- Specify how to add sequence numbers to the updated source.
- Specify that a listing should display if the create fails.
- Specify the maximum message severity on the create.
- Specify a job description to be used for batch creates.



Field Descriptions

Sequence Number	Specifies the starting number and an increment amount used to generate source statement sequence numbers.
If create fails, display listing	Specify "Y" to view the create listing on the screen in the event that the compile fails. This is only valid for interactive compiles.
Create program if RPG message ...	Specifies the maximum message severity allowed in the source before the create fails.
Job Description	Specifies the job description used to submit the create to batch.

Function keys

F1=Help	Provides additional information about using the display or a specific field on the display.
F3=Exit	Ends the current task and returns to the display from which the task was started.
F4=Prompt	Provides assistance in typing additional parameter values for an option or in using a command.
F12=Cancel	Cancels this display and returns to the previous display.
Enter	Submit information on the display for processing.
Help	Provides additional information about using the display or a specific field on the display.
Print	Prints information currently shown on the display.

Chapter 11 DDS Example

What's In This Chapter

This chapter takes you through the steps required to design and create a simple report using external printer file DDS.

Detailed descriptions of the Report Designer displays shown in this example, and those not covered, appear in other chapters.

Keying In The Example

To key in this example, your library list must include RDA, and you must be authorized to the source files.

- Selecting Field Descriptions

  A database file is supplied with Report Designer. You will select field descriptions from this file to design your report records.

- Removing a Previously Entered Example

  If the example has been entered previously, the member created must be removed from the DDS source file or be given a different name. To remove a member, use the RMVM command or option 4 from PDM. To rename a member, use the RNMM command or option 7 from PDM.

- Exiting From The Example

  If you do not want to complete the example, or if you make an error and wish to start over, exit from Report Designer by repeatedly pressing F3.

Begin the example here:

- At a command line enter the following:

```
ADDLIBLE RDA.  Press Enter.
STRRDA.  Press F4.
```

  The Start Report Designer prompt is displayed.

```
                        Start Report Designer (STRRDA)

Type choices, press Enter.

Source file  . . . . . .   RDSOURCE     Name, *PRV
  Library  . . . . . .       RDA        Name, *PRV, *LIBL, *CURLIB
Source member  . . . . . .   *SELECT     Name, *PRV, *SELECT
*PRTF or RPG printer file  . . .   *MBRTYPE     Name, *PRV, *MBRTYPE...
Object library . . . . . .   QTEMP       Name, *PRV, *CURLIB
Job description  . . . . . .   RDA        Name, *PRV, *USRPRF
  Library  . . . . . .       RDA        Name, *PRV, *LIBL, *CURLIB

                                                                      Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

- Fill in the prompt screen as shown above, and press Enter. The Design Reports display appears.

```
                              Design Reports

Type choices, press Enter.

  Source file . . . . . .   RDSOURCE     Name, F4 for list

    Library . . . . . .     RDA          Name, *LIBL, *CURLIB

  Member  . . . . . .       ___________  Name, F4 for list

  *PRTF or RPG printer file . .   *MBRTYPE     Name, *MBRTYPE, *PRTF, *FIRST

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

- Position the cursor to the Member field and press F4. The Work with Members display appears.

```
                  Work With Members Using Report Designer

Type information, press Enter.
  Position to . . . . . .
  Subset by type  . . . . . .
  Source file . . . . . .   RDSOURCE      Library . . . . . .   RDA
  New member  . . . . . .   DDSEXAMPLE     Type  . . . . . .   PRTF
    Text  . . . . . .       DDS Example

Type options, press Enter.
  1=Select   4=Delete   5=Display

Opt Member      Type        Text
 _  CSTMST      PF          Sample Customer Master File
 _  RPGSHELL    RPG         RPG example shell, without *PRTF
 _  SYPR030     PRTF38      Standard format count report
 _  SYPR400     PRTF        Standard format count report
 _  XXFLDR      PF          Sample field reference file




                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
```

- Enter the name "DDSEXAMPLE" for "New member". Enter "DDS Example" for "Text". Press Enter twice. The Work with Report Records display is shown next.

```
                          Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   DDSEXAMPLE
  Library . . . . :     RDA                 Printer  . . . . . :   *PRTF

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text
1          DETAIL









F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
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```

- Enter "1" for Option and "DETAIL" for Record. Press Enter. The blank Work Display appears.

```
Report Designer Work Display for DETAIL:  Press HELP for function keys.
```

- With the cursor in the upper left-hand corner of the screen, press F14 to display the ruler.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
  2
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
```

- Press F10 to access the Database File display.

```
                          Select Database Files

Type options and names, press Enter.
  1=Display database field list
  2=Select all fields



Option   Database File    Library      Record
  1        XXFLDR         RDA
  _        __________     *LIBL
  _        __________     *LIBL
  _        __________     *LIBL









F3=Exit   F4=Record list   F12=Cancel
```

- Enter a "1" for "Option". Enter "XXFLDR" for Database File. Enter "RDA" for Library. Position the cursor to the Record column and press F4. The Database Records display appears.

```
                          Select Data Base Records

Database file . . . . . :   XXFLDR          Library . . . :   RDA

Type options, press Enter.
  1=Select

Option   Record
  1      XXFLDRR









F3=Exit   F12=Cancel
```

- Enter a "1" beside XXFLDRR, and press Enter. The Database Fields display appears.

```
                          Select Database Fields

Record . . . :   XXFLDRR

Type information, press Enter.
  Number of fields to roll  . . . . . . . . . . . . . . . . .   8
  Name of field to search for . . . . . . . . . . . . . . . .

Type options, press Enter.
  1=Display extended field description
  2=Select

Option  Field        Length   Type    Column Heading
  2     NAME            30    A      CUSTOMER NAME
  2     ADDR            30    A      ADDRESS
  2     CITY            23    A      CITY
  2     STATE            2    A      STATE
  2     ZIP              5    A      ZIP CODE
  2     CSTNBR         7,0    P      CUSTOMER NUMBER
  2     PHONE         10,0    P      PHONE NUMBER
  _     PRGM            10    A      PROGRAM NAME
                                                                  More...
F3=Exit   F12=Cancel
```

- Enter a "2" beside the fields NAME, ADDR, CITY, STATE, ZIP, CSTNBR, and PHONE. Press Enter to select the fields and return to the Select Database Files display. Press F12 to return to the Work Display. The selected fields are displayed at the bottom of the Work Display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
  2
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:NAME 2:ADDR 3:CITY 4:STATE 5:ZIP 6:CSTNBR 7:PHONE
```

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
&12
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:NAME 2:ADDR 3:CITY 4:STATE 5:ZIP 6:CSTNBR 7:PHONE
```

- Key &1 at line 2 position 2 of the Work Display, and press Enter. The customer name field is added to the display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:ADDR 2:CITY 3:STATE 4:ZIP 5:CSTNBR 6:PHONE
```

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   &1
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:ADDR 2:CITY 3:STATE 4:ZIP 5:CSTNBR 6:PHONE
```

- Key &1 at line 2 position 35 of the Work Display, and press Enter to add address to the display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

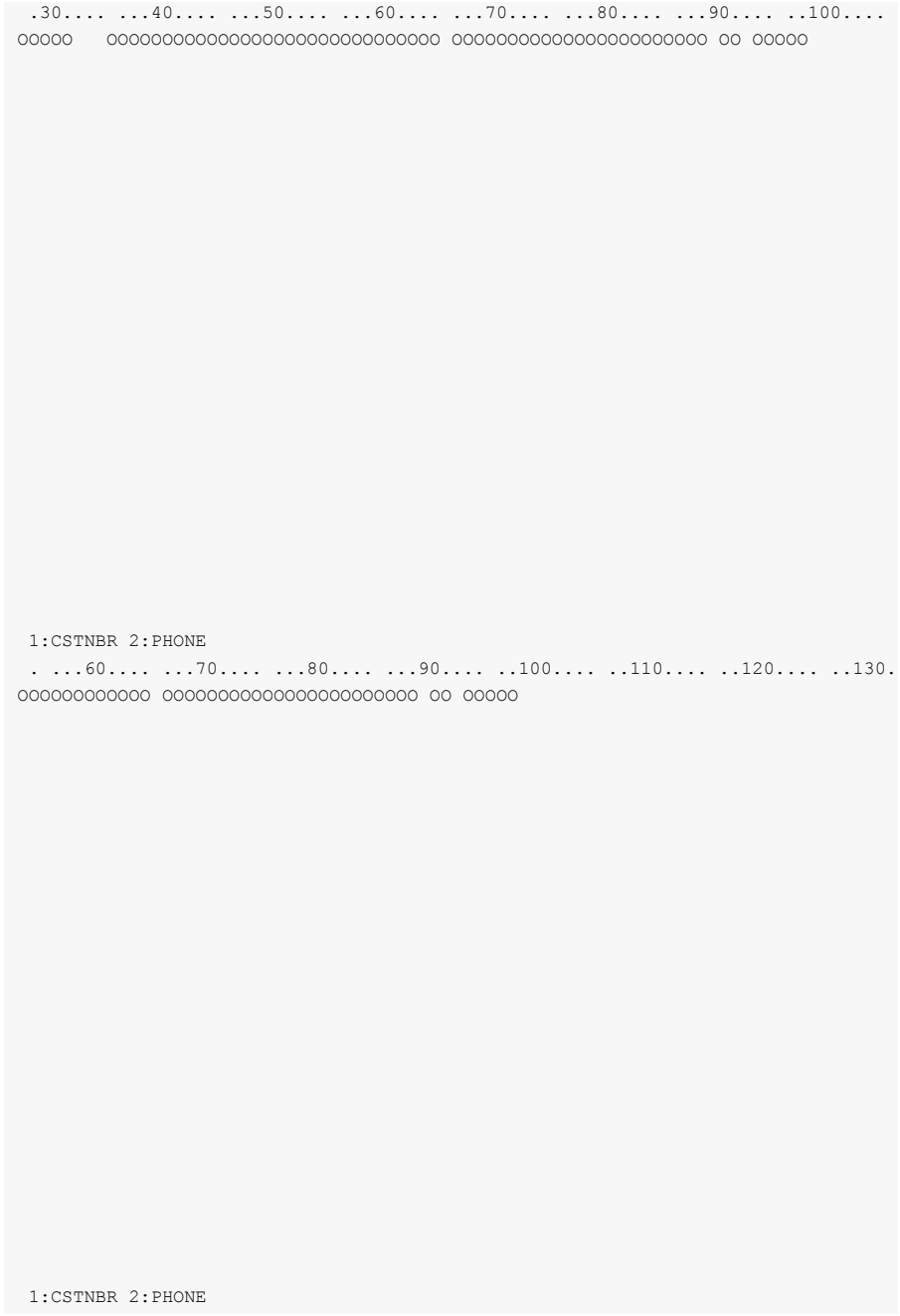
```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO




 1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

- Press F20 to window the display to the right.

```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO &1                     &2 &3




 1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

- Key &1 at line 2 position 66, &2 at line 2 position 90, and &3 at line 2 position 93. Press Enter to add the city, state, and zip fields to the display.

```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO
```



```
 1:CSTNBR 2:PHONE
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO
```



```
 1:CSTNBR 2:PHONE
```

- Press F20 again to window the display to the right.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO  &2




 1:CSTNBR 2:PHONE
```

- Key &2 at line 2 position 100 of the Work Display, and press Enter to add the phone number to the display. Notice the phone number is displayed in edited format.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666




 1:PHONE
```

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      &1




 1:PHONE
```

- Key &1 at line 2 position 118 of the Work Display, and press Enter to add the customer number to the display.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666     *6666666
```

- Key an asterisk (*) in front of the customer number and press Enter to see the Field Keywords displays for customer number.

```
                          Select Field Keywords

Field . . . . . :   CSTNBR
Length  . . . . :      7,0              Line . . :     2  Position . . :   118

Type choices, press Enter.
                                   Y=Yes   For Field Type
  Print attributes  . . . . . .  .   _     All types
  Colors  . . . . . . . . . . . .   _     All types



  General keywords  . . . . . .  .   _     All types
  Editing keywords  . . . . . .  .   Y     Numeric
  Database reference  . . . . . .   _     All types




  TEXT keyword  . . . . . . . . . .   CUSTOMER NUMBER


F3=Exit   F4=Display Selected Keyword   F12=Cancel
```

- Key a "Y" for Editing keywords and press Enter.

```
                        Select Editing Keywords

Field . . . . . :   CSTNBR
Length  . . . . :      7,0              Line . . :     2  Position . . :   118

Edit Code Description          No Sign   CR Sign   - Sign(R) - Sign(L)
Commas and zero balances          1         A         J         N
Commas                            2         B         K         O
Zero balances                     3         C         L         P
No commas or zero balances        4         D         M         Q
User defined edit codes          5-9
Date edit                         Y
Suppress leading zeros            Z

Type choices, press Enter.
                                            Keyword
  Edit code  . . . . . . . . . . . . .   EDTCDE   3   A-D, J-Q, Y, Z, 1-9
    Replace leading zeros with . . . .             _   *, $
  Edit word  . . . . . . . . . . . . .   EDTWRD



F3-Exit   F12=Cancel
```

- Enter 3 for edit code, and press F12 twice to return to the Work Display. This will cause the customer number to print in edited format.

```
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOOO
```

- Press F14 to remove the ruler from the Work Display. Press Home to position the display to line 1 column 1.

- Move all of the fields up 1 line by keying the following information. Do not press Enter until all of the information has been entered. Key an equal sign in line 1 column 2 to mark the target for the move block. Key a minus sign in line 2 column 1 to mark the beginning of the move block. Press F20 twice to window to the far right of the display.

- Key a minus sign to the right of the last field to mark the end of the move block. Now press Enter. All fields are moved up 1 line and over 1 position to the right.

```
  OOOOOOOOOOOO OOOOOOOOOOOOOO OOOOOOOOO OO OOOOO  666-666-6666     6666666
```

- Press F12 to return to the Work with Report Records display.

```
                        Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   DDSEXAMPLE
  Library . . . . :     RDA                 Printer  . . . . . :   *PRTF

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text
1          HEADER
__   ___10  DETAIL___  16/03/30

F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
```

- Enter "1" for Opt and "HEADER" for Record as shown. Press Enter.

```
Report Designer Work Display for HEADER:  Press HELP for function keys.
```

- The blank Work Display appears for report record HEADER. Press F9 to select additional records to display along with the HEADER record.

```
                    Select Additional Records for Display

File  . . . . . :   RDSOURCE              Member . . . . . :   DDSEXAMPLE
  Library . . . . :     RDA                 Printer  . . . . . :   *PRTF

Type information, press Enter.
  Current record  . . . . . . . . . . . . . :   HEADER
    Blanks  . . . . . . . . . . . . . . . . .   5_           00-99
    Position in additional records  . . . . .   __           0-31
Type options, press Enter.
  1,2,3...31=Select for display as additional record

Option   Record       Repeat   Blanks
  __     DETAIL




F3=Exit     F5=Refresh     F12=Cancel
```

- Key 1 next to DETAIL, and 5 for Blanks as shown and press Enter.

```
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

```
 Record HEADER displayed first relative to additional record(s) by default.
```

- The Work Display appears, with 5 blank lines at the top for the HEADER record. The DETAIL record is displayed below. Press the HOME key to position the display to line 1 position 1.

```
  *date
  *time

          Name                            Address
'------------------------------' '------------------------------'
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

- Key constants for the HEADER record on the display as shown above. Be sure to enclose the dashed lines in single quotes ('). Pressing Enter defines the constant fields for the record.

```
  66/66/66
  66:66:66

          Name                          Address
  ------------------------------   ------------------------------
  OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

```
-------------
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

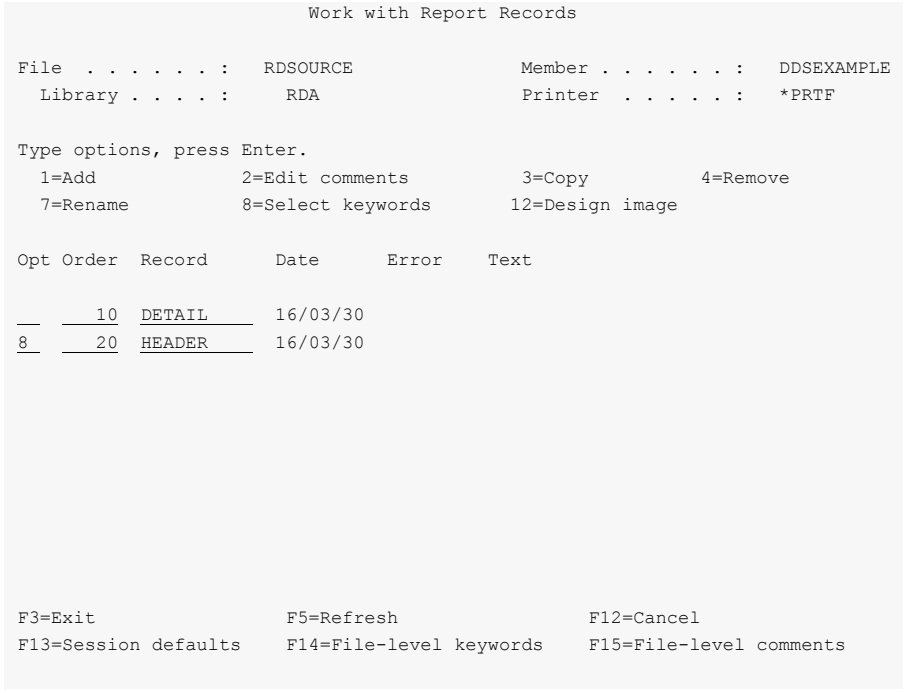
- Press F20 twice to window the display to the right.

```
 Customer Master Listing                                Page *pagnbr


                    'City'           'ST''ZIP'   'Phone'         'Cust #'
-------------'-----------------------"--"-----''------------'    '-------'
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

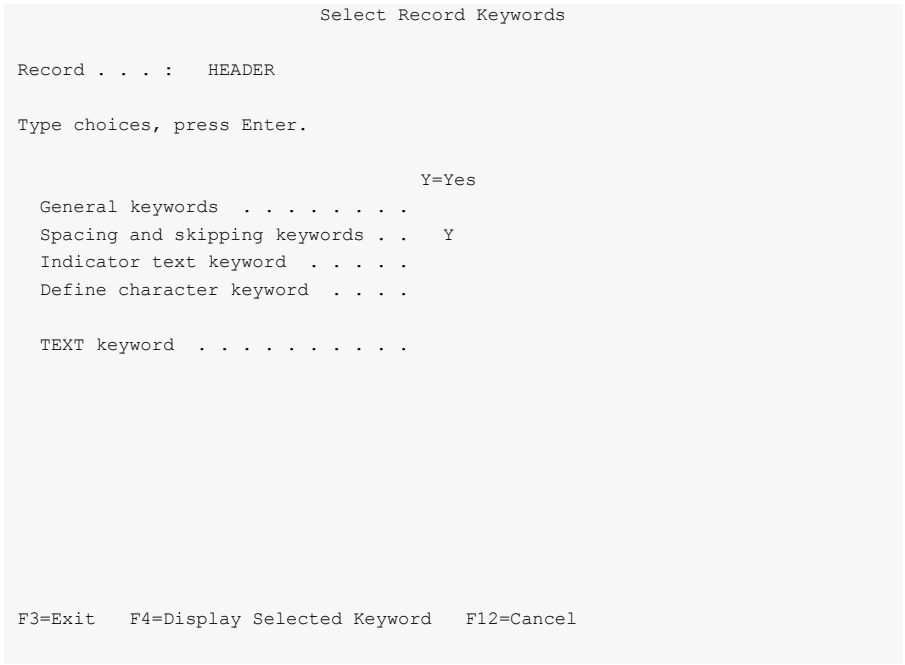
- Enter the remaining constants for the HEADER record as shown above. Pressing Enter defines the constant fields for the record.

```
 Customer Master Listing                                Page 6666


                     City             ST  ZIP     Phone           Cust #
------------- ----------------------- -- -----  ------------      -------
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

- Press F12 to return to the Work with Report Records display.



- Key "8" for Opt beside the "HEADER" record to select keywords for the report record. Press Enter.



- Key a "Y" for "Spacing and skipping keywords" and press Enter.

```
                    Select Spacing And Skipping Keywords

Record . . . :   HEADER

Type choices, press Enter.
                           Keyword    Value Indicators/+
  Record format level:
    Skip before . . . . .   SKIPB      1
    Skip after  . . . . .   SKIPA
    Space before  . . . .   SPACEB
    Space after . . . . .   SPACEA
    Line spacing  . . . .              2                    1=Fixed line nbrs
                                                            2=Use Spaces/Skips
  Line/field level:
       Skip Before       Skip After        Space Before      Space After
       Val Indicators/+  Val Indicators/+  Val Indicators/+  Val Indicators/+
    1  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    2  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   2
    4  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    5  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1


F3=Exit   F12=Cancel
```

- Key a 1 for "Skip Before" at the record level as shown, to cause the report record to skip to line 1 each time it is printed.
- Press F12 twice to return to the Work with Report Records display.

```
                           Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   DDSEXAMPLE
  Library . . . . :     RDA                 Printer  . . . . :   *PRTF

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text

__   10  DETAIL      16/03/30
__   20  HEADER      16/03/30









F3=Exit                F5=Refresh                F12=Cancel
F13=Session defaults   F14=File-level keywords   F15=File-level comments
```

- Press F3 to exit. The DDS exit display appears.

```
                      Save DDS - Create Printer File

Type choices, press Enter.

  Save DDS source  . . . . . .   Y            Y=Yes
    Source file  . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . .   RDA          Name, *LIBL ...
    Member . . . . . . . . . .   DDSEXAMPLE   F4 for list
    Text . . . . . . . . . . .   DDS Example


  Create printer file  . . . . . .   Y            Y=Yes
    Prompt for parameters  . . . .   _            Y=Yes
    Printer file . . . . . . . . .   DDSEXAMPLE   F4 for list
      Library  . . . . . . . . . .   QTEMP        Name, *CURLIB
    Replace existing file  . . . .   Y            Y=Yes

  Submit create job to batch . . . . . .   Y            Y=Yes

  Specify additional
    save or create options . . . . . .   _            Y=Yes

F3=Exit   F4=Prompt   F12=Cancel
Member DDSEXAMPLE already exists in file RDSOURCE. Press Enter to replace.
```

- Press Enter to save the source and create the printer file. A completion message is displayed at the bottom of the screen.

```
                      Save DDS - Create Printer File

Type choices, press Enter.

  Save DDS source  . . . . . .   Y            Y=Yes
    Source file  . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . .   RDA          Name, *LIBL ...
    Member . . . . . . . . . .   DDSEXAMPLE   F4 for list
    Text . . . . . . . . . . .   DDS Example


  Create printer file  . . . . . .   Y            Y=Yes
    Prompt for parameters  . . . .   _            Y=Yes
    Printer file . . . . . . . . .   DDSEXAMPLE   F4 for list
      Library  . . . . . . . . . .   QTEMP        Name, *CURLIB
    Replace existing file  . . . .   Y            Y=Yes

  Submit create job to batch . . . . . .   Y            Y=Yes

  Specify additional
    save or create options . . . . . .   _            Y=Yes

F3=Exit   F4=Prompt   F12=Cancel
Member DDSEXAMPLE saved.  Batch create Submitted.  Press Enter.
```

- Press Enter to exit Report Designer. This concludes this example.

Chapter 12 RPG Example

What's In This Chapter

This chapter takes you through the steps required to design and create a simple report using RPG internal printer file specifications.

Detailed descriptions of the Report Designer displays shown in this example, and those not covered, appear in other chapters.

Keying In The Example

To key in this example, your library list must include RDA, and you must be authorized to the source files.

- Selecting Field Descriptions

  A database file is supplied with Report Designer. You will select field descriptions from this file to design your report records.

- Removing a Previously Entered Example

  If the example has been entered previously, the member created must be removed from the RPG source file or be given a different name. To remove a member, use the RMVM command or option 4 from PDM. To rename a member, use the RNMM command or option 7 from PDM.

- Exiting From The Example

  If you do not want to complete the example, or if you make an error and wish to start over, exit from Report Designer by repeatedly pressing F3.

Begin the example here:

- At a command line enter the following:

```
ADDLIBLE RDA.  Press Enter.
STRRDA.  Press F4.
```

  The Start Report Designer prompt is displayed.

```
                        Start Report Designer (STRRDA)

Type choices, press Enter.

Source file  . . . . . .   RDSOURCE     Name, *PRV
  Library  . . . . . .       RDA        Name, *PRV, *LIBL, *CURLIB
Source member  . . . . . .   *SELECT    Name, *PRV, *SELECT
*PRTF or RPG printer file  . . .   QPRINT     Name, *PRV, *MBRTYPE...
Object library . . . . . .   QTEMP      Name, *PRV, *CURLIB
Job description  . . . . . .   RDA        Name, *PRV, *USRPRF
  Library  . . . . . .       RDA        Name, *PRV, *LIBL, *CURLIB

                                                                      Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

- Fill in the prompt screen as shown above, and press Enter. The Design Reports display is displayed.

```
                              Design Reports

Type choices, press Enter.

  Source file . . . . . .   RDSOURCE     Name, F4 for list

    Library . . . . . .     RDA          Name, *LIBL, *CURLIB

  Member  . . . . . .       ___________  Name, F4 for list

  *PRTF or RPG printer file . .   QPRINT      Name, *MBRTYPE, *PRTF, *FIRST

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

- Position the cursor to the Member field and press F4. The Work with Members display appears.

```
                    Work With Members Using Report Designer

Type information, press Enter.
  Position to . . . . . .
  Subset by type  . . . . . .
  Source file . . . . . .   RDSOURCE      Library . . . . . .   RDA
  New member  . . . . . .   __________    Type  . . . . . .   PRTF
    Text  . . . . . .

Type options, press Enter.
  1=Select   4=Delete   5=Display

Opt Member      Type        Text
 _  CSTMST      PF          Sample Customer Master File
 1  RPGSHELL    RPG         RPG example shell, without *PRTF
 _  SYPR030     PRTF38      Standard format count report
 _  SYPR400     PRTF        Standard format count report
 _  XXFLDR      PF          Sample field reference file




                                                                      More...
F3=Exit   F5=Refresh   F12=Cancel
```

- Key a 1 to the left of RPGSHELL to select it for processing. Press Enter twice. The message "* Syntax checking in progress" will be displayed. The Work with Report Records display is shown next.

```
                          Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                 Printer  . . . . . :   QPRINT

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text
1          DETAIL









F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
© Copyright Gumbo Software, Inc. 1989, 2016. All rights reserved.
```

- Enter "1" for Option and "DETAIL" for Record. Press Enter. The blank Work Display appears.

```
Report Designer Work Display for DETAIL:  Press HELP for function keys.
```

- With the cursor in the upper left-hand corner of the screen, press F14 to display the ruler.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
  2
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
```

- Press F10 to access the Database File display.

```
                          Select Database Files

Type options and names, press Enter.
  1=Display database field list
  2=Select all fields



Option   Database File    Library      Record
  1        XXFLDR         RDA
  _        __________     *LIBL
  _        __________     *LIBL
  _        __________     *LIBL









F3=Exit   F4=Record list   F12=Cancel
```

- Enter a "1" for "Option". Enter "XXFLDR" for Database File. Enter "RDA" for Library. Position the cursor to the Record column and press F4. The Database Records display appears.

```
                          Select Data Base Records

Database file . . . . . :   XXFLDR          Library . . . :   RDA

Type options, press Enter.
  1=Select

Option   Record
  1      XXFLDRR
```

- Enter a "1" beside XXFLDRR, and press Enter. The Database Fields display appears.

```
                          Select Database Fields

Record . . . :   XXFLDRR

Type information, press Enter.
  Number of fields to roll  . . . . . . . . . . . . . . . . .   8
  Name of field to search for . . . . . . . . . . . . . . . .

Type options, press Enter.
  1=Display extended field description
  2=Select

Option  Field        Length   Type    Column Heading
  2     NAME            30    A      CUSTOMER NAME
  2     ADDR            30    A      ADDRESS
  2     CITY            23    A      CITY
  2     STATE            2    A      STATE
  2     ZIP              5    A      ZIP CODE
  2     CSTNBR         7,0    P      CUSTOMER NUMBER
  2     PHONE         10,0    P      PHONE NUMBER
  _     PRGM            10    A      PROGRAM NAME
                                                                  More...
F3=Exit   F12=Cancel
```

- Enter a "2" beside the fields NAME, ADDR, CITY, STATE, ZIP, CSTNBR, and PHONE. Press Enter to select the fields and return to the Database File display. Press F12 to return to the Work Display. The selected fields are displayed at the bottom of the Work Display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
  2
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:NAME 2:ADDR 3:CITY 4:STATE 5:ZIP 6:CSTNBR 7:PHONE
```

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
&12
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:NAME 2:ADDR 3:CITY 4:STATE 5:ZIP 6:CSTNBR 7:PHONE
```

- Key &1 at line 2 position 2 of the Work Display, and press Enter. The customer name field is added to the display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:ADDR 2:CITY 3:STATE 4:ZIP 5:CSTNBR 6:PHONE
```

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   &1
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:ADDR 2:CITY 3:STATE 4:ZIP 5:CSTNBR 6:PHONE
```

- Key &1 at line 2 position 35 of the Work Display, and press Enter to add address to the display.

```
... ...10.... ...20.... ...30.... ...40.... ...50.... ...60.... ...70.... ...80
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO
  3
  4
  5
  6
  7
  8
  9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

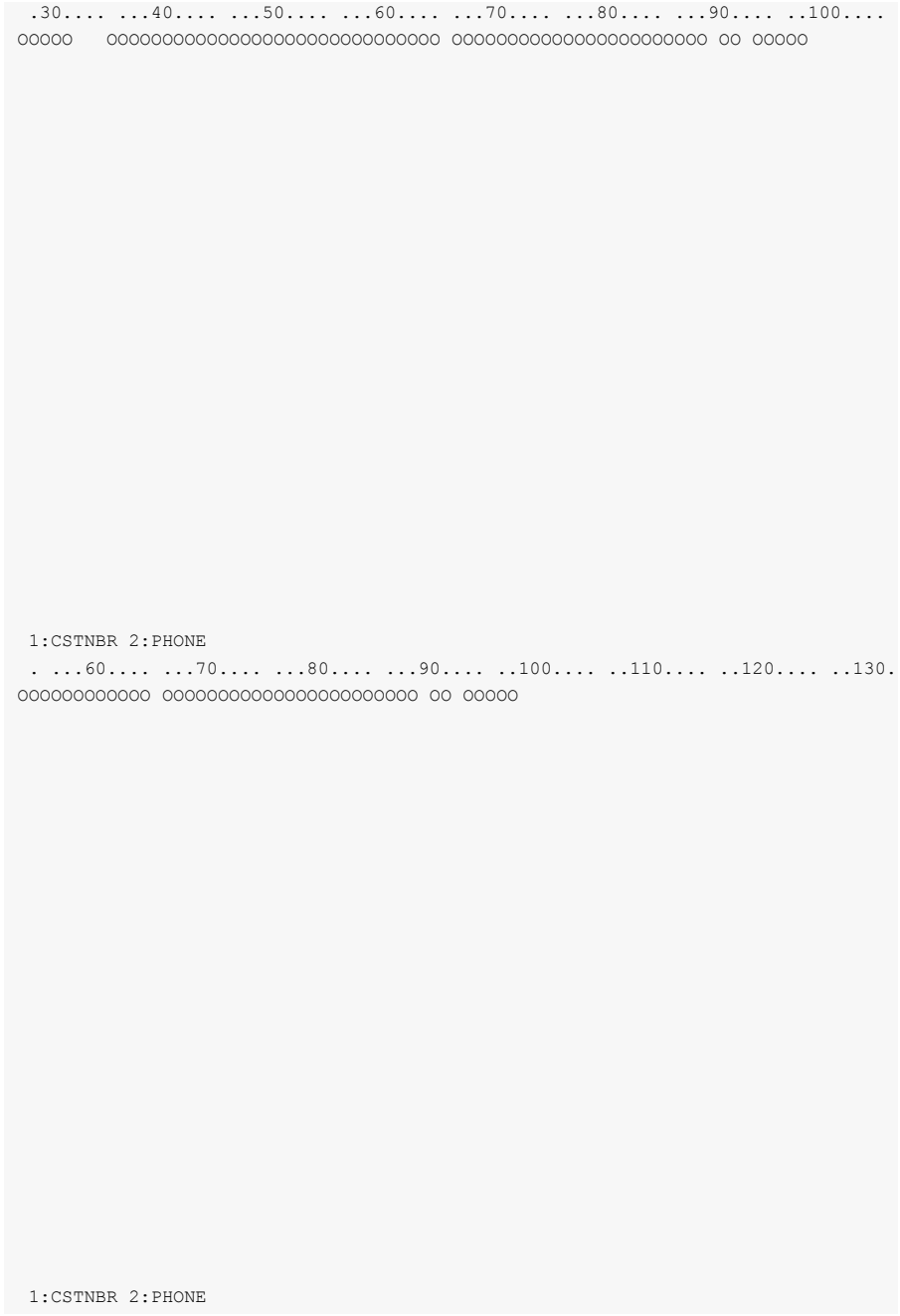
```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO




 1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

- Press F20 to window the display to the right.

```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO &1                     &2 &3




 1:CITY 2:STATE 3:ZIP 4:CSTNBR 5:PHONE
```

- Key &1 at line 2 position 66, &2 at line 2 position 90, and &3 at line 2 position 93. Press Enter to add the city, state, and zip fields to the display.

```
 .30.... ...40.... ...50.... ...60.... ...70.... ...80.... ...90.... ..100....
OOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO
```



```
 1:CSTNBR 2:PHONE
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO
```



```
 1:CSTNBR 2:PHONE
```

- Press F20 again to window the display to the right.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO  &2




 1:CSTNBR 2:PHONE
```

- Key &2 at line 2 position 100 of the Work Display, and press Enter to add the phone number to the display. Notice the phone number is displayed in edited format.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666




 1:PHONE
```

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      &1




 1:PHONE
```

- Key &1 at line 2 position 118 of the Work Display, and press Enter to add the customer number to the display.

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

```
 . ...60.... ...70.... ...80.... ...90.... ..100.... ..110.... ..120.... ..130.
OOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666     *6666666
```

- Key an asterisk (*) in front of the customer number and press Enter to see the Select Field Keywords display for customer number.

```
                          Select Field Keywords

Field . . . . . :   CSTNBR
Length  . . . . :      7,0              Line . . :     2  Position . . :   118

Type choices, press Enter.
                                   Y=Yes   For Field Type
  Print attributes  . . . . . .  .   _     All types
  Colors  . . . . . . . . . . . .   _     All types



  General keywords  . . . . . .  .   _     All types
  Editing keywords  . . . . . .  .   Y     Numeric
  Database reference  . . . . . .   _     All types




  TEXT keyword  . . . . . . . . . .   CUSTOMER NUMBER


F3=Exit   F4=Display Selected Keyword   F12=Cancel
```

- Key a "Y" for "Editing keywords" and press Enter.

```
                        Select Editing Keywords

Field . . . . . :   CSTNBR
Length  . . . . :      7,0              Line . . :     2  Position . . :   118

Edit Code Description          No Sign   CR Sign   - Sign(R) - Sign(L)
Commas and zero balances          1         A         J         N
Commas                            2         B         K         O
Zero balances                     3         C         L         P
No commas or zero balances        4         D         M         Q
User defined edit codes          5-9
Date edit                         Y
Suppress leading zeros            Z

Type choices, press Enter.
                                            Keyword
  Edit code  . . . . . . . . . . . . .   EDTCDE   3   A-D, J-Q, Y, Z, 1-9
    Replace leading zeros with . . . .             _   *, $
  Edit word  . . . . . . . . . . . . .   EDTWRD



F3-Exit   F12=Cancel
```

- Enter 3 for edit code, and press F12 twice to return to the Work Display. This will cause the customer number to print in edited format.

```
 ooooooooooooooooooooooooooooooooo   ooooooooooooooooooooooooooooooooo oooooooooooooooo
```

- Press F14 to remove the ruler from the Work Display. Press HOME to position the display to line 1 column 1.

- Move all of the fields up 1 line by keying the following information. Do not press Enter until all of the information has been entered. Key an equal sign in line 1 column 2 to mark the target for the move block. Key a minus sign in line 2 column 1 to mark the beginning of the move block. Press F20 twice to window to the far right of the display.

- Key a minus sign to the right of the last field to mark the end of the move block. Now press Enter. All fields are moved up 1 line and over 1 position to the right.

```
  OOOOOOOOOOOO OOOOOOOOOOOOOO OOOOOOOOO OO OOOOO  666-666-6666     6666666
```

- Press F12 to return to the Work with Report Records display.

```
                        Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                 Printer  . . . . . :   QPRINT

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text

8     10   DETAIL     16/03/30


F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
```

- Enter "8" for Opt beside the detail record as shown. Press Enter. The Select Record Keywords display appears next.

```
                          Select Record Keywords

Record . . . :   DETAIL

Type choices, press Enter.

                                  Y=Yes
  General keywords  . . . . . .   Y
  Spacing and skipping keywords . .
  Indicator text keyword  . . . . .
  Define character keyword  . . . .

  TEXT keyword  . . . . . .




F3=Exit   F4=Display Selected Keyword   F12=Cancel
```

- Key "Y" for "General keywords". Press Enter.

```
                          Select General Keywords

Record . . . :   DETAIL

Type choices, press Enter.
                             Keyword    Value      Indicators/+
  Character size:            CHRSIZ
    Width . . . . . .                   ____                    1.0 - 20.0
    Height  . . . . . .                 ____                    1.0 - 20.0
  Characters per inch . . . .  CPI      __         ___ ___ ___   10, 15
  Drawer  . . . . . .          DRAWER   _          ___ ___ ___   1, 2, 3...
  Print font  . . . . . .      FONT     __________ ___ ___ ___   Name, ID
    Point size  . . . . . .             _____                   0.1-999.9
  Lines per inch  . . . . . .  LPI      _                       4, 6, 8, 9
  Page rotation . . . . . .    PAGRTT   ___        ___ ___ ___   0, 90 ...
  Print quality . . . . . .    PRTQLTY  __________ ___ ___ ___   *STD ...
  RPG record level parameters:
    Line type . . . . . .               E                       H, D, E, T
    Fetch overflow  . . . . .           F                       F, blank
    EXCPT name  . . . . . .             DETAIL                  Name
    Blank indicator line  . .           _                       Y=Yes

F3=Exit   F12=Cancel
```

- Enter E for RPG "Line type", F for "Fetch overflow", and DETAIL for "EXCPT name". Press F12 twice to return to the Work with Report Records display.

```
                        Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                 Printer  . . . . . :   QPRINT

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text
1          HEADER
__   __10  DETAIL___  16/03/30

F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
```

- Enter "1" for Opt and "HEADER" for Record as shown. Press Enter.

```
Report Designer Work Display for HEADER:  Press HELP for function keys.
```

- The blank Work Display appears for report record HEADER. Press F9 to select additional records to display along with the HEADER record.

```
                  Select Additional Records for Display

File  . . . . . :   RDSOURCE              Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                 Printer  . . . . . :   QPRINT

Type information, press Enter.
  Current record  . . . . . . . . . . . . . :   HEADER
    Blanks  . . . . . . . . . . . . . . . . .   5_           00-99
    Position in additional records  . . . . .   __           0-31
Type options, press Enter.
  1,2,3...31=Select for display as additional record

Option   Record       Repeat   Blanks
  __     DETAIL




F3=Exit     F5=Refresh     F12=Cancel
```

- Key 1 next to DETAIL, and 5 for Blanks as shown and press Enter.

```
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666









 Record HEADER displayed first relative to additional record(s) by default.
```

- The Work Display appears, with 5 blank lines at the top for the HEADER record, and the DETAIL record displayed below. Press HOME to position the display to line 1 position 1.

```
 *date
+666666

         Name                          Address
'------------------------------' '------------------------------'
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

- Key the field and constant definitions for the HEADER record on the display as shown above. Be sure to enclose the dashed lines in single quotes ('). Pressing Enter completes the field definitions.

```
 66/66/66
 666666

         Name                          Address
 ------------------------------   ------------------------------
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

```
  66/66/66
 *666666

         Name                          Address
 ------------------------------   ------------------------------
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

- Key an asterisk (*) in front of the time field as shown, and press Enter to see the Select Field Keywords display for this field.

```
                          Select Field Keywords

Field . . . . . :   FLD001
Length  . . . . :      6,0              Line . . :     2  Position . . :     3

Type choices, press Enter.
                                   Y=Yes   For Field Type
  Print attributes  . . . . . . . .   _     All types
  Colors  . . . . . . . . . . . . .   _     All types



  General keywords  . . . . . . . .   _     All types
  Editing keywords  . . . . . . . .   Y     Numeric
  Database reference  . . . . . . .   _     All types




  TEXT keyword  . . . . . . . . . .


F3=Exit   F4=Display Selected Keyword   F12=Cancel
```

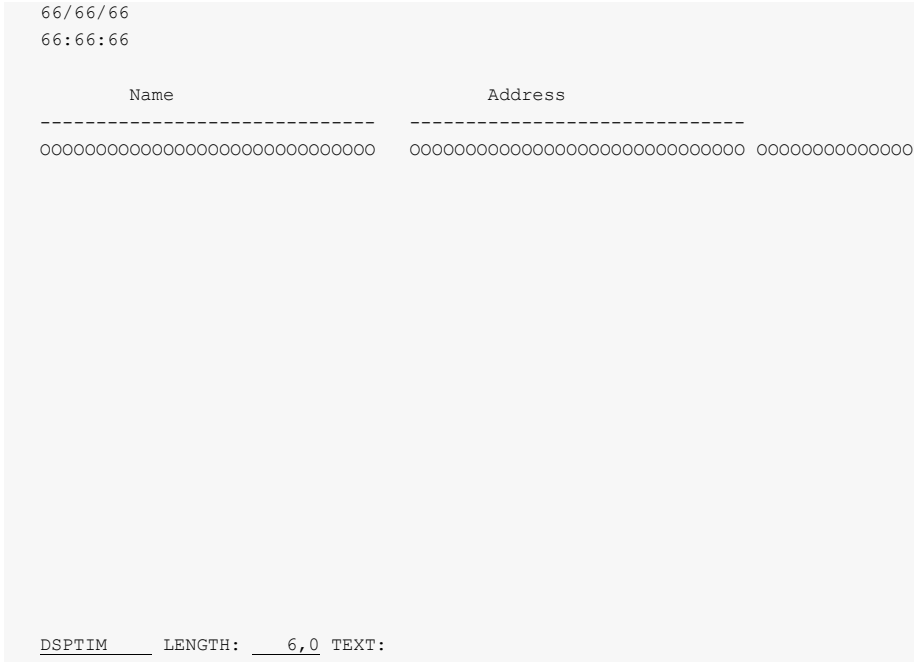
- Key a "Y" for "Editing keywords" and press Enter.

```
                        Select Editing Keywords

Field . . . . . :   FLD001
Length  . . . . :      6,0              Line . . :     2  Position . . :     3

Edit Code Description          No Sign   CR Sign   - Sign(R) - Sign(L)
Commas and zero balances          1         A         J         N
Commas                            2         B         K         O
Zero balances                     3         C         L         P
No commas or zero balances        4         D         M         Q
User defined edit codes          5-9
Date edit                         Y
Suppress leading zeros            Z

Type choices, press Enter.
                                            Keyword
  Edit code  . . . . . . . . . . . . .   EDTCDE    _   A-D, J-Q, Y, Z, 1-9
    Replace leading zeros with . . . .             _   *, $
  Edit word  . . . . . . . . . . . . .   EDTWRD   '  :  :  '



F3-Exit   F12=Cancel
```

- Enter the edit word as shown, and press F12 twice to return to the Work Display. Notice the field is now displayed in edited format.

```
 66/66/66
?66:66:66

         Name                          Address
 ------------------------------   ------------------------------
 OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO   OOOOOOOOOOOOOOOOOOOOOOOOOOOOOO OOOOOOOOOOOOOO
```

- Key a question mark (?) in front of the time field and press Enter to see the field name prompt.



- Key DSPTIM for the new field name and press Enter. Press F20 twice to window the display to the right.

- Enter the remaining constants for the HEADER record as shown above. Pressing Enter defines the constant fields for the record.

```
 Customer Master Listing                                Page 6666


                     City             ST  ZIP     Phone           Cust #
------------- ----------------------- -- -----  ------------      -------
OOOOOOOOOOOOO OOOOOOOOOOOOOOOOOOOOOOO OO OOOOO  666-666-6666      6666666
```

- Press F12 to return to the Work with Report Records display.

```
                          Work with Report Records

File  . . . . . :   RDSOURCE               Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                  Printer  . . . . . :   QPRINT

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text

__   ___10  DETAIL___  16/03/30
8_   ___20  HEADER___  16/03/30









F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
```

- Key "8" for Opt beside the "HEADER" record to select keywords for the report record. Press Enter.

```
                          Select Record Keywords

Record . . . :   HEADER

Type choices, press Enter.

                                  Y=Yes
  General keywords  . . . . . .   Y
  Spacing and skipping keywords . .   Y
  Indicator text keyword  . . . . .
  Define character keyword  . . . .

  TEXT keyword  . . . . . .



F3=Exit   F4=Display Selected Keyword   F12=Cancel
```

- Key a "Y" for "General keywords" and for "Spacing and skipping keywords". Press Enter.

```
                          Select General Keywords

Record . . . :   HEADER

Type choices, press Enter.
                            Keyword    Value      Indicators/+
  Character size:           CHRSIZ
    Width . . . . . .                  ____                    1.0 - 20.0
    Height  . . . . . .                ____                    1.0 - 20.0
  Characters per inch . . . .   CPI      __         ___ ___ ___  10, 15
  Drawer  . . . . . .           DRAWER   _          ___ ___ ___  1, 2, 3...
  Print font  . . . . . .       FONT     __________ ___ ___ ___  Name, ID
    Point size  . . . . . .             _____                   0.1-999.9
  Lines per inch  . . . . . .   LPI      _                       4, 6, 8, 9
  Page rotation . . . . . .     PAGRTT   ___        ___ ___ ___  0, 90 ...
  Print quality . . . . . .     PRTQLTY  __________ ___ ___ ___  *STD ...
  RPG record level parameters:                     OF
    Line type . . . . . .               H                       H, D, E, T
    Fetch overflow  . . . . .           _                       F, blank
    EXCPT name  . . . . . .             ______                  Name
    Blank indicator line  . .           _                       Y=Yes

F3=Exit   F12=Cancel
```

- Enter H for RPG "Line type", and OF for RPG record indicators. Press Enter to proceed to "Spacing And Skipping Keywords" display.

```
                    Select Spacing And Skipping Keywords

Record . . . :   HEADER

Type choices, press Enter.
                           Keyword    Value Indicators/+
  Record format level:
    Skip before . . . . .   SKIPB      1
    Skip after  . . . . .   SKIPA
    Space before  . . . .   SPACEB
    Space after . . . . .   SPACEA
    Line spacing  . . . .              2                    1=Fixed line nbrs
                                                            2=Use Spaces/Skips
  Line/field level:
       Skip Before       Skip After        Space Before      Space After
       Val Indicators/+  Val Indicators/+  Val Indicators/+  Val Indicators/+
    1  1   ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    2  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   2
    4  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1
    5  ___ ___ ___ ___   ___ ___ ___ ___   ___ ___ ___ ___   1


F3=Exit   F12=Cancel
```

- Key a 1 in "Skip Before" for line 1 as shown, to cause the record to skip to line 1 each time it is printed. Press F12 twice to return to the Work with Report Records display.

```
                          Work with Report Records

File  . . . . . :   RDSOURCE              Member . . . . . :   RPGSHELL
  Library . . . . :     RDA                 Printer  . . . . . :   QPRINT

Type options, press Enter.
  1=Add             2=Edit comments          3=Copy          4=Remove
  7=Rename          8=Select keywords       12=Design image

Opt Order  Record      Date      Error    Text

__   10   DETAIL      16/03/30
__   20   HEADER      16/03/30









F3=Exit                 F5=Refresh                F12=Cancel
F13=Session defaults    F14=File-level keywords   F15=File-level comments
```

- Press F3 to exit. The RPG exit display appears.

```
                    Save RPG Source - Create Program

Type choices, press Enter.

  Save RPG source  . . . . . .   Y            Y=Yes
    Source file  . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . .   RDA          Name, *LIBL ...
    Member . . . . . . . . . .   RPGEXAMPLE   F4 for list
    Text . . . . . . . . . . .   RPG example shell, without *PRTF


  Create program . . . . . .   Y            Y=Yes
    Prompt for parameters  . .   _            Y=Yes
    Program  . . . . . . . . .   RPGSHELL     F4 for list
      Library  . . . . . . . .   QTEMP        Name, *CURLIB
    Replace existing program .   Y            Y=Yes

  Submit create job to batch .   Y            Y=Yes

  Specify additional
    save or create options . .   _            Y=Yes

F3=Exit   F4=Prompt   F12=Cancel
Member RPGSHELL already exists in file RDSOURCE. Press Enter to replace.
```

- Change the member name to RPGEXAMPLE so RPGSHELL is not changed and can be reused. Press Enter to save the source and create the program. A completion message is displayed at the bottom of the screen.

```
                    Save RPG Source - Create Program

Type choices, press Enter.

  Save RPG source  . . . . . .   Y            Y=Yes
    Source file  . . . . . . .   RDSOURCE     F4 for list
      Library  . . . . . . . .   RDA          Name, *LIBL ...
    Member . . . . . . . . . .   RPGEXAMPLE   F4 for list
    Text . . . . . . . . . . .   RPG example shell, without *PRTF


  Create program . . . . . .   Y            Y=Yes
    Prompt for parameters  . .   _            Y=Yes
    Program  . . . . . . . . .   RPGSHELL     F4 for list
      Library  . . . . . . . .   QTEMP        Name, *CURLIB
    Replace existing program .   Y            Y=Yes

  Submit create job to batch .   Y            Y=Yes

  Specify additional
    save or create options . .   _            Y=Yes

F3=Exit   F4=Prompt   F12=Cancel
Member RPGEXAMPLE saved.  Batch create submitted.  Press enter.
```

- Press Enter to exit Report Designer. This concludes this example.

Chapter 13 Commands

What's In This Chapter

This chapter describes the control language (CL) commands supplied by Report Designer. 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. Additional explanatory material can be found in the *Programming > Control Language > CL Concepts > CL Commands > CL command information and documentation* topic in the IBM i Information Center at http://publib.boulder.ibm.com/eserver/ibmi.html.

Change Report Designer Authorization (CHGRDAAUT)

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

The Change Report Designer Authorization (CHGRDAAUT) command changes the authorization code for Report Designer. The command is used to extend a demonstration period or to permanently authorize Report Designer for a system or a partition.

The proposed authorization information is tested against the authorization algorithm to confirm that it will authorize Report Designer. If the test fails, no change is made.

Parameters

Keyword	Description	Choices	Notes
AUTH	Authorization code	*Hexadecimal value*	Required, Positional 1
EXPDAT	Expiration date (CCYYMMDD)	*Character value*, ***NONE**	Optional, Positional 2
LICTYP	License type	***SYS**, *LPAR	Optional, Positional 3
PRCMAX	Processor maximum capacity	*Decimal number*	Optional, Positional 4

Authorization code (AUTH)

Specifies the authorization code to use. The authorization code is 8 hex digits that may be entered in upper or lower case.

This is a required parameter.

hexadecimal-value Specify the case insensitive authorization code.

Expiration date (CCYYMMDD) (EXPDAT)

Specifies the date on which the authorization expires.

***NONE** The authorization is permanent.
date The date on which the authorization expires in CCYYMMDD format.

License type (LICTYP)

Specifies the type of license that is authorized.

***SYS** The authorization is for a system wide license, which enables any and all partitions on the system but is specific to the processor group.

Note: The authorization code must be entered in each partition.

***LPAR** The license is specific to one of the partitions on the system and specific to a number of processors within the partition. A partition license must be entered in the partition for which it is intended.

Processor maximum capacity (PRCMAX)

Specifies the maximum processor capacity for which the partition is licensed. The value is expressed in terms of processors where 1.00 is 100% of a processor's capacity or the same as 1 processor, .50 is 50% of a processor's capacity or .5 processors, 2.00 is 200% of a processor's capacity or 2 processors, etc.

decimal-number Specify the maximum processor capacity.

Examples

Example 1:

```
CHGRDAAUT  AUTH(01234567)
```

This command changes the authorization code to a permanent system wide license code.

Example 2:

```
CHGRDAAUT  AUTH(01234567) LICTYP(*LPAR) PRCMAX(1.3)
```

This command changes the authorization code to a permanent partition only license code for 1.3 processors in the current partition.

Error messages

*ESCAPE messages

AUT9909 Report Designer authorization change was not performed.

Change RDA Defaults (CHGRDADFT)

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

The Change RDA Defaults (CHGRDADFT) command changes values used by Report Designer to control processing and as initial defaults.

Parameters

None

Examples

None

Check Report Designer Authorization (CHKRDAAUT)

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

The Check Report Designer Authorization (CHKRDAAUT) command executes Report Designer's authorization verification function. This allows you to determine whether and how the product is authorized for use.

Parameters

Keyword	Description	Choices	Notes
MSGQ	Message queue	Single values: ***NONE** Other values: *Qualified object name*	Optional, Positional 1
	Qualifier 1: Message queue	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	

Message queue (MSGQ)

Specifies a message queue that should receive messages if the product is not permanently authorized.

Single values

***NONE** Messages are not sent to an external message queue.

Qualifier 1: Message queue

name Specify the name message queue that receives messages.

Qualifier 2: Library

***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.

name Specify the name of the library.

Examples

Example 1:

```
CHKRDAAUT
```

This command executes Report Designer's authorization verification function to determine whether and how the product is authorized for use.

Example 2:

```
CHKRDAAUT  MSGQ(QSYSOPR)
```

This command executes Report Designer's authorization verification function to determine whether and how the product is authorized for use. If the product is not permanently authorized for use, a failure message is sent to the system operator's message queue.

Error messages

*ESCAPE messages

AUT9901 We're sorry, the Report Designer demonstration period is over.

AUT9905 Unable to access machine information.

AUT9907 Report Designer processor group change grace period has expired.

AUT9916 Report Designer release upgrade grace period has expired.

AUT9918 We're sorry, more than 30 days have elapsed since the Report Designer was first installed.

AUT9921 Report Designer unpartitioned system grace period has expired.

AUT9926	Report Designer processor limit exceeded grace period has expired.
AUT9930	Report Designer authorization check failed.

Create RDA Printer File (CRTRDAPRTF)

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

The Create RDA Printer File (CRTRDAPRTF) command creates a DDS printer file using the same Create Printer File (CRTPRTF) command parameter values specified when the printer file was last created on exiting from Report Designer.

When updating DDS source with Report Designer, parameters specified for the CRTPRTF command are saved as comments in the source. Each parameter specified on the CRTPRTF command from the Report Designer create display is placed on a separate line in the updated DDS. The parameters are stored as comments that are meaningful to Report Designer. On the next access with Report Designer, these comments are used to establish session values and CRTPRTF default values.

The Create RDA Printer File (CRTRDAPRTF) command runs the Create Printer File (CRTPRTF) command after applying the stored parameter values. Several benefits result from the ability to separate compilation from interactive design.

- Mass re-creations for a new releases of IBM i are easier.
- "Compile to production" change management procedures are enabled.

Parameters

Keyword	Description	Choices	Notes
FILE	File	*Qualified object name*	Required, Positional 1
	Qualifier 1: File	*Name*	
	Qualifier 2: Library	*Name*, ***CURLIB**	
SRCFILE	Source file	*Qualified object name*	Required, Positional 2
	Qualifier 1: Source file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**	
SRCMBR	Source member	*Name*, ***FILE**	Optional, Positional 3

File (FILE)

Specifies the name of the printer device file to create.

If the file is used in a high-level language program the file name should be consistent with the naming rules of that language.

This is a required parameter.

Qualifier 1: File

name Specify the name of the file.

Qualifier 2: Library

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

name Specify the name of the library.

Source file (SRCFILE)

Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

This is a required parameter.

Qualifier 1: Source file

name	Specify the name of the source file.

Qualifier 2: Library

***LIBL**	All libraries in the thread's library list are searched.
name	Specify the name of the library.

Source member (SRCMBR)

Specifies the name of the member containing the source to be updated or the name of a new member to be created.

***FILE**	Use the name of the printer file to be created.
name	Specify the name of the source member.

Examples

Example 1:

```
CRTRDAPRTF  SRCFILE(SRC/QRPGSRC)  SRCMBR(INV310)
```

This command executes IBM's Create Printer File (CRTPRTF) command using parameter values supplied in the last Report Designer session.

Convert Report Source (CVTRPTSRC)

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

The Convert Report Source (CVTRPTSRC) command converts a report definition contained in a source member from one source type to another.

Report Designer contains high level language parsers to convert RPG or DDS source code into Report Designer's internal representation of report definitions. Additionally, Report Designer contains high level language source code generators that convert Report Designer's internal representation of report definitions into RPG or DDS. The Convert Report Source (CVTRPTSRC) command reads in a source member using one of the parsers and outputs a new member with one of the source code generators. CVTRPTSRC command provides the following functions:

- Generate DDS source code for an equivalent externally described printer file from RPG specifications for an internally described printer file.
- Generate RPG source code for an equivalent internally described printer file from DDS source code for an externally described printer file.
- Standardize RPG coding style of printer file O specs by reading in existing RPG and writing out RPG in the Report Designer style.
- Standardize DDS coding style by reading in existing DDS and writing out DDS in the Report Designer style.

Since printer function provided by RPG is a subset of that provided by DDS, DDS to RPG conversions may lose some printer function. As an example, since there is no RPG equivalent of the DDS COLOR keyword, COLOR is dropped on conversion to RPG. Additional differences will occur.

Because Report Designer was not designed as a conversion aide, the Convert Report Source (CVTRPTSRC) command has several limitations:

- RPG fields defined by externally defined data structures have incorrect REFFLD keyword values when converted to DDS. These must be corrected by hand using SEU.
- The conversion process does not change the input source member when converting between source types. Removing output specifications, changing EXCPT opcodes to WRITE, etc must be performed by hand when converting from RPG to DDS.

Parameters

Keyword	Description	Choices	Notes
FROMFILE	From source file	*Qualified object name*	Required, Positional 1
	Qualifier 1: From source file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
TOFILE	To source file	*Qualified object name*	Required, Positional 2
	Qualifier 1: To source file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**, *CURLIB	
FROMMBR	From source member	*Name*	Required, Positional 3
FROMPRTF	*PRTF or RPG printer file	*Name*, ***MBRTYPE**, *PRTF, *PRTF38, *FIRST	Optional, Positional 4
TOMBR	To source member	*Name*, ***FROMMBR**	Optional, Positional 5

TOPRTF	*PRTF or RPG printer file	*Name*, ***PRTF**, *PRTF38	Optional, Positional 6

From source file (FROMFILE)

Specifies the name of the file containing the source to be converted and the library where it resides.

This is a required parameter.

Qualifier 1: From source file

name Specify the name of the file.

Qualifier 2: Library

***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.

name Specify the name of the library.

To source file (TOFILE)

Specifies the name of the existing file to receive the converted source and the library where it resides.

This is a required parameter.

Qualifier 1: To source file

name Specify the name of the file.

Qualifier 2: Library

***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.

name Specify the name of the library.

From source member (FROMMBR)

Specifies the name of the member containing the source to be converted.

This is a required parameter.

name Specify the name of the source member.

*PRTF or RPG printer file (FROMPRTF)

Specifies whether the source member is treated as DDS or RPG source. In the case of RPG source, specifies the name of the printer file to process as it appears in the F-spec.

***MBRTYPE** Infer the printer name from the member's source type. Members with source type PRTF are treated as if ***PRTF** were specified. Members with source type PRTF38 are treated as if ***PRTF38** were specified. Members with source type RPG, RPT, RPG36 etc. are treated as if ***FIRST** were specified.

***PRTF** The source is treated as native IBM i DDS.

***PRTF38** The source is treated as System/38 compatible DDS.

***FIRST** The source is treated as RPG and the first printer file name encountered in the source is processed.

name Specify the name of the RPG internally described printer file.

To source member (TOMBR)

Specifies the name of the member to receive the converted source.

***FROMMBR** Use the name of the source member to be converted.

name Specify the name of the source member.

*PRTF or RPG printer file (TOPRTF)

Specifies whether the source member is treated as DDS or RPG source. In the case of RPG source, specifies the name of the printer file to process as it appears in the F-spec.

***PRTF**	The source is treated as native IBM i DDS.
***PRTF38**	The source is treated as System/38 compatible DDS.
name	Specify the name of the RPG internally described printer file.

Examples

Example 1:

```
CVTRPTSRC   FROMFILE(SRC/QRPGSRC)   TOFILE(SRC/QDDSSRC)
            FROMMBR(INV310)
```

This command converts an RPG printer definition to DDS. The first printer file encountered in source member INV310 in source file QRPGSRC in library SRC is converted. The generated DDS source code is placed in new member INV310 in source file QDDSSRC in the same library.

Display RDA Work Space Status (DSPRDASPC)

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

The Display RDA Work Space Status (DSPRDASPC) command prints a listing of the contents of internal work spaces.

Report Designer copies any existing DDS or RPG source into a work space, which is used to keep track of all additions, changes, and deletions that occur during the design session. Upon normal completion, this work space is used to update the DDS or RPG source, and the work space is deleted.

When Report Designer terminates abnormally (for example due to power failure or an ENDRQS command) the work space will usually be intact, and may be recoverable. The next attempt to modify the same source member with Report Designer presents the Recover RDA Session display.

Parameters

None

Examples

None

Print Report Information (PRTRPTINF)

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

The Print Report Information (PRTRPTINF) command parses a source member and generates various reports based on the content of the member.

Report Designer contains high level language parsers to convert RPG or DDS source code into Report Designer's internal representation of report definitions. The Print Report Information (PRTRPTINF) command provides a means to print the information from the internal representation in a batch job. PRTRPTINF command provides the following functions:

- Syntax check DDS or RPG printer file source code specifications.
- Generate a selected report based on the data found in the source code.

Parameters

Keyword	Description	Choices	Notes
SRCFILE	Source file	*Qualified object name*	Required, Positional 1
	Qualifier 1: Source file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**	
SRCMBR	Source member	*Name*	Required, Positional 2
PRINTER	*PRTF or RPG printer file	*Name*, ***MBRTYPE**, *PRTF, *PRTF38, *FIRST	Optional, Positional 3
TYPE	Information to print	***RCDLIST**, *FLDLIST	Optional, Positional 4

Source file (SRCFILE)

Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

This is a required parameter.

Qualifier 1: Source file

name Specify the name of the file.

Qualifier 2: Library

***LIBL** All libraries in the thread's library list are searched.
name Specify the name of the library.

Source member (SRCMBR)

Specifies the name of the member containing the source to be updated or the name of a new member to be created.

This is a required parameter.

name Specify the name of the source member.

*PRTF or RPG printer file (PRINTER)

Specifies whether the source member is treated as DDS or RPG source. In the case of RPG source, specifies the name of the printer file to process as it appears in the F-spec.

***MBRTYPE**	Infer the printer name from the member's source type. Members with source type PRTF are treated as if ***PRTF** were specified. Members with source type PRTF38 are treated as if ***PRTF38** were specified. Members with source type RPG, RPT, RPG36 etc. are treated as if ***FIRST** were specified.
***PRTF**	The source is treated as native IBM i DDS.
***PRTF38**	The source is treated as System/38 compatible DDS.
***FIRST**	The source is treated as RPG and the first printer file name encountered in the source is processed.
name	Specify the name of the RPG internally described printer file.

Information to print (TYPE)

The Information to print parameter specifies type of report that is printed.

***RCDLIST**	A list of records found in the report is printed. The list is in the order in which they appear in the source along with the text and keywords associated with each record.
***FLDLIST**	A list of fields found in the report is printed. The list is in alphabetical order by field name and includes data associated with each field.

Examples

Example 1:

```
PRTRPTINF  SRCFILE(SRC/QRPGSRC)  SRCMBR(INV310)
```

This command prints a record list for RPG source member INV310. The first printer file encountered in source member is used.

Print Report Sample (PRTRPTSAM)

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

The Print Report Sample (PRTRPTSAM) command prints a sample report. The result is similar to pressing F17=Print from the Work Display and the command can be executed in batch.

Report Designer contains high level language parsers to convert RPG or DDS source code into Report Designer's internal representation of report definitions. Additionally, Report Designer contains routines to create and print a visual representation of Report Designer's internal definition. Usually the print function is accessed from the Report Designer Work Display. The Print Report Sample (PRTRPTSAM) command provides a means to access the print report definition function from a batch job. PRTRPTSAM command provides the following functions:

- Syntax check DDS or RPG printer file source code specifications.
- Generate a report sample equivalent to the Work Display print function.

Parameters

Keyword	Description	Choices	Notes
SRCFILE	Source file	*Qualified object name*	Required, Positional 1
	Qualifier 1: Source file	*Name*	
	Qualifier 2: Library	*Name*, ***LIBL**	
SRCMBR	Source member	*Name*	Required, Positional 2
PRINTER	*PRTF or RPG printer file	*Name*, ***MBRTYPE**, *PRTF, *PRTF38, *FIRST	Optional, Positional 3
RECORDS	Records	Single values: ***FIRST** Other values (up to 32 repetitions): *Element list*	Optional, Positional 4
	Element 1: Record name	*Name*	
	Element 2: Additional blanks	0-99, **0**	
	Element 3: Repeat count	1-9, **1**	
FLDPRTCTL	Field print control	***CURRENT**, *NONE, *ALL, ' ', N, A	Optional, Positional 5
INDSET	Indicator setting	Single values: ***NO** Other values: *Element list*	Optional, Positional 6
	Element 1: Activate indicators	*YES, Y, N	
	Element 2: Indicators to be turned ON	Values (up to 30 repetitions): 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, H1, H2, H3, H4, H5, H6, H7, H8, H9, MR, OA, OB, OC, OD, OE, OF, OG, OV, L1, L2, L3, L4, L5, L6, L7, L8, L9, LR, U1, U2, U3, U4, U5, U6, U7, U8, U9, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, RT, 1P	

Source file (SRCFILE)

Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

This is a required parameter.

Qualifier 1: Source file

name	Specify the name of the file.

Qualifier 2: Library

***LIBL**	All libraries in the thread's library list are searched.
name	Specify the name of the library.

Source member (SRCMBR)

Specifies the name of the member containing the source to be updated or the name of a new member to be created.

This is a required parameter.

name	Specify the name of the source member.

*PRTF or RPG printer file (PRINTER)

Specifies whether the source member is treated as DDS or RPG source. In the case of RPG source, specifies the name of the printer file to process as it appears in the F-spec.

***MBRTYPE**	Infer the printer name from the member's source type. Members with source type PRTF are treated as if ***PRTF** were specified. Members with source type PRTF38 are treated as if ***PRTF38** were specified. Members with source type RPG, RPT, RPG36 etc. are treated as if ***FIRST** were specified.
***PRTF**	The source is treated as native IBM i DDS.
***PRTF38**	The source is treated as System/38 compatible DDS.
***FIRST**	The source is treated as RPG and the first printer file name encountered in the source is processed.
name	Specify the name of the RPG internally described printer file.

Records (RECORDS)

The Records parameter specifies which records appear in the sample and the order in which they appear.

Single values

***FIRST**	Use the record names found in the source member in the order they are found.

Element 1: Record name

name	The name of the printer record in the source member.

Element 2: Additional blanks

0	No blank lines are inserted.
0-99	The number of blank lines to insert after the record.

Element 3: Repeat count

Use this to give the appearance of repeated detail line printing.

1	The record is repeated once.
0-9	The number of times the record should be repeated.

Field print control (FLDPRTCTL)

Specifies what field information is printed.

***CURRENT**	Field definitions from the *CURRENT (first) record format are printed.
***NONE**	No field definitions are printed.
***ALL**	Field definitions for all of the selected record formats are printed.

Indicator setting (INDSET)

Specifies how conditioning indicators are processed. When *YES is specified for "Activate indicators", Report Designer displays only those fields whose conditioning indicators match those specified in "Indicators to be turned on". Similarly, keywords conditioned by indicators are only in effect when their indicator settings agree with the specified indicator settings. Report Designer always ignores indicator settings for spacing and skipping keywords when positioning fields.

Single values

***NO** Indicators are not processed.

Element 1: Activate indicators

***YES** Indicators are processed.

Element 2: Indicators to be turned ON

indicator Any of the valid indicators **01-99** for **DDS**, or **01-99 1P H1-H9 KA-KN KP-KY L1-L9 LR MR OA-OG OV U1-U8** and **RT** for **RPG**.

Examples

Example 1:

```
PRTRPTSAM  SRCFILE(SRC/QRPGSRC)  SRCMBR(INV310)
```

This command prints a sample from RPG source member INV310. The first printer file encountered in source member is used. The report records are printed in order as they are encountered in the source member.

Retrieve Gumbo PTF (RTVGSIPTF)

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

The Retrieve Gumbo PTF (RTVGSIPTF) command checks a remote system for new product PTFs, and, if available, downloads and installs them.

The command assumes that IBM i has connectivity to the PTF server. Unless you are running your own internal server hosting our PTFs, this means that IBM i has access to the internet and that FTP is not blocked by a firewall.

The command first checks the availability of new PTFs by retrieving a product and release specific file (Ex. q3d40LastPtf.txt) from the remote system and comparing its contents to the last PTF applied locally. If newer PTFs are available, a product and release specific PTF save file (Ex. q3d40all.svf) is downloaded, and the PTFs it contains are loaded and applied.

Note: *GUMBO* only delivers immediate PTFs. Immediate PTFs do not require an IPL and an IPL is never performed by the command.

Parameters

Keyword	Description	Choices	Notes
LICPGM	Product	*Character value*, ***THIS**, 2A55DCR, 2A55DMP, 2A55RDA, 2A55RM1, 2A55SAM, 2A55SM1, 2A55SM2, 2A55XL1	Optional, Positional 1
RLS	Release	*Character value*, ***THIS**	Optional, Positional 2
CHECK	Check	***YES**, *NO, *ONLY	Optional
RMTSYS	Remote system	*Character value*, ***GUMBOFTP**	Optional

Product (LICPGM)

Specifies the product for which PTFs are retrieved. All ***GUMBO*** products take the form 2A55tla where "tla" identifies the product. Run DSPSFWRSC to determine which ***GUMBO*** products are installed. CHAR(7)

***THIS**	Use the product (2A55RDA) containing this copy of the Retrieve Gumbo PTF (RTVGSIPTF) command.
2A55DCR	Dicer
2A55DMP	Dumpster
2A55RDA	Report Designer
2A55RM1	Report Manager
2A55SAM	Spool-a-Matic
2A55SM1	SpoolMail
2A55SM2	Gumbo Mail
2A55XL1	Excel-erator
character-value	Specifies the 7-character identifier of the product for which PTFs are retrieved.

Release (RLS)

Specifies the release for which PTFs are retrieved. Run DSPSFWRSC to determine which ***GUMBO*** products are installed. CHAR(6)

***THIS**	Use the release of the product (V3R4M0) containing this copy of the Retrieve Gumbo PTF (RTVGSIPTF) command.
character-value	Specify the release level of the product in the format VxRyMz, where Vx is the version number, Ry is the release number, and Mz is the modification level.

Check (CHECK)

Specifies if checking for newer PTFs is performed. CHAR(10)

***YES**	Check for newer PTFs is performed before downloading. If newer PTFs are not available, processing stops.
***NO**	No check for newer PTFs is performed before downloading.
***ONLY**	Only a check for newer PTF availability is performed. Nothing is downloaded, regardless of the result.

Remote system (RMTSYS)

Specifies the name of remote system which serves PTF save files for download. CHAR(255)

***GUMBOFTP**	Use ***GUMBO's*** FTP server ftp.gumbo.com.
character-value	Specify the remote system name to use.

Note: When prompting, the input field can be expanded by typing an ampersand (&) in the first position of the field followed by a blank, and pressing enter.

Examples

Example 1:

```
RTVGSIPTF
```

The ***GUMBO*** FTP server is check for new PTFs available for product 2A55RDA release V3R4M0. If available, the PTFs are downloaded and installed.

Example 2:

```
RTVGSIPTF  PRODUCT(2A55RDA) RLS(V3R4M0) CHECK(*ONLY)
```

The ***GUMBO*** FTP server is check for new PTFs available for product 2A55RDA release V3R4M0. No other processing is performed.

Error messages

*ESCAPE messages

PID1007	Retrieve PTF failed for product .

Start Report Designer (STRRDA)

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

The Start Report Designer (STRRDA) command starts Gumbo Software Inc's Report Designer.

Parameters

Keyword	Description	Choices	Notes
SRCFILE	Source file	*Qualified object name*	Optional, Positional 1
	Qualifier 1: Source file	*Name*, ***PRV**	
	Qualifier 2: Library	*Name*, ***PRV**, *LIBL, *CURLIB	
SRCMBR	Source member	*Name*, ***PRV**, *SELECT	Optional, Positional 2
PRINTER	*PRTF or RPG printer file	*Name*, ***PRV**, *MBRTYPE, *PRTF, *PRTF38, *FIRST	Optional, Positional 3
OBJLIB	Object library	*Name*, ***PRV**, *CURLIB, *SRCLIB	Optional, Positional 4
JOBD	Job description	*Qualified object name*	Optional, Positional 5
	Qualifier 1: Job description	*Name*, ***PRV**, *USRPRF	
	Qualifier 2: Library	*Name*, ***PRV**, *LIBL, *CURLIB	

Source file (SRCFILE)

Specifies the name of the file containing the source member to be updated or to which a new source member will be added.

Qualifier 1: Source file

***PRV** Use the source file name specified in the previous Report Designer session.
name Specify the name of the source file.

Qualifier 2: Library

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

Source member (SRCMBR)

Specifies the name of the member containing the source to be updated or the name of a new member to be created.

***PRV** Use the name of the source member specified on the previous Report Designer session.
***SELECT** Specifies that selection prompting is used to determine the source member name.
name Specify the name of the source member.

*PRTF or RPG printer file (PRINTER)

Specifies whether the source member is treated as DDS or RPG source. In the case of RPG source, specifies the name of the printer file to process as it appears in the F-spec.

***PRV** Use the printer name specified in the previous Report Designer session.
***MBRTYPE** Infer the printer name from the member's source type. Members with source type PRTF are treated as if ***PRTF** were specified. Members with source type PRTF38 are treated as if ***PRTF38** were specified. Members with source type RPG, RPT, RPG36 etc. are treated as if ***FIRST** were specified.

***PRTF**	The source is treated as native IBM i DDS.
***PRTF38**	The source is treated as System/38 compatible DDS.
***FIRST**	The source is treated as RPG and the first printer file name encountered in the source is processed.
name	Specify the name of the RPG internally described printer file.

Object library (OBJLIB)

Specifies the name of the library where the program or printer file created by Report Designer is stored.

***PRV**	Use the library specified in the previous Report Designer session.
***CURLIB**	Use the current library for the job. If no library is specified as the current library for the job, QGPL is used.
***SRCLIB**	Use the library in which the source member exists.
name	Specify the name of the library.

Job description (JOBD)

Specifies the name of the job description used with batch jobs submitted by Report Designer.

Qualifier 1: Job description

***PRV**	Use the job description name specified in the previous Report Designer session.
***USRPRF**	Use the job description name specified in the user profile.
name	Specify the name of the job description.

Qualifier 2: Library

***PRV**	Use the library specified in the previous Report Designer session.
***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.
name	Specify the name of the library.

Examples

Example 1:

```
STRRDA  SRCFILE(SRC/QRPGSRC)  SRCMBR(INV310)  PRINTER(QPRINT)
```

This command updates an RPG printer definition in source file QRPGSRC in library SRC. The report layout in source member INV310 for file QPRINT is modified if it exists or added if it does not.

Chapter 14 Recovery

What's In This Chapter

This chapter describes Report Designer session interruptions and how to recover work if one occurs.

Session Interruption

A Report Designer session can be interrupted for various reasons including the following:

- The interactive job is cancelled by the system operator.
- The communication session ends abnormally.
- A system failure occurs.

Report Designer helps recover most of the work from an interrupted session.

Recover RDA Session Display

If a session is interrupted, Report Designer will display the Recover RDA Session display the next time the source member is accessed:

```
                          Recover RDA Session

Member . . . . :   SYPR400
File . . . . . :   QDDSSRC
  Library  . . :     RDTEST2

The previous RDA session for the member shown
  ended abnormally.

Select one of the following:

     1. Recover changes made in the previous RDA session
     2. Discard changes and start a new session




Selection
===> 1

F3=Exit   F12=Cancel
```

Use one of two options to recover from an interrupted session:

- Select option 1 to recover the interrupted session and review the changes made.
- Select option 2 to discard changes made during the interrupted session, and reload the source member.

Chapter 15 Trouble-Shooting

What's In This Chapter

This chapter describes the steps to follow if you encounter a problem while using Report Designer. The chapter:

- Describes general trouble-shooting.
- Describes software installation problems.

General Trouble-Shooting

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

- Check the detailed messages in your job log:
  1. Run the DSPJOBLOG command.
  2. Press F10 to display detailed messages.
  3. Locate the messages related to the error.
  4. Place your cursor on each message in turn and press F1.
  5. 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 section 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	IBM i 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 three or four 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 by completely removing the product then re-installing it by performing the following:

1. Check the system library list by running:
   ```
   DSPSYSVAL SYSVAL(QSYSLIBL)
   ```
   Note: If RDA is present, remove it with WRKSYSVAL and IPL the system.
2. Delete the licensed program by running:
   ```
   DLTLICPGM  LICPGM(2A55RDA) RLS(*ALL) OPTION(*ALL)
   ```
   Note: It is okay if this fails with diagnostic CPD3D91 "Product 2A55RDA option *ALL release *ALL not installed."
3. Delete the product's library by running:
   ```
   DLTLIB  LIB(RDA)
   ```
   Note: It is okay if this fails with escape CPF2110 "Library RDA not found."
4. Delete the product's directories by running:
   ```
   RMVDIR  DIR('/Gumbo/ProdData/2A55RDA') SUBTREE(*ALL) RMVLNK(*YES)
   ```
   Note: It is okay if this fails with escape CPFA0A9 "Object not found. ...".

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

   ```
   RMVDIR  DIR('/Gumbo/ProdData')
   RMVDIR  DIR('/Gumbo')
   ```
   Note: It is okay if these fail with escape CPFA0A9 "Object not found. ...".
5. Rebuild IBM i's internal licensed program information by running:
   ```
   CALL  PGM(QSYS/QSZRECOV)
   ```
   Note: This takes several minutes depending on machine size.
6. Install the product according to the instructions in the Installation chapter.
7. Enter your authorization code.

Appendix A Notices

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Appendix B License Agreement

License

Gumbo Software, Inc. grants to the purchaser, permanent license to use Report Designer on the specified IBM system serial number. For system wide licenses the grant is specific to a processor group and covers the system as a whole. For partition licenses the grant is specific to a partition number (ID) and maximum processing capacity. This license is not transferable and not exclusive.

Warranty

Gumbo Software, Inc. makes no warranty, either expressed or implied, with respect to Report Designer, its merchantability or its fitness for any particular purpose. Report Designer software and documentation are provided on an "AS IS" basis.

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Gumbo Software, Inc. may from time to time update Report Designer to correct defects or add enhancements. Purchaser will receive updates for a period of one year from date of purchase.

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