IBM Content Manager OnDemand for iSeries

Administration Guide

Version 5 Release 3

SC41-5325-07

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Note
Before using this information and the product it supports, be sure to read the information in "Notices" on page 319.

Eighth Edition (May 2004)

This edition applies to IBM Content Manager OnDemand for iSeries, Version 5 Release 3 and to all subsequent releases and modifications until otherwise indicated in new editions. This edition replaces SC41-5325-06. This edition applies only to reduced instruction set computer (RISC) systems.

Contents

About IBM Content Manager OnDemand for iSeries Administration Guide (SC41-5325)

This information shows you how to use and administer the IBM® Content Manager OnDemand for iSeries™ (OnDemand) licensed program. OnDemand (known as Report/Data Archive and Retrieval System or R/DARS in previous releases) lets you store large amounts of historical data onto a disk, high-capacity optical volumes, or tape. It also provides quick access to stored data by on-line retrieval.

Use of the instructions and examples that are provided give guidance for performing the following tasks:

- To define and create archives.
- To grant and revoke access to data.
- To display, print, or send facsimiles of your documents.

By using this manual, you can optimize your media usage with a combination of disk, optical, and tape media.

Who should read this book

This book is for programmers, OnDemand administrators, and end users who are responsible for creating, maintaining, and using OnDemand to archive and retrieve information.

Prerequisite and related information

Use the IBM iSeries Information Center as your starting point for looking up iSeries technical information.

You can access the Information Center two ways:

- From the following Web site: `http://www.ibm.com/eserver/iseries/infocenter`
- From CD-ROMs that ship with your Operating System/400® order:

  iSeries Information Center, SK3T-4091-04. This package also includes the PDF versions of iSeries manuals, *iSeries Information Center: Supplemental Manuals*, SK3T-4092-01, which replaces the Softcopy Library CD-ROM.

The Information Center contains advisors and important topics such as Java™, TCP/IP, Web serving, secured networks, logical partitions, clustering, CL commands, and system application programming interfaces (APIs). It also includes links to related IBM Redbooks™ and Internet links to other IBM Web sites such as the IBM home page.

iSeries Navigator

IBM iSeries Navigator is a powerful graphical interface for managing your iSeries servers. iSeries Navigator functionality includes system navigation, configuration, planning capabilities, and online help to guide you through your tasks. iSeries Navigator makes operation and administration of the server easier and more

productive and is the only user interface to the new, advanced features of OS/400®. It also includes Management Central for managing multiple servers from a central system.

You can find more information on iSeries Navigator in the iSeries Information Center and at the following Web site:
`http://www.ibm.com/eserver/iseries/navigator/`

How to send your comments

Your feedback is important in helping to provide the most accurate and high-quality information. If you have any comments about this book or any other iSeries documentation, fill out the readers' comment form at the back of this book.

- If you prefer to send comments by mail, use the readers' comment form with the address that is printed on the back. If you are mailing a readers' comment form from a country other than the United States, you can give the form to the local IBM branch office or IBM representative for postage-paid mailing.
- If you prefer to send comments by FAX, use either of the following numbers:
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    RCHINFOC@us.ibm.com

Be sure to include the following:

- The name of the book.
- The publication number of the book.
- The page number or topic to which your comment applies.

Summary of changes

This edition of *IBM Content Manager OnDemand for iSeries Administration Guide* contains new technical information. There may be some instances where changes were made, but change bars are missing. Significant changes to note are:

- At Version 5 Release 1, Content Manager OnDemand for iSeries (OnDemand) introduced a new server implementation known as the OnDemand Common Server. The Common Server provides enhanced indexing, searching, viewing, security, PDF, and web enablement capabilities for OnDemand users and administrators. Current OnDemand customers who have implemented Spool File Archive (with or without AnyStore or the existing Server feature) can now migrate to the new Common Server using the instructions outlined in Appendix A of the Content Manager OnDemand for iSeries Common Server Planning and Installation Guide. Note that, throughout the documentation, reference to the migration of Spool File Archive data also implies AnyStore data as well, if AnyStore is installed.
- Significant additions have been made to the Content Manager OnDemand for iSeries Common Server Indexing Reference publication regarding functions supported by the OS/400 Indexer. These additions include topics related to defining multi-key indexes, transaction fields, text search fields, SCS spooled files with AFP overlays, and masks for application fields.
- Content Manager OnDemand for iSeries now supports the new iSeries-supported Plasmon optical libraries.
- Two command parameters for the Start Archived Storage Management for OnDemand (STRASMOND) command have been removed to make the use of the command simpler. See Appendix A of the Content Manager OnDemand for iSeries Common Server Administration Guide for details.
- OS/400 has withdrawn the original HTTP server support. In conjunction with this, the Content Manager OnDemand Web Enablement Kit (ODWEK) support for the original HTTP server has also been withdrawn. The HTTP Apache server is now the only supported HTTP server for ODWEK.

Chapter 1. Using the OnDemand Spool File Archive Feature

The OnDemand Spool File Archive feature provides report capture, segmentation, indexing, compression, storage, retrieval, and print/facsimile capabilities for print (spooled) data.

As the system administrator, you are responsible for migrating your data to OnDemand and for developing standard procedures for your users. Careful planning can ensure a smooth transition from your current methods to state-of-the-art archiving and retrieval. We suggest that you carefully read Chapter 4 of *IBM Content Manager OnDemand for iSeries Installation Guide* before you begin.

To add Spool File Archive functions to your existing applications (either as a menu option or integrated with existing functions), see Appendix A, "OnDemand Spool File Archive User Exits and Application Programming Interfaces," on page 281.

Steps to Follow When Defining a Report

Below is a summary of the steps to follow when defining a report to OnDemand.

1. Look at the printed report.
   - How long do you want to keep the report on disk/optical/tape? (In other words, what report policy should the report definition use?) Create a storage group and policy if one does not already exist that meets your requirements.
   - What kind of report is it?
     - **DOC** - with logical segments
     - **PAGE** - with key value in ascending sequential order
     - **NODX** - with no order or no need to define keys.
     - **UBND** - a combination of unrelated reports all in one spooled file.
   - How is the report segmented?
     - **DOC** - what is the logical break between segments?
     - **PAGE** or **NODX** - what literal is always on the first page? (You specify where the report starts and the number of pages per segment; OnDemand creates the segments for you).
     - **UBND** - each report receives its own definition, which determines the division into pieces.
   - What are the keys to the segments?
     - **DOC** - up to 5 keys and display fields
     - **PAGE** - key 1 and key 2 are the same (the field that is in ascending order).
     - **NODX** - no user-defined keys
     - **UBND** - each report receives its own definition, which determines the keys
   - What report date to you want to use? (Job date or date printed on report).
2. To work from the OnDemand menus, enter **GO ONDEMAND** or **GO RDARS** from a command line, then select option 1 for Report Administration, and then option 20 for the Report Definition Menu.

3. Work with the output queue that contains the report you wish to define. Press **F11** to display the spooled file attributes, and write down or print the screen to record the following information:
   - Spooled file name
   - Job name
   - User
   - Job number
   - Spooled file number
4. Create a printer file if your printing and faxing requirements vary from the standard printer file attributes in the OnDemand default printer file (**QPRLR133** in **QRDARS** library). Consider the following:
   - Form type
   - User data
   - Front side overlay and Back side overlay names
   - Overlay offsets
   - Characters per inch or Lines per inch (CPI or LPI)
   - Page size Length and Width
5. Copy the spooled file to a physical file or use iSeries Navigator to work with the spooled file data graphically. Alternatively, you can use the OnDemand Advanced Function Presentation™ data stream (AFPDS) print text function if spooled file is AFPDS.
   - Where are the fields on the report?
     - Absolute line number and column number
     - Pivot processing
     - Translate print control (If using this method, use it for all fields within the report definition.)
6. Write the information on the report definition work sheets (optional) and enter it into OnDemand. Alternatively, you can use iSeries Navigator to define the report with a graphical user interface.
7. Store the report.
8. Check the report store completion report to verify successful report store, number of segments, compression, elapsed time to store, and so forth.
9. Test the retrieval of the report to confirm index (key) values were extracted as expected.
10. Create report overlays for viewing (and optionally to print or fax) if desired.
11. Set up the correct authorizations to secure the report.

Details on all of these functions are included in this chapter.

OnDemand Administration Graphical User Interface

OnDemand provides Windows® workstation users with an alternative to the 5250 data entry screens for working with Report Definitions (and many other OnDemand Administration functions) that are described in this chapter. The iSeries Navigator provides the interface as shown in Figure 1 on page 3.

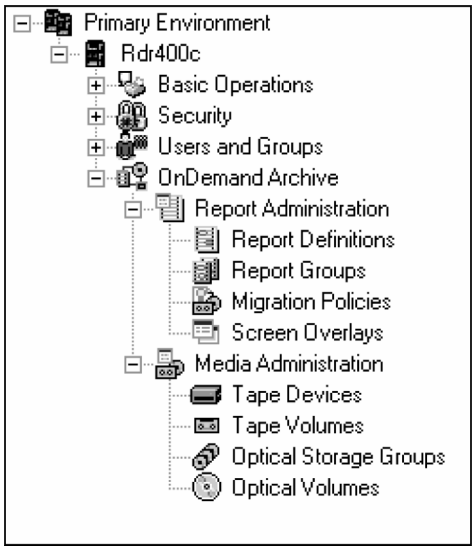

Figure 1. iSeries Navigator interface screen

One of the most powerful features of iSeries Navigator is that it allows report administrators to work with report definitions and spooled file data by using a graphical user interface. The OS/400 spooled file data displays in a window on the workstation that the report administrator can click on to identify division criteria, report date, and key fields. You can select other definition attributes such as report type, data type, and migration policy information by using pulldown select boxes. The graphical interface is a very productive way to work with Report Definitions and perform other OnDemand administrative tasks. Online help information is available on all the workstation panels. However, it is recommended that you become familiar with OnDemand concepts as described in this chapter before using this tool.

Report Administration Menu

To Access the Report Administration Menu, you can type:

- **1** on the OnDemand for iSeries Main Menu command line, Figure 2 on page 4.
- Or type the ***Fast-Path*** command:

  GO RDARSRPT

  on the OS/400 command line, for direct access to Figure 3 on page 4.
- Or use iSeries Navigator for a graphical user interface to many of the functions described in this chapter.

Access the OnDemand main menu, Figure 2 on page 4.

```
ONDEMAND                    OnDemand for iSeries
                                                          System:   ONDMD400
Select one of the following:

     1. Report Administration Menu
     2. Object Administration Menu
     3. Record Archive Menu
     4. Media Administration Menu

    90. Signoff









Selection or command
===>1_____________________________________________________________________
_____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 2. OnDemand for iSeries Main Menu

When you select option 1, the REPORT ADMINISTRATION MENU, Figure 3 appears.

```
ONDMDRPT             OnDemand Report Administration Menu
                                                          System:   ONDMD400
Select one of the following:

     1. Retrieve Reports
     2. Work with Report Policies
     3. Work with Report Overlays
     4. Work with Report Definitions
     5. Work with Report Groups
     6. Work with Report Definition Extensions

    10. Edit/Authorize OnDemand Users
    11. Edit/Authorize OnDemand Report Users
    12. Edit/Authorize OnDemand Report Group Users
    13. Work with Key Security

    20. Report Definition Menu

                                                                   More...
Selection or command
===>______________________________________________________________________
_____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 3. OnDemand Report Administration Menu

For additional options, you can press **Page Down** from this screen to go to the screen shown in Figure 4 on page 5.

```
ONDMDRPT              OnDemand Report Administration Menu
                                                          System:   ONDMD400
Select one of the following:

    21. Report Utility Menu
    22. OnDemand Main Menu

    30. Change OnDemand Global Report Options
    31. Change Your OnDemand Report Options
    32. Change OnDemand Report Options

    40. Report Definition Export/Import









                                                                      Bottom
Selection or command
===>_____________________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 4. OnDemand Report Administration Menu (continued)

These two screens show you all the options that are explained in this chapter and do not repeat in the text.

Option 1. Retrieve Reports

Retrieving reports is an end-user function, and is described in Chapter 8, "For the OnDemand Spool File Archive End User," on page 267.

Option 2. Work with Report Policies

You must assign a report policy to each report. The report policy is used as input during the Report Management Cycle to determine which media the system stores the report on, and for what length of time. Multiple reports can use the same report policy.

Your initial estimates for *Days allowed on disk*, *Days allowed on tape*, and *Days allowed on optical* can be modified after OnDemand has collected historical data related to actual report usage statistics. See "Usage Statistics Reports" on page 133 for instructions to generate reports of actual report usage.

To define a report policy, select option 2, Work with Report Policies, from the REPORT ADMINISTRATION MENU, Figure 3 on page 4, or use iSeries Navigator for a graphical user interface to this function.

Figure 5 on page 6, WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR) appears.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*RPTPCY       *REPORT, *RPTGRP, *RPTOVL...
Report policy  . . . . . .*ALL_____     Name, generic*, *ALL...

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

Figure 5. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to move to Figure 6, WORK WITH REPORT POLICIES screen. Use it to create, change, delete, or display report policies.

To Create a Policy

Use Figure 6 to add a policy name record.

```
                      Work with Report Policies                 ONDMD400
                                                              1/31/98  15:08:54
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


Option  Policy        Text
   1    D30OPTICAL
        BRMS          BRMS/400 Test policy
        DISKONLY      Reports on disk only
        D0OPTICAL     Move to optical right away
        D0OPTICALB    0 days on disk, use another storage group
        D0OPTTAPBK    Migrate to optical fast with tape backup
        D0TAPE        Disk 0 days and the tape
        D0TAPEBIG     Use tap06
        D0TAPEJLS
        D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
        D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
        EXPIRE        Expiration Test Policy
        LAN3995       Policy for lan testing
                                                                      More...

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

Figure 6. Work with Report Policies

Press **Enter** to move to Figure 7 on page 7.

```
                      Create Report Policy                    ONDMD400
                                                           1/31/98  15:09:43
 Type choices, press Enter.

   Policy  . . . . . .  D30OPTICAL   Name
   Days allowed on disk  . . . . . .      30      0-9999999
   Days allowed on tape  . . . . . .       0      0-9999999
   Days allowed on optical . . . . .    3620      0-9999999
   Expire after days . . . . . .        3650      1-9999999
   Recall retention  . . . . . .      5           0-999
   Tape media type . . . . . .        ___
   Optical storage group . . . . .    RDAROPT___  Name
   Index days on disk  . . . . . .      365       1-9999999
   Index recall retention  . . . . .  5           0-999
   Force index affinity  . . . . . .  Y           Y=Yes, N=No
   Tape backup requested . . . . . .  N           Y=Yes, N=No
   Optical backup requested  . . . .  N           Y=Yes, N=No
   Text  . . . . . .                  Keep on Disk for 30 days, Expire
after 10 years___



 F3=Exit   F12=Cancel
```

Figure 7. Create Report Policy

Note: Never enter a number in the *Index days on disk* field that is less than the number of days you want to keep the report. Archiving index records to optical or tape using this method causes potential loss of visibility to the report data relating to those index records.

- OnDemand will only search **on disk** for the index records of reports whose dates differ from the original report date when the following conditions occur.
  - The end users retrieve reports with the **FNDRPTRDAR** API.
  - The date range on the SPECIFY DOCUMENT SEARCH screen is broadened (after entering a search key value).

  This is by design; otherwise it could cause an optical disk or tape mount for every volume on which OnDemand has index records stored.
- If you use the **FNDKEYRDAR** API, the API will only search the index records **on disk**. This is by design; otherwise it could cause an optical disk or tape mount for every volume on which OnDemand has index records stored.
- If you use the OnDemand Client, the OnDemand Server will only search the index records on disk. This is by design; otherwise, it could cause an optical disk or tape mount for every volume on which OnDemand has index records stored.

For these reasons, you should only plan to migrate your index records to optical or to tape for long-term storage, when end users are not likely to need access to the report data under the above circumstances.

Press **Enter** to save your entries and move to Figure 8 on page 8.

```
                    Work with Report Policies                ONDMD400
                                                           1/31/98  15:11:54
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text
          _________
        BRMS          BRMS/400 Test policy
        DISKONLY      Reports on disk only
        D0OPTICAL     Move to optical right away
        D0OPTICALB    0 days on disk, use another storage group
        D0OPTTAPBK    Migrate to optical fast with tape backup
        D0TAPE        Disk 0 days and the tape
        D0TAPEBIG     Use tap06
        D0TAPEJLS
        D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
        D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
        EXPIRE        Expiration Test Policy
        LAN3995       Policy for lan testing
                                                                   More...

F3=Exit   F5=Refresh   F12=Cancel
Policy created, F5 for Refresh.
```

Figure 8. Work with Report Policies

This screen confirms the addition of your report policy.

Press **F5** to display your addition.

To Change a Report Policy

Use this screen, Figure 9, to change the attributes of an existing report policy.

```
                    Work with Report Policies                ONDMD400
                                                           1/31/98  15:12:01
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text
          _________
        BRMS          BRMS/400 Test policy
        DISKONLY      Reports on disk only
        D0OPTICAL     Move to optical right away
        D0OPTICALB    0 days on disk, use another storage group
        D0OPTTAPBK    Migrate to optical fast with tape backup
        D0TAPE        Disk 0 days and the tape
        D0TAPEBIG     Use tap06
        D0TAPEJLS
   2    D30OPTICAL    Keep on Disk for 30 days, Expire after 10 years
        D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
        D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
        EXPIRE        Expiration Test Policy
                                                                   More...

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

Figure 9. Work with Report Policies

Press **Enter** to move to Figure 10 on page 9.

```
                        Change Report Policy                  ONDMD400
                                                            1/31/98  15:12:32
 Policy  . . . . . . . . . . . . . . . . . . . . :  D30OPTICAL


 Type choices, press Enter.

   Days allowed on disk  . . . . . . . . . .          30    0-9999999
   Days allowed on tape  . . . . . . . . . .           0    0-9999999
   Days allowed on optical . . . . . . . . .        3623    0-9999999
   Expire after days . . . . . . . . . . . .        3653    1-9999999
   Recall retention  . . . . . . . . . . . .     5          0-999
   Tape media type . . . . . . . . . . . . .     ________
   Optical storage group . . . . . . . . . .   RDAROPT_    Name
   Index days on disk  . . . . . . . . . . .       365     1-9999999
   Index recall retention  . . . . . . . . .    5          0-999
   Force index affinity  . . . . . . . . . .   Y           Y=Yes, N=No
   Tape backup requested . . . . . . . . . .   N           Y=Yes, N=No
   Optical backup requested  . . . . . . . .   N           Y=Yes, N=No
   Text  . . . . . . . . . . . . . . . . . .   Keep on Disk for 30 days, Expire
after 10 years

 F3=Exit   F12=Cancel
```

Figure 10. Change Report Policy

Type your changes over the current fields. Press **Enter** to display Figure 14 on page 11, which confirms your changes.

To Delete a Report Policy

Use Figure 11 to delete a report policy record.

```
                      Work with Report Policies               ONDMD400
                                                            1/31/98  15:13:51
 Type options, press Enter.
   1=Create    2=Change    4=Delete    5=Display


 Option  Policy        Text
          _________
         BRMS          BRMS/400 Test policy
         DISKONLY      Reports on disk only
         D0OPTICAL     Move to optical right away
         D0OPTICALB    0 days on disk, use another storage group
         D0OPTTAPBK    Migrate to optical fast with tape backup
         D0TAPE        Disk 0 days and the tape
         D0TAPEBIG     Use tap06
         D0TAPEJLS
    4    D30OPTICAL    Keep on Disk for 30 days, Expire after 10 years
         D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
         D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
         EXPIRE        Expiration Test Policy
                                                                  More...

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

Figure 11. Work with Report Policies

Press **Enter** to continue to Figure 12 on page 10.

```
                    Confirm Delete of Policy                    ONDMD400
                                                              1/31/98  15:34:53
 Press Enter to confirm your choice for 4=Delete.
 Press F12=Cancel to return to change your choice.

 Policy  . . . . . . . . . . . . . . . . . :  D30OPTICAL
 Days allowed on disk  . . . . . . . . . . :         30    0-9999999
 Days allowed on tape  . . . . . . . . . . :          0    0-9999999
 Days allowed on optical . . . . . . . . . :       3623    0-9999999
 Expire after days . . . . . . . . . . . . :       3653    1-9999999
 Recall retention  . . . . . . . . . . . . :     5         0-999
 Tape media type . . . . . . . . . . . . . :
 Optical storage group . . . . . . . . . . :  RDAROPT     Name
 Index days on disk  . . . . . . . . . . . :      365      1-9999999
 Index recall retention  . . . . . . . . . :    5          0-999
 Force index affinity  . . . . . . . . . . :  Y            Y=Yes, N=No
 Tape backup requested . . . . . . . . . . :  N            Y=Yes, N=No
 Optical backup requested  . . . . . . . . :  N            Y=Yes, N=No
 Text  . . . . . . . . . . . . . . . . . . :  Keep on Disk for 30 days, Expire
after 10 years


 F12=Cancel
```

Figure 12. Confirm Delete of Policy

Press **Enter** to delete the report policy and continue to Figure 13, or F12 to cancel the request.
A message at the bottom of the screen confirms the deletion.

```
                      Work with Report Policies                 ONDMD400
                                                              1/31/98  15:13:51
 Type options, press Enter.
   1=Create    2=Change    4=Delete    5=Display


 Option  Policy        Text

         _________
         BRMS          BRMS/400 Test policy
         DISKONLY      Reports on disk only
         D0OPTICAL     Move to optical right away
         D0OPTICALB    0 days on disk, use another storage group
         D0OPTTAPBK    Migrate to optical fast with tape backup
         D0TAPE        Disk 0 days and the tape
         D0TAPEBIG     Use tap06
         D0TAPEJLS
         D30OPTICAL    Keep on Disk for 30 days, Expire after 10 years
         D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
         D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
         EXPIRE        Expiration Test Policy
                                                                   More...

 F3=Exit   F5=Refresh   F12=Cancel
 Policy is deleted.
```

Figure 13. Work with Report Policies

If any reports have been defined to use a particular policy name, OnDemand protects you from deleting that policy; it issues a message that the policy cannot be deleted because one or more report definitions refer to it.

Press **F5** to view the list of remaining policies.

To Display a Report Policy

Use Figure 14 on page 11, to view a report policy.

```
                    Work with Report Policies                ONDMD400
                                                           1/31/98  15:13:34
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text
          _________
        BRMS          BRMS/400 Test policy
        DISKONLY      Reports on disk only
        D0OPTICAL     Move to optical right away
        D0OPTICALB    0 days on disk, use another storage group
        D0OPTTAPBK    Migrate to optical fast with tape backup
        D0TAPE        Disk 0 days and the tape
        D0TAPEBIG     Use tap06
        D0TAPEJLS
   5    D30OPTICAL    Keep on Disk for 30 days, Expire after 10 years
        D90OPTICAL    DASD for 90 days then Optical (OnDemand Example)
        D90TAPE       DASD for 90 Days then to Tape (OnDemand Example)
        EXPIRE        Expiration Test Policy
                                                                   More...

F3=Exit   F5=Refresh   F12=Cancel
Policy changed.
```

Figure 14. Work with Report Policies

Press **Enter** to move to Figure 15.

```
                      Display Report Policy              ONDMD400
                                                       1/31/98  15:13:42

 Policy  . . . . . . . . . . . . . . . . . . :  D30OPTICAL
 Days allowed on disk  . . . . . . . . . . . :       30
 Days allowed on tape  . . . . . . . . . . . :        0
 Days allowed on optical . . . . . . . . . . :     3623
 Expire after days . . . . . . . . . . . . . :     3653
 Recall retention  . . . . . . . . . . . . . :    5
 Tape media type . . . . . . . . . . . . . . :
 Optical storage group . . . . . . . . . . . :  RDAROPT
 Index days on disk  . . . . . . . . . . . . :      365
 Index recall retention  . . . . . . . . . . :    5
 Force index affinity  . . . . . . . . . . . :  Y            Y=Yes, N=No
 Tape backup requested . . . . . . . . . . . :  N            Y=Yes, N=No
 Optical backup requested  . . . . . . . . . :  N            Y=Yes, N=No
 Text  . . . . . . . . . . . . . . . . . . . :  Keep on Disk for 30 days, Expire
after 10 years

                                                                   Bottom
 Press Enter to continue.

 F3=Exit   F12=Cancel
```

Figure 15. Display Report Policy

This screen displays the attributes of the report policy you selected.

Option 3. Work with Report Overlays

You can create character-based report overlays, which combine with the spooled data when displayed. You can also include a report overlay when you print the data or send a facsimile.

You can use a report overlay to simulate a preprinted form. For example, design a box of dashes to appear around a ship-to address, and add the words *Ship-To*

Address above the box of dashes. When the user displays the report, the spooled file data, the box of dashes around the address on the page, and the *Ship-To Address* appear.

It is important to understand the difference between an OnDemand *character-based* overlay and an *Advanced Function Presentation* (AFP™) overlay.

- OnDemand character-based overlays are created within OnDemand. They contain character data that is combined with report data when you view the report data from a 5250 display. (You can also print or fax character-based overlays.)
- AFP overlays are defined outside of OnDemand and can contain company logos, shading, special fonts, and others. They are associated with OnDemand reports when you name them in a printer file that you identify in the report definition. AFP overlays are displayed when using the OnDemand Client to view report data.

This section discusses character-based overlays. See "Option 4. Work with Report Definitions" on page 18 for a description of the *Printer file* field.

You cannot define OnDemand character-based report overlays for AFPDS spooled data.

To create, change, delete, or display a report overlay line, select option 3, Work with Report Overlays, from the ONDEMAND REPORT ADMINISTRATION MENU, Figure 3 on page 4. Alternatively, you can use iSeries Navigator for a graphical user interface to this function. Press **Enter** to move to WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR), Figure 16.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*RPTOVL       *REPORT, *RPTGRP, *RPTOVL...
Report overlay . . . . . .  *ALL_____     Name, generic*, *ALL...

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

Figure 16. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to move to WORK WITH REPORT OVERLAYS, Figure 17 on page 13. Use this screen to create, change, delete, or display overlay lines.

To Create a Report Overlay Line

A report overlay lets you temporarily add character data to your spooled data for viewing, printing, or sending a facsimile. To create overlay lines, use Figure 17.

```
                          Work with Report Overlays                ONDMD400
                                                                 1/31/98  15:31:36

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


Opt Overlay       Action  Line  Overlay data
 1  STMT_______      _
    ABC              IL    001

                                                                        Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 17. Work with Report Overlays

The WORK WITH REPORT OVERLAYS screen lists all of the overlay lines in OnDemand.

Press **Enter** to move to CREATE REPORT OVERLAY LINE, Figure 18.

```
                          Create Report Overlay Line               ONDMD400
                                                                 1/31/98  15:31:54
Type choices, press Enter.


  Overlay . . . . . . . . . . . .  STMT_____      Name
  Action  . . . . . . . . . . . .  CD             IL=Insert line
                                                  CD=Change data
  Line  . . . . . . . . . . . . .    8            1-256
  Starting column . . . . . . . .   11            1-255
  Overlay data  . . . . . . . . .  Name:                              Date:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________


F3=Exit   F12=Cancel
```

Figure 18. Create Report Overlay Line

Press **Enter** to move to Figure 19 on page 14.

```
                        Work with Report Overlays                ONDMD400
                                                               1/31/98  15:33:08

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt Overlay       Action  Line  Overlay data
    _____________   _
    ABC             IL    001

                                                                       Bottom
F3=Exit   F5=Refresh   F12=Return
Report overlay line created, F5 for Refresh.
```

Figure 19. Work with Report Overlays

This screen confirms the addition of your report overlay line.

Press **F5** to display your addition. **Remember** to use "Option 4. Work with Report Definitions" on page 18 to update the *Report overlay* field of the Report Definition. If you do not do this final step, OnDemand will not know to use the Report Overlay with the report for which you designed it.

To Change a Report Overlay Line

Use Figure 20 to change an existing report overlay line.

```
                        Work with Report Overlays                ONDMD400
                                                               1/31/98  15:33:12

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt Overlay       Action  Line  Overlay data
    _____________   _
    ABC             IL    001
 2  STMT            CD    008   Name:                      Date:

                                                                       Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 20. Work with Report Overlays

Press **Enter** to move to Figure 21 on page 15.

```
                    Change Report Overlay Line                  ONDMD400
                                                          1/31/98  15:33:26
Overlay . . . . . . . . . . . . :  STMT


Type choices, press Enter.


  Action  . . . . . . . . . . . .  CD            IL=Insert line
                                                 CD=Change data
  Line  . . . . . . . . . . . . .   8            1-256
  Starting column . . . . . . . .  11            1-255
  Overlay data  . . . . . . . . .  Name:                          Date:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________


F3=Exit   F12=Cancel
```

Figure 21. Change Report Overlay Line

Type your changes over the existing lines. Press **Enter** to move to Figure 22.

```
                      Work with Report Overlays                 ONDMD400
                                                          1/31/98  15:33:35

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


Opt Overlay       Action  Line  Overlay data

    ABC           IL      001
    STMT          CD      008  Name:                Date:









                                                                    Bottom
F3=Exit   F5=Refresh   F12=Return
Report overlay line changed.
```

Figure 22. Work with Report Overlays

The message at the bottom of this screen confirms your changes.

To Delete a Report Overlay Line

Use Figure 23 on page 16 to delete an existing report overlay line.

```
                        Work with Report Overlays                ONDMD400
                                                               1/31/98  15:33:12

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt Overlay       Action  Line  Overlay data
    ___________     _
    ABC             IL    001
 4  STMT            CD    008   Name:                          Date:









                                                                      Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 23. Work with Report Overlays

Press **Enter** to move to Figure 24.

```
                    Confirm Delete of Report Overlay Line        ONDMD400
                                                               1/31/98  15:34:53
Press Enter to confirm your choice for 4=Delete.
Press F12=Cancel to return to change your choice.

Overlay . . . . . . . . . . . . :  STMT
Action  . . . . . . . . . . . . :  CD          IL=Insert line
                                               CD=Change data
Line  . . . . . . . . . . . . . :    8
Starting column . . . . . . . . :   11
Overlay data  . . . . . . . . . :  Name:                          Date:
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________


F12=Cancel
```

Figure 24. Confirm Delete of Report Overlay Line

If the information you entered is correct, press **Enter** to delete the report overlay line and move to Figure 25 on page 17.

If the information is not correct, press **F12** to change your entry.

```
                          Work with Report Overlays                ONDMD400
                                                                 1/31/98  15:35:04

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt Overlay       Action  Line  Overlay data
    ___________     _
    ABC             IL    001
    STMT            CD    008   Name:                          Date:









                                                                        Bottom
F3=Exit   F5=Refresh   F12=Return
Report overlay line deleted.
```

Figure 25. Work with Report Overlays

This screen confirms that the report overlay line you selected was deleted.

To Display a Report Overlay Line

Use Figure 26, to display an existing report overlay line.

```
                          Work with Report Overlays                ONDMD400
                                                                 1/31/98  15:33:12

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt Overlay       Action  Line  Overlay data
    ___________     _
    ABC             IL    001
 5  STMT            CD    008   Name:                           Date:









                                                                        Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 26. Work with Report Overlays

Press **Enter** to move to Figure 27 on page 18:

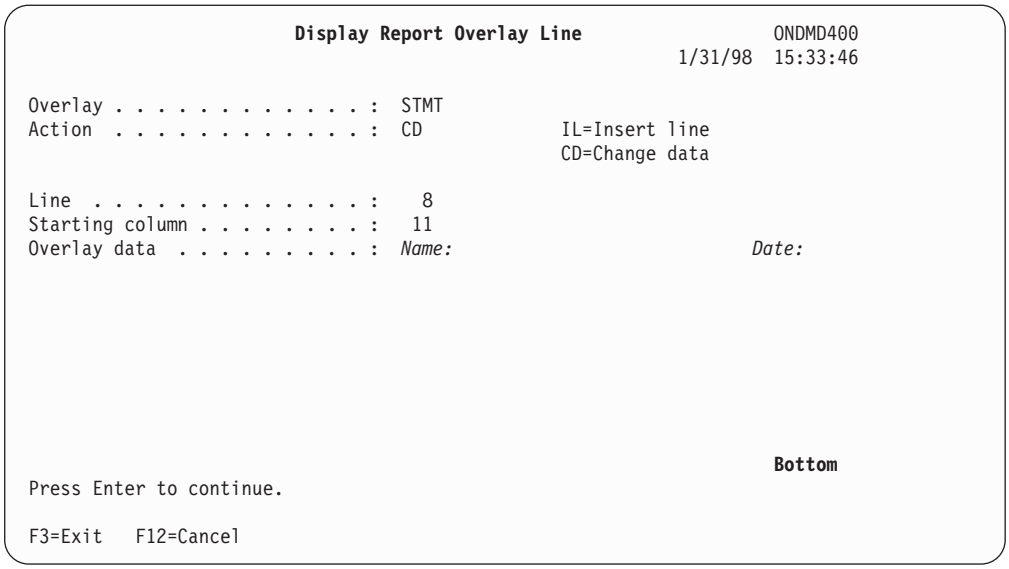

Figure 27. Display Report Overlay Line

This screen lets you view the overlay line you selected.

Option 4. Work with Report Definitions

Every report stored in OnDemand needs a definition. The definition contains information about the location of the segmentation control characters, the report date, the keys (indexes), and the display fields. It includes the policy name OnDemand uses when it migrates the report to optical media or tape.

Note: It is common to use this option in conjunction with other options that are described in "Option 20. Report Definition Menu" on page 69, but IBM includes it here for your convenience. IBM recommends that you use the OnDemand Report Definition Menu or iSeries Navigator to work with report definitions.

Before you create a report definition, decide which keys you want to use for later retrieval of the report segments. Find these keys within the spooled file by using either absolute or pivot processing. Use absolute processing when the information within the spooled file is consistently located in the same column and on the same line for each report segment. If the information is always in the same column, but the line number is not consistent, pivot processing lets you define a string from which to calculate the line location of the information to be extracted.

There are five types of reports you can define to OnDemand. (All of the examples in this book use ***DOC*** reports; the other types are shown in detail in "Examples of Report Types" on page 100.)

Document Reports (DOC)

These reports are composed of many stand-alone items, such as invoices or statements. Each item (known to OnDemand as a segment) can be separately indexed and retrieved. Commonly used indexes are: Customer number, store ID, social security number.

The ***CHECKSTMTS*** and ***TSTINV*** reports stored during the installation verification test are both ***DOC*** reports. Their report definitions are included with your OnDemand software; you can view them from "Option 4. Work with Report Definitions."

Page Reports (PAGE)

These reports have no unique keys, but they can be logically indexed by a range of values. Reports are segmented (up to 100 pages per segment) and are indexed by the starting and ending values of each segment. You can always locate a segment by page number.

For example, OnDemand can divide a general ledger report of 1 000 pages, sorted in ascending order by account number, into 10 100-page segments. It monitors the first account number at the top of the first page and the last account number at the bottom of the last page of each 100-page segment. When you request any account number on the report, OnDemand searches the range of each segment, and finds that account number.

The ***TSTSEQ*** report that was stored during the installation verification test is a ***PAGE*** report. Its report definition is included with your OnDemand software; to view it, see "Option 4. Work with Report Definitions" on page 18.

No-Index Reports (NODX)

These reports have neither a unique key nor a logical range value index. The key 1 index is always the segment number (first **x** pages, second **x** pages, and so on, where **x** is the number of pages you have defined as the segment size). The key 2 index is always the report date (in MM/DD/YY format regardless of the date format and date separators specified for the job). The key 3 index is always the page number used to locate a segment.

Unbundled Reports (UBND)

Use this definition when the spooled file contains several different reports within the same file. OnDemand automatically unbundles (splits) the spooled file into separate reports, if there is a matching report definition in the report definition table. Define a ***UBND*** report with unbundling (segmentation) characteristics, so the report capture program can detect when a new report begins and ends within the spooled file.

To unbundle, always place the report name for each new report in the same position on the page of each report.

AnyStore Reports (ANYS)

An AnyStore report (ANYS) is a special report type that is used only with the AnyStore APIs. AnyStore reports contain pieces of data that are stored and indexed using the AnyStore APIs. Examples of an AnyStore report are file members, an entire spooled file, an Integrated File System object, or a stream of data in a program buffer. AnyStore reports always belong to a report group.

To begin, select option 4, Work with Report Definitions, from the REPORT ADMINISTRATION MENU, (see Figure 3 on page 4, or use iSeries Navigator for a graphical user interface to this function. If you choose to use the non-graphical interface, Figure 28 on page 20 displays.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*REPORT       *REPORT, *RPTGRP, *RPTOVL...
Report name  . . . . . . . . . . . *All_____          Name, generic*, *ALL...

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

Figure 28. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to continue.

To Create a Report Definition

Use Figure 30 on page 21 through Figure 33 on page 23 to create a report definition.

The example that follows uses the sample data as shown in Figure 29 on page 21.

The spooled file has been copied into a physical file named BILLS in the MYLIB library.

Use Option 6. Display Physical File Member in "Option 6. Display Physical File Member" on page 76 to display the physical file that contains the BILLS report data, Figure 29 on page 21.

```
                    Display Physical File Member
File . . . . . :   BILLS              Library  . . . . :   MYLIB
Member . . . . . :   BILLS            Record . . . . . :   1
Control  . . . . .   ________         Column . . . . . :   1
Find . . . . . .   ____________________________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
 01/31/99
                P. O. BOX 45222
                GREENVILLE, S.C.  29500




                CANDYMAKERS, INC
                1438 EAST BAY DR.
                DAYTONA BEACH        FL 32174


 PAGE 1   OF 2                                                          More...
F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys

      04-25     SA        MW        KS        IM       II S1 SYS400C4 KB
```

Figure 29. Display Physical File Member - DOC Report

The highlighted fields, such as the date and the company name (used for segmentation and as the first key) are the values you use when you define the report as shown in the example that follows.

```
                      Work with Report Definitions                ONDMD400
                                                                1/08/98  14:49:34

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt  Report      Version   Type  Text
 1    BILLS         01
      AGEDOC        01     DOC   Age Open DOC
      AGEOPN        01     PAGE  Aged open receivable report
      AIC250        01     PAGE  Warehouse report
      ANNOUNCE      01     NODX  Announcement list
      APCHK         01     DOC   A/P checks
      AP437         01     PAGE  A/P account listing
      BEL3549       01     DOC   Bank edit
      BRMS50        01     DOC   Tape processing rpt
      BUDGET        01     DOC   Budget report
      CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
      GLDAILY       01     PAGE  G/L Daily by account
      GLTRANS       01     PAGE  G/L Transaction report
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 30. Work with Report Definitions (Create)

Press **Enter** to continue to Figure 31 on page 22.

Sample Worksheet

You can use the examples in "Report Definition - Environment Work Sheet" on page 95 and complete them manually before you enter data on this screen. Some fields appear on the screen only under certain conditions.

```
                Create Report Definition - Environment            ONDMD400
                                                        1/08/98  14:49:43
Type choices, press Enter.

  Report . . . . . . . . . . . . . . . . . . . .  BILLS          Name
  Version  . . . . . . . . . . . . . . . . . . .  01             01-99
  Report type  . . . . . . . . . . . . . . . . .  DOC            DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .  133            20-256
  Policy name  . . . . . . . . . . . . . . . . .  D90OPTICAL     Name
  Report overlay . . . . . . . . . . . . . . . .  _________      Name
  Report data type . . . . . . . . . . . . . . .  *OTHER         *SCS, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .  _________      Name
  Translate print control  . . . . . . . . . . .  N              Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .  _________      Name
    Library  . . . . . . . . . . . . . . . . . .    _________
      Text . . . . . . . . . . . . . . . . . . .      Billing statements
  Compression  . . . . . . . . . . . . . . . . .  Y              Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .  1

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

Figure 31. Create Report Definition - Environment (1 of 3)

Before you create the definition, be sure the report policy is entered in "Option 2. Work with Report Policies" on page 5.

Press **Page Down** to continue to Figure 32 or Figure 33 on page 23, depending on your entry for *Posting date type*.

```
                Create Report Definition - Environment            ONDMD400
                                                        1/08/98  14:50:49
Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . .    1
    Length . . . . . . . . . . . . . . . . .    8       0-25
    Column . . . . . . . . . . . . . . . . .    3       0-255
    Line . . . . . . . . . . . . . . . . . .    1       0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . .    _____________
      Length . . . . . . . . . . . . . . . .      0     1-16
      Column . . . . . . . . . . . . . . . .      0     0-255
      +- line offset . . . . . . . . . . . .      0     -255-256









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

Figure 32. Create Report Definition - Environment (2 of 3)

Press **Page Down** to continue to Figure 33 on page 23.

```
                Create Report Definition - Environment            ONDMD400
                                                                 1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . .  N          Y=Yes, N=No
  Bypass document results display  . . . . .  N          Y=Yes, N=No
  Search all sequence numbers  . . . . . .  Y          Y=Yes, N=No
  Input exit . . . . . .                    _________  Name
    Library  . . . . . .                    *LIBL_____
  Index exit . . . . . .                    _________  Name
    Library  . . . . . .                    *LIBL_____
  Unbundle exit  . . . . . .                _________  Name
    Library  . . . . . .                    *LIBL_____

  Use AFP Imbedded Indexes . . . . . .  N          Y=Yes, N=No









                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 33. Create Report Definition - Environment (3 of 3)

Use AFP Embedded Indexes

Only valid for report data type of *AFPDS. Enter either:

- **N** to use normal OnDemand indexing. This requires that you define all the indexing information to OnDemand in the report definition.
- **Y** to use embedded AFP indexing and grouping tags. OnDemand extracts these tags from the input data and uses them. You must still define the key names and lengths for these keys to work properly.

Note: If you set this flag to **Y**, then OnDemand will use this indexing method for the entire report. (The system does this instead of defining lines and columns or pivot values for segmentation, key, and so forth). In other words, you cannot mix embedded segmentation and indexes with explicitly-defined segmentation and indexes within one report definition. If you use embedded AFP indexes, frame each segment with a **STRPAGGRP** and **ENDPAGGRP**. Place the **DOCIDXTAG**s (to identify the key values) for the segment between the **STRPAGGRP** and **ENDPAGGRP** and specify GROUP as a level. (OnDemand does not process PAGE indexes.) You can use the IBM product ACIF to create these groups and indexes on other IBM systems.

Press **Enter** to save your entries and to move to Figure 34 on page 24 to continue creating your report definition.

Use the screen in Figure 34 on page 24 to define the segments you want from the spooled file of this report. The spooled file usually contains multiple documents or sections of the report (such as invoices or departmental sections). Segmentation tells OnDemand how to find the end of one section and the start of the next within the spooled file.

Sample Worksheet

You can use the example in "Report Definition - Segmentation Work Sheet" on page 97, and complete it manually before you enter data on this screen. Some fields appear on the screen only under certain conditions.

```
                Create Report Definition - Segmentation            ONDMD400
                                                                 1/08/98  14:51:39
Report/Version  . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Segment size  . . . . . . . . . . . .   100      1-100
  Segmentation condition 1:
  Change/Match  . . . . . . . . . . . .   1        1=Change, 2=Match
    Value . . . . . . . . . . . . . . .   ________
    Length  . . . . . . . . . . . . . .   25       0-25
    Column  . . . . . . . . . . . . . .   18       0-255
    Line  . . . . . . . . . . . . . . .   9        0-256
    -OR-
    Pivot value . . . . . . . . . . . .   ________________
      Length  . . . . . . . . . . . . .   0        0-16
      Column  . . . . . . . . . . . . .   0        0-255
      +- line offset  . . . . . . . . .   0        -255-256

  Condition combination . . . . . . . .   0        0=None, 1=And, 2=Or
                                                                   More...

F3=Exit   F12=Cancel
```

Figure 34. Create Report Definition - Segmentation

The heading entitled *Segmentation condition 1* may appear as *Start of report condition 1* for **PAGE** and **NODX** report definitions.

Press **Enter** to continue to Figure 35 on page 25.

Sample Worksheet

You can use the examples in "Report Definition - Keys Work Sheets" on page 98, and complete them manually before you enter data on this screen. Some fields appear on the screen only under certain conditions.

Use Figure 35 on page 25 through Figure 39 on page 27 to define the keys for storing and retrieving segments of a report. You can combine letters and numbers in your definition of:

- Key 1 - maximum of 25 characters
- Keys 2, 3, 4 - maximum of 20 characters
- Key 5 - maximum of 15 characters

You can use these keys alone or in any combination.

If your report has a hierarchy of indexes—for example, store numbers within a city within a region—you might define your keys as stated below:

- Key 1 = region code
- Key 2 = city code
- Key 3 = store number

This lets you display all reports for a store number in a city in a region, and reduces the number of items that meet the search value.

You can also use partial keys, which describe a part of the entire key. For example, you can use a partial key to find all bills for account numbers that begin with 111. You do this by entering **111*** for the search key. If you use a complete

key—111-2278—you can limit your search to that particular account number. (Due to the unique nature of the key structure, partial keys are not supported for **PAGE** reports.)

Also important are the field lengths you define for the keys and display fields. On the WORK WITH DOCUMENTS screen, the width of the columns is determined by the greater of either:

1. The Length (size) of the key or display field as defined in the Report Definition, OR
2. The number of characters (size) of the *Key* or *Display Field Name* as defined in the Report Definition.

If you define such wide fields and field names that they do not all fit on the screen, OnDemand will display an additional function key (**F11=Change View**) at the bottom of the screen to allow you to toggle so that you can see all the data.

If you set the *Minimum search characters* field to **0** within a particular key definition (keys 2 through 5), it becomes a display field. It appears on the WORK WITH DOCUMENTS selection list, but end users cannot search by this field.

```
                  Create Report Definition - Keys                ONDMD400
                                                          1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . . . .   Name_____________
  Length  . . . . . . . . . . . . . . . . . .   25          1-25
  Minimum search characters . . . . . . . . .    3          1-length
  Location:
    Column  . . . . . . . . . . . . . . . . .     18        0-255
    Line  . . . . . . . . . . . . . . . . . .      9        0-256
    -OR-
    Pivot value . . . . . . . . . . . . . . .     ________________
      Length  . . . . . . . . . . . . . . . .        0      0-16
      Column  . . . . . . . . . . . . . . . .        0      0-255
      +- line offset  . . . . . . . . . . . .        0      -255-256

  Lower case key  . . . . . . . . . . . . . .   Y           Y=Yes, N=No
  Key security  . . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . . .   N           Y=Yes, N=No
                                                                  More...
F3=Exit   F12=Cancel
```

Figure 35. Create Report Definition - Keys (1 of 5)

Some fields might not appear on the screen for certain report types.

The following screens allow you to enter your requirements for Keys 2 through 5, using the instructions for Key 1. Press **Page Down** after each key definition until the last key definition is completed. (Key 2, 3, and 4 allow a maximum of 20 characters each; Key 5 allows a maximum of 15 characters.)

Press **Page Down** to continue to Figure 36 on page 26.

```
                  Create Report Definition - Keys                 ONDMD400
                                                          1/08/98  14:53:00
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 2 name  . . . . . . . . . . . . . . .   Account No._
  Length  . . . . . . . . . . . . . . . . .    8         1-20, 0=Not used
  Minimum search characters . . . . . . . .    4         0-length
  Location:
    Column  . . . . . . . . . . . . . . . .      82      0-255
    Line  . . . . . . . . . . . . . . . . .       8      0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .      ____________
      Length  . . . . . . . . . . . . . . .         0    0-16
      Column  . . . . . . . . . . . . . . .         0    0-255
      +- line offset  . . . . . . . . . . .         0    -255-256

  Lower case key  . . . . . . . . . . . . .   N         Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N         Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N         Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 36. Create Report Definition - Keys (2 of 5)

Press **Page Down** to continue to Figure 37.

```
                  Create Report Definition - Keys                 ONDMD400
                                                          1/08/98  14:53:28
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 3 name  . . . . . . . . . . . . . . .   ____________
  Length  . . . . . . . . . . . . . . . . .    0         1-20, 0=Not used
  Minimum search characters . . . . . . . .    1         0-length
  Location:
    Column  . . . . . . . . . . . . . . . .       0      0-255
    Line  . . . . . . . . . . . . . . . . .       0      0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .      ____________
      Length  . . . . . . . . . . . . . . .         0    0-16
      Column  . . . . . . . . . . . . . . .         0    0-255
      +- line offset  . . . . . . . . . . .         0    -255-256

  Lower case key  . . . . . . . . . . . . .   N         Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N         Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N         Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 37. Create Report Definition - Keys (3 of 5)

Press **Page Down** to continue to Figure 38 on page 27.

Complete the fields, following the instructions for Figure 35 on page 25.

Note the use of the Pivot value, Length, Column, and +- line offset fields to locate the Total value, which may appear on different lines on each bill, depending on how much detail appears above it.

```
                  Create Report Definition - Keys                 ONDMD400
                                                            1/08/98  14:53:42
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 4 name  . . . . . . . . . . . . . . .   Amount_________
  Length  . . . . . . . . . . . . . . . . .    8         1-20, 0=Not used
  Minimum search characters . . . . . . . .    0         0-length
  Location:
    Column  . . . . . . . . . . . . . . . .    126       0-255
    Line  . . . . . . . . . . . . . . . . .      0       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .    Total_____________
      Length  . . . . . . . . . . . . . . .        6     0-16
      Column  . . . . . . . . . . . . . . .      120     0-255
      +- line offset  . . . . . . . . . . .        0     -255-256

  Lower case key  . . . . . . . . . . . . .   N         Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N         Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N         Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 38. Create Report Definition - Keys (4 of 5)

Press **Page Down** to continue to Figure 39.

```
                  Create Report Definition - Keys                 ONDMD400
                                                            1/08/98  14:54:31
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 5 name  . . . . . . . . . . . . . . .   ________
  Length  . . . . . . . . . . . . . . . . .    0         1-15, 0=Not used
  Minimum search characters . . . . . . . .    1         0-length
  Location:
    Column  . . . . . . . . . . . . . . . .      0       0-255
    Line  . . . . . . . . . . . . . . . . .      0       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .
      Length  . . . . . . . . . . . . . . .        0     0-16
      Column  . . . . . . . . . . . . . . .        0     0-255
      +- line offset  . . . . . . . . . . .        0     -255-256

  Lower case key  . . . . . . . . . . . . .   N         Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N         Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N         Y=Yes, N=No
                                                                Bottom
F3=Exit   F12=Cancel
```

Figure 39. Create Report Definition - Keys (5 of 5)

When you are finished, press **Enter** to complete your report definition. Figure 40 on page 28 appears.

```
                      Work with Report Definitions                ONDMD400
                                                                 1/08/98  14:54:35

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

Opt  Report      Version   Type  Text
     _________
     AGEDOC        01     DOC   Age Open DOC
     AGEOPN        01     PAGE  Aged open receivable report
     AIC250        01     PAGE  Warehouse report
     ANNOUNCE      01     NODX  Announcement list
     APCHK         01     DOC   A/P checks
     AP437         01     PAGE  A/P account listing
     BEL3549       01     DOC   Bank edit
     BRMS50        01     DOC   Tape processing rpt
     BUDGET        01     DOC   Budget report
     CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
     GLDAILY       01     PAGE  G/L Daily by account
     GLTRANS       01     PAGE  G/L Transaction report
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
Report definition created, F5 for Refresh.
```

Figure 40. Create Report Definition - Keys (Confirmation Screen)

Press F5 to refresh.

This screen confirms the addition of your report definition to OnDemand. Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

To Change a Report Definition

If you want to change a report definition—its keys, for example—select option 4, Work with Report Definitions from the REPORT ADMINISTRATION MENU. (See Figure 3 on page 4.) Figure 41 is then displayed.

```
                      Work with Report Definitions                ONDMD400
                                                                 1/08/98  14:55:24

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

Opt  Report      Version   Type  Text
     _________
     AGEDOC        01     DOC   Age Open DOC
     AGEOPN        01     PAGE  Aged open receivable report
     AIC250        01     PAGE  Warehouse report
     ANNNOUNCE     01     NODX  Announcement list
     APCHK         01     DOC   A/P checks
     AP437         01     PAGE  A/P account listing
     BEL3549       01     DOC   Bank edit
 2   BILLS         01     DOC   Billing statements
     BRMS50        01     DOC   Tape processing rpt
     BUDGET        01     DOC   Budget report
     CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
     GLDAILY       01     PAGE  G/L Daily by account
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 41. Work with Report Definitions (Change)

Press **Enter** to continue to Figure 42 on page 29.

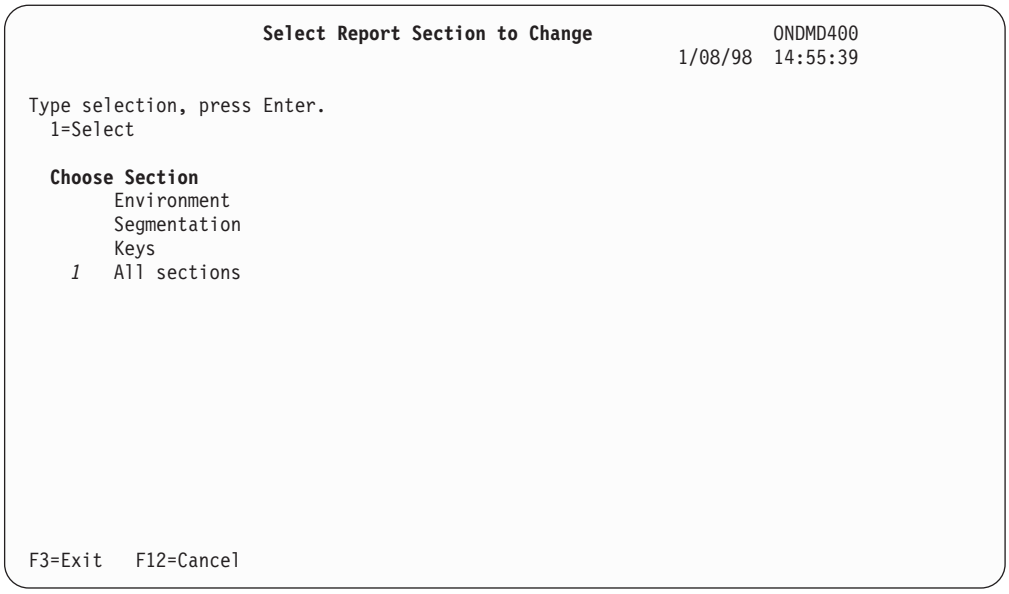

Figure 42. Select Report Section to Change

You can go directly to one of these fields of a report definition. Type **1** next to the appropriate field:

Environment
To change only the environment of the report definition.

Press **Enter** to move to Figure 43 on page 30, REPORT DEFINITION - ENVIRONMENT.

Segmentation
To change only the segmentation of the report definition.

Press **Enter** to move to Figure 46 on page 31, REPORT DEFINITION - SEGMENTATION.

Keys To change only the keys in the report definition.

Press **Enter** to move to Figure 48 on page 32, REPORT DEFINITION - KEYS.

You can change the attributes of the entire report definition:

All sections
Enter **1** to display all change screens in sequence.

Press **Enter** to move to Figure 43 on page 30.

```
                Change Report Definition - Environment            ONDMD400
                                                        1/08/98  14:55:51
Report/Version . . . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Report type  . . . . . . . . . . . . . . . . .   DOC           DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .   133           20-256
  Policy name  . . . . . . . . . . . . . . . . .   D90OPTICAL    Name
  Report overlay . . . . . . . . . . . . . . . .    _________    Name
  Report data type . . . . . . . . . . . . . . .   *OTHER        *SCS, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .    _________    Name
  Translate print control  . . . . . . . . . . .   N             Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .    _________    Name
    Library  . . . . . . . . . . . . . . . . . .    _________
  Text . . . . . . . . . . . . . . . . . . . . .   Billing statements
_________________
  Compression  . . . . . . . . . . . . . . . . .   Y             Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .   1
                                                                        More...

F3=Exit   F12=Cancel
```

Figure 43. Change Report Definition - Environment (1 of 3)

Type over any field information to change it, and press **Page Down** to continue to Figure 44 if you have entered a value in the *Posting date type* field; or to continue to Figure 45 on page 31 if you left *Posting date type* blank.

```
                Change Report Definition - Environment            ONDMD400
                                                        1/08/98  14:56:01
Report/Version . . . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . . . .   1
    Length . . . . . . . . . . . . . . . . . . .    8       0-25
    Column . . . . . . . . . . . . . . . . . . .   120      0-255
    Line . . . . . . . . . . . . . . . . . . . .     2      0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . . . .    _________________
      Length . . . . . . . . . . . . . . . . . .       0    1-16
      Column . . . . . . . . . . . . . . . . . .       0    0-255
      +- line offset . . . . . . . . . . . . . .       0    -255-256









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

Figure 44. Change Report Definition - Environment (2 of 3)

Type over any field information to change it, and press **Page Down** to continue to Figure 45 on page 31.

```
                Change Report Definition - Environment            ONDMD400
                                                                 1/08/98  14:56:05
Report/Version . . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Bypass report results display  . . . . . .  .  N           Y=Yes, N=No
  Bypass document results display  . . . . . .  N           Y=Yes, N=No
  Search all sequence numbers  . . . . . . . .  Y           Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . . .    __________   Name
    Library  . . . . . . . . . . . . . . . . .      *LIBL_____
  Index exit . . . . . . . . . . . . . . . . .    __________   Name
    Library  . . . . . . . . . . . . . . . . .      *LIBL_____
  Unbundle exit  . . . . . . . . . . . . . . .    __________   Name
    Library  . . . . . . . . . . . . . . . . .      *LIBL_____









                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 45. Change Report Definition - Environment (3 of 3)

Type over any field information to change it. Press **Enter** to continue to Figure 46.

```
                Change Report Definition - Segmentation           ONDMD400
                                                                 1/08/98  14:56:09
Report/Version  . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Segment size  . . . . . . . . . . . .  100        1-100
  Segmentation condition 1:
    Change/Match  . . . . . . . . . . .  1          1=Change, 2=Match
    Value . . . . . . . . . . . . . . .   _______
    Length  . . . . . . . . . . . . . .   8        0-25
    Column  . . . . . . . . . . . . . .   5        0-255
    Line  . . . . . . . . . . . . . . .   4        0-256
    -OR-
    Pivot value . . . . . . . . . . . .   _______
      Length  . . . . . . . . . . . . .     0      0-16
      Column  . . . . . . . . . . . . .     0      0-255
      +- line offset  . . . . . . . . .     0      -255-256

  Condition combination . . . . . . . .  0          0=None, 1=And, 2=Or
                                                                     More...

F3=Exit   F12=Cancel
```

Figure 46. Change Report Definition - Segmentation (1 of 2)

Type over any field information to change it. (The heading entitled *Segmentation condition 1* may appear as *Start of report condition 1* for **PAGE** and **NODX** report definitions.) If you have a second segmentation requirement and have entered a value in the *Condition combination* field, you can press **Page Down** to continue to the second screen below. If you have entered **0** in the *Condition combination* field, press **Enter** to continue to Figure 48 on page 32.

```
                Change Report Definition - Segmentation            ONDMD400
                                                          1/08/98  14:56:09
Report/Version  . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Segmentation condition 2:
    Change/Match  . . . . . . . . . .   1          1=Change, 2=Match
    Value . . . . . . . . . . . . . .   _______
    Length  . . . . . . . . . . . . .   8          0-25
    Column  . . . . . . . . . . . . .    5         0-255
    Line  . . . . . . . . . . . . . .    4         0-256
    -OR-
    Pivot value . . . . . . . . . . .   _____________
      Length  . . . . . . . . . . . .      0       0-16
      Column  . . . . . . . . . . . .      0       0-255
      +- line offset  . . . . . . . .      0       -255-256


                                                                   More...

F3=Exit   F12=Cancel
```

Figure 47. Change Report Definition - Segmentation (2 of 2)

Type over any field information to change it. (The heading entitled *Segmentation condition 1* may appear as *Start of report condition 1* for **PAGE** and **NODX** report definitions.) Press **Enter** to continue to Figure 48.

```
                  Change Report Definition - Keys                  ONDMD400
                                                          1/08/98  14:56:19
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . .   Name_________
  Length  . . . . . . . . . . . . . . . .   25          1-25
  Minimum search characters . . . . . . .    3          1-length
  Location:
    Column  . . . . . . . . . . . . . . .       5       0-255
    Line  . . . . . . . . . . . . . . . .       6       0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     _____________
      Length  . . . . . . . . . . . . . .        0       0-16
      Column  . . . . . . . . . . . . . .        0       0-255
      +- line offset  . . . . . . . . . .        0       -255-256

  Lower case key  . . . . . . . . . . . .   Y           Y=Yes, N=No
  Key security  . . . . . . . . . . . . .   N           Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .   N           Y=Yes, N=No
                                                                   More...
F3=Exit   F12=Cancel
```

Figure 48. Change Report Definition - Keys (Key 1)

Type over any field information to change it. Press **Page Down** to continue to Figure 49 on page 33.

```
                  Change Report Definition - Keys                ONDMD400
                                                                  1/08/98  14:56:22
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 2 name  . . . . . . . . . . . . . . .   Account No._
  Length  . . . . . . . . . . . . . . . . .    8          1-20, 0=Not used
  Minimum search characters . . . . . . . .    4          0-length
  Location:
    Column  . . . . . . . . . . . . . . . .       5       0-255
    Line  . . . . . . . . . . . . . . . . .       4       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .      ________________
      Length  . . . . . . . . . . . . . . .         0     0-16
      Column  . . . . . . . . . . . . . . .         0     0-255
      +- line offset  . . . . . . . . . . .         0     -255-256

  Lower case key  . . . . . . . . . . . . .   N          Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N          Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N          Y=Yes, N=No
                                                                  More...
F3=Exit   F12=Cancel
```

Figure 49. Change Report Definition - Keys (Key 2)

Type over any field information to change it. Press **Page Down** to continue to Figure 50.

```
                  Change Report Definition - Keys                ONDMD400
                                                                  1/08/98  14:56:26
Report/Version  . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 3 name  . . . . . . . . . . . . . . .    ___________
  Length  . . . . . . . . . . . . . . . . .    0          1-20, 0=Not used
  Minimum search characters . . . . . . . .    1          0-length
  Location:
    Column  . . . . . . . . . . . . . . . .       0       0-255
    Line  . . . . . . . . . . . . . . . . .       0       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .      ________________
      Length  . . . . . . . . . . . . . . .         0     0-16
      Column  . . . . . . . . . . . . . . .         0     0-255
      +- line offset  . . . . . . . . . . .         0     -255-256

  Lower case key  . . . . . . . . . . . . .   N          Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .   N          Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .   N          Y=Yes, N=No
                                                                  More...
F3=Exit   F12=Cancel
```

Figure 50. Change Report Definition - Keys (Key 3)

Type over any field information to change it. Press **Page Down** to continue to Figure 51 on page 34.

```
                  Change Report Definition - Keys                ONDMD400
                                                        1/08/98  14:56:28
Report/Version  . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 4 name  . . . . . . . . . . . . . . . .   Amount__________
  Length  . . . . . . . . . . . . . . . . . .    8          1-20, 0=Not used
  Minimum search characters . . . . . . . . .    0          0-length
  Location:
    Column  . . . . . . . . . . . . . . . . .     126       0-255
    Line  . . . . . . . . . . . . . . . . . .       0       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . . .     Total___________
      Length  . . . . . . . . . . . . . . . .         6     0-16
      Column  . . . . . . . . . . . . . . . .       120     0-255
      +- line offset  . . . . . . . . . . . .         0     -255-256

  Lower case key  . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Key security  . . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . . .   N           Y=Yes, N=No
                                                                  More...
F3=Exit   F12=Cancel
```

Figure 51. Change Report Definition - Keys (Key 4)

Type over any field information to change it. Press **Page Down** to continue to Figure 52.

```
                  Change Report Definition - Keys                ONDMD400
                                                        1/08/98  14:56:30
Report/Version  . . . . . . . . . . . . . . :   BILLS      / 01

Type choices, press Enter.

  Key 5 name  . . . . . . . . . . . . . . . .    ________
  Length  . . . . . . . . . . . . . . . . . .    0          1-15, 0=Not used
  Minimum search characters . . . . . . . . .    1          0-length
  Location:
    Column  . . . . . . . . . . . . . . . . .       0       0-255
    Line  . . . . . . . . . . . . . . . . . .       0       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . . .      ______________
      Length  . . . . . . . . . . . . . . . .         0     0-16
      Column  . . . . . . . . . . . . . . . .         0     0-255
      +- line offset  . . . . . . . . . . . .         0     -255-256

  Lower case key  . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Key security  . . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . . .   N           Y=Yes, N=No
                                                                   Bottom
F3=Exit   F12=Cancel
```

Figure 52. Change Report Definition - Keys (Key 5)

Type over any field information to change it. Press **Enter** to continue to Figure 53 on page 35.

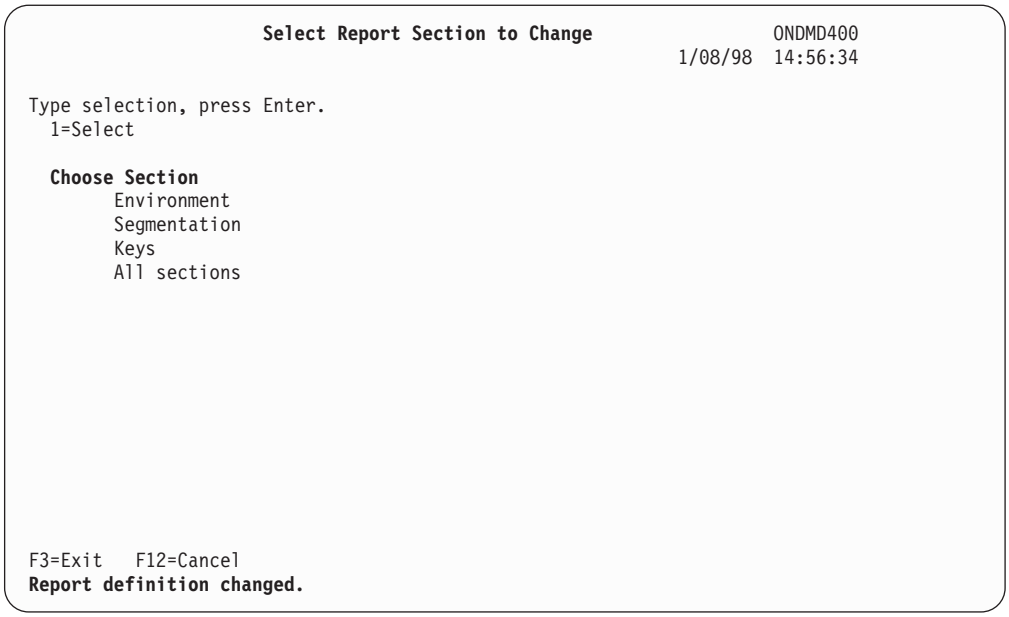

Figure 53. Select Report Section to Change

This screen confirms your changes.

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

To Copy a Report Definition

You can copy an existing report definition and assign the copy a new name, version number, or both.

For example, the screens show you a report definition, ***BILLS***, version ***01***. We copied the report definition, kept the same name, and assigned a new version number.

To do this, select option 4, Work with Report Definitions, from the REPORT ADMINISTRATION MENU, (see Figure 3 on page 4). The screen, WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR), Figure 28 on page 20, appears. Complete it, and press **Enter** to move to Figure 54 on page 36.

```
                      Work with Report Definitions                ONDMD400
                                                                1/08/98  14:56:56

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

Opt  Report      Version   Type  Text
     _________
     AGEDOC         01     DOC   Age Open DOC
     AGEOPN         01     PAGE  Aged open receivable report
     AIC250         01     PAGE  Warehouse report
     ANNNOUNCE      01     NODX  Announcement list
     APCHK          01     DOC   A/P checks
     AP437          01     PAGE  A/P account listing
     BEL3549        01     DOC   Bank edit
 3   BILLS          01     DOC   Billing statements
     BRMS50         01     DOC   Tape processing rpt
     BUDGET         01     DOC   Budget report
     CHECKSTMTS     01     DOC   Check Statements (OnDemand Example)
     GLDAILY        01     PAGE  G/L Daily by account
                                                                      More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 54. Work with Report Definitions (Copy)

Press **Enter** to continue to Figure 55.

```
                          Copy Report Definition                  ONDMD400
                                                                1/08/98  14:57:24

To rename copied report, type New report, press Enter.

Report      Version  New report  New version
BILLS         01     BILLS           02









F3=Exit   F12=Cancel
```

Figure 55. Copy Report Definition

Press **Enter** to move to Figure 56 on page 37.

```
                    Work with Report Definitions                    ONDMD400
                                                                  1/08/98  14:56:56

 Type options, press Enter.
   1=Create    2=Change    3=Copy    4=Delete    5=Display


 Opt Report     Version Type  Text

     __________  _
     AGEDOC       01    DOC   Age Open DOC
     AGEOPN       01    PAGE  Aged open receivable report
     AIC250       01    PAGE  Warehouse report
     ANNOUNCE     01    NODX  Announcement list
     APCHK        01    DOC   A/P checks
     AP437        01    PAGE  A/P account listing
     BILLS        01    DOC   Billing statements
     BILLS        02    DOC   Billing statements (ver 2)
     BEL3549      01    DOC   Bank edit
     BRMS50       01    DOC   Tape processing rpt
     BUDGET       01    DOC   Budget report
     CHECKSTMTS   01    DOC   Check Statements (OnDemand Example)
     GLDAILY      01    PAGE  G/L Daily by account
                                                                        More...
 F3=Exit   F5=Refresh   F12=Cancel
Report definition copied, F5 for Refresh.
```

Figure 56. Work with OnDemand Reports

When you press **F5** to refresh the screen, the new, copied report definition appears.

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

To Delete a Report Definition

To delete a report definition, select option 4 from the WORK WITH REPORT DEFINITION screen. If there are no reports currently archived by this name, OnDemand deletes the definition.

Figure 57 appears.

```
                        Work with Report Definitions                ONDMD400
                                                                  1/08/98  14:58:53

 Type options, press Enter.
   1=Create    2=Change    3=Copy    4=Delete    5=Display


 Opt  Report      Version   Type  Text

      __________
      AGEDOC        01     DOC   Age Open DOC
      AGEOPN        01     PAGE  Aged open receivable report
      AIC250        01     PAGE  Warehouse report
      ANNOUNCE      01     NODX  Announcement list
      APCHK         01     DOC   A/P checks
      AP437         01     PAGE  A/P account listing
      BEL3549       01     DOC   Bank edit
  4   BILLS         01     DOC   Billing statements
      BRMS50        01     DOC   Tape processing rpt
      BUDGET        01     DOC   Budget report
      CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
      GLDAILY       01     PAGE  G/L Daily by account
                                                                        More...
 F3=Exit   F5=Refresh   F12=Cancel
```

Figure 57. Work with Report Definitions (Delete)

Press **Enter** to delete the definition. Figure 58 is displayed for confirmation purposes.

```
                  Confirm Delete of Report Definition              ONDMD400
                                                                1/08/98  14:59:09
Press Enter to confirm your choice for 4=Delete.
Press F12=Cancel to return to change your choice.

Report . . . . . . . . :   BILLS
Version  . . . . . . . :   01
Type . . . . . . . . . :   DOC
Text . . . . . . . . . :   Billing statements









F12=Cancel
```

Figure 58. Confirm Delete of Report Definition

Press **Enter** to confirm deletion of the report definition.

```
                      Work with Report Definitions                 ONDMD400
                                                                1/08/98  14:59:43

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt  Report      Version   Type  Text
      AGEDOC        01     DOC   Age Open DOC
      AGEOPN        01     PAGE  Aged open receivable report
      AIC250        01     PAGE  Warehouse report
      ANNOUNCE      01     NODX  Announcement list
      APCHK         01     DOC   A/P checks
      AP437         01     PAGE  A/P account listing
      BEL3549       01     DOC   Bank edit
      BILLS         01     DOC   Billing statements
      BRMS50        01     DOC   Tape processing rpt
      BUDGET        01     DOC   Budget report
      CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
      GLDAILY       01     PAGE  G/L Daily by account
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
Report definition deleted.
```

Figure 59. Work with Report Definitions (Confirmation Screen)

A message, see Figure 59, appears to confirm deletion, and you can press **F5** to view the remaining definitions.

To Display a Report Definition

Use Figure 60 on page 39 to begin viewing a report definition.

```
                      Work with Report Definitions                ONDMD400
                                                                 1/08/98  14:57:41

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

Opt  Report      Version   Type  Text
      _________
      AGEDOC        01     DOC   Age Open DOC
      AGEOPN        01     PAGE  Aged open receivable report
      AIC250        01     PAGE  Warehouse report
      ANNNOUNCE     01     NODX  Announcement list
      APCHK         01     DOC   A/P checks
      AP437         01     PAGE  A/P account listing
      BEL3549       01     DOC   Bank edit
 5    BILLS         01     DOC   Billing statements
      BRMS50        01     DOC   Tape processing rpt
      BUDGET        01     DOC   Budget report
      CHECKSTMTS    01     DOC   Check Statements (OnDemand Example)
      GLDAILY       01     PAGE  G/L Daily by account
                                                                        More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 60. Work with Report Definitions (Display)

Press **Enter** to continue to Figure 61.

```
                Display Report Definition - Environment           ONDMD400
                                                                 1/08/98  14:58:24
Report/Version . . . . . . . . . . . . . . . . :  BILLS      / 01

Report type  . . . . . . . . . . . . . . . . . :  DOC
Input record length  . . . . . . . . . . . . . :  133
Policy name  . . . . . . . . . . . . . . . . . :  D90OPTICAL
Report overlay . . . . . . . . . . . . . . . . :
Report data type . . . . . . . . . . . . . . . :  *OTHER
Report group . . . . . . . . . . . . . . . . . :
Translate print control  . . . . . . . . . . . :  N     Y=Yes, N=No
Printer file . . . . . . . . . . . . . . . . . :
  Library  . . . . . . . . . . . . . . . . . . :
Text . . . . . . . . . . . . . . . . . . . . . :  Billing statements
Compression  . . . . . . . . . . . . . . . . . :  Y     Y=Yes, N=No
Posting date type  . . . . . . . . . . . . . . :  1




                                                                        More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 61. Work with Report Definition - Environment (1 of 3)

Press **Page Down** to continue to Figure 62 on page 40.

```
                Display Report Definition - Environment            ONDMD400
                                                          1/08/98  14:58:30
Report/Version . . . . . . . . . . . . . . . . :   BILLS     / 01

Posting date:
  Type . . . . . . . . . . . . . . . . . . . . :   1
  Length . . . . . . . . . . . . . . . . . . . :     8
  Column . . . . . . . . . . . . . . . . . . . :   120
  Line . . . . . . . . . . . . . . . . . . . . :     2
  -OR-
  Pivot value  . . . . . . . . . . . . . . . . :
    Length . . . . . . . . . . . . . . . . . . :       0
    Column . . . . . . . . . . . . . . . . . . :       0
    +- line offset . . . . . . . . . . . . . . :       0




                                                                    More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 62. Work with Report Definition - Environment (2 of 3)

Press **Page Down** to continue to Figure 63.

```
                Display Report Definition - Environment            ONDMD400
                                                          1/08/98  14:58:32
Report/Version . . . . . . . . . . . . . . . . :   BILLS     / 01

Bypass report results display  . . . . . . . . :   N     Y=Yes, N=No
Bypass document results display  . . . . . . . :   N     Y=Yes, N=No
Search all sequence numbers  . . . . . . . . . :   Y     Y=Yes, N=No
Input exit . . . . . . . . . . . . . . . . . . :
  Library  . . . . . . . . . . . . . . . . . . :     *LIBL
Index exit . . . . . . . . . . . . . . . . . . :
  Library  . . . . . . . . . . . . . . . . . . :     *LIBL
Unbundle exit  . . . . . . . . . . . . . . . . :
  Library  . . . . . . . . . . . . . . . . . . :     *LIBL









                                                                    Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 63. Work with Report Definition - Environment (3 of 3)

Press **Enter** to continue to Figure 64 on page 41.

```
                Display Report Definition - Segmentation            ONDMD400
                                                                 1/08/98  14:58:35
Report/Version  . . . . . . . . . . . :   BILLS      / 01

Segment size  . . . . . . . . . . . . :   100
Segmentation condition 1:
  Change/Match  . . . . . . . . . . . :   1         1=Change, 2=Match
  Value . . . . . . . . . . . . . . . :
  Length  . . . . . . . . . . . . . . :     8
  Column  . . . . . . . . . . . . . . :     5
  Line  . . . . . . . . . . . . . . . :     4
  -OR-
  Pivot value . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . :       0
    Column  . . . . . . . . . . . . . :       0
    +- line offset  . . . . . . . . . :       0

Condition combination . . . . . . . . :   1         0=None, 1=And, 2=Or

                                                                        More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 64. Display Report Definition - Segmentation (1 of 2)

Press **Enter** or **Page Down** (depending on the entry for *Condition combination*) to continue to Figure 65. (The headings on both segmentation screens entitled *Segmentation condition* will appear as *Start of report condition* for **PAGE** and **NODX** report definitions.)

```
                Display Report Definition - Segmentation            ONDMD400
                                                                 1/08/98  14:58:35
Report/Version  . . . . . . . . . . . :   BILLS      / 01

Segmentation condition 2:
  Change/Match  . . . . . . . . . . . :   1         1=Change, 2=Match
  Value . . . . . . . . . . . . . . . :
  Length  . . . . . . . . . . . . . . :     4
  Column  . . . . . . . . . . . . . . :    72
  Line  . . . . . . . . . . . . . . . :     5
  -OR-
  Pivot value . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . :       0
    Column  . . . . . . . . . . . . . :       0
    +- line offset  . . . . . . . . . :       0




                                                                      Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 65. Display Report Definition - Segmentation (2 of 2)

Press **Enter** to continue to Figure 66 on page 42.

```
                Display Report Definition - Keys                ONDMD400
                                                          1/08/98  14:58:39
Report/Version  . . . . . . . . . . . . . . . :   BILLS      / 01

Key 1 name  . . . . . . . . . . . . . . . . . :   Name
Length  . . . . . . . . . . . . . . . . . . . :    25
Minimum search characters . . . . . . . . . . :     3
Location:
  Column  . . . . . . . . . . . . . . . . . . :       5
  Line  . . . . . . . . . . . . . . . . . . . :       6
  -OR-
  Pivot value . . . . . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . . . . . :         0
    Column  . . . . . . . . . . . . . . . . . :         0
    +- line offset  . . . . . . . . . . . . . :         0

Lower case key  . . . . . . . . . . . . . . . :   Y         Y=Yes, N=No
Key security  . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Multi-key . . . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
                                                                   More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 66. Display Report Definition - Keys (Key 1)

Press **Enter** if you are finished with your key definitions, or press **Page Down** to continue to Figure 67.

```
                Display Report Definition - Keys                ONDMD400
                                                          1/08/98  14:58:43
Report/Version  . . . . . . . . . . . . . . . :   BILLS      / 01

Key 2 name  . . . . . . . . . . . . . . . . . :   Account No.
Length  . . . . . . . . . . . . . . . . . . . :     8
Minimum search characters . . . . . . . . . . :     4
Location:
  Column  . . . . . . . . . . . . . . . . . . :       5
  Line  . . . . . . . . . . . . . . . . . . . :       4
  -OR-
  Pivot value . . . . . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . . . . . :         0
    Column  . . . . . . . . . . . . . . . . . :         0
    +- line offset  . . . . . . . . . . . . . :         0

Lower case key  . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Key security  . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Multi-key . . . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
                                                                   More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 67. Display Report Definition - Keys (Key 2)

Press **Enter** if you are finished with your key definitions, or press **Page Down** to continue to Figure 68 on page 43.

```
                Display Report Definition - Keys                ONDMD400
                                                          1/08/98  14:58:45
Report/Version  . . . . . . . . . . . . . . . :   BILLS      / 01

Key 3 name  . . . . . . . . . . . . . . . . . :
Length  . . . . . . . . . . . . . . . . . . . :     0
Minimum search characters . . . . . . . . . . :     1
Location:
  Column  . . . . . . . . . . . . . . . . . . :       0
  Line  . . . . . . . . . . . . . . . . . . . :       0
  -OR-
  Pivot value . . . . . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . . . . . :         0
    Column  . . . . . . . . . . . . . . . . . :         0
    +- line offset  . . . . . . . . . . . . . :         0

Lower case key  . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Key security  . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Multi-key . . . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
                                                                   More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 68. Display Report Definition - Keys (Key 3)

Press **Enter** if you are finished with your key definitions, or press **Page Down** to continue to Figure 69.

```
                Display Report Definition - Keys                ONDMD400
                                                          1/08/98  14:58:48
Report/Version  . . . . . . . . . . . . . . . :   BILLS      / 01

Key 4 name  . . . . . . . . . . . . . . . . . :   Amount
Length  . . . . . . . . . . . . . . . . . . . :     8
Minimum search characters . . . . . . . . . . :     0
Location:
  Column  . . . . . . . . . . . . . . . . . . :     126
  Line  . . . . . . . . . . . . . . . . . . . :       0
  -OR-
  Pivot value . . . . . . . . . . . . . . . . :     Total
    Length  . . . . . . . . . . . . . . . . . :         6
    Column  . . . . . . . . . . . . . . . . . :       120
    +- line offset  . . . . . . . . . . . . . :         0

Lower case key  . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Key security  . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Multi-key . . . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
                                                                   More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 69. Display Report Definition - Keys (Key 4)

Press **Enter** if you are finished with your key definitions, or press **Page Down** to continue to Figure 70 on page 44.

```
                Display Report Definition - Keys                ONDMD400
                                                          1/08/98  14:58:50
Report/Version  . . . . . . . . . . . . . . . :   BILLS      / 01

Key 5 name  . . . . . . . . . . . . . . . . . :
Length  . . . . . . . . . . . . . . . . . . . :     0
Minimum search characters . . . . . . . . . . :     1
Location:
  Column  . . . . . . . . . . . . . . . . . . :       0
  Line  . . . . . . . . . . . . . . . . . . . :       0
  -OR-
  Pivot value . . . . . . . . . . . . . . . . :
    Length  . . . . . . . . . . . . . . . . . :         0
    Column  . . . . . . . . . . . . . . . . . :         0
    +- line offset  . . . . . . . . . . . . . :         0

Lower case key  . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Key security  . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
Multi-key . . . . . . . . . . . . . . . . . . :   N         Y=Yes, N=No
                                                                   Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 70. Display Report Definition - Keys (Key 5)

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

Option 5. Work with Report Groups

You can use the screens in this option to create, change, copy, delete, or display report group definitions.

A report group is composed of different, but related, reports. For example, you can include invoices, late payment notices, and monthly invoice summary reports in one group, with the invoice number as Key 1 and the customer number as Key 2. Name the group ***INVINFO***, and when you search ***INVINFO*** by customer number 12345678 or invoice number 876543, OnDemand lists all related items from the three different reports.

Note: Once a report is defined to a group, you cannot change the report to belong to a different group unless you delete **ALL** reports by that Report Name first, then change the Report Group named in the Report Definition.

To begin, select option 5, Work with Report Groups, from the REPORT ADMINISTRATION MENU, Figure 3 on page 4, or use iSeries Navigator for a graphical user interface to this function. If you choose to use the non-graphical interface, Figure 71 on page 45 appears.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*RPTGRP       *REPORT, *RPTGRP, *RPTOVL...
Report group . . . . . .  *ALL_____     Name, generic*, *ALL...

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

Figure 71. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to continue.

To Create a Report Group

Use Figure 72 to create a report group definition.

```
                        Work with Report Groups                  ONDMD400
                                                              1/04/98  11:21:35

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt Group       Text
 1  INVINFO___
    MIKEAL      Marks Group
    SHERRILL    Performance testing
    TEST        nn









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

Figure 72. Work with Report Groups

Press **Enter** to move to Figure 73 on page 46.

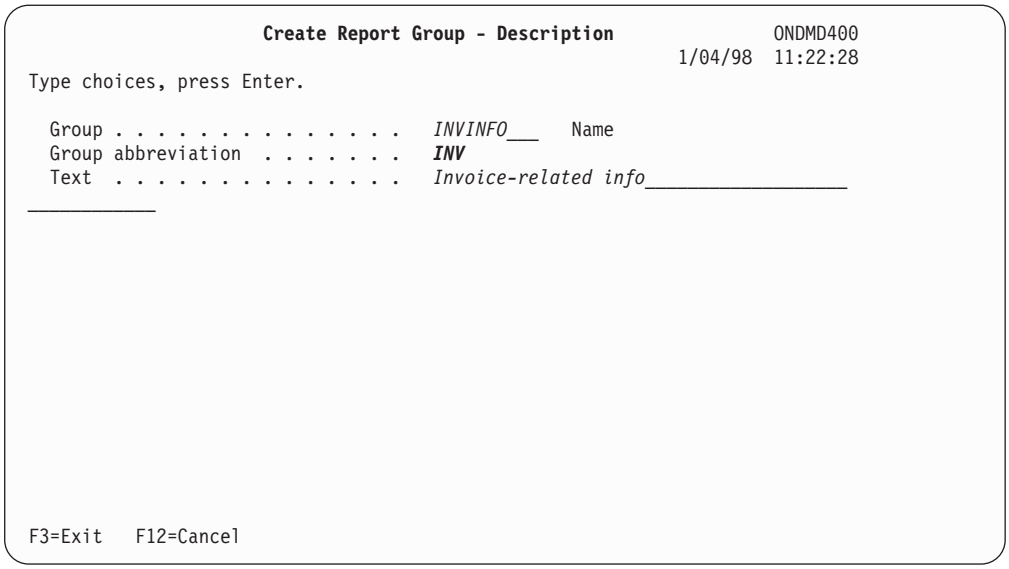

Figure 73. Create Report Group - Description

Press **Enter** to continue to Figure 74 on page 47:

Use the next two screens to define the key fields for all reports in the report group.

When you use report groups, all of the reports in a group should have their keys and display fields defined to represent the same data elements. Further, these common keys and display fields should be defined in the report group definition in the same way.

The reason for this is important: When an end user chooses to perform a group search (across all reports within a group), the user would press **F6** after entering a search (key) value. The WORK WITH DOCUMENTS screen which then appears is the same format as would result from a single-report search. The only difference is that the resulting selection list of items that matches the search value may belong to a variety of different reports. Only one difference exists in the data on the screen. This difference being that the fifth column on the screen (Key 5) is replaced by the report name that the particular segment belongs to. All other columns display the Key 1, Key 2, Key 3, and Key 4 values. The data has been extracted from the data in the different reports. The column headings, therefore, must reflect a description of the data that appears in each column. If Key 3 contains *Customer Name* for Invoices but contains *Order Number* for Orders, then it is difficult for the user to correctly interpret what is shown. A concern exists for the SPECIFY DOCUMENT SEARCH screen. This screen allows input of the key value to search. The concern is the screen prompting for a field name that might not be the correct field name for which you are searching.

In the example we created, ***INVINFO***, all three report definitions, (and the report group definition), use Key 1 for the invoice number and Key 2 for the customer number. When you enter 12345 for Key 2 and press **F6** for a group search, items out of all three reports may appear (if they match the search criteria of 12345).

```
                    Create Report Group - Keys                    ONDMD400
                                                                1/04/98  11:22:57
Group . . . . . . . . . . . . . . . . . . . . :  INVINFO

Type choices, press Enter.

  Key 1 group name  . . . . . . . . . . . . . .  Invoice #_____
    Length  . . . . . . . . . . . . . . . . . .    10   1-25
    Minimum search characters . . . . . . . . .     3   1-25
    Key security  . . . . . . . . . . . . . . .    N    Y=Yes, N=No

  Key 2 group name  . . . . . . . . . . . . . .  Customer #__
    Length  . . . . . . . . . . . . . . . . . .     9   1-20, 0=Not used
    Minimum search characters . . . . . . . . .     5   0-20
    Key security  . . . . . . . . . . . . . . .    N    Y=Yes, N=No

  Key 3 group name  . . . . . . . . . . . . . .  ___________
    Length  . . . . . . . . . . . . . . . . . .     0   1-20, 0=Not used
    Minimum search characters . . . . . . . . .     0   0-20
    Key security  . . . . . . . . . . . . . . .    N    Y=Yes, N=No

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

Figure 74. Create Report Group - Keys (1, 2, and 3)

Press **Page Down** to move to Figure 75.

```
                    Create Report Group - Keys                    ONDMD400
                                                                1/04/98  11:24:12
Group . . . . . . . . . . . . . . . . . . . . :  INVINFO

Type choices, press Enter.

  Key 4 group name  . . . . . . . . . . . . . .  ___________
    Length  . . . . . . . . . . . . . . . . . .     0    1-20, 0=Not used
    Minimum search characters . . . . . . . . .     0    1-20
    Key security  . . . . . . . . . . . . . . .    N     Y=Yes, N=No

  Key 5 group name  . . . . . . . . . . . . . .  _______
    Length  . . . . . . . . . . . . . . . . . .     0    1-15, 0=Not used
    Minimum search characters . . . . . . . . .     0    1-15
    Key security  . . . . . . . . . . . . . . .    N     Y=Yes, N=No









                                                                    Bottom
 F3=Exit   F12=Cancel
```

Figure 75. Create Report Group - Keys (4 and 5)

Name this report group in the report definition for each report that belongs to this group. This lets end users retrieve these reports together by entering invoice number or customer number only once.

Press **Enter** to return to Figure 3 on page 4, the REPORT ADMINISTRATION MENU.

To Change a Report Group

If you want to change a report group—its name or keys, for example—select option 5, Work with Report Groups from the REPORT ADMINISTRATION MENU. (See Figure 3 on page 4.) The screen, WORK WITH ADMIN FOR ONDEMAND

(WRKADMRDAR), Figure 71 on page 45, appears. Complete it, and press **Enter** to move to Figure 76.

```
                    Work with Report Groups                          ONDMD400
                                                                  1/04/98  11:25:59

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt Group       Text

    __________
    ACCTG       Reports for Accounting
 2  INVINFO     Invoice-related reports
    INVENT      Inventory Reports
    IS          Information Systems Reports









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

Figure 76. Work with Report Groups

Press **Enter** to continue to Figure 77.

```
                    Select Report Group Section to Change            ONDMD400
                                                                  1/04/98  11:26:11

Type selection, press Enter.
  1=Select

  Choose Section
       Description
       Keys
    1  All Sections
```

Figure 77. Select Report Group Section to Change

You can change one of these parts of a report group by entering a **1** next to that part:

Description
To change the description of the report group.

Press **Enter** to move to Figure 78 on page 49, CHANGE REPORT GROUP - DESCRIPTION.

Keys To change any of the keys in the report group.

Press **Enter** to move to Figure 79 on page 49, CHANGE REPORT GROUP - KEYS.

You can change the attributes of the entire report group.

All sections

Enter **1** to display all change screens in sequence. Press **Enter** to move to Figure 78:

```
                    Change Report Group - Description              ONDMD400
                                                                1/04/98  11:26:16

  Group . . . . . . . . . . . . . . :  INVINFO
  Group abbreviation  . . . . . . . :  INV

Type choice, press Enter.

  Text . . . . . . . . . . . . . . . .  Invoice-related reports_____________
_________



F3=Exit   F12=Cancel
```

Figure 78. Change Report Group - Description

To change the fields, type over the existing information. Press **Enter**.

If you are changing only the description, Figure 81 on page 50 appears, confirming your change.

If you are changing fields on all screens, Figure 79 appears.

```
                          Change Report Group - Keys               ONDMD400
                                                                1/04/98  11:26:52
Group . . . . . . . . . . . . . . . . . . . . . . :  INVINFO

Type choices, press Enter.

  Key 1 group name  . . . . . . . . . . . . . . .  Invoice #______
    Length  . . . . . . . . . . . . . . . . . . .    10   1-25
    Minimum search characters . . . . . . . . . .     3   1-25
    Key security  . . . . . . . . . . . . . . . .     N   Y=Yes, N=No

  Key 2 group name  . . . . . . . . . . . . . . .  Customer #__
    Length  . . . . . . . . . . . . . . . . . . .     9   1-20, 0=Not used
    Minimum search characters . . . . . . . . . .     3   0-20
    Key security  . . . . . . . . . . . . . . . .     N   Y=Yes, N=No

  Key 3 group name  . . . . . . . . . . . . . . .  __________
    Length  . . . . . . . . . . . . . . . . . . .     0   1-20, 0=Not used
    Minimum search characters . . . . . . . . . .     0   0-20
    Key security  . . . . . . . . . . . . . . . .     N   Y=Yes, N=No

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

Figure 79. Change Report Group - Keys (1, 2, and 3)

Type your changes over the existing information. If you do not need to change Key 4 or Key 5, press **Enter**. Otherwise, press **Page Down** to continue to Figure 80 on page 50.

```
                    Change Report Group - Keys                    ONDMD400
                                                                 1/04/98  11:27:02
Group . . . . . . . . . . . . . . . . . . . . :  INVINFO

Type choices, press Enter.

  Key 4 group name  . . . . . . . . . . . . . .  _______________
    Length  . . . . . . . . . . . . . . . . . .    0   1-20, 0=Not used
    Minimum search characters . . . . . . . . .    0   1-20
    Key security  . . . . . . . . . . . . . . .    N   Y=Yes, N=No

  Key 5 group name  . . . . . . . . . . . . . .  ________
    Length  . . . . . . . . . . . . . . . . . .    0   1-15, 0=Not used
    Minimum search characters . . . . . . . . .    0   1-15
    Key security  . . . . . . . . . . . . . . .    N   Y=Yes, N=No









                                                                      Bottom
 F3=Exit   F12=Cancel
```

Figure 80. Change Report Group - Keys (4 and 5)

Type your changes over the existing information. Press **Enter**. Figure 81 confirms your changes.

```
                Select Report Group Section to Change             ONDMD400
                                                                 1/04/98  11:27:04

Type selection, press Enter.
  1=Select

  Choose Section
       Description
       Keys
       All sections









F3=Exit   F12=Cancel
Group definition updated.
```

Figure 81. Select Report Group Section to Change

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

To Copy a Report Group

You can copy an existing report group definition and assign the copy a new name.

For example, the screens show you a report group, ***INVINFO***, that contains reports related to invoice information. To create a report group for purchase order information (with similar keys), copy the ***INVINFO*** report group, and name the new one ***POINFO***.

Select option 5, Work with Report Groups, from the REPORT ADMINISTRATION MENU, (see Figure 3 on page 4). The screen, WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR), Figure 71 on page 45, appears. Complete it, and press **Enter** to move to Figure 82.

```
                    Work with Report Groups                        ONDMD400
                                                                1/04/98  11:27:08

 Type options, press Enter.

1=Create    2=Change    3=Copy    4=Delete    5=Display


 Opt Group       Text

  3  INVINFO     Invoice-related reports
     MIKEAL      Marks Group
     SHERRILL    Performance testing
     TEST        nn

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

Figure 82. Work with Report Groups

Press **Enter** to move to Figure 83:

```
                      Copy Report Group                            ONDMD400
                                                                1/04/98  11:27:18

 Type New group and New abbreviation, press Enter.


 Group       Abbreviation  New group  New abbreviation
 INVINFO          INV       POINFO___      POI

 F3=Exit   F12=Cancel
```

Figure 83. Copy Report Group

Press **Enter** to save the copy and return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

To Delete a Report Group

If you want to delete a report group, select option 5, Work with Report Groups, from the REPORT ADMINISTRATION MENU, (see Figure 3 on page 4). The screen, WORK

WITH ADMIN FOR ONDEMAND (WRKADMRDAR), Figure 71 on page 45, appears. Complete it, and press **Enter** to move to Figure 84.

```
                    Work with Report Groups                      ONDMD400
                                                              1/04/98  11:27:48

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt Group       Text
     _________
 4   INVINFO     Invoice-related reports
     MIKEAL      Marks Group
     SHERRILL    Performance testing
     TEST        nn









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

Figure 84. Work with Report Groups

Press **Enter** to delete the report group or F12 to cancel the request. If there are any reports archived with this group name, OnDemand does not allow you to delete the group definition. A confirmation panel is displayed to confirm the deletion.

To Display a Report Group

To see a report group definition, select option 5, Work with Report Groups, Figure 71 on page 45, from the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

The screen, WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR), Figure 71 on page 45, appears. Complete it, and press **Enter** to move to Figure 85 on page 53:

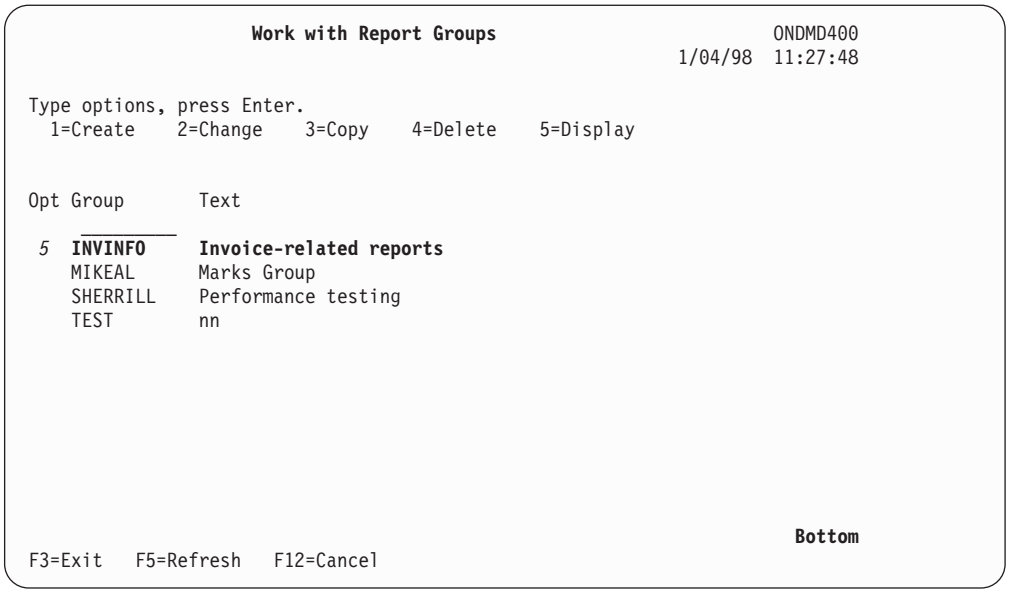

Figure 85. Work with Report Groups

Press **Enter** to move to Figure 86.

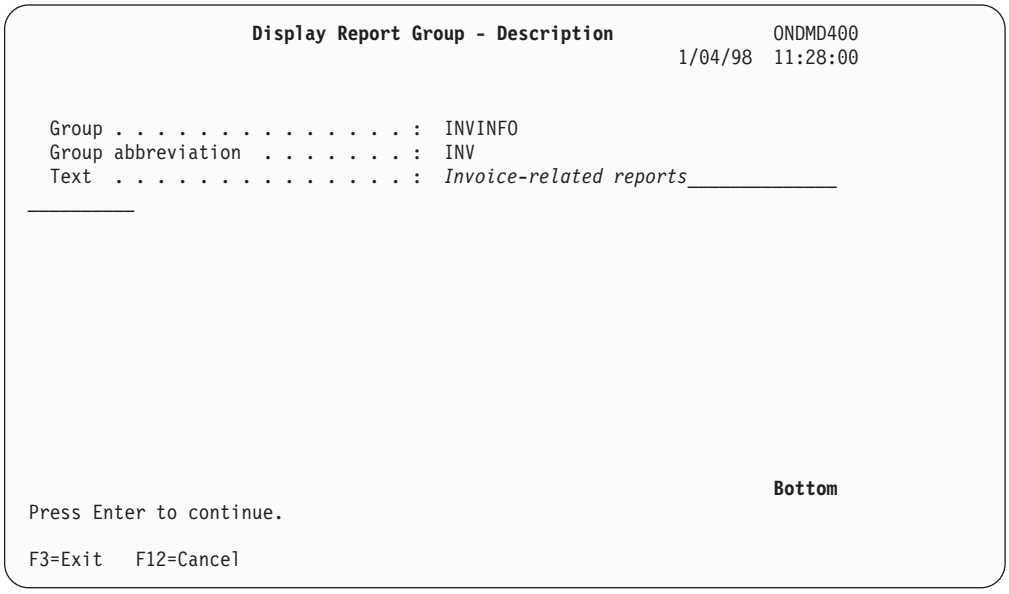

Figure 86. Display Report Group - Description

Press **Enter** to move to Figure 87 on page 54.

```
                  Display Report Group - Keys                    ONDMD400
                                                        1/04/98  11:28:08
Group . . . . . . . . . . . . . . . . . . . . :  INVINFO

Key 1 group name  . . . . . . . . . . . . . . :  Invoice #
  Length  . . . . . . . . . . . . . . . . . . :     10
  Minimum search characters . . . . . . . . . :      3
  Key security  . . . . . . . . . . . . . . . :    N     Y=Yes, N=No

Key 2 group name  . . . . . . . . . . . . . . :  Customer #
  Length  . . . . . . . . . . . . . . . . . . :      9
  Minimum search characters . . . . . . . . . :      3
  Key security  . . . . . . . . . . . . . . . :    N     Y=Yes, N=No

Key 3 group name  . . . . . . . . . . . . . . :
  Length  . . . . . . . . . . . . . . . . . . :      0
  Minimum search characters . . . . . . . . . :      0
  Key security  . . . . . . . . . . . . . . . :    N     Y=Yes, N=No

                                                                 More...
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 87. Display Report Group - Keys (1, 2, and 3)

Press **Page Down** to continue to Figure 88.

```
                  Display Report Group - Keys                    ONDMD400
                                                        1/04/98  11:28:10
Group . . . . . . . . . . . . . . . . . . . . :  INVINFO

Key 4 group name  . . . . . . . . . . . . . . :
  Length  . . . . . . . . . . . . . . . . . . :      0
  Minimum search characters . . . . . . . . . :      0
  Key security  . . . . . . . . . . . . . . . :    N     Y=Yes, N=No

Key 5 group name  . . . . . . . . . . . . . . :
  Length  . . . . . . . . . . . . . . . . . . :      0
  Minimum search characters . . . . . . . . . :      0
  Key security  . . . . . . . . . . . . . . . :    N     Y=Yes, N=No









Press Enter to continue.
                                                                 Bottom
 F3=Exit   F12=Cancel
```

Figure 88. Display Report Group - Keys (4 and 5)

When you are finished viewing the report group definition, you can press **Enter** to continue to Figure 89 on page 55.

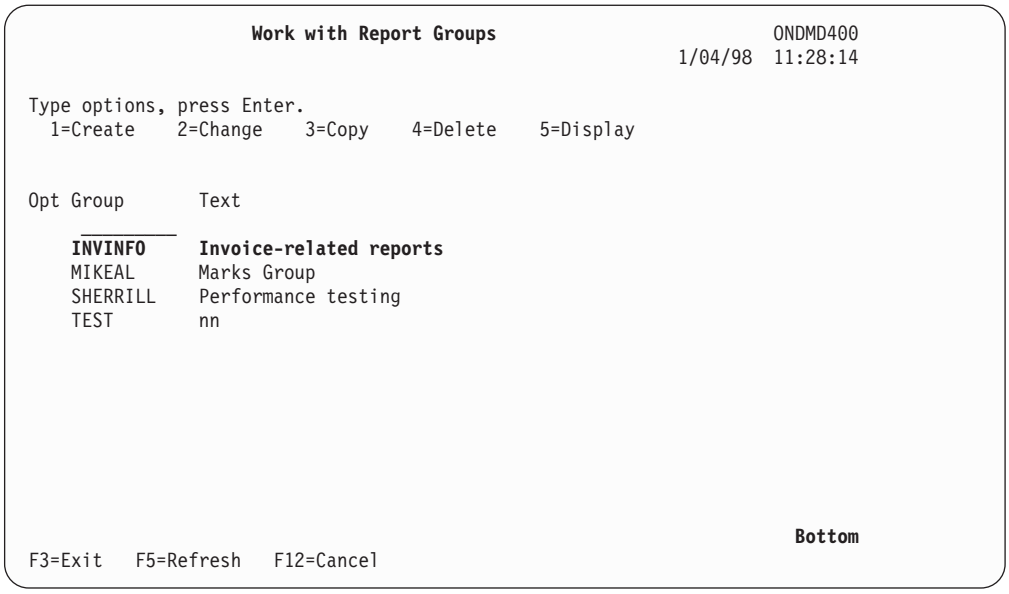

Figure 89. Work with Report Groups

You can select another report group, or you can press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

Option 10. Edit/Authorize OnDemand Users

There are two types of OnDemand users: End users and system administrators. The end user simply retrieves data from the archive and reacts accordingly; the system administrator is responsible for many things, such as creating report definitions, setting up the optical or tape environment, insuring that the data correctly migrates from one media to another, and granting access authority to the end users.

Turn to "Spool File Archive Security - In Detail" on page 120 for a discussion on the group profile that is called **QRDARSADM**. This will enable OnDemand to identify you as a system administrator, and to grant you proper authority to perform the advanced administration functions.

If you have been identified as a system administrator, then you can grant end users access to the archived data, using individual OS/400 user profiles or OS/400 group profiles.

To begin, select option 10, Edit/Authorize OnDemand Users, from the ONDEMAND REPORT ADMINISTRATION MENU screen, Figure 3 on page 4.

Figure 90 on page 56 appears.

```
                  Work with Security for OnDemand (WRKSECRDAR)

Type choices, press Enter.

Security function  . . . . . . . >*USER         *USER, *RPTGRP, *REPORT, *KEY









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

Figure 90. Work with Security for OnDemand (WRKSECRDAR)

Press **Enter** to continue to Figure 91.

```
                          Edit Authorization List

Object . . . . . :   QRDARS400       Owner  . . . . . :   QRDARS400
  Library  . . . . :     QSYS          Primary group  . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User         Authority  Mgt
QRDARS400    *ALL____    X
QRDARSADM    *ALL____    X
TESTID       *CHANGE_
TBROWN2      *CHANGE_
*PUBLIC      *EXCLUDE









                                                                        Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
```

Figure 91. Edit Authorization List

This screen displays the authorized users. Press **F6** to continue to Figure 92 on page 57.

```
                              Add New Users

Object . . . . . :   QRDARS400       Owner  . . . . . :   QRDARS400
  Library  . . . . :     QSYS          Primary group  . . . :   *NONE

Type new users, press Enter.

             Object    List
User        Authority  Mgt
TBROWN___   *CHANGE_
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______
 ________   _______                                                  More...
F3=Exit   F11=Display detail object authorities   F12=Cancel   F17=Top
F18=Bottom
```

Figure 92. Add New Users

Press **Enter** to continue to Figure 93.

```
                          Edit Authorization List

Object . . . . . :   QRDARS400       Owner  . . . . . :   QRDARS400
  Library  . . . . :     QSYS          Primary group  . . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User        Authority  Mgt
QRDARS400   *ALL____    X
QRDARSADM   *ALL____    X
TESTID      *CHANGE_
TBROWN2     *CHANGE_
TBROWN      *CHANGE_
*PUBLIC     *EXCLUDE




                                                                  Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
Object authorities changed.
```

Figure 93. Edit Authorization List

This screen confirms your addition.

Press **Enter** to return to the OnDemand Report Administration Menu.

Option 11. Edit/Authorize OnDemand Report Users

You must grant each user of a report access to that report.

To do this, select option 11, Edit/Authorize OnDemand Report Users, from the REPORT ADMINISTRATION MENU, Figure 3 on page 4. Press **Enter** to continue to Figure 94 on page 58.

```
                  Work with Security for OnDemand (WRKSECRDAR)

Type choices, press Enter.

Security function  . . . . . >*REPORT       *USER, *RPTGRP, *REPORT, *KEY
Report name  . . . . . .  . .   __________   Name, F4 for list

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

Figure 94. Work with Security for OnDemand (WRKSECRDAR)

To display the available report names, press **F4** to continue to Figure 95.

```
                 Specify Value for Parameter REPORT

Type choice, press Enter.

Type . . . . . :   NAME
Report name  . . . . . .  . .   checkstmts

AGEDOC                             BILLS
AGEOPN                             BRMS50
AIC250                             BUDGET
ANNOUNCE                           CHECKSTMTS
APCHK                              GLDAILY
AP437                              GLTRANS
BEL3549                            GLXXX

                                                                      +

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

Figure 95. Specify Value for Parameter REPORT

Press **Enter** to continue to Figure 96 on page 59.

```
                  Work with Security for OnDemand (WRKSECRDAR)

Type choices, press Enter.

Security function  . . . . . >*REPORT       *USER, *RPTGRP, *REPORT, *KEY
Report name  . . . . . >CHECKSTMTS    Name, F4 for list

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

Figure 96. Work with Security for OnDemand (WRKSECRDAR)

This screen displays the report name you selected.

Press **Enter** to move to Figure 97.

```
                          Edit Authorization List

Object . . . . . :   CHECKSTMTS      Owner  . . . . . :   QRDARS400
  Library  . . . . . :     QSYS          Primary group  . . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User         Authority  Mgt
QRDARS4003   *ALL___     X
QRDARS400    *ALL___     X
QRDARSADM    *ALL___     X
SUSAN        *USE___
*PUBLIC      *EXCLUDE

                                                                      Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
```

Figure 97. Edit Authorization List

This screen captures information from the iSeries system, displaying current authorization status for the report, ***CHECKSTMTS***.

Press **F6** (*F6=Add new users*) to continue to Figure 98 on page 60.

```
                              Add New Users

Object . . . . . :   CHECKSTMTS      Owner  . . . . . :   QRDARS400
  Library  . . . . :     QSYS          Primary group  . . :   *NONE

Type new users, press Enter.

             Object    List
User        Authority  Mgt
TBROWN___   *USE_____
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
 ________   ________
                                                                      More...
F3=Exit   F11=Display detail object authorities   F12=Cancel   F17=Top
F18=Bottom
```

Figure 98. Add New Users

Press **Enter** to move to Figure 99.

```
                          Edit Authorization List

Object . . . . . :   CHECKSTMTS      Owner  . . . . . :   QRDARS400
  Library  . . . . :     QSYS          Primary group  . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User        Authority  Mgt
QRDARS4003  *ALL___     X
QRDARS400   *ALL___     X
QRDARSADM   *ALL___     X
SUSAN       *USE___
TBROWN      *USE___
*PUBLIC     *EXCLUDE









                                                                     Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
Object authorities changed.
```

Figure 99. Edit Authorization List

This screen confirms your addition.

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

Option 12. Edit/Authorize OnDemand Report Group Users

If you are the OnDemand system administrator, it is your responsibility to grant users access authority to report groups.

To do this, select option 12, Edit/Authorize OnDemand Report Group Users, from the REPORT ADMINISTRATION MENU, Figure 3 on page 4. Press **Enter** to continue to the WORK WITH SECURITY FOR ONDEMAND (WRKSECRDAR) screen, Figure 100.

```
                    Work with Security for OnDemand (WRKSECRDAR)

 Type choices, press Enter.

 Security function  . . . . . . . >*RPTGRP       *USER, *RPTGRP, *REPORT, *KEY
 Report group . . . . . . . . . .   ________     Name, F4 for list















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

Figure 100. Work with Security for OnDemand (WRKSECRDAR)

```
                    Specify Value for Parameter RPTGRP

 Type choice, press Enter.

 Type . . . . . . . . . . . . . . :   NAME
 Report group . . . . . . . . . .   invinfo___

 INVINFO
 MIKEAL
 SHERRILL
 TEST









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

Figure 101. Specify Value for Parameter RPTGRP

A list of report groups appears.

Press **Enter** to move to WORK WITH SECURITY FOR ONDEMAND (WRKSECRDAR), Figure 102 on page 62.

```
                    Work with Security for OnDemand (WRKSECRDAR)

Type choices, press Enter.

Security function  . . . . . . . >*RPTGRP       *USER, *RPTGRP, *REPORT, *KEY
Report group . . . . . . . . . . >INVINFO___    Name, F4 for list

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

Figure 102. Work with Security for OnDemand (WRKSECRDAR)

The report group you selected is verified on this screen.

Press **Enter** to move to EDIT AUTHORIZATION LIST, Figure 103.

```
                          Edit Authorization List

Object . . . . . :   INVINFO        Owner  . . . . . :   QRDARS4005
  Library  . . . . :     QSYS         Primary group  . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User         Authority  Mgt
QRDARS4005   *ALL____    X
QRDARS400    *ALL____    X
QRDARSADM    *ALL____    X
*PUBLIC      *EXCLUDE

                                                                        Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
```

Figure 103. Edit Authorization List

This screen captures information from the iSeries system, displaying current authorization status for the report group ***INVINFO***.

Press **F6** (*F6=Add new users*) to continue to ADD NEW USERS, Figure 104 on page 63.

```
                              Add New Users

Object . . . . . :   INVINFO        Owner  . . . . . :   QRDARS4005
  Library  . . . . :     QSYS         Primary group  . . . :   *NONE

Type new users, press Enter.

             Object    List
User         Authority  Mgt
TBROWN___    *USE_____
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________
 ________    ________                                                  More...
F3=Exit   F11=Display detail object authorities   F12=Cancel   F17=Top
F18=Bottom
```

Figure 104. Add New Users

Press **Enter** move to the EDIT AUTHORIZATION LIST, Figure 105.

```
                          Edit Authorization List

Object . . . . . :   INVINFO        Owner  . . . . . :   QRDARS4005
  Library  . . . . :     QSYS         Primary group  . . . :   *NONE

Type changes to current authorities, press Enter.

             Object    List
User         Authority  Mgt
QRDARS4005   *ALL_____    X
QRDARS400    *ALL_____    X
QRDARSADM    *ALL_____    X
TBROWN       *USE_____
*PUBLIC      *EXCLUDE









                                                                    Bottom
F3=Exit   F5=Refresh   F6=Add new users
F11=Display detail object authorities   F12=Cancel   F24=More keys
Object authorities changed.
```

Figure 105. Edit Authorization List

The confirmation message appears.

Press **Enter** to return to the REPORT ADMINISTRATION MENU, Figure 3 on page 4.

Option 13. Work with Key Security

As the OnDemand system administrator, you can limit user access authority to particular portions of a report. You can do this by granting individual users access to specific ranges of key values; this excludes them from accessing any other segments of the report using that key field. You can do this with a user profile, group profile, or the generic profile named ***PUBLIC**.

For each key of the report:

- A ***PUBLIC** entry, with the key range ***ALL**, grants all users access to all segments of the report, unless you gave them other explicit authorizations.

  If you define ***PUBLIC** with a key range ***ALL**, and define a particular user (or group) profile for a specific key range, that user (or group) can view only those segments within the authorized key ranges. That user (or group) cannot access the rest of the report. All other users have access to all segments of the report.

  If you do not use ***PUBLIC**, only those who have authorizations for their own user profile or group profile can see any of the report.

For more examples and a full description of OnDemand security, turn to "Spool File Archive Security - In Detail" on page 120.

To grant access to key values, select option 13, Work with Key Security, from the OnDemand Report Administration Menu screen, Figure 3 on page 4. Figure 106 appears. Note that you must also specify **Y** in the *Key security* field in the report definition on each key for which security is being defined.

```
                  Work with Security for OnDemand (WRKSECRDAR)

Type choices, press Enter.

Security function  . . . . . >*KEY          *USER, *RPTGRP, *REPORT, *KEY
Report name  . . . . . .  checkstmts    Name, F4 for list
Version  . . . . . .  01__          01-99

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

Figure 106. Work with Security for OnDemand (WRKSECRDAR)

Press **Enter** to continue to Figure 107 on page 65.

```
                          Select Keys for Security                  ONDMD400
                                                                 1/31/98  17:32:22
Report  . . . . :   CHECKSTMTS
Version . . . . :   01
Text  . . . . . :   Check Statements (OnDemand Example)

Type options, press Enter.
  1=Select

Option   Key                  Security
         Account Number       Not Enabled
         SSN / Tax-ID         Not Enabled
         Cust Name            Not Enabled









                                                                    Bottom
F3=Exit   F12=Cancel
```

Figure 107. Select Keys for Security

This screen displays a list of keys defined for the report.

To Grant Key Authority

Type **1** next to the key to which you are granting access. The example uses ***Account Number***, which is defined as Key 1 for ***CHECKSTMTS***.

Press **Enter** to continue to the WORK WITH KEY 1 SECURITY screen, Figure 108.

Note: Follow the same instructions used for key 1 when working with keys 2, 3, 4, or 5. The screen layouts are the same with the exception of the *Key* field.

```
                          Work with Key 1 Security                  ONDMD400
                                                                 1/31/98  17:29:36
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                High value                 Profile name
  1     000000000_____________   2999999999_____________    +__________









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

Figure 108. Work with Key 1 Security

```
                        Create Key Range Security                  ONDMD400
                                                          1/31/98  17:30:06
Report  . . . . . . . . . . . :   CHECKSTMTS
Key 1 . . . . . . . . . . . . :   Account Number


Type choices, press Enter.

  Key range:
    Low value . . . . . . . .   000000000______________
    High value  . . . . . . .   299999999______________
 Profile name  . . . . . . .    TBROWN____
                                QRDARS400___
                                MAMIKEAL__
                                NOBRIEN___
                                REPPLEY___
                                CALLEN____
                                 _________
                                 _________
                                 _________
                                 _________

F3=Exit   F12=Cancel
```

Figure 109. Create Key Range Security

Press **Enter** to move to Figure 110.

```
                        Work with Key 1 Security                   ONDMD400
                                                          1/31/98  17:32:02
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                  High value                 Profile Name
         _________________________  _________________________  __________
        000000000                  299999999                  CALLEN
        000000000                  299999999                  QRDARS400
        000000000                  299999999                  MAMIKEAL
        000000000                  299999999                  NOBRIEN
        000000000                  299999999                  REPPLEY
        000000000                  299999999                  TBROWN




                                                                     Bottom
F3=Exit   F5=Refresh   F12=Cancel
Security for key added, F5 for Refresh.
```

Figure 110. Work with Key 1 Security

This screen confirms your addition.

To Change Key Authority

Use Figure 111 on page 67 to change an existing key 1 security authorization.

```
                        Work with Key 1 Security                ONDMD400
                                                              1/31/98  17:31:15
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                 High value                 Profile Name
        _________________________ _________________________  __________
        000000000                 299999999                  CALLEN
        000000000                 299999999                  QRDARS400
        000000000                 299999999                  MAMIKEAL
        000000000                 299999999                  NOBRIEN
        000000000                 299999999                  REPPLEY
  2     000000000                 299999999                  TBROWN




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

Figure 111. Work with Key 1 Security

Press **Enter** to move to Figure 112.

Note: Follow the same instructions used for key 1 when working with keys 2, 3, 4, or 5. The screen layouts are the same with the exception of the *Key* field.

```
                        Change Key Range Security               ONDMD400
                                                              1/31/98  17:31:35
Report  . . . . . . . . . . :   CHECKSTMTS
Key 1 . . . . . . . . . . . :   Account Number


Type choices, press Enter.

  Key range:
    Low value . . . . . . . .   500000000_________
    High value  . . . . . . .   599999999_________
   Profile name  . . . . . . .  TBROWN____




F3=Exit   F12=Cancel
```

Figure 112. Change Key Range Security

Press **Enter** to view the change on Figure 113 on page 68.

```
                        Work with Key 1 Security                ONDMD400
                                                              1/31/98  17:31:46
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                 High value                Profile Name
        _________________________ _________________________ _________
        000000000                 299999999                 CALLEN
        000000000                 299999999                 QRDARS400
        000000000                 299999999                 MAMIKEAL
        000000000                 299999999                 NOBRIEN
        000000000                 299999999                 REPPLEY
        500000000                 599999999                 TBROWN

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

Figure 113. Work with Key 1 Security

This screen displays the changes.

To Delete Key Authority

Use Figure 114 to delete key access for a user or group profile.

```
                        Work with Key 1 Security                ONDMD400
                                                              1/31/98  17:32:04
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                 High value                Profile Name
        _________________________ _________________________ _________
        000000000                 299999999                 CALLEN
        000000000                 299999999                 QRDARS400
        000000000                 299999999                 MAMIKEAL
        000000000                 299999999                 NOBRIEN
        000000000                 299999999                 REPPLEY
  4     500000000                 599999999                 TBROWN

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

Figure 114. Work with Key 1 Security

Press **Enter** to continue to Figure 115 on page 69.

Note: Follow the same instructions used for key 1 when working with keys 2, 3, 4, or 5. The screen layouts are the same with the exception of the *Key* field.

```
                    Confirm Delete of Key Security              ONDMD400
                                                              1/31/98  17:32:12
Report  . . . . . . . . . . :  CHECKSTMTS
Key 1 . . . . . . . . . . . :  Account Number

Press Enter to confirm your choice for 4=Delete
Press F12=Cancel to return to change your choices.

Key range:
  Low value . . . . . . . . :  500000000
  High value  . . . . . . . :  599999999
Profile name  . . . . . . . :  TBROWN









F12=Cancel
```

Figure 115. Confirm Delete of Key Security

If you entered the correct data to delete, press **Enter** to move to Figure 116.

If you entered incorrect data, press **F12** to return to Figure 114 on page 68.

```
                         Work with Key 1 Security               ONDMD400
                                                              1/31/98  17:32:15
Report  . . . :   CHECKSTMTS
Key 1 . . . . :   Account Number

Type options, press Enter.
  1=Create    2=Change    4=Delete

Option  Low value                 High value                 Profile Name
        _________________________ _________________________  __________
        000000000                 299999999                  CALLEN
        000000000                 299999999                  QRDARS400
        000000000                 299999999                  MAMIKEAL
        000000000                 299999999                  NOBRIEN
        000000000                 299999999                  REPPLEY
        500000000                 599999999                  TBROWN




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

Figure 116. Work with Key 1 Security

This screen confirms the deletion.

Option 20. Report Definition Menu

To work with reports, access the REPORT ADMINISTRATION MENU screen, Figure 3 on page 4.

Select option 20, Figure 117 on page 70.

```
ONDMDDEF              OnDemand Report Definition Menu
                                                          System:   ONDMD400
Select one of the following:

     1. Retrieve Reports
     2. Store Report
     3. Delete Report
     4. Create Physical File
     5. Copy Spooled File
     6. Display Physical File Member
     7. Work with Report Definition
     8. Work with Spooled Files
     9. Work with Output Queue
    10. Print AFP Text Data for Report Definition

    20. Report Administration Menu


Selection or command
===> ____________________________________________________________________________
____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 117. OnDemand Report Definition Menu

The screen options are all included in this section; this screen is not repeated.

Option 1. Retrieve Reports

Retrieving reports is an end-user function, and is described in Chapter 8, "For the OnDemand Spool File Archive End User," on page 267.

Option 2. Store Report

Use these screens to store (capture) a report you defined. To begin, select option 2, Store Report, from the ONDEMAND REPORT DEFINITION MENU, Figure 117.

The START CODED DATA STORE (STRCDSRDAR) screen, Figure 118 appears.

```
                    Start Coded Data Store (STRCDSRDAR)

Type choices, press Enter.

Report name  . . . . . .  CHECKSTMTS       Name, F4 for list
Version  . . . . . .  01          01-99, *HIGHEST
Text 'description' . . . . . .  *BLANK_____________________________
_________
Input file . . . . . .  *SPLF_____    Name, *SPLF
  Library  . . . . . .    _________  Name, *LIBL, *CURLIB

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

Figure 118. Start Coded Data Store (STRCDSRDAR)

Press **Enter** to continue to Figure 119:

```
                    Start Coded Data Store (STRCDSRDAR)

Type choices, press Enter.

Report name  . . . . . . . . . . > CHECKSTMTS   Name, F4 for list
Version  . . . . . . . . . . . .      01       01-99, *HIGHEST
Text 'description' . . . . . .   *BLANK_____________________________________
_________
 Input file . . . . . . . . . .   *SPLF____     Name, *SPLF
   Library  . . . . . . . . . .     _________   Name, *LIBL, *CURLIB
Spooled file . . . . . . . . .   QSYSPRT___     Name
Job name . . . . . . . . . . .   *_________     Name, *
  User . . . . . . . . . . . .     _________   Name
  Number . . . . . . . . . . .     _________   000000-999999
Spooled file number  . . . . .   *ONLY_         1-999999,*ONLY,*LAST
Delete input file  . . . . . .   *NO_           *NO, *YES




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

Figure 119. Start Coded Data Store (STRCDSRDAR)

(If you entered ***SPLF** in the *Input File* field on the previous screen, additional fields appear on this screen.)

Press **Enter** to begin capturing the report, or **F10** to verify or change additional parameters.

Results of the report capture are written to a report with the spooled file name ***QPRLRCDS***. To view this report, select "Option 8. Work with Spooled Files" on page 77, from the OnDemand Report Definition Menu, Figure 117 on page 70.

Option 3. Delete Report

To delete a stored report, select this option from the OnDemand Report Definition Menu, Figure 117 on page 70. Figure 120 on page 72 appears.

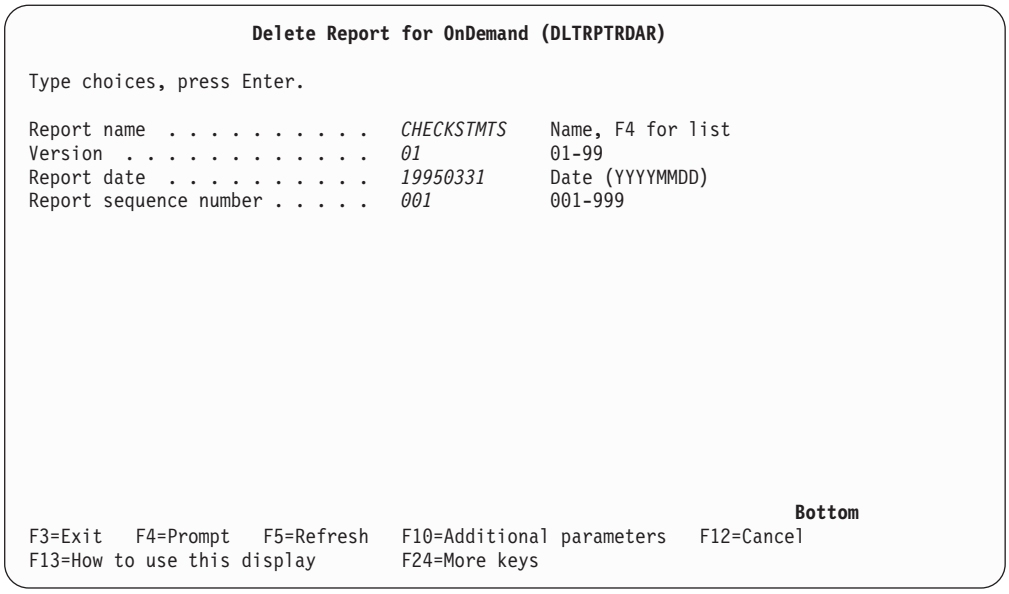

Figure 120. Delete Report for OnDemand (DLTRPTRDAR)

When you are finished, press **Enter**, or **F10** to verify or change additional parameters.

If an error occurs during the report deletion, the errors are written to a report with the spooled file name ***QPRLCERR***. To view this report, select "Option 8. Work with Spooled Files" on page 77 from Figure 117 on page 70.

Option 4. Create Physical File

To find segmentation values and key information in a report, you must copy the spooled output data into a physical file; then you can locate the line and column positions of the data. Do this only once—when you first define the report to OnDemand. Copying of the spooled file data is described in Option 5.

Note: If your spooled file contains AFPDS, do not follow this process. Instead, choose "Option 10. Print AFP Text Data for Report Definition" on page 77 from the REPORT DEFINITION MENU to create a printout that shows the data portion of the AFPDS report. This lets you identify the row and column positions in a similar manner.

First, create the physical file to contain the data. Choose option 4, Create Physical File, to move to Figure 121 on page 73:

```
                        Create Physical File (CRTPF)

Type choices, press Enter.

File . . . . . .   CHECKSTMTS    Name
  Library  . . . . . .    MYLIB_____  Name, *CURLIB
Record length, if no DDS . . . . > 133___        Number
Generation severity level  . . .   20___        0-30
Flagging severity level  . . . .   0____        0-30
Member, if desired . . . . . .     *FILE_____   Name, *FILE, *NONE
Text 'description' . . . . . .     *SRCMBRTXT_____________________________
_________

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

Figure 121. Create Physical File (CRTPF)

The fields you use are **File**, **Library**, and **Record Length, if no DDS**.

Usually, you can enter **133** for a standard green-and-white bar-paper report that is 132 characters wide (plus one for the carriage control character). Other reports, such as invoices, might require a record length of 81 (80 columns of the report, plus a one-character carriage control.)

To determine the correct value for this field, you can display the spooled file attributes of the report being defined, and look for the *Width* field in the *Page size* parameter. Add one to this value to allow for the carriage control character.

- Leave the defaults in the remaining fields.
- Press **F10** (*F10=Additional parameters*).
- If you press **Page Down** to the second screen, consider the **Initial number of records** field. Enter ***NOMAX** or the number of report lines you want to use.

  If your report has 10 000 or more lines of data, we suggest that you test with only 10% of them. When your report stores correctly, run at least one test with the entire report.

Press **Enter** to create the physical file.

Option 5. Copy Spooled File

To find segmentation values and key information in a report, copy the report spooled file into a physical file. Do this by using the first character forms control (**FCFC*) parameter of the Copy Spooled File (***CPYSPLF***) command.

The new file then contains your spooled data with a carriage control character as the first character of each line of data. If you display the physical file, and position the file at the top of a page (forms control character 1 is the first character of the line), you can determine the location of segmentation, index, and display data.

Creating a physical file and copying spooled data into it is required only once—during the initial report definition phase. Then reports are typically captured directly from the spooled file.

Note: If your spooled file contains AFPDS, do not follow this process. Instead, choose "Option 10. Print AFP Text Data for Report Definition" on page 77 from the REPORT DEFINITION MENU to create a printout that shows the data portion of the AFPDS report, allowing you to identify the row and column positions in a similar manner.

To find the information about the spooled file needed in order to copy the spooled file report data to a physical file (that you created with "Option 4. Create Physical File" on page 72) do this:

- Select option 9, Work with Output Queue, from the ONDEMAND REPORT DEFINITION MENU, Figure 117 on page 70, and enter the output queue name that contains your spooled file.

  OR

- On the OS/400 command line, type:

  WRKOUTQ <queue name that contains the spooled file>

  For example, if the spooled file is in the queue ***TESTQ***, the command is:

  WRKOUTQ TESTQ

Press **Enter** to move to Figure 122.

```
                          Work with Output Queue

Queue:   PRT01          Library:   QUSRSYS        Status:   RLS

Type options, press Enter.
  1=Send   2=Change   3=Hold   4=Delete   5=Display   6=Release   7=Messages
  8=Attributes        9=Work with printing status

Opt  File       User       User Data   Sts   Pages  Copies  Form Type  Pty
     QSYSPRT    DAVE                   RDY    2881*       1   *STD       5
     CHECKS     LOUISVIL   CHK01RPG    SAV     504        1   INV        5
     QSYSPRT    BOB        *PRINT*     HLD       4*       1   *STD       5
     QSYSPRT    DAVE       SAVE        HLD       4*       1   *STD       5
     QPQUPRFIL  SUE                    SAV       2        1   *STD       5




 Parameters for options 1, 2, 3 or command
 ===>
 F3=Exit   F11=View 2   F12=Cancel   F20=Writers   F22=Printers
 F24=More keys
```

Figure 122. Work with Output Queue

You will need to type 9 (9=Work with printing status) next to the report you want to use.

Press **Enter** to move to Figure 123 on page 75.

```
                    Work with Printing Status

Job  . . . . . :   DSP05          File . . . . . :   CHECKS
  User . . . . . :     LOUISVIL       Number . . . . . :     4
  Number . . . . . :   020389       User data  . . . . . :   CHK01RPG

Type options, press Enter.
  2=Change status   5=Display detailed description

Opt     Status Description
        This file is not associated with a started printer.









                                                                  Bottom
Command
===>
F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F12=Cancel
```

Figure 123. Work with Printing Status

This screen displays the information for the file you selected.

Record this information to use when you copy the spooled file into a physical file to define key positions, segmentation, and others (see below).

Press **Enter** to return to the ONDEMAND REPORT DEFINITION MENU, Figure 117 on page 70.

To copy a spooled file to the new physical file, choose option 5, Copy Spooled File, from the ONDEMAND REPORT DEFINITION MENU, Figure 117 on page 70.

Figure 124 appears.

```
                         Copy Spooled File (CPYSPLF)

 Type choices, press Enter.

 Spooled file . . . . . .   checks____    Name
 To data base file  . . . . .   checkstmts    Name
   Library  . . . . . .     mylib_____   Name, *LIBL, *CURLIB
 Job name . . . . . .  .   dsp05_____    Name, *
   User . . . . . .  . .     louisvil__   Name
   Number . . . . . .  .     020389___    000000-999999
 Spooled file number  . . . . . .   4____          1-9999, *ONLY, *LAST
 To member  . . . . . .  .  .  .   *FIRST____     Name, *FIRST
 Replace or add records . . . . . > *REPLACE      *REPLACE, *ADD

                           Additional Parameters

 Control character  . . . . . > *FCFC         *NONE, *FCFC, *PRTCTL...



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

Figure 124. Copy Spooled File (CPYSPLF)

Press **Enter** to copy the spooled file into the physical file.

Option 6. Display Physical File Member

From the REPORT DEFINITION MENU (see Figure 117 on page 70) select option 6, Display Physical File Member. Figure 125 appears.

Note: If your spooled file contains AFPDS, do not follow this process. Instead, choose "Option 10. Print AFP Text Data for Report Definition" on page 77 from the REPORT DEFINITION MENU to create a printout that shows the data portion of the AFPDS report. This lets you identify the row and column positions in a similar manner.

```
                    Display Physical File Member (DSPPFM)

Type choices, press Enter.

File . . . . . .   CHECKSTMTS    Name
  Library  . . . .   MYLIB_____  Name, *LIBL, *CURLIB
Member . . . . . .  *FIRST_____  Name, *FIRST, *LAST
From record  . . .  1__________  Number, *END

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

Figure 125. Display Physical File Member (DSPPFM)

Press **Enter** to continue to the DISPLAY PHYSICAL FILE MEMBER screen, Figure 126.

```
                        Display Physical File Member
File . . . . . :   CHECKSTMTS          Library  . . . . :   MYLIB
Member . . . . :   CHECKSTMTS          Record . . . . . :   1
Control  . . . .     _________         Column . . . . . :   1
Find . . . . . .   ____________________________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
1
                P. O. BOX 897
                MYRTLE BEACH, S.C.  29578



                                                                      _____
                                                                      _____
                                                                           __
                LMW INC DBA LOCAL METALWORKERS                        _____ __
                P O BOX 14664
                SURFSIDE BEACH        SC
+               SURFSIDE BEACH        SC 29587

0
0PAGE 1   OF 2
                                                                        More...
F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys

      04-25     SA        MW        KS        IM       II S1 SYS400C4 KB
```

Figure 126. Display Physical File Member

Viewing this file lets you determine data locations (lines and columns) within the report data.

Option 7. Work with Report Definitions

When you select this option, the screens and fields that appear are the same as those in "Option 4. Work with Report Definitions" on page 18. Turn to that section for complete instructions.

Option 8. Work with Spooled Files

This is an OS/400 command that appears on the OnDemand menu for your convenience.

Option 9. Work with Output Queue

This is an OS/400 command that appears on the OnDemand menu for your convenience.

Option 10. Print AFP Text Data for Report Definition

To print AFP or SCS data not processed by Copy Spooled File text data for defining division into segments, key, and display field values for AFPDS spooled files, access the REPORT DEFINITION MENU screen, Figure 117 on page 70. Do this rather than options 4, 5, and 6 (Create Physical File, Copy Spooled File, and Display Physical File Member) for AFPDS spooled files; OS/400 does not permit Copy Spooled File on AFPDS data. The Copy Spooled File command may also omit some full SCS attributes. If your SCS spooled file fails to copy with Copy Spooled File, change your OnDemand Report data type to ***SCS** (instead of ***OTHER**) and use PRTTXTRDAR to define the report. If Copy Spooled File successfully copies your spooled file data, then a Report data type of ***OTHER** should process successfully for you.

Select this option to move to Figure 127.

```
                  Print AFP Spooled File Text (PRTTXTRDAR)

Type choices, press Enter.

Spooled file . . . . . .  afpdsout__    Name
Job name . . . . . .  dsp11_____    Name, *
  User . . . . . .  DAVE______    Name
  Number . . . . . .  030256____    000000-999999
Spooled file number  . . . . . .  *ONLY___    1-999999,*ONLY,*LAST
Page range to print:
  Starting page  . . . . . .  1___________    Number
  Ending page  . . . . . .  10__________    Number, *END
Report Name . . . . . .  *NONE_____
Version . . . . . .  01______    01-99, *HIGHEST

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

Figure 127. Print AFP Spooled File Text (PRTTXTRDAR)

Note the two new fields **Report name** and **Version**.

Report name

Report name specifies the name of the report definition to use when printing the spooled file.

Generally, ***NONE** is the correct value to use for the report definition name. However, there are times when using a specific report definition is necessary. In V4R4M0, OnDemand introduced an improved method of determining how to print AFP data.

This new method results in more accurate column locations for indexing. But these column locations will likely be different than they would have been before the introduction of this new method. So if you are using PRTTXTRDAR to index a new report or a new version of an existing report, use ***NONE** for the report name. ***NONE** always uses the improved method of printing.

Version

You are required to use **Version** only if you specify **Report name**, and have the system ignore if **Report name** is ***NONE**.

Press **Enter** to create the listing of the data. The data is written to a report with the spooled file named **QPRLRTXT**.

Option 21. Report Utility Menu

To work with OnDemand utility functions, access the REPORT ADMINISTRATION MENU screen, Figure 3 on page 4. Select option 21, Report Utility Menu, Figure 128.

```
RDARUTL                 OnDemand Report Utility Menu
                                                          System:   ONDMD400
Select one of the following:

     1. Store Report
     2. Delete Report
     3. Print Report
     4. Start Report Management Cycle
     5. Start Monitor Output Queue
     6. End Monitor Output Queue

    10. Report Definition Menu

    20. Report Administration Menu




Selection or command
===> ____________________________________________________________________________
____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 128. OnDemand Report Utility Menu

Option 1. Store Report

When you select this option, the screens and fields that appear are the same as those in "Option 20. Report Definition Menu" on page 69, "Option 2. Store Report" on page 70. Turn to that section for complete instructions.

Option 2. Delete Report

When you select this option, the screens and fields that appear are the same as those in "Option 3. Delete Report" on page 71.

Option 3. Print Report

To print an entire spooled file report after it is segmented and stored, choose option 3, Print Report, from the ONDEMAND REPORT UTILITY MENU. Figure 129 appears.

```
                    Print Report for OnDemand (PRTRPTRDAR)

Type choices, press Enter.

Report name  . . . . . .  CHECKSTMTS    Name, F4 for list
Version  . . . . . .  01__          01-99
Report date  . . . . . .  19950331      Date (YYYYMMDD)
Report sequence number . . . . .  001___        001-999
Printer  . . . . . .  *outq_____    Name, *OUTQ

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

Figure 129. Print Report for OnDemand (PRTRPTRDAR)

If you entered ***OUTQ** in the *Printer* field, press **Enter** to continue to Figure 130.

```
                    Print Report for OnDemand (PRTRPTRDAR)

Type choices, press Enter.

Report name  . . . . . .  >CHECKSTMTS    Name, F4 for list
Version  . . . . . .  >01__          01-99
Report date  . . . . . .  >19950331      Date (YYYYMMDD)
Report sequence number . . . . .  >001__        001-999
Printer  . . . . . .  >*OUTQ_____    Name, *OUTQ
Output queue . . . . . .  *JOB______    Name, *JOB
  Library  . . . . . .     _________ Name, *LIBL, *CURLIB

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

Figure 130. Print Report for OnDemand (PRTRPTRDAR)

Press **Enter** to print.

If the print is unsuccessful, the error message (or messages) is written to a report with a spooled file name of ***QPRLRERR***. To view this report, select option 8., Work with Spooled Files, from the REPORT DEFINITION MENU, Figure 117 on page 70. Correct the error and run the Print Report option again.

Option 4. Start Report Management Cycle

To begin the Report Management Cycle, you can either:

- Select option 4, Start Report Management Cycle, from the ONDEMAND REPORT UTILITY MENU.
- Add the ***STRRMCRDAR*** command to a Control Language (CL) program
- Type the ***STRRMCRDAR*** command and press **F4**.

Figure 131 appears.

```
                  Start Report Management Cycle (STRRMCRDAR)

Type choices, press Enter.

Process to run . . . . . .   *ALL_____     *ALL, *MIGRATION, *EXPIRATION
Report policy  . . . . . .   *ALL_____     Name, generic*, *ALL...
Log migration status . . . . . .   *NO          *NO, *YES
Send failure message . . . . . .   *NO          *NO, *YES

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

Figure 131. Start Report Management Cycle (STRRMCRDAR)

Press **Enter** to begin the cycle, or **F10** to verify or change fields for *Submit to batch, and Job description and Library*. If you entered ***YES** in the *Send failure message* field, another field appears; enter the name of the message queue to which OnDemand can send the message.

A statistics report with details of the Report Management Cycle activities will be generated each time this process is run.

Option 5. Start Monitor Output Queue

The monitor continually checks an output queue for spooled output, and allows OnDemand to capture the spooled files as they arrive.

We recommend using the monitor program in a batch environment only.

You generally define and manually store reports with a command or menu option during testing. When the report is ready for production, you can automate storage with the OnDemand Monitor—if you use the ***SPLFNAME**, ***FORMTYPE**, or ***USERDATA** spooled file attribute of the report to match the report name you entered in the report definition.

The spooled files must be in ready status (***RDY***) on the output queue that you are monitoring.

The first time a Monitor is started for an output queue, OnDemand will create a data queue and attach it to the output queue being monitored. If there are spooled files already in that queue, the monitor will not detect them. If this happens, place these spooled files on hold, then release them. The Monitor should then detect and process them. This should only be necessary the first time a Monitor job is started for a particular output queue.

To begin capturing reports automatically when a spooled file arrives in a particular output queue, select option 5, Start Monitor Output Queue, from the ONDEMAND REPORT UTILITY MENU. (You can also issue the ***STRMONRDAR*** command or add it to a job scheduler.) See "Hints and Tips for Spool File Archive" on page 135 for additional information regarding the Monitor. Figure 132 appears.

```
                    Start Monitor for OnDemand (STRMONRDAR)

Type choices, press Enter.

Output queue . . . . . .   MYOUTQ____     Name
  Library  . . . . . .       *LIBL_____   Name, *LIBL, *CURLIB
Value to use as report name:
  Check first  . . . . . .   *SPLFNAME     *SPLFNAME, *FORMTYPE...
  Check next . . . . . .     *NONE____     *NONE, *FORMTYPE...
  Check last . . . . . .     *NONE____     *NONE, *USERDATA...
Version  . . . . . .       *HIGHEST_     01-99, *HIGHEST
Error output queue . . . . .   ERROR_____   Name
  Library  . . . . . .       QUSRRDARS_   Name, *LIBL, *CURLIB
Delete processed spooled files .   *NO      *NO, *YES









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

Figure 132. Start Monitor for OnDemand (STRMONRDAR)

If you entered ***YES** for *Delete processed spooled files*, you can press **Enter** to start the monitor or press **F10** for additional parameters. The additional parameters are shown in Figure 134 on page 82 and Figure 135 on page 83.

If you entered ***NO** for *Delete processed spooled files*, two other fields appear, as shown in Figure 133 on page 82

```
                    Start Monitor for OnDemand (STRMONRDAR)

Type choices, press Enter.

Output queue . . . . . >MYOUTQ___      Name
  Library  . . . . . .     *LIBL____   Name, *LIBL, *CURLIB
Value to use as report name:
  Check first  . . . . . .  *SPLFNAME_   *SPLFNAME, *FORMTYPE...
  Check next . . . . . .    *NONE_____   *NONE, *FORMTYPE...
  Check last . . . . . .    *NONE_____   *NONE, *USERDATA...
Version  . . . . . .        *HIGHEST__   01-99, *HIGHEST
Error output queue . . . . . .  ERROR_____   Name
  Library  . . . . . .      QUSRRDARS_  Name, *LIBL, *CURLIB
Delete processed spooled files .  *NO          *NO, *YES
Processed output queue . . . . .  PROCESSED_    Name
  Library  . . . . . .      QUSRRDARS_  Name, *LIBL




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

Figure 133. Start Monitor for OnDemand (STRMONRDAR)

Press **Enter** to start the monitor, or press **F10** for additional parameters as shown in Figure 134 and Figure 135 on page 83.

```
                    Start Monitor for OnDemand (STRMONRDAR)

Type choices, press Enter.

Output queue . . . . . >MYOUTQ____     Name
  Library  . . . . . .    *LIBL_____   Name, *LIBL, *CURLIB
Value to use as report name:
  Check first  . . . . . .  *SPLFNAME_   *SPLFNAME, *FORMTYPE...
  Check next . . . . . .    *NONE_____   *NONE, *FORMTYPE...
  Check last . . . . . .    *NONE_____   *NONE, *USERDATA...
Version  . . . . . .        *HIGHEST__   01-99, *HIGHEST
Error output queue . . . . . .  ERROR_____   Name
  Library  . . . . . .      QUSRRDARS_  Name, *LIBL, *CURLIB
Delete processed spooled files .  *NO_         *NO, *YES
Processed output queue . . . . .  PROCESSED_    Name
  Library  . . . . . .      QUSRRDARS_  Name, *LIBL

                          Additional Parameters

End date . . . . . .        *NONE_____   Date (YYYYMMDD), *NONE, ...
                                                                     More...
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

Figure 134. Start Monitor for OnDemand (STRMONRDAR) - Additional Parameters

Press **Page Down** for the second parameter screen, Figure 135 on page 83.

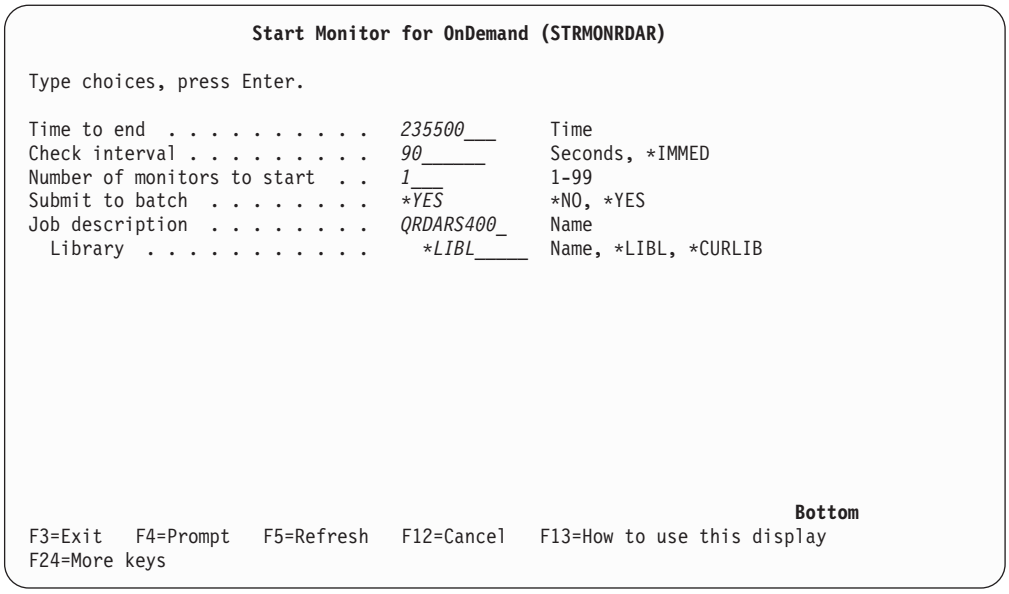

Figure 135. Start Monitor for OnDemand (STRMONRDAR) - Additional Parameters

Press **Enter** to start the monitor.

The monitor runs continuously until the *End date* or *End time* occurs. You can also use "Option 6. End Monitor Output Queue" to stop processing.

The monitor processes any spooled files that arrive in the named output queue in ***RDY*** (Ready) status. Spooled files with any other status are not affected by the monitor, and remain in the output queue until they are deleted or moved.

Option 6. End Monitor Output Queue

If you do not indicate an *End date* and a *Time to end* when you started the monitor, you must use this option to end the output queue monitor. Select option 6, End Monitor Output Queue, from the OnDemand Report Utility Menu. (You can also issue the ***ENDMONRDAR*** command.) Figure 136 on page 84 appears.

```
                    End Monitor for OnDemand (ENDMONRDAR)

Type choices, press Enter.

Output queue . . . . . .   MYOUTQ____     Name
  Library  . . . . . . .     *LIBL_____   Name, *LIBL, *CURLIB
Number of monitors to end  . . .  *ONE     *ONE, *ALL

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

Figure 136. End Monitor for OnDemand (ENDMONRDAR)

Press **Enter** to end the monitor or monitors.

The monitor stops when the number of seconds you entered in the *Check Interval* field ("Option 5. Start Monitor Output Queue" on page 80) is reached.

Option 22. OnDemand Main Menu

Use this option to return to the OnDemand Main Menu, Figure 2 on page 4.

Option 30. Change OnDemand Global Report Options

Reports that have been stored in OnDemand are retrieved by various users, and then these retrieved reports are viewed, reprinted, or faxed. These three output operations are controlled by various customization values (either global or individual user) which are kept in OnDemand data areas. Setting these values is done easily using the screens that follow.

Global customization options are used as **defaults** when an individual user has no setting defined for his own user profile control values. (See "Option 31. Change Your OnDemand Report Options" on page 86 and "Option 32. Change OnDemand Report Options" on page 89 for details on individual user settings.) The individual user's controls always have higher priority. For example, if a user's CA/400 Viewer control value is set to ***BOTH** and the global default is set to ***NO**, that particular user ***will*** use the CA/400 Viewer to view both AFPDS and non-AFPDS spooled files.

To change the global default customization options, choose option 30, Change OnDemand Global Report Options, to move to Figure 137 on page 85.

```
                    Select Global Section to Change                ONDMD400
                                                                 1/04/98  14:27:53

Type selection, press Enter.
  1=Select

  Choose Section
       Viewer Options
       Combination Options









F3=Exit   F12=Cancel
```

Figure 137. Select Global Section to Change

Enter **1** beside the category of global customization defaults you wish to change. Press **Enter** to save the changes.

Viewer Options

If you select the Viewer Options category, you will continue to Figure 138. This screen gives you a choice of global viewer options.

```
                    Change Global - Viewer Options                 ONDMD400
                                                                 1/04/98  14:27:53


Type choices, press Enter.
  Use CA/400 Client viewer . . . . . .   _________  *NO, *AFPDS,
                                                    *BOTH
  Use enhanced 5250 viewer . . . . . .   _________  *NO, *YES
  Use viewer exit program  . . . . . .   __________ Name, *DEFAULT...
    Library  . . . . . . . . . . . . .   _________
  Use OnDemand Client  . . . . . . . .  *NO_______   *DEFAULT, *NO,
                                                    *YES
```

Figure 138. Change Global - Viewer Options

Combination Options

If you selected Combination Options from the initial screen, then OnDemand presents Figure 139 on page 86.

```
                  Change Global - Combination Options              ONDMD400
                                                                 1/04/98  14:27:53


Type choices, press Enter.
  Combine all multiple requests  . . . . .   __________  *NO, *YES

  Combine multiple view requests . . . . .   __________  *NO, *YES

  Combine multiple print requests  . . . .   __________  *NO, *YES

  Combine multiple fax requests  . . . . .   __________  *NO, *YES









F3=Exit   F12=Cancel
```

Figure 139. Change Global - Combination Options

Option 31. Change Your OnDemand Report Options

Each user of OnDemand identified by a unique user profile has an OnDemand *user defaults* profile. If an individual user has no setting defined for his own user profile control values, the global customization options are used as defaults. (See "Option 30. Change OnDemand Global Report Options" on page 84 for details on setting the global options.)

To change the customization options for **your own** user profile, choose option 31, Change Your OnDemand Report Options, to move to Figure 140.

```
                  Select Profile Section to Change                 ONDMD400
                                                                 1/04/98  14:27:53
OnDemand user profile . . . . . :   NOBRIEN
Type selection, press Enter.
  1=Select

  Choose Section
       Print
       Fax
       Bypass Options
       Viewer Options
       Combination Options









F3=Exit   F12=Cancel
```

Figure 140. Select Profile Section to Change

Enter **1** beside the category of customization options you wish to change.

Print Options

If you select the **Print** category, you will continue to Figure 141. This screen gives you a choice of print options.

```
                          Print Options                          ONDMD400
                                                        1/04/98  15:39:09
OnDemand user profile  . . . . . . . . . . :  NOBRIEN

Type choices, press Enter.

  Printer name  . . . . . . . .  PRT01_____     Name
  -OR-
  Output queue  . . . . . . . .  _________     Name
    Library . . . . . . . . . .   *LIBL_____   Name, *LIBL, *CURLIB

  Number of copies  . . . . . .  1__           1-999
  Page range:
    Starting page . . . . . . .  1_________     1-9999999999
    Ending page . . . . . . . .  *END______     1-999999999
  Use report overlay  . . . . .  *NO_          *YES, *NO




F3=Exit   F12=Cancel
```

Figure 141. Print Options

Press **Enter** to save the values.

Fax Options

If you selected Fax, use this screen, Figure 142, to set your fax customization options.

```
                           Fax Options                           ONDMD400
                                                        1/04/98  15:13:12
OnDemand user profile . . . . . . . . . . :  NOBRIEN

Type choices, press Enter.

  Outgoing Fax number . . . . . .  ____________________________
  Cover page  . . . . . . . . . .  *YES         *YES, *NO
    Title . . . . . . . . . . . .  ____________________________________________
    Send to . . . . . . . . . . .  ____________________________________________
                                   ____________________________________________
                                   ____________________________________________
    Sent by . . . . . . . . . . .  ____________________________________________
                                   ____________________________________________
                                   ____________________________________________
    Comment line  . . . . . . . .  ____________________________________________
  Fax mode  . . . . . . . . . . .  *NORMAL      *NORMAL, *FINE
  Number of copies  . . . . . . .  1___         1-999
  Page range:
    Starting page . . . . . . . .  _________    1-99999999999
    Ending page . . . . . . . . .  _________    1-99999999999, *END
  Use report overlay  . . . . . .  *NO_         *YES, *NO

F3=Exit   F12=Cancel
```

Figure 142. Fax Options

Press **Enter** to save the values.

Bypass Options

If you selected Bypass Options, OnDemand displays Figure 143.

```
                  Change Profile - Bypass Options                ONDMD400
                                                          1/04/98  14:27:53
OnDemand user profile  . . . . . . . . . . :  NOBRIEN

Type choices, press Enter.
  Bypass prompt for print/fax  . . . . . .   _________  *USERRESP, *BYPASS

  Bypass prompt for tape recall  . . . . .   _________  *USERRESP, *BYPASS,
                                                        *NOTIFY

F3=Exit   F12=Cancel
```

Figure 143. Change Profile - Bypass Options

Viewer Options

If you selected Viewer Options from the initial screen, then you will work with the screen in Figure 144.

```
                  Change Profile - Viewer Options                ONDMD400
                                                          1/04/98  14:27:53
OnDemand user profile  . . . . . . . . . . :  NOBRIEN

Type choices, press Enter.
  Use CA/400 Client viewer . . . . . . . .   _________  *DEFAULT, *NO,
                                                        *AFPDS, *BOTH
  Use enhanced 5250 viewer . . . . . . . .   _________  *DEFAULT, *NO,
                                                        *YES
  Use viewer exit program  . . . . . . . .  __________  Name, *DEFAULT...
    Library  . . . . . . . . . . . . . . .  __________
  Use OnDemand Client  . . . . . . . . . .  *DEFAULT__  *DEFAULT, *NO,
                                                        *YES

F3=Exit   F12=Cancel
```

Figure 144. Change Profile - Viewer Options

Combination Options

If you selected Combination Options from the initial screen, then OnDemand presents Figure 145 on page 89.

```
                  Change Profile - Combination Options              ONDMD400
                                                                 1/04/98  14:27:53
OnDemand user profile  . . . . . . . . . . :  NOBRIEN

Type choices, press Enter.
  Combine all multiple requests  . . . . .   _________  *DEFAULT, *NO,
                                                        *YES
  Combine multiple view requests . . . . .   _________  *DEFAULT, *NO,
                                                        *YES
  Combine multiple print requests  . . . .   _________  *DEFAULT, *NO,
                                                        *YES
  Combine multiple fax requests  . . . . .   _________  *DEFAULT, *NO,
                                                        *YES









F3=Exit   F12=Cancel
```

Figure 145. Change Profile - Combination Options

Press **Enter** to save the changes.

Option 32. Change OnDemand Report Options

To change the customization options for a user profile other than your own, choose option 32, Change OnDemand Report Options. Enter the specific user profile with which you want to work (enclosed in single quotation marks) on the screen that appears and press Enter. The screens that follow are exactly as those described in "Option 31. Change Your OnDemand Report Options" on page 86.

Option 40. Report Definition Export/Import

The report definition export and import feature provides the capability to copy report definition records from one R/DARS or OnDemand system to another.

Export refers to the process of copying selected report definition records from an existing R/DARS or OnDemand for iSeries installation into a separate ″transfer″ file.

The system transfers the report definition records in this transfer file from the ″source″ system to a ″target″ system. The target system must have R/DARS or OnDemand installed.

Note: The version of R/DARS or OnDemand must be V3R7 or later.

The ″import″ process adds these report definition records to the standard report definition file (QARLRACT) on the target system. The process also performs additional functions as required to make sure that added or ″imported″ report definitions will work correctly on the target system. Error checking provides guidance for the user and prevents interference with existing functions on the target system.

This description of the export/import feature applies only to OnDemand for AS/400® V4R5 and subsequent releases. The export/import capability for earlier

versions and releases has different operator interfaces. You can find the documentation for those earlier versions in the text member ″RDEIINSTR″ in the library/file QRDARS/QSAMPLES.

There are four main parts or functions within the export/import process:

1. Copy selected report definition records from the OnDemand standard report definition file (QARLRACT) on the source system into a transfer file. The report definition transfer file created has the same file attributes (record format, access path, and so forth) as the original QARLRACT file. You can use any method to select and copy the records that are copied into the transfer file. The **CPYDFNRDAR OPTION(*EXPORT)** command creates this file and copies records into it based on the values of report definition name, version, and group name. This command creates the report definition transfer file the first time it is run for a particular file name. The command also adds copied records to that same file in subsequent runs with the same file name. If logical view support is being used on the source system, **CPYDFNRDAR OPTION(*EXPORT)** makes a copy of all of the logical view records in the QUSRRDARS/QARLRAPP file. You must move this ″logical views transfer″ file to the target system along with the report definition transfer file. If the folder-field file that is used by the OnDemand Client/Server is also used on the source system, **CPYDFNRDAR OPTION(*EXPORT)** makes a copy of all of the folder-field records in the QUSRRDARS/QARLRFFU file. You must move this ″folder-fields transfer″ file to the target system along with the report definition transfer file.
2. Run the **CPYDFNRDAR OPTION(*PRINT)** command to list the records copied into the transfer file. The command will list the report definition records in report name and version sequence. The records are identified by report name, version, policy, and group name. This list includes the number of records in the file and provides additional information about specific ″related objects″ that are associated with the copied report definitions.
3. Move the report definition transfer file, and the optional files of logical view records and folder-field records, if created, from the source system to the target system. You can do this by using any convenient method available. Note that you can create the transferred files on any of the supported versions of R/DARS or OnDemand. Once created, you can transfer the files to a target system having any of the supported versions.
4. Run the command **CPYDFNRDAR OPTION(*IMPORT)** on the target system. This will copy all of the report definition records in the report definition transfer file into the standard report definition file (QUSRRDARS/QARLRACT). This enables the file for use by the OnDemand programs of the target system. This import process notifies the user of errors which prevent processing the transfer file. Also, for each one of the transferred report definitions, it checks for error conditions which prohibit copying that particular report definition. An ″error list″ spooled file lists these errors. The system produces a list only when it finds at least one such error. Separate spooled files list the report definitions that import successfully into the R/DARS or OnDemand files on the target system. This imported list may also show various warnings for each imported report definition. These ″warnings″ include the names of ″related objects″ which are named in the imported report definition but not located on the target system. The system marks the report definition records in the transfer file which import successfully. You can run **CPYDFNRDAR OPTION(*IMPORT)** command to process the records that were not imported because of error conditions which have since been corrected. The program skips over the report definitions that previously imported successfully. Each of the processing steps described above has a set of very

detailed instructions in each of the numbered sections (1-4) which follow. Each of these sections covers the following information:

- Explains any required preparations.
- Describes how to specify the parameter values when running the command.
- Provides information about error checking.
- Describes how to re-run the step if necessary.

Step 1. Exporting Report Definitions on the Source System

First, copy selected report definition records from the OnDemand standard report definition file (QARLRACT) on the source system into a transfer file:

1. Make sure that you know which report definition records are to be copied to the report definition transfer file.
2. Run the export copy command **CPYDFNRDAR OPTION(*EXPORT)**:

CPYDFNRDAR	**OPTION(*EXPORT)** **RPTDFNFILE(transfer-file/library)** **VIEWFILE(view-file)** **FLRFLDFILE(folder-field-file)** **REPORT(report-name)** **VERSION(version)** **RPTGRP(group-name)**

Include each of these parameters when the first parameter (OPTION) is ***EXPORT**. The parameters **RPTDFNFILE(transfer-file/library)**, **VIEWFILE(view-file)**, and **FLRFLDFILE(folder-field-file)** are used to identify the following items:

- Report definition transfer file.
- The associated library.
- The optional transfer files for logical view records and folder-field records, if needed.

Use the parameters **REPORT(report-name)**, **VERSION(version)**, and **RPTGRP(group-name)** to select the report definition records that you want to copy into the report definition transfer file. The following list describes the specific values for each of these parameters:

OPTION	*EXPORT = Copy report definition records from the standard report definition file (QARLRACT) into the file named in the RPTDFNFILE parameter.
RPTDFNFILE	'transfer-file' = name of the report definition transfer file which will contain the copied or exported report definition records. The first character of this file name cannot be "Q". This parameter cannot be left blank. 'library' = name of the library where the transfer file exists or is to be created. "*CURLIB" may be used. If the 'transfer-file' named exists, the existing file will be used, and the selected report definition records will be added to those records already in the file. If the 'transfer-file' named does not exist, a new file will be created.

VIEWFILE	'view-file' = name of the file which will contain the logical view records from the file QARLRAPP. This file name is required only if logical view records actually exist. 'view-file' = *NONE is permitted if there are no logical view records to be copied during the export process. The logical-view transfer file must be in the library that was specified for the report definitions transfer file.
FLRFLDFILE	'folder-field-file' = name of the file which will contain the folder-field records from the file QARLRFFU. This file name is required only if folder-field records actually exist. 'folder-field-file' = "*NONE" is permitted if there are no folder-field records to be copied during the export process. The folder-field transfer file must be in the library that was specified for the report definitions transfer file.
REPORT	'report-name' = "*ALL" means copy all of the report definition records in the QARLRACT file into the report definition transfer file. 'report-name' = "XX...X" means copy report definitions which have a report name which exactly matches the entered characters, where "XX...X" = 1 to 10 uppercase characters. 'report-name' = "XX...X*" means copy report definitions which have a report name which starts with the entered characters, where "XX...X" = 1 to 9 uppercase characters. For example, entering "AB*" would copy report names "ABC" and "AB001" in addition to "AB". 'report-name' = " " means the report name is not used to select report definition records.
VERSION	'version' = "NN" means copy all report definition records which have version = "NN", where "NN" can be any two-digit number, "01" through "99". 'version' = " " means the report version is not used to select report definition records.
RPTGRP	'group-name' = "XX...X" means copy report definition records having a report group name equal to the entered characters, with "XX...X" = 1 to 10 uppercase characters. 'group-name' = " " means the report group name is not used to select report definition records.

The last three parameters cannot all be blank. If the REPORT value is "*ALL", both the VERSION and RPTGRP parameter values must be blank. If you enter both REPORT and RPTGRP values, the REPORT value must be generic, that is, it must end with "*". If you use two or three of these last three parameters concurrently, the report definition records that you want to export must match all of the entered values.

3. Error checking for this step consists primarily of running the next step to list all of the report definition records copied into the report definition transfer file. Careful correlation of the records listed from the transfer file with those in your export/import plan is essential.

4. You can run the **CPYDFNRDAR OPTION(*EXPORT)** command as many times as needed to copy all of the report definition records that you want to export.

   Note: Copying more report definitions of the same name and version into an existing report definition transfer file may replace previously copied records in the transfer file. The CPYF command that is initiated by the **CPYDFNRDAR OPTION(*EXPORT)** command uses **MBROPT(*UPDADD)** to copy records into a report definition transfer file. This command will copy records that existed before you ran the command. You should copy all of the report definition records that you want to export into the transfer file before you update any records in the transfer file.

Step 2. Listing Report Definitions in the Transfer File

1. No preparation is necessary other than having run the previous step to copy some report definition records into the report definition transfer file.
2. Run the ″copy to printer″ command **CPYDFNRDAR OPTION(*PRINT):**

CPYDFNRDAR **OPTION(*PRINT)**
RPTDFNFILE(transfer-file/library)

The following list describes the specific values for each of these parameters:

OPTION *PRINT = print a summary list of the report definition records from the file named in the RPTDFNFILE parameter.

RPTDFNFILE 'transfer-file' = name of the report definition transfer file which contains the copied or exported report definition records to be listed. This parameter cannot be left blank. 'library' = name of the library where the transfer file exists. The special value ″*CURLIB″ may be used.

Note: It is possible to run **CPYDFNRDAR OPTION(*PRINT)** and specify the standard OnDemand report definition file (QUSRRDARS/QARLRACT). This may provide useful information when planning the export and import of report definitions.

3. Error checking for this step consists only of reading the report produced. The number of records that are read from the transfer file appears at the bottom. Careful correlation of the records listed with those in your export/import plan is essential. The ″warning″ information provided alerts you to special requirements. The special requirements include ″related objects″ that are named in the transferred report definitions which may not exist on the target system. Note that the export or import programs do not process or copy these ″related objects″.
4. You can run the **CPYDFNRDAR OPTION(*PRINT)** command as many times as needed. You can use two methods to distinguish between multiple copies of the report:
   - The run date and time that is indicated in the report heading.
   - The transfer file and library that is listed in the bottom summary line.

Step 3. Moving the Transfer Files to the Target System

Move the report definition transfer file, and the optional files of logical view records and folder-field records, if created, from the source system to the target system. You can do this by using any convenient method, such as magnetic media, FTP, and so forth.

Step 4. Importing Report Definitions on the Target System

1. Run the ″import copy″ command **CPYDFNRDAR OPTION(*IMPORT):**

CPYDFNRDAR **OPTION(*IMPORT)**
RPTDFNFILE(transfer-file/library)
VIEWFILE(view-file)
FLRFLDFILE(folder-field-file)

The following list describes the specific values for each of these parameters:

OPTION
*IMPORT = copy report definition records from the report definition transfer file named in the RPTDFNFILE parameter into the standard report definition file for OnDemand (QUSRRDARS/QARLRACT).

RPTDFNFILE
'transfer-file' = name of the report definition transfer file which contains the previously copied or exported report definition records. The first character of this file name cannot be a ″Q″. This parameter cannot be left blank.
'library' = name of the library where the transfer file exists on the target system. ″*CURLIB″ may be used.

VIEWFILE
'view-file' = name of the file which contains the logical view records copied on the source system. This file name is required only if logical view records actually exist in such a file and they are to be copied on the target system. 'view-file' = ″*NONE″ is permitted if there are no logical view records to be copied or if you wish to omit copying them during import processing. This logical-view transfer file must be in the library that was specified for the report definitions transfer file.

FLRFLDFILE
'folder-field-file' = name of the file which contains the folder-field records which were copied on the source system. This file name is required only if folder-field records actually exist in such a transfer file and they are to be copied onto the target system. 'folder-field-file' = ″*NONE″ is permitted if there are no folder-field records to be copied or if you wish to omit copying them during import processing. The folder-field transfer file must be in the same library that was specified for the report definitions transfer file.

2. Error checking and correction steps:
   a. If the command or program displays an error message instead of processing the transfer file, correct the error condition described in the displayed message and run the command again.

b. The commands or programs that find error conditions which prevent copying a report definition will list these errors in an ″error list″ spooled file. The system produces this file only if it finds at least one such error. At least one of these reasons why a report definition record was not imported will be listed:
   1) Report name and version are duplicates of an existing record;
   2) Group assignment does not match that in an existing record having the same report name (field CDTYPE);
   3) Group name specified in the report definition does not exist as a report group definition;
   4) The policy (collection) that is named in the report definition record does not exist;
   5) The system could not find the printer file that is named in the report definition record;
   6) The system encountered an unusual problem while attempting to import a report definition record. The system will specify the file add or update error in the printed error text.

c. Separate spooled files list report definitions that import successfully into the OnDemand files of the target system. This ″imported list″ also lists various ″warnings″ for each imported report definition. These ″warnings″ include the names of specified ″related objects″ that are in the report definition but not located on the target system. Do not ignore these ″import warnings″; most of them point to potential error conditions which will prevent successful use of the imported report definition record.

3. You can run the **CPYDFNRDAR OPTION(*IMPORT)** command as many times as needed to import all of the report definition records in the report definition transfer file. The command marks the report definition records in the transfer file that import successfully. You can run the command again to process any records that were not imported because of error conditions which have since been corrected. The import program skips over the report definitions that previously imported successfully. For example, assume that a transfer file contains 215 report definition records and that 205 of these records imported successfully during the first run of **CPYDFNRDAR OPTION(*IMPORT)**. The second run would show that it read only 10 records from the report definition transfer file.

Report Definition - Environment Work Sheet

NOTE: Some fields and their descriptions will appear or have slightly different wording under certain conditions.

```
                      Report Definition - Environment              ONDMD400
                                                          1/08/98  14:49:43
Type choices, press Enter.

  Report . . . . . . . . . . . . . . . . . . . .   _________     Name
  Version  . . . . . . . . . . . . . . . . . . .   __            01-99
  Report type  . . . . . . . . . . . . . . . . .   ____          DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .   ___           20-256
  Policy name  . . . . . . . . . . . . . . . . .   _________     Name
  Report overlay . . . . . . . . . . . . . . . .   _________     Name
  Report data type . . . . . . . . . . . . . . .   _____         *SCS, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .   _________     Name
  Translate print control  . . . . . . . . . . .   __            Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .   _________     Name
    Library  . . . . . . . . . . . . . . . . . .     _________
  Text . . . . . . . . . . . . . . . . . . . . .   __________________
______________
  Compression  . . . . . . . . . . . . . . . . .   __            Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .   __

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

Figure 146. Report Definition - Environment Worksheet (1 of 3)

```
                      Report Definition - Environment              ONDMD400
                                                          1/08/98  14:50:49
Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . . . .   _
    Length . . . . . . . . . . . . . . . . . . .   _        0-25
    Column . . . . . . . . . . . . . . . . . . .   __       0-255
    Line . . . . . . . . . . . . . . . . . . . .   __       0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . . . .   _______________
      Length . . . . . . . . . . . . . . . . . .     _      1-16
      Column . . . . . . . . . . . . . . . . . .     __     0-255
      +- line offset . . . . . . . . . . . . . .     __     -255-256

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

Figure 147. Report Definition - Environment Worksheet (2 of 3)

```
                    Report Definition - Environment                ONDMD400
                                                                 1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . .                 Y=Yes, N=No
  Bypass document results display  . . . . .                 Y=Yes, N=No
  Search all sequence numbers  . . . . . .                   Y=Yes, N=No
  Input exit . . . . . .                    _________        Name
    Library  . . . . . .                    *LIBL_____
  Index exit . . . . . .                    _________        Name
    Library  . . . . . .                    *LIBL_____
  Unbundle exit  . . . . . .                _________        Name
    Library  . . . . . .                    *LIBL_____

                                                                        Bottom
F3=Exit   F12=Cancel
```

Figure 148. Report Definition - Environment Worksheet (3 of 3)

Report Definition - Segmentation Work Sheet

```
                    Report Definition - Segmentation               ONDMD400
                                                                 1/08/98  14:51:39
Report/Version  . . . . . :   _________ / _

Type choices, press Enter.

  Segment size  . . . . . .   __            1-100
  Segmentation condition 1:
  Change/Match  . . . . . .                 1=Change, 2=Match
    Value . . . . . .         ________
    Length  . . . . . .        _            0-25
    Column  . . . . . .       ____          0-255
    Line  . . . . . .         ___           0-256
    -OR-
    Pivot value . . . . . .   _______________
      Length  . . . . . .       _           0-16
      Column  . . . . . .      ___          0-255
      +- line offset  . . . .  ___          -255-256

  Condition combination . . . . . .         0=None, 1=And, 2=Or

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

Figure 149. Report Definition - Segmentation Worksheet (1 of 2)

```
                    Report Definition - Segmentation                ONDMD400
                                                                 1/08/98  14:52:15
Report/Version  . . . . . . . . . . . :   _________ / _

Type choices, press Enter.

  Segmentation condition 2:
  Change/Match  . . . . . . . . . . .                  1=Change, 2=Match
    Value . . . . . . . . . . . . . .   _________
    Length  . . . . . . . . . . . . .    _            0-25
    Column  . . . . . . . . . . . . .   __            0-255
    Line  . . . . . . . . . . . . . .   __            0-256
    -OR-
    Pivot value . . . . . . . . . . .   ________________
      Length  . . . . . . . . . . . .     _           0-16
      Column  . . . . . . . . . . . .    __           0-255
      +- line offset  . . . . . . . .    __           -255-256




                                                                        Bottom
F3=Exit   F12=Cancel
```

Figure 150. Report Definition - Segmentation Worksheet (2 of 2)

Report Definition - Keys Work Sheets

```
                      Report Definition - Keys                  ONDMD400
                                                                 1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . :   _________ /  _

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . .   ________________
  Length  . . . . . . . . . . . . . . . .   _              1-25
  Minimum search characters . . . . . . .   _              1-length
  Location:
    Column  . . . . . . . . . . . . . . .     __           0-255
    Line  . . . . . . . . . . . . . . . .     __           0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     ________________
      Length  . . . . . . . . . . . . . .       _          0-16
      Column  . . . . . . . . . . . . . .      __          0-255
      +- line offset  . . . . . . . . . .      __          -255-256

  Lower case key  . . . . . . . . . . . .                  Y=Yes, N=No
  Key security  . . . . . . . . . . . . .                  Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .                  Y=Yes, N=No
                                                                  More...
F3=Exit   F12=Cancel
```

Figure 151. Report Definition - Keys Worksheet (1 of 5)

```
                    Report Definition - Keys                    ONDMD400
                                                          1/08/98  14:53:00
Report/Version  . . . . . . . . . . . . . :   ________ /  _

Type choices, press Enter.

  Key 2 name  . . . . . . . . . . . . . . .   ___________
  Length  . . . . . . . . . . . . . . . . .   _           1-20
  Minimum search characters . . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 152. Report Definition - Keys Worksheet (2 of 5)

```
                    Report Definition - Keys                    ONDMD400
                                                          1/08/98  14:53:28
Report/Version  . . . . . . . . . . . . . :   ________ /  _

Type choices, press Enter.

  Key 3 name  . . . . . . . . . . . . . . .   ___________
  Length  . . . . . . . . . . . . . . . . .   _           1-20
  Minimum search characters . . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 153. Report Definition - Keys Worksheet (3 of 5)

```
                    Report Definition - Keys                    ONDMD400
                                                          1/08/98  14:53:42
Report/Version  . . . . . . . . . . . . . :   ________ /  _

Type choices, press Enter.

  Key 4 name  . . . . . . . . . . . . . . .   _____________
  Length  . . . . . . . . . . . . . . . . .   _           1-20
  Minimum search characters . . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .     _____________
      Length  . . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                 More...
F3=Exit   F12=Cancel
```

Figure 154. Report Definition - Keys Worksheet (4 of 5)

```
                    Report Definition - Keys                    ONDMD400
                                                          1/08/98  14:54:31
Report/Version  . . . . . . . . . . . . . :   ________ /  _

Type choices, press Enter.

  Key 5 name  . . . . . . . . . . . . . . .   _______
  Length  . . . . . . . . . . . . . . . . .   _           1-15
  Minimum search characters . . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                 Bottom
F3=Exit   F12=Cancel
```

Figure 155. Create Report Definition - Keys Worksheet (5 of 5)

Examples of Report Types

Defining a PAGE Report

PAGE reports index by value ranges. They start with the lowest value on the first page and end with the highest value on the last page of each report segment. They support 1-column or 2-column types of reports and can be, for example, general ledger transaction listings, warehouse stock listings, and others.

The dollar-sequence report, ***TSTSEQ***, is explained below. It has detail line items, listed in an ascending (sorted) sequence; the items (check amount) never re-sequence themselves within the report.

The spooled file has been copied into a physical file named ***TSTSEQ*** in the ***QRDARS*** library.

Use "Option 6. Display Physical File Member" on page 76 to display the physical file that contains the ***TSTSEQ*** report data, Figure 156.

```
                        Display Physical File Member
File . . . . . :   TSTSEQ              Library  . . . . :   QRDARS
Member . . . . . :   $SQRPT            Record . . . . . :   1
Control  . . . . .                     Column . . . . . :   1
Find . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
1******************* ← Line 1              OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 2
 ******************* ← Line 3              OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 4
1 - - - - - ******** ← Line 1              OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 2
 BANK     001        ← Line 3
1RASORT   P3313001   ← Line 1              OnDemand FARMERS NATIONAL BANK
 BANK     001
 FROM     12/20/90
 TO       12/20/90                                    DOLLAR SEQUENCE REPORT
                T/R          ACCOUNT        SERIAL       ITEM SEQ.
     AMOUNT    NUMBER         NUMBER        NUMBER         NUMBER      AMOUNT
        3.00  05320066      1106013267                    1022663900
        3.00  05320066      1106116899                    10216446P        3.00
        3.00  05320066      1106116899                    10219452P        3.00

F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

Figure 156. Display Physical File Member - PAGE Report

The highlighted fields (such as segmentation criteria and keys) are the values you use when you define the report.

PAGE reports use the same items for Keys 1 and 2; the example uses *Check Dollar Amount*. Key 1 is the lowest *Check Dollar Amount* at the top of the first page of each segment. Key 2 is the highest *Check Dollar Amount* on the last line of the last page of the segment. (The administrator determines the segment length, from 1 to 100 pages.)

Key 3 is always the *page number*.

These are the keys in our example:

- **Key 1** - Beginning Check Dollar Amount
- **Key 2** - Ending Check Dollar Amount
- **Key 3** - Page Number (set by OnDemand)
- **Key 4** - (none)
- **Key 5** - (none)

PAGE report segmentation is different from ***DOC*** report segmentation. (Examples throughout this book use ***DOC*** reports.) You identify the starting page location (possibly excluding banner pages, for example); then OnDemand segments the report based on the size of the segment you define in the report definition.

To view additional *columns*, use the ***F19*** and ***F20*** keys.

Scroll forward to view additional *items*, or enter a **B** in the *Control* field to go to the ***B***ottom of the page, as shown in Figure 157:

```
                        Display Physical File Member
File . . . . . :   TSTSEQ              Library  . . . . :   QRDARS
Member . . . . . :   $SQRPT            Record . . . . . :   11593
Control  . . . . .   B                 Column . . . . . :   1
Find . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
        4.88  05320696       411166648                   27407112B        4.89
        4.88  05320705       551500903                   10206066P        4.89
        4.88  05320710       003140938                   17306998B        4.89
        4.88  05390022       103889457                   13436265N        4.89
        4.88  05390022       103974028                   13445255N        4.89
        4.88  05390022       321877540          1095     02636776N        4.89
        4.88  05390022       322185430          2527     40212093I        4.89
        4.88  05390022       322258567          0109     10508512P        4.89
        4.88  05390022       322827775          7342     40006100I        4.89
        4.88  05390022       323302216        741164     40406788I        4.89
        4.88  05390022       541844296                   13435022N        4.89
        4.88  05390037        55050439                   10710263P        4.89
        4.88  05390150       721013902                   10227150P        4.89
        4.88  06100010      8801045801                   41709435P        4.89
        4.88  06500002       110017072                   20209749P        4.89
        4.88  07192322    930000709349                   30907789P        4.89

                          ****** END OF DATA ******

F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

Figure 157. Display Physical File Member - PAGE Example

Return to the **T**op of the report data by entering a **T** in the *Control* field at the top of the screen. Use the sample data to locate:

Key 1 The first *Check Dollar Amount* is on Line 7, starting in Column 2. (Assume that this dollar amount can contain up to 11 characters.)

When locating the column number, include the print control position. You can use the ruler at the top of the screen as a guide. You could locate and define this key to OnDemand by using absolute processing with the data that is defined on a fixed line. However, we recommend using pivot processing to define it, particularly when the report is 2-column. (Use a pivot value for Key 2, also.)

We selected '.' in Column 10 for the pivot point. When OnDemand finds the first occurrence of '.' in Column 10 (looking down the page, starting at the top), it extracts 11 characters on the same line (0 lines offset), beginning at Column 2. This creates the Key 1 value.

OnDemand then searches from the bottom of the page backwards, using the same criteria, to fill in the Key 2 value.

Key 2 Data flows down the left side of the page, and then starts again at the top middle of the page. Assuming that this might be a 2-column report, the last *Check Dollar Amount might* be found in Column 68 (as our example shows), and is 11 characters long. To find the line location, use pivot processing, selecting '.' in Column 76.

OnDemand searches backwards from the bottom of the page. When it finds the pivot value, it replaces the previously filled Key 2 with the value in the second column (if it is nonblank).

For a 1-column report, define key 2 as you defined Key 1; OnDemand searches backwards for Key 2. A 1-column report is more common than a 2-column report.

Segmentation

Locate the beginning of the actual report.

In this example, there are seven lines of information preceding the actual report data to be captured; they can be leading banner pages, or printer alignment pages for preprinted forms.

To identify the beginning of the report, you can select from several options:

- A match on **RASORT** on Line 1, Column 2, with a length of 6.
- A match on **P3313001** on Line 1, Column 13, with a length of 8.

The report date is at Line 3, Column 11, with a length of 8. The date format is MM/DD/YY. (The date must be in the first segment of the report.) When you define the report, you must include the date format.

Define the report to OnDemand

Select "Option 4. Work with Report Definitions" on page 18 from the REPORT ADMINISTRATION MENU.

There are differences between the ***DOC*** report definition shown on those screens and a ***PAGE*** report definition.

- Define the environment for a ***PAGE*** report, using Figure 158 through Figure 160 on page 104.

```
                  Report Definition - Environment                ONDMD400
                                                          1/08/98  14:49:43
Type choices, press Enter.

  Report . . . . . . . . . . . . . . . . . . . .  TSTSEQ____      Name
  Version  . . . . . . . . . . . . . . . . . . .  01             01-99
  Report type  . . . . . . . . . . . . . . . . .  PAGE           DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .  133            20-256
  Policy name  . . . . . . . . . . . . . . . . .  D900PTICAL     Name
  Report overlay . . . . . . . . . . . . . . . .  _________      Name
  Report data type . . . . . . . . . . . . . . .  *OTHER_____    *SCS, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .  _________      Name
  Translate print control  . . . . . . . . . . .  N              Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .   _________     Name
    Library  . . . . . . . . . . . . . . . . . .                 _________
  Text . . . . . . . . . . . . . . . . . . . . .  Dollar Sequence Report____
_____________
  Compression  . . . . . . . . . . . . . . . . .  Y              Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .  1

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

Figure 158. Report Definition - Environment PAGE Example (1 of 3)

Notice *PAGE* in the *Report type* field. Complete the fields as shown, and press **Page Down** to move to Figure 159 on page 104.

```
                    Report Definition - Environment                ONDMD400
                                                                 1/08/98  14:50:49
Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . . . .   1
    Length . . . . . . . . . . . . . . . . . . .   8          0-25
    Column . . . . . . . . . . . . . . . . . . .   11         0-255
    Line . . . . . . . . . . . . . . . . . . . .    3         0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . . . .   ________________
      Length . . . . . . . . . . . . . . . . . .     _        1-16
      Column . . . . . . . . . . . . . . . . . .     __       0-255
      +- line offset . . . . . . . . . . . . . .     __       -255-256









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

Figure 159. Report Definition - Environment PAGE Example (2 of 3)

Complete the fields as shown, and press **Page Down** to move to Figure 160.

```
                    Report Definition - Environment                ONDMD400
                                                                 1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . .   N              Y=Yes, N=No
  Bypass document results display  . . . . .   N              Y=Yes, N=No
  Search all sequence numbers  . . . . . . .   Y              Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . .    __________    Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____
  Index exit . . . . . . . . . . . . . . . .    __________    Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____
  Unbundle exit  . . . . . . . . . . . . . .    __________    Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____









                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 160. Report Definition - Environment PAGE Example (3 of 3)

Notice **PAGE** in the *Report type* field. Complete all fields as shown and press **Enter** to move to Figure 161 on page 105.

- The REPORT DEFINITION - SEGMENTATION screen includes an entry field that can be more significant with a ***PAGE*** report than it is with a ***DOC*** report. Because ***PAGE*** reports do not have natural breaks for segments (such as the obvious end of each checking statement), the *Segment size* will determine exactly how many pages belong to each segment. In a ***DOC*** report, the *Segment size* defines the **maximum** number of pages per segment, but this number is not often reached due to the natural segment breaks that usually occur after a smaller number of pages.

```
                    Report Definition - Segmentation                ONDMD400
                                                          1/08/98  14:51:39
Report/Version  . . . . . . . . . . . :   TSTSEQ_____ / 01

Type choices, press Enter.
  Segment size  . . . . . . . . . . . .  100     1-100
  Start of report condition 1:
  Change/Match  . . . . . . . . . . . .  2       1=Change, 2=Match
    Value . . . . . . . . . . . . . . .  RASORT____
    Length  . . . . . . . . . . . . . .   6      0-25
    Column  . . . . . . . . . . . . . .   2      0-255
    Line  . . . . . . . . . . . . . . .   1      0-256
    -OR-
    Pivot value . . . . . . . . . . . .   _______________
      Length  . . . . . . . . . . . . .     _    0-16
      Column  . . . . . . . . . . . . .     __   0-255
      +- line offset  . . . . . . . . .     __   -255-256

  Condition combination . . . . . . . .          0=None, 1=And, 2=Or

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

Figure 161. Report Definition - Segmentation NODX example

The field you use is:

Segment size

Enter a page count, which can be from 1 to 100.

Because ***PAGE*** reports can be very long, you segment the pages for more convenient use.

Complete the fields as shown. Because this example does not have a second segmentation requirement, press **Enter** to move to Figure 162.

```
                      Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . :   TSTSEQ____ / 01

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . .   Dollar Amt.____
  Length  . . . . . . . . . . . . . . . .   11         1-25
  Minimum search characters . . . . . . .    1         1-length
  Location:
    Column  . . . . . . . . . . . . . . .       2      0-255
    Line  . . . . . . . . . . . . . . . .       0      0-256
    -OR-
    Pivot value . . . . . . . . . . . . .       _______________
      Length  . . . . . . . . . . . . . .         1    0-16
      Column  . . . . . . . . . . . . . .        10    0-255
      +- line offset  . . . . . . . . . .         0    -255-256

  Lower case key  . . . . . . . . . . . .              Y=Yes, N=No
  Key security  . . . . . . . . . . . . .              Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .              Y=Yes, N=No
                                                                   More...
F3=Exit   F12=Cancel
```

Figure 162. Report Definition - Key 1 PAGE Example.

Complete the fields as shown, and press **Page Down** to move to Figure 163 on page 106.

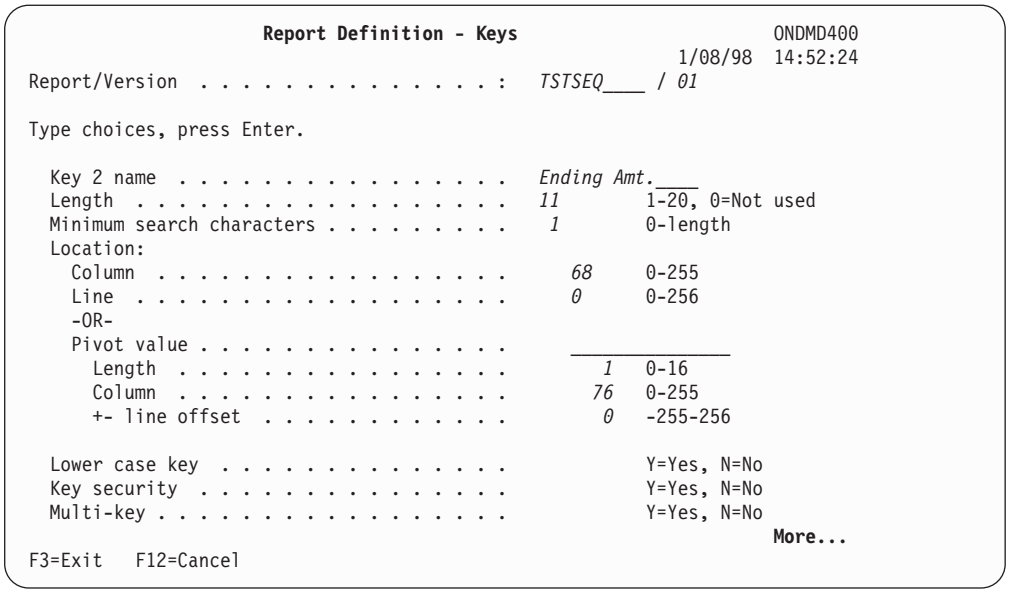

Figure 163. Report Definition - Key 2 PAGE Example.

Complete the fields as shown, and press **Page Down** to move to Figure 164.

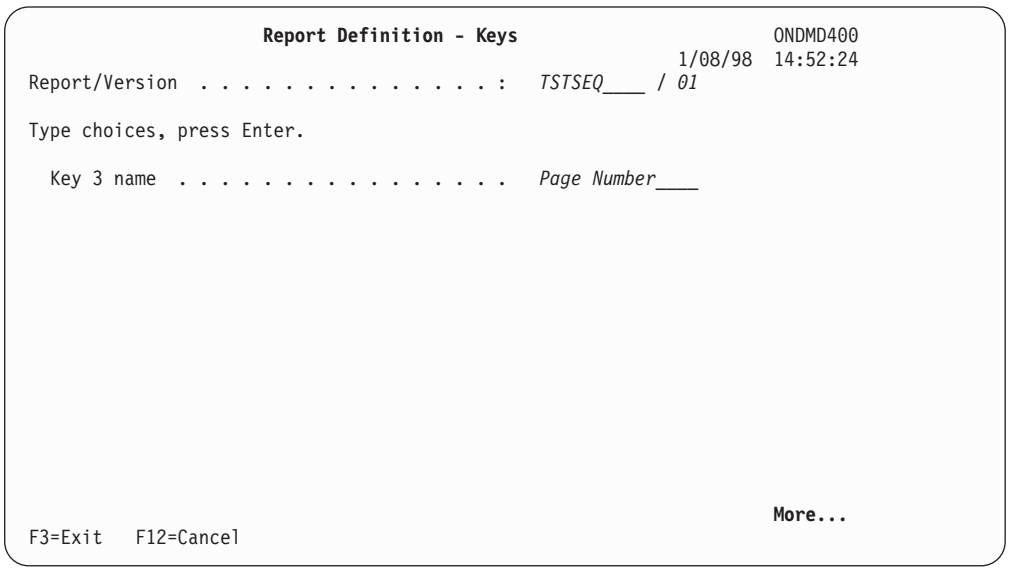

Figure 164. Report Definition - Key 3 PAGE Example.

Press **Page Down** to move to Figure 165 on page 107 through Figure 166 on page 107).

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:53:42
Report/Version  . . . . . . . . . . . . . :   TSTSEQ____ / 01

Type choices, press Enter.

  Key 4 name  . . . . . . . . . . . . . .   ________________
  Length  . . . . . . . . . . . . . . . .   _           1-20
  Minimum search characters . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                More...
F3=Exit   F12=Cancel
```

Figure 165. Report Definition - Key 4 PAGE Example

Complete the fields if needed, and press **Page Down** to move to Figure 166.

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:54:31
Report/Version  . . . . . . . . . . . . . :   TSTSEQ____ / 01

Type choices, press Enter.

  Key 5 name  . . . . . . . . . . . . . .   ________________
  Length  . . . . . . . . . . . . . . . .   _           1-15
  Minimum search characters . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                                Bottom
F3=Exit   F12=Cancel
```

Figure 166. Report Definition - Key 5 PAGE Example

When you have completed the screen if needed, press **Enter**.

Test the report store of this report. See "Option 2. Store Report" on page 70 for details.

Defining a NODX Report

Some reports cannot be classified as ***DOC*** or ***PAGE*** reports because they have no meaningful user-definable indexes. You can archive them as ***NODX*** (no-index) reports, using report name, date, segment number, and page number for later retrieval. You can define any report as ***NODX***.

The example shows the same dollar sequence report we defined in the ***PAGE*** report. (The spooled file was copied into a physical file named ***TSTSEQ*** and is in the ***QRDARS*** library.)

To display ***TSTSEQ***, select "Option 6. Display Physical File Member" on page 76. Figure 167 appears.

```
                  Display Physical File Member (DSPPFM)

Type choices, press Enter.

File . . . . . .   TSTSEQ____     Name
  Library  . . . . . .   QRDARS____   Name, *LIBL, *CUR   LIB
Member . . . . . .   *FIRST____    Name, *FIRST, *LAST
From record  . . . . . .   1__________   Number, *END

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

Figure 167. Display Physical File Member (DSPPFM)

Enter the file name and library as in the example, and press **Enter** to continue to the DISPLAY PHYSICAL FILE MEMBER screen, Figure 168.

```
                        Display Physical File Member
File . . . . . :   TSTSEQ             Library  . . . . :   QRDARS
Member . . . . . :   $SQRPT           Record . . . . . :   1
Control  . . . . .                    Column . . . . . :   1
Find . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
1****************** ← Line 1             OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 2
 ****************** ← Line 3             OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 4
1 - - - - - ******** ← Line 1             OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 2
 BANK     001        ← Line 3
1RASORT     P3313001 ← Line 1             OnDemand FARMERS NATIONAL BANK
 BANK     001
 FROM     12/20/90
 TO       12/20/90                                  DOLLAR SEQUENCE REPORT
               T/R          ACCOUNT        SERIAL       ITEM SEQ.
     AMOUNT    NUMBER         NUMBER        NUMBER         NUMBER      AMOUNT
        3.00  05320066      1106013267                    10226639         3.00
        3.00  05320066      1106116899                    10216446P        3.00
        3.00  05320066      1106116899                    10219452P        3.00

 F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

Figure 168. Display Physical File Member - NODX example

Keys ***NODX*** keys 1 through 3 are created for you by OnDemand, and are:

- **Key 1** - Segment Number
- **Key 2** - Date

- **Key 3** - Page Number

Additional fields

You can define these:

- **Key or Display Field 4**
- **Key or Display Field 5**

Segmentation

NODX segmentation is identical to ***PAGE***. Follow the instructions for segmenting a ***PAGE*** above.

Define the report to OnDemand

Select "Option 4. Work with Report Definitions" on page 18 from the REPORT ADMINISTRATION MENU. Enter the field information as the examples show in Figure 169 through Figure 171 on page 110.

```
                    Report Definition - Environment                ONDMD400
                                                          1/08/98  14:49:43
Type choices, press Enter.

  Report . . . . . . . . . . . . . . . . . .  NODXDOLSEQ    Name
  Version  . . . . . . . . . . . . . . . . .  01            01-99
  Report type  . . . . . . . . . . . . . . .  NODX          DOC, PAGE
                                                           NODX, UBND
  Input record length  . . . . . . . . . . .  133           20-256
  Policy name  . . . . . . . . . . . . . . .  D90TAPE__     Name
  Report overlay . . . . . . . . . . . . . .   _________    Name
  Report data type . . . . . . . . . . . . .  *OTHER_____   *SCS, *AFPDS
                                                           *OTHER...
  Report group . . . . . . . . . . . . . . .   _________    Name
  Translate print control  . . . . . . . . .               Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . .   __________   Name
    Library  . . . . . . . . . . . . . . . .    __________
  Text . . . . . . . . . . . . . . . . . . .  NODX Dollar Sequence Report__
  Compression  . . . . . . . . . . . . . . .  Y             Y=Yes, N=No
  Posting date type  . . . . . . . . . . . .  1

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

Figure 169. Report Definition - Environment NODX Example (1 of 3)

Complete the fields shown, and press **Page Down** to move to Figure 170 on page 110.

```
                    Report Definition - Environment                ONDMD400
                                                                 1/08/98  14:50:49
Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . . . .   1
    Length . . . . . . . . . . . . . . . . . . .   8       0-25
    Column . . . . . . . . . . . . . . . . . . .   11      0-255
    Line . . . . . . . . . . . . . . . . . . . .    3      0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . . . .   ________________
      Length . . . . . . . . . . . . . . . . . .     _     0-16
      Column . . . . . . . . . . . . . . . . . .     __    0-255
      +- line offset . . . . . . . . . . . . . .     __    -255-256









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

Figure 170. Report Definition - Environment NODX Example (2 of 3)

Complete the fields shown, and press **Page Down** to move to Figure 171.

```
                    Report Definition - Environment                ONDMD400
                                                                 1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . . . .              Y=Yes, N=No
  Bypass document results display  . . . . . . .              Y=Yes, N=No
  Search all sequence numbers  . . . . . . . . .              Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . . . .    *LIBL_____
  Index exit . . . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . . . .    *LIBL_____
  Unbundle exit  . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . . . .    *LIBL_____









                                                                        Bottom
F3=Exit   F12=Cancel
```

Figure 171. Report Definition - Environment NODX Example (3 of 3)

Complete the fields shown, and press **Enter** to move to Figure 172 on page 111.

```
                  Report Definition - Segmentation                ONDMD400
                                                          1/08/98  14:51:39
Report/Version  . . . . . . . . . . . :   NODXDOLSEQ / 01

Type choices, press Enter.

  Segment size  . . . . . . . . . . . .   100       1-100
  Start of report condition 1:
  Change/Match  . . . . . . . . . . . .   2         1=Change, 2=match
    Value . . . . . . . . . . . . . . .   RASORT_____
    Length  . . . . . . . . . . . . . .    6        0-25
    Column  . . . . . . . . . . . . . .    2        0-255
    Line  . . . . . . . . . . . . . . .    1        0-256
    -OR-
    Pivot value . . . . . . . . . . . .    ________________
      Length  . . . . . . . . . . . . .      _      0-16
      Column  . . . . . . . . . . . . .      __     0-255
      +- line offset  . . . . . . . . .      __     -255-256

  Condition combination . . . . . . . .   0         0=None, 1=And, 2=Or

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

Figure 172. Report Definition - Segmentation NODX example

Complete the fields shown, and if you have no other segmentation requirements, press **Enter** to move to Figure 172.

```
                  Report Definition - Keys                        ONDMD400
                                                          1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . :   NODXDOLSEQ / 01

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . .   Segment Number________




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

Figure 173. Report Definition - Key 1 NODX Example.

The field is completed for you as shown. Press **Page Down** to move to Figure 174 on page 112.

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . . :   NODXDOLSEQ / 01

Type choices, press Enter.

  Key 2 name  . . . . . . . . . . . . . . . .   Segment Date_________
  Length  . . . . . . . . . . . . . . . . . .    8          1-20, 0=Not used
  Minimum search characters . . . . . . . . .    8          0-length

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

Figure 174. Report Definition - Key 2 NODX Example.

The fields are completed for you as shown. Press **Page Down** to move to Figure 175.

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . . :   NODXDOLSEQ / 01

Type choices, press Enter.

  Key 3 name  . . . . . . . . . . . . . . . .   Page Number_________

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

Figure 175. Report Definition - Key 3 NODX Example.

The field is completed for you as shown. Press **Page Down** to move to Figure 176 on page 113.

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:53:42
Report/Version  . . . . . . . . . . . . . :   NONDXDOLSEQ / 01

Type choices, press Enter.

  Key 4 name  . . . . . . . . . . . . . .   ____________________
  Length  . . . . . . . . . . . . . . . .   _           1-20, 0=Not Used
  Minimum search characters . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                               More...
F3=Exit   F12=Cancel
```

Figure 176. Report Definition - Key 4 NODX Example

Complete the fields as needed, and press **Page Down** to move to Figure 177.

```
                    Report Definition - Keys                      ONDMD400
                                                          1/08/98  14:54:31
Report/Version  . . . . . . . . . . . . . :   NONDXDOLSEQ / 01

Type choices, press Enter.

  Key 5 name  . . . . . . . . . . . . . .   ____________________
  Length  . . . . . . . . . . . . . . . .   _           1-20
  Minimum search characters . . . . . . .   _           1-length
  Location:
    Column  . . . . . . . . . . . . . . .     __        0-255
    Line  . . . . . . . . . . . . . . . .     __        0-256
    -OR-
    Pivot value . . . . . . . . . . . . .     ____________
      Length  . . . . . . . . . . . . . .       _       0-16
      Column  . . . . . . . . . . . . . .       __      0-255
      +- line offset  . . . . . . . . . .       __      -255-256

  Lower case key  . . . . . . . . . . . .               Y=Yes, N=No
  Key security  . . . . . . . . . . . . .               Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . .               Y=Yes, N=No
                                                               Bottom
F3=Exit   F12=Cancel
```

Figure 177. Report Definition - Key 5 NODX Example

You can complete the fields as needed. Press **Enter** to complete the definition.

Defining a UBND (Unbundled) Report

Spooled files can contain more than one report. You can split (unbundle) the spooled file by report, then index and store them separately. Each report in the spooled file must have a report definition.

There is no restart capability for unbundled reports. If an error condition occurs while you are storing them, you must manually set up your OnDemand environment for restart; correct the error condition and delete all reports that were stored during that cycle.

The ***UBND*** example, beginning with Figure 178, shows two reports, ***TSTINVM*** and ***TSTSEQM***, in the spooled file.

```
                    Display Physical File Member (DSPPFM)

Type choices, press Enter.

File . . . . . .  BUNDLE01__    Name
  Library  . . . .    MYLIB_____  Name, *LIBL, *CURLIB
Member . . . . . .  *FIRST____    Name, *FIRST, *LAST
From record  . . .  1__________   Number, *END

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

Figure 178. Display Physical File Member (DSPPFM) - UBND Example

Press **Enter** to continue to the DISPLAY PHYSICAL FILE MEMBER screen, Figure 179 on page 115.

```
                        Display Physical File Member
File . . . . . :   BUNDLE01           Library  . . . . :   MYLIB
Member . . . . . :   BUNDLE01         Record . . . . . :   1
Control  . . . . .                    Column . . . . . :   1
Find . . . . . .
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
1   **TSTINVM ← Line 1
1   ← Line 1
-   ← Line 2
-   ← Line 3

           ALMON SAFETY EQUIPMENT                          ALMON SAFETY EQUIPM
           137 EAST BROAD AVENUE                           137 EAST BROAD AVEN
           ALBANY, GA 30709-3590                           ALBANY, GA 30709-35
0
-
0  300  BEST WAY                      C000323   31709   1234567890
-
                   UPS
                   FREE
                   ORDER OVER 1000.00
  03424            TREADLE ASSEMBLY               EA         20.000
  99001-1          SPRAY UNIT - PVT LABEL         EA         15.000
  03591-10         WHEEL 12 IN DIA
  26006-22         TANK 12 BY 24 INCHES

    **********  (Multiple invoices follow)  ***********
                .....
                .....
    **********  (end of pages of invoices)  ***********

1   **TSTSEQM    ← Line 1             OnDemand FARMERS NATIONAL BANK
 BANK     001        ← Line 2
 BANK     001        ← Line 3
1RASORT     P3313001 ← Line 1         OnDemand FARMERS NATIONAL BANK
 BANK     001
 FROM     12/20/90
 TO       12/20/90                                    DOLLAR SEQUENCE REP
               T/R          ACCOUNT        SERIAL       ITEM SEQ.
     AMOUNT    NUMBER         NUMBER        NUMBER         NUMBER      A
        3.00  05320066      1106013267                   10226639P
        3.00  05320066      1106116899                   10216446P
        3.00  05320066      1106116899                   10219452P


    **********  (Multiple pages follow)  ***********
                .....
                .....
    **********  (end of pages of report) ***********

F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
```

Figure 179. Display Physical File Member - UBND Example

Segmentation

The segmentation criteria (used to find the individual report names) can reside either within the first segment of the report, or on a page preceding the actual data (such as a header page, or a page your program inserted for OnDemand report identification).

The report name must be consistently in the same location on the page for each new report. You can use a ***C***hange condition on either a fixed line location or on a pivot value.

When a new report is found based on your segmentation criteria, OnDemand processes that report (using its report definition) as if it were the only report in the spooled file.

Define the report to OnDemand

Select "Option 4. Work with Report Definitions" on page 18 from the *Report Administration Menu*. Figure 180 appears.

```
                  Report Definition - Environment                ONDMD400
                                                        1/08/98  14:49:43
Type choices, press Enter.

  Report . . . . . . . . . . . . . . . . . . . .  BUNDLE01_____  Name
  Version  . . . . . . . . . . . . . . . . . . .  01             01-99
  Report type  . . . . . . . . . . . . . . . . .  UBND           DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .  133            20-256
  Policy name  . . . . . . . . . . . . . . . . .  D90TAPE____    Name
  Report overlay . . . . . . . . . . . . . . . .  __________     Name
  Report data type . . . . . . . . . . . . . . .  *OTHER_____    *SCS, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .  __________     Name
  Translate print control  . . . . . . . . . . .  N              Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .  __________     Name
    Library  . . . . . . . . . . . . . . . . . .  __________
  Text . . . . . . . . . . . . . . . . . . . . .  Bundle of miscellaneous____
reports_____
  Compression  . . . . . . . . . . . . . . . . .  Y              Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .  1

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

Figure 180. Report Definition - Environment UNBD Example (1 of 3)

Complete the fields as shown, and press **Page Down** to move to Figure 181.

```
                  Report Definition - Environment                ONDMD400
                                                        1/08/98  14:50:49
Type choices, press Enter.

  Posting date:
    Type . . . . . . . . . . . . . . . . . . .  1
    Length . . . . . . . . . . . . . . . . . .  8      0-25
    Column . . . . . . . . . . . . . . . . . .  11     0-255
    Line . . . . . . . . . . . . . . . . . . .   3     0-256
    -OR-
    Pivot value  . . . . . . . . . . . . . . .  ______________
      Length . . . . . . . . . . . . . . . . .     _   0-16
      Column . . . . . . . . . . . . . . . . .     __  0-255
      +- line offset . . . . . . . . . . . . .     __  -255-256









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

Figure 181. Report Definition - Environment UNBD Example (2 of 3)

Complete the fields as shown, and press **Page Down** to move to Figure 182 on page 117.

```
                    Report Definition - Environment                 ONDMD400
                                                                 1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . .  N           Y=Yes, N=No
  Bypass document results display  . . . . .  N           Y=Yes, N=No
  Search all sequence numbers  . . . . . . .  Y           Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____
  Index exit . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____
  Unbundle exit  . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .    *LIBL_____









                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 182. Report Definition - Environment UNBD Example (3 of 3)

OnDemand extracts the report segmentation value that you define as a **C**hange (see below) and passes it to the program named in the *Unbundle exit* field if one is specified. Using this technique, you can change the report name extracted to a different report name that matches an OnDemand report definition. See "Unbundle Exit" on page 283 for more detail.

Press **Enter** to move to Figure 183.

Complete the fields as shown, and press **Enter** to move to Figure 183.

```
                    Report Definition - Segmentation                ONDMD400
                                                                 1/08/98  14:51:39
Report/Version  . . . . . . . . . . . :   BUNDLE01__ / 01

Type choices, press Enter.

  Segment size  . . . . . . . . . . . .   100        1-100
  Segmentation condition 1:
  Change/Match  . . . . . . . . . . . .   1          1=Change, 2=Match
    Value . . . . . . . . . . . . . . .     ______
    Length  . . . . . . . . . . . . . .    10        0-25
    Column  . . . . . . . . . . . . . .      7       0-255
    Line  . . . . . . . . . . . . . . .      0       0-256
    -OR-
    Pivot value . . . . . . . . . . . .    **____________
      Length  . . . . . . . . . . . . .        2     0-16
      Column  . . . . . . . . . . . . .        5     0-255
      +- line offset  . . . . . . . . .        0     -255-256

  Condition combination . . . . . . . .   0          0=None, 1=And, 2=Or

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

Figure 183. Report Definition - Segmentation UNBD Example

When OnDemand extracts the report segmentation value that you defined as a **C**hange for each different report in the bundle, a separate report capture is run for each individual report, resulting in separately archived reports by each name.

Press **Enter** to complete the ***UBND*** report definition.

Defining an ANYS (AnyStore) Report

AnyStore report definitions are very simple and represent a subset of a typical report definition. As shown in the screens that follow, there are only a few mandatory fields. One of the most significant requirements, for example, is that each AnyStore report definition must belong to a report group. Refer to Chapter 4, "Using the OnDemand AnyStore Feature," on page 161 for more information about AnyStore requirements.

Define the report to OnDemand

Select "Option 4. Work with Report Definitions" on page 18 from the *Report Administration Menu*. Figure 184 appears.

```
                  Report Definition - Environment                ONDMD400
                                                          1/08/98  14:49:43
 Type choices, press Enter.

   Report . . . . . . . . . . . . . . . . . . . .  SPREADSHT_     Name
   Version  . . . . . . . . . . . . . . . . . . .  01            01-99
   Report type  . . . . . . . . . . . . . . . . .  ANYS          DOC, PAGE
                                                                 NODX, UBND
   Input record length  . . . . . . . . . . . . .                20-256
   Policy name  . . . . . . . . . . . . . . . . .  D90OPTICAL    Name
   Report overlay . . . . . . . . . . . . . . . .   _________    Name
   Report data type . . . . . . . . . . . . . . .  *IFS_______   *SCS, *AFPDS
                                                                 *OTHER...
   Report group . . . . . . . . . . . . . . . . .  ANYSGROUP_    Name
   Translate print control  . . . . . . . . . . .  N            Y=Yes, N=No
   Printer file . . . . . . . . . . . . . . . . .   _________    Name
     Library  . . . . . . . . . . . . . . . . . .
                                                    _________
   Text . . . . . . . . . . . . . . . . . . . . .  AnyStore IFS files (spreads
heets_________
   Compression  . . . . . . . . . . . . . . . . .  N            Y=Yes, N=No
   Posting date type  . . . . . . . . . . . . . .

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

Figure 184. Report Definition - Environment ANYS Example (1 of 2)

AnyStore ignores entered fields that are not required on this screen. The fields to complete for AnyStore include:

- Report name
- Version
- Report type (must be **ANYS** for AnyStore)
- Policy name
- Report data type
- Report group (mandatory for AnyStore)
- Text
- Compression

The fields to ignore are:

- Input record length
- Report overlay
- Translate print control
- Printer file/library
- Posting date type

When you complete the required fields, press **Page Down** to move to Figure 185.

```
                    Report Definition - Environment                 ONDMD400
                                                                  1/08/98  14:51:26
Type choices, press Enter.

  Bypass report results display  . . . . . .  N           Y=Yes, N=No
  Bypass document results display  . . . . .  N           Y=Yes, N=No
  Search all sequence numbers  . . . . . . .  Y           Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .     *LIBL____
  Index exit . . . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .     *LIBL____
  Unbundle exit  . . . . . . . . . . . . . .   __________ Name
    Library  . . . . . . . . . . . . . . . .     *LIBL____

  Object class . . . . . . . . . . . . . . .   __________ 0-9999

                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 185. Report Definition - Environment ANYS Example (2 of 2)

This is the same screen that is used for standard Spool File Archive reports. The only field of interest for AnyStore is the **Object class**, which can contain a predefined value from the list below:

0 No object class specified

1 Bitmap-type object

2 GIF-type object

3 PCX-type object

4 PDF-type object

5 PostScript-type object

6 TIFF-type object

7 JPEG-type object

There is no concept of report segmentation for **ANYS** report definitions; the program that calls the AnyStore APIs determines segmentation. Therefore, pressing **Enter** moves you directly to Figure 186 on page 120.

```
                  Create Report Definition - Keys                  ONDMD400
                                                                 1/08/98  14:52:24
Report/Version  . . . . . . . . . . . . . . :   SPREADSHT  / 01

Type choices, press Enter.

  Key 1 name  . . . . . . . . . . . . . . . .   Filename.type___________
  Length  . . . . . . . . . . . . . . . . . .   12          1-25
  Minimum search characters . . . . . . . . .    1          1-length
  Location:
    Column  . . . . . . . . . . . . . . . . .       5       0-255
    Line  . . . . . . . . . . . . . . . . . .       6       0-256
    -OR-
    Pivot value . . . . . . . . . . . . . . .      ________________
      Length  . . . . . . . . . . . . . . . .         0     0-16
      Column  . . . . . . . . . . . . . . . .         0     0-255
      +- line offset  . . . . . . . . . . . .         0     -255-256

  Lower case key  . . . . . . . . . . . . . .   Y           Y=Yes, N=No
  Key security  . . . . . . . . . . . . . . .   N           Y=Yes, N=No
  Multi-key . . . . . . . . . . . . . . . . .   N           Y=Yes, N=No
                                                                    More...
F3=Exit   F12=Cancel
```

Figure 186. Report Definition - Keys ANYS Example (1 of 5)

Complete the fields as needed. (As you can see, this is the same screen that is used for standard Spool File Archive reports (such as **DOC** reports). Many of the fields do not apply for **ANYS** reports (such as all the **Location** fields). These fields are ignored if entered.)

Press **Page Down** to continue to the additional key screens or press **Enter** to complete the *ANYS* report definition.

Spool File Archive Security - In Detail

OnDemand's archived report document retrieval follows a four-step process. First, the user selects a report or report group by name. This report name is the name in a report definition record. The report name corresponds to the directories where archived report objects are stored and to the authorization lists that are used to secure them. This extends to their contents as well.

The second step, after selecting the report name, is to select a particular occurrence of that report. An ***occurrence*** is an OnDemand archived spooled file that uses the report name or definition which describes that report. One of these spooled files may be referred to as a ***report object***. OnDemand identifies these report objects by date and sequence number; for example, **19970412.002** is a typical object name.

Next, select the specific segments or pages of the report object by entering one or more search or key values. The entered search values are matched against corresponding key values that are extracted from the report object's text when OnDemand archived it. The search returns a list of report segments which match the search values that are entered by the user.

The fourth step is selecting the report segments for retrieval from the list of key records that match the search value that was just entered above.

In summary, there are four parts of report retrieval. They are report name selection, report object selection, entry of key values, and selection of one or more segments to be viewed, reprinted, or transmitted via fax.

OnDemand security functions are applied during the first of these steps, report name selection, and during the third step which is the search that is based on the entered key values. ***Report security*** controls access to archived reports at the report name level. ***Key security*** permits or limits access to particular segments or pages of archived reports, based on the actual values in key or display fields.

The following two sections address the impact of these security features: First, "How OnDemand Security Works" describes operational features that affect all users; then, "How to Setup OnDemand Security" on page 124 covers items of interest to the OnDemand administrator. Within each of these two main sections, information on report security is followed by that for key security.

How OnDemand Security Works

Report Security

Retrieving Lists of Report Names:

Listing Individual Report Names: When retrieving archived reports, the SPECIFY REPORT SEARCH screen allows the user to select from a list of existing report names. This remains true whether performed by selecting the Retrieve Reports menu option or by starting the **FNDRPTRDAR** command. You generate the selection list by pressing **F4** while positioning the cursor in the **Report** field. (Alternately you can enter a ***generic*** or partial search value such as **AP*** in the **Report Group** field.) The generated list of report names includes only report names which the user is authorized to retrieve and which have at least one archived report.

Using Report Group Lists: When retrieving archived reports which are in a report group, the SPECIFY REPORT SEARCH screen allows the user to select from a list of existing report groups. You generate this list of report groups by pressing **F4** while positioning the cursor in the ***Report Group*** field. Alternatively, enter a ***generic*** value or partial search value such as **AP*** in this field. At this point, the list of report groups displays without any report security checking. That is, the list shows all defined report groups. Report names that are shown in the ***Select Report Result*** list depend on the following:

- The user selects a particular report group to which he is authorized.
- The selected report group contains at least one archived report.

Selecting Report Names:

Selecting a Single Report Name: When the user chooses one particular report name from a list of report names as described above, report security will have already been checked. OnDemand sends an error message indicating that no reports were found for the name specified when a user does one of the following:

- The user enters a report name to which he is not authorized on the SPECIFY REPORT SEARCH screen.
- The user is not authorized to the report using **FNDRPTRDAR**.

If an unauthorized report name is used in the **FNDKEYRDAR** command, a response is sent. This response indicates that access is denied and that the user is not authorized to access this report.

Using Multiple Reports (a group search): If the user selects a report which is in a report group, that report can initiate a ***group search***. Perform this function by pressing **F6** on the key value entry screen (SPECIFY DOCUMENT SEARCH). To search multiple reports in the report group, authorize the user to the report group. If the

user is not authorized to the report group, the prompt **F6 = Group Search** will not be shown on the SPECIFY DOCUMENT SEARCH screen. As a result, the user will be unable to start a group search. The group search prompt always displays when the user is authorized to the report group. This remains true even though the user is excluded from at least one of the individual reports within the report group. Performing a group search omits any excluded reports from the scope of the group search. Initiating an unauthorized group search by using the **FNDKEYRDAR** command prompts a message from the system. The response will be a more specific error message that indicates that the user is not authorized to access this report.

Using Key Security

The key security function of OnDemand is essentially a required matching of two sets of key values: The key values in the report's index records are compared to the key values that are stored in the key security records for that report and user. A report's index (or directory) records contain the actual values for each of the defined key and display fields. OnDemand extracts these indexes from the actual report text when OnDemand archives them. Each of these index records, with its combination of key values, points to one particular segment of the report.

The OnDemand Administrator creates key security records. These records define key security values or ranges for particular report segments after the report definition is completed and prior to storing the report. Each key security record contains the following definitions:

- A key security value combination for a particular report name.
- A particular user (or group of users) authorized to the key security values of that report.

Document Search: An OnDemand user selects specific segments or pages of a document (or report) by entering one or more search values on the SPECIFY DOCUMENT SEARCH screen. Any entered search values are then compared to corresponding key field values in the report's index records. A list of all the index records which match both the entered search values and the key security values then displays on the WORK WITH DOCUMENTS screen. Checking search values and key security values is always performed for all users for each key or display field. This is true only for keys or display fields that have ***Key security*** set to **Y** in the report's definition. Checking security values is not overridden for a user that has ***ALLOBJ** or security officer authority.

The enhanced key security process initiates:

- When any key and display field have ***Key security*** set to **Y** in the report definition record.
- The actual values of each of these fields must be within the permitted ranges specified in the key security records for that key or display field for that user.

The search process will display only those index records (key values) which satisfy the key security requirements and which match the entered key values. To illustrate this, assume a user requests all of the segments of a report by entering ***ALL** as the key 1 search value. That user will actually see a list of those index records which key security checking has determined that he is authorized to use.

The key security records selected for the current user are chosen with preference for the most specific entry in the key security tables. For example, **FRED** is an OnDemand user, and one key security record specifies that **FRED** can use only company numbers 100 through 199 of the report that is named **GLEXPENSE**. (Use the company number as one of the keys for the report.) Another key security

record for the same key and report name authorizes public (***PUBLIC**) to all company numbers in **GLEXPENSE**. Because a more specific record for **FRED** exists, OnDemand uses **FRED**. He sees only those segments of the **GLEXPENSE** report which have company numbers between 100 and 199. The key security record selection order is user profile, user group profile (if the user's user profile specifies any user group profiles), and finally ***PUBLIC**.

If a key or display field has key security enabled, and no key security records are found which apply to the current user, the search will not be performed. The user will receive a message indicating that no documents are found with this key.

Group Search: A group search is performed when the user selects a report name which is part of a report group and then presses **F6** on the SPECIFY DOCUMENT SEARCH screen. Performing a group search identifies authorized reports within the group, selects keys which match specified date ranges, any entered key values, and all key security ranges.

Generating a group search identifies the report group's key security records. Earlier versions of OnDemand used the selected report's key security records for a group search. Now, a group search does not use any of the key security controls for the individual reports. This change may produce significant differences in the results of group searches as compared with searches that are based on some of the individual report definitions. Specifically, a key field remaining defined or not secured in the report group definition remains unused for any key security checking. Yet this key may be defined and have ***Key security*** set to **Y** in one or more of the report definitions within the group.

Printing Complete Reports (PRTRPTRDAR): The Print Report menu option and the **PRTRPTRDAR** command reprint the complete text of an archived document. This is equivalent to retrieving every segment of the document, and therefore, key security checking is performed for this function as well. An end user wanting to print an entire report in this way must be authorized to ***ALL** key values for each key which has key security enabled in the report definition. If OnDemand fails to find such a key security record for any secured key, the requested report will not be printed. The command will return an error message indicating that the user is not authorized to the particular report.

The key security records granting access to all key values (where both the low and high value fields contain the special value ***ALL**) may be provided under the following conditions.

- For individual user profiles.
- For group profiles.
- For all OnDemand users **(*PUBLIC)**.

The key security records selected for the current user are chosen with preference for the most specific entry. **FRED** has key security records authorizing him to use only specific key ranges for a particular report key. Furthermore, the public authorization for that same key is ***ALL**. This means that **FRED** will not be able to print the report even if he is authorized to use the Print Report menu option or **PRTRPTRDAR** command.

Checking for key security records with ***ALL** in the low and high values is always performed for all users for every key or display field. This is true only for keys or display fields which have ***Key security*** set to **Y** in the report definition. Key security value checking is not overridden because the user has ***ALLOBJ** or security officer authority.

How to Setup OnDemand Security

Report Security Administration

OnDemand manages report security similar to standard OS/400 object security functions. OnDemand uses authorization lists to grant and check users' authority to OnDemand report directories and their contents. Because report security is similar to standard OS/400 security, an OnDemand user who has ***ALLOBJ** authority will, by definition, also have authority to all objects within OnDemand. IBM does not recommend this.

Security for the OnDemand administrative files and commands contains enhancements from previous OnDemand releases. OnDemand secures objects by using a new authorization list that is called **QRDARSADM**. The new user profile for OnDemand administrators, which shares the name **QRDARSADM**, has ***ALL** authority for those objects secured by the authorization list **QRDARSADM**. To allow access to the administrative files and commands, you need to add the **QRDARSADM** user profile as a group profile to each OnDemand administrator's user profile. **QRDARSADM** can be the first group profile (**GRPPRF(QRDARSADM)**) or any one of the supplemental group profiles (**SUPGRPPRF(QRDARSADM)**).

The security enhancements described here have not significantly changed actual administrative tasks that are required for the following:

- Report security.
- The **WRKADMRDAR** command.
- The menu options used to edit the report authorization lists.

The usage of the report group's authorization list that grants authority to all of the reports in the report group has been enhanced from previous releases of OnDemand. Assume an OnDemand user has no specific authority entry in a particular report's authorization list, and that report is in a report group. Subsequently, the authority granted to that user in the report group's authorization list will apply to the individual report. This is analogous to the use of a user group profile to grant authority to certain objects to a group of users.

For example, when adding a new OnDemand report definition to a report group, the new report's authorization list will have an entry for user ***PUBLIC** by specifying ***EXCLUDE**. Assume that the report group's authorization list contains an entry which authorizes **FRED** to use that report group. Then he will also be able to use the new report in the group. **FRED**'s authorization to the report group overrides the ***PUBLIC *EXCLUDE** for the new report. Should the new report's authorization list change by adding an ***EXCLUDE** entry for **FRED**, **FRED** will have no access the new report in the group. If he does a group search, it will not include the new report.

Users that are authorized to a report group but explicitly excluded from reports within the group may have limited ability to perform a group search. If a user is found that is explicitly excluded from more than 20 reports in the group, that user will not be able to do a group search.

Key Security Administration

Administering key security involves maintenance activities for two separate types of records: Report definition records and key security records. Some of the fields

and attributes of these records have very similar names and closely related functions. This means that careful distinctions between these records and their functions are very important.

Report definition records (found in the file **QARLRACT**) describe an OnDemand report:

- Its general characteristics.
- How to divide it into segments.
- Which key and display fields to use for locating the desired report and segments for retrieval.

Each key and display field in the report definition has a ***Key security*** field. Set this field to **Y** to ***turn on*** key security functions for that particular field. Maintain these report definitions by selecting the Work with Report Definitions menu option from one of several OnDemand menus.

Key security records are in a set of files that are named **QARLRSECn**, where **n** is the number of the key field that is used for key security checking. Each key security record specifies a range of permitted values for a particular key/display field, report, and user combination. Designate users by user profile, user group profile, or ***PUBLIC**. Maintain these key security records by selecting the Work with Key Security menu option from the REPORT ADMINISTRATION MENU.

To change or add report definition records or key security records, the administrator's user profile must have the new **QRDARSADM** user profile specified as a group profile.

Enabling Key Security in Report Definitions: Each key/display field in the report definition has a ***Key security*** field, which may be set to **Y** or **N**. There are several significant facts that are related to the setting of these ***Key security*** fields. The intent is to extend any action that is taken to secure a key or display field to all other report definition records that are potentially used to access the same report. The following paragraphs describe these changes in detail.

Enabling Key Security in Report Group Definitions: It is now valid to have ***Key security*** set to **Y** for key fields and display fields in a report group definition. Adding or removing key security records for the report group's key or display fields will automatically set the ***Key security*** values correctly in the report group definition. (See "Key Security Values Changed by Adding or Deleting Key Security Records" and "Maintaining Key Security Records" on page 127 for additional information.)

Enabling Key Security for Display Fields: It is now possible to enable key security for both key and display fields in a report definition. You can select both types of fields for entry and updating of key security records. (See "Maintaining Key Security Records" on page 127.) It is common to designate the same data item as a key field in one version of a report definition and as a display only field in another version. Key security restrictions should work correctly regardless of which version of the report definition gets used for report retrieval.

Key Security Values Changed by Adding or Deleting Key Security Records: Adding at least one key security record for a key or display field for a particular report automatically changes the ***Key security*** value for that field in the report definition record to **Y**. Assume that more than one version of the report exists. For example, report **GLEXPENSE** has two versions, so report definitions exist for version **01** and

version **02**. Subsequently, the ***Key security*** field changes to **Y** in all versions. In summary, the ***Key security*** changes to **Y** in the report group definition when the following conditions exist:

- The report is part of a report group.
- The report group definition defines the affected key or display field.
- Previously setting ***Key security*** to **N**.

Key security value for a field in the report definition record automatically changes to **N** under the following conditions:

- The deletion of the last key security record for a key for a particular report.
- The deletion of the last key security record for a display field for a particular report.

Assume that more than one version of the report exists. For example, report **GLEXPENSE** has two versions, so report definitions exist for version **01** and version **02**. Subsequently, ***Key security*** field changes to **N** in all versions. If the report is part of a report group, deleting the last key security record does **NOT** change the ***Key security*** value for that key in the report group definition. (Removing key security from this particular key in this particular report does not necessarily mean that this key is no longer secured at the report group level.)

This automatic updating of the ***Key security*** values in the report definitions actually occurs when the administrator exits from the key security maintenance program. Whenever key security records are created for a particular key, an update is performed. The program decides that ***at least one key has been added for a key or display field for a particular report*** if it finds that such a key security record exists. ***Deletion of the last key security record*** occurred because no key security records for that key existed in the selected report. Therefore, this automatic updating of ***key security*** values in the associated report definitions happens every time the administrator exits from the key security maintenance program. This is true even if no actual maintenance was performed.

Changes to Key Security Values Reflected in Other Report Definitions: The ***Key security*** field changes to **Y** in all versions whenever the following conditions exist:

- Change ***Key security*** to **Y** for a key or display field in any report definition.
- More than one version of the same report exists.

The changing of ***Key security*** to **Y** also changes it in the definition for the report group when meeting the following conditions.

- The report is part of a report group.
- The report group definition defines the affected key or display field.
- ***Key security*** was previously **N** in the report group definition.

Using Key Security Values from Prior Versions When Adding New Report Definition: Assume the administrator is adding a new report definition to OnDemand, and another version of the same report exists. The existing version supplies the default values for ***Key security*** values of the new report definition. Assume there is not another version, but the new report definition adds to a report group. Use the ***Key security*** values from the report group definition record as the default values in the new report definition record.

Key Security Not Permitted for Multiple-value (Multi-key) Fields: When adding or changing report definition records, making the ***Key security*** and ***Multi-key*** values both equal **Y** for the same key/display field is no longer permitted. Use the ***Multi-key*** designation when a single segment of a report may contain more than

one value for that key field. This means that multiple index records that have different values for this key field may be used to access the same report segment. Assume that key also enabled key security. It is possible to use a permitted value for this key to retrieve and view a report segment that contains restricted values.

The key fields to restrict by key security in a report are not the same keys which will normally have multiple values in the same segment. If customer invoices archive with key fields that are defined for company, salesman, customer, invoice number, and product number, these invoices would probably divide on a change in the invoice number. Most of the invoices will contain multiple products, so designate product number (key 5) as ***multi-key***. Key security would very likely be appropriate for company, salesman, and perhaps the customer number (keys 1 - 3). You can enable key security for these keys and designate the product number (key 5) as ***multi-key***. This means that both key security and multi-key processing will work correctly, without the security exposures as described above.

Maintaining Key Security Records:

Selecting Report Groups for Key Security Maintenance: The OnDemand report administrator, by using key security maintenance (option 13 on the REPORT ADMINISTRATION MENU), can now select a report group name on the WORK WITH SECURITY ONDEMAND screen. Adding or removing key security records for the report group's key or display fields will automatically set the ***Key security*** values correctly in the report group definition. (See "Key Security Values Changed by Adding or Deleting Key Security Records" on page 125.)

When selecting a report group name, the screen editing functions will require that the ***Version*** value gets entered. A report group definition has no version value, but simply leaving the default value of **01** correctly selects the specified report group definition.

Selecting Display Fields in Key Security Maintenance: You can select both key fields and display fields for entry and updating of key security records.

It is common to designate the same data item as a key field in one version of a report definition and as a display only field in another version. Key security restrictions should work correctly regardless of which version of the report definition gets used for report retrieval.

Omitting Multi-key Fields in Key Security Maintenance: Potential problems exist with enabling key security for multiple-value key fields and display fields. For this reason, key/display fields which have ***Multi-key*** set to **Y** are not shown on the SELECT KEYS FOR SECURITY screen. This is the screen that lists the key and display fields that are defined in the report definition. See "Key Security Not Permitted for Multiple-value (Multi-key) Fields" on page 126.

Entering Low and High Values in Key Security Records: Entry and update of the ***low value*** and ***high value*** data fields in the key security records are not tightly edited. Because these values are based on the actual data values that are extracted from archived reports, almost anything is permitted in these fields. However, a few items require some special consideration.

In general, the key security checking process uses exactly what it finds in the low and high value fields. So the character position within the field makes a difference. Be careful not to accidentally key value **M** into the low value field as **M** (with a

leading blank). This causes that user not be restricted to key values beginning with **M**. The leading blank in the low value **M** will probably allow access to all key values.

You can use most ***special characters*** in low values and high values without any difficulty. This is not true for the ***single quote mark*** or apostrophe (**'**) and the percent sign (**%**). Using either of these special characters in any key security record will cause a program failure during report retrieval.

Two special characters have special functions when used in the low value and high value fields, but only when other special conditions are also true. When the asterisk (*****) is the last character entered, it designates that a partial value is used in a ***generic*** comparison of values. (Refer to "Partial Values in Key Security Records for Generic Comparisons" for detailed information on using this function.) Using the underscore (_) in low and high values which are identical, designates a character position which may contain any character. (Refer to "Key Security Special Values to Authorize Access to Specific Data Patterns" for more information.)

Enabling key fields for lowercase values in the report definition may require additional multiple key security records. All lowercase characters, **a** through **z**, are lower than the uppercase characters in the standard collating sequence. Any user to be authorized to key values from **A** through **K**, but the data may be either uppercase or lowercase, requires two key security records: One with values **A*** and **K***, and one with **a*** and **k***. (See "Partial Values in Key Security Records for Generic Comparisons" for information on using the asterisk "*" as the "generic" indicator.)

Partial Values in Key Security Records for Generic Comparisons: You can enter partial values (fewer characters than required to match the actual key length) into the ***low value*** and ***high value*** fields in key security records. With the enhancements to key security, use of these partial values has been extended. You now can choose between exact matches and ***generic searching*** by adding an asterisk (*****) to the entered values.

You can restrict a date field with values such as **06/13/96** by using key security values. Simply entering **06** in both the low and high value fields does not allow the affected users to retrieve all the entries for that month. Adding an asterisk (*****) to the value indicates that OnDemand should treat it as a ***generic value*** when checking key security. (This use of an asterisk to designate that the data entered is a partial value is the same technique used to request generic searches values during report retrieval.) If the low and high values are **06***, all values beginning with **06** will satisfy the key security checking.

For another example, assume that a report includes department numbers **23** and **232**. OnDemand user **FRED** should only use records for department **23**. Entering **23** in both the low and high values in his key security record allow him to use segments having **23** but not to those with **232**.

Key Security Special Values to Authorize Access to Specific Data Patterns: The typical use of the ***low value*** and ***high value*** fields in the key security records is to define an authorized range of key values for the user. The entry of exactly the same value in both the ***low value*** and the ***high value*** fields creates a special case for this range checking. In effect, the key security checking process performs a test for values which match the single value which appears in both fields.

In this special case only, use the underscore character (_) within the entered value to represent any single character. If both the low and high values are **A_C**, the user will be authorized for key values **ABC**, **AXC**, **A4C**, and so forth. The user will not be authorized for **ABX**, **AB**, or **ABCD**. Adding the generic indicator (**A_C***) extends access to **ABCD**, **ANC1234**, and all other keys having characters other than blanks as the fourth and following characters. The key security value **A_C*** specifies that the first character must be **A** and the third character must be **C**. All other characters may be any SBCS (single-byte character set) character.

Suppose that the report key to be secured for user **FRED** is a general ledger number like **02.014.nnnnn.nnn**. Assume that the **02** portion is a company number, **014** is a department number for maintenance operations, and the remaining numbers are various minor codes. **FRED** should view only those portions of various reports which apply to his own department (**014**), but he has responsibilities for all companies. A key security record with both the low and high values set to **__.014*** will allow **FRED** to retrieve report segments for only department **014**. The two underscore characters specify that any two-character company number is fine. However, **.014** must be matched exactly, and the trailing asterisk (*) specifies that any characters are permitted in the remaining positions.

Use of the underscore character, especially when multiple key security records are involved, should be performed only with careful planning and testing. Combinations of key security records for the same users having both ***matching values and character substitution*** and the usual low and high range values can be confusing.

Selecting User Profiles for Key Security Records: Entry and update of the ***user profile*** field have not been changed from previous releases. The changes to key security have corrected some errors in the use of multiple key ranges for the same user, especially for the ***user*** that is known as ***PUBLIC**. Additionally, if you have user profiles which have more than one group profile, each of the specified group profiles will now be checked in the order of their appearance in the user profile.

The key security records for a particular user will be selected for use by report retrieval with a preference for the most specific entry or entries. This selection order is user profile, then user group profiles (if the user profile specifies any user group profiles), and finally ***PUBLIC**. If one or more key security records are found at any level, the remaining levels are not checked.

Automatic Updating of Key Security Values in Report Definitions: Add at least one key security record for a key or display field for a particular report. Then the ***Key security*** value for that field in the selected report definition automatically changes to **Y**.

Now, assume that more than one version of the report exists. (For example, report **GLEXPENSE** has two versions, so report definitions exist for version **01** and version **02**.) ***Key security*** changes to **Y** in the report definitions for all versions.

The report group definition changes to **Y** when the following conditions are met:

- The selected report is part of a report group.
- The report group definition defined the added key or display field.
- ***Key security*** value was previously **N**.

When the last key security record deletes for a key or display field for a particular report, the ***Key security*** value for that field in the report definition automatically

changes to **N**. Assume that more than one version of the report exists. (For example, report **GLEXPENSE** has two versions, so report definitions exist for version **01** and version **02**.) ***Key security*** changes to **N** in all versions.

If the selected report is part of a report group, deleting the last key security record for a particular key or display field does **NOT** change the ***Key security*** value for that field in the report group definition. (Removing key security from this particular key in this particular report does not necessarily mean that this key no longer needs to be secured at the report group level.)

This automatic updating of the ***Key security*** values in the report definitions actually occurs when the administrator exits from the key security maintenance program. The updating is performed based on the existence of any key security records for that particular key. The program decides that ***at least one key has been added for a key or display field for a particular report*** if it finds that such a key security record exists. ***Deleting the last key security record for a key or display field for a particular report*** occurs when no key security records for that key are found in the selected report. Therefore, this automatic updating of ***Key security*** values in the associated report definitions happens every time the administrator exits from the key security maintenance program, even if no maintenance was actually done.

Customizing the Spool File Archive Environment

OnDemand retrieves stored reports by various users. You can retrieve these reports for viewing, reprinting, or faxing. OnDemand stores the various values that control these three output operations in data areas. Use the screens that are described in "Option 30. Change OnDemand Global Report Options" on page 84, "Option 31. Change Your OnDemand Report Options" on page 86, and "Option 32. Change OnDemand Report Options" on page 89 to set these values.

New OnDemand enhancements may be released in the future that use control values in these data areas that are not yet available for update using the screens. In this case, instructions for the enhancement will refer you to a maintenance program that can be called directly, passing parameters that correspond to the required control values. Descriptions of the layout of these data areas and the maintenance program (**QRLRSETP**) used to update the customization parameters are included with your OnDemand software in the **QSAMPLES** source file in library **QRDARS**, member name **PROFILE**.

Additional Spool File Archive Topics

This section includes a variety of topics that should be considered when putting the OnDemand Spool File Archive into use.

Calculating Line Number

When you create a report definition in OnDemand, you are asked to provide information regarding the horizontal and vertical positions of data on the page of data items such as keys (indexes), segmentation values, and report dates. You are also asked to specify line numbers when you define report overlays for viewing (and possibly printing or faxing). In both report and overlay definitions, the term *line* is used to describe the vertical position of the item being defined, but the value for this field is calculated differently for each of these two types of definitions.

For Report Definitions

For a report definition, the term *line* **does not** refer to the vertical position on the page where the line would appear if printed; instead, it refers to the relationship, among the records in the spooled file, of each print record (line) to the first print record on the same page. For example, consider a customer invoice. The first line printed on each page might contain invoice number and date, and would appear on ***line 6*** of a form (about an inch from the top of the page) if printed. To OnDemand, this data is on ***line 1*** (not line 6), because it is the **first** line written to the page. The line containing customer name is the second line written to the page, and although it might appear on ***line 10*** if printed, it is ***line 2*** to OnDemand. (If you are using *Translate print control* set to **Y** in the *Environment* section of your report definition, then this discussion does not apply. Using the *Translate print control* function causes the report definition line numbers to represent the same number as the actual printed line number. This may appear easier to define, but it requires OnDemand to take significantly more time to store a report.)

The recommended approach to determine the line numbers for a standard spooled file (nonAFPDS) report definition is to use the *Copy Spooled File* menu option on the REPORT DEFINITION MENU to copy spooled output from a report for which you are creating a report definition. This method creates a database file of print line images, one database record for each spooled record (line). By specifying ***FCFC** for the *Control character* parameter (which is the default when using the OnDemand menu option), a forms control character is placed in the first position of each database record. Use the *Display Physical File Member* menu option on the REPORT DEFINITION MENU to view the resulting data base file. Records with a **1** in the first position represent the first line of print for a page. To OnDemand, the data in this record is on ***line 1***. The records following this record are seen by OnDemand as ***lines 2, 3, 4, and so forth*** until another record with a **1** in the first position is found. Then the line numbering starts at ***line 1*** again.

For a spooled file that is created as *AFPDS or for OnDemand Report data type *SCS, the concepts are similar. However, OnDemand uses another technique to determine the line numbers. OnDemand supplies a program which processes a spooled file and produces printed output of any **text** data with horizontal and vertical ruler lines added. OnDemand prints the data while ignoring fonts, images, and other AFP resources. (You can create this output by using the *Print AFP Text Data for Report Definition* menu option on the REPORT DEFINITION MENU.) Using this output, you will be able to determine horizontal (column) and vertical (line) positions of the print data.

For Report Overlays

Line numbers are also used in report overlay definitions to specify where a line of overlay data should be inserted or overlaid when viewing (and optionally printing/faxing) an archived report. Unlike the line numbers in report definitions described previously, line numbers for report overlays pertain to the line number on the printed page where the data would appear if printed.

The recommended approach to determine these line numbers is to store the report within OnDemand as desired, then retrieve it as an end user would (using the *Retrieve Reports* menu option on the REPORT DEFINITION MENU.). (You could also do this by viewing the original spooled file in the output queue.) In the top right corner of the *Display Spooled File* screen, you will see information like this:
Page/Line 1/2

As you advance by pressing **Page Down** or by entering control commands in the *Control* field at the top left of the screen, you will see the line number changing. **This** is the line number to use when creating or changing report overlays.

Combined View/Print/Fax

The report retrieval process in OnDemand includes a sequence of selection steps. The user selects a report or report group, then a specific occurrence of that report, then key value(s) to be used to select particular segments of the report. When the selected key values are displayed on the *Work with Documents* screen, the user is prompted to enter options to select document segments to be viewed, printed, or faxed. Use of one or more of the combined view/print/fax options determines how multiple choices entered at the same time are processed.

Combined view/print/fax allows the user to select multiple report segments for a particular output operation and have those segments combined into a single spooled file prior to performing the output operation. For example, suppose that an OnDemand user wishes to transmit copies of three separate invoices to a customer via fax. If ***combined fax*** is ***not active*** for that user, selecting the three invoices will start three separate fax transmissions. If the ***combined fax*** option ***is active***, the three invoices selected at the same time will be combined into one spooled file, and this combined file will be sent via one fax transmission.

The actual output operations work the same way for both combined and uncombined selections. Using the combined options appends multiple segments into one spooled file. After that spooled file is created, all subsequent operations are done without any awareness that the spooled file may contain more than one report segment. Therefore, all available viewer programs and the print and fax functions work exactly the same way for both combined and uncombined selections.

Combined functions are activated by setting control values in the user defaults data area or the global defaults data area. In this way, each OnDemand user has independent control of which operations are to produce combined output. The global controls provide convenient control points for all users who do not have individual options set. The user's control settings for each of the functions (view, print, and fax) will be used if defined; only when the user's controls have not been set will OnDemand use the global controls for that user. All of these controls can be set by the profile maintenance screens. (Refer to "Customizing the Spool File Archive Environment" on page 130 for details.)

There are separate controls for each of the output functions available (view, print, and fax). For example, a user might wish to combine print and fax operations, but continue to display multiple selections one-at-a-time. A user can easily tell how his control values have been set by reading the option descriptions on the *Work with Documents* screen. He will see *5=Display*, *6=Print*, and *7=Fax* if **none** of the combined settings are active; he will see *5=Combined Display*, *6=Combined Print*, and *7=Combined Fax* if **all** of the combined settings are active; or he will see a variety of the descriptions if some are active and some are not.

Because the combine functions add multiple report segments into a single spooled file prior to output, there are limitations to selecting and using the combine functions. Selected report segments must have compatible print attributes; attempts to combine mismatched segments will result in an error message which identifies the problem segment. This will only occur when selecting segments from different reports. Such selections may occur under two conditions.

- After the system performs a report group search.
- When different versions exist of the same report, and when the print attributes have changed from one version to the next.

A user can select report segments for only one combine function at a time. For example, if both print and fax have been defined for combined outputs, either of these choices may be used to combine selected segments, but some segments cannot be chosen for combined print and others for combined fax prior to pressing **Enter** at one time. Combined view/print/fax allows selecting many report segments (up to 255), but these are combined into one spooled file which is then used for only one output operation. Selecting single (uncombined) functions **ahead of** a combined set at the same time will work; but uncombined functions which **follow** a set of selections to be combined will result in an error.

Once several segments have been selected and combined, they cannot be separated during that particular output operation. For example, if combined view is active, and several report segments have been selected for viewing, the viewed file contains all of the selected segments. If the user presses the Attention key during viewing, and then selects the option to fax the document, **all** of the selected segments will be included, even if the combined fax option has been set to ***NO**. But if these segments are selected to be faxed by entering multiple **7** options on the *Work with Documents* screen, and the combined fax option is set to ***NO**, then the faxes will be transmitted separately.

When segments are being selected for multi-key reports, it is quite possible that selected key values may result in a particular report segment being retrieved more than once. If this occurs, OnDemand will recognize this and include the segment in the combined output file only once.

Usage Statistics Reports

Your initial estimates for *Days allowed on disk*, *Days allowed on tape*, and *Days allowed on optical* for your report archives (defined in the report policy definitions) can be modified after OnDemand has collected historical data related to actual usage.

Issue the following program call on any OS/400 command line while **QRDARS** is in your library list. This generates the reports that show actual activity against each report that is defined to OnDemand.

- **CALL QRLRSTAT**

OnDemand generates two reports (with spooled file names **QPQUPRFIL**). The first is titled **Access Report by Week**; the second is titled **Access Report by Month**. You can use these reports to make educated decisions about the report migration characteristics you define in your report policy definitions.

Audit File Action Codes

OnDemand Spool File Archive provides an audit file to which a record is written each time an action is taken on a report. You can run queries against this file, called **QARLRAUDIT** (in library **QUSRRDARS**), to provide a wide variety of additional management reports about your archives.

An action code appears in each record to describe the logged activity. The list of codes and their meanings are as follows:

- D or 5 - Report displayed
- P or 6 - Report printed

- F or 7 - Report faxed
- I - Report definition imported
- S - Successful report store
- U - Unsuccessful report store
- V - Security violation - not authorized to report
- Z - Report occurrence deleted

OnDemand and OS/400 Graphical Access

This version of OnDemand includes support to enable iSeries users on programmable workstations to work with OnDemand screens in a Graphical User Interface (GUI) format. If your system provides this capability (referred to as OS/400 *Graphical Access*), you will be able to work with graphical versions of the OnDemand screens. This allows you to point-and-click for many of the OnDemand functions. OnDemand requires no additional setup.

OnDemand and iSeries Access AFP Viewer

OnDemand provides a link to a feature of iSeries Access commonly referred to as *AFP Workbench Viewer*, which allows OnDemand end users on programmable workstations to invoke the iSeries Access viewer to display OnDemand documents or report segments in a workstation window. The support for this function is provided by both OnDemand and iSeries Access.

The most significant capability of this viewer is that end users can select an AFPDS report segment and have a pop-up window presented to view:

- AFPDS output fully resolved (with fonts; without overlays and PSEGS).
- AFPDS output fully resolved with associated AFP overlay or PSEG if the resource is available to the workstation or on a server disk.

Note: In all cases, make the AFP resources called out in the document available where the viewer can find them -- on the workstation or on a server disk. "Normal" fonts are usually available to the viewer. Things like PSEGS and OVERLAYS must be on the workstation or on a server disk for the Viewer to find them. (The server disk could be space on the iSeries in IFS.) Additionally, the viewer may not be able to read an SCS print file and recognize an overlay that is named in a printer file. Plan to test SCS data with overlays prior to implementation, or consider changing the printer file attribute to *AFPDS to trigger iSeries Access to attempt to display the data. If the Viewer is unable to display the data for any reason, OnDemand will automatically select an alternate viewer (such as *Display Spooled File*) to display the data.

To take advantage of this function:

- Use QUSRRDARS to create a data area capable of running the viewer for each workstation. Create this data area by issuing the following command:
  - **CALL PGM(QRDARS/QRLRSETP) PARM('*VIEWADDWS' 'xxxxxxxxx' ' ')**

    Where 'xxxxxxxxx' is the workstation name.

    (If you need to remove this workstation data area later, issue the same call above. However, then set the **PARM** value to ***VIEWRMVWS** and again specify the workstation name you want to remove.)
- Each user that would like to have the use of the new viewer requires the following set up. Their user profile must indicate use of the iSeries Access

Viewer and specify what kind of data. The iSeries Access Viewer can only display *AFPDS and *SCS data. You may choose to let a user view both spooled file types or just *AFPDS data. You can change this profile by using the instructions for Viewer Options in "Option 30. Change OnDemand Global Report Options" on page 84, "Option 31. Change Your OnDemand Report Options" on page 86, or "Option 32. Change OnDemand Report Options" on page 89.

Full *SCS Support

Spooled files that should use the *SCS data type contain variable fonts or other extended spool attributes, such as OfficeVision® documents that you can process as data type *SCS. OnDemand keeps these attributes for displaying, printing, and faxing.

For most OS/400 spooled files with printer device type *SCS, data type *OTHER is appropriate and should still be used. You should only use *SCS as the data type in the report definition for those spooled files with extended attributes such as variable lines per inch, variable characters per inch, variable fonts, and so on.

You may choose to try both data types when first defining the report, to determine which data type is most appropriate for your particular spooled file data. As you experiment, consider the following:

- *OTHER will often result in better compression than *SCS
- *OTHER will allow AFP overlays to be applied and displayed in the OnDemand Client; *SCS does not
- *OTHER will allow a user to lock columns and headings using the OnDemand Client; *SCS does not
- *SCS data attributes are all preserved (very important for spooled files with attributes described above); *OTHER may not preserve them

Hints and Tips for Spool File Archive

This section includes information on a variety of Spool File Archive hints and tips for implementation.

- If you receive a message in your job log when you start your OnDemand servers (using the Start TCP/IP Server (STRTCPSVR) command with *ONDMD specified as the server application to start) indicating that the QUSROND instance server did not start because a locale was not set, then you have also installed Common Server (OnDemand product option 10) on your system and need to define a locale for the default Common Server instance named QUSROND. For instructions on setting up the locale information, refer to the Content Manager OnDemand Common Server Planning and Installation Guide. You can also avoid this message by deleting the OnDemand Common Server product option from your system if you are not using it at this time.
- To determine which output queue your report store statistics appears when using the Monitor Output Queue function, simply check the **Job description** parameter on Monitor start-up command. The **Output queue** parameter of the job description determines where the output will go. To change the destination to a different output queue, simply change the **Output queue** parameter in the job description or use a different job description when starting the Monitor.
- When starting an OnDemand output queue monitor (using the STRMONRDAR command) from a job scheduler, you may be unsure of what job description to use. In most cases, STRMONRDAR will work best using the QRDARS400 job

description. You may have special system needs that require the use of your own job description, but this IBM-supplied job description will work successfully for many customers.

- When end-users trigger an index or report recall job, the job description that is used is **QRDARS400** in library **QRDARS**. However, you can create a data area that is called **QRLRSBMJOB** in library **QUSRRDARS** to specify an alternate job description to use for these jobs.

  Create the data area that is named above as a 20-character data area. The first ten positions contain the job description name. The second ten positions contain the job description's library name. The job description name can contain the special value ***USRPRF**, and the library can have the special value ***LIBL**.

  The data area uses a valid job description and library combination, if one exists. The data area uses the default if it contains a combination of values that is not valid. If it contains ***USRPRF** special value, then the job description takes the user profile of the user who submitted the job.
- When submitting the report store (**STRCDSRDAR**) and report management cycle (**STRRMCRDAR**) commands to batch, the output, **QPRLRCDS**, and **QPRLRRMC** remain owned by the user that submits the job. Finding the output is then easy, using the OS/400 **WRKSPLF** (Work with Spooled Files) command for the user who submitted the job.
- If you have an output queue that OnDemand uses with the **OPRCTL** (Operator controlled) parameter set to ***NO**, you must give the QRDARS400 user profile ***SPLCTL** (Spool control) authority.
- When entering a negative number for the *+- line offset* field in your report definition, enter the number and press the **Field Minus** key. This will enter the number as a negative. You may also enter the number followed by the minus sign (such as 3-) if you are uncertain what key is your **Field Minus** key.
- Remember to clear (**CLRPFM**) the Spool File Archive audit file named **QARLRAUDIT** in library **QUSRRDARS** periodically. Consider running the USAGE STATISTICS REPORTS (see "Usage Statistics Reports" on page 133) on a regular basis, along with any queries you may choose to write for security audits. After running the reports, you can clear the file (after saving it or archiving it with OnDemand Object Archive, if desired).
- When considering whether to create a new version of an existing report definition or to create an entirely different report definition, remember this: If the *location* of a key or display field changes, you should simply create a new version of the same report. An example of this might be if Key 2 was found on line 7 but now needs to be changed to line 9 (or to use a pivot value instead of an absolute line number). If the *meaning* of a key or display field changes, you should create an entirely new report definition. An example of this might be if Key 2 was customer name and it needs to be changed to vendor zip code. If you do not follow these recommendations, then the search fields your end users enter and the column headings that appear above the items in the report selection list will not always correctly describe the data they represent.
- If your application creates individual spooled files for items (such as invoices) that you want to store in OnDemand, it is strongly recommended that you **do not** store each one separately. Instead, you should combine the individual spooled files into one large file and store the large file in OnDemand.

  There are two significant reasons for this recommendation.

  The first is related to disk space and performance. If you store each item as an individual report (sequence number) within OnDemand, you will create a record in the Stored Reports Table for *each* individual item. For 500 invoices per day, for

example, you would be creating 500 records in the Stored Reports Table each day. This approach is clearly not efficient from disk space and performance perspectives.

The second reason is related to the OnDemand maximum number of sequence numbers, which is **999**. If you need to store more than 999 invoices per day, you would reach this maximum, and the OnDemand report store process would fail for any reports (invoices) stored after this maximum.

- To avoid the **999** sequence number maximum, you may choose to have OnDemand combine multiple report occurrences automatically. To activate this function, use the OnDemand administrative tool accessed through iSeries Navigator. On the tool's archive tab you can specify by report whether to combine occurrences.

  An occurrence may be combined with prior occurrences if:

  – The occurrences are for the same report name and version
  – The occurrences, if AFP, use the same set of archived resources
  – The prior occurrences must not have had their data or indexes migrated or backed up to tape or optical by the Report Management Cycle (RMC)
- DO NOT have the printer files' **Spooled output schedule** parameter set to ***IMMED** for applications that create spooled files for processing with the Monitor. The monitor considers this an error condition. The monitor then sends the spooled file to the output queue specified in the **Error output queue** parameter of the **STRMONRDAR** command. Without this safeguard, the Monitor could attempt to store a spooled file before it was complete and closed.
- If you are using external AFP resources for use with your spooled files, be sure to use a different name if you change the resource. For example, if you have an AFP resource that contains your company logo, you may one day be asked to change to a new logo. You should create a new AFP resource with a new name for the new logo and retain the previous AFP resource for the previous logo so that OnDemand can find either one when recreating the document.
- Do not start a monitor against an output queue with a writer attached. If you do, you run the risk of having a report print before OnDemand stores it.
- Do not start a Monitor against the **QRDARS400** output queue. This is the default output queue that OnDemand uses for the statistics reports that are generated by the report store process. Monitoring this output queue could send you into an endless loop of storing reports from stored reports.

Chapter 2. Using the OnDemand Object Archive Feature

The Object Archive feature provides archive and retrieval functions, to and from magnetic or optical media, for a large variety of OS/400 objects. This chapter includes the screens you use and detailed field explanations.

As the system administrator, you are responsible for migrating your data to OnDemand and for developing standard procedures for your users. Careful planning can ensure a smooth transition from your current methods to state-of-the-art archiving and retrieval. We suggest that you carefully read Chapter 4 of *IBM Content Manager OnDemand for iSeries Installation Guide* before you begin.

Object Administration Menu

To Access the Object Administration Menu, you can:

- Type **2** on the OnDemand for iSeries Main Menu command line, Figure 187.
- Or, use the ***Fast-Path*** command:

  GO RDARSOBJ

  on the OS/400 command line, for direct access to Figure 188 on page 140.

Access the OnDemand for iSeries main menu, Figure 187:

```
ONDEMAND                    OnDemand for iSeries
                                                        System:   ONDMD400
Select one of the following:

     1. Report Administration Menu
     2. Object Administration Menu
     3. Record Archive Menu
     4. Media Administration Menu

    90. Signoff









Selection or command
===>2_____________________________________________________________________
 _____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 187. OnDemand for iSeries Main Menu

Choose option 2 to move to Figure 188 on page 140.

```
RDAROBJ              OnDemand Object Administration Menu
                                                          System:   ONDMD400
Select one of the following:

     1. Work with Object Policies
     2. Work with OCT Entries

    10. Edit/Authorize OnDemand Users

    20. Start Archive Objects
    21. Start Retrieve Object

    30. Start Object Management Cycle

    40. OnDemand Main Menu



Selection or command
===> ____________________________________________________________________
 ____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1995, 2000. All Rights Reserved.
```

Figure 188. OnDemand Object Administration Menu

All of the options on this screen are explained in this chapter; this screen is not repeated.

Option 1. Work with Object Policies

Use this screen to define the migration and retention characteristics for the archives of the OS/400 objects you have chosen, and the number of generations of each archive that should be kept.

Select option 1, Work with Object Policies, from the ONDEMAND OBJECT ADMINISTRATION MENU screen, Figure 188.

Figure 189 appears.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*OBJPCY       *REPORT, *RPTGRP, *RPTOVL...
Object policy. . . . . . . . . . *ALL_____     Name, generic*, *ALL...

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

Figure 189. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to continue to the WORK WITH OBJECT POLICIES screen, Figure 190. Use this screen to create, change, delete, or display policy definitions.

To Create an Object Policy

Use this screen, Figure 190, to create a policy.

```
                      Work with Object Policies                ONDMD400
                                                             1/31/98  15:50:18
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


Option  Policy        Text
   1    CONNIE___
        JOHNS         John's Policy
        MARK
        OBJSTORE      Default Data Store Archive Policy
        OPTICAL0      Move to optical right away
        REEL0         1/2" Reel tape - 0 days on disk
        TAPE0         put on tape immediately
        TBROWN        Policy for Terry's data store









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

Figure 190. Work with Object Policies

Press **Enter** to continue to the CREATE OBJECT POLICY screen, Figure 191.

```
                      Create Object  Policy                 ONDMD400
                                                             1/31/98  15:50:31
Type choices, press Enter.


  Policy  . . . . . . . . . . . . . . . .  CONNIE___    Name
  Days allowed on disk  . . . . . . . . .        0      0-9999999
  Days allowed on tape  . . . . . . . . .        0      0-9999999
  Days allowed on optical . . . . . . . .      730      0-9999999
  Expire after days . . . . . . . . . . .      730      1-9999999
  Recall retention  . . . . . . . . . . .    1          0-999
  Tape media type . . . . . . . . . . . .  ________
  Optical storage group . . . . . . . . .  RDAROPT_    Name
  Object generations  . . . . . . . . . .  12           1-99
  Text  . . . . . . . . . . . . . . . . .  Connie's policy keep 12

generations___









F3=Exit   F12=Cancel
```

Figure 191. Create Object Policy

Press **Enter** to move to Figure 192 on page 142:

```
                    Work with Object Policies              ONDMD400
                                                          1/31/98  15:51:59
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text
        ________
        JOHNS         John's Policy
        MARK
        OBJSTORE      Default Data Store Archive Policy
        OPTICAL0      Move to optical right away
        REEL0         1/2" Reel tape - 0 days on disk
        TAPE0         put on tape immediately
        TBROWN        Policy for Terry's data store

                                                                  Bottom
F3=Exit   F5=Refresh   F12=Cancel
Policy created, F5 for Refresh.
```

Figure 192. Work with Object Policies

This screen confirms your addition of the new policy.

Press **F5** to display the addition.

To Change an Object Policy

Use this group of screens to change the characteristics of an object policy.

```
                    Work with Object Policy                ONDMD400
                                                          1/31/98  15:52:02
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text
        ________
   2    CONNIE        Connie's policy keep 12 generations
        JOHNS         John's Policy
        MARK
        OBJSTORE      Default Data Store Archive Policy
        OPTICAL0      Move to optical right away
        REEL0         1/2" Reel tape - 0 days on disk
        TAPE0         put on tape immediately
        TBROWN        Policy for Terry's data store

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

Figure 193. Work with Object Policies

Press **Enter** to move to Figure 194 on page 143.

```
                        Change Object Policy                  ONDMD400
                                                            1/31/98  15:52:07
 Policy  . . . . . . . . . . . . . . . . . :  CONNIE


 Type choices, press Enter.

   Days allowed on disk  . . . . . . . . . .       0          0-9999999
   Days allowed on tape  . . . . . . . . . .       0          0-9999999
   Days allowed on optical . . . . . . . . .     730          0-9999999
   Expire after days . . . . . . . . . . . .     730          1-9999999
   Recall retention  . . . . . . . . . . . .   1              0-999
   Tape media type . . . . . . . . . . . . .   ________
   Optical storage group . . . . . . . . . . RDAROPT__        Name
   Object generations  . . . . . . . . . . . 13               1-99
   Text  . . . . . . . . . . . . . . . . . . Connie's policy keep 13

generations___









 F3=Exit   F12=Cancel
```

Figure 194. Change Object Policy

You can change any of the information by typing over it.

Press **Enter** to save your changes.

To Delete an Object Policy

You can delete an object policy beginning with Figure 195.

```
                      Work with Object Policies               ONDMD400
                                                            1/31/98  15:52:45
 Type options, press Enter.
   1=Create    2=Change    4=Delete    5=Display


 Option  Policy        Text
           ________
    4     CONNIE       Connie's policy keep 13 generations
          JOHNS        John's Policy
          MARK
          OBJSTORE     Default Data Store Archive Policy
          OPTICAL0     Move to optical right away
          REEL0        1/2" Reel tape - 0 days on disk
          TAPE0        put on tape immediately
          TBROWN       Policy for Terry's data store




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

Figure 195. Work with Object Policies

Press **Enter** to continue to Figure 196 on page 144.

```
                    Confirm Delete of Policy                ONDMD400
                                                          1/31/98  15:52:50
 Press Enter to confirm your choice for 4=Delete.
 Press F12=Cancel to return to change your choices.

 Policy  . . . . . . . . . . . . . . . . . :   CONNIE
 Days allowed on disk  . . . . . . . . . . :        0
 Days allowed on tape  . . . . . . . . . . :        0
 Days allowed on optical . . . . . . . . . :      730
 Expire after days . . . . . . . . . . . . :      730
 Recall retention  . . . . . . . . . . . . :    1
 Tape media type . . . . . . . . . . . . . :
 Optical storage group . . . . . . . . . . : RDAROPT
 Object generations  . . . . . . . . . . . :    13
 Text  . . . . . . . . . . . . . . . . . . : Connie's policy keep 13
generations




 F12=Cancel
```

Figure 196. Confirm Deletion of Policy

If you entered the correct policy, press **Enter** to move to Figure 197.

If the policy displayed is not the one you want to delete, press **F12** to return to the previous screen.

```
                      Work with Object Policies             ONDMD400
                                                          1/31/98  15:52:53
 Type options, press Enter.
   1=Create    2=Change    4=Delete    5=Display


 Option  Policy       Text

         _______
         CONNIE       Connie's policy keep 13 generations
         JOHNS        John's Policy
         MARK
         OBJSTORE     Default Data Store Archive Policy
         OPTICAL0     Move to optical right away
         REEL0        1/2" Reel tape - 0 days on disk
         TAPE0        put on tape immediately
         TBROWN       Policy for Terry's data store




                                                                  Bottom

 F3=Exit   F5=Refresh   F12=Cancel
 Policy deleted.
```

Figure 197. Work with Object Policies

This screen verifies that the policy was deleted.

To Display an Object Policy

Use this screen, Figure 198 on page 145, to view an object policy.

```
                      Work with Object Policies              ONDMD400
                                                           1/31/98  15:52:32
Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Option  Policy        Text

   5    CONNIE        Connie's policy keep 13 generations
        JOHNS         John's Policy
        MARK
        OBJSTORE      Default Data Store Archive Policy
        OPTICAL0      Move to optical right away
        REEL0         1/2" Reel tape - 0 days on disk
        TAPE0         put on tape immediately
        TBROWN        Policy for Terry's data store

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

Figure 198. Work with Object Policies

Press **Enter** to move to Figure 199.

```
                        Display Object Policy                ONDMD400
                                                           1/31/98  15:52:39
 Policy  . . . . . . . . . . . . . . . :   CONNIE
 Days allowed on disk  . . . . . . . . :        0
 Days allowed on tape  . . . . . . . . :        0
 Days allowed on optical . . . . . . . :      730
 Expire after days . . . . . . . . . . :      730
 Recall retention  . . . . . . . . . . :    1
 Tape media type . . . . . . . . . . . :
 Optical storage group . . . . . . . . :  RDAROPT
 Object generations  . . . . . . . . . :    13
 Text  . . . . . . . . . . . . . . . . :  Connie's policy keep 13
generations




                                                                   Bottom
 Press Enter to continue.

 F3=Exit   F12=Cancel
```

Figure 199. Display Object Policy

Option 2. Work with Object Control Table

Use this option to create, change, delete, or display object control table records.

Records from this table are selected when you archive an object, based on the object name (or generic object name) and library you specify. The entry identifies the policy that has the storage migration and retention characteristics for that archive.

Use this screen to list details about the objects that will be archived by the Object Management Cycle.

To begin, select option 2, Work with Object Control Table, from the ONDEMAND OBJECT ADMINISTRATION MENU screen, Figure 188 on page 140.

The screen, WORK WITH ADMIN FOR ONDEMAND (WRKADMRDAR), that is shown in Figure 200, appears.

```
                    Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . >*OCT          *REPORT, *RPTGRP, *RPTOVL...
OCT library  . . . . . . . . . . . *ALL_____    Name, generic*, *ALL...

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

Figure 200. Work with Admin for OnDemand (WRKADMRDAR)

Press **Enter** to continue to Figure 201 on page 147. Use this screen to create, change, delete, or display object control table records.

To Create an Object Control Record

To create an object control table record, use Figure 201 on page 147.

```
                          Work with OCT Entries                  ONDMD400
                                                               1/31/98  16:29:29
Type options, press Enter.
  1=Create    2=Change    4=Delete

Opt  Library      Object       Type              Policy
 1   CONNIE____   _______      _______
     *ALL         *ALL         *ALL              OBJSTORE
     JOHNSLIB     *ALL         *PGM              JOHNS
     MARKLIB      *ALL         *ALL              MARK
     QRDARS400    *ALL         *ALL              JOHNS
     QON

                                                                    Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 201. Work with OCT Entries

Press **Enter** to continue to the CREATE OBJECT CONTROL RECORD screen, Figure 202.

```
                      Create Object Control Record               ONDMD400
                                                               1/31/98  16:29:35
Type choices, press Enter.

  Object library  . . . . . .  CONNIE___    Name, *ALL
  Object  . . . . . . . . . .  *ALL_____    Name, generic*, *ALL
  Object type . . . . . . . .  *ALL_____    Type, *ALL
  Policy  . . . . . . . . . .  CONNIE___    Name

F3=Exit   F12=Cancel
```

Figure 202. Create Object Control Record

Press **Enter** to move to Figure 203 on page 148.

```
                          Work with OCT Entries                  ONDMD400
                                                               1/31/98  16:29:48
Type options, press Enter.
  1=Create    2=Change    4=Delete

Opt  Library      Object       Type                Policy
     _______      _______      _______
     *ALL         *ALL         *ALL                OBJSTORE
     JOHNSLIB     *ALL         *PGM                JOHNS
     MARKLIB      *ALL         *ALL                MARK
     QRDARS400    *ALL         *ALL                JOHNS
     QRDARS400F   *ALL         *ALL                OBJSTORE
     TBROWN       *ALL         *ALL                OBJTEST

                                                                  Bottom
F3=Exit   F5=Refresh   F12=Return
Object Control record created, F5 for Refresh.
```

Figure 203. Work with OCT Entries

This screen confirms your addition of an object control record.

Press **F5** to display the addition.

To Change an Object Control Record

Use this screen, Figure 204, to change a record.

```
                          Work with OCT Entries                  ONDMD400
                                                               1/31/98  16:29:51
Type options, press Enter.
  1=Create    2=Change    4=Delete

Opt  Library      Object       Type                Policy
     _______      _______      _______
     *ALL         *ALL         *ALL                OBJSTORE
 2   CONNIE       *ALL         *ALL                CONNIE
     JOHNSLIB     *ALL         *PGM                JOHNS
     MARKLIB      *ALL         *ALL                MARK
     QRDARS400    *ALL         *ALL                JOHNS
     QRDARS400F   *ALL         *ALL                OBJSTORE
     TBROWN       *ALL         *ALL                OBJTEST

                                                                  Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 204. Work with OCT Entries

Press **Enter** to continue to Figure 205 on page 149.

```
                    Change Object Control Record                ONDMD400
                                                              1/31/98  16:29:55
Type choices, press Enter.


  Object library  . . . . . .   CONNIE____   Name, *ALL
  Object  . . . . . . . . . .   *ALL______   Name, generic*, *ALL
  Object type . . . . . . . .   *ALL______   Type, *ALL
  Policy  . . . . . . . . . .   CONNIE2___   Name









F3=Exit   F12=Cancel
```

Figure 205. Change Object Control Record

Type your new data over the information that appears, and press **Enter** to move to Figure 206.

```
                          Work with OCT Entries                 ONDMD400
                                                              1/31/98  16:29:57
Type options, press Enter.
  1=Create    2=Change    4=Delete


Opt  Library      Object       Type              Policy
      _______      _______      _______
     *ALL         *ALL         *ALL              OBJSTORE
     CONNIE       *ALL         *ALL              CONNIE2
     JOHNSLIB     *ALL         *PGM              JOHNS
     MARKLIB      *ALL         *ALL              MARK
     QRDARS400    *ALL         *ALL              JOHNS
     QRDARS400F   *ALL         *ALL              OBJSTORE
     TBROWN       *ALL         *ALL              OBJTEST









                                                                  Bottom
F3=Exit   F5=Refresh   F12=Return
Object Control record changed.
```

Figure 206. Work with OCT Entries

This screen confirms your changes.

To Delete an Object Control Record

Use this screen, Figure 207 on page 150, to delete an Object Control Table entry. **NOTE:** There are no edits that prohibit you from deleting an OCT entry for objects that have been archived. The OCT entry is only used during the archive process (not during the retrieve process). However, it is recommended that you ***do not*** delete an OCT entry if there are objects archived using that entry. Deleting the

entry removes the visibility you have to the objects that have been archived, and the Policy used for the archive process.

```
                          Work with OCT Entries                  ONDMD400
                                                               1/31/98  16:30:06
Type options, press Enter.
  1=Create    2=Change    4=Delete

Opt  Library      Object       Type               Policy
     _______      _______      _______
     *ALL         *ALL         *ALL               OBJSTORE
 4   CONNIE       *ALL         *ALL               CONNIE2
     JOHNSLIB     *ALL         *PGM               JOHNS
     MARKLIB      *ALL         *ALL               MARK
     QRDARS400    *ALL         *ALL               JOHNS
     QRDARS400F   *ALL         *ALL               OBJSTORE
     TBROWN       *ALL         *ALL               OBJTEST

                                                                  Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 207. Work with OCT Entries

Press **Enter** to move to Figure 208.

```
                      Confirm Delete of OCT Record               ONDMD400
                                                               1/31/98  16:30:10
Press Enter to confirm your choice for 4=Delete.
Press F12=Cancel to return to change your choices.

Object library  . . . . . :  CONNIE
Object  . . . . . :  *ALL
Object type . . . . . :  *ALL
Policy  . . . . . :  CONNIE

F12=Cancel
```

Figure 208. Confirm Delete of OCT Record

If the object control record you are viewing is not the record you want to delete, press **F12** to return to the previous screen.

If the object control record is the correct one, press **Enter** to delete it and move to Figure 209 on page 151.

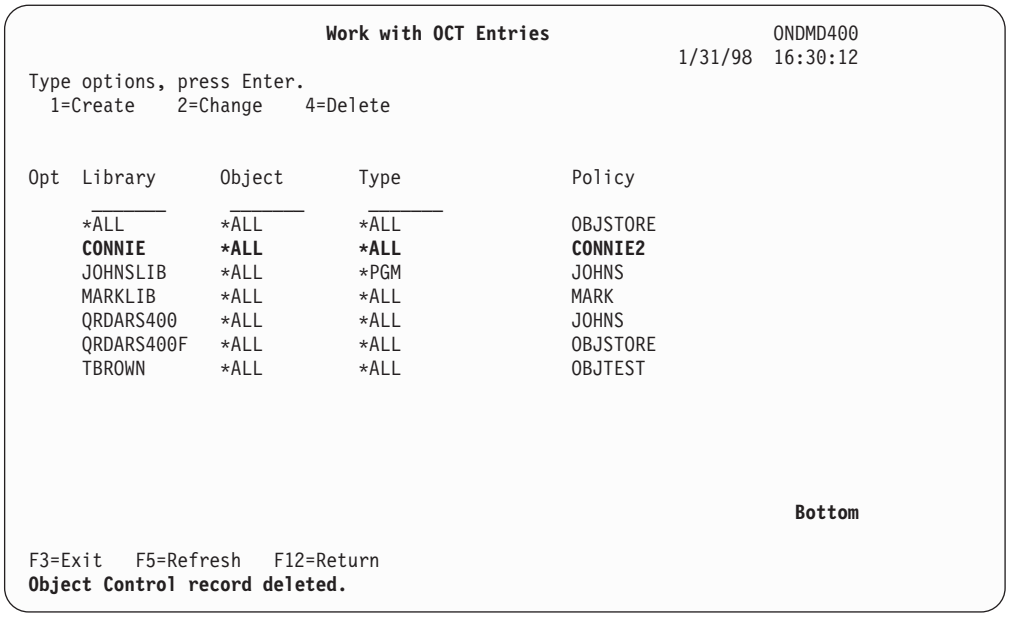

Figure 209. Work with OCT Entries

This screen confirms that the object control record is deleted.

Press **F5** to view the list of remaining records.

Option 10. Edit/Authorize OnDemand Users

See "Option 10. Edit/Authorize OnDemand Users" on page 55 for these procedures.

Option 20. Start Archive Objects

You can use this option to compress and archive OS/400 objects. This saves the object or objects in a compressed archive on disk, ready for future management by the Object Management Cycle. The Object Management Cycle uses the object policy criteria of the archive to control its movement from disk to optical media or tape.

To begin, choose option 20, Start Archive Objects, from the ONDEMAND OBJECT ADMINISTRATION MENU, Figure 188 on page 140. The START ARCHIVE OBJECTS COMMAND (STRARCRDAR) screen, Figure 210 on page 152, appears.

```
                    Start Archive using OnDemand (STRARCRDAR)

Type choices, press Enter.

Object . . . . . .  f_______      Name, generic*, *ALL
Library  . . . . . .  tbrown___     Name
Object type  . . . . . .  *ALL___   *ALL, *ALRTBL, *BNDDIR...

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

Figure 210. Start Archive using OnDemand (STRARCRDAR)

Press **F10** for additional parameters in Figure 211.

```
                    Start Archive using OnDemand (STRARCRDAR)

Type choices, press Enter.

Object . . . . . .  >F_______     Name, generic*, *ALL
Library  . . . . . .  >TBROWN___  Name
Object type  . . . . . .  *ALL___ *ALL, *ALRTBL, *BNDDIR...

                          Additional Parameters

Storage  . . . . . .  *KEEP        *KEEP, *FREE
Detail . . . . . .  *BASIC         *BASIC, *FULL
Text 'description' . . . . . .  Archive all objects in library TBROWN called
F___
Restart  . . . . . .  *NO_         *NO, *YES

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

Figure 211. Start Archive using OnDemand (STRARCRDAR) - Additional Parameters

Press **Enter** for OnDemand to compress and store an archive of the object or objects on disk. You must run the Object Management Cycle for OnDemand to migrate the archive to optical or tape, based on the policy name in the Object Control Table.

It is important to understand that the **Start Archive using OnDemand (STRARCRDAR)** function also determines when to remove a generation of an object. It looks at the number of times that object becomes archived using only that policy. The OBJ, LIB, and OBJTYPE parameters of this command and the definitions in the Object Control Table (OCT) determine the policy. For more information about the relationship between the OCT and this command, see "How OnDemand Selects a Record from the OCT for an Archive" on page 154.

Option 21. Start Retrieve Object

To retrieve an OnDemand archived object, select option 21, Start Retrieve Object, on the ONDEMAND OBJECT ADMINISTRATION MENU, Figure 188 on page 140. The START RETRIEVE OBJECT screen, Figure 212, appears.

```
                  Start Retrieve using OnDemand (STRRTVRDAR)

Type choices, press Enter.

Object . . . . . .  F_______     Name
Archived library . . . . . .  TBROWN___     Name
Object type  . . . . . .  *ANY___     *ANY, *ALRTBL, *BNDDIR...

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

Figure 212. Start Retrieve using OnDemand (STRRTVRDAR)

Press **F10** to move to Figure 213.

```
                  Start Retrieve using OnDemand (STRRTVRDAR)

Type choices, press Enter.

Object . . . . . >F_______     Name
Archived library . . . . . >TBROWN___     Name
Object type  . . . . . .  *ANY___     *ANY, *ALRTBL, *BNDDIR...

                          Additional Parameters

Generation . . . . . .  *CURRENT_     *CURRENT, 0 to -98
Option . . . . . .  *NEW_     *NEW, *OLD, *FREE, *ALL
File member  . . . . . .  *ALL_____     Name, generic*, *ALL, *NONE
             + for more values  _______
Database member option . . . . .  *MATCH     *MATCH, *ALL, *NEW, *OLD
Allow object differences . . . .  *NONE     *NONE, *ALL
Retrieve to library  . . . . . .  QTEMP____     Name, *LIB
Retrieve to ASP  . . . . . .  *ARCASP     1-16, *ARCASP
Delete save file . . . . . .  *OMC__     *OMC, *IMMED

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

Figure 213. Start Retrieve using OnDemand (STRRTVRDAR)

This screen confirms the first three fields you entered, and allows you to further define your retrieval.

Press **Enter** to start the retrieve process.

Option 30. Start Object Management Cycle

To begin the Object Management Cycle, select option 30, Start Object Management Cycle, on the ONDEMAND OBJECT ADMINISTRATION MENU, Figure 188 on page 140. This screen, Figure 214, appears.

```
                Start Object Management Cycle (STROMCRDAR)

Type choices, press Enter.


Submit to batch  . . . . . .  *YES          *YES, *NO
Job description  . . . . . .  QRDARS400_    Name
  Library  . . . . . . . . . .   *LIBL_____  Name, *LIBL, *CURLIB

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

Figure 214. Start Object Management Cycle (STROMCRDAR)

Press **ENTER** to start the Object Management Cycle. OnDemand generates report, **QPRLOOMC**, which provides details of the migration and expiration of archived objects.

Option 40. OnDemand Main Menu

Select this option to return to Figure 187 on page 139.

Additional Object Archive Topics

This section includes a variety of topics that should be considered when implementing OnDemand Object Archive.

How OnDemand Selects a Record from the OCT for an Archive

OnDemand Object Archive creates one ***SAVF** object to contain the set of archived objects for each archive request. This is true provided the request selects a menu option from the OBJECT ADMINISTRATION MENU or issues the **STRARCRDAR** command. OnDemand selects the entry from the Object Control Table (OCT) which is the least generic but still satisfies the archive request.

Consider the OCT Entries in Figure 215 on page 155.

```
                          Work with OCT Entries                    ONDMD400
                                                                 1/31/98  16:29:29
Type options, press Enter.
  1=Create    2=Change    4=Delete


Opt  Library      Object       Type        Policy
     *ALL         *ALL         *ALL        OBJSTORE
     JOHNSLIB     *ALL         *PGM        JOHNS
     LANDRUM      *ALL         *ALL        ALLCOLL
     LANDRUM      *ALL         *FILE       FILECOLL
     LANDRUM      *ALL         *PGM        PGMCOLL
     LANDRUM      PAY*         *ALL        ALLCOLL
     LANDRUM      PAY*         *PGM        PGMCOLL
     MARKLIB      *ALL         *ALL        MARK
     QRDARS400    *ALL         *ALL        JOHNS
     QRDARS400F   *ALL         *ALL        OBJSTORE
     TBROWN       *ALL         *ALL        OBJTEST


                                                                    Bottom

F3=Exit   F5=Refresh   F12=Return
```

Figure 215. Work with OCT Entries

Using the OCT Entries in Figure 215, review the following table and the notes that correspond to each. Clearly understanding the selection process is critical to defining the correct Object Archive environment for your system. The least confusing approach would be to eliminate all overlapping OCT Entries, but in some cases that may not be possible.

Table 1. Specified in STRARCRDAR

Library	Object	Type
LANDRUM	*ALL	*ALL
LANDRUM	AR*	*PGM
LANDRUM	PAY204	*ALL
LANDRUM	*ALL	*CMD
LANDRUM	PAY*	*FILE

Table 2. OCT Entry used for Archive

Library	Object	Type	Notes
LANDRUM	*ALL	*ALL	1
LANDRUM	*ALL	*PGM	2
LANDRUM	PAY*	*ALL	3
LANDRUM	*ALL	*ALL	4
LANDRUM	PAY*	*ALL	5

Notes:

1. The request exactly matches an OCT entry.
2. The ***ALL *PGM** OCT entry is less generic than ***ALL *ALL** for archiving a ***PGM** object.
3. Even if **PAY204** is a ***PGM** object, the **PAY* *PGM** entry will not be selected because OnDemand cannot assume that there are not other objects in the library with the name **PAY204**.

4. There is no entry which specifies ***CMD** as an object type.
5. In this case, the ***ALL** ***FILE** and **PAY*** ***ALL** entries are not exact matches for the request. The object name becomes the deciding factor.

Deleting a set of objects from Object Archive

If you need to delete a set of objects from Object Archive, the following information can be used to do so. Note that this is similar to the Delete Report (DLTRPTRDAR) command for Spool File Archive, but for use with Object Archive instead. In the following commands, the lowercase words represent the following:

library The name of the library that contains the objects that were archived.

object The object name, which is equivalent to the date of the archive in YYYYMMDD format.

seq The sequence number of the archive (three digits).

Enter the following SIX commands:

1. `ADDLIBLE QRDARS`
2. `CALL PGM(QRLCOVR) PARM(*ADD 'RLCRLO' ' *')`

   Note: The third parameter must have a space before the `*`.
3. `STRCMTCTL LCKLVL(*CHG)`
4. `CALL PGM(QRLODLT) PARM('library' 'object' 'seq' '*' *YES)`

   If you display the joblog (be sure to show the detailed messages by pressing F10), you should see some messages that indicate what was done. The last parameter in step 4 causes OnDemand to do a cleanup even if all the objects cannot be found (which is equivalent to `DLTRPTRDAR CLEANUP(*YES)`). For example, if the archive was for library TBROWN and it was the first one done on May 5, 1997, you would enter the following for step 4:

   ```
   CALL PGM(QRLODLT) PARM('TBROWN' '19970505' '001' '*' *YES)
   ```
5. `COMMIT`
6. `ENDCMTCTL`

To create a CL program to delete Object Archive objects from disk/optical storage, create the sample CL program shown in Figure 216 on page 157 called DLTOBJRDAR.

```
PGM PARM(&LIBRARY &OBJECTNAME &SEQUENCENO &CLEANUP)
DCL VAR(&LIBRARY) TYPE(*CHAR) LEN(10)
DCL VAR(&OBJECTNAME) TYPE(*CHAR) LEN(8)
DCL VAR(&SEQUENCENO) TYPE(*CHAR) LEN(3)
DCL VAR(&RETURNCODE) TYPE(*CHAR) LEN(8)
DCL VAR(&CLEANUP) TYPE(*CHAR) LEN(4)
ADDLIBLE LIB(QUSRRDARS)
MONMSG MSGID(CPF2103)
ADDLIBLE LIB(QRDARS) POSITION(*AFTER QUSRRDARS)
MONMSG MSGID(CPF2103)
STRCMTCTL LCKLVL(*CHG)
MONMSG MSGID(CPF8351) EXEC(RCVMSG MSGTYPE(*LAST)) +
/* ALREADY STARTED */
ROLLBACK
CALL PGM(QRDARS/QRLODLT) PARM(&LIBRARY +
&OBJECTNAME &SEQUENCENO &RETURNCODE &CLEANUP)
MONMSG MSGID(CPF0000 CPF9999) EXEC(ROLLBACK)
COMMIT
ENDCMTCTL
ENDPGM
```

Figure 216. Sample CL program (DLTOBJRDAR)

The DLTOBJRDAR program has four parameters:

OS/400 Library Name	YYYYMMDD
OnDemand Object Name	Ten characters
Sequence number	000 to 999
Cleanup	*YES or *NO

To execute the program, call the program as shown below, substituting the correct information for the parameters:

```
CALL PGM(DLTOBJRDAR) PARM('EWAITMAN' '19980501' '001' '*YES')
```

By specifying cleanup *YES, OnDemand will remove all its database entries even if it cannot physically delete the object from optical.

Audit File Details

OnDemand Object Archive provides an audit file to which a record is written each time an action is performed on an archived object. It is possible to run queries against this file, called **QARLOAUDIT** in library **QUSRRDARS**, to provide a wide variety of additional management reports about your archives.

An action code appears in each record to describe the logged activity. The list of codes and their meanings are as follows:

- A - Archive created
- R - Archive retrieved
- Z - Archive deleted

Hints and Tips for Object Archive

This section includes information on Object Archive hints and tips for implementation.

- Remember to clear (**CLRPFM**) the Object Archive audit file named **QARLOAUDIT** in library **QUSRRDARS** periodically. Consider running a query

against it on a regular basis if desired. After running the report, you may clear the file (after saving it or archiving it with OnDemand Object Archive, if desired).

- It is recommended that you create separate Storage Groups for Spool File Archive, Object Archive, and Record Archive optical data. Different requirements exist for each of the OnDemand environments, and it is best to keep the data separated.

Chapter 3. Using the OnDemand Record Archive Feature

Record Archive provides commands and application programming interfaces (APIs) that let you store and retrieve data records on optical media for users who only require occasional access to historical data. At Version 5 Release 2, this product option is provided for existing Record Archive customers to use, but there are no planned enhancements. Documentation can be found in OnDemand publications from previous releases. Please talk to your software provider about other options, such as compressed DASD.

Chapter 4. Using the OnDemand AnyStore Feature

The AnyStore feature provides application programming interfaces (APIs) that let you store and retrieve a wide variety of data types on disk, optical, or tape media. These data formats store and retrieve (write and read) without regard to the data type. AnyStore preserves the format of the data during archive and retrieval. The data returned from the archive is in its original form that it was prior to storing.

Using the APIs provided, you can develop an entirely new application or significantly enhance an existing application to store data such as listed below:

- PC files
- Entire spooled files
- Individual database file members
- Data that is created in a buffer in your program

You design an application to store the data and an application to retrieve the data. AnyStore provides the programming tools (APIs), and OnDemand Spool File Archive provides the storage management functions that move the data between the different media.

This chapter includes the detail on the AnyStore APIs to use in your application programs.

Characteristics of AnyStore

In some ways, AnyStore data is handled in a manner ***similar*** to OnDemand Spool File Archive data:

- Keys can retrieve it.
- It fits into the OnDemand storage hierarchy just like Spool File Archive data.
- Many Spool File Archive commands can be used for administration of AnyStore.

It is, however, ***different*** from Spool File Archive data in that:

- It cannot be stored or retrieved using Spool File Archive commands.
- It can be stored and retrieved via the AnyStore APIs.
- OnDemand always stores AnyStore data within a report group.

Defining an AnyStore Report

You define an AnyStore item by using the Spool File Archive menu option entitled WORK WITH REPORT DEFINITIONS or using the Spool File Archive command **WRKADMRDAR TYPE(*REPORT)**. See “Option 4. Work with Report Definitions” on page 18 for more detail about this function. (You will refer to AnyStore items as ″reports″ regardless of what type of data actually stores. AnyStore builds on the Spool File Archive feature of OnDemand. Report name, report type, (and so forth), drive this feature.)

The Report Definition for AnyStore data REQUIRES the following information:

- Report type
  - **ANYS** An AnyStore report

- Report data type (select one of the following)
  - ***SPLF** (each segment is a whole spooled file)
  - ***FILE** (each segment is all records in a database file member)
  - ***BUFFER** (each segment is from a buffer in your program)
  - ***IFS** (each segment is an Integrated File System (IFS) file)
- Compression
  - **Y** (yes)
  - **N** (no)

In addition to the report definition, define the following items for the AnyStore environment:

- REPORT GROUP
- POLICY
- STORAGE GROUP (if optical is used)
- TAPE DEVICE(if tape is used)
- OPTICAL OR TAPE INVENTORY (as appropriate)

Deleting an AnyStore Report

You delete an AnyStore item by using the Spool File Archive menu option that is entitled DELETE REPORT or using the Spool File Archive command **DLTRPTRDAR**. See "Option 3. Delete Report" on page 71 for more detail about this function.

Using AnyStore

You can store or retrieve AnyStore items by calling an AnyStore Application Programming Interface (API) from your High Level Language (HLL) program.

Sample ***store*** logic that uses AnyStore APIs:

1. Use **Open AnyStore Object (QrlsOpenAnyStoreObject) API** to access AnyStore file handle. The file handle is used in both the write and close to identify the AnyStore object being used.
2. Use **Store AnyStore Segment (QrlsStoreAnyStoreSegment) API** to write data into the AnyStore object.
3. Use **Close AnyStore Object (QrlsCloseAnyStoreObject) API** to close the AnyStore object.

Sample ***retrieve*** logic that uses AnyStore APIs:

1. Use **Retrieve AnyStore List (QrlsRetrieveAnyStoreList) API** to receive a list of available segments that meet specified key values.
2. Use **Retrieve AnyStore Segment (QrlsRetrieveAnyStoreSegment) API** to retrieve one of the segments from the **Retrieve AnyStore List (QrlsRetrieveAnyStoreList) API** list.

The **QSAMPLES** source file in library **QRDARS** contains sample COBOL and RPG programs that use these APIs. The sample source code member names all start with **QRLSASxxxx**.

OnDemand AnyStore APIs

This section describes the AnyStore APIs which allow you to perform the following functions:

- Open an AnyStore object
- Store an AnyStore segment
- Close an AnyStore object
- Retrieve a list of AnyStore segments
- Retrieve a specific AnyStore segment

Each API has a fixed number of parameters to pass. OnDemand controls errors are controlled through the error code parameter except in the case where an escape message is sent to stop the call due to any of the following:

- There is no room to return the error code.
- The error is definitional and requires a recompilation of the program.
- The error is not dependent on the result of the API.

Error Code Parameter

All OnDemand AnyStore APIs include an error code parameter that returns error codes and exception data to the calling application. The error code parameter is a variable length structure that contains the information that is associated with an error condition. The error code parameter can be one of two variable-length structures, format **ERRC0100** or **ERRC0200**.

In format **ERRC0100**, one field in that structure is an INPUT field. It controls whether an exception returns to the application or the error code structure is filled in with the exception information. When the **Bytes provided** field exceeds or equals **8**, the rest of the error code structure fills in with the OUTPUT exception information that is associated with the error. When the **Bytes provided** field is **0**, all other fields are ignored, and an exception returns.

Use the format **ERRC0200** if the API caller wants convertible character (CCHAR) support. Format **ERRC0200** contains two INPUT fields. The first field, that is called the **Key** field, must contain a **-1** to use CCHAR support. When the **Bytes provided** field exceeds or equals **12**, the rest of the error code structure fills in with the OUTPUT exception information that is associated with the error. When the **Bytes provided** field is **0**, all other fields are ignored, and an exception returns.

Note: To determine if an error occurred, you should check to see if the **Bytes available** is greater than **0**. Checking for a non-blank value in the exception id is not a valid method.

The structure of the error code parameter is as follows, depending on the format used:

ERRC0100 Format:

Offset				
Dec	**Hex**	**Use**	**Type**	**Field**
0	0	INPUT	Binary(4)	Bytes provided
4	4	OUTPUT	Binary(4)	Bytes available
8	8	OUTPUT	Char(7)	Exception ID

Offset		Use	Type	Field
Dec	Hex			
15	F	OUTPUT	Char(1)	Reserved
16	10	OUTPUT	Char(*)	Exception data

ERRC0200 Format:

Offset		Use	Type	Field
Dec	Hex			
0	0	INPUT	Binary(4)	Key
4	4	INPUT	Binary(4)	Bytes provided
8	8	OUTPUT	Binary(4)	Bytes available
12	C	OUTPUT	Char(7)	Exception ID
19	13	OUTPUT	Char(1)	Reserved
20	14	OUTPUT	Binary(4)	CCSID of the CCHAR data
24	18	OUTPUT	Binary(4)	Offset to the exception data
28	1C	OUTPUT	Binary(4)	Length of the exception data
		OUTPUT	Char(*)	Exception data

ERRC0200 field descriptions

Bytes available
The length of the error information available to the API, in bytes. If this is 0, no error was detected.

Bytes provided
The length of the area that the calling application provides for the error code. If the API caller is using format ERRC0100, the bytes provided must be 0, 8 or more that 8. If the API caller is using format ERRC0200, key the bytes provided must be 0, 12, or more than 12.

0 — If an error occurs, an exception is returned the application to indicate that the requested function failed.

>8 — If an error occurs, the space is filled in with the exception information. No exception is returned. This only occurs if format ERRC0100 is used.

>12 — If an error occurs, the space is filled in with the exception information. No exception is returned. This only occurs if format ERRC0200 is used.

CCSID of the CCHAR data
The coded character set identifier (CCSID) of the convertible character (CCHAR) portion of the exception data. The default is 0.

0 — The default job CCSID.

Exception data
A variable-length character field containing the substitution text for the exception. You can use the SNDPGMMSG or SNDUSRMSG CL commands

to send a message to someone by specifying the exception id as the value for the MSGID parameter and the exception data as the value for the MSGDATA parameter on these commands. Messages can also be sent using the Message Handler APIs.

Exception ID
The identifier for the message for the error condition. Ids that start with RDR can be found in the message file QRLCMSGF in library QRDARS.

Key The key value that enables the message handler error function if CCHAR support is used. This value should be -1 if CCHAR support is expected.

Length of the exception data
Length of the exception data. The length, in bytes, of the exception data returned in the error code.

Offset to the exception data
Offset to the exception data The offset from the beginning of the error code structure to the exception data in the error code structure.

Reserved
A 1-byte reserved field.

Close AnyStore Object (QrlsCloseAnyStoreObject) API

Parameters			
Required Parameter Group:			
1	AnyStore handle	Input	Char(16)
2	Error code	I/O	Char(*)
Service program: QRLSAS1 Threadsafe: No.			

The **Close AnyStore Object (QrlsCloseAnyStoreObject) API** closes the specified object, releasing any locks on the object. The data that is associated with this object is forced to nonvolatile storage.

Attention: Failure to close an object when storing segments to it may leave the object in a damaged state. Be sure to always close your object.

Alternately, call the Program **QRLRCASO** instead of using **QrlsCloseAnyStoreObject**. IBM provided **QRLRCASO** for compatibility with previous AnyStore releases.

Authorities and Locks

Library Authority
*Execute

Required Parameter Group

AnyStore handle
INPUT; CHAR(16) The handle returned when the object in the process of closing was opened with the **Open AnyStore Object (QrlsOpenAnyStoreObject) API**.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 163.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2101
AnyStore handle not valid. Reason code &1.

RDR2102
Close failed.

RDR2103
Close problem.

RDR2153
Unable to obtain proper license.

Open AnyStore Object (QrlsOpenAnyStoreObject) API

Parameters Required Parameter Group:			
1	AnyStore handle	Output	Char(16)
2	Report name	Input	Char(10)
3	Version	Input	Char(2)
4	Posting date	Input	Char(10)
5	Run comment	Input	Char(50)
6	Sequence number	Output	Char(3)
7	Error code	I/O	Char(*)
Service program: QRLSAS1 Threadsafe: No.			

The **Open AnyStore Object (QrlsOpenAnyStoreObject) API** opens an AnyStore object.

Alternately, call Program **QRLROASO** instead of using **QrlsOpenAnyStoreObject**. IBM provided **QRLROASO** for compatibility with previous AnyStore releases.

Note: Only one AnyStore object can be open at a time within a single job. An open AnyStore object must be closed using the Close AnyStore Object API before opening another AnyStore object.

Authorities and Locks

Library Authority
*CHANGE

File Authority
*Change

Required Parameter Group

AnyStore handle
OUTPUT; CHAR(16). An identifier made up of arbitrary characters that are assigned by the API and used to refer to the AnyStore object in subsequent operations. This handle uniquely identifies the open of an AnyStore object. Another open of the same report within the same job provides another unique AnyStore handle and another AnyStore object.

Report name
INPUT; CHAR(10) The name of the report definition to use when opening this AnyStore object.

Version
INPUT; CHAR(2) The version, in combination with the report name, specifies the specific report definition to use.

Posting Date
INPUT; CHAR(10) The date to use when storing this AnyStore report object. The valid values for this parameter are:

***JOBDATE**
Use the job date.

***SYSDATE**
Use the system date.

Date Enter a date in the format of YYYYMMDD.

Run Comment
INPUT; CHAR(50) Text to describe this open. Providing no text defaults to the report description.

Sequence number
OUTPUT; CHAR(3) A three position character value that indicates the sequence number that is assigned this run. The sequence number denotes different runs of the same report for a specific date. The maximum number of runs for a single report for a specific date is 46,656. The sequence number resets for each new date and is report specific.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 163.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

RDR2201
No report found. Reason code is &1.

RDR2202
Run date is not a valid date.

RDR2203
New sequence number can not be assigned.

RDR2204
Open failed.

RDR2205
Authority-insufficient.

RDR2206
Report name or version blank.

RDR2207
Run date parameter is not valid.

RDR2208
Report processing already in progress.

RDR2209
Document Library Services open problem.

RDR2211
Open problem. Reason code is &1.

Retrieve AnyStore List (QrlsRetrieveAnyStoreList) API

Parameters Required Parameter Group:			
1	Receiver variable	Output	Char(*)
2	Length of receiver variable	Input	Binary(4)
3	Receiver variable format	Input	Char(8)
4	From segment key	Input	Char(*)
5	To segment key	Input	Char(*)
6	Segment key format	Input	Char(8)
7	Maximum segments to retrieve	Input	Binary(4)
8	Continuation handle	Input	Char(16)
Omissible Parameter Group:			
9	Request index status	Input	Char(10)
10	Index status	Output	Char(1)
11	Error code	I/O	Char(*)
Service program: QRLSAS2 Threadsafe: No.			

The **Retrieve AnyStore List (QrlsRetrieveAnyStoreList) API** retrieves a list of all segments that match the keys specified. Generic and range searches are allowed. Following the key value with an asterisk (*) signifies a generic search. Specifying more than one key causes the search to perform in the listed order that the keys appear in the segment key parameter. Specify at least one key. If a key field is blank, it is considered unspecified. Generic searches can only be specified for the

keys specified in the ***From segment key*** variable. If they are specified for the ***To segment key*** variable, it is not a valid search request. The list of identified segments is placed in the receiver variable. The list of segments contains only authorized key values for that user.

Attention: Security checking is based on the current user. Utilization of this API by a server job that is not running under the user's authority, defaults to using the server job's user profile. Avoid this by switching to the true user's profile before calling this API.

Alternately, call Program **QRLRRASL** instead of using **QrlsRetrieveAnyStoreList**. IBM provided **QRLRRASL** for compatibility with previous AnyStore releases.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*CHANGE

Required Parameter Group

Receiver variable
OUTPUT; CHAR(*) Contains the key of the segments found. The receiver variable format field specifies the format of this variable.

Length of receiver variable
INPUT; BINARY(4) Length of the receiver variable. It should be large enough to hold the maximum number of segments plus the length of the non-repeating part of the format. For the format **SEGF0100**, the non-repeating part is 36 bytes.

Receiver variable format
INPUT; CHAR(8) Format of the receiver variable.

SEGF0100
RetrieveSegmentKeyList format

See "Format of RetrieveSegmentKeyList" on page 171 for a description of these formats.

From segment key
INPUT; CHAR(*) Starting keys or only keys with which to search. Segment key format field specifies format.

To segment key
INPUT; CHAR(*) Upper limit (high value) for range search. Segment key format field specifies format.

Segment key format
INPUT; CHAR(8) Format of the segment key.

KEYA0100
Key format

See "Format of Segment Keys" on page 171 for a description of these formats.

Maximum segments to retrieve
INPUT; BINARY(4) Specifies the maximum segments to place in the segment list. The number must be from 1 to 9999.

Continuation handle
INPUT; CHAR(16) This field must either contain blanks or a valid continuation handle. If it is blanks, a new search is done with the provided key values. If it is a valid continuation handle from a previous call, then the search is continued from where it left off.

Omissible Parameter Group

Request index status
INPUT; CHAR(10) Request information on the status of the indexes for a specific report. Specify a report name, or no index status returns. If a date range is not specified in the **From** and **To segment key** formats, then requesting index status will most likely not provide any meaningful information. Having no date range results in a check for any archived index for this report since the installation of OnDemand. Try to limit the searched data to a specific date range. Then the **Request index status** will indicate if any archived indexes within that range. This will give you a better indication as to whether your search is complete. The default value for this parameter is ***NO**. Valid values for this field are:

***YES** Return index status in index status field.

***NO** Do not return index status.

Index status
OUTPUT; CHAR(1) Indicates where the indexes are for the specified report and date combination. Values for this parameter are:

0 All indexes within the specified date range are on disk.

1 At least one index is archived to optical or tape.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 163.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3C21
Format name &1; is not valid.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

RDR2205
Authority error.

RDR2301
Search requested not valid.

RDR2302
Date is not valid.

RDR2303
Maximum segments that are requested is not valid.

RDR2304
Retrieve list error.

Format of Segment Keys

KEYA0100 Format: This format defines the starting and ending search key values.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(10)	Report Name/Group Name
10	A	CHAR(2)	Version
12	C	CHAR(25)	Key 1
37	25	CHAR(20)	Key 2
57	39	CHAR(20)	Key 3
77	4D	CHAR(20)	Key 4
97	61	CHAR(15)	Key 5
112	70	CHAR(8)	Date YYYYMMDD

KEYA0100 field descriptions.

At least one of the fields Key 1 thru Key 5 must be specified or message RDR2301 will be issued.

Date Date to search for in the format of YYYYMMDD or blanks. When blank field will not be used as part of the search criteria.

Key 1 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 2 Value to search for or blanks. When blank field will not be used as part of the search criteria

Key 3 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 4 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 5 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Report/Group name
Report or group name to use. When a report name is provided then only the keys for that report are searched. When a group name is used then the keys for all reports in the group are searched. A group abbreviation can be provided also by using the special form *GRPABVnnn where nnn is the three letter group abbreviation. No checking is done for this value. If this field is specified in both the segment and to segment key variables then it must be the same value in each. The use of '*' for generic search is not allowed for this field.

Version
Report version 01 - 99 or blanks. When blank field will not be used as part of the search criteria.

Format of RetrieveSegmentKeyList

The key list can repeat up to 9999 times as required.

SEGF0100 Format: This format defines the returned segment information.

Offset		Type	Field
Dec	**Hex**		
0	0	BINARY(4)	Bytes returned
4	4	BINARY(4)	Bytes available
8	8	CHAR(16)	Continuation handle
24	18	BINARY(4)	Offset to segment information list
28	1C	BINARY(4)	Number of segment list entries
32	20	BINARY(4)	Length of segment list entry
Note: Below is the format of the entries in the segment list. The following fields are repeated for each segment list entry. The decimal and hexadecimal offsets depend on the number of segment list entries. The first segment list entry is found by using the **Offset to segment information list**.			
-	-	CHAR(10)	Report Name
-	-	CHAR(2)	Version
-	-	PACKED(11 0)	Compressed length
-	-	PACKED(11 0)	Full length
-	-	PACKED(11 0)	Displacement
-	-	CHAR(25)	Key 1
-	-	CHAR(20)	Key 2
-	-	CHAR(20)	Key 3
-	-	CHAR(20)	Key 4
-	-	CHAR(15)	Key 5
-	-	CHAR(8)	Date
-	-	CHAR(1)	Period
-	-	CHAR(3)	Sequence number
-	-	CHAR(1)	Reserved
-	-	CHAR(16)	Segment handle

SEGF0100 field descriptions

Bytes available
The length of the RetrieveReportKeylist in bytes.

Bytes returned
The length of data returned in the RetrieveReportKeylist in bytes.

Compressed length
Size of the segment after it is compressed.

Continuation handle
This field is blank if the segment list entries contain all the keys that match the specified search. If more entries are available then it contains a handle that can be used to continue the search at the point it left off.

Date Date of the segment in the format of YYYYMMDD.

Displacement
Offset from the beginning of the object to this segment.

Full length
This field contains either the uncompressed length of the segment or the AFPDS resource group id (negative number).

Key 1 Value of key1.

Key 2 Value of key2.

Key 3 Value of key3.

Key 4 Value of key4.

Key 5 Value of key5.

Length of segment list entry
The length of each segment list entry.

Number of segment list entries
The number of entries returned in the list.

Offset to segment list information
Offset in bytes from the beginning of the format to the segment list entries.

Period Always contains a period.

Report name
Name of report.

Reserved
This byte is reserved for later use.

Segment handle
Access handle for this segment.

Sequence number
Sequence number of archived object.

Version
Report version.

Retrieve AnyStore Segment (QrlsRetrieveAnyStoreSegment) API

Parameters Required Parameter Group:			
1	Receiver variable	Output	Char(*)
2	Length of data returned	Output	Binary(4)
3	Segment index	Input	Char(*)
4	Segment index format	Input	Char(8)
5	Retrieve information	Input	Char(*)
6	Retrieve information format	Input	Char(8)
7	Error code	I/O	Char(*)
Service program: QRLSAS2 Threadsafe: No.			

The **Retrieve AnyStore Segment (QrlsRetrieveAnyStoreSegment) API** retrieves the specified segment and places it either in the receiver variable or where the retrieve information specifies.

Attention: This API must run using the SAME USER PROFILE that ran the Retrieve AnyStore List (**QrlsRetrieveAnyStoreList**) API, or the segment access handle will not be valid.

Alternately, call Program **QRLRRASS** instead of using **QrlsRetrieveAnyStoreSegment**. IBM provided **QRLRRASS** for compatibility with previous AnyStore releases.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*CHANGE

Required Parameter Group

Receiver variable
OUTPUT; CHAR(*) The field to contain the output.

Length of data returned
OUTPUT; BINARY(4) Length of data that is placed in receiver variable.

Segment index
INPUT; CHAR(*) Contains index of segment to retrieve. The **Segment index format** field specifies the format.

Segment index format
INPUT; CHAR(8) Format of the segment index variable. Do not change any of the variables that are provided from the **Retrieve AnyStore List (QrlsRetrieveAnyStoreList) API** segments. Changing the report name, compressed length, displacement, data, or sequence number will result in unpredictable results. If the segment access handle is not correct, message RDR2407 is issued.

SEGD0100
Segment index format

See "Retrieve Segments Format" on page 176 for a description of this format.

Retrieve information
INPUT; CHAR(*) The character field that contains required retrieve information. The format of the field is determined by the retrieve information format field.

Retrieve information format
INPUT; CHAR(8) Format of the retrieve information field. See "Retrieve Information Formats" on page 177 for the description of these formats. The following values are valid:

RTVS0100
Retrieve into a buffer

RTVS0200
Retrieve into an IFS file

RTVS0300
Retrieve into a physical file

RTVS0400
Retrieve into a spooled file

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 163.

Considerations for Using the QrlsRetrieveAnyStoreSegment API

Specifying the retrieve information format **RTVS0400** creates a spooled file. This spooled file spools under one of two jobs. The spooled file becomes part of a user's job and remains owned by that user when either of the following conditions exist.

- If the current user also owned the original spooled file.
- Specifying the special value ***CURRENT** for the spooled file owning profile.

If this is not the case, then the new spooled file is part of a special system job (QPRTJOB) that is created for each user. In this case, the user would be the owner of the original spooled file.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3C21
Format name &1; is not valid.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

RDR2401
Retrieve read error.

RDR2403
File error.

RDR2404
File exists error. Reason code &1.

RDR2406
Segment open error.

RDR2407
Insufficient authority.

RDR2408
Report data type mismatch.

RDR2409
Recalled from tape.

RDR2411
Retrieve buffer length not valid.

RDR2412
Retrieve length error.

RDR2413
Create options not valid.

RDR2414
Retrieve segment error. Reason code &1.

RDR2415
Retrieve file error.

Retrieve Segments Format

SEGD0100 Format: This format defines the input segment information.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(10)	Report name
10	A	CHAR(2)	Version
12	C	PACKED(11 0)	Compressed Length
18	12	PACKED(11 0)	Full Length
24	18	PACKED(11 0)	Displacement
30	1E	CHAR(25)	Key 1
55	37	CHAR(20)	Key 2
75	4B	CHAR(20)	Key 3
95	5F	CHAR(20)	Key 4
115	73	CHAR(15)	Key 5
130	82	CHAR(8)	Date YYYYMMDD
138	8A	CHAR(1)	Period
139	8B	CHAR(3)	Sequence number
142	8E	CHAR(1)	Reserved
143	8F	CHAR(16)	Segment handle

SEGD0100 field descriptions

Compressed length
Size of the segment after it is compressed.

Continuation handle
This field is blank if the segment list entries contain all the keys that match the specified search. If more entries are available then it contains a handle that can be used to continue the search at the point it left off.

Date Date of the segment in the format of YYYYMMDD.

Displacement
Offset from the beginning of the object to this segment.

Full length
This field contains either the uncompressed length of the segment or the AFPDS resource group id (negative number).

Key 1 Value of key1.

Key 2 Value of key2.

Key 3 Value of key3.

Key 4 Value of key4.

Key 5 Value of key5.

Length of segment list entry
The length of each segment list entry.

Number of segment list entries
The number of entries returned in the list.

Offset to segment list information
Offset in bytes from the beginning of the format to the segment list entries.

Period Always contains a period.

Report name
Name of report.

Reserved
This byte is reserved for later use.

Segment handle
Access handle for this segment.

Sequence number
Sequence number of archived object.

Version
Report version.

Retrieve Information Formats

RTVS0100 Format: Defines format to retrieve segment into a buffer.

Offset		Type	Field
Dec	Hex		
0	0	BINARY(4)	Length of receiver variable

RTVS0100 field descriptions

Length of receiver variable. Contains length of receiver variable. Maximum length is 16 million bytes. The required length for this field for a specific segment is the full length from the SEGF0100 format.

RTVS0200 Format: Defines format to retrieve segment into an IFS file.

Offset		Type	Field
Dec	Hex		
0	0	BINARY(4)	Offset to Path
4	4	BINARY(4)	Path length
8	8	CHAR(4)	Create options
*	*	CHAR(*)	Path

RTVS0200 field descriptions

Create options
Whether or not to create the file. The characters and their meanings are:

Position 1 of this field: Action to take if file already exists. **Note:** Positions 2 through 4 are not used. Valid values are:

0 – Do not create the file. Return error

1 – Open the file if it exists, or create it if is does not. Retrieved data will be added to the end of the file.

2 – Open the file if it exists, or create it if is does not. Retrieved data will replace the existing data.

Offset to path
Offset from the beginning of this structure to the path name. For example, a path name that starts in position 12 of this structure would require this field to be set to 12 (not 13).

Path The path to the file, including the file name. The path name can be up to 64K characters. If storing OfficeVision documents, for example, this path might be set to /QDLS/MYFLR/MYDOC.

Path Length
The total length of the string that makes up the path specified in the Path parameter. This value must be the exact length of the path (including the file name) and must not allow for any blanks at the end of the path name.

RTVS0300 Format: Defines format to retrieve segment into a file.

Offset			
Dec	**Hex**	**Type**	**Field**
0	0	CHAR(20)	File
20	14	CHAR(10)	Member
30	1E	CHAR(4)	Create options

RTVS0300 field descriptions

Create options
Whether or not to create the file or member. **Note:** Positions 3 and 4 are not used. The characters and their meanings are:

Position 1 of this field: Action to take if file already exists. Valid values are:

0 Do not create the file. Return error.

1 Open the file if is exists, or create it if is does not.

Position 2 of this field: Action to take if member already exists. Valid values are:

0 Do not create the member. Return error.

1 Open the member and add the records.

2 Open the member and replace the records.

File The name of the file in which to place the returned segment. The first 10 characters contain the file name, and the second 10 characters contain the library name. You can use these special values for the library name:

- *CURLIB The job's current library
- *LIBL The library list

Member
Name of the member to use. You can use these special values for the member name:

- *FIRST — The first member in the specified file is used.

RTVS0400 Format: Defines format to retrieve segment into a spooled file.

Offset			
Dec	**Hex**	**Type**	**Field**
0	0	CHAR(10)	Spooled file owning profile
20	14	CHAR(20)	Output queue

RTVS0400 field descriptions

Output queue
The name of the output queue to use when printing this segment. The first 10 characters contain the output queue name, and the second 10 characters contain the library name. If no output queue is specified then the spooled file is placed in the output queue that it was originally in. You can use these special values for the library name:

- *CURLIB The job's current library
- *LIBL The library list

Spooled file owning profile
The name of the user profile to own the newly created spooled file. If no user profile is specified then the owner of the new spooled file is the user profile that originally owned the spool file. The user profile must already exist. You can use these special values for the user profile:

- *CURRENT The profile of the current user is used

Store AnyStore Segment (QrlsStoreAnyStoreSegment) API

Parameters			
Required Parameter Group:			
1	AnyStore handle	Input	Char(16)
2	Store information	Input	Char(*)
3	Length of store information	Input	Binary(4)
4	Store information format	Input	Char(8)
5	Keys	Input	Char(*)
6	Keys format	Input	Char(8)
7	Error code	I/O	Char(*)
Service program: QRLSAS1 Threadsafe: No.			

The **Store AnyStore Segment (QrlsStoreAnyStoreSegment) API** stores a segment into OnDemand along with its associated key information. The segment can be from spool, a data base file member, a buffer, or an Integrated File System file.

Alternately, call the Program **QRLRSASS** instead of using **QrlsStoreAnyStoreSegment**. IBM provided **QRLRSASS** for compatibility with previous AnyStore releases.

Authorities and Locks

Library Authority
*CHANGE

File Authority
*CHANGE

Required Parameter Group

AnyStore handle
INPUT; CHAR(16) The AnyStore handle returned when the file was opened with the **Open AnyStore Object (QrlsOpenAnyStoreObject) API**.

Store information
INPUT; CHAR(*) Contains the store information. The store information format field specifies the format of this field.

Length of store information
INPUT; BINARY(4) Length of the store parameter can be up to 16 million characters in length.

Store information format
INPUT; CHAR(8) The character field that contains required structure that matches the store type. See "Store Information Formats" on page 181 for a description of these formats. The following values are valid:

STGI0100
Store from a buffer

STGI0200
Store from an IFS file

STGI0300
Store from a physical file

STGI0400
Store from a spooled file

Keys
INPUT; CHAR(*) Contains the segment keys. The keys format field specifies the format of this field.

Keys format
INPUT; CHAR(10) Name of the keys format. See "Key Formats" for a description of these formats. The following values are valid:

KEYS0100
Segment keys

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 163.

Key Formats

KEYS0100 Format: Defines format of segment key.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(25)	Key 1
25	19	CHAR(20)	Key 2
45	2D	CHAR(20)	Key 3

Offset		Type	Field
Dec	Hex		
65	41	CHAR(20)	Key 4
85	55	CHAR(15)	Key 5

KEYS0100 field descriptions

Key 1. Value of key1

Key 2. Value of key2

Key 3. Value of key3

Key 4. Value of key4

Key 5. Value of key5

Store Information Formats

STGI0100 Format: Defines format for store from a buffer.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(*)	Buffer

STGI0100 field descriptions

Buffer The character field that contains the segment to store. This can be up to 16 million characters.

STGI0200 Format: Defines format for store from an IFS file.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(*)	Path

STGI0200 field descriptions

Path The path to the file, including the file name. It can be up to 64K characters.

Path Length The total length of the string that makes up the path specified in the Path parameter. This value must be the exact length of the path (including the file name) and must not allow for any blanks at the end of the path name.

STGI0300 Format: Defines format for store from a physical file.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(20)	File
20	14	CHAR(10)	Member

STGI0300 field descriptions

File The name of the file which contains the segment to store. The first 10 characters contain the file name, and the second 10 characters contain the library name. You can use this special value for the library name:

- *CURLIB The job's current library
- *LIBL The library list

Member
Name of the member to use. You can use these special values for the member name:

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

STGI0400 Format: Defines format for store from a spooled file.

Offset			
Dec	**Hex**	**Type**	**Field**
0	0	CHAR(26)	Qualified job name
26	1A	CHAR(10)	Spooled file name
36	24	BINARY(4)	Spooled file number

STGI0400 field descriptions

Qualified job name
The job that created the spooled file. The qualified job name has three parts:

- Job name CHAR(10). A specific job name, or a special value. * Only the job that this program is running. The rest of the job name parameter must be blank.
- user name CHAR(10) — A specific user profile name, or blanks when the job name is *.
- Job number CHAR(6). A specific job number, or blanks when the job name is *.

Spooled file name
The name of the spooled file to store.

Spooled file number
The unique number of the spooled file. The valid range is 1 through 9999. The following special values are supported for this parameter:

- 0 Only one spooled file from the job has the specified file name, so the number of the spooled file is not necessary.
- –1 This uses the highest-numbered spooled file with the specified file name.

Considerations for Using the QrlsStoreAnyStoreSegment API

- When storing IFS files, only the contents of the IFS file store. If the file has extended attributes (EAs), these do not store or save when using this API.
- If an error occurs when storing an AnyStore segment, close the AnyStore object before exiting your program. If the AnyStore object is not closed, it may be left in a damaged state. If an AnyStore object is closed, but no segments have been successfully stored, the AnyStore object will be deleted automatically.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3C21
Format name &1; is not valid.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2501
No spooled file found.

RDR2502
File open error.

RDR2505
Segment to large.

RDR2506
Data type mismatch.

RDR2508
Store parameter length error.

RDR2509
No job found.

RDR2511
Spooled file processing error.

RDR2512
AnyStore handle not valid.

RDR2513
Store error.

RDR2514
Store failure.

RDR2515
Store SQL error.

Archiving User-Defined Data Types for Retrieval by the OnDemand Client

Using AnyStore, it is possible to archive nearly any PC file stored in an Integrated File System (IFS) directory on the iSeries. Once a file has been archived, it can be retrieved using the OnDemand Client. If the object type of the archived file is specified to OnDemand as User Defined, the OnDemand Client will automatically launch an application that is associated with the file extension of the file. Using this approach, files such as word processing documents, spreadsheets or presentations could be archived in OnDemand and then retrieved and viewed using the Client. When the PC file is retrieved by the OnDemand Client, the appropriate PC application will be launched to display the PC file.

In order to archive and retrieve User Defined data, a report definition must be created with a report type of ANYS, a data type of *IFS and an object type of 255 (User Defined). In addition, a record must be added to the QARLRAPP file as

shown below which defines the file extension for the IFS file. The PC file extension is sent to the OnDemand Client when the file is retrieved and it is the extension which determines which PC application will be launched to display the file.

Setting The PC File Extension to Launch a PC Application

Here are the instructions to set your own extension values.

1. Create a source physical file by issuing CRTSRCPF FILE(QGPL/APPSRC). **Note:** This file must be in library QGPL.
2. Add a member to this file using the name of the report definition as the member name. You can use SEU to add the member and edit it. The type of member does not matter, but it is best to describe it as TXT so that no syntax checking will be done. The contents of this member will be described later.
3. Edit the member and specify the file extension you want to set. See the sample below for what can be specified in this member.
4. Run the QRLGBLDA program specifying the report definition name (all upper case characters) as the first parameter and the version number of the report definition as the second parameter. Because the version number is numeric, you **must** enclose the value in apostrophes. Running this program will add a record to the QARLRAPP file to define the file extension to OnDemand.

For example, to set the file extension for version 01 of the WORDDOCS report definition, you would create a member called WORDDOCS in the APPSRC file in library QGPL. After editing it with the data you want, you would then call the QRLGBLDA program as follows:

```
CALL QRDARS/QRLGBLDA PARM(WORDDOCS '01')
```

The contents of the member in the APPSRC file in library QGPL could look like this:

```
[@_FIXED_@]

* An * in column 1 makes the record a comment record LRECL=133

RECFM=F

CC=ANSI

CDPG=37

EXTENSION=DOC
```

Each parameter must be on a separate line as shown. The lines **must not** be changed, with the exception of the code page (CDPG) value if your iSeries code page is not 37 (US English).

The [@_FIXED_@] must be entered exactly as shown. On many PCs, you may have to change the keyboard mapping for the terminal emulator to get the square brackets (even though square brackets are shown on the keyboard itself). If the square brackets don't show on the screen then they are probably not the right character.

Using the AnyStore APIs to Archive User-Defined Data

To archive the PC files into OnDemand, use the AnyStore APIs described in this chapter. Then simply follow the steps described in "Setting The PC File Extension to Launch a PC Application" on page 184 to define the file extension to OnDemand.

Hints and Tips for AnyStore

This section includes information on AnyStore hints and tips for implementation.

- IBM highly recommends that your AnyStore programs that call the **Store** API be written so that you perform one **open** of a specific AnyStore report name. Perform multiple **store**s for that report name, then one **close** of the report name. This saves time (performing multiple opens takes considerably more time than performing just one). It also saves space (creating one physical object with separately retrievable pieces rather than creating multiple physical objects). Finally, it saves I/O (when OnDemand migrates the data to optical or tape). Even when using the recommended approach, each individual piece (that is known as a **segment** to OnDemand) is separately retrievable. This is due to the method in which OnDemand can locate small pieces within the complete physical object.

Chapter 5. Using the OnDemand Client/Server Feature

Note: If you have installed the Server feature, be sure to read and follow the instructions in the *License Management Notice* documentation. The documentation is attached to your software order packing list. These instructions describe how to set the number of licensed users for the Server feature.

Configuring the OnDemand Server

Review System Values

There are two OS/400 system values you should check before using the OnDemand client/server software.

- The Client will time out (and end-users will have to log back on) based on the **QINACTITV** system value. Before changing this value, you should check to see how the change might affect other users.
- Ensure that the system value **QUTCOFFSET** matches the correct value for your time zone. For the Eastern Standard Time zone in the U.S., for example, set this value to **-5:00**. (You should end your OnDemand server jobs, change this system value, then start your server jobs again. Failure to end the server jobs before setting this value could cause clients to store and display incorrect times.)

  Note: If observing daylight savings time (DST or summer time), adjust this system value each time DST starts or ends. Otherwise, the time stamps on annotations will be off by one hour. The setting for Eastern Daylight Time, for example, would be **-04:00**.

  These settings are necessary to show the correct time for annotations (notes) on the workstation. The date/time stamp that is associated with a note is communicated based on the Universal Time. The server must know what the offset is for the time zone it is in; otherwise, the potential exists for an incorrect time to display. In addition, each workstation must know the time zone in which it is located. For Windows 95, you specify this in the Time Zone tab of the DATE/TIME applet in the Windows control panel. For OS/2®, you specify this in the General tab of the TCP/IP Configuration Program (TCPCFG.EXE) that is normally located in the \tcpip\bin directory. This ensures that the date and time that are shown for a note will be the local date and time for that workstation. For example, adding a note at 10 a.m. Eastern Standard Time would indicate 8 a.m. for a co-worker that reads it in the Mountain Standard Time zone.

Controlling the Run Priority of the Server Jobs

The run priority of the server jobs (**QRLGMGR** and **QRLGSVR**) is by default set by the ***ANY** routing entry in subsystem **QSYSWRK**. Normally this defaults to 50 (it depends on the class that is specified for the ***ANY** routing entry in subsystem **QSYSWRK**). If you wish to change this, you need to add a routing entry to the **QSYSWRK** subsystem description as follows:

```
ADDRTGE SBSD(QSYS/QSYSWRK) SEQNBR(nnnn) CMPVAL('QRLGSVR') +
        PGM(QSYS/QCMD) CLS(class)
```

Where nnnn is an unused routing sequence number in the QSYSWRK subsystem and class is the name of a class that contains the attributes you want to use. The system ships with the following classes that you might consider using:

QSYS/QSYSCLS25 Run priority of 25

QSYS/QSYSCLS35 Run priority of 35

If you want to specify a different run priority, for example 45, then you need to create your own class. An example command that does this is:

```
CRTCLS CLS(QGPL/ONDSVR45) RUNPTY(45) TIMESLICE(2000) +
       PURGE(*YES) DFTWAIT(30) CPUTIME(*NOMAX) +
       MAXTMPSTG(*NOMAX) +
       TEXT('OnDemand Server class to run at priority 45')
```

After creating the class, specify it as the class name in the routing entry for **QRLGSVR** in subsystem **QSYSWRK**.

Changing the Port the Server Job Uses

By default the server job listens for client requests on port 1445. Normally this will work fine. It is possible that another application is using this port. If this happens, you can change the port that the OnDemand Server uses by running the following CL command:

```
ADDSRVTBLE SERVICE(ONDEMAND) PORT(nnn) PROTOCOL(TCP)
           TEXT('OnDemand Server')
    where nnn is an unused port on the system.
```

Note: The name of the service is case sensitive so be sure it is all uppercase.

You can see the ports already assigned by issuing the **WRKSRVTBLE** command. If you change the port the server uses, you must also change the Client to use the same port.

Changing the Number of Prestarted Server Jobs

When you start the server jobs (see "Starting the Server Jobs"), the default is for OnDemand to prestart three jobs. To prestart a different number of jobs, create a data area and set the value to the number of prestarted server jobs you require. Use the **CRTDTAARA** command. Name the data area **QRLGSVRNO** and create it in library **QUSRRDARS**. The type of the data area should be *DEC, with a Length of 2 and with 0 Decimal positions. Set the data area's initial value to the number of prestarted jobs you require.

Starting the Server Jobs

Start the server jobs by issuing the following command: **STRTCPSVR SERVER(*ONDMD)**. If you have iSeries Access installed on your workstation, you can also start the server jobs by using iSeries Navigator. Start at Network, then go to Servers, then go to TCP/IP. Right-click on the OnDemand server and request to start it.

This call starts a manager job and three server jobs that run in subsystem **QSYSWRK**. This places the three server jobs in a wait state. The jobs then wait for a client to log on. On receiving a client logon request, the manager starts another server job to replace the server that is now working with a client. The manager job tries to keep three server jobs ready to receive client logon requests. Starting a

server job does take some time and resources. These three extra server jobs that have been prestarted make it possible to respond quicker to a client's log on request.

You can automatically start these server jobs when TCP/IP starts on the system by using iSeries Navigator. When running iSeries Navigator start at Network, then go to Servers, then go to TCP/IP. Right-click on the OnDemand server and select Properties. In the OnDemand Properties window, under the General tab checkmark the property Start when TCP/IP starts.

Ending the Server Jobs

You can end all OnDemand servers by issuing the following command: **ENDTCPSVR SERVER(*ONDMD)**. If you have iSeries Access installed on your workstation, you can also end the server jobs by using iSeries Navigator. Start at Network, then go to Servers, then go to TCP/IP. Right-click on the OnDemand server and request to end it.

This ends all ready servers, but will not end the server jobs that are already servicing clients. When the client logs off, the server for that client will end.

Host Print Overview

This section provides instructions to configure and use OnDemand for iSeries Host Print from the OnDemand Client. OnDemand Client level 2.2.0.14 or higher is required on the workstation.

Host Print is the printing of a document from the OnDemand Client using the printers or facsimile support on the iSeries. The data is not transferred to the client but is totally processed by the OnDemand Server running on the host iSeries. The printing is done synchronously to the request so when the client finishes the request the documents have been placed in the output queue specified. All Host Printing is spooled and so it always uses output queues on the iSeries. The spooled output is owned by you (so you may find it using WRKSPLF) and always has the spooled file user data set to QRLRPSEG.

If you specify a printer file in the report definition and the printer file has a form type specified, OnDemand will spool the reprint with the form type from the printer file. The printer file is specified on the Retrieval tab of the report definition when using iSeries Navigator, or in the Environment section of the report definition when using 'green screen.

The Host Print function will be active and available to all OnDemand Client users unless you take action to disable it.

Configuring host print

The host printer names shown in the Print window when Server Printer is selected are based on the contents of file QARLRPRT in library QUSRRDARS. When Host Print support is installed, six entries are automatically added to the QARLRPRT file. Table 3 on page 190 describes these entries and their meanings.

Table 3. Host printer names

Printer	Description
*ONDEMAND	This is the default printer for all users. This causes the server to use the OnDemand Profile data area to determine which iSeries output queue is used for the output. You may change the output queue at any time by using option 31 on the RDARSRPT menu on the iSeries. If both the Printer name and Output Queue name are specified in the Profile, the Output Queue name is used. If only the Printer name is specified, the Output Queue name in the library list with the same name as the Printer name is used. An error is returned if neither is specified.
*USRPRF	Use the output queue specified in your user profile.
*JOB	Use the output queue of the OnDemand Server job.
*SYSVAL	Use the output queue of the same name as the device specified in the system value QPRTDEV.
*FAX(*NORMAL)	Send this as a Fax in *NORMAL mode. When normal mode is used the resolution of the fax is 203 dots per inch in the horizontal direction by 98 dots per inch in the vertical direction. Normal mode uses less transmission time than fine mode.
*FAX(*FINE)	Send this as a Fax in *FINE mode. When fine mode is used the resolution of the fax is 203 dots per inch in the horizontal direction by 196 dots per inch in the vertical direction. Fine mode produces a better quality fax than normal mode.

You can also add specific output queues to this file using DFU or another data entry program. Entries that you add this way are shown in the Print window on the client in the form of QUEUELIB/QUEUE. Table 4 describes the fields in this file:

Table 4. Output queues

Field	Description
PID	This is an internal printer ID number. This must be unique within the file and can be any positive number that is not already used.

Table 4. Output queues (continued)

Field	Description
NAME	This is the name of an authorization list (in uppercase) that specifies who can see this printer in the list of printers on the server. If this field is blank or the first character in this field is an asterisk (*), this output queue will be listed for every user. If the field contains anything else, it is assumed to be the name of an authorization list that controls who can see this entry in the pull-down list on the client.
DESC	This is a 50 character description of the printer. The client never shows this description so you can leave it blank if you wish.
QUEUE	The 10 character name of the output queue (in uppercase). If a user is not authorized to use this output queue name (as defined by the authorization list specified in the name field) it will not show up in the list of printers on the client for that user. All of the valid special values that can be entered for this field are automatically added when the Host Print support is installed. Unless you have deleted these records, you should never have to enter any special values for this field.
QUEUELIB	The 10 character name of the library (in uppercase) where the output queue is located. You can specify the special values of *LIBL or *CURLIB for this field.
TYPE	This is a 1 character field that indicates the type of printer this is. A value of 'P' indicates this is an Output Queue and 'F' indicates that it is a Fax device. Note that these values must be in uppercase.

The example DFU screen below shows the addition of a new printer to the Host Print list. In this example the authorization list ONDPRT will be used to determine which users have access to this output queue through Host Print (see Figure 217 on page 192).

```
WORK WITH DATA IN A FILE.                                    Mode. . . . :  ENTRY
Format . . . . :   PRTREC                                    File . . . . : QARLRPRT
Printer ID:                    7
Printer Name:          ONDPRT
Printer Desc:          OnDemand Network Printer
Printer Queue:         OND4312
Printer Queue Library: *LIBL
Printer Type:          P









F3=Exit                F5=Refresh              F6=Select format
F9=Insert              F10=Entry               F11=Change
```

Figure 217. Adding a Host Print File Entry

Using host print

When you choose to print a document, the Print window is displayed which allows you to select either a Local Printer or a Server Printer (see Figure 218 on page 193).

Note: the Server Printer will be grayed out if no server printers are available for this user. This is determined by the contents of file QARLRPRT in library QUSRRDARS and the user's authority to the specific output queues named in this file through the use of authorization lists.

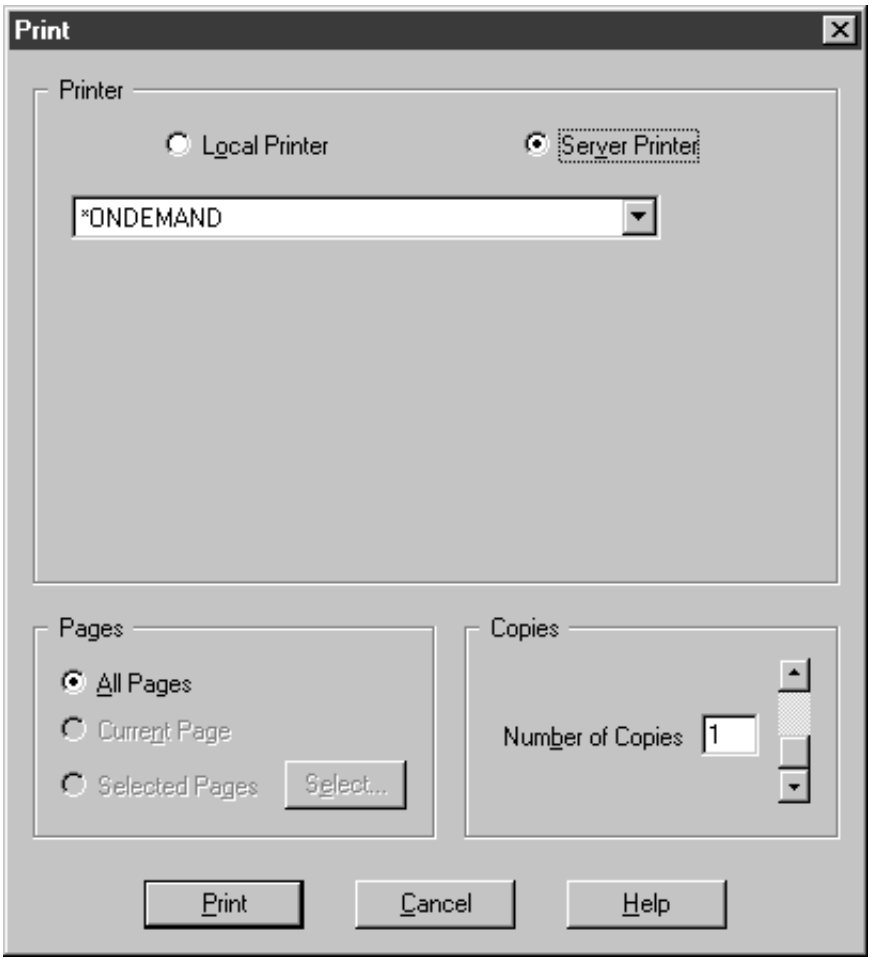

Figure 218. OnDemand Client Print Dialog

If you choose to Print the document this is the only window you will see. You may choose different values for the printer by selecting from the drop down list.

Note: the list of printers is sorted in alphabetical order in the drop down list so you will have to scroll up to find the Fax printers

The special values shown (such as *ONDEMAND) are described above in the Configuring Host Print section. Specify the number of copies you want printed and click on the Print button to process the Host Print request.

If you choose to Fax the document (by choosing either *FAX(*NORMAL) or *FAX(*FINE) as the Server Printer), the Send Fax window opens up when you click on the Print button (see Figure 219 on page 194).

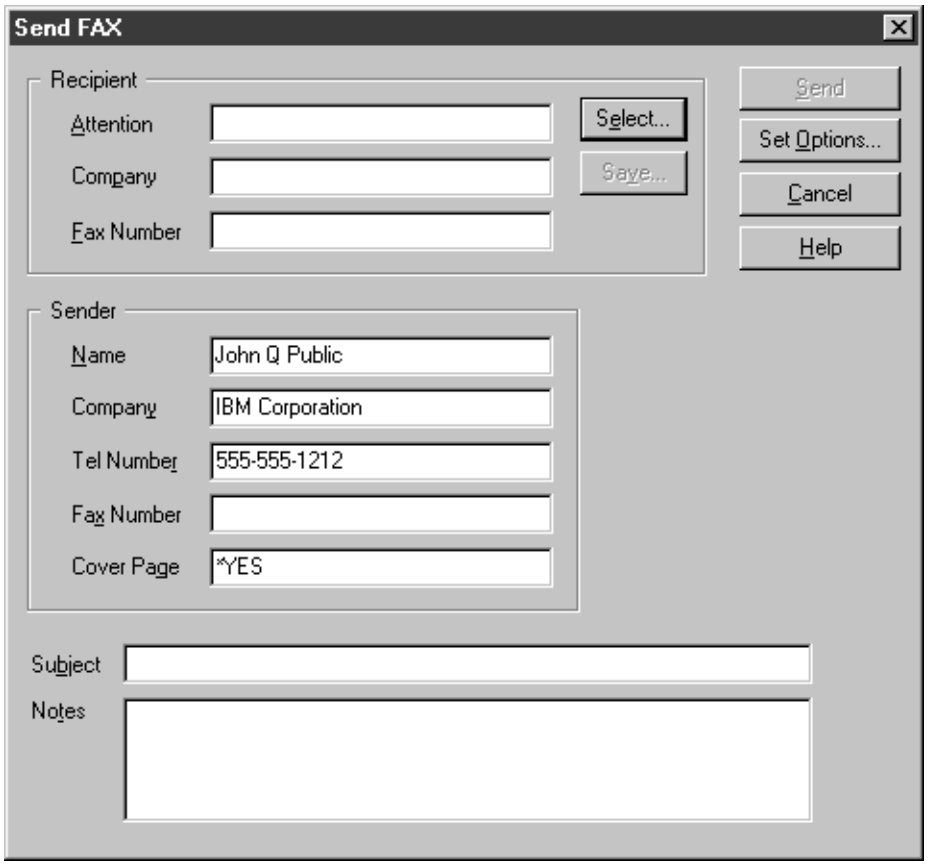

Figure 219. Host Print Send Fax Dialog

The Send Fax window allows you to specify the Fax Number of the Recipient and the contents of the Cover Page if you are sending one. If Cover Page is set to *NO, only the Fax Number of the Recipient is used. If Cover Page is set to *YES you can either enter in the Recipient information or Select... from previously saved information. When you enter the Fax Number of the Recipient, the Save button will become active so that you can save this information for future use. When you click on Save, the Save Recipient Information window opens so you can name this recipient (see Figure 220).

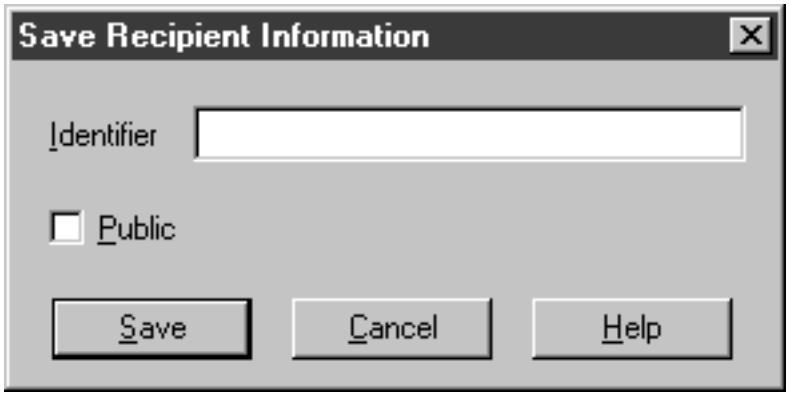

Figure 220. Host Print Save Recipient Dialog

Type in the Identifier field the name you want to use to identify this recipient in the future. This identifier is case sensitive and may contain blanks. If you check the

Public box then all users will be able to see this recipient. If it is not checked, then only you will see this recipient when you click on Select in the Send Fax window. Click on Save to actually save this recipient information for future use. If you choose an identifier that already exists, you will be asked if you want to replace it (see Figure 221).

Figure 221. Host Print Save Recipient Confirmation

Rather than entering the Recipient information every time in the Send Fax window, you may Select... from previously saved Recipient information. When you click on Select..., the Select Recipient Information window opens (see Figure 222).

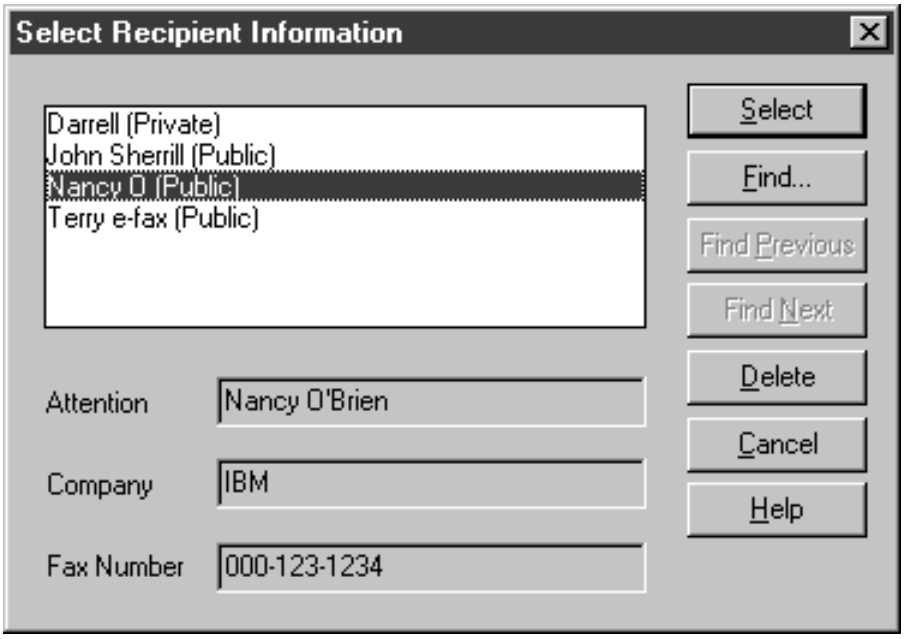

Figure 222. Host Print Select Recipient Dialog

This window displays a list of previously saved recipients. Click on the one you wish to use and then click on Select to close the window and copy the information to the Recipient information in the Send Fax window.

The Sender information in the Send Fax window defaults to the values in your OnDemand Profile data area (QUSRRDARS/UserProfileName) at the time you sign-on to OnDemand. The Sender information is only used if you specify *YES for the Cover Page. If you change any of this information by typing over it in this window it changes the values in the OnDemand Profile data area but not the default values during this current sign-on. If you wish to immediately update the default Sender information or the Cover Page value, you can do that by clicking on the Set Options... button. This is described in more detail below.

The Subject and Notes fields never default to anything so you must enter what you want here every time you send a Fax. Both the Subject and Notes fields only use the first 40 characters that you enter (due to limitations of the iSeries Fax support).

Click on Send to have the server process this Fax request. The standard OnDemand interface to iSeries Fax support (program QRLRSFAX) is used to process the Fax request.

If you click on the Set Options... button in the Send Fax window, the FAX options window opens (see Figure 223).

Figure 223. Host Print Fax Options Dialog

The Initialize information from database checkbox is currently not supported and should not be checked. The User Information is where you can immediately update the Sender information that the client uses as the defaults in the Send Fax window. It also updates this information in your OnDemand Profile data area.

There are three lines of sender information that are included on the cover page of the fax. Each of these lines may be up to forty characters long and consists of the data in the Name field, Company field and Tel Number field respectively.

The Cover Page value of *YES or *NO is also stored in your OnDemand Profile. The Fax Number field is not used on the cover page and is not retained in the OnDemand Profile. Click OK to update your OnDemand Profile.

Disabling host print

The Host Print function can be disabled by setting the type field in all the records in file QUSRRDARS/QARLRPRT to any value other than 'P' or 'F'.

You can selectively disable the six special value printer names in QUSRRDARS/QARLRPRT by specifying the name of an authorization list in the NAME field of the record with the special value printer name. For instance, you can control who will see the *FAX(*NORMAL) choice by creating an authorization list called HOSTFAX and entering the value HOSTFAX in the NAME field of the record in QUSRRDARS/QARLRPRT with *FAX in the QUEUE field and *NORMAL in the QUEUELIB field. You can control which users will see that fax capability by giving those users *READ or *USE authority in the authorization list and all others *EXCLUDE. You may use *PUBLIC or specific user profiles to do this.

Additional Client/Server Topics

Review this section for additional information on the OnDemand client/server feature.

- For all reports with a report data type of ***OTHER**, the data that was previously archived by OnDemand - R/DARS is available to the OnDemand Client.
- To show fully-resolved AFP (Advanced Function Presentation) data, the command (**STRCDSRDAR**) must store the AFP resources with the report. This is true for all reports with a report data type of ***LINE**, ***AFPDS**, or ***AFPDSLINE**. This is because the OnDemand Client needs to have the AFP resources sent to it when you view the document. Having the resources already present on the workstation is not sufficient; the server must send them. Previously, OnDemand - R/DARS did not save the actual AFP resource objects, and therefore there are no resources that are sent. Starting with V4R2 (or with PTF SF43278 for V3R2 or SF43212 for V3R7) and after, the **STRCDSRDAR** command stores the AFP resources with the report. For previously stored reports, the textual data displays. (You will receive messages on the Client that you can ignore for AFP resources that are not sent.)
- You can define a report of data type ***OTHER** that has an associated AFP overlay so that the data appears in the Client viewer *with* the overlay applied. (Without completing the following setup steps, the data portion displays without the overlay applied.)

  To enable this function, you must do the following:

  1. Use iSeries Navigator's OnDemand Administration interface to check the **Use archived AFP overlays when viewing or printing locally using the client viewer** check box on the Retrieval tab.
  2. Specify a printer file (that has the name of the overlays specified in it) in the Report Definition.
  3. Store the report by using a spooled file - not a database file that you have created by using the CPYSPLF command. (This means that the FILE parameter on the **STRCDSRDAR** command must specify *SPLF, or you must use the output queue monitor to store your reports.)

  Note that there are a number of items to consider when enabling this function:

  – When enabled, the OnDemand Client viewer will no longer support logical views (columns) for that version of the Report Definition. After you enable this function, you cannot use logical views to rearrange or hide columns of data for this report.
  – You will only see overlay for reports stored after OnDemand started storing the overlay resource. Resources for *OTHER data began to be stored when the following PTFs or their supersedes were applied:
    - V3R2 - SF43277

- V3R7 - SF43211
- V4R2 and beyond - in the base code

These PTFS were made available in September 1997. The specific documents that display with their overlay depends on one of the following conditions:

- When you loaded and applied these PTFs.
- When you installed V4R2 or later on your system.

– The Client viewer will show the document without the overlay if any of the following items is true:
  - The system stored the report before OnDemand began to store overlay resources. (See previous item.)
  - The Report Definition does not have a specified printer file.
  - The Report Definition does not have a specified overlay in the printer file.
  - The system stored the report by using a database file as the input rather than a spooled file.
– This function retrieves and converts the document from line data to AFPDS. Although this does not take a lot of time, it does take system resources. Use this function only when needed.
– The name of the overlay specified in the printer file must match the name of the overlay specified in the spooled file that was stored.
– The overlay you see (or print locally) from the Client is the originally stored document overlay.
– This function does not change how things work on the iSeries from the 5250 screen. The function uses the overlay that is currently defined in the printer file of the Report Definition to print the document on the iSeries from the 5250 screen.
– If you print the document on a local printer from the Client viewer, it does not need to be an AFP printer.
– To use of the viewer user exit to specify a different viewer, the specified viewer must process AFP data streams for this Report Definition.

- For reports within a report group, you can have the Client folder list show the report group name *and* the individual report names within the group. Click on the **Show report in folder list** check box by using iSeries Navigator's OnDemand Administration function. If, instead, you would like the Client folder list to show *only* the report group name, make sure the check box is not checked.
- To change the default date range for a specific report, use iSeries Navigator's OnDemand Administration to specify **Default date search range** information. You can specify the number of days, months, or years for the date range, and whether the default applies forward or backward in time. If you do not define a default date range in this way, then the Client assumes a 30-day default date range.
- For ***OTHER** report types with overprint (overstrike) characters, you can cause the Server to combine the overprinting lines with their previous lines in the data. (Overprint lines have a carriage control character of '+' in the first position of the print data.) Choose the **Merge overprinted lines** check box by using iSeries Navigator's OnDemand Administration. This enables the Server to take any lines with a '+' in column 1 and copy them, character by character, to the previous line. (The server copies the character only when the character in the previous line is a blank or underscore character.) This preserves the line spacing of the original document when viewed or printed by the Client. This will not cause text to be bolded or underlined when viewed or printed by the Client.

- To enable the e-mail function in the OnDemand Client, you must have Messaging for Windows and have a registered MAPI mail product. You can either select the Send function from the File option on the menu bar or customize the toolbar with the Send icon. You can select to send the segment as an attachment or embed it in the body of your e-mail message. Your registered MAPI mail product will open a send message window and allow you to address and send the e-mail message.
- Workstation files such as word processing documents or spreadsheets can be archived in OnDemand and retrieved using the OnDemand Client. When the data is archived in OnDemand as ″user-defined″ data, the Client will automatically launch the appropriate workstation application based on the file extension of the retrieved file. This support is enabled by storing the workstation file with AnyStore, and then creating the AnyStore report definition with iSeries Navigator, specifying report type ANYS, data type IFS, and Object Class ″user-defined.″
- Generally, information that is retrieved from the server is kept by the Client. This information does not update on the Client until you logoff and log back on. The two major exceptions to this are the hitlist and the actual documents. They update when you do a search or when you view a document from the hitlist.

  A few examples where information is not updated:

  – The list of folders is determined when you log on. By defining a new report to OnDemand for iSeries, you will not see it until the next time you log on.
  – The attributes for a folder are determined when you open the folder for the first time during a logon session. Even if you close the folder and reopen it, the information does not update until you logoff and log back on. This is important for you to know when you are using the OnDemand Archive plug-in for iSeries Navigator and are trying to verify changes by using the Client. The Client will only see changes made by the OnDemand Archive plug-in for iSeries Navigator after you logoff and log back on.
- The OnDemand Client user has no visibility to the *location* of the data that you select for retrieval. If the data resides on optical or tape, retrieval times will simply be a bit longer.
- The OnDemand server never searches **indexes** that are on optical or tape. This is because you do not select a specific report date before you specify the search value. Therefore the server does not know which set of index records to retrieve before doing the search. For this reason, you do not want to archive your index records to optical or tape if your end-users are using the OnDemand Client. (Review your OnDemand Report Policy definitions to determine if you are archiving index records to optical or tape).
- Logical view support is not available for reports of data type ***AFPDS**, ***AFPDSLINE**, or ***SCS**.
- OnDemand character-based report overlays are not supported by the Client. Typically the character-based overlay lines that are created for nonprogrammable terminal users as defined by using Work with Report Overlays on the Report Administration Menu.
- The characters **IP** in the first two positions of the Workstation ID field identify Client activity. The system logs this activity in the OnDemand audit file (**QARLRAUDIT** in library **QUSRRDARS**).

Problem Determination

Use this section to assist in problem analysis for the OnDemand Client or server programs.

- Any serious errors should cause a joblog to be produced. The joblog is a vital part of the information that is needed by your software service provider to determine what happened to cause the error. Always save the joblog when you have a problem.
- The message ″Connection cannot be established for the server,″ indicates one of many things that may need attention.

  If this message occurs at logon, then perhaps one of the following conditions exists.

  – A server job is not active.

    Issue **WRKACTJOB JOB(QRLG*)** from the OS/400 command line. There should be one job that is named **QRLGMGR** with the normal status of **DEQW**. There should be three or more jobs that are named **QRLGSVR** in either **DEQW** or **SELW** status. There should always be at least one job in **SELW** status as it is the job that is waiting for a client to request a logon. Once you have logged on a client, its job will also be in one of two states of operation:

    - **SELW** when it is waiting on the client.
    - **RUN** when it is serving the client.

    If these jobs are not active, you should start the servers by issuing the following command: **STRTCPSVR *ONDMD**.

  – Communication line problem

    Issue **PING** from either the OS/400 command line or the workstation to see if you can communicate with the other machine. The format of the command is **PING n.n.n.n.** where **n.n.n.n.** is the TCP/IP address of the machine you are trying to reach (either the client if on the server or the server if on the client).

  – TCP/IP is not active on the server

    Issue **WRKTCPSTS OPTION(*IFC)** from the OS/400 command line. Look at the line that has a line description (not ***LOOPBACK**) to see what the interface status is. It should show **ACTIVE**. If it is **INACTIVE**, issue a **STRTCP** command on the OS/400 command line. If it shows some other status, see the Help text for the interface status field for suggested actions.

  – The TCP/IP address for the server is wrong

    Issue **WRKTCPSTS OPTION(*IFC)** from the OS/400 command line. Look at the line that has a line description (not ***LOOPBACK**) to see what the IP address is for the iSeries. Check that it matches the address that is specified on the Client.

  If this message occurs after logging on, one of the following conditions exists:

  – The server job has ended.

    If the server job has ended, there should be a joblog for it. You can find the joblog by issuing **WRKSPLF SELECT(QRDARS400)** from the OS/400 command line. Then press **F18** to go to the bottom of the list to find the last joblog. You should see a spooled file named **QPJOBLOG** for user **QRDARS400** with user data of **QRLGSVR**. If you cannot find it, make sure that it has not printed. If it has not printed and it appears on the list, choose option 5 to display it. Then look at the messages in the joblog. You should see message **RDR2701** that shows who signed on to this server job. You can use that information to help determine that this is the correct joblog. Look through the joblog for other messages that might indicate why the server ended. In some cases, you may have to contact your software service provider for assistance.

  – Communication line error

Check to see if there are any errors that are logged for the communication line that you are using. Log off the Client and see if you can now log back on. Caution: This will also work when the server job ended abnormally, but it does not really solve the problem. Always check to see if the server job ended before assuming that there was a communication error.

- A message ″User ID or Password is not valid for the server″, indicates that any of the following could have occurred:
  - The password expired.

    If the password for the user has expired, you cannot log on, and the Client displays this message. Go to the iSeries and change your password during the sign-on process or work with your security administrator to take care of the expired password. If your password has not yet expired, you can change your password from the Client by selecting **File** and then **Change Logon Password**.
  - User ID is not valid
  - Password is incorrect
  - You tried to logon to the wrong server or an incorrect TCP/IP address
- The message ″The server failed while accessing folder data″ during logon indicates that the user attempting to logon has no authorization for OnDemand archive access. Correct this by accessing the OnDemand Report Administration Menu on the iSeries. Then add the user by using option 10 to Edit/Authorize OnDemand Users.
- The message ″No folders are available on the server″ after a successful logon indicates that one of following conditions exists:
  - The user does not have authorization to any report names (folders).
  - The user does have authorization to some report names (folders), but no archived (stored) spooled files exist for any of them.
- In order for your iSeries data to appear with similar fonts in your Client, you may need to map the fonts to fonts that display on you workstation. This is especially true if you use fonts in your AFP documents other than the ones that are listed below.
  - IBM Core Interchange (Latin only)
  - Compatibility.
  - Coordinated.
  - Sonoran.
  - Data fonts.

  For more information about mapping fonts, refer to the OnDemand Client online help.
- To locate the correct server job for a particular user, look at the joblogs for the server jobs. Each server places a message in the joblog that identifies the logged on user.

Chapter 6. Using the OnDemand Media Administration Menu

You can use the selections in this group of screens to manage your tape and optical media. With them, you choose how and where to place your archives and backups, establish capacity thresholds and space reuse policies, and work with storage groups that let you store data on one or more sets of optical volumes.

Optical and Tape Media Management

One of the benefits of using OnDemand for your data archives is that you never have to specify a particular optical volume or tape volume when storing or retrieving your data. OnDemand manages this for you. You define a policy for your reports or objects that have similar storage requirements (how long to keep and where). Each policy then refers to a group of optical or tape volumes that can be used for that policy. For optical volumes, this group is called a storage group. For tape, the grouping is done by media type which is a physical characteristic of the tape media itself.

For instance, when you store a report, the report's definition is checked to determine which policy to use. The report policy in turn is used to find the optical storage group and/or tape media family it should use. The actual optical volume used within the storage group is the volume that has the smallest amount of space available on it and is not yet marked **full**. This is done so that once OnDemand starts to use a volume, it will continue to use that volume until it is full. The actual tape volume is chosen from the volumes available of that media type, selecting the tape with the smallest number of bytes available on it that is not yet marked **full**.

When storing data, the media used by each OnDemand feature is determined as follows:

For Spool File Archive
: The report definition specifies a report policy which points to the optical storage group and tape media type to use.

For Object Archive
: The object control table entry specifies an object policy which points to the optical storage group and tape media type to use.

For Record Archive
: The file creation commands require you to specify the optical storage group to use.

For AnyStore
: The report definition specifies a report policy which points to the optical storage group and tape media type for use.

The OnDemand administrator must ensure that there are optical volumes and tape volumes that identifies the available space in the OnDemand inventory tables. Accomplish these and other media-related functions using the menu options or commands that are described in this chapter.

Once data has been written to optical or to tape, OnDemand knows where it placed the data so you do not have to specify the volumes where the data is located.

To Access the Media Administration Menu, you can:

- Type **4** on the OnDemand for iSeries Main Menu command line, Figure 224.
- Or, use the ***Fast-Path*** command:

  GO RDARSM

  on the OS/400 command line, for direct access to Figure 225.

```
ONDEMAND                    OnDemand for iSeries
                                                          System:   ONDMD400
Select one of the following:

     1. Report Administration Menu
     2. Object Administration Menu
     3. Record Archive Menu
     4. Media Administration Menu

    90. Signoff









Selection or command
===>4_____________________________________________________________________
_____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 224. OnDemand for iSeries Main Menu

```
RDARSM                 OnDemand Media Administration Menu
                                                        System:   ONDMD400
Select one of the following:

     1. Work with Tape Devices
     2. Work with Tape Volumes

    10. Work with Storage Groups
    11. Work with Optical Volumes

    20. Optical Support Menu
    21. Work with Communications Side Information (LAN Attached Optical Only)

    40. OnDemand Main Menu

    51. Reset Optical
    52. Reset Tape

Selection or command
===> ______________________________________________________________________
_____________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F16=System Main Menu
(C) Copyright IBM Corp. 1992, 2000. All Rights Reserved.
```

Figure 225. OnDemand Media Administration Menu

Option 1. Work with Tape Devices

Use this option to add, change, remove, or display a tape device. If you prefer to use a graphical user interface for this function, you can use iSeries Navigator instead.

To Add a Tape Device

[1]If you use tape media, you must indicate which tape devices that OnDemand can use. When you select this option, the first screen, Figure 226, appears.

```
                    Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPDEV       *OPTVOL, *STGGRP, *TAPDEV...
Tape device  . . . . . . . . . .  *ALL_____     Name, generic*, *ALL...

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

Figure 226. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 227 on page 206, WORK WITH TAPE DEVICES. A list of devices and their descriptions appears.

1. If you use BRMS for tape management, you do not need to add anything here; OnDemand uses information in the policy definition to link to BRMS.

```
                    Work with Tape Devices                          ONDMD400
                                                                  1/24/98   9:24:17

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device      Media   Text
 1  TAP05____
    TAP01       QIC
    TAP02       QIC     Quarter-inch cartridge
    TAP06       HIC     This device has a cartridge loader

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

Figure 227. Work with Tape Devices

Press **Enter** to continue to Figure 228.

```
                      Add Tape Device                               ONDMD400
                                                                  1/24/98   9:24:26
Type choices, press Enter.


  Tape device . . . . . .   TAP05         Name

  Media supported . . . .   Read          Write
                            *REEL____     *REEL____
                            ________      ________
                            ________      ________
                            ________      ________
  Automatic cartridge
    loader capacity . . .     0           1-99, 0=Not installed
  Media library . . . . .     __________  Name
  Text  . . . . . . . . .   Standard Reel Tape Device____________________
________


F3=Exit   F12=Cancel
```

Figure 228. Add Tape Device

Describe the iSeries tape drive.[2]

Press **Enter** to add the tape device information. Figure 229 on page 207 appears.

2. If you are using BRMS for tape management, do not add anything to this screen.

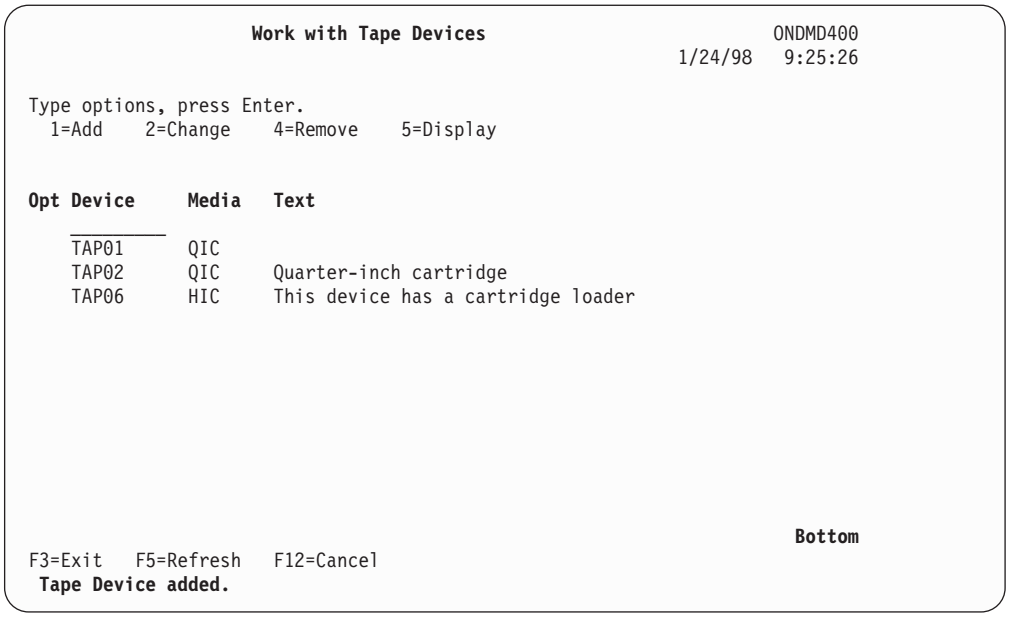

Figure 229. Work with Tape Devices

Press **F5** to display your addition.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Change Tape Device Characteristics

To change the characteristics of a tape device that is currently in the tape device file, select option 2, WORK WITH TAPE DEVICES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 230 appears.

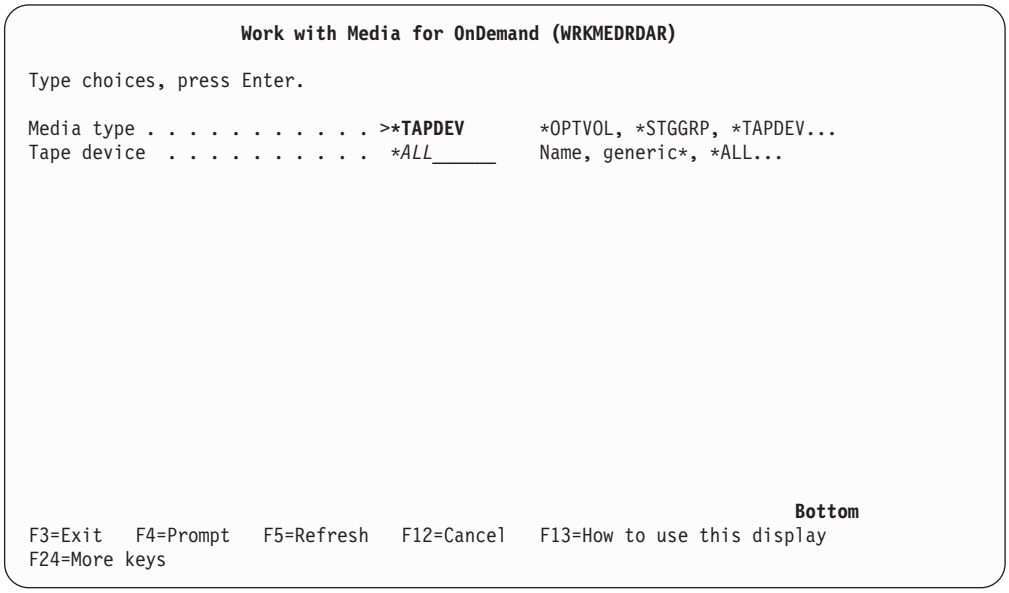

Figure 230. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 231 on page 208.

```
                    Work with Tape Devices                          ONDMD400
                                                                  1/24/98   9:25:30

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device     Media   Text

   _______
   TAP01       QIC
 2 TAP02       QIC     Quarter-inch cartridge
   TAP05       REEL    Standard Reel Tape Device
   TAP06       HIC     This device has a cartridge loader

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

Figure 231. Work with Tape Devices

Press **Enter** to move to Figure 232, which shows the characteristics of the tape device you want to change.

```
                    Change Tape Devices                             ONDMD400
                                                                  1/24/98   9:26:03
Tape device . . . . . . . . . . :  TAP02

Type choices, press Enter.

  Media supported . . . . . . . .  Read          Write
                                   *QIC525__     *QIC525__
                                   *QIC1000_     *QIC1000_
                                   *QIC2GB__     *QIC2GB__
                                    ________      ________
  Automatic cartridge
    loader capacity . . . . . .     0           1-99, 0=Not installed
  Media library . . . . . . . .    _________    Name
  Text  . . . . . . . . . . . .   Quarter-inch cartridge_____________________
_________

F3=Exit   F12=Cancel
```

Figure 232. Change Tape Devices

You can change the fields by typing new information over what is displayed.

Press **Enter** to save your changes. Figure 233 on page 209 appears.

```
                    Work with Tape Devices                          ONDMD400
                                                                  1/24/98   9:26:25

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device     Media   Text
   _________
   TAP01       QIC
   TAP02       QIC     Quarter-inch cartridge
   TAP05       REEL    Standard Reel Tape Device
   TAP06       HIC     This device has a cartridge loader

                                                                       Bottom
F3=Exit   F5=Refresh   F12=Cancel
 Tape Device changed.
```

Figure 233. Work with Tape Devices

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Remove a Tape Device

To remove a tape device that is currently in your tape device file, select option 1, WORK WITH TAPE DEVICES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 234 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPDEV       *OPTVOL, *STGGRP, *TAPDEV...
Tape device  . . . . . . . . . .  *ALL_____      Name, generic*, *ALL...

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

Figure 234. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 235 on page 210.

```
                    Work with Tape Devices                          ONDMD400
                                                                  1/24/98   9:26:37

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device     Media   Text

    _______
    TAP01      QIC
    TAP05      REEL    Standard Reel Tape Device
    TAP06      HIC     This device has a cartridge loader
 4  TAP99      REEL    Test

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

Figure 235. Work with Tape Devices

Press **Enter** to continue to Figure 236.

```
                        Confirm Removal of Tape Device              ONDMD400
                                                                  1/03/98  12:59:28
Press Enter to confirm your choice for 4=Remove.
Press F12=Cancel to return to change your choices.

Tape device . . . . . :  TAP99

  Media supported . . . . . :    Read        Write
                                 *REEL       *REEL



  Automatic cartridge
    loader capacity . . . . . :     0
  Media library . . . . . :
  Text  . . . . . :   Test




F12=Cancel
```

Figure 236. Confirm Removal of Tape Device

OnDemand shows you the tape device you have selected to remove.

If you entered the wrong data, you can change your entry by pressing **F12** to return to the previous screen. Type the correct device and press **Enter**.

If your entry is correct, press **Enter**.

The message in Figure 237 on page 211 confirms that the tape device was removed.

```
                    Work with Tape Devices                          ONDMD400
                                                                 1/03/98  12:59:32

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device     Media   Text
     _______
    TAP01      QIC
    TAP05      REEL    Standard Reel Tape Device
    TAP06      HIC     This device has a cartridge loader
    TAP99      REEL    Test

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Cancel
Tape device removed.
```

Figure 237. Work with Tape Devices

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Display the Tape Devices

To display a tape device that is currently in your tape device file, select option 1, WORK WITH TAPE DEVICES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 238 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPDEV       *OPTVOL, *STGGRP, *TAPDEV...
Tape device  . . . . . . . . . .  *ALL_____      Name, generic*, *ALL...

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

Figure 238. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 239 on page 212.

```
                    Work with Tape Devices                          ONDMD400
                                                                  1/24/98   9:26:37

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt Device     Media   Text

    _______
    TAP01      QIC
 5  TAP02      QIC     Quarter-inch cartridge
    TAP05      REEL    Standard Reel Tape Device
    TAP06      HIC     This device has a cartridge loader

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

Figure 239. Work with Tape Devices

Press **Enter**. Figure 240 shows you the characteristics of the tape device you selected.

```
                     Display Tape Device                            ONDMD400
                                                                  1/24/98   9:26:31
Tape device . . . . . . . . . :  TAP02

Media supported . . . . . . . :  Read        Write
                                 *QIC525     *QIC525
                                 *QIC1000    *QIC1000
                                 *QIC2GB     *QIC2GB

Automatic cartridge
  loader capacity . . . . . . :    0
Media library . . . . . . . . :
Text  . . . . . . . . . . . . :  Quarter-inch cartridge

Inuse flag  . . . . . . . . . :

                                                                       Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 240. Display Tape Device

Notice this field:

Inuse flag

If there is a value in this field when you display the tape device, it indicates that the device is in use.

If a tape backup, a tape archive, or a tape object recall is not running, a value in this field usually indicates a tape error.

To clear the flag, access the OnDemand Media Administration Menu and select "Option 52. Reset Tape" on page 238.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

Option 2. Work with Tape Volumes

Use this option to add, change, remove, or display a tape volume. If you prefer to use a graphical user interface for this function, you can use iSeries Navigator instead.[3]

When you select this option, Figure 241 appears.

```
                    Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPVOL       *OPTVOL, *STGGRP, *TAPDEV...
Tape volume  . . . . . . . . . .  *ALL_____      Identifier, generic*, *ALL...

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

Figure 241. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 242 on page 214. A list of volumes and their descriptions appears.

To Add a Tape Volume

You must add each tape volume that you want OnDemand to use.

Enter a volume ID for each initialized tape you want to use for report archives or backups.

Initialize each tape before you define it to OnDemand.

3. If you use BRMS for tape management, you do not need to add any data to this table. OnDemand uses the Policy definition to link to BRMS directly.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:35:47

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
   1     R00001
         TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

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

Figure 242. Work with Tape Volumes

Press **Enter** to continue to Figure 243 ADD TAPE VOLUME.

```
                      Add Tape Volume                               ONDMD400
                                                                  1/24/98   9:36:02
Type choices, press Enter.


  Volume  . . . . . .  R00001       Identifier
  Capacity  . . . . .  800___       Megabytes
  Media type  . . . .  *HIC800___
  Media device library  . . . . .   _________   Name

F3=Exit   F12=Cancel
```

Figure 243. Add Tape Volume

Press **Enter** to store the tape volume information and move to Figure 244 on page 215.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:36:18

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
         ______
         TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

                                                                        Bottom
F3=Exit   F5=Refresh   F12=Cancel
 Tape Volume added.
```

Figure 244. Work with Tape Volumes

To display your addition, press **F5**.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Change Tape Volume Characteristics

To change the characteristics of a tape volume in the tape volume file, select option 1, WORK WITH TAPE VOLUMES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204.

When you select this option, Figure 245, appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPVOL       *OPTVOL, *STGGRP, *TAPDEV...
Tape volume  . . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...

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

Figure 245. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 246. A list of volumes and their descriptions appears.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:36:22

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
           ______
   2     R00001   HIC    800000000
         TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

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

Figure 246. Work with Tape Volumes

Press **Enter** to continue to Figure 247

```
                    Change Tape Volumes                             ONDMD400
                                                                  1/24/98   9:36:28
Volume  . . . . . . . . . . . . . . . :  R00001

Type choices, press Enter.

  Capacity  . . . . . . . . . . . .      400        Megabytes
  Media type  . . . . . . . . . . .   *HIC400___
  Media device library  . . . . . .    _________    Name

F3=Exit   F12=Cancel
```

Figure 247. Change Tape Volumes

You can change the fields by typing new information over what is displayed.

Press **Enter** to save and confirm your changes. Figure 248 on page 217 appears.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:36:41

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
          ______
         R00001   HIC    400000000
         TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Cancel
 Tape Volume changed.
```

Figure 248. Work with Tape Volumes

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Remove a Tape Volume

Use these screens to remove a tape volume from OnDemand. When you select this option, the first screen, Figure 249, appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPVOL       *OPTVOL, *STGGRP, *TAPDEV...
Tape volume  . . . . . . . . . .  *ALL_____      Identifier, generic*, *ALL...

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

Figure 249. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 250 on page 218. A list of volumes and their descriptions appears.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:36:41

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
          ______
         R00001   HIC    400000000
   4     TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Cancel
 Tape Volume changed.
```

Figure 250. Work with Tape Volumes

Press **Enter** to continue to Figure 251, CONFIRM REMOVAL OF TAPE VOLUME.

```
                  Confirm Removal of Tape Volume                    ONDMD400
                                                                  1/24/98   9:37:07
Press Enter to confirm your choice for 4=Remove.
Press F12=Cancel to return to change your choices.

Volume  . . . . . . . . . . . . . . :  TA
Capacity  . . . . . . . . . . . . . :    330
Media type  . . . . . . . . . . . . :  *HIC200
Media device library  . . . . . . . :




F12=Cancel
```

Figure 251. Confirm Removal of Tape Volume

OnDemand shows you the tape volume you have selected to remove.

If you entered the wrong data, you can change it by pressing **F12** to return to the previous screen. Type the correct tape volume and press **Enter**.

If your entry is correct, press **Enter**.

The message in Figure 252 on page 219 confirms that your tape volume was removed.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:37:11

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity
          ______
         R00001   HIC    400000000
         TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC    525000000
         012043   REEL   160000000

                                                                       Bottom
F3=Exit   F5=Refresh   F12=Cancel
 Tape Volume removed.
```

Figure 252. Work with Tape Volumes

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Display a Tape Volume

To display a tape volume that is currently in your tape volume file, select option 2, Work with Tape Volumes, from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 253 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*TAPVOL       *OPTVOL, *STGGRP, *TAPDEV...
Tape volume  . . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...

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

Figure 253. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 254 on page 220, WORK WITH TAPE VOLUMES. A list of volumes and their descriptions appears.

```
                    Work with Tape Volumes                          ONDMD400
                                                                  1/24/98   9:36:41

Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Option   Volume   Media   Capacity

         R00001   HIC    400000000
   5     TA       HIC    330000000
         TAPE     QIC   1200000000
         T01010   QIC   5250000000
         012043   REEL  1600000000

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

Figure 254. Work with Tape Volumes

Option

Enter **5** (*5=Display*) next to the tape volume you want to display.

Press **Enter** to continue to Figure 255.

```
                    Display Tape Volume                             ONDMD400
                                                                  1/24/98   9:37:21
Volume  . . . . . . . . . . . . . . :  R00001
Capacity  . . . . . . . . . . . . . :    400       Megabytes
Media type  . . . . . . . . . . . . :  *HIC400
Media device library  . . . . . . . :
Current sequence number . . . . . . :      0
Tape bytes used . . . . . . . . . . :            0
Tape bytes deleted  . . . . . . . . :            0
Tape full . . . . . . . . . . . . . :  N           Y=Yes, N=No
Inuse flag  . . . . . . . . . . . . :

                                                                      Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 255. Display Tape Volume

Notice this field:

Inuse flag

If there is a value in this field when you display the tape volume, it indicates that the volume is in use.

If a tape backup, a tape archive, or a tape object recall is not running, a value in this field usually indicates a tape error.

To clear the flag, access the ONDEMAND MEDIA ADMINISTRATION MENU and select "Option 52. Reset Tape" on page 238.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

Option 10. Work with Storage Groups

Use this option to create, change, delete, or display a storage group. If you prefer to use a graphical user interface for this function, you can use iSeries Navigator instead.

A storage group lets you group optical volumes to store related data, such as invoices, together on a set of optical volumes. You must define a storage group before you can add volumes to it.

Select option 10, Work with Storage Groups, from the ONDEMAND MEDIA ADMINISTRATION MENU, shown in Figure 225 on page 204. Figure 256 appears.

```
                    Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*STGGRP       *OPTVOL, *STGGRP, *TAPDEV...
Storage group  . . . . . . . . .  *ALL_____      Name, generic*, *ALL...

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

Figure 256. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 257 on page 222.

To Create a Storage Group

Use Figure 257 on page 222 to create a storage group.

```
                    Work with Storage Groups                        ONDMD400
                                                                 1/24/98  10:34:53

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt  Storage group   Text
 1    INVOICES___     ________________________________________
      HFS3995         LAN attached 3995 using Optical PRPQ
      LANOPT          Lan Optical
      OBJECTSG        Object Archive Storage Group
      RDARSOPT        OnDemand Default storage group
      SG1             Storage Group 1

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 257. Work with Storage Groups

Press **Enter** to continue to Figure 258.

```
                     Create Storage Group                           ONDMD400
                                                                 1/24/98  10:35:00
Type choices, press Enter.


  Optical storage group . . . . . .  INVOICES__   Name
  Volume full reset . . . . . . . .  Y            Y=Yes, N=No
    Free space threshold % . . . . .    95         0-99
  Text  . . . . . . . . . . . . . .  Invoices storage group_______________
empty_____









F3=Exit   F12=Cancel
```

Figure 258. Create Storage Group

Press **Enter** to save your entries and return to Figure 259 on page 223.

```
                    Work with Storage Groups                        ONDMD400
                                                                 1/24/98  10:35:58

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt  Storage group   Text
      _________      ____________________________________________
       HFS3995       LAN attached 3995 using Optical PRPQ
       LANOPT        Lan Optical
       OBJECTSG      Object Archive Storage Group
       RDARSOPT      OnDemand Default storage group
       SG1           Storage Group 1

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Return
 Storage group created.
```

Figure 259. Work with Storage Groups

Press **F5** to display your addition.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Change a Storage Group

To change the characteristics of an optical storage group, select option 10, WORK WITH STORAGE GROUPS from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 260 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*STGGRP       *OPTVOL, *STGGRP, *TAPDEV...
Storage group. . . . . . . . . .   *ALL_____     Name, generic*, *ALL...

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

Figure 260. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 261 on page 224.

```
                    Work with Storage Groups                        ONDMD400
                                                                  1/24/98  10:36:02

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt  Storage group   Text
      _________       ________________________________________________
      HFS3995        LAN attached 3995 using Optical PRPQ
      LANOPT         Lan Optical
      OBJECTSG       Object Archive Storage Group
 2    INVOICES       Invoices storage group
      RDARSOPT       OnDemand Default storage group
      SG1            Storage Group 1

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 261. Work with Storage Groups

Press **Enter** to move to Figure 262, which shows the characteristics of the storage group you have selected.

```
                    Change Storage Group                            ONDMD400
                                                                  1/24/98  10:36:14
Optical storage group . . . . . . . . . :  INVOICES


Type choices, press Enter.


  Volume full reset . . . . . . . . . . .  Y            Y=Yes, N=No
    Free space threshold % . . . . . . .     80_         0-99
  Text  . . . . . . . . . . . . . . . . .  Invoices storage group_____________
__________









F3=Exit   F12=Cancel
```

Figure 262. Change Storage Group

You can change the fields by typing new information over what is displayed.

Press **Enter** to save your changes. Figure 263 on page 225 appears.

```
                    Work with Storage Groups                        ONDMD400
                                                                 1/24/98  10:36:39

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt  Storage group   Text
      _________      ____________________________________________________
      HFS3995        LAN attached 3995 using Optical PRPQ
      LANOPT         Lan Optical
      OBJECTSG       Object Archive Storage Group
      INVOICES       Invoices storage group
      RDARSOPT       OnDemand Default storage group
      SG1            Storage Group 1

                                                                      Bottom
F3=Exit   F5=Refresh   F12=Return
 Storage group changed.
```

Figure 263. Work with Storage Groups

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Delete a Storage Group

Use these screens to delete a storage group. (OnDemand stops you from deleting a storage group if any optical volumes are defined to it.) When you select this option, Figure 264 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*STGGRP       *OPTVOL, *STGGRP, *TAPDEV...
Storage Group. . . . . . . . . .   *ALL_____     Name, generic*, *ALL...

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

Figure 264. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 265 on page 226, WORK WITH STORAGE GROUPS. A list of storage groups and their descriptions appears.

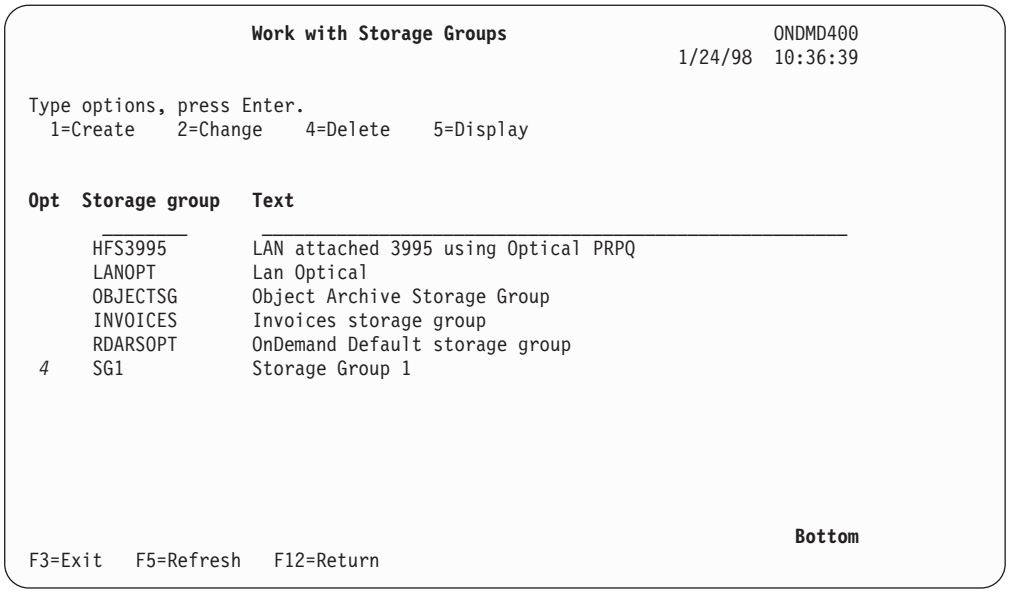

Figure 265. Work with Storage Groups

Press **Enter** to continue to Figure 266.

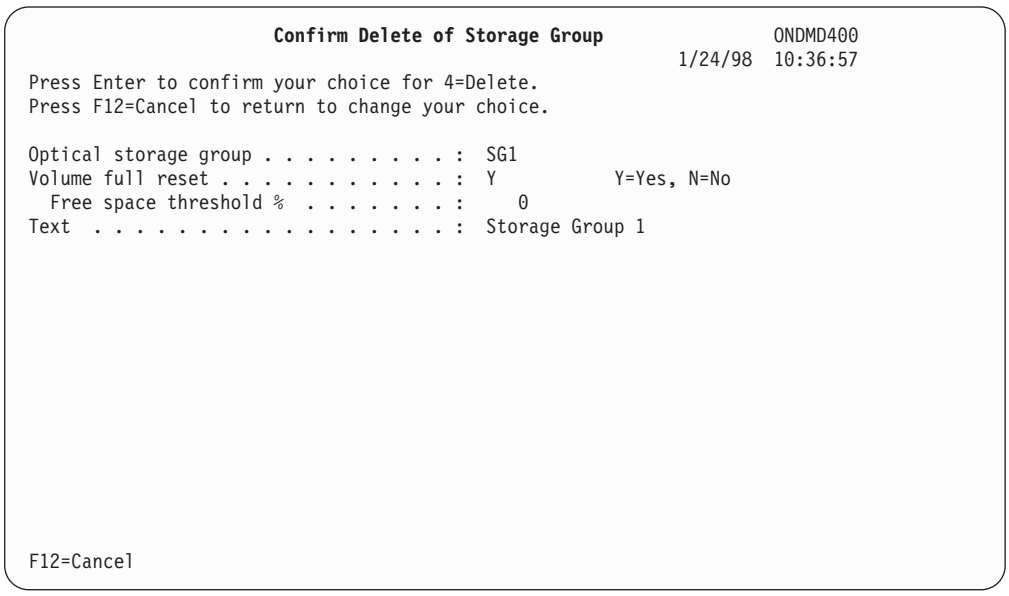

Figure 266. Confirm Delete of Storage Group

OnDemand shows you the storage group you have selected to delete.

If you entered the wrong data, you can change it by pressing **F12** to return to the previous screen. Type the correct storage group and press **Enter**.

If your entry is correct, press **Enter** to confirm your request to delete. The message shown in Figure 267 on page 227 appears.

```
                    Work with Storage Groups                        ONDMD400
                                                                  1/24/98  10:36:59

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display

Opt  Storage group   Text
      _________      ____________________________________________________
       HFS3995       LAN attached 3995 using Optical PRPQ
       LANOPT        Lan Optical
       OBJECTSG      Object Archive Storage Group
       INVOICES      Invoice storage group
       RDARSOPT      OnDemand Default storage group
       SG1           Storage Group 1

                                                                       Bottom
F3=Exit   F5=Refresh   F12=Return
 Storage Group deleted.
```

Figure 267. Work with Storage Groups

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Display a Storage Group

To view a storage group, select option 10, WORK WITH STORAGE GROUPS from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 268 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*STGGRP       *OPTVOL, *STGGRP, *TAPDEV...
Storage group. . . . . . . . . .  *ALL_____     Name, generic*, *ALL...

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

Figure 268. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 269 on page 228.

```
                       Work with Storage Groups                    ONDMD400
                                                          1/24/98  10:37:10

Type options, press Enter.
  1=Create    2=Change    4=Delete    5=Display


Opt  Storage group   Text

 5     HFS3995       LAN attached 3995 using Optical PRPQ
       LANOPT        Lan Optical
       OBJECTSG      Object Archive Storage Group
       INVOICES      Invoices storage group
       RDARSOPT      OnDemand Default storage group
       SG1           Storage Group 1







                                                                    Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 269. Work with Storage Groups

Press **Enter**. Figure 270 shows you the characteristics of the storage group you selected.

```
                        Display Storage Group                      ONDMD400
                                                          1/24/98  10:37:05
Optical storage group . . . . . . . . . . . : HFS3995
Volume full reset . . . . . . . . . . . . . : N           Y=Yes, N=No
  Free space threshold % . . . . . . . . . :   0
Text  . . . . . . . . . . . . . . . . . . . : LAN attached 3995 using Optical PRPQ


Optical inuse flag  . . . . . . . . . . . . : 000001











                                                                   Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 270. Display Storage Group

Notice this field:

Inuse flag

If there is a value in this field when you display the storage group, it indicates that the storage group is in use.

For any feature except Record Archive, this flag must be blank before you can use the storage group. For Record Archive, you can use the storage group when the flag is set if the storage group is being used by another Record Archive job.

If there are no jobs running that use optical (such as optical backup or migration, optical recall, or Record Archive), the flag can indicate an optical error.

Reset the flag by selecting "Option 51. Reset Optical" on page 238 from the MEDIA ADMINISTRATION MENU.

Press **F3** to return to Figure 225 on page 204.

Option 11. Work with Optical Volumes

Use this screen to add, change, remove, or display optical volumes. If you prefer to use a graphical user interface for this function, you can use iSeries Navigator instead.

To begin, select option 11, Work with Optical Volumes, from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 271 appears.

```
                    Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*OPTVOL       *OPTVOL, *STGGRP, *TAPDEV...
Optical volume . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...

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

Figure 271. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to continue to the WORK WITH OPTICAL VOLUMES screen, Figure 272 on page 230.

To Add an Optical Volume

Enter a record in the optical inventory for each optical volume OnDemand can use. You need to add an optical volume to OnDemand before OnDemand can use it. Initialize each optical volume with the ***INZOPTVOL*** command (with a direct-attached optical library), or use the screen option on the display of the LAN-attached optical library console. (See your optical library's software documentation for more information on initializing optical volumes and recommendations regarding initialization parameters such as *Volume full threshold*.)

Use a unique volume name. We suggest that you establish an OnDemand naming convention for optical volumes, making an OnDemand volume distinguishable from volumes used by different applications.

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:37:25
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media      Capacity         Storage group
 1   DIR00001____   ___
     RDLAN001       WORM       300000000        RDLAN
     RDLAN002       WORM       300000000        RDLAN
     RDLAN003       REWT       300000000        INVOICES
     RDLAN004       REWT       300000000        INVOICES
     RDLAN005       REWT       303000000        INVOICES
     RDLAN006       REWT       303000000        INVOICES
     RDROPT0001     WORM       305000000        RDARSOPT
     RDROPT0002     WORM       305000000        RDARSOPT
     T1             REWT       333000000        CHKSSTG
     T2             REWT       333000000        CHKSSTG
     T5             REWT       333000000        CHKSSTG
     T6             REWT       333000000        CHKSSTG
                                                                    More...

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

Figure 272. Work with Optical Volumes

Press **Enter** to move to Figure 273.

```
                      Add Optical Volumes                          ONDMD400
                                                                 1/24/98  10:37:31
Type choices, press Enter.


  Volume  . . . . . . . . . . . .   DIR00001____   Name
  Opposite side volume  . . . . .   DIR00002____   Name
  Optical media family  . . . . .   REWT           REWT, WORM...
  Optical volume capacity . . . .   650___         Megabytes
  Optical storage group . . . . .   HFS3995____    Name
  Optical library . . . . . . . .    __________    Name









F3=Exit   F12=Cancel
```

Figure 273. Add Optical Volumes

Add the characteristics of both sides of the optical volume.

Press **Enter** to add both volumes to OnDemand, Figure 274 on page 231.

```
                    Work with Optical Volumes                       ONDMD400
                                                                  1/24/98  10:37:54
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media      Capacity         Storage group
     __________    ___
     RDLAN001      WORM       300000000        RDLAN
     RDLAN002      WORM       300000000        RDLAN
     RDLAN003      REWT       300000000        INVOICES
     RDLAN004      REWT       300000000        INVOICES
     RDLAN005      REWT       303000000        INVOICES
     RDLAN006      REWT       303000000        INVOICES
     RDROPT0001    WORM       305000000        RDARSOPT
     RDROPT0002    WORM       305000000        RDARSOPT
     T1            REWT       333000000        CHKSSTG
     T2            REWT       333000000        CHKSSTG
     T5            REWT       330000000        CHKSSTG
     T6            REWT       330000000        CHKSSTG
                                                                      More...
F3=Exit   F5=Refresh   F12=Cancel
 Optical volumes added.
```

Figure 274. Work with Optical Volumes

Press **F5** to display your addition.

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Change Optical Volume Characteristics

Select option 11, WORK WITH OPTICAL VOLUMES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204. Figure 275 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*OPTVOL       *OPTVOL, *STGGRP, *TAPDEV...
Optical volume . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...

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

Figure 275. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 276 on page 232.

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:38:04
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media      Capacity         Storage group
 2   DIR00001      REWT       650000000        HFS3995
     DIR00002      REWT       650000000        HFS3995
     RDLAN001      WORM       300000000        RDLAN
     RDLAN002      WORM       300000000        RDLAN
     RDLAN003      REWT       300000000        INVOICES
     RDLAN004      REWT       300000000        INVOICES
     RDLAN005      REWT       303000000        INVOICES
     RDLAN006      REWT       303000000        INVOICES
     RDROPT0001    WORM       305000000        RDARSOPT
     RDROPT0002    WORM       305000000        RDARSOPT
     T1            REWT       333000000        CHKSSTG
     T2            REWT       333000000        CHKSSTG
                                                                    More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 276. Work with Optical Volumes

Press **Enter** to move to Figure 277, which shows the characteristics of the optical volume you want to change.

```
                    Change Optical Volumes                         ONDMD400
                                                                 1/24/98  10:38:24
Volume  . . . . . . . . . . . . . . . . . :  DIR00001
Opposite side volume  . . . . . . . . . . :  DIR00002
Optical media family  . . . . . . . . . . :  REWT


Type choices, press Enter.

  Volume full . . . . . . . . . . . . . .  N            Y=Yes, N=No
  Opposite side volume full . . . . . . .  N            Y=Yes, N=No
  Optical volume capacity . . . . . . . .    630         Megabytes
  Optical storage group . . . . . . . . .  HFS3995___    Name
  Optical library . . . . . . . . . . . .   _________    Name









F3=Exit   F12=Cancel
```

Figure 277. Change Optical Volumes

You can change the fields by typing new information over what is displayed.

Press **Enter** to save your changes. Figure 278 on page 233 appears.

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:38:28
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media  Capacity         Storage group
     __________    ____
     DIR00001      REWT   630000000        HFS3995
     DIR00002      REWT   630000000        HFS3995
     RDLAN001      WORM   300000000        RDLAN
     RDLAN002      WORM   300000000        RDLAN
     RDLAN003      REWT   300000000        INVOICES
     RDLAN004      REWT   300000000        INVOICES
     RDLAN005      REWT   303000000        INVOICES
     RDLAN006      REWT   303000000        INVOICES
     RDROPT0001    WORM   305000000        RDARSOPT
     RDROPT0002    WORM   305000000        RDARSOPT
     T1            REWT   333000000        CHKSSTG
     T2            REWT   333000000        CHKSSTG
                                                                    More...

F3=Exit   F5=Refresh   F12=Cancel
 Optical volumes changed.
```

Figure 278. Work with Optical Volumes

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Remove an Optical Volume

To remove an optical volume, select option 11, WORK WITH OPTICAL VOLUMES from the ONDEMAND MEDIA ADMINISTRATION MENU. Figure 279 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*OPTVOL       *OPTVOL, *STGGRP, *TAPDEV...
Optical volume . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...









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

Figure 279. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 280 on page 234.

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:39:18
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media  Capacity         Storage group
     __________    ___
     DIR00001      REWT   630000000        HFS3995
     DIR00002      REWT   650000000        HFS3995
     RDLAN001      WORM   300000000        RDLAN
     RDLAN002      WORM   300000000        RDLAN
     RDLAN003      REWT   300000000        INVOICES
     RDLAN004      REWT   300000000        INVOICES
     RDLAN005      REWT   303000000        INVOICES
     RDLAN006      REWT   303000000        INVOICES
     RDROPT0001    WORM   305000000        RDARSOPT
     RDROPT0002    WORM   305000000        RDARSOPT
 4   T1            REWT   333000000        CHKSSTG
     T2            REWT   333000000        CHKSSTG
                                                                    More...

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

Figure 280. Work with Optical Volumes

Press **Enter** to continue to Figure 281.

```
                  Confirm Removal of Optical Volumes               ONDMD400
                                                                 1/24/98  10:38:57
Press Enter to confirm your choice for 4=Remove.
Press F12=Cancel to return to change your choice.

Volume  . . . . . . . . . . . . . . . . :  T1
Opposite side volume  . . . . . . . . . :  T2
Optical media family  . . . . . . . . . :  REWT
Optical volume capacity . . . . . . . . :  333             Megabytes
Optical storage group . . . . . . . . . :  OBJECTSG
Optical library . . . . . . . . . . . . :




F12=Cancel
```

Figure 281. Confirm Removal of Optical Volumes

OnDemand shows you the optical volumes you chose to remove. (Volumes are removed in pairs—top and bottom volumes of the particular optical disk.)

If you entered the wrong data, you can change it by pressing **F12** to return to the previous screen. Enter the correct optical volume and press **Enter**.

If your entry is correct, press **Enter**. A message appears in Figure 282 on page 235:

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:39:00
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media  Capacity         Storage group
     ___________   ____
     DIR00001      REWT   630000000        HFS3995
     DIR00002      REWT   630000000        HFS3995
     RDLAN001      WORM   300000000        RDLAN
     RDLAN002      WORM   300000000        RDLAN
     RDLAN003      REWT   300000000        INVOICES
     RDLAN004      REWT   300000000        INVOICES
     RDLAN005      REWT   303000000        INVOICES
     RDLAN006      REWT   303000000        INVOICES
     RDROPT0001    WORM   305000000        RDARSOPT
     RDROPT0002    WORM   305000000        RDARSOPT
                                                                    More...


F3=Exit   F5=Refresh   F12=Cancel
 Optical volumes removed.
```

Figure 282. Work with Optical Volumes

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

To Display an Optical Volume

To display the characteristics of an optical volume, select option 11, WORK WITH OPTICAL VOLUMES from the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, Figure 283 appears.

```
                  Work with Media for OnDemand (WRKMEDRDAR)

Type choices, press Enter.

Media type . . . . . . . . . . . >*OPTVOL       *OPTVOL, *STGGRP, *TAPDEV...
Optical volume . . . . . . . . .  *ALL_____     Identifier, generic*, *ALL...









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

Figure 283. Work with Media for OnDemand (WRKMEDRDAR)

Press **Enter** to move to Figure 284 on page 236.

```
                    Work with Optical Volumes                      ONDMD400
                                                                 1/24/98  10:39:18
Type options, press Enter.
  1=Add    2=Change    4=Remove    5=Display

Opt  Volume        Media  Capacity         Storage group
     __________    ____
     DIR00001      REWT   630000000        HFS3995
     DIR00002      REWT   630000000        HFS3995
 5   RDLAN001      WORM   300000000        RDLAN
     RDLAN002      WORM   300000000        RDLAN
     RDLAN003      REWT   300000000        INVOICES
     RDLAN004      REWT   300000000        INVOICES
     RDLAN005      REWT   303000000        INVOICES
     RDLAN006      REWT   303000000        INVOICES
     RDROPT0001    WORM   305000000        RDARSOPT
     RDROPT0002    WORM   305000000        RDARSOPT
     T1            REWT   333000000        CHKSSTG
     T2            REWT   333000000        CHKSSTG
                                                                   More...
F3=Exit   F5=Refresh   F12=Cancel
```

Figure 284. Work with Optical Volumes

Press **Enter** to continue to Figure 285.

```
                    Display Optical Volumes                        ONDMD400
                                                                 1/24/98  10:39:10
Volume  . . . . . . . . . . . . . . . :  RDLAN001
  Volume full . . . . . . . . . . . . :    N                 Y=Yes, N=No
  Bytes used  . . . . . . . . . . . . :     30,056,192
  Bytes deleted . . . . . . . . . . . :              0
Opposite side volume  . . . . . . . . :  RDLAN002
  Volume full . . . . . . . . . . . . :    N                 Y=Yes, N=No
  Bytes used  . . . . . . . . . . . . :     15,299,328
  Bytes deleted . . . . . . . . . . . :              0
Optical media family  . . . . . . . . :  WORM
Optical volume capacity . . . . . . . :    300               Megabytes
Optical storage group . . . . . . . . :  RDLAN
Optical library . . . . . . . . . . . :  LAN3995









                                                                   Bottom
Press Enter to continue.

F3=Exit   F12=Cancel
```

Figure 285. Display Optical Volumes

To return to the ONDEMAND MEDIA ADMINISTRATION MENU, Figure 225 on page 204, press **F3**.

Option 20. Optical Support Menu

Use this option to move to the OS/400 OPTICAL SUPPORT UTILITIES menu. (Refer to the OS/400 Optical Support manual for information on the particular menu options.)

Option 21. Work with Communications Side Information (LAN Attached Optical Only)

The IBM 3995 Optical Library Dataserver LAN attached models' communications interface is controlled by OS/2 communications. Therefore, you must customize the workstation controller to enable the 3995. (See the appropriate manual for information on this procedure.)

After you complete the OS/2 configuration, ensure that you have defined the correct OS/400 communications side information.

Select option 21, Work with Communications Side Information (LAN Attached Optical Only) from Figure 225 on page 204 and press **Enter** to accept the defaults on the resulting screen. Alternately, type **WRKCSI** on the OS/400 command line to view the default entry shipped with OnDemand.

Press **Enter** to display Figure 286.

```
                  Work with Communications Side Information

Type options, press Enter.
  1=Create   2=Change   4=Delete   5=Display   6=Print

     Side
Opt  Info        Library     Text

 _   _________   _________
 5   QRLCOPT     QRDARS      CPI Communications side information for 3995









                                                                        Bottom
Parameters for options 1, 2 and 5 or command
===> ____________________________________________________________________________
F3=Exit      F4=Prompt   F5=Refresh   F9=Retrieve   F11=Display names only
F12=Cancel   F16=Repeat position to   F17=Position to
```

Figure 286. Work with Communications Side Information

Press **Enter** to display more information in Figure 287 on page 238.

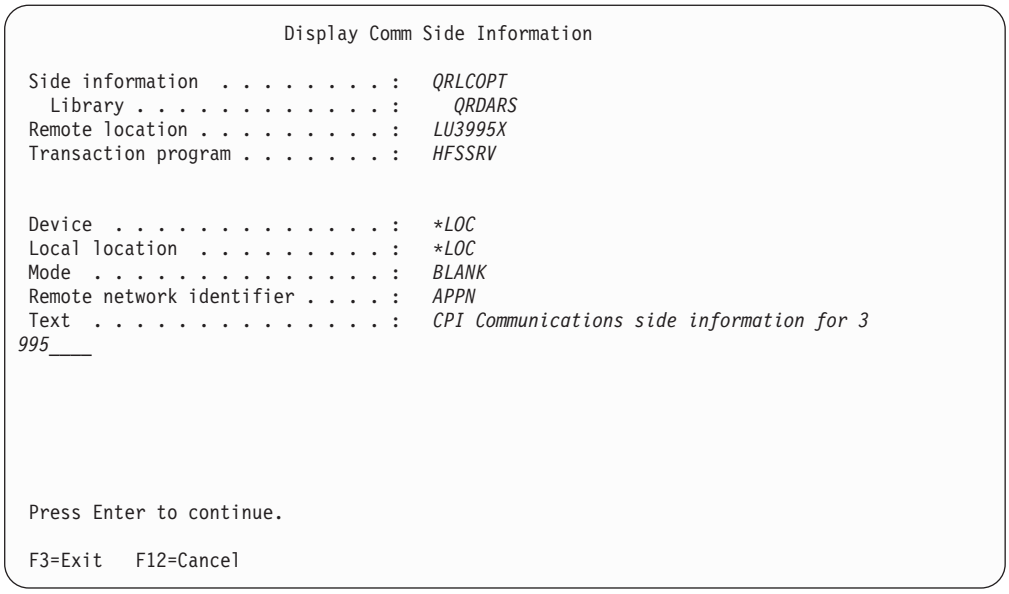

Figure 287. Display Comm Side Information

The information shown matches some of the OS/2 communications configuration values. To change any of these fields, select option 2 in Figure 286 on page 237.

(The *Remote network identifier* field—***RMTNETID***—is the field usually changed. It should match the *Local Network ID* of the iSeries. This value can be determined by using the Display Network Attributes (***DSPNETA***) command.

Option 40. Main Menu

Use this option to return to the OnDemand Main Menu, Figure 224 on page 204.

Option 51. Reset Optical

This option clears all storage group in-use flags and checks the space on all OnDemand optical volumes. This option appears only if the user has ****ALL*** authority at the OnDemand application level. (To grant this authority, see "Option 10. Edit/Authorize OnDemand Users" on page 55.)

You should not run the reset option while the Report Management Cycle (for Spool File Archive) or the Object Management Cycle (for Object Archive) is running. This reset option could cause some optical volumes or all optical volumes that are known to OnDemand to mount to check for space.

Option 52. Reset Tape

This option clears all in-use flags for tape volumes and tape devices. This option appears only if the user has ****ALL*** authority at the OnDemand application level. (To grant this authority, see "Option 10. Edit/Authorize OnDemand Users" on page 55.)

You should not run the reset option while the Report Management Cycle (for Spool File Archive) or the Object Management Cycle (for Object Archive) is running.

Chapter 7. Integrating OnDemand with Content Manager

IBM Content Manager for iSeries (Content Manager) (formerly known as IBM ImagePlus® VisualInfo™, VI/400) is a feature-rich image application which provides extensive workflow capabilities. Integration of OnDemand archived reports into Content Manager allows a single method for viewing both images and archived OnDemand reports from a single workstation application. This chapter explains the benefits of integration, how to accomplish integration, and how to use the features of the integration software.

Overview of OnDemand and Content Manager Integration

When using OnDemand and Content Manager, there are times when related information exists in both applications. For example, you may want to relate images of insurance claims to a check register of claims paid. In this and many other examples, users need to be able to search for and view both the images and archived spooled files (COLD documents). You need two different workstation clients to search for and view Content Manager images and OnDemand COLD documents, each with its own interface and different search capabilities. Using the integration software, you only need the Content Manager Client to access both images and archived spooled files. The full benefits of this integration also include the following:

- Combined routing of internally generated reports and scanned documents.
- Full support of image workflow.
- Transparent handling of documents in work packages.

Content Manager External Reference Support

Content Manager is now able to allow its indexes to point to data that resides outside of Content Manager by using external data references. This allows Content Manager to capture key values for data sources that exist in other iSeries and workstation applications. When the Content Manager Client retrieves data from an external data source, it can do the following tasks:

- Retrieve the data and pass it to the Content Manager Client for viewing.
- Call an iSeries program to retrieve the data and pass it to the Content Manager Client.
- Launch a PC-based application, such as Lotus® 1-2-3® or Microsoft® Word.

OnDemand provides external data references that allow Content Manager to retrieve OnDemand archived spooled files. This means that you can use one Client to view both images and print documents. When searching the Content Manager databases, the system presents a combined hitlist of OnDemand documents and Content Manager images to the user. Users will only need to know how to use the Content Manager Client.

How OnDemand Uses Content Manager External Data References

OnDemand now provides two methods for creating external data references for Content Manager:

1. When you archive spooled files by using OnDemand, you can create external data references. You can do this by specifying a new index exit program in the

appropriate OnDemand report definition. When a report is archived, the new exit program (QRLWEXITV, or QRLWEXITVM if **any** of the keys or display fields are *Multi-key* fields) is called. Once called, the program creates external data references in an interface file for Content Manager. The system uses a report definition extension record to map index data from an OnDemand report definition to a Content Manager index class. Use the WRKADMRDAR TYPE(*RPTEXT) command to maintain report definition extension records.

Report data can reside on any media including disk, optical, or tape. Do **not** migrate your OnDemand report **indexes** to optical or tape for reports integrated into Content Manager. Check your Migration Policy to confirm that you are not migrating index records. If you choose to have the Report Management Cycle migrate the indexes to optical or tape, an entry in the Content Manager search list will appear. However, when you request to display it, the system cannot retrieve the segment (object). If you only need to know that it did exist at some time, then this may be sufficient. However, if you need to view these items, you must leave the **indexes** on disk for the life of the report.

2. For reports that were previously archived in OnDemand, another command has been provided (ADDVIRDAR) which creates external data references in an interface file for Content Manager. OnDemand uses a report definition extension record to map index data from an OnDemand report definition to a Content Manager index class. Use the WRKADMRDAR command to maintain report definition extension records. To insure that external references are automatically removed from Content Manager when they are expired in OnDemand, specify one of the new index exit programs (QRLWEXITV or QRLWEXITVM) in each affected report definition.

Once you create an external data reference, you must call a Content Manager program (QVIXRFINX) to load the external references into Content Manager from the interface file. After this program finishes, you can retrieve OnDemand spooled files by using the Content Manager Client. The Content Manager Client will launch the AFP Viewer to display the OnDemand archived spooled files.

How OnDemand External References are Removed from Content Manager

IBM provides three methods for removing OnDemand external references from Content Manager:

1. OnDemand automatically expires (deletes) archived reports as they age, based on a report's migration policy. When an integrated report expires, the system marks the corresponding external reference records for deletion in the Content Manager interface file. Note that this is only true if the OnDemand report definition for that report/version combination has one of the new index exit programs (QRLWEXITV or QRLWEXITVM) specified.
2. The OnDemand Delete Report command marks external reference records for deletion when you use it to delete an archived spooled file as long as the index exit program is specified in the report definition for the affected report/version.
3. A new command (RMVVIRDAR) marks external references for deletion in the Content Manager interface file. This command **does not** delete OnDemand archived reports. The command, by default, calls the Content Manager program (QVIXRFDEL) to remove the external references from Content Manager.

After marking external data references for deletion, you must call a Content Manager program (QVIXRFDEL) to remove the external references from Content Manager and the interface file. When this program runs, it deletes all external

references from Content Manager. Even if you re-index an external reference or put it on a workflow, the system will delete the external reference and all of its associated Content Manager annotations and notes.

Using the "Combine report occurrences" function with Content Manager Integration

You may have chosen to have OnDemand automatically combine multiple report occurrences in order to avoid the 999 sequence number maximum in Spool File Archive. (To activate this function, you use the OnDemand administrative tool accessed through iSeries Navigator. On the report definition's Archive tab, you can specify whether to combine occurrences.) If you also integrate that report with Content Manager, you may need to consider changing the way you perform the integration.

First, a brief review of the Report Combine function: OnDemand normally stores each archived spooled file separately, and identifies it by the date and a three-digit sequence number (known as the object name). This forces a limit of 999 archives per day for a specific report definition. The Report Combine function was created to provide a mechanism which allows OnDemand to append an archived spooled file to the end of one already archived that day, thereby using the same sequence number. Report combining occurs after all user exit processing is completed and the report is successfully archived.

By combining multiple report occurrences and running the standard CM/400 Integration functions, CM/400 Client users may lose the ability to retrieve the integrated reports from the CM/400 Client. The linkage from OnDemand to CM/400 (using external reference support as described above) is added with the original date and three-digit sequence number. Then, when the Report Combine function occurs after the linkage records are created, the CM/400 control file ends up with the wrong date/sequence number object name. Any attempt to retrieve these documents results in the CM/400 Client issuing an FRN6556A message.

You can still use the report combine function, but without specifying one of the CM/400 Integration Index exits (QRLWEXITV or QRLWEXITM) in the Spool File Archive report definition. You need to remove the linkages to any combined reports that were already integrated into CM/400 by using the remove function (RMVVIRDAR command) and then integrate them back into CM/400 either manually or programmatically using the initialize function (ADDVIRDAR command).

The suggested approach to automate CM/400 integration with report combining is to add an entry, or entries, to the OS/400 job scheduler which execute the ADDVIRDAR command to load the indexes into Content Manager. The ADDVIRDAR command will ONLY add indexes for reports that have not already been integrated, so the command can be run over and over again without risk of duplication. Therefore, many job schedule entries can be created that execute the ADDVIRDAR command each day, perhaps hourly; the number and frequency can be managed by you to coincide with how soon you need to be able to retrieve the reports using the Content Manager Client.

A sample command to create a job schedule entry is shown in Figure 288 on page 242. See the command help text for the ADDVIRDAR command for additional details and other options for parameter values, as the sample may need to be altered to meet your requirements.

```
ADDJOBSCDE JOB(ODTOCM) CMD(ADDVIRDAR REPORT(INVOICETST) VERSION(*HIGHEST) +
RPTDATE(*CURRENT *CURRENT) CALLVI(*YES) SBMJOB(*NO)) FRQ(*WEEKLY) +
SCDDAY(*MON *TUE *WED *THU *FRI) SCDTIME('08:00:00') +
JOBD(QRDARS/QRDARS400) USER(QRDARS400) TEXT('Integrate OnDemand rpts into CM')
```

Figure 288. Sample command to create a job schedule entry

Installing the Integration Software

To install the OnDemand and Content Manager integration software, perform the following steps:

Step 1. Verifying Software Prerequisites

The following software is required in order to perform the integration of OnDemand with Content Manager:

- OnDemand Spool File Archive feature.
- Content Manager Client V5R1.
- Microsoft Windows 2000, Windows 95, Windows NT® 4.0, or Windows XP.
- Advanced Function Presentation (AFP) Viewer. This utility is included with the iSeries Access product (5722-XE1), as part of the OnDemand Client, or as a standalone product (the AFP Workbench).

Step 2. Granting authority to Content Manager External Reference Files

You must grant authority to add and change records in the files to the QRDARS400 user profile.

Use the following commands to grant the proper authority to the correct data libraries and files:

GRTOBJAUT OBJ(QSYS/xxxx) OBJTYPE(*LIB) USER(QRDARS400) AUT(*CHANGE)

GRTOBJAUT OBJ(xxxx/EKD0313) OBJTYPE(*FILE) USER(QRDARS400) AUT(*CHANGE)

GRTOBJAUT OBJ(xxxx/EKD0314*) OBJTYPE(*FILE) USER(QRDARS400) AUT(*CHANGE)

where **xxxx** is the Content Manager data library.

You can repeat these commands for additional Content Manager environments by using different Content Manager data libraries.

Step 3. Updating the Content Manager Job Description

Use the work job description command (WRKJOBD) to update the Content Manager initial library list parameter (INLLIBL) to include the QRDARS library. For Content Manager Version 5 Release 1, the default job description is QVIJOBD in library QUSRVI.

If you are using multiple Content Manager environments, you will need to add QRDARS to the initial library list of each job description for each Content Manager environment.

If you install OnDemand by using a secondary language, put the library for the secondary language in the library list. For example, library QSYS2924 is for upper and lowercase English.

Note: You must stop and restart the Content Manager server jobs to begin using the updated job description.

Step 4. Updating the QRDARS400 Job Description

Use the work job description command (WRKJOBD) to update the OnDemand initial library list parameter (INLLIBL) to include the appropriate Content Manager data library. By default, OnDemand commands submitted for batch processing use the QRDARS/QRDARS400 job description. To find the external reference files, the library containing the external reference files must be in the initial library list of the QRDARS/QRDARS400 job description.

Note: You must stop OnDemand report monitors and restart them again to begin using the updated job description.

Step 5. Configuring the Content Manager Client to Launch the AFP Viewer

The Content Manager Client provides support to launch other PC-based applications to view external data. This information is specified on the Alternate Viewer tab within the Content Manager client's Preferences window. To reach the Alternate Viewer tab while using the Content Manager client, select the Options pulldown menu, then select Preferences, then click on the Alternate Viewer tab. To add an alternate viewer for OnDemand spooled file data, click the Add button. When the Edit/Add window is displayed, type 'afp' (without the quotes) in the File Extension field and select AFP from the pulldown. (You use the 'afp' designation for all OnDemand spooled files, even if the spooled files are not AFP.) The interface type should be set to OLE Embedding. Then click OK. Click OK again at the Preferences window to return to the Content Manager client window. You should now be able to view integrated OnDemand archived spooled files using the Content Manager client.

Note: If you are integrating AnyStore data, such as PC files, you would follow the same process, specifying the PC file type in place of 'afp' in the instructions above.

Verifying Installation

To verify successful installation of the integration software, you must perform the following tasks:

Step 1. Creating an OnDemand Report Definition

Complete the following steps to create an OnDemand Report Definition:

```
MAIN                          OS/400 Main Menu
                                                          System:   SYS400C4
Select one of the following:

     1. User tasks
     2. Office tasks
     3. General system tasks
     4. Files, libraries, and folders
     5. Programming
     6. Communications
     7. Define or change the system
     8. Problem handling
     9. Display a menu
    10. Information Assistant options
    11. Client Access/400 tasks

    90. Sign off

Selection or command
===> GO ONDEMAND_____________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F23=Set initial menu
```

Figure 289. OS/400 Main Menu

To begin working with OnDemand, type **GO ONDEMAND** on the OS/400 command line and press **Enter**.

```
ONDEMAND                    OnDemand for iSeries
                                                          System:   SYS400C4
Select one of the following:

     1. Report Administration Menu
     2. Object Administration Menu
     3. Record Archive Menu
     4. Media Administration Menu

    90. Sign off









Selection or command
===> 1_______________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F23=Set initial menu
```

Figure 290. OnDemand Report Administration Menu

To create the installation verification report definition, select option 1 from the REPORT ADMINISTRATION MENU and press **Enter**.

```
RDARSRPT            OnDemand Report Administration Menu
                                                          System:   SYS400C4
Select one of the following:

     1. Retrieve Reports
     2. Work with Report Policies
     3. Work with Report Overlays
     4. Work with Report Definitions
     5. Work with Report Groups
     6. Work with Report Definition Extensions

    10. Edit/Authorize OnDemand Users
    11. Edit/Authorize OnDemand Report Users
    12. Edit/Authorize OnDemand Report Group Users
    13. Work with Key Security

    20. Report Definition Menu
                                                                      More...
Selection or command
===> 4
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F23=Set initial menu
```

Figure 291. Work with OnDemand Report Definitions Panel 1

Select option 4, Work with Report Definitions, and press **Enter**.

```
                  Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . > *REPORT       *REPORT, *RPTGRP, *RPTOVL...
Report name  . . . . . .   *ALL          Name, generic*, *ALL...

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

Figure 292. Work with OnDemand Report Definitions Panel 1

Press **Enter** to continue.

```
                          Work with Report Definitions             SYS400C4
                                                          6/21/99  15:30:45

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display


Opt  Report      Version  Type  Text

 3   TSTINV        01     DOC   Test Invoices              (OnDemand Sample)










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

Figure 293. Work with OnDemand Report Definitions List Panel 1

The list of existing OnDemand report definitions displays.

Use Option 3 to copy the sample TSTINV report definition.

```
                             Copy Report Definition                SYS400C4
                                                          6/21/99  15:30:45

To rename copied report, type New report, press Enter.


Report      Version  New report  New version
TSTINV        01     INVOICETST      01












                                                                     Bottom
F3=Exit   F12=Cancel
```

Figure 294. OnDemand Report Definition Copy Panel

Name the new report definition INVOICETST, version 01, and press **Enter**.

```
                    Work with Report Definitions                SYS400C4
                                                              6/21/99  15:30:45

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

Opt  Report      Version  Type  Text
 _   __________    __
 2   INVOICETST    01     DOC   Test Invoices              (OnDemand Sample)
 _   TSTINV        01     DOC   Test Invoices              (OnDemand Sample)

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

Figure 295. Work with OnDemand Report Definitions List Panel 2

Press F5 to refresh the report definition list. The INVOICETST report definition will now appear in the list.

You must change the new INVOICETST report definition to use the QRLWEXITV program. The QRLWEXITV exit program adds OnDemand key values into a Content Manager interface file for later loading into Content Manager as an external reference.

Enter 2 in the option field in front of the INVOICETST report definition and press **Enter**.

```
                    Select Report Section to Change             SYS400C4
                                                              6/21/99  15:30:45

Type selection, press Enter.
  1=Select

  Choose Section
    1  Environment
    _  Segmentation
    _  Keys
    _  All sections

                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 296. OnDemand Report Definition Change Panel 1

Select the environment section of the report definition for update, using option 1, and press **Enter**.

```
                Change Report Definition - Environment            SYS400C4
                                                          6/21/99  15:30:45
Report/Version . . . . . . . . . . . . . . . . :   INVOICETST / 01

Type choices, press Enter.
  Report type  . . . . . . . . . . . . . . . . .   DOC           DOC, PAGE
                                                                 NODX, UBND
  Input record length  . . . . . . . . . . . . .   111           20-256
  Policy name  . . . . . . . . . . . . . . . . .   RDARSTEST     Name
  Report overlay . . . . . . . . . . . . . . . .   __________    Name
  Report data type . . . . . . . . . . . . . . .   *OTHER        *LINE, *AFPDS
                                                                 *OTHER...
  Report group . . . . . . . . . . . . . . . . .   __________    Name
  Translate print control  . . . . . . . . . . .   N             Y=Yes, N=No
  Printer file . . . . . . . . . . . . . . . . .   TSTINVPRTF    Name
    Library  . . . . . . . . . . . . . . . . . .     QRDARS
  Text . . . . . . . . . . . . . . . . . . . . .   Test Invoices
(OnDemand Sample)
  Compression  . . . . . . . . . . . . . . . . .   Y             Y=Yes, N=No
  Posting date type  . . . . . . . . . . . . . .   __

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

Figure 297. OnDemand Report Definition Change Environment Panel 1

The first screen requires no changes. Press the **Page Down** key to advance to the next screen.

Note: If you specified a Posting date type, another screen would follow the screen shown above. You would then need to press the **Page Down** key a second time to advance to the screen shown in Figure 298.

```
                Change Report Definition - Environment            SYS400C4
                                                          6/21/99  15:30:45
Report/Version . . . . . . . . . . . . . . . . :   INVOICETST / 01

Type choices, press Enter.

  Bypass report results display  . . . . . . . .   N             Y=Yes, N=No
  Bypass document results display  . . . . . . .   N             Y=Yes, N=No
  Search all sequence numbers  . . . . . . . . .   N             Y=Yes, N=No
  Input exit . . . . . . . . . . . . . . . . . .   __________    Name
    Library  . . . . . . . . . . . . . . . . . .     __________
  Index exit . . . . . . . . . . . . . . . . . .   QRLWEXITV     Name
    Library  . . . . . . . . . . . . . . . . . .     QRDARS
  Viewer exit  . . . . . . . . . . . . . . . . .   __________    Name
    Library  . . . . . . . . . . . . . . . . . .     __________









                                                                      Bottom
F3=Exit   F12=Cancel
```

Figure 298. OnDemand Report Definition Change Environment Panel 2

Enter program name QRLWEXITV in the *INDEX Exit* program name field. Enter library QRDARS in the library name field.

Note: Be sure to spell this program name correctly, and enter this information in the correct exit field.

Step 2. Setting up a Content Manager Index Class

To integrate an OnDemand report with Content Manager, a corresponding Content Manager index class must already exist. To create a Content Manager index class for the installation verification test, perform the following steps:

```
VI                              Content Manager for iSeries

Select one of the following:

     1. Profile maintenance
     2. Work with storage management jobs
     3. Database utilities

    90. Sign off









Selection or command
===> 1_____________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=User support
F16=Set initial menu
```

Figure 299. Content Manager Main Menu

Sign on using a Content Manager administrator user profile.

Select option 1 and press **Enter** to perform profile maintenance.

```
VIPRF                         Profile Maintenance

Select one of the following:

     1. Work with privilege sets
     2. Work with user profiles
     3. Work with groups
     4. Work with access lists
     5. Work with key fields
     6. Work with index classes
     7. Work with workbaskets
     8. Work with policies
     9. Work with servers
    10. Work with object directories
    11. Work with storage classes
    12. Work with optical systems
    13. Delete work management profiles

Selection or command
===> 5_____________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=User support
F16=Set initial menu
```

Figure 300. Content Manager Profile Maintenance Menu

Select option 5 and press **Enter** to work with key fields.

```
                          Work with Key Fields

Position to . . . . . _______   Key field

Type choices, press Enter
  1=Create   2=Change   3=Copy   4=Delete   5=Display

         Key
Option   Field       Text
  1      INVNBR03
  _      DOCDESC     Document description
  _      DOCTYPE     Document type
  _      IDENTIFR    Folder identifier
  _      SOURCE      Source
  _      TMESTAMP    Time stamp
  _      USERID      User ID

                                                                    Bottom

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

Figure 301. Content Manager Work with Key Fields Panel 1

1. Type 1 in the option column of the first line displayed.
2. Type INVNBR03 in the Key Field column of the first line displayed and press **Enter**.

```
                            Create Key Field

Type choices, press Enter

  Key field  . . . . . .  INVNBR03   Name

  Text . . . . . .  Invoice Number

  Type . . . . . .  1          1=Character
                               2=Numeric

  Length . . . . . .  03       1-40

                                                                    More...

F3=Exit   F12=Cancel
```

Figure 302. Content Manager Create a Key Field Panel

3. Fill in the key field information as shown above for the INVNBR03 field and press **Enter**.
4. Add 5 more key fields, repeating the steps from Figure 301 and Figure 302. Use the following information to build the five additional keys:

- Field name "CUSNBR04", Description "Customer Number", Type 1, Length 4.
- Field name "SLSMAN05", Description "Salesman", Type 1, Length 5.
- Field name "INVTOT12", Description "Invoice Total", Type 1, Length 12.
- Field name "ORDNBR07", Description "Order Number", Type 1, Length 7.

- Field name ″REPTDATE″, Description ″Report Date″, Type 1, Length 8.

```
VIPRF                          Profile Maintenance

Select one of the following:

     1. Work with privilege sets
     2. Work with user profiles
     3. Work with groups
     4. Work with access lists
     5. Work with key fields
     6. Work with index classes
     7. Work with workbaskets
     8. Work with policies
     9. Work with servers
    10. Work with object directories
    11. Work with storage classes
    12. Work with optical systems
    13. Delete work management profiles

Selection or command
===> 6_____________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=User support
F16=Set initial menu
```

Figure 303. Content Manager Profile Maintenance Menu

Press F12 to return to the Profile Maintenance menu. Select option 6 and press **Enter** to work with index classes.

```
                            Work with Index Classes

Position to . . . . . .   ________   Index class

Type choices, press Enter
  1=Create   2=Change   3=Copy   4=Delete   5=Display

          Index
Option    Class       Text
  1       INVTEST
  _       DOCCLASS    Non-indexed documents
  _       FLRCLASS    Non-indexed folders
  _       NOINDEX     To be indexed items









                                                                       Bottom

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

Figure 304. Content Manager Work with Index Classes Panel

Type 1 in the Option column on the first available line.

Type INVTEST in the Index Class column on the first line that is available and press **Enter**.

```
                          Create Index Class

Type choices, press Enter

  Index class  . . . . . .  INVTEST     Name
  Text . . . . . .  Invoice Test Report
  Access list  . . . . . .  USER  Name, F4 for list

  Key field 1  . . . . . .  INVNBR03    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No

  Key field 2  . . . . . .  CUSNBR04    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No

  Key field 3  . . . . . .  SLSMAN05    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No

  Key field 4  . . . . . .  INVTOT12    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No


                                                                More...
F3=Exit   F4=Prompt   F6=Create key field   F12=Cancel
```

Figure 305. Content Manager Create Index Class Panel 1

Fill in the Create Index Class screen as shown and press the **Page Down** key.

Note: You must choose an appropriate Access list from the lists available on your system.

```
                          Create Index Class

Type choices, press Enter

  Key field 5  . . . . . .  ORDNBR07    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No

  Key field 6  . . . . . .  REPTDATE    Name, F4 for list
    Required . . . . . .  N           Y=Yes, N=No

  Key field 7  . . . . . .  ________    Name, F4 for list
    Required . . . . . .  _           Y=Yes, N=No

  Key field 8  . . . . . .  ________    Name, F4 for list
    Required . . . . . .  _           Y=Yes, N=No

  Key field to
    represent object . . . . . .  ________



                                                                More...
F3=Exit   F4=Prompt   F6=Create key field   F12=Cancel
```

Figure 306. Content Manager Create Index Class Panel 2

Fill in the Create Index Class screen as shown and press **Enter**.

Step 3. Creating OnDemand Report Definition Extensions

The following steps and screens show an example of the Report Definition Extensions. The extensions contain information regarding the relationship between OnDemand report segments and Content Manager, such as the correspondence between OnDemand key values and the Content Manager index class and index fields.

You must add the Content Manager data library and program library to your library list before proceeding. The data library should appear before the program library in the library list. By default, the data library is QUSRVI, although you may have a different data library in your environment. The program library is QVI. If you fail to add either library to the library list, you will receive an error message.

```
RDARSRPT            OnDemand Report Administration Menu
                                                          System:   SYS400C4
Select one of the following:

     1. Retrieve Reports
     2. Work with Report Policies
     3. Work with Report Overlays
     4. Work with Report Definitions
     5. Work with Report Groups
     6. Work with Report Definition Extensions

    10. Edit/Authorize OnDemand Users
    11. Edit/Authorize OnDemand Report Users
    12. Edit/Authorize OnDemand Report Group Users
    13. Work with Key Security

    20. Report Definition Menu
                                                                        More...
Selection or command
===> 6_____________________________________________________________________
_____________________________________________________________________________
F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel   F13=Information Assistant
F23=Set initial menu
```

Figure 307. OnDemand Report Administration Menu

From the ONDEMAND REPORT ADMINISTRATION MENU, select option 6, Work with Report Definition Extensions, and press **Enter**.

```
                  Work with Admin for OnDemand (WRKADMRDAR)

Type choices, press Enter.

Administrator function . . . . . > *RPTEXT       *REPORT, *RPTEXT, *RPTGRP...
Report extension name  . . . . .   *ALL_____     Name, generic*, *ALL...









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

Figure 308. Work with Administration for OnDemand

Press **Enter**.

You may also use the WRKADMRDAR command from any command line and specify the parameter TYPE(*RPTEXT) and RPTEXT(*ALL) as shown below:

WRKADMRDAR TYPE(*RPTEXT) RPTEXT(*ALL)

The following screen displays:

```
 6/01/99       Report Definition Extensions for CM for iSeries       QSECOFR


Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

      Report    Report   CM for iSeries
 Opt  Name      Version  Index Class
 1   INVOICETST   01


                                                                    Bottom
 F3=Exit   F5=Refresh   F12=Return
```

Figure 309. Report Definition Extensions List Panel

To create a new Report Definition Extension record:

1. Type 1 (for Create) in the Opt column on the first line displayed.
2. Type INVOICETST in the *Report Name* field.
3. Type 01 in the *Version* field.
4. Press Enter to continue to the next panel.

For more details of each field, see the command description for WRKADMRDAR in "OnDemand and Content Manager Integration Commands" on page 256, or press the F1 key for help.

```
 6/15/99          Update OnDemand Report Definition Extensions          QSECOFR



OnDemand Report Name:         INVOICETST
OnDemand Report Version:      01
OnDemand Report Description:  Test Invoices              (OnDemand Sample)
CM for iSeries Index Class:   INVTEST
CM for iSeries Content Class: 0303









 F3=Exit   F12=Return
```

Figure 310. Create Report Definitions Extensions Panel 1

This screen is used to relate an OnDemand report/version to a Content Manager index class.

The content class will be determined by the OnDemand report type and report data type (and object class, for AnyStore data). For spooled files and most AnyStore data, OnDemand will set this value for you. For AnyStore data with object class of 255 (user-defined data), the content class cannot be determined and must be entered on this screen. See the EKD0318 file for valid Content Manager content classes that can be entered here.

Enter INVTEST in the index class field and press **Enter**.

```
 6/15/99          Update OnDemand Report Definition Extensions         QSECOFR


OnDemand Report Name:          INVOICETST
OnDemand Report Version:       01
OnDemand Report Description:   Test Invoices               (OnDemand Sample)
CM for iSeries Index Class:    INVTEST          Desc.:  Invoice Test Report
CM for iSeries Content Class:  0303
2nd Level Index Exit:          __________
2nd Level Exit Lib:            __________

                            Specify
OnDemand Key Fields     Key Relationships     CM for iSeries Key Fields
1 Invoice No.              1    =    1        1 Invoice Number
2 Customer No.             2    =    2        2 Customer Number
3 Salesman                 3    =    3        3 Salesman
4 Invoice Total            4    =    4        4 Invoice Total
5 Order#                   5    =    5        5 Order Number
6 Report Date              6    =    6        6 Report Date
                           _    =    7        7
                           _    =    8        8
 F3=Exit   F12=Return
```

Figure 311. Create Report Definition Extension Panel 2

Use this screen to describe the relationship between OnDemand report keys and Content Manager index class keys.

The example above maps all six OnDemand keys to Content Manager. In the verification test this is a straight mapping of keys. This is because the example created the Content Manager index class with all of the OnDemand keys. In most cases, Content Manager index classes will already exist, and you will be mapping to index class keys that are in different sequences. An index class may have more or fewer keys than the OnDemand report definition. It is also possible to map one OnDemand key to more than one Content Manager key.

Step 4. Starting Report Store Processing

To start Report Store processing, perform the following steps:

1. Ensure that the Content Manager data library is in your library list.
2. Issue the Copy File command (CPYF) to generate a spooled file to archive as shown below:

   CPYF FROMFILE(QRDARS/TSTINV) TOFILE(QRDARS/TSTINVPRTF)
3. Issue the Work with Job command (WORKJOB). Then use option 4 to get the spooled file's job name, user, number, and the spooled file number to use in the next step.
4. Issue the Start Coded Data Store command (STRCDSRDAR) for the report as shown below. However, you must insert the correct values for the JOB and SPLNBR parameters (as determined by using WRKJOB above):

   STRCDSRDAR REPORT(INVOICETST) VERSION(01)
   SPLF(TSTINVPRTF) JOB(000001/USERID/JOBNAME) SPLNBR(1)

Step 5. Running the Content Manager External Reference Load Program (QVIXRFINX)

Ensure that the Content Manager data library and Content Manager library containing QVIXRFINX is in your library list.

Run the Content Manager external reference index load program to add the OnDemand report references into the Content Manager databases. Use the following call command to run the external reference load program:

CALL PGM(QVIXRFINX)

The QVIXRFINX program will load all unprocessed external data references into Content Manager. For this reason, it may be run at any time to integrate OnDemand report indexes. It is recommended that you run this program periodically, perhaps using a job scheduler.

Step 6. Retrieving an OnDemand Report Segment from the Content Manager Client

From a Content Manager Client workstation, log on to the Content Manager Client and select the Invoice Test index class for searching.

Select any segment for retrieval and the Advanced Function Print Viewer should launch and display a segment of the test report.

Note: You must authorize the users to use OnDemand and to the OnDemand reports that they are retrieving. You can accomplish this by using options 10 and 11 on the OnDemand Report Administration Menu, shown in Figure 291 on page 245.

OnDemand and Content Manager Integration Commands

This section describes how to run the commands provided with the integration software. Content Manager was formerly known as VisualInfo and the abbreviation VI is still used in the commands.

Add to CM for OnDemand (ADDVIRDAR) command

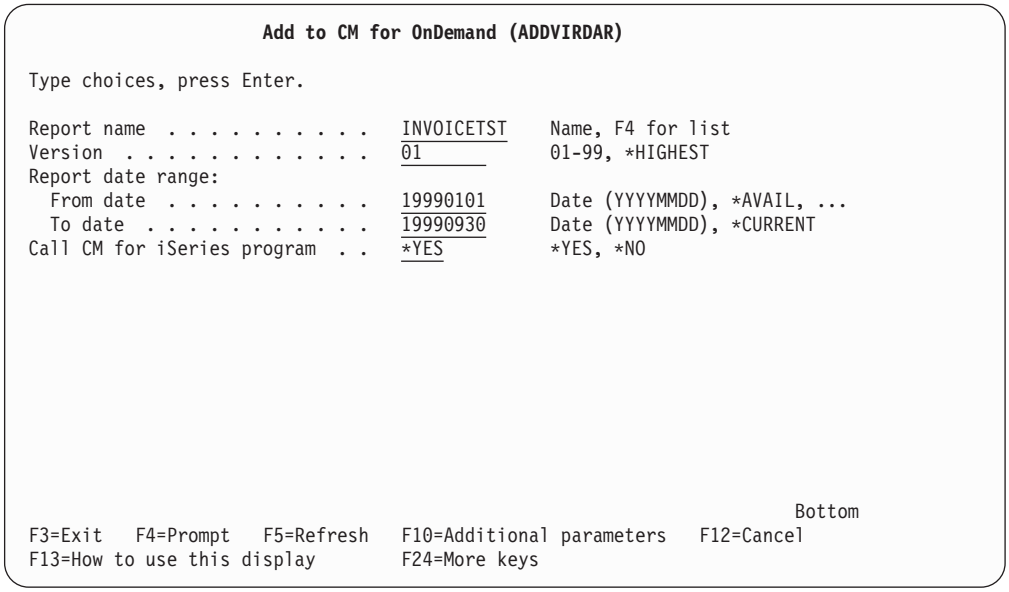

Figure 312. Add to CM for OnDemand Panel

The Add to CM for OnDemand (ADDVIRDAR) command allows you to add existing OnDemand report indexes into Content Manager as external references. You can select the OnDemand reports that you want to integrate by specifying a range of report dates.

Specify if you want to call Content Manager program QVIXRFINX to complete the addition of the external references into Content Manager. You can retrieve and view the OnDemand reports by the Content Manager workstation Client provided you call the QVIXRFINX program and add the new external references to Content Manager.

In order to automate the integration of future OnDemand reports and the removal of expired or deleted reports, remember to add the appropriate index exit to the appropriate OnDemand report definition for any reports integrated using ADDVIRDAR.

Remove from Content Manager for OnDemand (RMVVIRDAR) command

```
                    Remove from CM for OnDemand (RMVVIRDAR)

Type choices, press Enter.

Report name  . . . . . .   INVOICETST    Name, F4 for list
Version  . . . . . .  .   01            01-99
Report date  . . . . . .   19990615      Date (YYYYMMDD)
Report sequence number . . . . .   001   001-999, AAA-999
Call CM for iSeries program  . .   *YES  *YES, *NO

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

Figure 313. Remove from CM for OnDemand Panel

The Remove from Content Manager for OnDemand (RMVVIRDAR) command allows you to mark Content Manager external references to an OnDemand report for deletion. This **does not** delete the report from OnDemand.

Specify if you want to call Content Manager program QVIXRFDEL to complete the removal of the external references from Content Manager. You can no longer retrieve and view the OnDemand reports by the Content Manager workstation Client after you call the QVIXRFDEL program and remove the external references from Content Manager.

Work with Admin for OnDemand (WRKADMRDAR) command

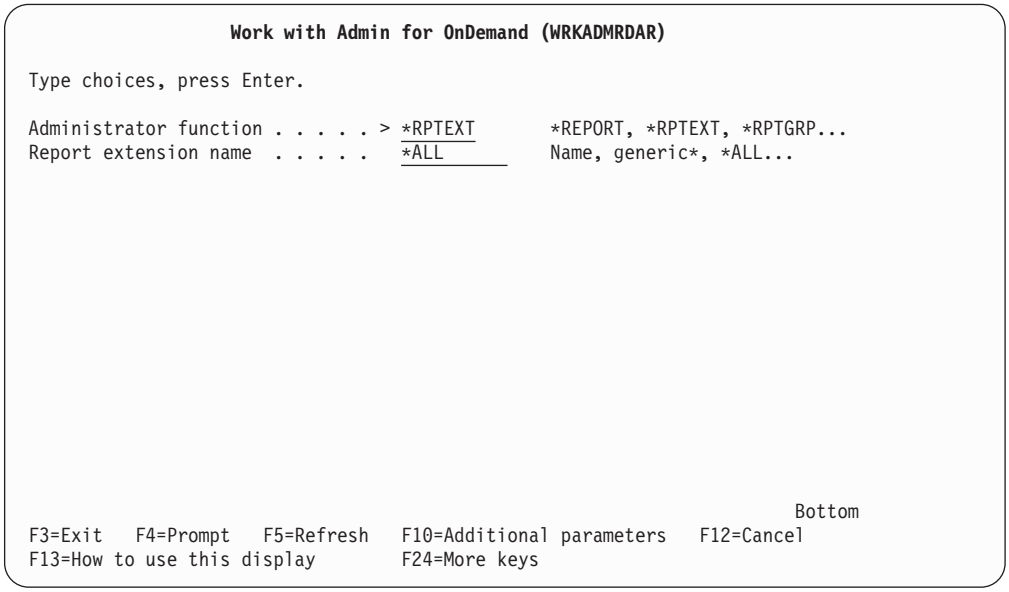

Figure 314. Work with Admin for OnDemand

The Work with Admin for OnDemand (WRKADMRDAR) command with TYPE(*RPTEXT) allows you to create, change, copy, delete, or display OnDemand - Content Manager report definition extensions. The extensions contain information regarding the relationship between OnDemand report segments and Content Manager, such as the correspondence between OnDemand keys and the Content Manager keys. Figure 315 on page 260 shows a sample screen to work with ***ALL** report extensions.

Note: Users of the **WRKADMRDAR** command with the TYPE(*RPTEXT) parameter must be:

- Valid Content Manager users.
- OnDemand administrators.
- Authorized to all necessary Content Manager index classes.

```
6/21/99       Report Definition Extensions for CM for iSeries      QSECOFR

Type options, press Enter.
  1=Create    2=Change    3=Copy    4=Delete    5=Display

     Report      Report   CM for iSeries
Opt  Name        Version  Index Class
  1  INVOICETST   01
  _  CHECKSTMTS   01       CHECKSTM
  _  SUNSEEDS     01       SUNSEEDS

                                                                  Bottom
F3=Exit   F5=Refresh   F12=Return
```

Figure 315. Report Definition Extensions Panel

If this is a new installation of the OnDemand - Content Manager integration support, there will be no existing extension records.

To add a new report extension:

1. Type 1 in the Opt column on the first available line.
2. Enter a Report Name in the report name column on the first available line. For example, INVOICETST.
3. Type in a valid report version such as 01 in the Report Version column on the first line that is available and press **Enter**.

```
6/21/99          Update OnDemand Report Definition Extensions          QSECOFR


OnDemand Report Name:         INVOICETST
OnDemand Report Version:      01
OnDemand Report Description:  Test Invoices              (OnDemand Sample)
CM for iSeries Index Class:   INVTEST
CM for iSeries Content Class: 0303









F3=Exit   F5=Refresh   F12=Return
```

Figure 316. Create Report Definition Extensions Panel 2

If the OnDemand report definition exists, its description displays. If not, the description will be blank.

Enter the Content Manager index class that you would like to relate to this OnDemand report/version and press **Enter**.

The above example uses the INVTEST index class.

```
6/21/99          Update OnDemand Report Definition Extensions          QSECOFR



OnDemand Report Name:         INVOICETST
OnDemand Report Version:      01
OnDemand Report Description:  Test Invoices              (OnDemand Sample)
CM for iSeries Index Class:   INVTEST          Desc.:  Invoice Test Report
CM for iSeries Content Class: 0303
2nd Level Index Exit:         __________
2nd Level Exit Lib:           __________

                           Specify
OnDemand Key Fields    Key Relationships     CM for iSeries Key Fields
1 Invoice No.             _    =    1       1 Invoice Number
2 Customer No.            _    =    2       2 Customer Number
3 Salesman                _    =    3       3 Salesman
4 Invoice Total           _    =    4       4 Invoice Total
5 Order#                  _    =    5       5 Order Number
6 Report Date             _    =    6       6 Report Date
                          _    =    7       7
                          _    =    8       8
F3=Exit   F12=Return
```

Figure 317. Create Report Definition Extensions Panel 3

If the OnDemand report definition exists, the OnDemand key field descriptions display.

If the Content Manager index class exists, the index class description and key field descriptions display.

Note: If the user running the WRKADMRDAR command with TYPE(*RPTEXT) is not a valid Content Manager user, the index class description and key descriptions will be blank.

The fields and their meanings are as follows:

OnDemand Report Name

Used to identify the report to be integrated. It can be up to 10 characters in length, and must not contain any * or # special characters. The name entered here must match exactly the name in the OnDemand Report Definition. This is a mandatory entry field during the update or create process.

OnDemand Report Version

Report Version allows OnDemand to keep track of multiple iterations of the same report. The version entered here must match exactly the version in the OnDemand Report Definition. This value must be in a range from **01** to **99**. This is a mandatory entry field during the update or create process.

OnDemand Report Description

The description of the OnDemand Report Definition.

CM for iSeries Index Class

This field defines the Content Manager Index Class that is associated with the integrated OnDemand document (segment). Define the Index Class to Content Manager before running the OnDemand batch capture and integration for Content Manager. This is a mandatory entry field during the update or create process.

CM for iSeries Index Class Desc

The Content Manager index class description.

CM for iSeries Content Class

The Content Manager (CM) Content Class that will be used when Content Manager retrieves this OnDemand report. See the Content Manager EKD0318 file for valid content classes that can be entered.

Second Level Exit Program

IBM provided this user exit to allow you to perform additional functions during the OnDemand - Content Manager integration process. A later section of this publication provides more detail. This is an optional entry field during the update or create process.

Second Level Exit Library

This field names the library that contains the user exit program described in the previous field.

Key Relationship Fields

OnDemand supports five searchable keys and the ability to do report date range searches.

Content Manager supports up to eight searchable keys.

Mapping the OnDemand key values into Content Manager requires a method of mapping the key values.

These fields map the values of OnDemand report keys to Content Manager keys. These fields can have a value from 1 - 6. The Report Date for all OnDemand reports is key 6. To specify a key relationship enter the OnDemand key number in the line in front of the corresponding Content Manager key.

Specification of any of these values will result in the corresponding OnDemand keys being substituted into the Content Manager document keys. You must specify at least one key during the update or create process.

Loading Content Manager External Reference Indexes (QVIXRFINX)

The Content Manager Index loading program is a high speed batch interface which loads external reference information into Content Manager.

The QVIXRFINX program has no parameters, and you can run it repeatedly. As OnDemand adds each external reference to Content Manager, Content Manager assigns each external reference with an item id and an object id. Content Manager updates the external reference interface file with object ids for each processed external reference. When you call the QVIXRFINX program again, it processes **only** unprocessed records.

A sample call statement follows below:

CALL PGM(QVI/QVIXRFINX)

You will find the QVIXRFINX program in the QVI library.

Deleting Content Manager External Reference Indexes (QVIXRFDEL)

The Content Manager Index deletion program is a batch process which deletes external reference information from Content Manager. The system deletes the external reference even if you re-index it in Content Manager or put on a workflow process. It will also delete all Content Manager annotations and notes for the external reference.

The QVIXRFDEL program has no parameters and you can run it repeatedly. Content Manager deletes **only** external references that are marked for deletion.

A sample call statement follows below:

CALL PGM(QVI/QVIXRFDEL)

You will find the QVIXRFDEL program in the QVI library.

Index Exit (QRLWEXITV)

The QRLWEXITV index exit program is called when either of the OnDemand commands STRCDSRDAR or STRMONRDAR are issued (assuming the program has been specified in the index exit field in the OnDemand report definition). The exit program uses the OnDemand report definition extension file to determine how to map key values from an OnDemand report to a corresponding Content Manager index class. The QRLWEXITV program adds external data reference records to the Content Manager interface file (EKD0314).

Index Exit (QRLWEXITVM) – Multi-key

The QRLWEXITVM index exit program is called when either of the OnDemand commands STRCDSRDAR or STRMONRDAR are issued (assuming the program has been specified in the index exit field of the OnDemand report definition) and also when the QRLWINZV program is called. The exit program uses the OnDemand report definition extension file to determine how to map key values from an OnDemand report to a corresponding Content Manager index class. The QRLWEXITV program adds external data reference records to the Content Manager interface file (EKD0314).

You must use the QRLWEXITVM index exit when any of the OnDemand report keys or display fields are *Multi-key* fields.

Using this multi-key index exit for Content Manager integration may produce unexpected results if your multi-key key values do not repeat on every indexed line of your report. For example, assume key 3 is Department Number and key 4 is Employee Name. If Department Number only prints beside the **first** Employee Name on the page, but is not reprinted beside each subsequent Employee Name on the page, then this exit program will only associate the Department Number with the first Employee Name. The subsequent Employee Names will have a blank Department Number associated with them. For reports of this type, you can use the ADDVIRDAR and RMVVIRDAR commands to integrate and delete them, or modify the original report to add a repeating Department Number value on the printed page.

Index Exits - Additional Information

- If you require an index exit for reasons in addition to Content Manager integration, you can create your own index user exit program (as described in Appendix A, "OnDemand Spool File Archive User Exits and Application Programming Interfaces," on page 281). Then call the QRLWEXITV or QRLWEXITVM program from your program, passing the same parameter structure. Name your program **QRLWExxxxx**, where **xxxxx** can be any meaningful characters. The new program name becomes the name you enter in the OnDemand report definition in the *index exit* field.
- By using the user exit naming convention of QRLWExxxxx, you are identifying which OnDemand reports are integrated with Content Manager. By doing this, you automatically enable OnDemand to remove reports from Content Manager whenever the reports are deleted or expired from OnDemand.

Second-Level Index Exit

To expand on the level of application integration between OnDemand and Content Manager, the OnDemand Report Definition Extension file supports the specification of a second level index exit. You can write this user exit program to perform additional functions than those that are provided in the standard software. The exit receives all parameters that contain the OnDemand keys so that a customer database can be populated, additional Content Manager APIs issued, and so forth.

Parameters Required Parameter Group:			
1	OnDemand Report Name	Input	Char(10)
2	OnDemand Report Version	Input	Char(2)
3	OnDemand Report Date (YYYYMMDD format)	Input	Packed(8,0)
4	OnDemand Report Sequence Number	Input	Char(3)
5	OnDemand Report Segment Displacement	Input	Packed(11,0)
6	OnDemand Key 1 value	Input	Char(25)
7	OnDemand Key 2 value	Input	Char(20)
8	OnDemand Key 3 value	Input	Char(20)
9	OnDemand Key 4 value	Input	Char(20)
10	OnDemand Key 5 value	Input	Char(15)
11	Content Manager Index Class	Input	Char(8)
12	Content Manager Content Class	Input	Char(4)
13	Reserved	Input	Char(50)

As a general rule, you can write a different second level exit for each different OnDemand report which requires it, with knowledge of the specific environment. Each report can have a unique second level index exit (if needed) by naming it in the Report Definition Extension.

The programmer is free to use all Content Manager APIs in the second level exit except any that are specifically for interactive use. At the time of the second level exit call, all Content Manager interface file updates have been completed for the document. The programmer should code the second level exit to properly manage customer files, and so forth. The index exit programs (QRLWEXITV and QRLWEXITVM) started by the STRCDSRDAR and STRMONRDAR commands call the second level exit.

The second level exit integration does not automatically close the second level index files on behalf of the programmer.

For ILE programs, compile second-level exit programs with activation group set to *CALLER.

Problem Determination

Content Manager Client messages

FRN6556A: The system cannot get the object.

This is a somewhat generic message that is displayed when the Content Manager Client cannot display an OnDemand segment. There are several possible causes for this message:

1. The user is not an authorized OnDemand user.
2. The user has no authority to the OnDemand report.
3. The user has no authority to the specific report segment (key security).
4. The report segment no longer exists in OnDemand because the report is expired or deleted.
5. The OnDemand report indexes for this report have been migrated to tape or optical.
6. The report segment is on optical storage, but the platter is not in the optical library.
7. The report segment is on tape. The system automatically submits a request to batch to recall the report, but until the system recalls the report, the users will receive this message.

OS/400 messages

MCH0802: Total parameters passed does not match number required. Program QRLRCDS attempted to call program QRLWEXITV with too many parameters.

This message will appear when archiving a report by using the QRLWEXITV index exit for a report with at least one key value with Multi-key being set to yes. (In that case, use QRLWEXITVM instead.) A similar message will appear if your report definition uses QRLWEXITVM but your report has no Multi-key keys. A similar message can also appear if you used the correct Index Exit but placed it in the INPUT EXIT field in the report definition by mistake.

Recovery: When archiving a Multi-key report, use the QRLWEXITVM index exit instead of the QRLWEXITV index exit.

LNR7200: Message 'MCH3402' in program object 'QRLWADMV' in library 'QRDARS' (C D F G).

This message will appear when attempting to work with OnDemand report definition extensions if either the Content Manager data library or program library have not been added to the library list of the job.

Recovery: Use the add library list entry (ADDLIBLE) command to add the missing Content Manager data or program library to the library list. The Content Manager data library must appear before the program library in the library list.

LNR7204: Message 'CEE9901' in called program 'QVIAPI' (C D F G).

This message will appear when attempting to work with OnDemand report definition extensions if neither of the Content Manager data and program libraries have been added to the library list of the job.

Recovery: Use the add library list entry (ADDLIBLE) command to add the Content Manager data and program libraries to the library list. The Content Manager data library must appear before the program library in the library list.

Chapter 8. For the OnDemand Spool File Archive End User

Before you start to use OnDemand, IBM recommends reading Chapter 3 of *IBM Content Manager OnDemand for iSeries Installation Guide*, which explains the available features of OnDemand. That chapter provides the following information:

- It describes the appearance of the screens.
- It tells you how to obtain help when you need it (with screens or fields)
- It defines some terms that might be new to you.

If your responsibilities include retrieving archived reports to view, to print, to send facsimiles, or work with annotations, this chapter shows you how. First, you enter the name of the report or report group you want to find. Then, you can search for more information within the report or group and, finally, print the information or send a facsimile.

Getting Started

Your system administrator has given you security access to OnDemand. Generally, you will be working from the SPECIFY REPORT SEARCH screen. There are three ways to display the screen shown in Figure 318 on page 268:

1. Select a menu option from one of your existing application menus (if one has been added by your programmers). Press **Enter**.
2. Use a ***fast-path*** command to go directly to it from an OS/400 command line. Type **FNDRPTRDAR** on the OS/400 command line. Press **Enter**. (The ability to enter a command on the command line may not be available to you.)
3. Select option **1** from the OnDemand Main Menu. Press **Enter**. (As an end user, you probably will not access OnDemand reports this way.)

Figure 318 on page 268 appears.

Retrieve Reports

Use this screen to begin retrieving reports or groups of reports. (Press **F1** for ***HELP*** if you need more information.)

```
                          Specify Report Search                    ONDMD400
                                                                 1/04/98  14:27:53

              OOO        DDDD                                D
             O   O       D   D                               D
             O   O NNNN  D   D  EEE  MMM MM   AAAA NNNN   DDDD
             O   O N   N D   D E   E M  M  M A   A N   N D   D
             O   O N   N D   D EEEEE M  M  M A   A N   N D   D
             O   O N   N D   D E     M  M  M A   A N   N D   D
              OOO  N   N DDDD   EEE  M  M  M  AAAA N   N  DDDD

Type choices, press Enter.

Report  . . . . . .  CHECKSTMTS   Name, generic*, F4 for list
-OR-
Report group  . . . . . .  _________   Name, generic*, F4 for list

Date range
  From  . . . . . .  _______     YYYYMMDD
  To  . . . . . .  _______     YYYYMMDD


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

Figure 318. Specify Report Search

If you entered a particular report name or report group name, press **Enter** to move to Figure 321 on page 269.

```
                              Select Report                        ONDMD400
                                                                 1/04/98  14:31:11
Type option, press Enter.
  1=Select


Option  Report     Text
        AGEDOC     Age Open DOC
        AGEOPN     Aged open receivable report
        AIC250     Warehouse report
        ANNOUNCE   Announcement list
        APCHK      A/P checks
        AP437      A/P account listing
        BEL3549    Bank edit
        BRMS50     Tape processing rpt
        BUDGET     Budget report
        CHECKSTMTS Check statements
        GLDAILY    G/L Daily by account
        GLTRANS    G/L Transaction report


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

Figure 319. Select Report

This screen shows you a list of reports and their descriptions. A report name appears on this screen only if there is at least one archived report of that name available for retrieval.

Press **Enter** to move to Figure 321 on page 269.

```
                          Select Report Group                    ONDMD400
                                                              1/04/98  14:32:05
Type option, press Enter.
   1=Select

 Option  Report group   Text
         ACCTG          Reports for Accounting
         INVENT         Inventory Reports
         INVINFO        Invoice-related reports
         IS             Information Systems Reports

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

Figure 320. Select Report Group.

This screen shows you a list of report groups and their descriptions. A report group appears on this screen only if there is at least one archived report in that group available for retrieval.

Press **Enter** to move to Figure 321.

```
                          Select Report Result                   ONDMD400
                                                              1/04/98  14:29:08
 Type option, press Enter.
   1=Select

                              Sequence
 Opt  Report     Report date  number   Location  Text
  1   CHECKSTMTS  1995/06/01    001    DISK      Check Statements
      CHECKSTMTS  1995/05/01    001    DISK      Check Statements
      CHECKSTMTS  1995/04/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1995/03/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1995/02/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1995/01/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1994/12/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1994/11/01    001    OPTICAL   Check Statements
      CHECKSTMTS  1994/10/01    001    OPTICAL   Check Statements

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

Figure 321. Select Report Result

This screen displays the search results for all ***CHECKSTMTS*** reports. (The example does not ask for a ***CHECKSTMTS*** report with a particular date.)

Press **Enter** to continue to Figure 322 on page 270.

Refining Your Search

This screen displays additional information about ***CHECKSTMTS***.

```
                         Specify Document Search                     ONDMD400
                                                             1/04/98  14:40:45
Report  . . . . . . . . . . :   CHECKSTMTS
Report type . . . . . . . . :   DOC

Type choices, press Enter.

  Key values:                                           Required key length
    1. Account Number   .     ___________________________   3 -  9.
    2. SSN / Tax-ID . . .     __________________            3 - 11.
    3. Cust Name    . . .     __________________            3 - 12.



 Search all report sequence numbers  . . . . . . . . .  Y          Y=Yes,
                                                                   N=No
   Report sequence number  . . . . . . . . . . . . . .  001        1-999
 Date Range:
   From  . . . . . . . . . . . . . . . . . . . . . . .  19950217   YYYYMMDD
   To  . . . . . . . . . . . . . . . . . . . . . . . .  19950217   YYYYMMDD


F3=Exit   F12=Cancel
```

Figure 322. Specify Document Search

If the report is part of a report group, Figure 323 appears instead.

```
                         Specify Document Search                     ONDMD400
                                                             1/04/98  14:46:55
Report/Group  . . . . . . . :  CKSTM / CUSTSERV
Report type . . . . . . . . :  DOC

Type choices, press Enter.

  Key values:                                           Required key length
    1. Account Number   .     ___________________________   3 -  9.
    2. SSN / Tax-ID . . .     __________________            3 - 11.
    3. Cust Name  . . . .     __________________            3 - 12.



Search all report sequence numbers  . . . . . . . . .  Y          Y=Yes,
                                                                  N=No
  Report sequence number  . . . . . . . . . . . . . .  001        1-999
Date Range:
  From  . . . . . . . . . . . . . . . . . . . . . . .  19950217   YYYYMMDD
  To  . . . . . . . . . . . . . . . . . . . . . . . .  19950217   YYYYMMDD


F3=Exit   F6=Group Search   F12=Cancel
```

Figure 323. Specify Document Search

The **Key values** fields let you use keys (indexes) to limit your search. You can enter, for example, an entire account number—for a fully qualified search key—or a part of the account number, for a partially qualified search. Your system administrator creates these keys when defining the report, and lists them for you. Your keys might be different from the ones in the example.

You must use at least one of these fields. (Five fields can appear on the screen.)

In this example, the fields you can view are:

Report name/Group name
: This is the report name (and report group name, if applicable) you selected.

Report type
This example shows a ***DOC***ument-type report.

Other types are ***PAGE*** or ***NODX*** (for NO-INDEX).

In this example, the fields you use are:

1. Account Number
Enter the first complete or partial key. A partial key is comprised of one or more alphanumeric characters followed by an asterisk (*). OnDemand will consider only the characters to the left of the asterisk when searching the index. (Due to the unique nature of the key structure, partial keys are not supported for **PAGE** reports.)

An example: A partial key search, such as ***251****, which searches for all checking statements with account numbers that begin with ***251***.

You can enter ***ALL** to show all segments of the report.

2. SSN / Tax-ID
Enter the second complete or partial key.

3. Cust Name
Enter the third complete or partial key.

Search all report sequence numbers
Enter either:

- **Y** to search all possible report runs (sequence numbers) for this date.
- **N** to search only the sequence number you selected from the SELECT REPORT RESULT screen.

You can change the field if you want to search more or fewer report runs.

Report sequence number
Enter the run of the report, for the date you want to view, beginning with 001.

You can change this field to view a different run of the report for this date.

Report Date Range
The *Start Date* and *End Date* fields are from the DOCUMENT SEARCH menu.

Change these dates to expand your search to include runs from multiple dates.

- ***F6=Group Search***

  This function key appears only if the report you have chosen is part of a report group. Press it to search for **all** reports within that group.

An informational message appears at the bottom of the screen if you enter data that is not valid.

Press either:

- **Enter** to move to Figure 324 on page 272.
- **F6** to search for all reports in the report group (if your report is in a report group).

  If you select a group search, the last column in Figure 324 on page 272 is replaced by the specific report name in the report group.

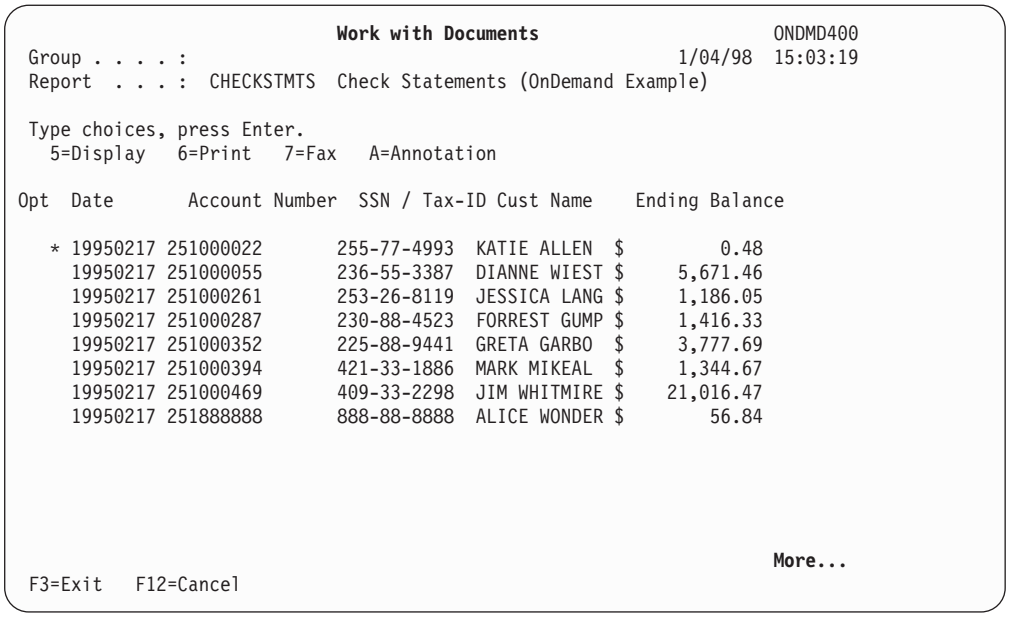

Figure 324. Work with Documents

The screen displays a list of the report documents that match your search value, with additional information about each document. (Column headings in the example might not match yours.) An asterisk (*) beside a document indicates that an annotation (note) exists for that document. Report widths greater than the screen column width will cause OnDemand to display a second line of column headings. The headings appear under the first line and display an additional function key (**F11=Change View**) at the bottom of the screen. This allows you to toggle so that you can see all the data. If your display supports 132-column wide viewing, OnDemand will automatically present the information on a wide screen. As a result, you do not even need to press **F11**!

For certain report types you will see column headings for **Page number** or **Segment number**. If the column widths are not sufficient to display all significant digits of these values, you will see plus signs (**+++++++**) in place of the data. If this occurs, see your OnDemand system administrator, who can change the report definition to specify a longer key name. This will force the column to be wide enough to display the values.

To view a document:

Opt Type **5** to display a document. Type **5** in front of multiple documents if you would like to view multiple documents one after another (pressing **Enter** or **F3** or **F12** between each one). If your screen shows *5=Combined Display* instead of *5=Display*, then your user profile has been set up to view multiple items at one time. In this case, type **5** in front of multiple documents if you would like OnDemand to combine them into one document for viewing.

Press **Enter** to move to Figure 325 on page 273.

OR

Opt Type **6** to print a document. Type **6** in front of multiple documents if you would like to print multiple documents one after another (pressing **Enter**

between each one). If your screen shows *6=Combined Print* instead of *6=Print*, then your user profile has been set up to print multiple items at one time. In this case, type **6** in front of multiple documents if you would like OnDemand to combine them into one document for printing.

Press **Enter** to move to Figure 326 on page 274.

OR

Opt Type **7** to send a facsimile of the document. Type **7** in front of multiple documents if you would like to fax multiple documents one after another (pressing **Enter** between each one). If your screen shows *7=Combined Fax* instead of *7=Fax*, then your user profile has been set up to fax multiple items at one time. In this case, type **7** in front of multiple documents if you would like OnDemand to combine them into one document for faxing.

Press **Enter** to move to Figure 326 on page 274.

OR

Opt Type **A** to view or add annotations (notes) for the document. Type **A** in front of multiple documents if you would like to work with annotations for multiple documents one after another.

Press **Enter** to move to Figure 326 on page 274.

To Display a Document

Use this screen to look at the report.

```
                          Display Spooled File
File  . . . . . :   CHECKSTMT                      Page/Line   1/2
Control . . . . .    _______                       Columns     1 - 78
Find  . . . . . .    ____________________________
*...+....1....+....2....+....3....+....4....+....5....+....6....+....7....+...
               P. O. BOX 980
               MARION, S.C.  29571

                                                                  _____ ____
                                                                  _____
 ACCOUNT NAME:  KATIE ALLEN
                                                                  _____ ____
               25 LABRADOR AVENUE
               MARION S C              29571
PAGE 1   OF 4  NOVEMBER  20 - DECEMBER  19, 1990                   ACCOUNT
                                                                  CHECKS EN
_____________________________________________________________________________
CONTENTS       SCN CHECKING                                      SOC.SEC.N
OF THIS        WITH INSTANT CASH RESERVE
STATEMENT
               _____________________________________________________________
               FOR INFORMATION ABOUT ACCOUNT ACTIVITY, CALL 423-6722.
                                                                    More...
F3=Exit   F12=Cancel   F19=Left   F20=Right   F24=More keys
Overprinting not displayed.
```

Figure 325. Display Spooled File

- To scroll through the document, use:
  PAGEUP, **PAGEDOWN**, **F19** (LEFT), or **F20** (RIGHT)

- To return to the top of the document:

  Type **T** in the *Control* field (near top of screen), then press **Enter**.
- To move to the bottom of the document:

  Type **B** in the *Control* field (near top of screen), then press **Enter**.
- To search for a word in the document:

  Type the word in the *Find* field (near top of screen), then press **F16**. (Depending on how your system is set up, you might need to enter the search characters in upper- and lower-case when you search.

Press **F3** to return to the SPECIFY REPORT SEARCH screen, Figure 318 on page 268.

OR, press the **ATTN** key to print the document, to send a facsimile, or to work with annotations, using Figure 326.

You can also return to the DIRECTORY SEARCH MENU to change your search criteria—press **F12**.

To Print or To Send a Facsimile or To Work with Annotations

This screen appears because you pressed the **ATTN** key on the DISPLAY SPOOLED FILE screen (Figure 325 on page 273). If you select option 6=Print (or 6=Combined Print) directly, then you will see the screen in Figure 327 on page 275. If you select option 7=Fax (or 7=Combined Fax) directly, then you will see the screen in Figure 328 on page 276. If you select option A=Annotation directly and annotations exist for the document, then you will see the screen in Figure 330 on page 277. If annotations do not exist for the document, then you will see the screen in Figure 331 on page 277.

```
                          Print/Fax Document                        ONDMD400
                                                                 1/04/98  15:05:45
Pages in document . . . . . :     1

Type choice, press Enter.
  6=Print   7=Fax   A=Annotation


Opt  Date      Account Number SSN / Tax ID Cust Name    Ending Balance
 6 * 19960627  251000022      255-77-4993  KATIE ALLEN  $         0.48

                                                                    Bottom
F3=Exit   F12=Cancel
```

Figure 326. Print/Fax/Annotate Document

The fields you use are:

Pages in document
: This shows the number of pages in this segment (checking statement, in our example). This field cannot be modified.

Opt Enter either:

- **6** to move to Figure 327.
- **7** to move to Figure 328 on page 276.
- **A** to move to Figure 330 on page 277 (if annotations exist) or Figure 331 on page 277 (if annotations do not exist).

Press **Enter**.

To Print a Document

This screen gives you a choice of print options.

```
                          Print Document                          ONDMD400
                                                        1/04/98  15:09:05
Pages in document . . . . . :     1

Type choices, press Enter.

  Printer name  . . . . . .   PRT01_____     Name
  -OR-
  Output queue  . . . . . .   __________     Name
    Library . . . . . . . .     *LIBL_____   Name, *LIBL, *CURLIB

  Number of copies  . . . . . .  1__         1-999
  Page range:
    Starting page . . . . . .   1__________  1-99999999999
    Ending page . . . . . .     *END_______  1-99999999999, *END
  Use report overlay  . . . . .  *NO_        *YES, *NO




F3=Exit   F12=Cancel
```

Figure 327. Print Document

Press **Enter** to print.

The information you enter on this screen (such as printer or output queue name) is saved for you; when you request your next print, you do not need to enter it again.

To Send a Facsimile

Use this screen, Figure 328 on page 276, to address and send a facsimile.

```
                              Fax Document                          ONDMD400
                                                                 1/04/98  15:13:12
Pages in document . . . . . :     1

Type choices, press Enter.

  Outgoing Fax number . . . . . .  _____________________________
  Cover page  . . . . . . . . . .  *YES          *YES, *NO
    Title . . . . . . . . . . . .  ____________________________________
    Send to . . . . . . . . . . .  ____________________________________
                                   ____________________________________
                                   ____________________________________
                                   ____________________________________
    Sent by . . . . . . . . . . .  ____________________________________
                                   ____________________________________
                                   ____________________________________
    Comment line  . . . . . . . .  ____________________________________
    Fax mode  . . . . . . . . . .  *NORMAL       *NORMAL, *FINE
  Number of copies  . . . . . . .  1___          1-999


                                                                   More...

F3=Exit   F12=Cancel
```

Figure 328. Fax Document (1 of 2)

Press **Enter** to display Figure 329

```
                              Fax Document                          ONDMD400
                                                                 1/04/98  15:13:12
Pages in document . . . . . :   1

Type choices, press Enter.

  Page range:
    Starting page . . . . . .  1___________      1-99999999999
    Ending page . . . . . . .  *END________      1-99999999999, *END
  Use report overlay  . . . .  *NO__           *YES, *NO









                                                                   Bottom

F3=Exit   F12=Cancel
```

Figure 329. Fax Document (2 of 2)

Press **Enter** to send the facsimile.

To Work with Annotations

If annotations exist for the document, you will see the screen shown in Figure 330 on page 277.

```
                          Report Annotations                    ONDMD400
                                                              1/04/98  15:13:12
Report   . . . :  CHECKSTMTS/01/19960627.001
                   Check Statements (OnDemand Example)
Account Number SSN / Tax ID Cust Name    Ending Balance
251000022      255-77-4993  KATIE ALLEN  $         0.48

Annotation                  1997-11-04   12:00:37       NOBRIEN
Katie called to say she figured out her earlier questions...

Annotation                  1997-11-03   14:47:40       NOBRIEN
Katie called today with general questions about account.









F3=Exit   F6=Add annotation   F12=Cancel
```

Figure 330. Report Annotations (if annotations exist)

Press **F3** to exit from the annotation screen.

If annotations do not exist or if you press **F6** to add annotations from Figure 330, you will see the screen shown in Figure 331.

```
                          Report Annotations                    ONDMD400
                                                              1/04/98  15:13:12
Report   . . . :  CHECKSTMTS/01/19960627.001
                   Check Statements (OnDemand Example)
Account Number SSN / Tax ID Cust Name    Ending Balance
251000022      255-77-4993  KATIE ALLEN  $         0.48

Annotation available to public . . . . . .   Y          Y=Yes, N=No
Type annotation text, then press Enter to add.

 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
                                                                        More...
F3=Exit   F12=Cancel
```

Figure 331. Report Annotations (if adding annotations)

Press **Enter** to add your annotation, then press **F6** to confirm the addition of the annotation. Press **F3** to exit from the annotation screen.

Changing Your Search Criteria

You can use this screen, Figure 332 on page 278, to change some of your search criteria.

```
                    Specify Document Search                    ONDMD400
                                                             1/04/98  14:40:45
Report  . . . . . . . . . . . :  CHECKSTMTS
Report type . . . . . . . . . :  DOC

Type choices, press Enter.

  Key values:                                          Required key length
    1. Account Number   .   161079652_____________      3 -  9.
    2. SSN / Tax-ID . . .   ______________             3 - 11.
    3. Cust Name    . . .   ______________             3 - 12.




Search all report sequence numbers  . . . . . . . . . .  Y          Y=Yes,
                                                                   N=No
  Report sequence number  . . . . . . . . . . . . . . .  001        1-999
Date Range:
  From  . . . . . . . . . . . . . . . . . . . . . . . .  19900101   YYYYMMDD
  To  . . . . . . . . . . . . . . . . . . . . . . . . .   _______    YYYYMMDD

F3=Exit   F6=Group search   F12=Cancel
```

Figure 332. Specify Document Search

You can change the information on this screen to search for documents with a different account number, within a specified date range.

Our examples are:

1. Account Number
161079652

From **19900101**

To You can enter today's date, or leave the field blank.

When you press **Enter**, Figure 333, can appear immediately if only one document meets the search criteria. (If more than one report is found, an intermediate screen displays them.)

```
                    Display Spooled File
File . . . . . :  CHECKSTMTS                      Page/Line    1/2
Control  . . . :                                  Columns      1 - 78
Find . . . . . :

                P. O. BOX 980
                MARION, S.C.   29571


                                                                 _____
                JOHN DOE                                         _____
                SPECIAL ACCOUNT
                15 OAK STREET
                MARION S C              29571

PAGE 1   OF 1    NOVEMBER  20 - DECEMBER  19, 1990             ACCOUNT
                                                              CHECKS E
_____________________________________________________________________
CONTENTS         SCN CHECKING                                 SOC.SEC.
OF THIS
STATEMENT
                                                                More...
 F3=Exit    F12=Cancel   F19=Left    F20=Right    F24=More keys
```

Figure 333. Display Spooled File

Press **F3** three times to return to the ONDEMAND SPECIFY REPORT SEARCH screen, Figure 318 on page 268, to continue retrieving reports.

To Exit OnDemand

Press **F3** from the REPORT SELECTION screen. You might also need to type **SIGNOFF** at the OS/400 command line to exit from OS/400 completely.

Appendix A. OnDemand Spool File Archive User Exits and Application Programming Interfaces

This appendix describes the Spool File Archive user exit programs and application programming interfaces (APIs) that OnDemand provides to help you customize your environment.

OnDemand includes sample program source code for a wide variety of functions. These functions include Input, Index, Monitor Output Queue, and Unbundle user exit programs, as well as others. The name of the sample source file is **QSAMPLES**. A copy of this source file is shipped in library **QRDARS** and in library **QUSRRDARS**. It is possible to update the file in **QRDARS** by PTFs with new or changed source code; the file in **QUSRRDARS** does not change. This is by design. IBM recommends that you copy the **QRDARS** members to use as your examples. You may place your customized programs in **QUSRRDARS** if you like, or in your own application libraries. You will always have a set of unmodified samples that will work as designed, provided you do this.

Basic User Exits

A number of user exits are provided as described below.

Input Exit

This optional Input exit, valid only for *Report data type* of ***OTHER** (as specified in the report definition), gives your own program control of spooled file data (non-AFP) before the report capture program sees it. If you specify a program name in the *Input exit* field of the Report Definition, the report capture process calls that exit program to read the input file.

The Input exit can use the spooled data to, for example, change values or run cross-checks of other line-of-business files. The exit processes a page of data at a time; that is, it reads enough print lines to format a page in a page buffer, then passes that buffer to the report capture program.

Fields that are exchanged when the report capture program calls the Input exit are:

- **Page Buffer** - 256 bytes x 256 lines

  The exit program places one page of print lines into this page buffer. The buffer can have up to 256 lines, with up to 256 characters per print line. The print line consists of 255 characters of data plus the carriage control character in column one. The user exit program typically changes the data in this page buffer .
- **Line Count** - 4 bytes (binary)

  This field holds the actual number of print lines that are in the page buffer when the exit returns the buffer to the report capture program. The value for this field can vary. This field does not usually change.
- **Record Status** - 3 bytes

  The status can be either:

  EOF, when the last page is encountered.

  ERR, if there is an error during normal processing.

  This field should not be modified.

After the Input exit builds a page in the page buffer and returns that page to the report capture program, the capture program moves that page to its own page buffer. It then continues normal processing, such as segmentation, index extraction, compression, and OnDemand control file updates.

There is an example input user exit program in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Index Exit (for reports with no multi-key fields)

After the report capture program extracts the key (index) values for a segment of the report, it can call the optional *Index exit* named in the Report Definition and pass the key values for the *Keys* and *Display Fields*. The Index exit can then, for example, replace a key value with information from a line-of-business master file, or it can remove blanks or other special characters from a value.

Index exits are valid only for *Report type* of **DOC** (as specified in the Report Definition).

The data (formatted in one data structure as shown in the sample program) exchanged between the report capture program and this optional Index exit when **none** of the keys or display fields are defined as *multi-key* are:

- **Reserved** - 8 bytes

  This data should not be modified.

  Typically, one or more of the following keys (which may actually be defined as a display field in your Report Definition) are modified by this user exit program.
- **Key 1** - 25 bytes
- **Key 2** - 20 bytes
- **Key 3** - 20 bytes
- **Key 4** - 20 bytes
- **Key 5** - 15 bytes
- **Reserved** - 27 bytes

  This data should not be modified.

When the Index exit returns control to the report capture program, the capture program updates the OnDemand index file with the values received from the exit program.

There is an example index user exit program for reports without multi-key keys or display fields in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Index Exit (for reports with multi-key field(s))

This exit program provides function similar to the one described for use with reports without any *multi-key* keys or display fields, but the fields passed to and from the exit are different (in order to handle the multi-key environment). Review the information in "Index Exit (for reports with no multi-key fields)" section, and then refer to this section for the data fields passed between the programs.

The data (formatted in four separate data structures as shown in the sample program) exchanged between the report capture program and this optional Index exit when **any one or more** of the keys or display fields is defined as *multi-key* are:

- **Reserved** - 29 bytes

  This data should not be modified.

Typically, one or more of the following keys (which may actually be defined as a display field) is modified by this user exit program. There are 999 occurrences of these key fields passed in an array for the multi-key index records.

- **Key 1** - 25 bytes
- **Key 2** - 20 bytes
- **Key 3** - 20 bytes
- **Key 4** - 20 bytes
- **Key 5** - 15 bytes

When the Index exit returns control to the report capture program, the capture program updates the OnDemand index file with the values received from the exit program.

There is an example index user exit program for reports with multi-key keys/display fields in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Unbundle Exit

If you use the report capture process to unbundle spooled files, you can specify an optional *Unbundle exit* in the ***UBND*** Report Definition. When the report capture program finds a new report in the spooled file, it calls the Unbundle exit and exchanges these fields:

- **Report Name** - 10 bytes

  This is the report name that the capture program found in the spooled file when it found a new report based on the ***UBND*** report segmentation criteria.

  This field might be changed in this user exit program.
- **Report Version** - 2 bytes

  This is the version number of the Report Definition that is being used for this report capture. Valid values are 01 through 99.

  This field normally is not changed, but might be.
- **Print Line** - 256 bytes

  This is the print line that holds the report name. The print line consists of 255 characters of data plus the carriage control character in column one.

  This field typically is not changed by this user exit program.

The Unbundle exit can change the report name or the report version (or both) that is found in the spooled data to any valid report name or version defined to OnDemand.

There is an example unbundle user exit program in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Monitor Output Queue Exit

The Monitor Output Queue function (for details and screens, see “Option 5. Start Monitor Output Queue” on page 80) automatically processes spooled files from selected output queues. When a spooled file is selected from an output queue to be processed, OnDemand first checks for a user exit program in the job’s library list with a name that matches the spooled file attribute (***SPLFNAME**, ***FORMTYPE**, ***USERDATA**) that the Monitor was defined to use. If a user exit program is not found, OnDemand looks for a report definition that matches the spooled file

attribute. If a program is found, it is called, and the report name or version is changed by the program as needed. Then OnDemand looks for a report definition that matches the new name/version.

If OnDemand finds a user exit, it calls it and passes several fields, only two of which should be changed. These two changeable fields are:

- **Report Name** - 10 bytes
- **Version** - 2 bytes

You can design a Monitor Output Queue user exit to alter the report name that the Monitor finds as it processes the particular spooled files in the output queue. For example, if the monitor finds ***PGM123*** in the User Data spooled file attribute of the spooled file, but you want OnDemand to use the report name of ***INVOICES***, you can write your user exit program as the example shows:

IF RPTNAME = 'PGM123' THEN CHANGE RPTNAME TO 'INVOICES'

There is an example monitor output queue user exit program in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Monitor Output Queue Date Exit

The Monitor Output Queue (for details and screens, see "Option 5. Start Monitor Output Queue" on page 80) automatically processes spooled files from selected output queues. A user exit program by the name of **QRLRMEXIT** can be created to change the report run date (which affects migration and expiration processing) and optionally the report posting date (that the end users see) if the report has no **Posting date** defined in the OnDemand report definition.

The **QRLRMEXIT** program will be called if it exists in the Monitor job's library list. If OnDemand finds this user exit, it calls it and passes two fields, only one of which can be changed. The two fields passed between the Monitor and the user exit are:

- **Report Name** - 10 bytes

  This is the report name that has been selected by the Monitor, based on the Spooled file name, Form type, or User data. It cannot be changed by this program.
- **System Date** - 6 bytes

  The value passed into this program is the current system date, in either **YYMMDD** or **MMDDYY** or **DDMMYY** or **YYJUL** format (depending on your system's setup). This value will be used as the job date when the Monitor stores the report. This date can be changed to any valid date. The new date must be in the format specified by the system value **QDATFMT**. (It is assumed that the job attribute **DATFMT** is the same as the system date format.) If the date returned from this program is not valid, the current system date will be used as the job date for storing the report.

Consider this example: A year-end summary report of the previous year's data is run sometime during the first week of the new year. Unfortunately, the end users want the report date on this report to reflect the year for which the report was run. You could use this user exit to test for a certain report name, and if the report name passed in to the exit program is the year-end summary report name, then change the date in the exit program to be the last date of the previous year.

There is an example of a monitor output queue date user exit program (source member name **QRLRMEXIT**) in the ***QSAMPLES*** source file in the ***QRDARS*** library.

Facsimile Exit

The Facsimile exit is designed to enable OnDemand to work with facsimile (fax) software other than Facsimile Support for iSeries from IBM.

To accomplish this, modify and recompile the **QRLRSFAX** program source code to change the command that is issued when an end user requests a fax during report retrieval. Simply change the line in the program that issues the **SNDFAX** command to use the command for the fax software you have installed on your system. (You could also call a program if no command is available.)

An end user requesting a fax calls the **QRLRSFAX** program. If you do not change and recompile it, the standard program will run (which issues the Facsimile Support/400 command). If you do change and recompile it, then the changed program will run (which will issue *your* facsimile command). (Be sure to preserve the **QRLRSFAX** name and place the compiled program back in **QRDARS** library to replace the program that is shipped by IBM).

The CL source for this program (member name **QRLRSFAX**) is in the ***QSAMPLES*** source file in the ***QRDARS*** library. IBM recommends that you copy this source code into a backup member in case you need to go back to the original function as shipped from IBM. When you recompile your program, remember to keep the name **QRLRSFAX** so that OnDemand will find it and call it at the appropriate time.

Advanced User Exit

OnDemand Viewer Exit

This section describes the OnDemand Viewer Exit which allows you to replace the OnDemand 5250 viewing program with one of your own.

The exit has a required fixed number of parameters to pass. The return code parameter controls the errors.

Viewer Exit

Parameters Required Parameter Group:			
1	Exit format name	Input	Char(8)
2	View action	Input	Char(10)
3	Maximum spool record length	Input	Binary(4)
4	Spool record length	Input	Binary(4)
5	Report data type	Input	Char(10)
6	Printer file	Input	Char(20)
7	Action to take	Input	Char(1)
8	Object class	Input	Binary(4)
9	Length of data in buffer	Input	Binary(4)

10	Data buffer	Input	Char(*)
11	Report ID	Input	Binary(4)
12	SEGD0100	Input	Char(159)
13	Return code	Output	Char(10)
Threadsafe: No.			

The Viewer Exit provides a method to use an alternate viewer with OnDemand stored data. When enabled, it calls this exit whenever a user selects a segment for viewing, printing, or faxing from the 'Work with Documents' 5250 screen.

To determine if a viewer exit should be used for a report, use the following sequence to determine whether and what to call an exit.

1. Check report definition. If exit name specified here, use it.
2. Check the OnDemand user defaults. If it contains an exit name, use that as the exit. If ***NONE**, no exit is to be used, if none of the previous was true, check the OnDemand global defaults.
3. Check the OnDemand global defaults. If it contains an exit name, use that exit. If no exit name exists, then use no exit name.

Specifying an exit in the report definition makes it a specific report exit; one that only has to handle that specific report. If the exit is from the user/global defaults, it is said to be a general report exit. This exit must be able to handle data from potentially many different reports.

The exit must be able to handle all types of data potentially called. Currently this can be ***OTHER** line data, ***AFPDS** data, ***AFPDSLINE** data, ***SCS** data, or any of the AnyStore data types. For example, when the data that is in the data buffer is ***OTHER** line data, the data has an ANSI first character forms control character in the first column. The print data is in the remaining columns up to the spool record length. These records will be one after another in the buffer. If the data is ***AFPDS**, then the data in the data buffer will be AFP structured fields. These fields have a self-defining record length and are placed one after another in the buffer. If an exit can not handle the type of data presented, there is a way through the return code to direct OnDemand to handle the request. Do this by using the special return code value of ***NOACTION**.

The exit must be able to handle all allowed actions to take since using an exit overrides the normal OnDemand handling of those requests. These action are view, print, and fax. To allow a combined view, the exit must be able to deal with any view action allowed. By not allowing a combined view, the only view action presented is ***ONLY**.

Notes

1. General exits (ones that are specified at the user or global level) do not have to handle all types of data. They may use the "***NOACTION**" return code to have the normal view path taken.
2. When doing a combined or multiple view, any part requiring an exit requires the exit to handle any of the combinable data.
3. AnyStore items must have a report exit if they are to show up on the 5250 report selection hit list.
4. AnyStore items must have a report exit if you want to retrieve an AnyStore segment from the 5250 interface.

Authorities and Locks

The user profile QRDARS400 must have these authorities to the exit program.

Library Authority
*EXECUTE

Program Authority
*EXECUTE

Data Area Authority
*USE

Required Parameter Group

Exit format name
INPUT; CHAR(8)

VEXT0100
Viewer Exit format 100

View action
INPUT; CHAR(10)

The valid fields are:

***ADD** Subsequent segment of a multiple segment view.

***CLEAR**
Clear the data that is accumulated in a multiple segment view.

***NEW** First segment of a multiple segment view.

***ONLY**
This is the only segment, process and display the data.

***VIEW**
Display the data from the multiple segment view.

Maximum spool record length
INPUT; BINARY(4)

For a multiple segment view, this is the maximum receivable record length. It will be 0 if the segments contain AFPDS data.

Spool record length
INPUT; BINARY(4)

Record length of the spooled data in this segment. The data buffer contains ″n″ number of these records.

Report data type
INPUT; CHAR(10)

Type of data in the data buffer. Valid values for this field are:

***AFPDS**
AFPDS data

***AFPDSLINE**
Mixed line data and AFPDS data

***BUFFER**
AnyStore ***BUFFER** data

***FILE**
AnyStore ***FILE** data

***IFS**
AnyStore ***IFS** data

***LINE**
Line data with ***FCFC**

***OTHER**
Line data with ***FCFC**

***SCS**
SCS data

***SPLF**
AnyStore ***SPLF** data

Note: For any of the AnyStore values in the list, no data is provided in the buffer. You must use the appropriate AnyStore API to retrieve it.

Printer file
INPUT; CHAR(20)

The name of the printer file that you want to use. The first 10 characters contain the file name, and the second 10 characters contain the library name. The library name can contain these special values.

***CURLIB**
The job's current library

***LIBL** The library list

Action to take
INPUT; CHAR(1)

Performing the action that the user requested.

5 View

6 Print

7 Fax

Object Class
INPUT; BINARY(4)

For AnyStore objects, this is the object class of the object.

0 No object class specified

1 Bitmap type object

2 GIF type object

3 PCX type object.

4 PDF type object

5 PostScript type object

6 TIFF type object

7 JPEG type object

Length of data in buffer
INPUT; BINARY(4)

Length of the data returned in the data buffer.

Data buffer
INPUT; CHAR(*)

Buffer that contains the segment data. This buffer can be up to 2 million bytes. The Report data type defines the format of the data. The spool record length specifies any existing record length. For AFPDS data, the buffer will contain a stream of ″5A″ structured fields that have an embedded length. For an AnyStore, item no data will be in the buffer. Use the appropriate AnyStore API to retrieve the segment.

Report ID
INPUT; BINARY(4)

The numeric id of the report the system is processing. If multiple segments are being combined, this value may be not be valid.

SEGD0100
INPUT; CHAR(159)

Information about the segment. See "Retrieve Segments Format" on page 176 for a description of this data.

Return code
OUTPUT; CHAR(10)

Value provided back from the exit program to indicate what happened in the exit. There exist two special values for the return code.

***GOOD**
Exit program handled the data with no error

***NOACTION**
The exit program took no action. When this happens, OnDemand takes the normal view route whenever possible.

Any other value will be interpreted that the exit had an error and that the value passed back reflects something about the error. The system displays this value to the user and then logs it into the job log. It is suggested that the exit log any errors it encounters into the job log.

SEGD0100 Format

This format defines the input segment information.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(10)	Report Name
10	A	CHAR(2)	Version
12	C	PACKED (11 0)	Compressed length
18	12	PACKED (11 0)	Full length
24	18	PACKED (11 0)	Displacement
30	1E	CHAR(25)	Key 1
55	37	CHAR(20)	Key 2
75	4B	CHAR(20)	Key 3
95	5F	CHAR(20)	Key 4
115	73	CHAR(15)	Key 5
130	82	CHAR(8)	Date
138	8A	CHAR(1)	Period
139	8B	CHAR(3)	Sequence number

Offset		Type	Field
Dec	Hex		
142	8E	CHAR(1)	Annotations flag
143	8F	CHAR(16)	Segment handle

Field Descriptions:

Annotations flag
Valid values for this field are:

Y Notes exist for this segment.

N No notes exist for this segment.

Compressed length
Size of the segment after it is compressed.

Date
Date of the segment in the format of YYYYMMDD.

Displacement
Offset from the beginning of the object to this segment.

Full length
This field contains either the uncompressed length of the segment or the resource group id (negative number).

Key 1
Value of key1.

Key 2
Value of key2.

Key 3
Value of key3.

Key 4
Value of key4.

Key 5
Value of key5.

Period
Always contains a period.

Report name
Name of report.

Segment handle
Access handle for this segment.

Sequence number
Sequence number of archived object.

Version
Report version.

Basic APIs

For a quick and easy addition to your own applications, review the APIs in this section.

FNDRPTRDAR Application Programming Interface

You can use the ***FNDRPTRDAR*** application programming interface when you want to add OnDemand report retrieval to a user menu as an option.

Note: Be cautious if you chose to archive index records to optical or tape (in your report policy definitions). There is a condition when using **FNDRPTRDAR** under which you may lose visibility to the report data to which those index records relate.

- Be cautious using the **FNDRPTRDAR** API when the date range on the SPECIFY DOCUMENT SEARCH screen is broadened (after entering a search key value). Under these parameters, OnDemand only searches **on disk** for the index records of reports whose dates differ from the original report date. This is by design; otherwise it could cause an optical disk or tape mount for every volume on which OnDemand has index records stored.

Add the SPECIFY REPORT SEARCH (OnDemand logo) screen to a Control Language (CL) program or as a menu option on a Screen Design Aid (SDA) menu, use the **FNDRPTRDAR** command with no additional parameters.

Optional parameters are available to further define your retrieval request. The parameters are:

- **Report name** - 10 bytes

  Enter the complete report name, a partial (generic) name followed by an asterisk (*), or ***SELECT** to cause the report name to be selected from the report retrieval screen.
- **Report date range - From date** - 8 bytes, defaults to ***AVAIL***
- **Report date range - To date** - 8 bytes, defaults to ***CURRENT***
- **Display report selection** - 4 bytes, defaults to ***YES***.

  Entering ***YES** will cause the SPECIFY REPORT SEARCH (OnDemand logo) screen to display, allowing the user to enter any OnDemand report name. Entering ***NO** will bypass the SPECIFY REPORT SEARCH screen and take the user directly to the SPECIFY DOCUMENT SEARCH screen, allowing the user to enter specific search criteria (keys) for a particular report.

  This bypass option requires entering a valid report name in the *Report name* parameter. If you have more than one report version (for example, version **01** and **02**) defined for the report, OnDemand will use ***HIGHEST** to determine the key field names and column headings on the OnDemand screens.

To see the format of the fields in this API:

Enter **FNDRPTRDAR** and press **F4**.

"Option 1. Retrieve Reports" on page 70 explains the screens and fields.

To use this option, users must be granted OnDemand security authorization. (See Chapter 1, "Using the OnDemand Spool File Archive Feature," on page 1.)

FNDKEYRDAR Application Programming Interface

Use ***FNDKEYRDAR*** to add OnDemand report retrieval functions to your existing *interactive* applications.

In your application program, you can define a new function key that uses ***FNDKEYRDAR*** to add the OnDemand report retrieval functions to your existing

application. For example, assume a customer inquiry application exists that lets end users enter a customer number to display a customer's data. You can define a new function key on the application's inquiry screen to find all invoices that are stored within OnDemand for that customer. While looking at the information on the screen for a particular customer, the end user can press the new function key. This causes OnDemand to display a selection list for viewing, printing, or sending a facsimile of invoices for that customer. After the end user views, prints, or faxes the invoices of interest, OnDemand passes control back to your customer inquiry application as if the user never left your screen.

Note: Be cautious if you chose to archive index records to optical or tape (in your report policy definitions). There is a condition when using **FNDKEYRDAR** under which you may lose visibility to the report data to which those index records relate.

- If you use the **FNDKEYRDAR** API, the API will only search the index records **on disk**. This is by design; otherwise it could cause an optical disk or tape mount for every volume on which OnDemand has index records stored.

An easy way to utilize the ***FNDKEYRDAR*** API is to put it in a control language (CL) program. Then call that CL program from your existing application program (by passing parameters as needed). There is an example of a CL program to do this in the ***QSAMPLES*** source file in the ***QRDARS*** library.

To call the OnDemand Client Viewer by using the ***FNDKEYRDAR*** API, refer to the source member PROFILE in the ***QSAMPLES*** source file in ***QRDARS*** library for setup instructions.

The fields exchanged between your calling program and the API are:

- **Report name** - 10 bytes
- **Key 1** - 25 bytes
- **Key 2** - 20 bytes
- **Key 3** - 20 bytes
- **Key 4** - 20 bytes
- **Key 5** - 15 bytes
- **Group search** - 4 bytes, defaults to ***NO***
- **Report date range - From date** - 8 bytes, defaults to ***AVAIL***
- **Report date range - To date** - 8 bytes, defaults to ***CURRENT***
- **Output** - 6 bytes, defaults to * (display); could also be set to ***PRINT*** or ***FAX***.

Note: If you have more than one report version (for example, version **01** and **02**) defined for the report, OnDemand will use ***HIGHEST** to determine the key field names and column headings on the OnDemand screens.

To see the format of the fields in this API:

Enter **FNDKEYRDAR** and press **F4**.

This list includes escape messages for which you can choose to monitor in the CL program that issues this API:

- *CPF0001* Error on command.
- *RDR0001* Report definition not found.

- *RDR0006* No documents found with this key.
- *RDR0007* From Date must be entered with To Date.
- *RDR0010* Page number must not exceed 999999.
- *RDR0011* Page number must be numeric.
- *RDR0013* Segment number must not exceed 999999.
- *RDR0053* Access denied. Not authorized to access this report.
- *RDR0054* Severe directory problem.
- *RDR0105* To date not valid.
- *RDR0136* Cannot search using Key2 and Key3.
- *RDR0137* Cannot search using Key1 and Key3.
- *RDR0183* You are not authorized to the document with this key.
- *RDR0252* Only RPTKEY1 can be specified with RPTTYPE(*PAGE).
- *RDR0253* RPTKEY4 or RPTKEY5 cannot be specified with RPTTYPE(*NODX).
- *RDR2882* Client launch API program QRLRLCV ended with error code &1. (This is for AnyStore documents only.)
- *RDR9999* No more licenses for OnDemand are available.

Advanced APIs

For more advanced functions to add to your applications, refer to the detail in this section. These advanced Spool File Archive APIs allow you to:

- Retrieve a list of Spool File Archive segments
- Retrieve a specific Spool File Archive segment
- Retrieve a group of archived indexes
- Retrieve a specific set of archived resources

Each API has a fixed number of parameters that must be passed. Errors are controlled by the error code parameter except in the case where an escape message is sent to terminate the call due to:

- There is no room to return the error code
- The error is definitional and requires a recompilation of the program
- The error is not dependent on the result of the API

These advanced APIs can be run in batch or interactive jobs, although the API for viewing would not typically be appropriate for a batch job.

Error Code Parameter

All APIs include an error code parameter that returns error codes and exception data to the calling application. The error code parameter is a variable length structure that contains the information that is associated with an error condition. The error code parameter can be one of two variable-length structures, format **ERRC0100** or format **ERRC0200**.

In format **ERRC0100**, one field in that structure is an INPUT field. This INPUT field controls whether an exception returns to the application or the error code structure fills in with the exception information. When the **Bytes provided** field is greater than or equal to **8**, the rest of the error code structure fills in with the OUTPUT exception information that is associated with the error. When the **Bytes provided** INPUT field is zero, all other fields are ignored, and an exception returns.

Use Format **ERRC0200** if the API caller wants convertible character (CCHAR) support. Format **ERRC0200** contains two INPUT fields. The first field, called the Key field, must contain a **-1** to use CCHAR support. When the **Bytes provided** field is greater than or equal to **12**, the rest of the error code structure fills in with the OUTPUT exception information that is associated with the error. When the **Bytes provided** INPUT field is zero, all other fields are ignored, and an exception returns.

Note: To determine if an error occurred, you should check to see if the **Bytes available** is greater than **0**. Checking for a non-blank value in the exception id is not a valid method.

The structure of the error code parameter is as follows:

Format ERRC0100

Offset		Use	Type	Field
Dec	Hex			
0	0	INPUT	Binary(4)	Bytes provided
4	4	OUTPUT	Binary(4)	Bytes available
8	8	OUTPUT	Char(7)	Exception ID
15	F	OUTPUT	Char(1)	Reserved
16	10	OUTPUT	Char(*)	Exception data

Format ERRC0200

Offset		Use	Type	Field
Dec	Hex			
0	0	INPUT	Binary(4)	Key
4	4	INPUT	Binary(4)	Bytes provided
8	8	OUTPUT	Binary(4)	Bytes available
12	C	OUTPUT	Char(7)	Exception ID
19	13	OUTPUT	Char(1)	Reserved
20	14	OUTPUT	Binary(4)	CCSID of the CCHAR data
24	18	OUTPUT	Binary(4)	Offset to the exception data
28	1C	OUTPUT	Binary(4)	Length of the exception data
		OUTPUT	Char(*)	Exception data

Field Descriptions

Bytes available
The length of the error information available to the API, in bytes. If this is 0, no error was detected.

Bytes provided
The length of the area that the calling application provides for the error code. If the API caller is using format ERRC0100, the bytes provided must be 0, 8 or more that 8. If the API caller is using format ERRC0200, key the bytes provided must be 0, 12, or more than 12.

0 If an error occurs, an exception is returned the application to indicate that the requested function failed.

8 If an error occurs, the space is filled in with the exception information. No exception is returned. This only occurs if format ERRC0100 is used.

12 If an error occurs, the space is filled in with the exception information. No exception is returned. This only occurs if format ERRC0200 is used.

CCSID of the CCHAR data
The coded character set identifier (CCSID) of the convertible character (CCHAR) portion of the exception data. The default is 0.

0 The default job CCSID. CCSID A valid CCSID number. The valid CCSID range is 1 through 65535, but not 65534.

Exception data
A variable-length character field containing the substitution text for the exception. You can use the SNDPGMMSG or SNDUSRMSG CL commands to send a message to someone by specifying the exception id as the value for the MSGID parameter and the exception data as the value for the MSGDATA parameter on these commands. Messages can also be sent using the Message Handler APIs.

Exception ID
The identifier for the message for the error condition. Ids that start with RDR can be found in the message file QRLCMSGF in library QRDARS.

Key The key value that enables the message handler error function if CCHAR support is used. This value should be -1 if CCHAR support is expected.

Length of the exception data
Length of the exception data. The length, in bytes, of the exception data returned in the error code.

Offset to the exception data
Offset to the exception data The offset from the beginning of the error code structure to the exception data in the error code structure.

Reserved
A 1-byte reserved field.

Retrieve Key List (QrlrRetrieveReportKeyList) API

Parameters Required Parameter Group:			
1	Receiver variable	Output	Char(*)
2	Length of receiver variable	Input	Binary(4)
3	Receiver variable format	Input	Char(8)
4	From segment key	Input	Char(*)
5	To Segment key	Input	Char(*)
6	Segment key format	Input	Char(8)
7	Maximum segments to retrieve	Input	Binary(4)
8	Continuation handle	Input	Char(16)

Parameters			
Omissible Parameter Group:			
9	Request index status	Input	Char(10)
10	Index status	Output	Char(1)
11	Error code	I/O	Char(*)
Service Program: QRLRRAPI Threadsafe: No.			

The **Retrieve Key List (QrlrRetrieveReportKeyList) API** retrieves a list of all segments that match the keys specified. Generic and range searches are allowed. Following the key value with an asterisk (*) signifies a generic search. Specifying more than one key, causes the search to follow the order of the keys that are listed in the segment key parameter. Specify at least one key. If a key field is blank, it is considered unspecified. Generic searches can only be specified for the keys specified in the **From segment key** variable. If they are specified for the **To segment key** variable, it is not a valid search request. The list of segments that are found is placed in the receiver variable. The list of segments contains only key values for which the user is authorized.

Attention: Security checking is based on the current user. If this API is being used in a server job that is not running under the user's authority, then the server job's user profile is used. This can be avoided by switching to the true user's profile before calling this API.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*USE

Data Area Authority
*USE

Required Parameter Group

Receiver variable
OUTPUT; CHAR(*) Contains the key of the segments found. Format of this variable is specified by the receiver variable format field.

Length of receiver variable
INPUT; BINARY(4) Length of the receiver variable. It should be large enough to hold the maximum number of segments plus the length of the non-repeating part of the format. For format **SEGF0100** the non-repeating part is 36 bytes.

Receiver variable format
INPUT; CHAR(8) Format of the receiver variable.

- **SEGF0100**: RetrieveReportKeyList format

See "Format of RetrieveReportKeyList" on page 299 for a description of these formats.

From segment key
INPUT; CHAR(*) Starting key(s) or only key(s) to search with. Format is specified by segment key format field.

To segment key
INPUT; CHAR(*) Segment key to end search with. Only used when performing range searches. Format is specified by segment key format field.

Segment key format
INPUT; CHAR(8) Format of the segment key.

- **KEYA0100**: Key format

See "Format of Segment Keys" on page 298 for a description of these formats.

Maximum segments to retrieve
INPUT; BINARY(4) Specifies the maximum segments to be placed in the segment list. Must be 1 to 9999.

Continuation handle
INPUT; CHAR(16) This field must either contain blanks or a valid continuation handle. If it is blanks, a new search is performed with the provided key values. If it is a valid continuation handle from a previous call, then the search is continued from where it left off.

Omissible Parameter Group

Request index status
INPUT; CHAR(10) Request information on the status of the indexes for a specific report. Specify a report name or no index status returns. Specify a date range in the **From segment** and **To segment** key formats. Otherwise, the requesting index status will most likely not provide any meaningful information because OnDemand would search for any archived index for this report. This is because not specifying a date range results in a check for any archived index of this report since the installation of OnDemand. Limiting the searched data to a specific date range allows the **Request index status** to indicate any indexes that are archived within that range. This gives you a better indication of the search completion. The default value for this parameter is ***NO**. Valid values for this field are:

- ***YES**: Return index status in index status field.
- ***NO**: Do not return index status.

Index status
OUTPUT; CHAR(1) Indicates where the indexes are for the specified report date combination. Values for this parameter are:

- **0**: All indexes with in the specified date range are on disk.
- **1**: At least one index is archived to tape or optical.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 293.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3C21
Format name &1; is not valid.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3

RDR2153
Unable to obtain proper license.

RDR2205
Authority error.

RDR2301
Search requested not valid.

RDR2302
Date is not valid.

RDR2303
Maximum segments requested is not valid.

RDR2304
Retrieve list error.

Format of Segment Keys

KEYA0100 Format: This format defines the starting and ending key values to search with.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(10)	Report Name/Group Name
10	A	CHAR(2)	Version
12	C	CHAR(25)	Key 1
37	25	CHAR(20)	Key 2
57	39	CHAR(20)	Key 3
77	4D	CHAR(20)	Key 4
97	61	CHAR(15)	Key 5
112	70	CHAR(8)	Date YYYYMMDD

Field Descriptions At least one of the fields Key 1 thru Key 5 must be specified or message RDR2301 will be issued.

Date Date to search for in the format of YYYYMMDD or blanks. When blank field will not be used as part of the search criteria.

Key 1 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 2 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 3 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 4 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Key 5 Value to search for or blanks. When blank field will not be used as part of the search criteria.

Report/Group name

Report or group name to use. When a report name is provided then only the keys for that report are searched. When a group name is used then the keys for all reports in the group are searched. A group abbreviation can be provided also by using the special form *GRPABVnnn where nnn is the three letter group abbreviation. No checking is done for this value. If this field is specified in both the segment and to segment key variables then it must be the same value in each. The use of '*' for generic search is not allowed for this field.

Version

Report version 01 - 99 or blanks. When blank field will not be used as part of the search criteria.

Format of RetrieveReportKeyList

The key list can repeat up to **9999** times as required.

SEGF0100 Format: This format defines the returned segment information.

Offset		Type	Field
Dec	**Hex**		
0	0	BINARY(4)	Bytes returned
4	4	BINARY(4)	Bytes available
8	8	CHAR(16)	Continuation handle
24	18	BINARY(4)	Offset to segment information list
28	1C	BINARY(4)	Number of segment list entries
32	20	BINARY(4)	Length of segment list entry
Note: Format of the entries in the segment list. The following fields are repeated for each segment list entry. The decimal and hexadecimal offsets depend on the number of segment list entries. The first segment list entry is found by using the offset to segment list entries.			
		CHAR(10)	Report Name
		CHAR(2)	Version
		PACKED(11 0)	Compressed length
		PACKED(11 0)	Full length
		PACKED(11 0)	Displacement
		CHAR(25)	Key 1
		CHAR(20)	Key 2
		CHAR(20)	Key 3
		CHAR(20)	Key 4
		CHAR(15)	Key 5
		CHAR(8)	Date
		CHAR(1)	Period
		CHAR(3)	Sequence number
		CHAR(1)	Reserved
		CHAR(16)	Segment handle

Field Descriptions

Bytes available
The length of the RetrieveReportKeylist in bytes.

Bytes returned
The length of data returned in the RetrieveReportKeylist in bytes.

Compressed length
Size of the segment after it is compressed.

Continuation handle
This field is blank if the segment list entries contain all the keys that match the specified search. If more entries are available then it contains a handle that can be used to continue the search at the point it left off.

Date Date of the segment in the format of YYYYMMDD

Displacement
Offset from the beginning of the object to this segment.

Full length
This field contain either the uncompressed length of the segment or the resource group id (negative number).

Key 1 Value of key1

Key 2 Value of key2

Key 3 Value of key3

Key 4 Value of key4

Key 5 Value of key5

Length of segment list entry
The length of each segment list entry.

Number of segment list entries
The number of entries returned in the list.

Offset to segment list information
Offset in bytes from the beginning of the format to the segment list entries.

Period Always contains a period.

Report name
Name of report.

Reserved
This byte is reserved for later use.

Segment handle
Access handle for this segment.

Sequence number
Sequence number of archived Object.

Version
Report version.

Retrieve Segment (QrlrRetrieveReportSegment) API

Parameters Required Parameter Group:			
1	Receiver variable	Output	Char(*)

2	Length of data returned	Output	Binary(4)
3	Record length of data returned	Output	Binary(4)
4	Segment index	Input	Char(*)
5	Segment index format	Input	Char(8)
6	Retrieve information	Input	Char(*)
7	Retrieve information format	Input	Char(8)
8	Print data type	Output	Char(10)
9	Report ID	Output	Binary(4)
10	Error code	I/O	Char(*)
Service Program: QRLRRAPI Threadsafe: No.			

The **Retrieve Segment (QrlrRetrieveReportSegment) API** retrieves the specified segment and places it either in the receiver variable, or where the retrieve information specifies.

Attention:

- Run this API by using the same user profile that ran the **Retrieve Key List (QrlrRetrieveReportKeyList) API**, or the segment access handle will not be valid.
- If enabled, the combined view, print, and fax report options are ignored when using this API.
- If enabled, the viewer option to launch the CA/400 viewer (also known as the AFP viewer) is supported by this API. However, the viewer option to launch the OnDemand Client viewer is ignored. If your application requires launching the OnDemand client viewer, see "OnDemand Client Driver API" on page 308.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*CHANGE

Required Parameter Group

Receiver variable
Output; CHAR(*) The field to contain the output.

Length of data returned
Output; BINARY(4) Length of data placed in receiver variable.

Record length of data returned
Output; BINARY(4) Record length of data placed in receiver variable. If this is 0 the data has a self-defining format.

Segment index
INPUT; CHAR(*) Contains index of the segment to retrieve. Format is specified in **Segment index format**.

Segment index format
INPUT; CHAR(8) Format of the segment index variable. Do not change any of

the variables provided from the **Retrieve Key List (QrlrRetrieveReportKeyList) API** segments. Changing the report name, compressed length, displacement, data, or sequence number will result in unpredictable results. If the segment handle is not correct, message RDR2407 is issued.

SEGD0100
Segment index format

See "Retrieve Segments Formats" on page 303 for a description of these formats.

Retrieve information
Input; Char(*) The character field that contains required retrieve information. The format of the field is determined by the retrieve information format field.

Retrieve information format
Input; Char(8) Format of the retrieve information field. See "Retrieve Information Formats" on page 304 for the description of these formats. The following values are valid:

RTVS0100
Retrieve segment spool data to a buffer

RTVS0200
Display segment spool data by using OnDemand viewer

Print data type
Output; Char(10) The type of data stream that the spooled data is in. The following values are valid:

***AFPDS**
Advanced Function Printing™ data stream

***AFPDSLINE**
AFPDS data mixed with line data

***LINE** Line data with ***FCFC**

***OTHER**
Line data with ***FCFC**

***SCS** SCS data

Report ID
Output; Binary(4) The report id of the report segment being retrieved.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 293.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3C21
Format name &1; is not valid.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

RDR2401
Retrieve read error.

RDR2406
Segment open error.

RDR2407
Insufficient authority.

RDR2409
Recalled from tape.

RDR2411
Retrieve buffer length not valid.

RDR2414
Retrieve segment error.

Retrieve Segments Formats

SEGD0100 Format: This format defines the input segment information.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(10)	Report Name
10	A	CHAR(2)	Version
12	C	PACKED(11 0)	Compressed length
18	12	PACKED(11 0)	Full length
24	18	PACKED(11 0)	Displacement
30	1E	CHAR(25)	Key 1
55	37	CHAR(20)	Key 2
75	4B	CHAR(20)	Key 3
95	5F	CHAR(20)	Key 4
115	73	CHAR(15)	Key 5
130	82	CHAR(8)	Date
138	8A	CHAR(1)	Period
139	8B	CHAR(3)	Sequence number
142	8E	CHAR(1)	Reserved
143	8F	CHAR(16)	Segment handle

Field descriptions

Compressed length
Size of the segment after it is compressed.

Continuation handle
This field is blank if the segment list entries contain all the keys that match the specified search. If more entries are available then it contains a handle that can be used to continue the search at the point it left off.

Date Date of the segment in the format of YYYYMMDD.

Displacement
Offset from the beginning of the object to this segment.

Full length
This field contain either the uncompressed length of the segment or the resource group id (negative number).

Key 1 Value of key1

Key 2 Value of key2

Key 3 Value of key3

Key 4 Value of key4

Key 5 Value of key5

Length of segment list entry
The length of each segment list entry.

Number of segment list entries
The number of entries returned in the list.

Offset to segment list information
Offset in bytes from the beginning of the format to the segment list entries.

Period Always contains a period.

Report name
Name of report.

Reserved
This byte is reserved for later use.

Segment handle
Access handle for this segment.

Sequence number
Sequence number of archived Object.

Version
Report version.

Retrieve Information Formats

RTVS0100 Format: Defines format to retrieve segment spool data into a buffer.

Offset		Type	Field
Dec	Hex		
0	0	BINARY(4)	Length of receiver variable

RTVS0100 Field Description

Length of receiver variable
Contains length of receiver variable. Maximum length is 2 million bytes. The required length for this field for a specific segment may be provided from the full length field of segment list entry. If the full length field is positive it contains the needed length, if it is negative then it represents the resource id. If it is a resource id then you can either use 2 million bytes as the size or estimate the size by multiplying the compressed length of the segment list entry by 10

RTVS0200 Format: This defines format to display segment spool data by using the OnDemand viewer.

Offset		Type	Field
Dec	Hex		
0	0	BINARY(4)	Action to take

RTVS0200 Field Description

Action to take
The valid values are.
- 1 Display the segment data
- 2 Print the segment data
- 3 Fax the segment data

Retrieve Archived Indexes (QrlrRetrieveArchivedIndexes) API

Parameters			
Required Parameter Group:			
1	Report name	Input	Char(10)
2	Start date	Input	Char(8)
3	End date	Input	Char(8)
4	Initiate recall	Input	Char(10)
5	Number of reports	Output	Binary(4)
6	Number of index entries	Output	Binary(4)
7	Error code	I/O	Char(*)
Service Program: QRLRRAPI			
Threadsafe: No.			

The **Retrieve Archived Indexes (QrlrRetrieveArchivedIndexes) API** returns information about the number of reports with archived indexes within the specified date range. Optionally it recalls the indexes to back to the disk.

Attention: If the number of indexes is large, then the index recall may take a long time.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*USE

Required Parameter Group

Report name
Input; CHAR(10) Name of report

Start date
Input; CHAR(8) Starting date to retrieve indexes in the format YYYYMMDD. This field must be specified.

Ending date
INPUT; CHAR(8) Date after which to stop retrieving indexes in the format YYYYMMDD. If this field is blank, it defaults to start date.

Initiate index recall
INPUT; CHAR(10) Requests the performance of a recall for the indexes that are specified by the report date range combination. If all indexes for the report date combination are on disk, then OnDemand issues message RDR2305. Valid values for this field are:

***YES** Initiate index recall.

***NO** Do not initiate index recall.

Number of reports
Output; BINARY(4) The total number of reports which have indexes archived for the date range entered. If initiate recall was *YES, then this is the number or reports whose indexes were recalled.

Number of index entries
Output; BINARY(4) The minimum number of index entries in the archived reports. This is the minimum because multi-key report can have multiple indexes per segment.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 293.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3CF1
Error parameter is not valid.

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

RDR2305
No indexes to retrieve.

Retrieve Archived Resource (QrlrRetrieveArchivedResource) API

Parameters Required Parameter Group:			
1	Receiver variable	Output	Char(*)
2	Length of receiver variable	Input	Binary(4)
3	Length of data returned	Output	Binary(4)
4	Receiver variable format	Input	Char(8)
5	Report group id	Input	Binary(4)
6	Resource id	Input	Binary(4)
7	Error code	I/O	Char(*)

Service Program: QRLRRAPI Threadsafe: No.

The **Retrieve Archived Resource (QrlrRetrieveArchivedResource) API** will return information about the specified resource ID or will return the specified resource to the receiver variable.

Authorities and Locks

Library Authority
*EXECUTE

File Authority
*CHANGE

Required Parameter Group

Receiver variable
Output; CHAR(*) The field to contain the output.

Length of receiver variable
Input; BINARY(4) Length of the receiver variable.

Length of data returned
Output; BINARY(4) Length of the data returned.

Receiver variable format
Input; CHAR(8) Format of the receiver variable. See "Receiver Variable Formats" on page 308 for the description of these formats. The following values are valid:

- **RSCF0100**: Retrieve resource information
- **RSCF0200**: Retrieve the resource

Report group id
INPUT; BINARY(4) The report group id. Determine this by dividing the report id by 100 and truncating the result to a whole number, then multiplying the result by 100. For example: report id = 531, 531/100 = 5.31, truncate 5.31 to 5, 5 * 100 = 500. So the group id is 500.

Resource ID
Input; BINARY(4) The id of the resource. This id is provided in the segment list entry field full length. If the full length is negative, then the absolute value of it is the resource id.

Error code
I/O; CHAR(*) The structure in which to return error information. For the format of this structure, see "Error Code Parameter" on page 293.

Error Messages

CPF24B4
Severe error while addressing parameter list.

CPF3CF1
Error parameter is not valid

CPF9872
Program or service program &1; in library &2; ended. Reason code &3.

RDR2153
Unable to obtain proper license.

Receiver Variable Formats

RSCF0100 Format: Defines format to retrieve the resource information.

Offset		Type	Field
Dec	Hex		
0	0	BINARY(4)	Number of resources in the group
4	4	BINARY(4)	Total length of all the resources

RSCF0100 Field Description

Number of resources in the group
Contains the count of resources in the group.

Total length of all the resources
Contains the length of all the resources.

RSCF0200 Format: Defines format to retrieve the resources.

Offset		Type	Field
Dec	Hex		
0	0	CHAR(*)	Buffer to hold the resource group.

RSCF0200 Field Description

Buffer to hold the resource group
This buffer must be at least as large as the full length received in the RSCF0100 format. When the resource group is returned, this buffer contains the AFPDS data stream that defines the resources.

OnDemand Client Driver API

This section describes the Client Driver API, which allows an iSeries application to send information to the OnDemand client workstation viewer program. The intent is to provide a mechanism by which you can use the viewer program to display documents from the OnDemand database. Ideally, you accomplish this with little or no interaction between the user and the viewer program.

This function is comprised of two parts:

- The API on the iSeries, with which the application program will interact.
- A companion program that is residing on the workstation, which is the interface between the iSeries API and the viewer.

For this function to operate correctly, you must address several operational and environmental considerations. This section will describe these considerations.

There is an example Control Language (CL) program to launch the Client Viewer in the ***QSAMPLES*** source file in the ***QRDARS*** library.

You can also call the OnDemand Client Viewer by using the ***FNDKEYRDAR*** API. The implementation is faster and easier, but has fewer options available. If you do not require the full set of options that are provided by the advanced Client Driver API, see the "FNDKEYRDAR Application Programming Interface" on page 291 section of this appendix for more information.

Launch Client Viewer (QRLRLCV) API

The API has a required fixed number of parameters to pass. Errors return through the error code parameter except when the system receives an escape message sent to end the call due to one of the following conditions:

- There is no room to return the error code.
- The error is definitional and requires a recompilation of the program.
- The error is not dependent on the result of the API.

Parameters Required Parameter Group:			
1	Data structure to pass to viewer program	Input	Char(300)
2	Format name	Input	Char(8)
3	Error code	I/O	Char(*)

Data structure to pass to viewer program
Input; CHAR(300)

This structure contains the search request that is sent to the viewer program. You will find the format of the ODCL0100 structure, along with a description of its fields presented below.

Format name
Input; CHAR(8)

The format of the data sent. Specify ODCL0100.

Error code
I/O; CHAR(*)

A variable length structure containing the information associated with an error condition.

Structure Definitions:

ODCL0100 Format
This format defines the retrieval request. All fields are input fields.

Offset			
Dec	**Hex**	**Type**	**Field**
0	0	Char(10)	Report name
10	0A	Char(6)	Sequence number
16	10	CHAR(3)	Date comparator
19	13	CHAR(8)	Date value 1
27	1B	CHAR(8)	Date value 2
35	23	CHAR(3)	Key 1 comparator
38	26	CHAR(25)	Key 1 value 1
63	3F	CHAR(25)	Key 1 value 2
88	58	CHAR(3)	Key 2 comparator
91	5B	CHAR(25)	Key 2 value 1
116	74	CHAR(25)	Key 2 value 2
141	8D	CHAR(3)	Key 3 comparator

Offset		Type	Field
Dec	Hex		
144	90	CHAR(25)	Key 3 value 1
169	A9	CHAR(25)	Key 3 Value 2
194	C2	CHAR(3)	Key 4 comparator
197	C5	CHAR(25)	Key 4 value 1
222	DE	CHAR(25)	Key 4 value 2
247	F7	CHAR(3)	Key 5 comparator
250	FA	CHAR(25)	Key 5 value 1
275	113	CHAR(25)	Key 5 value 2

You must specify a value for report name. Also, specify at least one search argument. You can meet this requirement either by specifying date search value or key search value.

Field Descriptions:

Report name
The name of the report or group on which to perform the search.

Sequence number
The sequence number of the desired document. The values which you may specify are:

***FIRST**
Opens the first document which appears in the document list that is retrieved by the client viewer.

***LAST**
Opens the last document which appears in the document list that is retrieved by the client viewer.

***ANY** (Default) If only one document appears in the list of documents retrieved by the client, it is opened. Otherwise, the system displays the list.

nnn Opens the first document in the list of documents that are retrieved by the client viewer which has a sequence number that matches the number that is specified by nnn. You should left-justify this 3-digit number in the field.

blank If this field is blank, *ANY is assumed.

Date comparator
The type of date comparison you want the system to make. The allowed values are:

***EQ** Searches only documents with a specified date.

***BW** Searches documents having a date within a specified range.

blank Searches documents within the default date range. This is usually a 30-day range unless you have defined a different default date range in the report definition.

Date value 1
A date, in the format YYYYMMDD. Depending on the value of the date comparator, this field has the following meaning:

If the date comparator is *EQ, this value specifies the single date for which documents are to be searched. You can also specify *CURRENT to search for documents with today's date.

If the date comparator is *BW, this value represents the oldest date for which documents are to be searched. You can also specify *AVAIL to search for documents starting with the oldest available date.

Date value 2

A date, in the format YYYYMMDD, which is used only if the date comparator is *BW. This represents the highest date for which reports will be searched. You can also specify *CURRENT to search for documents up to and including today's date.

(The following set of three fields is repeated for each of the five possible keys which can be searched. A key is searchable if the "minimum search characters" value for that key in the report definition is non-zero. For PAGE and NODX reports, the searchable keys are 1 and 3 only.)

Key comparator

The type of key comparison to perform. The allowed values are:

- Range comparators -

***BW** Search for key values which are within a range that is specified by a lower value and upper value.

***NB** Search for key values which are not within a range that is specified by a lower value and upper value.

- List comparators -

***IN** Search for key values which are in a list of specified values.

***NI** Search for key values which are not in a list of specified values.

- Single-value comparators -

***EQ** Search for a key which matches a specified value.

***NE** Search for a key which does not match a specified value.

***LT** Search for a key which is less than a specified value.

***GT** Search for a key which is greater than a specified value.

***LK** Search for a key which matches a specified pattern of characters.

***NL** Search for a key which does not match a specified pattern of characters.

***LE** Search for a key which is less than or equal to a specified value.

***GE** Search for a key which is greater than or equal to a specified value.

Key value 1 and Key value 2

These fields are used to specify the values for searches which are based on a key value. Depending on the key comparator, provide data in key value 1 and key value 2 as follows:

For *BW and *NB, specify the low value for the range in key value 1, and specify the high value in key value 2.

For *IN and *NI, use both fields as one concatenated 50-byte field to specify a list of two or more values that are separated by at least one blank character.

For all other values (single-value searches), specify the key search argument in key value 1, and do not specify anything for key value 2.

Note: For PAGE and NODX reports, the comparator value is restricted to *EQ only.

Error Structure Format: The structure of the error code parameter is as follows:

Offset				
Dec	**Hex**	**Use**	**Type**	**Field**
0	0	INPUT	Binary(4)	Bytes provided
4	4	OUTPUT	Binary(4)	Bytes available
8	8	OUTPUT	Char(7)	Exception ID
15	F	OUTPUT	Char(1)	Reserved
16	10	OUTPUT	Char(*)	Exception data

One field in the structure is an INPUT field. It controls whether an exception returns to the application or the error code structure fills in with the exception information. When the bytes provided field is greater than or equal to 8, the rest of the error code structure fills in with the OUTPUT exception information that is associated with the error. When the bytes provided INPUT field is zero, it ignores all other fields and returns an exception if detecting an error.

Note: To determine if an error occurred, you should check to see if the bytes available is greater than 0. Checking for a non-blank value in the exception ID is not a valid method.

Field Descriptions - Error structure:

Bytes provided
The length of the area that the calling application provides for the error structure. The bytes provided must be 0, 8 or more that 8. IBM recommends using a value of 19 or greater.

0 If an error occurs, an exception is returned to the application to indicate that the requested function failed.

8 If an error occurs, the bytes available field will contain a non-zero value that indicates the number of bytes of exception data which the API could provide. The calling program will not be able to determine the nature of the error because the error structure does not provide space for the exception data. No exception is returned.

>8 If an error occurs, the space is filled in with the error information. No exception is returned.

Bytes available
The length of the error information available to the calling program, in bytes. If this is 0, the system detected no error.

Exception ID
The identifier for the message for the error condition. You can find message identifiers that start with RDR in the message file QRLCMSGF in library QRDARS.

Reserved
A 1-byte reserved field.

Exception data

A variable-length character field that contains the substitution text for the exception. You can use the SNDPGMMSG or SNDUSRMSG CL commands to send a message to someone. You do this by specifying the exception id as the value for the MSGID parameter and the exception data as the value for the MSGDATA parameter on these commands. You can also send messages by using the Message Handler APIs.

The API will return exception ID RDRxxxx for most errors. The specific error is reflected in a 3-digit return code which is placed in this field if space is provided. For this reason, IBM recommends that you include at least 3 bytes of space in this part of the error structure. See "Return Codes for Message RDR2694" for a list of these return codes.

Operational Considerations

As stated earlier, there are certain environmental considerations to meet for proper the operation of this function:

- You must install the OnDemand Client Viewer program on the workstation and establish a TCP/IP connection from the workstation to the iSeries server.
- The API companion program must have be started on the workstation. This program will call the OnDemand Client Viewer program. The user must log on through this viewer program to an OnDemand server system during the startup process, or before using of the API. The program is **QRLROCD.EXE.**
- The API must be able to determine the IP address of the workstation. Run the program that calls the API in a workstation emulation session that is connected through TCP/IP. This enables the API to determine the IP address, and requires no further action. If the emulation session does not use TCP/IP, the API searches for the presence of a data area that has the same name as the device name associated with the emulation session. The API searches the library that is specified in the library list of the emulation job. If the data area exists, the API looks for a non-blank value in bytes 1-15, and uses this value as the workstation IP address. It is the responsibility of the user to ensure that this data area exists and contains the IP address. You can use the **CRTDTAARA** and **CHGDTAARA** commands for this purpose.

Return Codes for Message RDR2694

The API performs validity checking on the input structure that is specified in parameter 1. It also detects errors when sending the search request to the workstation companion program. If the API detects an error, the API will assign a three-digit return code. Additionally, the API will make this code available in the exception data portion of the error structure that is specified in parameter 3.

If the exception ID is not RDR2694, the exception data will contain information specific to the exception ID.

Listed below are the error codes and their meanings for exception RDR2694. If digit 1 is not zero, this indicates that the error pertains to a key search specification. Additionally, its value will be 1-5, indicating the key specification in error.

Digit 1	Digits 2 - 3	Error Description
0	01	Database error

Digit 1	Digits 2 - 3	Error Description
0	02	Environment error. A connection could not be established with the workstation companion program.
0	03	Report definition was not found
0	04	The report type is not valid for the Client viewer program. Valid types include DOC, PAGE, and NODX. ANYS is also valid, provided that the data type is ***BUFFER** or ***IFS** and the object class is non-zero.
0	05	Report definition was not found.
0	06	The date comparator is not valid.
0	07	No date or key value is specified.
0	08	The sequence number is invalid.
1-5	20	The key comparator is invalid.
1-5	21	The specified key is not searchable. The minimum search value for the key is zero.
1-5	22	A key comparator is specified, but no key values are specified.
1-5	23	A key search value is specified, but it is longer than the key length specified in the report definition.
0	91	The TCP/IP socket could not be created.
0	92	Connect failed for TCP/IP socket.
0	93	Socket Close operation failed.

Appendix B. OnDemand Commands

Notice of Command Diagrams Deletion

To find the commands that are listed in the table that is immediately following, refer to on-line help.

COMMAND	CORRESPONDING NAME
SPOOL FILE ARCHIVE COMMANDS	
ADDVIRDAR	Add to CM from OnDemand.
CPYDFNRDAR	Copy report definition.
DLTRPTRDAR	Delete Report for OnDemand.
ENDMONRDAR	End Monitor for OnDemand
FNDKEYRDAR	Find by Key using OnDemand.
FNDRPTRDAR	Find Report using OnDemand.
PRTRPTRDAR	Print Report for OnDemand.
PRTTXTRDAR	Print AFP Spooled File Text using OnDemand.
RCLRPTRDAR	Reclaim Report for OnDemand.
RMVVIRDAR	Remove from CM for OnDemand.
STRCDSRDAR	Start Coded Data Store using OnDemand.
STRMONRDAR	Start Monitor for OnDemand.
STRRMCRDAR	Start Report Management Cycle using OnDemand.
WRKADMRDAR	Work with Administration for OnDemand
WRKMEDRDAR	Work with Media for OnDemand.
WRKSECRDAR	Work with Security for OnDemand.
OBJECT ARCHIVE COMMANDS	
STRARCRDAR	Start Archive using OnDemand.
STROMCRDAR	Start Object Management Cycle using OnDemand.
STRRTVRDAR	Start Retrieve using OnDemand.

Printing OnDemand Command Descriptions

To print the parameter and value descriptions for a command using OS/400, follow these instructions:

To print an entire command do either of the following:

1. From any command line
   a. Type the command name (for example, STRRMCRDAR) and press **F1**. The display shows general help for the command and help for each command parameter.
   b. Press **F14** to print the command help.
2. On the prompt display for a given command
   a. Move the cursor to the top line and press **F1**.
   b. Press **F14**.

Do the following to print the help for one 'command keyword' parameter.

1. From the command line, type the command name and press **F4** to view the command prompt display.
2. Position the cursor anywhere on the line of the keyword parameter for which help is sought and press **F1** to display the help for the keyword parameter.
3. Press **F14** to print the help.

Appendix C. OnDemand Backup and Recovery

It is important to implement a backup plan that will serve to protect your data archives in the event your organization experiences a disaster, large or small. You need to have a plan and prepare so that you can recover.

Backup Considerations

Items you need to consider when planning your regular backups include:

- How to recover the optical or tape media itself

  You should consider having a copy of the media stored at an offsite location.
- How to recover the data on disk

  You should have procedures in place that backup all of the OnDemand data that normally resides on disk, as well as any stored data that has not yet migrated to optical or tape.

Remember: Disk backups will contain database files that reflect the actual archive data location and status at the time of backup. DO NOT restore from a backup that is one week old. Archived data might have migrated to optical or tape, but database control files identify incorrectly the archived data location as disk. In order to minimize this situation, you should save **QUSRRDARS** library and save your OnDemand **Integrated File System directories** on the same schedule to keep them synchronized. Perform the backups **at least** as frequently as after each Report Management Cycle (RMC) or Object Management Cycle (OMC). (Possibly even more frequently if you often manually delete reports that are stored in OnDemand.)

The particular backup plan you choose to implement will depend on what features of OnDemand you are using. **All** OnDemand installations need to backup the items for the base feature. In addition, you must backup the items listed under each of the optional OnDemand features that you are using.

Base Feature

The following objects need to be saved by the appropriate OS/400 commands:

- The OnDemand licensed program (**5722-RD1**)
- User profiles **QRDARS400, QRDARS4001, QRDARS4002, QRDARS4003, QRDARS4004, and QRDARS4005**
- **Authorization list QRDARS400**

  This **authorization list** contains the user profiles that are authorized to use OnDemand.
- **Database files** in **QUSRRDARS** library

Spool File Archive Feature

The following objects need to be saved by the appropriate OS/400 commands:

- **Database files** in **QUSRRDARS** library
- **Output queues** in **QUSRRDARS** library

  These output queues can contain OnDemand processed spooled files. Saving the **output queues** does not save the data in them. There is no save command to save spooled files.

- **Integrated File System directories**

  Each report definition that is created in OnDemand has an **Integrated File System directory** that is named the same as the report definition. To backup only the OnDemand spooled file data that resides on disk, you could backup all items that are found in the **Integrated File System directory /QIBM/UserData/RDARS/SpoolFile**.
- **Authorization lists**

  When a report definition is created, an **authorization list** is also created with the same name as the report definition.
- **Data areas** in **QUSRRDARS** library

  These **data areas** contain the default values for each OnDemand user.

Object Archive Feature

The following objects need to be saved by the appropriate OS/400 commands:

- **Database files** in **QUSRRDARS** library
- IFS directory named **/QIBM/UserData/RDARS/Object**

  This directory is used to temporarily contain archived objects until the Object Management Cycle (OMC) is run and the archive is moved to optical or to tape.

Record Archive Feature

The following objects need to be saved by the appropriate OS/400 commands:

- **Database files** in **QUSRRDARS** library
- **User space object** in the library where the optical file is located
- **User index object** in the library where the optical file is located
- **The model database file on disk** in the library where the optical file is located

AnyStore Feature

Refer to the list for Spool File Archive Feature above. AnyStore data is stored in the same objects and same location as Spool File Archive Data.

Client/Server Feature

All Client/Server related data is stored in the same objects and the same location as Spool File Archive Data.

Recovery Considerations

Contact your OnDemand support provider for instructions on recovering your OnDemand archives in the event of a disaster. Many factors can influence the recovery plan, depending on the frequency and extent of the backups you have available.

OnDemand Spool File Archive provides a **reclaim** command for stored spooled files that become ″lost″ due to a problem with the control files that point to them. The name of the command is **RCLRPTRDAR**. This command will re-create a spooled file in an output queue and optionally store it again within OnDemand.

If you must restore the **user space** or **user index objects** for an OnDemand Record Archive optical file, you should always **restore them together** as a set.

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Index

Special characters

A

B

C

D

E

F

G

I

K

L

M

N

O

P

Q

R

S

T

U

V

W

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