

CA Dispatch™

User Guide for the Report Administrator

Release 11.7



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- CA Opera™
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Chapter 1: Planning the Implementation

This chapter includes the following:

- An overview of CA Dispatch report distribution
- A summary of features and functions
- A list of unique terms and concepts
- Preparations for CA Dispatch
 - Maildrop planning
 - Recipient planning
 - Report naming
- Worksheets for:
 - Gathering maildrop data
 - Gathering recipient data
 - Listing report name/job name data
 - Gathering report recipient data
 - Deciding report recipient page selection criteria
 - Defining user recipients
 - Grouping PC users
 - Defining PC users and groups
 - Reviewing pre-implementation installation
- Setting system defaults
- Populating your database
- Reporting problems
- Command notation

Distributing Reports - an Overview

Before CA Dispatch, your job ran and produced output, which was then hand-delivered to the people waiting to receive it. You could send your MSGCLASS to one class and your report to another. Your report was printed, and the responsibility of getting the entire report, or certain segments of it, to a recipient was left in the hands of operating room personnel who burst the report, copied it when necessary, and then distributed it.

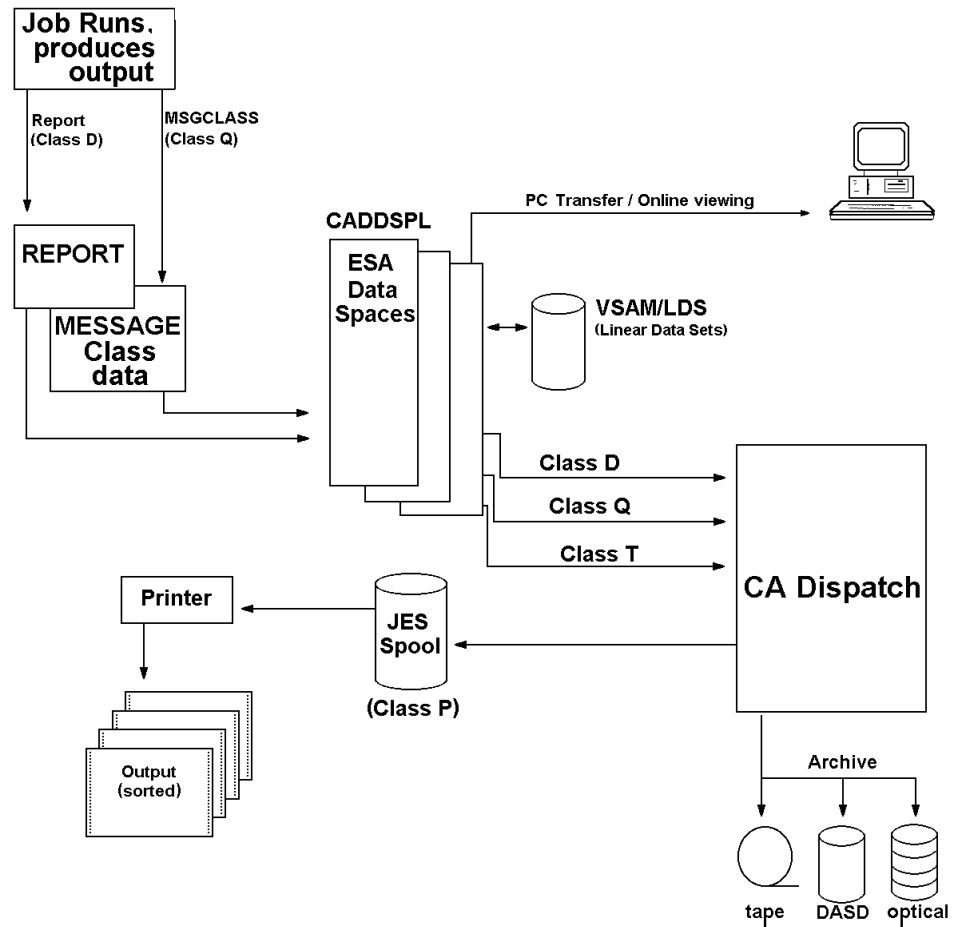
If only certain pages were designated for some of the recipients, those pages had to be photocopied. If multiple copies of the report were needed, it was produced multiple times. If the copy of the report was lost or damaged, it was run again, when possible.

CA Dispatch is a report distribution management system. It controls report distribution (including archive) from the moment the report is created to the moment users have access to their output. This output can be printed and sent to the recipient's mailbox, viewed online, or downloaded to a PC. The report management information you enter into the database gives you control of this process.

The illustration that follows provides a graphic overview of this product.

- A job runs and produces output.
- The output is sent to a specific JES class defined in the SYSOUT statement of the JCL (for reports) or in the JOBCARD (for MSGCLASS).
- The report output is captured by CADDSP and redirected to a data space, backed by a VSAM linear data set.
- The product processes the output from CADDSP according to the options defined on the database.

Overview of CA Dispatch Report Management



In the above illustration, MSGCLASS, which is class Q, is sent directly to Online Viewing. Reports are sent to class D. Some of the reports are sent directly to Online Viewing, some are sent to print (class P), and some are sent to archive class T.

A Summary of Features and Functions

With CA Dispatch you can:

- Define who is to receive a report (report recipient)
- Bundle (or group) reports by delivery location (maildrop)
- Produce multiple copies of an entire report
- Generate only selected sections of a report

- Limit the parts of a report that are sent to a recipient (decrease hardcopy output through page selection)
- Record the number of whole reports and individual pages received by each recipient through printing and delivery to their final destination (online status)
- Define SYSOUT at the recipient level rather than at the report level

If there are 20 recipients for a report, the report can be printed 20 different ways, depending on how the output is defined for each of those report recipients. You can:

- Send a recipient only selected pages or multiple copies
- Send the output to different destinations
- Send the output to different types of printers (Xerox lasers, IBM APA mode printing, and so on)
- Send reports and MSGCLASS messages to Online Viewing (decreasing hardcopy output by sending data to a file rather than a printer)
- Archive a report offline to tape or cartridge, to DASD, or to optical disk, and eliminate job reruns due to lost reports
- Retrieve a report from archive, then distribute it with the original or new distribution options
- Forecast report production
- Report on report production
- Provide report event or MSGCLASS event information (occurrence or non-occurrence of a processing condition) through CA Dispatch's testing capabilities.
You can set up CA Dispatch to examine the text of a report and look for a certain character string or value. If the value is not what you expect, you can:
 - Highlight the line in Online Viewing
 - Send a message to the operator's console
 - Send a command to CA 7® or CA Scheduler® Job Management
- Provide security through an external security system
- Have the safety of signon, panel, report, and recipient security checking without having to use an exit routine

Terms and Phrases

CA Dispatch uses the following terms and phrases:

Term	Definition
archive and retrieval	At any time, a report or selected pages of a report that has been stored on tape, DASD, or optical can be printed, re-archived or sent to Online Viewing. Reports can be printed according to any report definition on the CA Dispatch database.
archive (subtask)	The subtask that stores reports and MSGCLASS data on tape, DASD, or optical for a specified length of time.
audit trail using the SMF file	A record is written to the SMF file providing a comprehensive audit trail each time a report is viewed or printed. This information can be used to charge users for reports.
base report	The base report is the SYSOUT produced by a job.
base report definition	This definition supplies all the distribution parameters necessary for the correct disposition of the report. Factors included are Online Viewing, archiving and printing instructions, and recipient definitions.
bundle	A group of reports printed together for a recipient. These reports are sent to the same maildrop and have the same JES SYSOUT characteristics. Reports delivered to a specific location are grouped together with their own cover page, designating the location and a <i>manifest report</i> .
CADDSP	A CA Dispatch facility that intercepts SYSOUT data and writes it to one of the MVS/ESA data spaces it manages. The data spaces are backed by a VSAM linear data set.

Term	Definition
charging recipients for reports	<p>With CA Dispatch you have the ability to charge a recipient for the amount of print produced for that recipient regardless of the job that creates the output. This allows more accurate accounting records to be kept.</p> <p>The number of reports and the number of pages processed by CA Dispatch are recorded for everyone defined to its database. This feature enables you to charge recipients for the exact amount of the report that was processed for them, on a per-page basis, rather than on a prorated basis. You charge recipients only for what they receive: you can recover costs for reports sent to recipients even if the recipients are not connected with the job that produced the reports.</p>
distribution	<p>In CA Dispatch, distribution means controlling the selection, bundling, and delivery process of a report. When we discuss report distribution, we are always talking about the distribution criteria for the report (the number of copies, does the report get printed?), and not the report data itself.</p>
external Archive	<p>The Archive subtask(s) (ARCH1, ARCH2, and ARCH3) are run in a separate address space from CA Dispatch's started task, but are submitted by, and are under control of the product.</p>
external Extract	<p>The Extract subtask (EXTR) is run as a separate job outside of CA Dispatch, but is submitted by, and is under control of CA Dispatch.</p>
Extract (subtask)	<p>The subtask that retrieves reports from tape, DASD, or optical disk.</p>
journals	<p>The journal files contain the <i>before</i> and <i>after</i> images of updated database records. These files are vital to database integrity and recovery.</p>
maildrop	<p>A location in the end-user organization where the report is to be delivered. Maildrops are associated with a recipient or several recipients (the person or people who are to receive the reports). There can be one or more reports and one or more recipients assigned to a maildrop. The product uses an alphanumeric code to designate maildrops.</p>

Term	Definition
manifest report	A report that accompanies a bundle of reports. This report lists every report in the bundle and the end user to whom the report should be delivered.
Online Viewing	<p>This feature allows your users to view reports and MSGCLASS messages online. Access to the reports can be controlled by external security. Users see a list of only those reports that they are permitted to view. You can drastically reduce (or eliminate) hardcopy output in certain situations because the user can print the report or selected pages from Online Viewing on an as-needed basis, and the report is available on a more reliable and timely basis.</p> <p>Specific reports viewed online are defined on the Report Base Definition Screen (VRDMU110), and succeeding recipient and page selection screens. Only one complete copy of a report is maintained in the LDS.</p>
page selection	CA Dispatch can select portions of the report (as created by the job) to be printed or viewed online. The recipient only accesses the specific, designated pages. This reduces costs for paper and computer time, and enhances security because recipients are sent only those parts of the report that they are permitted to see.
PC	Users can download reports from the mainframe to a PC workstation or LAN (available since Release 5.1). User can cut and paste, print their version of their report, then upload the reports to the mainframe.
recipient	A recipient is an end user who receives a report.
recipient's report	A recipient's report is the report which is printed, sent to Online Viewing, or both. Page selection, specific to this recipient, is applied to the report, and this recipient's SYSOUT parameter instructions are used.
report events	CA Dispatch takes action based on data contained within a report or MSGCLASS. These actions include: sending a customized message to the operator console; sending a command to your scheduling system; highlighting a report line or MSGCLASS line in Online Viewing.

Term	Definition
scheduling system interface	CA Dispatch can input information from scheduling products to provide management reports: hardcopy records of all planned reports, past report activity, and late reports. CA Dispatch issues commands to CA Scheduler and CA 7 because of predefined event processing.
separator pages	Report distribution is more accurate and efficient because pages that show both the user's name and the report name separate reports for each end user. With delivery points and reports so clearly identified, reports are more easily delivered to the right people, and fewer reports are lost.
Status (subtask)	The subtask that tracks job start and end times and is able to determine (by bundle) the location of a report that is being processed by this product.
status and tracking	You can view complete job/report status for all reports processed by CA Dispatch. For JES2, a direct relationship between the original report, the creating job, and the final JES2 group ID(s) are shown. Job start and end times, bundles queued, and bundles printed times, as well as PC download generations, are tracked. JES2 users may modify class and priority of unprinted bundles.
subtask	A basic unit of work under CA Dispatch that consists of the execution of a program to perform a specific function. The common subtasks are Archive, Extract, Status, and Distribution.

Getting Ready

If CA Dispatch is newly installed at your site, the first step in building the database is to define all the recipients and their maildrops.

Maildrop Planning

A *maildrop* is a location in the end-user organization where the report will be delivered and is usually associated with one or more recipients. How you define your maildrop is one of the factors that determine which reports can be *bundled* together.

A maildrop can be:

- An individual
- A group
- A department
- An office
- A company name (if your site is a service bureau)
- A geographical location

A maildrop defined as an individual gathers only reports for that individual in a bundle. The advantage of this method is that reports for an entire group are not bundled together; you do not then have to burst and sort them.

When planning and defining your maildrops:

- Decide what and where your maildrops are.
- Choose meaningful names for your maildrops.
- Use the worksheets at the end of this chapter to gather your maildrop information.
- For instructions about defining maildrops, follow the steps described in the topic [Define a Maildrop](#) (see page 56) in the chapter "Getting Your First Report Processed".

Recipient Planning

A *recipient* is an entity that ultimately receives a report. Decide what recipient means at your site. A recipient can be:

- A person's name
- A position or title
- An CA Top Secret® Security user ID

Note: It is more efficient to define all recipients and their maildrops to the database before you connect recipients to reports. If you do not predefine these entities, you are prompted to enter recipient information as you attempt to connect each undefined recipient to your reports.

When planning and defining your recipients:

- Decide who or what your recipients are.
- Choose meaningful names for your recipients.
- Use the worksheets at the end of this chapter to gather recipient information.
- Follow the steps described in the topic [Define a Recipient](#) (see page 58) in the chapter titled "Getting Your First Report Processed" for instructions on defining recipients.
- Use the Recipient Definition Screen (VRDMU310), or the batch database LOAD/UNLOAD utility to define your recipients.

The Recipient Definition Screen is explained in [Define a Recipient](#) (see page 58) in the chapter "Getting Your First Report Processed".

Note: A full explanation of the utility is in the chapter "Using the Database LOAD/UNLOAD Utility DSEXLODL", and in the *Systems Programmer Guide*.

Report Naming

After carefully considering your naming conventions for recipients and maildrops, you should do the same for reports. Report names should be meaningful. You probably already have a method established for identifying reports; you may have to adjust that standard to fit the JCL constraints for External Writers.

For more information:

[Using the Writer Field](#) (see page 133)

Using the Worksheets

The worksheets on the following pages correspond to screens in CA Dispatch. The numbers in parentheses indicate maximum values or maximum number of characters for a given field.

Techniques for using these screens are described in the chapter "[Getting Your First Report Processed](#) (see page 49)".

Use the worksheets to help you decide how to name and organize the people, locations, and equipment that are defined to CA Dispatch.

Maildrop Data Gathering Worksheet

Maildrops are defined on the Maildrop Sysgen Screen (VSGMU130) and the Maildrop Address Screen (VSGMU135).

Note: For more information about these screens see the following chapters:

- ["Getting Your First Report Processed"](#) (see page 49) in this guide
- "Sysgen Screens" in the *Reference Guide*

	Maildrop
Maildrop Name (8)	_____
Max Time (HHMM)	_____
Max Pages (9999999)	_____
Address:	_____

Recipient Data Gathering Worksheet

Recipients are defined on the Recipient Definition Screen (VRDMU310).

Note: For more information about this screen, see the following chapters:

- ["Getting Your First Report Processed"](#) (see page 49) in this guide
- "Recipients" in the *Reference Guide*

	Recipient
Recipient Name (16)*	_____
Maildrop (8)	_____
Description (32)	_____

Recipient Name (16)*	_____
Maildrop (8)	_____
Description (32)	_____

Recipient Name (16)*	_____
Maildrop (8)	_____
Description (32)	_____

Prints on recipient banner page as 2 x 8-in. characters. Take this into account when creating names. Pad the name with blanks to get it to break correctly (for example, Mary____ Hart).

Report Data Gathering Worksheet

Reports are defined on the Report Base Definition Screen, (VRDMU110).

Note: For more information about this screen, see the following chapters:

- "[Getting Your First Report Processed](#) (see page 49)" in this guide
- "Reports, Events, Report Recipients, and Printers" in the *Reference Guide*

Report Definition	
Report Name (8)	_____
Job Name (8)*	_____
Print (Y/N)	_____
PC (Y/N)	_____
Archive Type (D,O,S,T,N)	_____
Retention:	Days _____ Gens _____
Online Viewing	_____
Retention:	Days _____ Gens _____
Due Out Time	_____ Abend Handling (A/D/P) _____
Report Description (32)	_____
Special Instructions (32)	_____
* Optional but recommended.	

Report Recipient Data Gathering Worksheet

Report recipients are defined on the Report Recipient Definition Screen, Reports (VRDMU130).

Note: For more information, see the following chapters:

- "[Getting Your First Report Processed](#) (see page 49)" in this guide
- "[Using the Writer Field](#) (see page 133)" in this guide
- "Reports, Events, Report Recipients, and Printers" in the *Reference Guide*

Recipient's Report	
Recipient (16)	_____
Report Name (8)	_____ Job Name (8) _____
Recipient's output permissions:	
Print (Y/N)	Online Viewing (Y/N) PC (Y/N)
Release Flag (N/B/A/T)	_____ (Normal, Before, After, boTh)
Banner Pages: # Maildrop	_____ # Recipient _____ # Manifest _____
Use Dates (mmdyyy): Start	_____ End _____ User _____
SYSOUT	
Classes:	Normal ___ Fiche ___ Specific ___
Options:	Align/Verify ___ Repeat ___ Priority ___ Copies ___
	Repeat ___ Priority ___ Copies ___ FCB ___ Form ___ Hold ___
	Destination _____ Writer _____
Printer Options	
Flash ___	Modify ___ OPTCD(J) ___ Burst ___ Count ___
Copygroups ___	TRC ___ Chars ___
AFP Resources	
Output/IAFP	_____ Page-Format _____ Copy-Group _____

Report Recipient Page Definition Worksheet

Recipient pages are defined on the Report Recipient Definition Screen, Pages (VRDMU140).

Notes: For more information, see the following chapters:

- "[Using Page Selection](#) (see page 179)" in this guide
- "Reports, Events, Report Recipients, and Printers" in the *Reference Guide*

Page Definition					
Recipient (16)	_____				
Report Name(8)	_____				
Job Name (8)	_____				
Page	Line	Col	Test	Text	
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----
---	---	---	---	---	-----

Valid test codes are:
EQ (Equal); GT (Greater Than); GE (Greater than or Equal);
LT (Less than); LE (Less than or Equal); NE (Not Equal)

User Recipient Definition Worksheet

After users are defined on the Sysgen User Screen, the user Online Viewing permissions and other print parameters are defined on the Sysgen User Recipient Screen (VSGMU235). This screen is also used to add and delete recipients for this user.

Note: For a complete discussion of this topic, see the chapter "Sysgen Screens" in the *Reference Guide*.

PC User/Group Detail Worksheet

Use this worksheet to gather information for the PC User/Group Detail Screen (VPCMU210).

Note: For a complete discussion of this topic, see the chapter titled "Making the PC Connection" in the *Reference Guide*.

PC User/Group Detail Worksheet	
PC User/Group (8)	_____ Description (32) _____
Within Group (8)	_____
History Gens (3)	_____
PC File (12)	_____
PC Path (64)	_____
LOG File (12)	_____
LOG Path (64)	_____
PC User/Group	Description
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Pre-Implementation Installation Review

You can get the following information from your systems programmer; use it as a handy reference as you implement CA Dispatch.

CA Dispatch Installation Review					
Release	_____	Maintenance Level	_____		
JES Release	_____	MVS Release	_____		
Printer Types:	_____				
Exits: 01	_____	07	_____	23	_____
Security:	_____				
User Exits: 06	_____	01	_____	02	_____
Scheduler:	_____				
Tape Management:	_____				
Report Database Size:	_____	Archive Database Size:	_____		
Journal Size:	_____				
Classes: (Class/Destination Combination)	_____				
Distribution:	_____	Archive:	_____		
MSGCLASS:	_____	Other:	_____		
Accessibility to CADispatch	_____				
VTAM:	_____	CICS:	_____	TSO:	_____
				IMS:	_____
Usergen (DSEXUSR1) run successfully?	_____				

Note: Update this information every time you change your system.

Setting the System Defaults

Before you can begin populating your CA Dispatch database, you must establish the system defaults on the following Sysgen screens:

- Dedicated Sysout Control Information Screen (VSGMU105)
- Sysgen Control Information Screen (VSGMU110)
- Sysgen Archive Control Information Screen (VSGMU210)
- Sysgen User Screen (VSGMU230)
- Sysgen User Recipient Screen (VSGMU235)

Note: Instructions for entering these defaults are shown as you proceed through this guide. These screens are also explained in detail in "Sysgen Screens" in the *Reference Guide*.

Populating Your Database

Before populating the database, you must generate a complete report definition. You can populate the database in any of the following ways:

- Enter data records individually by accessing the online screens as required
- Use the template screens to duplicate a model report definition
- Run the Database LOAD/UNLOAD Utility

For report definition instructions, see the chapter "[Getting Your First Report Processed](#) (see page 49)" in this guide.

For more information:

[Using the Database Load/Unload Utility DSEXLODL](#) (see page 265)

Reporting Problems

If you have any difficulties that require assistance or an explanation, see the chapter "Reporting Problems" in this guide.

Command Notation

This guide uses the following command notation. Enter the following exactly as they appear in command descriptions.

Format Style	Meaning
UPPERCASE	Identifies commands, keywords and keyword values. These items must be coded exactly as shown.
MIXed Cases	Identifies command abbreviations. The uppercase letters are the minimum abbreviation; lowercase letters are optional.
symbols	All symbols, such as commas, equal signs and slashes, must be coded exactly as shown.
<i>italics</i>	Variables are indicated by italicized text.

The following are used to clarify command syntax; do **not** type these as they appear.

Syntax	Meaning
lowercase	Indicates that you must supply a substitution (a user-supplied value)
[]	Identifies optional keywords or parameters
{ }	Requires you to choose one of the keywords or parameters listed
underlining	Shows default values which need not be specified
	Separates alternative keywords, parameters, or both, and indicates that you are to choose one

Syntax	Meaning
...	Indicates that the preceding items or group of items can be repeated more than once

The following table shows sample commands and an explanation of them:

Sample Command	Explanation	
REad <i>field 1</i> [<i>field 2</i>] [A I R]	RE	Command abbreviation
	field 1	Required value you must supply
	[field 2]	Brackets indicate optional value you may specify
	[A I R]	Brackets indicate optional parameters. Choose one
LOGon USERID=CA01 xxxxxxx]	LOG	Command abbreviation
	USERID	Optional keyword
	CA01	Default value for USERID keyword
	xxxxxxx	Alternate value you may specify instead of CA01

Chapter 2: Starting the Subtasks

This chapter discusses the following topics:

- Running CA Dispatch as either a started task or a batch job
- Starting and running CA Dispatch
- Executing subtasks
 - How Distribution works
 - How Status works
 - How Archive works
 - How Extract works

Started Task or Batch Job?

To decide whether to run CA Dispatch as a started task or a batch job, consider the following:

- A started task runs until it is ended.
- Most users execute the procedure CADSDISP as a started task to avoid the disadvantages of a batch job.
- A batch job usually executes for a certain amount of time.
- A batch job can time out.
- You may have a "lines exceeded" problem from a batch job. Your system probably has a maximum number of lines that a batch job produces, and CA Dispatch undoubtedly produces millions of lines.
- A batch job monopolizes an initiator while executing.

Starting and Running CA Dispatch

Do one of the following to start CA Dispatch:

- To run as a started task, enter the command **S CADSDISP** from the operator's console.
- To run as a batch job, submit job DSEXDISP.

Execution JCL

The execution JCL, called DSEXDISP, is found in the CAI.CADSJCL library. DSEXDISP executes a procedure called CADSDISP, which is found in CAI.CADSPROC library. CADSDISP, in turn, executes the main program CAISYS01.

If the CADSPROC library is not concatenated with JES2.PROC00, move CADSDISP to a procedure library (such as SYS1.PROCLIB or USER.PROCLIB) that is in that specific concatenation.

Executing Subtasks

The main subtasks are Archive, Extract, Status, and Distribution. Distribution consists of RPI, MSG, and RPO. You can start and stop each subtask independently, as long as the main task is executing. The subtasks do the work of CA Dispatch, as follows:

- **Archive (ARCH)**—Stores reports offline on tape, cartridge, DASD, and optical disk as a backup in case you want to reproduce any or all portions of a report. You can execute Archive under the main region of the product, known as INTERNAL archive; however, CA recommends that you run it in its own address space as an external task, known as EXTERNAL archive. You can run up to three archive subtasks.
- **Extract (EXTR)**—Retrieves a report from offline archive. You can execute Extract under the main region of CA Dispatch (INTERNAL); however, CA recommends that you run it in its own address space as an EXTERNAL task. You can only run one extract subtask.
- **Status (STAT)**—Posts statistics for reports to the Report Selection and Status Screen and the Feedback Update Screen (job start time, job end time, bundle print time). Also used to track the status of the PC download requests. This task can only be run INTERNALLY.
- **Distribution (DIST)**—Consists of the three subtasks **RPI**, **MSG** and **RPO** that perform the distribution function; you can run them concurrently or separately.
 - **Report Input Processor (RPI)**—Reads reports from CADDSP. You can run up to three INTERNAL RPI subtasks. RPI does the following:
 - Performs page selection
 - Builds Online Viewing database records
 - Builds PC request database records
 - Builds logical bundle control structures

- **MSGCLASS Input Processor (MSG)**—Reads MSGCLASS data from CADDSP and builds Online Viewing database records. You can run one INTERNAL MSG subtask.
- **Report Output Processor (RPO)** Up to ten RPO agents are automatically spawned off INTERNALLY to perform bundle processing. RPO does the following:
 - Processes the logical bundle control structures
 - Performs any Xerox DJDE or IBM AFP processing
 - Inserts separator and manifest pages
 - Writes the output back to JES

Starting and Ending the Subtasks

Commands to start or end subtasks can be autostarted, started manually, or started in batch mode.

Autostarting the Subtasks

The CADSOPTN library members (DSSTAR00, DSSTAR11 and DSSTAR12) control the autostart of the subtasks:

- DSSTAR00 does not autostart any subtasks. You should not modify this member, as it is often used under the direction of CA Dispatch support personnel.

If the procedure that executes the main program to bring CA Dispatch up (CADSDISP in the CADSPROC library) has not been modified, it invokes member DSSTAR00. In this way, when you first start CA Dispatch, you can tailor the SYSGEN before you attempt to process reports.

- DSSTAR11 autostarts all subtasks (Distribution, Status, Archive, and Extract).
- DSSTAR12 autostarts Distribution and Status.

After customizing the Dedicated Sysout Control Information Screen (VSGMU105), you can modify CADSDISP to point to the appropriate startup member. Typically, this would be DSSTAR12. You can tailor both the DSSTAR11 and DSSTAR12 members to automatically start the subtasks you want.

When you issue STOPCADS to bring down CA Dispatch, the subtasks are automatically brought down when they have finished processing the work that was in progress. It is not necessary to end the subtasks individually before issuing STOPCADS.

Notes:

- If there are several open bundles and you need to shut down quickly, you can use one of the options of STOPCADS to speed up the shutdown procedure.
- For more information, see the section Starting and Ending Tasks in the "Installation Options" chapter of the *Systems Programmer Guide*.

Starting the Subtasks Manually

After signing on to CA Dispatch, you can determine which tasks are active. You can then manually start tasks, end tasks, or both from the Enter Next Task Code prompt or from the Subtask Status Screen (VOPMI100) as follows:

1. To determine which tasks are active, enter **TS** (the Task Status command) and press **Enter**.

```
V1 Enter Next Task Code:
:
TS
```

The display indicates that there are no tasks active. This screen looks this way when CA Dispatch is first installed.

```
VOPMI100 ----- Subtask Status Screen -----
COMMAND ==>
X1 RIDF          X2 Active Bundles          Data Center:
Opt  Subtask    Status   Env     Cl  Dest   Report  Jobname  Bundle
```

2. Enter the command(s) to start the subtasks on the Command line of this screen.

Note: You can also press PF3 to return to the Enter Next Task Code prompt and issue subtask start and end commands there, or enter the appropriate start command in the OPT column next to the desired task.

3. In this example we start the Distribution tasks and the Status task:
 - a. Enter **S DIST** to start one RPI task (either RPI1, RPI2 or RPI3), and the MSG and RPO tasks and press Enter.
 - b. Enter **S STAT** and press Enter.

This results in the following display:

```

VOPMI100----- Subtask Status Screen -----
COMMAND =>
X1 RIDF          X2 Active Bundles
Opt Subtask      Status      Env  Cl Dest      Report  Jobname  Bundle
=> -   RTM         Active      I
=> -   LOG         Active      I
=> -   STATUS      Not Active
=> -   ARCH1       Not Act On
=> -   ARCH2       Not Act On
=> -   ARCH3       Not Act On
=> -   EXTRACT     Not Active
=> -   RPI1        Not Act On
=> -   RPI2        Not Act On
=> -   RPI3        Not Act On
=> -   MSG         Not Active
=> -   SAPIRPI1   Active      E   A  RPI1
=> -   SAPIRPI2   Active      E   A  RPI2
=> -   SAPIRPI3   Active      E   A  RPI3
=> -   SAPIMSG    Active      E   S
=> -   SAPIARCH   Active      E   X

S-Start (internal)  X-Start (external)  E-End  I-Intercept on/off
    
```

4. Press PF3 to exit the display and return to the Enter Next Task Code prompt.

Managing the Subtasks

To start the subtasks enter:

Internal	External
S DIST (starts RPI1, RPI2, RPI3, MSG, RP0)	
S RPI1	
S RPI2	
S RPI3	
S MSG	
S RP0	
S STAT	
S ARCH1	S ARCH1 XT
S ARCH2	S ARCH2 XT
S ARCH3	S ARCH3 XT
S EXTR	S EXTR XT
S SAPIRPI1	
S SAPIRPI2	
S SAPIRPI3	
S CADDSP	

To end the subtasks enter:

Internal	External
E DIST (ends RPI1, RPI2, RPI3, MSG, RPO)	
E RPI	
E MSG	
E RPO	
E STAT	
E ARCH1	E ARCH1
E ARCH2	E ARCH2
E ARCH3	E ARCH3
E EXTR	E EXTR
E SAPIRPI1	
E SAPIRPI2	
E SAPIRPI3	
E CADDSP	

Note: The commands listed are the same whether issued in autostart, manually, or batch mode.

Starting the Subtasks in Batch Mode

The following members allow you to communicate with the database in batch mode:

- DSEXBCMD in CAI.CADSJCL library (execution JCL)
- CADSB CMD in CAI.CADSPROC library (procedure)
- DSBCMD01 in CAI.CADSOPTN library (sample input member)

DSBCMD01 has some sample commands to start and end subtasks. Any command that you can enter from the Enter Next Task Code prompt can also be entered using batch.

Note: Ensure the user ID defined to issue batch commands does have the proper security authorization and does not have an installation code assigned.

Many users decide to autostart only Distribution and Status.

Important! Archive and Extract are started and ended periodically; this is especially important with Archive. CA strongly recommends that a tape drive be dedicated for the duration of the run of this subtask. See the section [The Sysgen Archive Control Information Screen \(VSGMU210\)](#) (see page 235) in the chapter "Archiving, How It Works" in this guide.

Determine how long it takes Archive to process your production output; then set up the following:

- Schedule the batch job (through your scheduling system) to start Archive.
- Schedule another job to end Archive after the predetermined amount of time has elapsed.

If you have CA Opera™, you can set it up to monitor Archive's class for output and send a command to CA 7 or CA Scheduler to start and end Archive based on the presence or absence of work in Archive's class.

For more information:

[Security – What You Need to Know](#) (see page 99)

Running Subtasks - Internal or External

CA strongly recommends running Archive and Extract as external tasks. This allows parallel processing: reports can be distributed at the same time others are being extracted (retrieved from tape), while other reports are being archived (put to tape). If you choose to run these tasks externally, you can simply alter the commands:

from:	to:
S ARCH1	S ARCH1 XT
S EXTR	S EXTR XT

To end the subtasks, issue **E ARCH1** or **E EXTR**.

Running Subtasks as Batch Jobs or Started Tasks Under JES2

Consider the following when deciding whether to run the subtasks as batch rather than started tasks under JES2:

- **Batch Job**—When you issue **S EXTR XT**, CA Dispatch sends the contents of the CADSJCL member DSEXTEX to the JES internal reader, starting external extract as a batch job running in its own address space.

- **Started Task**—If you want to run Archive (or any of the other external tasks) as a started task, replace the execution JCL in the CADSOPTN member with the following command:

```
/*$VS, 'S PROCNAME'
```

In this particular case, the command would be:

```
/*$VS, 'S CADSXTAR'
```

The /*\$VS is the Command Interface. When presented to the internal reader, the text following the /*\$VS is issued as a command to the operating system.

Advantages of running as a started task include:

- Output lines are not exceeded, which may be incurred with a batch job.
- An initiator is not monopolized for the duration of the job.

How Distribution Works

CA Dispatch is tailored to process all output sent to a specific JES class (or class/destination combination). A job runs and produces output. The output (report) is sent to a specific JES class, defined by the SYSOUT statement in the job's JCL. The output is captured by CADDSP and placed into an IBM ESA data space. Once the output data set is unallocated (either explicitly by the job or at the end of the current job step), CADDSP marks the report available for CA Dispatch to process.

The RPI (Report Input Processor) subtask queries CADDSP for the next available report. If a report is found, CADDSP returns a header record (SPLHDR2) that contains the pertinent information about the report. RPI interrogates its CA IDMS database for the basic processing option information for the report (supplied from the report definitions). This information includes Archive options D, O, S, and T. If the report will be archived, the SPLHDR2 is updated with the archive options (D = DASD, O = Optical, S = DASD with SMS controls, T = Tape).

Page Selection Criteria for Each Report Recipient

Following are page selection criteria for each report recipient:

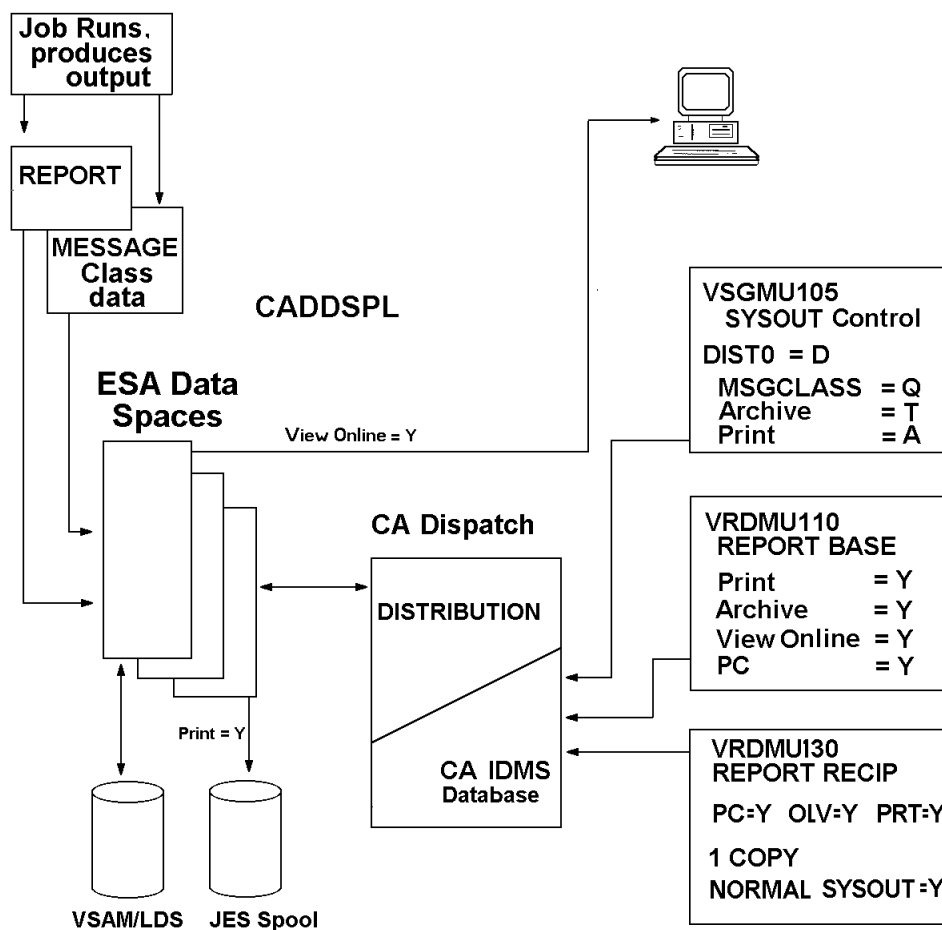
- **Current page**—Is the current page defined for the current recipient?
- **Online Viewing option**—If the report is to be sent to Online Viewing, the following occurs:
 - The SPLHDR2 is updated
 - OLV control blocks are built for the report, each recipient, and the pages selected for each recipient to view

- **Print (Y/N)**—If a report will be printed, you must determine the following:
 - The maildrops for each recipient (where is the report to be dispatched?)
 - Is a maildrop with this name currently open?
 - The output characteristics for this recipient

Build logical bundle control blocks for the bundle(s), each report within the bundle(s) and the pages selected to print for each recipient.
- **PC (Y/N)**—If a report is eligible for download to a PC or LAN, you must determine if an automated request should be created for each PC recipient.

Once all processing options are interrogated and the appropriate control blocks are built, RPI adds all the appropriate database records to the CA IDMS database. The SPLHDR2 header is updated to state that it is finished being processed. If RPI or CA Dispatch abends before this report is flagged as finished, all the database updates are rolled back and the report is reprocessed when RPI is restarted.

A Detailed View of Distribution

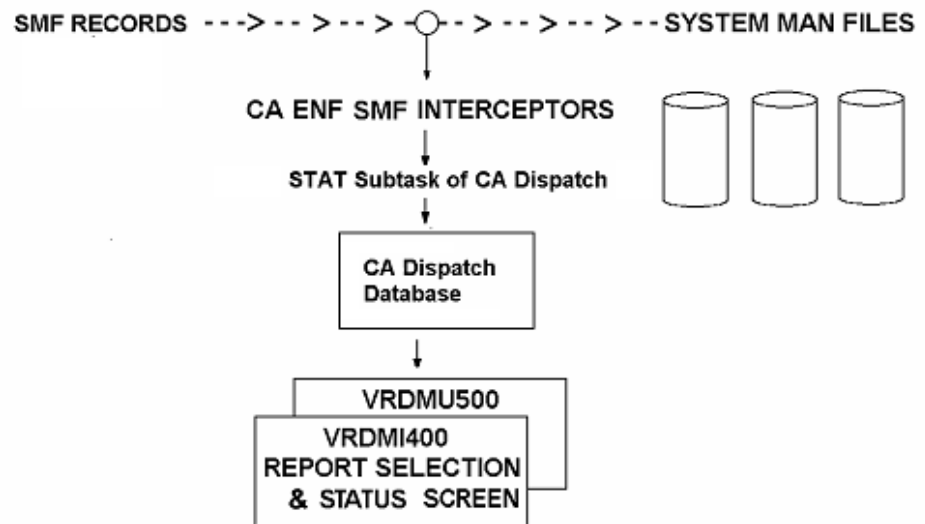


How Status Works

The information displayed on the Report Selection and Status Screen (VRDMI400) is obtained through SMF (System Management Facilities) records. The SMF interceptors, which are installed using CAIENF, intercept these records and present them to CAIENF, which saves them as events in its own base. CAIENF is included as part of the CA Common Services products.

The Status subtask of CA Dispatch asks CAIENF for any events and posts the information to the database. It is then displayed when you access the Report Selection and Status Screen (VRDMI400).

Overview of the Status System



Obtaining Status Information

To get status on reports do one of the following:

- Access the Report Distribution Option Menu (VRDMI000). (Enter **CA DS** from the Enter Next Task Code prompt or press PF4 until you reach this menu.)
- Enter **4** (STATUS) on the Command Line and press Enter to access the Report Selection and Status Screen (VRDMI400).

```
VRDMI400----- Report Selection and Status Screen -----
COMMAND =>
      X1 Job/Rpt   X2 Bundle   X3 Active Bundle   X4 Active Recip
-----
Jobname =>          Job #   =>          Bundle =>          Mode => JS
Report  =>          Max Time => :      Dest  =>          ,
JES Command =>

                                     JES
Pri C Jobname Report  Job # St Date   Time Bundle  Owner Destination
244 A DSEXSTAT RDUTILIZ 2855 BQ 06202009 1342 AA1AE4AS 3136 USLAGLP9
211 D NOGGSAA1 NTMDWC  1375 BQ 06192009 1735 A9F4BEAP 2138 USLAGLP9
041 A NOGGSAA5 LARPT499 0879 BQ 06192009 1642 A9F489AN 2451 USLAGLP9
248 A NOGGSBZ  MASTR2  2981 BQ 05132009 1701 B0AB10AD 3422 USLAGLP9
001 A ORDRJOB  MASTER  2868 BQ 05112009 1113 CF9A7EAT 3422 USLAGLP9
```

For more information about report status on the [Report Selection and Status Screen](#) (see page 74), see the chapter "Getting Your First Report Processed" in this guide.

How Archive Works

If any of the Archive options (other than N) are specified on the Report Base Definition Screen (VRDMU110), RPI sets the corresponding options in CADDSP report header (SPLHDR2). When you start the Archive subtask, it queries CADDSP for the next available report.

CADDSP returns the report's SPLHDR2. Archive finds the specified archive options and calls the appropriate routine to archive the report to the requested media. Depending on the media, Archive allocates and writes the report based on the information supplied on the Sysgen Archive Control Information Screen (VSGMU210).

Once the report is written to the required media, Archive creates a database record in the archive area of the database that contains:

- Original report name/jobname
- Creation date

- Media type
- Volume information

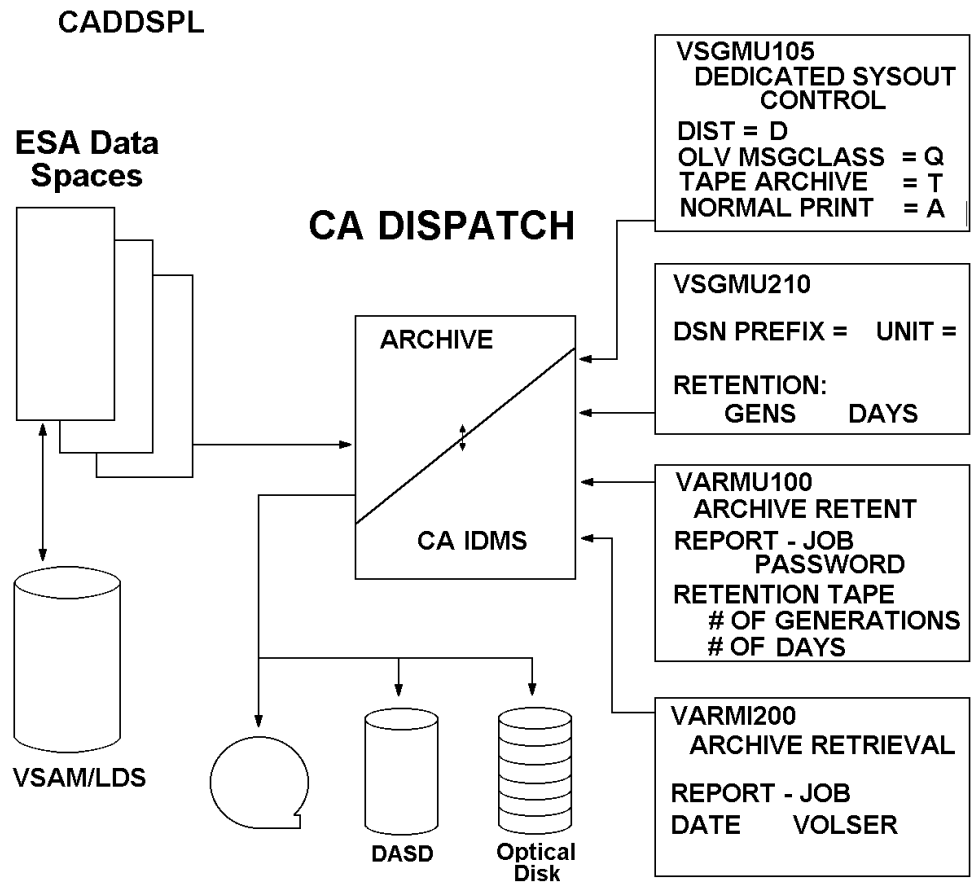
After the report is archived to all the designated media, Archive turns off the flags in the SPLHDR2.

For more information:

[Archiving](#) (see page 227)

Overview of the Archive System

Following is a diagram showing the overview of the Archive system.



How Extract Works

After a report has been archived, it can be brought back from the media to which it was archived by the Extract subtask. When you retrieve a report from archive, you can use the Archive Retrieval Screen, Report (VARM I200) to reprint it, re-archive it, send it to Online Viewing, or delete it.

To access the Archive Retrieval Screen:

1. Access the Report Distribution Option Menu (VRDMI000). (Enter **CA DS** from the Enter Next Task Code prompt or press **PF4** until you reach the main menu.)
2. Enter **A** (ARCHIVE) on the Command Line and press Enter to access the Archive and Retrieval Option Menu (VARM I000).
3. Enter **2** on the Command Line and press **Enter** to access the Archived Reports Selection Screen (VARM I011).
4. Enter **S** next to your report and press **Enter** to access the Archive Retrieval Screen, Report (VARM I200).

```

VARM I200 ----- Archive Retrieval Screen, Report:          Job:          -----
DC900036 ONLY PAGE
COMMAND =>
  X1 Retrieval Queue   X2 Report Archive Retention   Display (P,D,B) =>

Act Volser(s):                Retention: Days: 7      Gens:5

Reprint As (For P,R):  Report => ADDRPT01   Jobname => ADDJOB02

  Opt Date      Time  Abend  Volser   Seq  Records  Unit  Type Res Media
  -----
=> R  05/13/2009  10:25      TEST08   3    362  SYSDA  P  N  TAPE
=> -  05/12/2009  12:28      TEST08   6    362  SYSDA  P  N  OPTL
=> -  05/12/2009  11:11      TEST08   2    362  SYSDA  P  N  TAPE

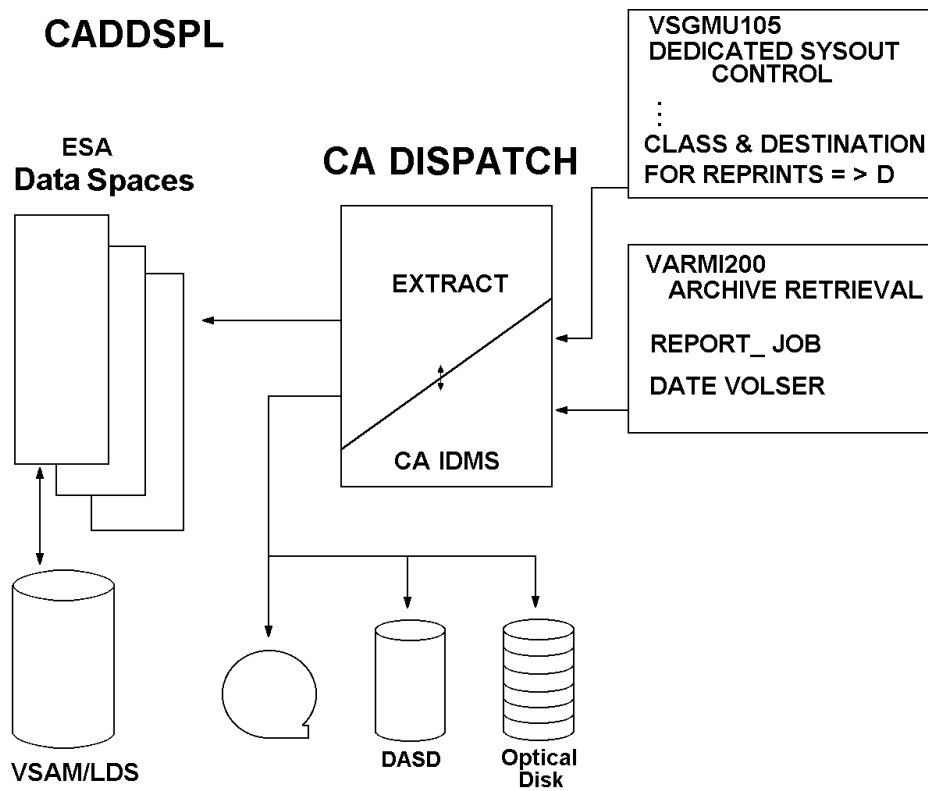
```

Once you select your report, Extract reads the report from its archive media and copies it to the reprint class monitored by RPI. The reprinted report must then be pulled back into the CADD SPL address space and be processed by the RPI subtask in order for the correct distribution to occur. If multiple extract requests have been made for the same VOLSER, Extract sorts the requests and processes them in order.

Extracted reports are redistributed according to the options you selected in your extract request on the Archive Retrieval Screen, (VARM I200). Both Extract and RPI must be active for an Extract request to be satisfied.

Note: If the report you want to extract is on the tape that Archive is currently writing to, you must end the Archive task before attempting to extract from it.

Overview of the Extract Subtask



Chapter 3: Getting Your First Report Processed

Use this chapter as a guide to get you started with CA Dispatch. We provide you with the basic instructions you need to run your first report through the system.

This chapter assumes that CA Dispatch has been successfully installed and that CADDSPPL has been installed and is active. Review the step Test and Validate the Operation in the "Installation" chapter of the *Getting Started*, and be sure it is complete.

Now you are ready to process and distribute (print, view online, archive and extract) your first report.

Steps Required to Run Your First Report

Before CA Dispatch can capture a report for distribution, you must supply some system parameters and then define report and recipient data to the Distribution system. Note that many of the screens presented here are discussed in detail later in this guide.

The following is a list of steps to take to prepare for, define, run, archive, and extract your first report:

- Verify that CADDSPPL and the SAPI tasks are active, and the classes they were defined to process
- Sign on and access the main menu, the Report Distribution Option Menu (VRDMI000)
- Tailor the Dedicated Sysout Control Information Screen (VSGMU105)
- Setup for CADDSPPL and the SAPI tasks
- Define a maildrop
- Define a recipient
- Define the base report
- Define a report recipient
- Change the JCL of the job that produces the report
- Execute the job that produces the report
- Start the subtasks
- Track the process

- View your report online
- View the MSGCLASS data online
- Archive your first report
- Extract your first report

Signing On and Accessing the Report Distribution Option Menu

1. Access CA Dispatch through VTAM, TSO, TSO/ISPF, CA Roscoe®, CICS, or IMS, depending on which interfaces are installed.

The following example shows you how to access CA Dispatch by selecting a VTAM application from your CA VMAN™ list.

```
CA VMAN ----- Session Manager -----  
-----  
1. Systemb          ACTIV  
-> S 2. CA Dispatch  ACTIV  
3. CA Roscoe        ACTIV  
-----
```

The example assumes that you do not have Autosignon implemented, that internal security is in effect, and that you defined user IDs and passwords to the IDMS data dictionary when you completed installation.

Selecting CA Dispatch brings you to the first Enter Next Task Code prompt.

2. Enter **Hi** *userid password* at the cursor. Press **Enter**.

```
V1 Enter Next Task Code  
:  
Hi userid passwr
```

The screen changes.

3. Enter **CA** at the cursor prompt, and press **Enter**.

```
IDMS DC258003 V1 USER userid SIGNED ON LTERM ltermid AT 13:42:05.48 93.029  
V1 Enter Next Task Code  
:  
CA
```

You access the Report Distribution Option Menu.

```

VRDMI000----- CA Dispatch r11.7 -----
                                Report Distribution Option Menu
COMMAND ==>                               Data Center: DEVL
  Select Option (1 - C)

Optional Names:
  Report (or ADD) ==>                      Jobname ==>
  Recipient (or ADD) ==>

-----
  1 REPORT DEFINITION - View, Update Report and Assoc Recipient Data
  2 DEFN TEMPLATING  - Build Report/Recipient Definitions from Models
  3 RECIPIENT DEFN   - View, Update Recipient Data
  4 STATUS           - Inquire Against Report Activity
  5 FEEDBACK         - Update Report Distribution Status
  6 OFF-LINE FICHE   - Obtain/Update Distribution/Copy Information
  7 LABELS           - Manually Generate Labels
  8 OPERATIONS       - Subtask Status, RIDF and Active Bundle Queue
  9 SYSGEN           - View, Update Sysgen Information
  A ARCHIVAL SYSTEM  - Archive and Retrieve Data
  B ONLINE VIEWING   - Access the OnLine Viewing System
  C PC               - View, Update PC Definitions/Request Queues

```

Accessing the Sysgen Screens

At this point, you must access the Sysgen screens to set basic default values.

1. Enter **9** on the Command line, and press Enter.

```

VRDMI000----- CA Dispatch r11.7 -----
                                Report Distribution Option Menu
COMMAND ==> 9                               Data Center: DEVL
  Select Option (1 - C)

```

The Sysgen Option Menu (VSGMI100) is displayed.

```
VSGMI100----- Sysgen Option Menu -----  
  
COMMAND =>  
  Select Option (0 - D)  
Optional Maildrop, Dest, or Form Name =>  
-----  
  0  SYSOUT CONTROL - Dedicated Sysout Control Information  
  1  SYSTEM CONTROL - Define General Control Information  
  2  LABELS         - Designate Terminal Names on which to Print  
                        Distribution Labels (by Destination)  
  3  MAILDROP      - Specify Tuning Parameters for Sysout by Maildrop  
  4  CLASS DEFAULTS - Sysout Class Defaults and Range Validation  
  5  FORM CLASSES  - Sysout Class Standards by Special Form  
  6  INIT CAIENF CKPT- Initialize CAIENF Checkpoint  
  7  IDEN DEFAULTS - Define XEROX DJDE Default Options  
  8  MSGCLASS EVENTS - Define MSGCLASS Events that will Initiate System  
                        Events (WTOS) or Cross Product Commands  
  9  ONLINE VIEWING - Define Control Information for Online Viewing  
  A  ARCHIVE CONTROL - Define Control Information for Report Archiving  
  B  TAPE POOL     - Define Tape Volumes to the Archive Tape Volume Pool  
  C  USER DEFINITION - Define OnLine Viewing Users and Associated Recipients  
  D  INLINE AFP    - Define Inline AFP Resource and Library Groups
```

2. Enter **0** to display the Dedicated Sysout Control Information Screen (VSGMU105) and press Enter.

```
VSGMI100----- Sysgen Option Menu -----  
  
COMMAND => 0  
  Select Option (0 - D)  
Optional Maildrop, Dest, or Form Name =>
```

Tailoring the Dedicated Sysout Control Information Screen

Use the Dedicated Sysout Control Information Screen (VSGMU105) to establish SYSOUT classes and the class/destination combinations necessary for running CA Dispatch. The definitions on this screen notify CA Dispatch how to process the data that has been pulled into the CADDSP address space either through dynamic intercept or by the SAPI tasks. The input classes you define here must match the input processing classes defined for CADDSP and SAPI.

To get CA Dispatch to pick up a report and distribute it, you must first tailor this screen:

```
VSGMU105----- Dedicated Sysout Control Information Screen -----
COMMAND ==>

Distribution Input Options:
                Class  Dest
Report Input:
  Input Task 1 (RPI1): ==> A  RPI1
  Input Task 2 (RPI2): ==> A  RPI2
  Input Task 3 (RPI3): ==> A  RPI3

MSGCLASS Input (MSG) : ==> S
Archive Input (ARCH): ==> X

Distribution Output Options:

Normal Print:      ==> K
OnLine Microfiche: ==> Z

Report Reprints:   ==> A  RPI3

Archived Reports:  ==> L  FSS
  With Resources
```

Before you can assign classes (or class/destination combinations), contact your system administrator to find out which JES output classes are not being used.

Only the basic options are discussed in this chapter.

For our simplified setup, CA Dispatch needs three unique NO HOLD dedicated JES classes for input, and two for output. Our example assumes the following:

- Class A with Destination RPI1, RPI2, and RPI3, Class S, and Class X are available for CA Dispatch input and match those defined to CADDSP and SAPI for processing.
- Class A and Class Z are currently being used for print output and microfiche respectively. A special FSS destination will be used for Archived Reports with resource.

You need to know which classes are actually being used for normal printing and microfiche.

Set CA Dispatch classes on the Dedicated Sysout Control Information Screen (VSGMU105) as follows:

1. To specify values for the *input* classes:
 - a. Enter **A** in the Input Task 1 Class field, and **RPI1** in the Input Task 1 Dest field.

The first Class you enter belongs to Report Input, Task 1. This example uses Class A and Dest RPI1 as the class-destination values that the product monitors for report input to the distribution subtask.

- b. Enter **A** and **RPI2** in the Input Task 2 Class and Dest fields.
- c. Enter **A** and **RPI3** in the Input Task3 Class and Dest fields.
- d. Enter **S** in the MSGCLASS Input Class field.

The next Class is for sending MSGCLASS data to Online Viewing (OLV MSGCLASS). This example uses Class S.

- e. Enter **X** in the Archive Input Class field.

The third class you enter is used for archiving the reports. This example uses Class X for input to the archive subtask(s).

WARNING! Be sure you do not use any of your production classes as input when defining your CADDSP and SAPI processing classes. The product processes any data set put in any of the input classes, regardless of whether it is defined to the database.

- 2. To specify the default classes used for *output* at your site:

- a. Enter **K** in the Normal Print field.

The Normal Print field contains a class used at your site for printed output. This class is one to which a printer is attached. If the normal print class at your site (before CA Dispatch) was Class K, you can enter **Class K** for printing because this aspect of your system does not change from test to production mode.

- b. Enter **Z** in the Online Microfiche field.

This supplies the class to use for your output to online microfiche. This example uses Class Z.

Note: CA Dispatch does not allow either of these two output classes to be the same as any of the three input classes used for Distribution, MSGCLASS or Tape Archive. This would cause the software to loop.

- 3. Enter **A** and **RPI3** (the same class used for Input Task 3) in the Report Reprints fields.

Class A and Dest RPI3 are used because all reprints must be processed by the distribution subtasks.

4. Enter **L** and **FSS** in the Archived Reports With Resources fields.

The completed screen looks like this:

```
VSGMU105----- Dedicated Sysout Control Information Screen -----  
COMMAND ==>  
Distribution Input Options:  
                Class   Dest  
Report Input:  
  Input Task 1 (RPI1): ==> A   RPI1  
  Input Task 2 (RPI2): ==> A   RPI2  
  Input Task 3 (RPI3): ==> A   RPI3  
  
MSGCLASS Input (MSG) : ==> S  
Archive Input (ARCH): ==> X  
  
Distribution Output Options:  
  
Normal Print:           ==> K  
OnLine Microfiche:     ==> Z  
  
Report Reprints:       ==> A   RPI3  
  
Archived Reports:      ==> L   FSS  
  With Resources
```

5. Press **Enter** to update the database.
6. Press **PF3** to return to the Sysgen Option Menu (VSGMI100).

For more information:

[CADDSP, Distribution, and the VSGMU105 Screen](#) (see page 89)

Defining a Maildrop

Next, you must define a maildrop to the system. A maildrop is usually associated with a physical location, such as a bin, department, or office, but it can also be an individual or a group.

Note: For more information, see [Maildrop Data Gathering Worksheet](#) (see page 23) in the chapter "Planning Implementation" before you define maildrop names and locations.

From the Sysgen Option Menu (VSGMI100):

1. Enter **3** on the Command line and press **Enter**.

```
VSGMI100-----Sysgen Option Menu-----  
COMMAND=> 3  
  Select Option (0 - D)  
  Optional Maildrop, Dest, or Form Name =>  
-----  
  3 MAILDROP   Specify Tuning Parameters for SYSOUT by Maildrop
```

You access the Maildrop Sysgen Screen (VSGMU130). To enter maildrop information:

2. Tab to the ADD line and enter **PRODCNTL**.

We used the maildrop name PRODCNTL to indicate the PRODUCTION CONTROL area.

3. Tab to Max Time and enter **30** (that is, 30 minutes).

This is the maximum amount of time that you want a bundle for this maildrop to be open, waiting for new reports to gather.

4. Tab to Max Pages and enter **500**.

This is the maximum number of pages you would like to see accumulate in the bundle before it is closed.

The completed screen should look like this:

```
VSGMU130 ----- Maildrop Sysgen Screen -----  
COMMAND =>  
  
  Opt      Maildrop      Max Time      Max Pages      Release TOD      Address  
  ADD=>    PRODCNTL      30           500           (HHMM)          (Y/N)  
=>
```

5. Press **Enter** to add this information to the list of maildrops.

Adding Maildrop Address Information

At this point, the maildrop parameters have been added. Now you can add maildrop address information.

1. Tab to the OPT field next to the entry you just created.
2. Enter **X** next to PRODCNTL and press **Enter**.

```
VSGMU130 ----- Maildrop Sysgen Screen -----
COMMAND ==>

      Opt      Maildrop      Max Time      Max Pages      Release TOD      Address
      ADD
=> X          PRODCNTL          30            500            (HHMM)          (Y/N)
=>
=>
```

The Maildrop Address Screen (VSGMU135) is displayed.

You can enter the address, descriptive information, a recipient name, or any type of information in these free-form fields.

You can make your addresses as brief or as meaningful as your site requires. Notice the Copy Address From Maildrop field. This field lets you save time by using similar, existing addresses as templates.

3. Enter your address.

```
VSGMU135-----Maildrop Address Screen-----
COMMAND ==>
  DEL Delete Address

Maildrop: PRODCNTL

Address:
Line 1 ==> Distribution Warehouse
Line 2 ==> Building B.
Line 3 ==> Third Floor, Front
Line 4 ==> Sorting Desk
Line 5 ==>
Line 6 ==>
Line 7 ==>
Line 8 ==>

Copy Address From Maildrop ==>
```

4. Press **Enter** to add the maildrop information.
5. Press **PF4** to return to the Report Distribution Option Menu (VRDMI000).

Defining a Recipient

Now we define to the database the individuals or entities who are going to receive reports.

For this example you should be on the Report Distribution Option Menu (VRDMI000). Follow these steps to access the Recipient Definition Screen in ADD mode:

1. Enter **3** on the Command line and press **Enter**.
2. Tab to the Optional Names field, Recipient (or ADD) and enter **ADD**.

```
VRDMI000----- CA Dispatch r11.7 -----  
                          Report Distribution Option Menu  
  
COMMAND => 3                               Data Center: DEVL  
  Select Option (1 - C)  
  
Optional Names:  
  Report (or ADD)  =>                               Jobname =>  
  Recipient (or ADD) => ADD  
-----  
  3 RECIPIENT DEFN  - View, Update Recipient Data
```

3. Press **Enter** to access the Recipient Definition Screen (VRDMU310).

In order to define a recipient, tab to the required fields and enter the data, as shown in the example below:

4. Enter **your name** or **user ID** in the Recipient field.

The ID you are using in this example is for testing purposes and can be easily changed online. We suggest that you use your name or user ID. (Remember, naming conventions are important. See the chapter "[Planning Implementation](#)" (see page 13)" in this guide for suggestions and worksheets.)

5. Enter **your Maildrop** name.

We are using PRODCNTL, the maildrop we just added to the database.

6. Enter **your phone number**, and optionally, some **descriptive text** about you, the recipient.

The description field is useful if the recipient ID is not a person's name.

```
VRDMU310----- Recipient Definition Screen -----  
COMMAND => ADD  
X1 List Reports      X2 Maildrop      ADD Add Recip      DATA CENTER:  
                                DEL Delete Recip  
Recipient => yourname  
Maildrop   => PRODCNTL  
Phone      => 60912345678  
Description =>  
           =>  
Charge Code =>  
  
Change ALL Of The Reports Being Sent To The Above Recipient To:  
New Recipient =>
```

7. ADD is already entered on the Command line. Press **Enter** to update the database with your recipient data.
8. Press **PF4** to return to the Report Distribution Option Menu (VRDMI000).

Defining the Base Report

You must create a base report definition so that CA Dispatch has the basic information it needs to correctly process your report for Distribution and Archive.

The following example shows how to access the Base Report Definition Screen in ADD mode from the Report Distribution Option Menu (VRDMI000).

1. Enter **1** on the Command line.
2. Tab to the Optional Names field, Report (or ADD) and enter **ADD**, then press **Enter**.

```

VRDMI000----- CA Dispatch r11.7 -----
Report Distribution Option Menu

COMMAND => 1                               Data Center: DEVL
  Select Option (1 - C)

Optional Names:
Report (or ADD)   => ADD                     Jobname =>
Recipient (or ADD) =>

-----
1 REPORT DEFINITION - View, Update Report and Assoc Recipient Data
    
```

A new Report Base Definition Screen (VRDMU110) is displayed; notice that the defaults are pre-entered.

```

VRDMU110----- Report Base Definition Screen -----

COMMAND =>                               Data Center:
X1 Rpt Events      X4 Add Fiche Rcp      X7 0lv           X10 Reprint
X2 #1 Fiche Rcp   X5 Add Rpt Recip   X8 MsgclClass   ADD Report
X3 Recip List     X6 Tracking        X9 Archive Ret  DEL Report

-----
Report Processing Options:  Report =>           Jobname =>
Print (Y/N) => Y           Convert CC to Mach. (Y/N) => Y
PC Download (Y/N) => N     Lines Per Page (0-143) => 60
Archive (D,O,S,T,N) => T   Due Out Time (0000-2400) => 0000
Passthru (Y/N) => N       Jobname Identification =>
View OnLine (Y/N) => N
Retention Days => 7
Retention Gens => 2
Abend Handling - Process(P), Delete(D), Archive(A), or OLV(O) => P

IBM Options: AFP Mixed Mode (Y/N) =>   AFP Page Mode (Y/N) =>
XEROX Options: Embedded DJDE (Y/N) =>

Report Description =>
User Numeric Field =>
Special Instructions =>
    
```

Sample Report RDUTILIZ

Throughout the remainder of this chapter we define, run, track, view, and archive an actual report that is the output of a job supplied with the product. The RDUTILIZ report provides details of CA IDMS database file utilization.

Your first task is to customize the Report Base Definition Screen. Fill in the required fields as follows:

1. Enter **RDUTILIZ** in the Report field.

A report name can be up to eight alphanumeric characters and must begin with an alpha or national character. Our sample report RDUTILIZ indicates the Report Distribution UTILIZatIon report.

2. Enter **DSEXSTAT** in the Jobname field.

The name of the job that produced the report for this example.

3. To test all the basic processing options, in the indicated fields enter:

- Print ==> **Y**
- PC Download ==> **Y**
- Archive ==> **T**
- View Online ==> **Y**

4. Enter **FILE UTILIZATION: RD-AREA** in the Report Description field.

5. Enter **DELIVER THIS REPORT TO (yourname)** in the Special Instructions field.

At this point, your screen should look like this:

```

VRDMJ110----- Report Base Definition Screen -----
COMMAND ==> ADD                                     Data Center:
X1 Rpt Events          X4 Add Fiche Rcp      X7 Olv          X10 Reprint
X2 #1 Fiche Rcp       X5 Add Rpt Recip     X8 Msgclass    ADD Report
X3 Recip List         X6 Tracking          X9 Archive Ret  DEL Report
-----
Report Processing Options:  Report ==> RDUTILIZ      Jobname ==> DSEXSTAT
Print (Y/N) ==> Y          Convert CC to Mach. (Y/N) ==> Y
PC Download (Y/N) ==> Y    Lines Per Page (0-143) ==> 60
Archive (D,O,S,T,N) ==> T  Due Out Time (0000-2400) ==> 0000
Passthru (Y/N) ==> N      Jobname Identification ==>
View OnLine (Y/N) ==> Y
Retention Days ==>
Retention Gens ==>
Abend Handling - Process(P), Delete(D), Archive(A), or OLV(O) ==> P

IBM Options: AFP Mixed Mode (Y/N) ==>    AFP Page Mode (Y/N) ==>
XEROX Options: Embedded DJDE (Y/N) ==>

Report Description ==> FILE UTILIZATION: RD-AREA
User Numeric Field ==>
Special Instructions ==> DELIVER THIS REPORT TO: userid

```

6. Tab to the Command line (the command ADD should already be entered) and press **Enter**.

The screen changes to display a message to indicate that the information has been added to the database.

To define your first report recipient, on the Command line of the Report Base Definition Screen (VRDMU110):

7. Enter **X5** (ADD Rpt Recip) and press **Enter**.

```

VRDMU110----- Report Base Definition Screen -----
DC900012 INFORMATION HAS BEEN ADDED
COMMAND ==> X5
Data Center:
X1 Rpt Events      X4 Add Fiche Rcp  X7 0lv           X10 Reprint
X2 #1 Fiche Rcp   X5 Add Rpt Recip X8 MsgcClass     ADD Report
X3 Recip List     X6 Tracking      X9 Archive Ret   DEL Report
-----
Report Processing Options:  Report ==> RDUTILIZ      Jobname ==> DSEXSTAT
    
```

Defining a Report Recipient

You are now positioned on the Report Recipient Definition Screen, Reports (VRDMU130).

The data supplied here allows you to customize output according to the needs of each individual report recipient.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==> ADD
Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==> 1 Report: RDUTILIZ Jobname: DSEXSTAT
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64): Use Dates (MMDDYYYY)
Maildrop Pages ==> SD Start ==> Due Out Time(HHMM) ==>
Recipient Pages ==> SD End ==> VSM Delay in Days ==>
Manifest Copies ==> SD User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==> Y Repeat ==> FCB ==> Hold ==> N
Fiche Class(Y/N) ==> N Priority ==> Form ==>
Specific Class ==> Copies ==> 1 Writer ==>
Align/Verify (A/V) ==> Destination ==> ,
Printer Options:
Flash ==> Burst (Y/N)==> N TRC ==>
Modify ==> Count ==> CHARS ==>
OPTCD (J) ==> Copygroups ==>
AFP Mode:
Output/IAFP ==> Page Format ==> Copygroup ==>
    
```

Customize this screen as follows:

1. Enter the recipient name (your name) in the Recipient field.
(The name you added to the database in the Define a Recipient section.)
2. Enter (or accept) the following output options for this recipient (you):
 - Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Providing Y or N options for a particular week day enables printing a copy for the recipient on the specified day.
 - Online Viewing (Y/N) ==> Y
 - PC (Y/N) ==> N
3. Accept the default (N) in the Release Flag field.
This means your maildrop remains open for the amount of time and number of pages you specified in the Maildrop Sysgen Screen (VSGMU130) defined earlier in this chapter.
4. Accept the default (Y) in the Normal Sysout field.
Normal Sysout as Y places this report in the JES queue in class A. (This was set on the Dedicated Sysout Control Information Screen (VSGMU105), when you set the default class for output in the Normal Print field.)
5. Accept the defaults for the remaining fields on the screen and press **Enter**.

Your completed screen should look like this:

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==> ADD                               Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                Report: RDUTILIZ           Jobname: DSEXSTAT
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
OnLine Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):      Use Dates (MMDYYYY)
Maildrop Pages ==> SD      Start ==>           Due Out Time(HHMM) ==>
Recipient Pages ==> SD      End ==>           VSM Delay in Days ==>
Manifest Copies ==> SD      User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==> Y      Repeat ==>           FCB ==>           Hold ==> N
Fiche Class(Y/N) ==> N      Priority ==>         Form ==>
Specific Class ==>         Copies ==> 1       Writer ==>
Align/Verify (A/V) ==>     Destination ==>    ,
Printer Options:
Flash ==>                   Burst (Y/N)==> N     TRC ==>
Modify ==>                  Count ==>           CHARS ==>
OPTCD (J) ==>              Copygroups ==>
AFP Mode:
Output/IAFP ==>           Page Format ==>     Copygroup ==>

```

A message appears above the Command line to let you know that the database has been updated.

6. Press **PF4** to exit this screen and return to the Report Distribution Option Menu (VRDMI000).

Using Templating to Define a Second Report

You can define additional records without entering every character (or using the batch utility DSEXLODL) by using the three templates provided by CA Dispatch.

At this point you should be positioned on the Report Distribution Option Menu (VRDMI000).

```
VRDMI000----- CA Dispatch r11.7 -----  
                          Report Distribution Option Menu  
  
COMMAND ==> 2                               Data Center: DEVL  
  Select Option (1 - C)  
  
-----  
  
  2  DEFN TEMPLATING  - Build Report/Recipient Definitions from Models
```

1. Enter **2** (DEFN TEMPLATING) on the Command line and press Enter.

```
VRDMI200 ----- Definition Templating Option Menu -----  
  
COMMAND ==>                               Data Center:  
  Select Option (1 - 3)  
  
-----  
  
  1 REPORT DEFINITION TEMPLATE - Copy report/recipient info from an  
                                existing report and apply it to new  
                                reports.  
  
  2 REPORT/RECIPIENT TEMPLATE - Selectively copy/move recipient info  
                                from an existing report and apply it to  
                                a new or existing report.  
  
  3 RECIPIENT/REPORT TEMPLATE - Selectively copy/move report info from  
                                an existing recipient and apply it to  
                                a new or existing recipient.
```

The Definition Templating Option Menu (VRDMI200) is displayed.

2. From the Definition Templating Option Menu you can access three other screens to complete the definition:
 - If you press **1** then Enter, you access the Report Definition Template Screen (VRDMU200) from which you can copy report or recipient information from an existing report to a new report.
 - If you press **2** then Enter, you access the Report/Recipient Template Screen (VRDMU210) where you can enter a report and jobname, and see which recipients get that report, then copy or move recipients from an existing report to a new or existing report, or delete recipients from a report.
 - If you press **3** then Enter, you access the Recipient/Report Template Screen (VRDMU220) where you can enter a recipient name, and see which reports that recipient gets. From here you can copy or move report information from an existing recipient and apply it to a new or existing recipient.

Using the Report Definition Template Screen (VRDMU200)

From the Definition Templating Option Menu (VRDMI200) enter **1** (REPORT DEFINITION TEMPLATE) on the Command line and press **Enter** to access an empty templating screen (VRDMU200).

```

VRDMU200----- Report Definition Template Screen -----
COMMAND ==>

Report Definition To Use As The Template (Including Recipients):

      Report ==>          Jobname ==>

New Report Definitions To Be Built From The Above Template:

      Report      Jobname      Description
==>              ==>          ==>
==>              ==>          ==>
==>              ==>          ==>
  
```

To supply the templating parameters for the new report definition, do the following:

1. Enter the report/jobname (**RDUTILIZ/DSEXSTAT**) that we previously added to the database as the definition to use as the template.
2. Enter the new report name **ARUTILIZ**.
3. Enter the job name **DSEXSTAT**.
4. In the Report Description field enter: **FILE UTILIZATION: AR-AREA** then press **Enter**.

You have now defined two reports to the database, complete with recipients. All the information for the new report has been copied from the original definition.

```
VRDMU200----- Report Definition Template Screen -----  
COMMAND ==>  
Report Definition To Use As The Template (Including Recipients):  
    Report ==> RDUTILIZ      Jobname ==> DSEXSTAT  
New Report Definitions to be built from the above template:  
    Report      Jobname      Description  
=> ARUTILIZ ==> DSEXSTAT ==> FILE UTILIZATION, AR-AREA  
=>              ==>              ==>  
=>              ==>              ==>
```

Using the Report/Recipient Template Screen (VRDMU210)

To use the templating function, follow these steps:

1. From the Definition Templating Option Menu (VRDMI200) enter **2** (REPORT/RECIPIENT TEMPLATE) on the Command line and press Enter.

```
VRDMU210 ----- Report/Recipient Template Screen -----  
COMMAND ==>  
    Report      Jobname      Description  
From ==>  
To ==>  
All (C/M/N) ==>  with (Y/N) Pagesel ==>  Djde ==>  PC Extn ==>  
Opt Recipient(From) T  P  D  X  New Recip Id      Opt Recipient(To)  T  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
>  
C-Copy      M-Move  
D-Delete
```

An empty template screen is displayed.

2. Use the following procedure to supply the templating parameters:
 - a. Enter the report/jobname (**RDUTILIZ/DSEXSTAT**) that we previously added to the database as the definition to use as the template in the From field.
 - b. Enter the new report name **ARUTILIZ** in the To field.
 - c. Enter the job name **DSEXSTAT** in the To field. Press **Enter**.

The names of recipients who receive the (From) report show on the left side of the screen. The names of recipients who receive the (To) report show on the right side of the screen.

- d. You can now copy, move, or delete these recipients:

Copy

To have a new recipient JOE, who has already been defined in the database to receive the ARUTILIZ report, enter **C** (for *copy*) in the Opt field before MYUSERID in the Recipient (From) field, and **JOE** in the New Recip Id field, and press **Enter**. JOE's name now shows in the Recipient (To) field on the right of the screen. He has the same options as MYUSERID.

Move

To *move* a recipient from the From report to the To report, enter **M** in the Opt field before the recipient in the From field, and press **Enter**. After you acknowledge the message on the Command line, the recipient is moved from the Recipient (From) field to the Recipient (To) field.

Delete

To *delete* a recipient from a report, enter **D** in the Opt field before the Recipient (To), and Press **Enter**. After you acknowledge the message on the Command line, the recipient is deleted from the Recipient (To) field.

Note: You can only delete recipients from the To field, not from the From field.

The example shows a new recipient, JOE, being added to the ARUTILIZ report. He receives the same options as MYUSERID. After you press **Enter**, his name appears in the Recipient (To) list on the right side of the screen.

```

VRDMU210 ----- Report/Recipient Template Screen -----
DC900656 ONLY PAGE for "From" List, ONLY PAGE for "To" List
COMMAND ==>
      Report  Jobname  Description
From ==> RDUTILIZ DSEXSTAT FILE UTILIZATION:RD-AREA
To   ==> ARUTILIZ DSEXSTAT FILE UTILIZATION:AR-AREA

All (C/M/N) ==> N with (Y/N) Pagesel ==> N Djde ==> N PC Extn ==> N

  Opt Recipient(From) T  P  D  X  New Recip Id      Opt Recipient(To)  T
> C MYUSERID          R > N  N  N  JOE                > MYUSERID
>                    R > N  N  N
>                    R > N  N  N
>
>
>
>
>
>
>
>
>
>
  C-Copy      M-Move
  
```

Using the Recipient/Report Template Screen (VRDMU220)

From the Definition Templating Option Menu (VRDMI200) enter **3** (RECIPIENT/REPORT TEMPLATE) on the Command line and press Enter to access an empty templating screen (VRDMU220).

```

VRDMU220 ----- Recipient/Report Template Screen -----
DC900675 ONLY PAGE for "From" List, ONLY PAGE for "To" List
COMMAND ==>
From: Recipient ==>          Desc:
To:  Recipient ==>          Desc:

All (C/M/N) ==> N with (Y/N) Pagesel ==> N Djde ==> N PC Extn ==> N

|----- From -----|          |----- New -----|          |----- To -----|
Opt Report  Jobname T  P  D  X  Report  Jobname  Opt Report  Jobname
>
>
>
>
>
>
>
>
>
>
>
>
>
>
>
  C-Copy      M-Move
  
```

To supply the templating parameters, follow these steps:

1. Enter **MYUSERID** in the From: Recipient field.

Note: You can enter any recipient ID to display a list of reports and job names that this recipient is defined to.

2. Enter **JOE**, the recipient's ID we previously used as the recipient in the To: Recipient field. Press **Enter**.

The report names sent to MYUSERID appear in the From field on the left side of the screen. The report names sent to JOE show in the To field on the right side of the screen.

3. Now you can copy, move, or delete these reports.

Copy

To have JOE receive another report with the same options as a report in the From field, enter **C** in the Opt field next to the report whose options you want to copy, enter the new report and jobname in the New Report and Jobname fields, and press **Enter**. You see the new report and jobname in the To field on the right side of the screen.

Move

To *move* a report from recipient MYUSERID to recipient JOE, enter **M** in the Opt field before the report you want to move, and press **Enter**. After you acknowledge the message on the Command line, the report is moved from the From field to the To field.

Delete

To *delete* a report going to a recipient, enter **D** in the Opt field before the Report name in the To field, and press **Enter**. After you acknowledge the message on the Command line, the report is deleted from the To field.

Note: You can only delete recipients from the To field, *not* from the From field.

Changing the JCL of the Job that Produces the Report

At this point, you must change the JCL. Proper authority may be required to get you through your security system, correct job card, libraries, and so on.

To change the JCL:

1. Find the JCL DSEXSTAT in the CADSJCL library.

The JCL DSEXSTAT must be tailored. In our example, we used Class Q for testing MSGCLASS processing on the Dedicated Sysout Control Information Screen.

2. Specify MSGCLASS=Q on the job card.
3. Select the procedure CADSSTAT in the CADSPROC library.

This job produces two reports: one that reports on the RD (Report Distribution) portion of the database, and one that reports on the AR (Archive) portion of the database.

4. Find the two SYSLST DD statements that must be modified—they are similar to the example shown below.

```
SYSLST DD SYSOUT=*
```

CA Dispatch obtains the report name from the JCL of the job that originally produced the report. In the SYSOUT DD, following the output class or * (for the output which is the report) is an eight-character field known as the External WRITER. This field is used to identify the report name.

In the External WRITER field you indicate the output class for the report, followed by an eight-character alphanumeric (starting with an alpha or national character) report name. For this example, use Distribution's input class, D, (from the Dedicated Sysout Control Information Screen, followed by the report name.

5. Make the following changes:
 - a. Change the first occurrence of SYSLST DD SYSOUT=* to:
 - b. Change the second occurrence of SYSLST DD SYSOUT=* to:

```
SYSLST DD SYSOUT=(A,RDUTILIZ),DEST=RPI1)
```

```
SYSLST DD SYSOUT=(A,ARUTILIZ),DEST=RPI1
```

RDUTILIZ (the first report) produces statistics on file utilization on the report distribution portion of the database.

ARUTILIZ produces the archive statistics.

Note: You probably have a report-naming standard in place. You may have to adjust that standard to fit the JCL constraints for the External WRITER field. (Report names should be meaningful.)

6. Move the procedure CADSSTAT to an executable proclib.

Running Your Report

Now that the job that produces the reports has been tailored, submit the job.

Execute DSEXSTAT to generate the two reports, ARUTILIZ and RDUTILIZ.

Tracking the Process

Once DSEXSTAT has been executed, you may want to track its progress through the CA Dispatch system.

Note: From almost anywhere in CA Dispatch you can get back to the Report Distribution Option Menu, then the Enter Next Task Code prompt by repeatedly pressing PF4.

1. From the Enter Next Task Code prompt, enter **CA** and press **Enter** to access the Report Distribution Option Menu (VRDMI000).
2. Enter Option **8** (OPERATIONS) and press **Enter**.

```
VRDMI000----- CA Dispatch r11.7 -----  
Report Distribution Option Menu  
  
COMMAND ==> 8                               Data Center: DEVL  
Select Option (1 - C)  
  
8 OPERATIONS      - Subtask Status, RIDF and Active Bundle Queue
```

The Operations Option Menu (VOPMI000) is displayed.

```
VOPMI000----- Operations Option Menu -----  
  
COMMAND ==> 2                               Data Center:  
Select Option (1 - 3)  
  
-----  
1 SUBTASK STATUS      - View, Start, End Subtasks  
2 REPORT INPUT DISPLAY FACILITY - View, Update Report Input Queues  
3 ACTIVE BUNDLE QUEUE - View, Update Active Bundles
```


6. Enter **1** (SUBTASK STATUS) and press **Enter**.

You access the Subtask Status Screen (VOPMI100).

```
VOPMI100----- Subtask Status Screen -----  
  
COMMAND ==>                                     Data Center:  
X1 RIDF                X2 Active Bundles  
  Opt Subtask  Status   Env  Cl Dest      Report  Jobname  Bundle  
=>
```

7. Ensure the Distribution subtasks (RPI1, 2, 3, MSG, RPO) and STATUS are active. If they are not, you can start all DISTRIBUTION subtasks with two commands from the Enter Next Task Code prompt as follows:
 - Enter **S DIST** and press **Enter** to start RPI1, RPI2, RPI3, MSG and RPO.
 - Enter **S STAT** and press **Enter** to start Status.

After starting RPI, you may see your report appear as the active report on the RPI Subtask line. You can press Enter repeatedly to watch the progress of reports being processed by CA Dispatch.

Accessing the Activity and Status Screens

To see what happens next to the report, access the Active Bundles Status Screen (VRDMI820).

1. Enter **X2** on the Command line of the Subtask Status Screen and press Enter to access the Activity Queue Option Menu (VRDMI800).
2. Enter **1** (Active Bundle List) on the Command line and press **Enter**.

```
VRDMI800----- Activity Queue Option Menu -----  
  
COMMAND ==> 1                                     Data Center:  
  
  Select Option (1 - 2)  
  
Optional Names:  
Recipient ==>  
Report    ==>  
Jobname   ==>  
  
-----  
  1 ACTIVE BUNDLE LIST      - View, Update Active Bundles  
  
  2 ACTIVE RECIPIENT REPORTS - View, Update Recipient Reports in Bundles
```


- 5. From the Report Distribution Option Menu (VRDMI000), enter **4** (STATUS) on the Command line and press Enter.

```
VRDMI000----- CA Dispatch r11.7 -----  
                          Report Distribution Option Menu  
  
COMMAND ==> 4                               Data Center: DEVL  
  Select Option (1 - C)  
  
  4 STATUS          - Inquire Against Report Activity
```

You access the Report Selection and Status Screen (VRDMI400).

```
VRDMI400----- Report Selection And Status Screen -----  
  
COMMAND ==>  
  X1 Job/Rpt   X2 Bundle   X3 Active Bundle   X4 Active Recipient  
-----  
Jobname ==>           Job # ==>           Bundle ==>           Mode ==> JS  
Report ==>           Max Time ==> :           Dest ==>           ,  
JES Command ==>  
  
Pri C Jobname Report Job # St Date           Time Bundle Destination  
244 A DSEXSTAT ARUTILIZ 2528 BQ 09302009 0513 A7BB45AA  
244 A DSEXSTAT RDUTILIZ 2528 BQ 09302009 0514 A7BB45AA
```

On the Report Selection and Status Screen, you should see the following:

- The Jobname DSEXSTAT
- The reports ARUTILIZ and RDUTILIZ
- The original JES number of the job that produced this report
- The ST (status) of these two bundles is probably BQ (the bundle has been queued to JES to print), but it may already be BP (bundle printed) if the printer was available when the bundle queued.

Note: If the bundle has printed and the status remains BQ, you are not getting print times.

- The Date and Time fields that represent the values the last time status was entered
- The bundle ID (discussed earlier in this chapter)
- A Destination (if specified on the Report Recipient Definition Screen, Reports (VRDMU130))

You have just processed your first output, and tracked it through the status and activity screens. Press **PF4** to return to the Report Distribution Option Menu (VRDMI000).

For more information:

[Getting Print Times/Bundle Status](#) (see page 173)

Viewing Your Report Online

At this point, you may want to view your report online. Follow these steps:

1. From the Report Distribution Option Menu (VRDMI000) enter **B** (ONLINE VIEWING) on the Command line and press **Enter**.

```
VRDMI000----- CA Dispatch r11.7 -----
                    Report Distribution Option Menu

COMMAND ==> B                               Data Center: DEVL
Select Option (1 - C)

B ONLINE VIEWING - Access the OnLine Viewing System
```

You access the Online Viewing Option Menu (VOVMI000).

2. Enter **1** (Select All Reports to View) on the Command line and press **Enter**.

```
VOVMI000----- Online Viewing Option Menu -----

COMMAND ==> 1
Select Option (1 - 4)

Optional Names:
Report ==>
Jobname ==>
Recipient ==>
-----
  1 Select All Reports To View
  2 Select MSGCLASS Data To View
  3 Select Reports By Recipient To View
  4 Select Archived Reports To Reprint
```

The View Report Selection Screen (VOVMI010) is displayed.

```
VOVMI010----- View Report Selection Screen -----

COMMAND ==>
Selection: Report ==>           Jobname ==>           Recip:           Mode(R,J)==> R
Criteria : From: Date (mmdyyyy) ==>           Time (hhmm) ==>
           To : Date (mmdyyyy) ==>           Time (hhmm) ==>
  Opt Report      Jobname   Job #   Date       Time       Pages
==> _ ARUTILIZ    DSEXSTAT 2528   09/30/2009 5:14      13
==> S RDUTILIZ    DSEXSTAT 2528   09/30/2009 5:13      13
==> _
```

Your two reports should appear on the View Report Selection Screen (VOVMI010).

Note: If other reports have already been sent to Online Viewing, these test reports may not be listed on the initial display. You can bring your test reports entries to the top of the display by using the LOCATE command. In the command line, enter either **L ARUTILIZ**, or **L RDUTILIZ** and press **Enter**.

3. To view the report data in Online Viewing: enter **S** in the OPT field next to RDUTILIZ and press **Enter**.

You see the RDUTILIZ report:

```
VOVMI100 ----- OnLine Viewing Screen For Report: RDUTILIZ      Job: DSEXSTAT ---
COMMAND ==>
      X1 Print/Arch/Delete      X2 Reprint From Tape
001 RDUTILIZ
002 12/01/2009      REPORT DISTRIBUTION SPACE UTILIZATION
003
```

4. Press **PF3** twice to get back to the Online Viewing Option Menu (VOVMI000).

Viewing MSGCLASS Online

Once you return to the Online Viewing Option Menu, use the following procedure to view MSGCLASS online.

1. Enter **2** (Select MSGCLASS Data to View) on the Command line and press **Enter**.

```
VOVMI000----- Online Viewing Option Menu -----
COMMAND ==> 2
      Select Option (1 - 4)

Optional Names:
Report ==>
Jobname ==>
Recipient ==>
-----
      1 Select All Reports To View
      2 Select MSGCLASS Data To View
      3 Select Reports By Recipient To View
      4 Select Archived Reports To Reprint
```

You access the MSGCLASS Job Selection Screen.

Notice the entry for DSEXSTAT. Issue the Online Viewing LOCATE command if necessary to bring it to the top of the screen.

- To view the MSGCLASS messages online that were generated when you ran your DSEXSTAT job, enter **S** in the OPT field (next to DSEXSTAT) and press **Enter**.

```

VOVMI200----- MSGCLASS Job Selection Screen -----
COMMAND =>
  X1 MSGCLASS Retention
Selection: Jobname =>
Criteria : From: Date (mmdyyy) =>           Time (hhmm) =>
           To:   Date (mmdyyy) =>           Time (hhmm) =>
Opt  Jobname   Job #   Date           Time           Term           Pages
S   DSEXSTAT   2528   09/30/2009   5:13

```

You can now view the data.

MSGCLASS is displayed on the same screen that is used for reports, the Online Viewing Screen for Report: Job: (VOVMI100).

MSGCLASS data usually come in three sections: the log, the JCL, and the allocation messages. However, anything sent to MSGCLASS class (Class Q) is sent to Online Viewing).

- Press **PF4** to get back to the Report Distribution Option Menu (VRDMI000).

Archiving Your First Report

At this point, you want to store your first report using the archiving features by tailoring the archive Sysgen information.

Tailoring the Archive SYSGEN

Follow these steps:

- From the Report Distribution Option Menu, enter **9** (SYSGEN) on the Command line and press Enter.

```

VRDMI000----- CA Dispatch r11.7 -----
                        Report Distribution Option Menu

COMMAND => 9                               Data Center: DEVL
Select Option (1 - C)

  9  SYSGEN          - View, Update Sysgen Information

```

The Sysgen Option Menu (VSGMI100) is displayed

2. Enter **A** (ARCHIVE CONTROL) and press **Enter**.

```
VSGMI100----- Sysgen Option Menu -----  
COMMAND ==> A  
  Select Option (0 - D)  
  Optional Maildrop, Dest, or Form Name ==>  
-----  
  A  ARCHIVE CONTROL - Define Control Information for Report Archiving
```

The Sysgen Archive Control Information Screen (VSGMU210) is displayed.

Note: This screen is being set up for test purposes. The information that is eventually entered on this screen is the result of careful consideration. See the section [The Archive Sysgen Control Information Screen](#) (see page 235) in Detail in the chapter "Archiving, How it Works." Before changing any existing values, check with the CA Dispatch Administrator and make sure you have the necessary authorization.

3. To enter the archive parameters (as displayed above), use the Tab key to move to the required fields and enter the following:
 - For Retentions: enter Days ==> **7**
 - Tape Management System ==> **0**

Note: You do *not* want to specify 0 for tape management when you set up for production. We are using this parameter for this example only.

- Select a particular task in the Opt field and press Enter to see the Sysgen Archive Task Information Screen (VSGMU215).

```
VSGMU210----- Sysgen Archive Control Information Screen -----
COMMAND ==>

Archive Task Options:
  Opt Taskid  Current Volser/File      Current Volser/File  Class  Dest
==> _  ARCH1  Tape ==> 294927      3 Optical ==>          R   B7ARCH
==> _  ARCH2  Tape ==>          Optical ==>          R   B7ARCH
==> _  ARCH3  Tape ==>          Optical ==>          R   B7ARCH
  S - Select

Retention Options:
Tape Gens ==>          DASD Gens ==>          Optical Gens ==>
Days ==> 99999      Days ==> 99999      Days ==> 99900

SMS Class Options:
Data ==> SMSXDATA  Mgmt ==> SMSXMGMT  Storage ==> SMSXSTRG

General Archive Processing Options:
Archive Resource Utilization SMF Record (0=None or 129-255) ==> 0
Encrypt (Y/N) ==> N          Key Interval (001-365) ==> 0
Bundle Reprint Available Media Sequence (N or T,D,S,0) ==> D , T , S , 0

Tape Management System ==> 0      0=None          2=Online TLMS    3=Batch CA-1
                                4=Batch TLMS    5=Batch RMM      9=98000
```

1. To enter the archive parameters on this screen, use the Tab key to move to the required fields and enter the following:
 - A data set name prefix (DSN Prefix) for the archived data sets
 - Supply a tape Unit
This is probably TAPE or CART. You may also want to specify a DASD unit for disk archive and an optical unit if you have an optical device. (Get this information from your systems group.)
 - Dedicated Tape Drive ==> Y
 - Mount New Volser at Startup: ==> Y

Note: Normally, you would want this value specified as 'N' but for the purposes of testing, we set it to a 'Y'.
2. To enter the Encrypt parameters on this screen, use the Tab key to move to the required fields and enter the following:
 - A Y or N to indicate whether Encryption is to be used.
 - A Key Interval in the range of 001 to 365.

```
VSGMU215----- Sysgen Archive Task Information Screen -----
COMMAND =>
Task =>
Archive Task Characteristics:
  Dsn Prefix => YOUR.DSN
Tape:
  Unit => TAPE
  Dedicated Tape Drive (Y/N) => Y
  Mount New Volser at Startup (Y/N) => Y
Optical:
  Unit =>
  Type (M/D/F) =>
  Mount New Volser at Startup (Y/N) =>
DASD:
  Unit =>
```

3. Press **Enter** to update the information.
4. Press **PF4** to exit the Sysgen Archive Task Information Screen and return to the Report Distribution Option Menu (VRDMI000).

For more information:

[Archiving](#) (see page 227)

Starting the Archive Subtask

Now you must start the Archive subtask. When the Archive subtask gains control, your report is archived. Note that once archived, the reports are not viewable on the VOPMI200 Report Input Display Facility screen under the queue type of ARCHIVE.

Starting from the Report Distribution Option Menu (VRDMI000), follow these steps:

1. Press **PF3** to get to the Enter Next Task Code prompt.
2. Enter **S ARCH1** to start the Archive subtask.
3. Enter **CA** to return to the Report Distribution Option Menu.

Verifying the Results

At this point, you should be positioned on the Report Distribution Option Menu.

1. Enter **A** (ARCHIVAL SYSTEM) on the Command line and press Enter.

```

VRDMI000----- CA Dispatch r11.7 -----
                        Report Distribution Option Menu

COMMAND => A                                Data Center: DEVL
      Select Option (1 - C)

      A  ARCHIVAL SYSTEM  - Archive and Retrieve Data
  
```

2. Enter **2** on the Command line (Reprint Archived Reports) and press Enter.

```

VARMIO00----- Archive And Retrieval Option Menu -----
COMMAND => 2                                Data Center:
      Select Option (1 - 3)

Optional Names:
Report (Or Add) =>                          Jobname =>

-----
  1 View, Modify or Add Archive Report Definitions
  2 Reprint Archived Reports
  3 View Report Retrieval Queue
  
```

The following screen allows you to select or delete reports, send a report to Online Viewing, or select MSGCLASS.

ARUTILIZ/DSEXSTAT and RDUTILIZ/DSEXSTAT both appear on this screen because a tape mount request was satisfied and an image of the two reports was archived (written to the tape from CADDSP).

```

VARMIO11-----Archived Reports Selection Screen-----
DC900034 FIRST PAGE
COMMAND =>                                Data Center:
                                           Mode (R,J) => R

      Opt Report  Jobname  Opt Report  Jobname  Opt Report  Jobname
=> _  ARUTILIZ  DSEXSTAT => _
=> _  RDUTILIZ  DSEXSTAT => _
  
```

Retrieving (Extracting) Archived Reports

At this point you have verified that the two reports that were distributed through CA Dispatch were archived. Our example now goes through the extract process. We will retrieve a report from a tape (or cartridge) that the Archive subtask is using.

Note: To extract (retrieve a report from tape), you must first *stop the Archive task and start the Extract task*. You cannot retrieve a report from a tape that archive is currently writing to.

Starting the Extract Task

Use the following steps to go from the Archive function to the Extract function.

1. Press **PF4** to return to the Enter Next Task Code prompt.
2. Enter **E ARCH1** and press Enter.
3. Enter **S EXTR** and press Enter to start Internal extract.
4. Enter **X EXTR** and press Enter to start External extract.
5. Follow the steps already described to return to the Archived Reports Selection Screen (VARMIO11).

Selecting a Report to Extract

To select a report to extract, enter **S** next to RDUTILIZ and press **Enter** to access the Archive Retrieval Screen (VARMIO200).

```
VARMI011-----Archived Reports Selection Screen-----
DC900034 FIRST PAGE
COMMAND ==>
                                     Data Center:
                                     Mode (R,J) ==> R

   Opt Report   Jobname      Opt Report   Jobname      Opt Report   Jobname
==>  _  ARUTILIZ  DSEXSTAT  ==>  _  ==>
==>  _S RDUTILIZ  DSEXSTAT  ==>  _  ==>
```


For CA Dispatch to process extract requests (or reprints from OLV), the following must be true:

- The Report Reprints field on the Dedicated Sysout Control Information Screen (VSGMU105) must have Distribution's class (or class/destination) specified
- Distribution must be active

```
VSGMU105----- Dedicated Sysout Control Information Screen -----  
COMMAND ==>  
  
Distribution Input Options:  
                Class  Dest  
Report Input:  
  Input Task 1 (RPI1): ==> A  
RPI1  
  Input Task 2 (RPI2): ==> A  
RPI2  
  Input Task 3 (RPI3): ==> A  
RPI3  
  
MSGCLASS Input (MSG) : ==> S  
Archive Input (ARCH): ==> X  
  
Distribution Output Options:  
  
Normal Print:      ==> K  
Online Microfiche: ==> Z  
  
Report Reprints:  ==> A  
RPI3  
  
Archived Reports: ==> L  
FSS  
  With Resources
```

After Your First Report - What's Next?

You have now tested all the basic functions of this report distribution system. As you optimize your use of CA Dispatch, you can begin using its other powerful features:

- Page selection
Individual recipients can receive specific pages rather than the entire report. (This represents tremendous savings in paper.)

- Report event processing

The product performs an action based on the presence or absence of a report, or particular data within a report. For example, you can define the appearance of a File Utilization Report as a report event.

This utilization report runs on a daily basis. Send the report back to CA Dispatch. When the utilization of the AR-AREA is above 80%, a command is sent to CA 7 (scheduling system). This command is the submission of a job that is simply an IEFBR14. This alerts the person responsible for maintaining this system that a situation is developing that requires attention before a crisis occurs.
- Online viewing by recipient

CA Dispatch is designed to handle unlimited numbers of people in Online Viewing, allowing your site to greatly reduce its hardcopy distribution of reports.
- Online Viewing Only

Online Viewing runs in its own address space and can remain up when the main region is down for maintenance. This is a convenience for end users who use this product as a tool for viewing reports. Each OLV Only region can accommodate up to 200 users. As you add more users, add more OLV Only Regions.

Note: CADDSP must be up in order to view reports in Online Viewing Only regions.
- The archive interface to your tape management system

By archiving all reports you eliminate job re-runs due to lost reports. The interface provided for CA 1® or CA Dynam®/ TLMS facilitates the task of keeping the Archive tapes in synchronization with your tape management system.
- The archive interface to SMS

You can migrate reports from DASD to tape to optical storage through the SMS interface.
- Send MSGCLASS data to Online Viewing

Having CA Dispatch process MSGCLASS data by sending it to Online Viewing eliminates hardcopy output, archive MSGCLASS offline, and prints automatically if a job abends. You can set up MSGCLASS events that work like report events and your programming staff immediately knows where to look for their listings.

Chapter 4: CADDSP, Distribution, and the VSGMU105 Screen

In this chapter we discuss the relationship between CADDSP, the CA Dispatch distribution subtasks, and the methods of tailoring the Dedicated Sysout Control Information Screen (VSGMU105).

Techniques are presented for users upgrading from prior releases of CA Dispatch and for those who are setting up CA Dispatch for the first time.

Important! CA Dispatch will not process any report until you tailor the Dedicated Sysout Control Information screen (VSGMU105).

After you tailor this screen, you must recycle the distribution subtasks (RPIs, MSG, and RPO) to make the change effective.

Topics covered in this chapter include:

- A definition of CADDSP
- How CA Dispatch uses CADDSP
- Techniques for using the RIDF (Report Input Display Facility)
- The CA Dispatch distribution subtasks
- How to tailor the Dedicated Sysout Control Information Screen (VSGMU105)
- How to process reports after tailoring VSGMU105
- How to override the Normal Print default set on the Report Recipient Definition Screen, Reports (VRDMU130)

CADDSP

CADDSP (CA Dispatch Document Spool) is a facility that captures user-defined categories of data originally destined for the JES spool (SYSOUT data sets).

This output is captured by the spool intercept software or processed from the JES spool by the SYSOUT Application Programming Interface software and redirected to an IBM ESA data space, which is backed by a VSAM linear data set. CA Dispatch then accesses the data through a predefined, though private, API.

CADDSP provides flexibility when processing SYSOUT data sets using standard MVS facilities for storing and maintaining the captured data. This provides a significant improvement in product performance.

You define either the JES classes or the JES class/destination combinations to be used exclusively by CADDSP. CADDSP only captures SYSOUT data destined for these JES classes or class/destination combinations, having no effect on the other SYSOUT data sets processed by the operating system.

The JES SYSOUT values are defined to CADDSP as follows:

- During the LDS initialization with the CADDUTIL command:

```
ADD,taskid,CLASS=jes class,DEST=jes destination,additional parms ...
```

- or with the CADDSP command:

```
F SPLx,ADD,taskid,CLASS=jes class,DEST=jes destination,additional parms...
```

There is one statement like this for every JES class or class/destination combination from which CADDSP intercepts data.

Notes:

- The DEST= parameter is optional if you are not using JES destinations.
- For more information about defining the JES SYSOUT values to CADDSP, see the *Installation Guide*.

Using CADDSP

CADDSP uses two different kinds of logic to process reports:

- Intercept process

Report data processed by this function is not read from the JES Spool. CADDSP intercepts report data at the time it is written to the IBM I/O subsystem. If the data is being written to the JES class/destination category defined to CADDSP, CADDSP intercepts it and writes it to one of the IBM ESA data spaces it manages. These data spaces are backed by a VSAM Linear Dataset (LDS). This process avoids any I/O on the JES spool.

- SAPI process

Report data processed by this function is read from the JES spool. CADDSP reads data after the report is de-allocated and writes it to one of the IBM ESA data spaces it manages. This function permits processing of reports created on remote systems or reports created when CADDSP is down. This function is also required for the recovery process of CADDSP and for the processing of MSGCLASS data into the CADDSP data space.

CA Dispatch reads the report data from these data spaces through calls to CADDSP. The speed at which report data is retrieved is greatly increased because IBM ESA attempts to keep as much report data within a data space (memory) as possible. Instead of performing a DASD I/O to retrieve each record of report data, a memory-to-memory operation is performed.

Because CADDSP creates pointers to each record within a report, CA Dispatch is able to keep only one copy of the report within the CADDSP data spaces, and creates various control structures for each function pointing to the data.

CA Dispatch is not dependent on the JES Spool and other media as a data repository.

The VSAM Linear data set, which backs the CADDSP data spaces, is the main repository for all report data used by CA Dispatch. These files are maintained using standard IDCAMS utilities and can be placed under IBM SMS control.

Using the Report Input Display Facility

When CADDSP intercepts SYSOUT data before it reaches the JES Spool, you cannot use a facility such as IBM's SDSF to view the job output. To see which reports are in CADDSP, use the Report Input Display Facility (RIDF) Screen (VOPMI200).

```

VOPMI200----- Report Input Display Facility -----
COMMAND ==>
X1 Subtask Status      X2 Active Bundles
Selection: Type ==> RPI      Class ==>      Dest ==>
Criteria : From: Date (mddy) ==>      Time (hhmm) ==>
          To:   Date (mddy) ==>      Time (hhmm) ==>

  Opt Report  Jobname  Job # Date      Time      Pri  Cl  Dest  Hold Type
==> - ADSORPTS TANAN01S 6324 03/08/2009 10:25:03 144  A  RPI1  N  USER
==> - SYSDUMP  DUMPD   6466 03/08/2009 10:26:38 144  A  RPI2  Y  USER
==> - BACKORD1 CAS001JB 1121 02/01/2009 4:32:23 144  A  RPI2  N  EXTR
==> - ACTREC01 REGIONJB 5003 03/02/2009 13:55:56 144  A  RPI1  N  OLVP
==> - PCUPLD   CADSDISP 943 03/08/2009 10:27:11 124  A  RPI3  N  UPLD
==> - JRNLTEST JTSD1221 7291 03/08/2009 10:23:09 100  A  RPI1  N  USER
  D-Delete           H-Hold           B-Bundle
  X-Extension        R-Release       U-Unbundle
Entries:

```

To access this screen:

1. From the Report Distribution Option Menu, enter **Option 8** and press **Enter** to access the Operations Option Menu.
2. Enter **Option 2** and press **Enter** to access the Report Input Display Facility screen (VOPMI200).

When you first enter the RIDF screen, you notice that the Queue Type is set to RPI. This lists all reports in CADDSP that are waiting to be processed by the Report Input subtask (RPI). You can look at other reports in CADDSP by entering one of the following queue types:

RPI

Reports to be processed by the Report Input subtasks

MSG

MSGCLASS data to be processed by the MSG subtask

ARCHIVE

Reports to be processed by the Archive subtasks

ARCHDUP

Reports to be processed by the Archive Duplicate batch job (DSEXARB/DSEXARBL) utility

ARCHRES

Reports to be processed by ACIF for AFP Resource archiving

PROCESS

Reports already processed by RPI

OTHER

All "other" reports not currently in any of the above queues

Note: Data in the "other" queue is placed there because it matched the criteria defined to CADDSP for processing by CADDSP, but does not match any of the criteria defined on the VSGMU105 screen for the CA Dispatch subtasks. These entries are occupying space in the LDS files. They are not processed without some type of manual intervention.

To view details about a particular report in an RIDF queue, enter **X** in the Opt field next to the report, and press **Enter** to access the Report Input Detail Screen (VOPMI205).

```

VOPMI205----- Report Input Detail Screen -----
COMMAND ==>
  X1 Subtask Status      X2 Active Bundles
Report Information:
  Report : TESTAF        Start Date: 08/26/2009   Token       : 000003DE
  Type   : USER         Start Time: 10:41:13    1st Block #: 020050A2
  Class  : A            End Date  : 08/26/2009   Origin      : S
  Dest   : RPI2         End Time  : 10:41:39    File Type   : Text

Job Information:
  Jobname: TANANAPF     State Date: 08/26/2009   Reader Date: 08/26/2009
  Job #  : JOB06144     Start Time: 10:40:58    Reader Time: 10:40:11
  Userid : TANAN01     Subnode   :              Xeqnode    :

Step Information:
  Step: PRINT1         Proc Step : TANANAPF     Abend Code : 0000
  Step # : 1

Dataset Information:
  DDname: SYSUT2       Lrecl   : 310           Copies:      2
  Hold   : N           Blksize: 314           Lines       : 6000
  Spin   : N           Recfm   : VBM          Bytes       : 5008950

```

RPIs, MSG, and RPO are the subtasks that distribute reports in CA Dispatch and run within the main region.

RPI

The Report Input Distribution subtasks read reports from CADDSP; explode the reports; prepare them for Archive, OLV, and PC transfer; and build logical bundles.

MSG

The MSGCLASS Distribution subtask records MSGCLASS data to OLV.

RPO

The Report Output Distribution subtask writes RPI created logical bundles to JES. RPO is divided into one RPO driver subtask and multiple RPO agent subtasks.

The RPI and MSG subtasks require special consideration because of their close relationship with CADDSP. Just as CADDSP captures data bound for specific JES classes or class/destination combinations, RPI and MSG request reports from CADDSP with specific JES classes or class/destination combinations. The class/destination combinations used by RPI and MSG are defined on the Dedicated Sysout Control Information screen (VSGMU105).

VSGMU105 – an Overview

The Dedicated Sysout Control Information Screen has two main sections:

- Distribution input options
- Distribution output options

```
VSGMU105----- Dedicated Sysout Control Information Screen -----
COMMAND ==>

Distribution Input Options:
                Class   Dest
Report Input:
  Input Task 1 (RPI1): ==> A   RPI1
  Input Task 2 (RPI2): ==> A   RPI2
  Input Task 3 (RPI3): ==> A   RPI3

MSGCLASS Input (MSG) : ==> S
Archive Input (ARCH): ==> X

Distribution Output Options:

Normal Print:      ==> K
OnLine Microfiche: ==> Z

Report Reprints:   ==> A   RPI3

Archived Reports: ==> L   FSS
  With Resources
```

Distribution Input Options

Distribution input options define the JES classes or class/destination combinations that are used by CA Dispatch to process report data as input. Use the Input Task fields to define the class, class destination combinations, or both which the RPI subtasks monitor for reports to be distributed.

MSGCLASS Input and Archive Input define the class/destination values that the MSG (MSGCLASS) subtask and the Archive subtasks use to query CADDSP for reports.

Important! The values entered here are used by CA Dispatch to query CADDSP for data. If these JES class or class/destination combination values do not match the corresponding values defined to CADDSP, CA Dispatch will not distribute intercepted reports. Reports processed to CADDSP address space that do not match the processing criteria defined on this screen are placed in the "Other" queue under RIDF.

Distribution Output Options

Distribution output options define the JES classes or class/destination combinations to be assigned by CA Dispatch to report data output.

Normal Print defines the default class used to print bundles. Report Reprints specifies the values used for processing reprints from Archive and OLV.

Note: The value defined for Report Reprints must match one of the RPI Input Task processing values.

Tailoring VSGMU105

Whether you have just installed CA Dispatch for the first time or you are upgrading from a previous release, you must tailor the Dedicated Sysout Control Information Screen (VSGMU105) to conform to your site requirements.

Use the following procedure to tailor the Dedicated Sysout Control Information Screen:

1. Enter a JES class or class/destination that your data center uses for the processing of reports. The values specified for Input Task 1, 2, and 3 represent the RPI subtask input queues.

When you start the RPI subtasks, all data with the same class/destination values are processed from CADDSP.

2. Enter a JES class or class/destination combination that your data center uses for the processing of MSGCLASS data into OLV. The value defined for MSGCLASS Input represents the MSG subtask input queue.

When you start the MSG subtask, all data with the same class/destination values are processed from CADDSP.

3. Enter a JES class or class/destination combination that your data center uses for the processing of data to be archived. The value you define for Archive Input represents the ARCH1, ARCH2 and ARCH3 subtask input queue.

When you specify that a report is to be archived on the Report Base Definition Screen (VRDMU110), RPI prepares the report for the Archive subtasks. The Archive subtasks store the report on the media specified on the Report Base Definition Screen.

4. Enter a JES class for Normal Print.

The Normal Print class is a default class to which CA Dispatch routes output under one of the following circumstances:

- On the Report Recipient Definition Screen, Reports (VRDMU130) when Normal Sysout (Y/N) ==> Y, or
- If CA Dispatch finds no match on the database for the report and uses default processing.

For example, if RPI monitors JES class D for input, it processes anything intercepted from class D, even if the report is not defined to CA Dispatch. If the report is not defined, default processing prints the report and routes it to the class entered in the Normal Print field.

The Normal Print class is required and this field must contain a class different from the classes used for Distribution Input Options.

5. Enter a JES class for Online Microfiche.

Like the Normal Print class, this class is also for CA Dispatch output. Enter the JES class to which CA Dispatch is to send processed reports destined for microfiche. It does not matter if the microfiche printer is online or if a writer is used to copy the output to tape. CA Dispatch still considers this "online" microfiche.

This is a required field. On the Report Recipient Definition Screen, Reports (VRDMU130), if Fiche Class is set to Y (indicating that output is sent to microfiche) the report goes to the class specified in the Online Microfiche field on VSGMU105. You must define the class for CA Dispatch, even if you do not use microfiche, in the event someone enters Y in this field.

6. Enter the class or class/destination combination for Report Reprints.

Note: You must use one of the Report Input processing classes monitored by RPI.

CA Dispatch requires this information because of the way reprint requests are processed. The extract, Online Viewing, and PC upload functions retrieve reports from their respective media and write it to the class/destination specified in these fields. This data is intercepted by CADDSPJ just like any other report and subsequently processed by RPI.

7. Enter the class or class/destination combination for Reports Archived with AFP Resources.

If reports are archived with their corresponding AFP resources, unlike all other reprints, CA Dispatch cannot reprocess this type of report. A class or class/destination combination that is not used by RPI, MSG, or Archive must be specified in these fields.

Processing Reports after Tailoring VSGMU105

Now that you have finished tailoring the Dedicated Sysout Control Information Screen, you must get CA Dispatch to process your reports.

If you use class/destination combinations, perform the following tasks:

1. Define the destinations to JES so that the output remains on the JES spool until CA Dispatch gets control of it.

Refer to an undefined device in the JES definition. A systems programmer generally performs this function. Specify this information in the JES parameters.

Note: For more information, see the chapter "Installation Options" in the *Systems Programmer Guide*.

2. Define the classes or class/destination combinations to CADDSPS either during the LDS initialization or with the CADDSPS command.

Note: For more information, see the chapter "Installation Options" in the *Systems Programmer Guide*.

3. Define the report to the database of CA Dispatch.

Change your production JCL.

Change the class for output and, if using destinations in VSGMU105, add a DESTINATION parameter. Add the report name (for example, REPORTA) to the External Writer field in one of two ways:

If you use just a JES class:

```
//DDNAME DD SYSOUT=(A,REPORTA)
```

If you use a class/destination combination:

```
//DDNAME DD SYSOUT=(A,REPORTA),DEST=NORMAL
```

For complete information on modifying your production JCL, see [The Dispatch Execution JCL](#) (see page 70) in the chapter "Getting Your First Report Processed."

For more information:

[Getting Your First Report Processed](#) (see page 49)

Overriding the Default Set for Normal Print

To override the default set for Normal Print, specify a value for Specific Class on the Report Recipient Definition Screen, Reports (VRDMU130), as follows:

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>                                     Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                     Report:          Jobname:
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):      Use Dates (MMDDYYYY)
Maildrop Pages ==>      Start ==>          Due Out Time(HHMM) ==>
Recipient Pages ==>      End ==>          VSM Delay in Days ==>
Manifest Copies ==>      User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==>    Repeat ==>      FCB ==>      Hold ==>
Fiche Class(Y/N) ==>    Priority ==>    Form ==>
Specific Class ==>      Copies ==>     Writer ==>
Align/Verify (A/V) ==>  Destination => ,
Printer Options:
Flash ==>                Burst (Y/N)==>    TRC ==>
Modify ==>                Count ==>         CHARS ==>
OPTCD (J) ==>            Copygroups ==>
AFP Mode:
Output/IAFP ==>          Page Format ==>   Copygroup ==>
    
```

Most customers specify a JES class that is associated with a printer. Some customers specify a HELD class in the Normal Print field on the Dedicated Sysout Control Information Screen (VSGMU105). For every recipient's report, they use the Specific Class field on VRDMU130 to route reports to their local printer. By defining report recipients like this, the value specified in the Normal Print field is only used during default processing.

Occasionally someone mistakenly sends output to Distribution's class. CA Dispatch performs default processing and sends the output to the class specified in the Normal Print field. This is usually a HELD class and is not automatically printed. You can use the definitions to save useless printing of output (such as dumps) that may inadvertently be sent to CA Dispatch.

Note: For more information on how distribution performs the following, see the chapter "Overview" in the *Reference Guide*:

- Processes a report
- Performs a database search
- Performs default processing

Chapter 5: Security – What You Need to Know

Security—What You Need to Know. This chapter presents an overview of the available security features and offers information that helps you make your security decisions.

Security determines who has access to what and how to control that access.

With CA Dispatch you have several security features built in; they are part of the design of CA Dispatch. In addition to built-in security, you have the option of choosing either external or internal security. External security includes CA ACF2 or CA Top Secret security.

Topics covered in this chapter include:

- Security vocabulary
- Determining security needs
- Making the primary security decision - internal or external
- Installation Options (CADSSEC) - setting security parameters
- Using built-in security
 - Autosignon
 - Installation codes
 - Direct user path to online viewing
 - Security exit RDFGEX06
- Using internal security
- Using external security
- Setting up quick external security

This chapter is not meant as a complete guide to security implementation. The topic is covered in detail in the chapter "Security" in the *Systems Programmer Guide*.

Security Vocabulary

The following terms are important to our discussion:

Installation Code

This is a code, set by the Report Administrator, that determines where a user accesses the online system; it is assigned when you define a new user for CA Dispatch. The installation code grants or restricts access to a group of online screens. For more information, see the section [Installation Codes](#) (see page 131) later in this chapter.

Installation Options

Security is controlled by choices made in the source member CADSSEC (in the CADSSRC library). These choices set the security options for the site. The source member is input to the assembly of the #SECPARM macro which performs validation with your external security system. The macro is assembled and linked on site and gets loaded during CA Dispatch initialization; it is shipped with INTERNAL security as the default.

For more information, see the section [Installation Options](#) (see page 103) later in this chapter.

Online Viewing User

A concept that began with Release 5.0 of CA Dispatch, an online viewing user is a person who signs on to the system with the intent of viewing reports. This user accesses these reports from the Online Viewing Option Menu (VOVM1000) through Option 3, Select Reports by Recipient to View (option B.3).

Basic setup consists of defining a user's LOGON ID on the VSGMU235 screen, then linking a recipient's ID to that userid. Anyone logging on with that LOGONID is allowed to view all attached recipients' reports in Online Viewing (option B.3).

Recipient

An entity that receives output from CA Dispatch. This can be printed output or a report sent to online viewing. Recipients are defined to the database and attached to the reports they are to receive. If a recipient of a report is a person, that person cannot sign on to the online system unless he or she is also defined as a user and is given security access to the online system. A user can have the same name or ID as a recipient, but users and recipients are defined in different places.

Security Codes

These codes give users permission to perform a function at the task level; they are used only if you choose internal security as an Installation Option.

For example, security code 253 allows a user to issue DCMT commands, while 56 allows reprinting from online viewing, routing to archive, and routing to online viewing.

Security codes are stored in the data dictionary after the CA IDMS SYSGEN (DSEXUSR1) is executed. The input member is DSUSERS.

User

A person who signs on to CA Dispatch.

#SECPARM Macro

This macro serves as the interface between CA Dispatch and your security system.

Determining Security Needs

Generally, CA Dispatch users fall into four categories: administration, operation, programming, and online viewing users.

Administrator

Needs full authority. Included in this category is the CA Dispatch administrator and technical support personnel.

Operations

Normally needs read authority to all screens and update access to the Status area of CA Dispatch. May also have to start and stop subtasks and issue JES2 commands from within CA Dispatch.

Programmers

Systems programmers need access to their JCL output online. Applications programmers need access to their JCL and may also need access to reports associated with their applications. Programmers may also be report recipients, and therefore are also included as online viewing users.

Online Viewing User

Needs authority to view and print their reports.

Making the Primary Security Decision - Internal or External

Before you set up the security at your site, you must understand what the Installation Options are and be familiar with the three types of security provided by CA Dispatch.

Installation Options

These control overall security. Installation Options allow you to select the type of security (internal or external), enable Autosignon, limit access to specific resources controlled by external security, and perform ID and password checking for TSO, ISPF, and CICS users.

Built-In Security

These features are available whether you choose internal or external security. They include:

- Autosignon automatically signs users on to CA Dispatch with the ID they used to sign on to the calling system.
- Installation Codes determine where a user enters the online panels.
- Direct user path to online viewing limits user access to specific reports.
- A user security exit (RDFGEX06) is primarily used to secure selected pages of reports from Option 1 (Select All Reports to View) in online viewing, which allows administrators to limit user access.

Internal Security

Uses the CA IDMS data dictionary to validate user IDs, passwords, and installation codes, which define security access at the task level. Examples include updating status information, initiating download of reports, and routing report data.

External Security

Uses your external security system to validate which users have access to specific resources and to determine the type of access they are to have. When using external security, the CA IDMS data dictionary is not referenced. External security allows you to be more specific in your security permissions than internal security.

Each of these topics is covered in more detail in the following sections of this chapter. Complete instructions for implementing security are provided in the "Security" chapter of the *Systems Programmer Guide*.

Installation Options (CADSSEC)

The installation options control overall security for CA Dispatch.

Select your options by modifying the source in CADSSRC member CADSSEC. Execute DSEXSECX in the CADSJCL library to assemble the security macro. The options are:

```
#SECPARM INTERNAL,  
    AUTOSGN=YES,  
    PANEL=NO,  
    RECIPID=NO,  
    CARPT=NO,  
    IDCHK=NO,  
END
```

{INTERNAL|EXTERNAL}

EXTERNAL

Use external security package.

INTERNAL

Use internal CA IDMS dictionary security.

AUTOSGN={YES|REQUIRED|NO}

YES

Support the Autosignon facility. This facility attempts to sign users on to CA Dispatch with the same user ID that they signed on to TSO, ISPF, VTAM, or CICS. The user ID and password information is passed as logon data from this already secured environment. If the signon is unsuccessful (user not defined, VTAM session manager not used, or session manager did not pass the required signon), display the Enter Next Task Code prompt and allow manual signon.

REQUIRED

Similar to YES, but if a successful Autosignon is not done, the terminal is dropped rather than getting the Enter Next Task Code prompt. Unauthorized users cannot get access to run unprotected commands.

NO

All terminals connect to the Enter Next Task Code prompt, and manual signon is required.

The following parameters are required when external security is used; they are not allowed when internal security is used.

PANEL={YES|NO}

YES

PANEL level security check enabled. This means that access is validated for READ, UPDATE, CREATE, and SCRATCH from each PANEL whenever any of these actions is attempted.

NO

PANEL level security check disabled. Consider carefully before you disable this check; this is the only way to prohibit updating many global parameters, such as SYSGEN values. Instead of disabling this, enable it, give implicit read (or even ALL) access to all panels, and then explicitly disable access to certain secure panels (such as all the VSG panels).

CAREPORT={ (DEF,VIEW,PCUP,PCDN) | NO }

When you specify more than one CAREPORT= parameter, enclose them in parentheses and separate them by commas. Otherwise, the commas are not necessary.

Note: Security rules for viewing MSGCLASS data are the same as for report data except that the report name in the definition is MSGCLASS.

DEF

Report definition level security checking is enabled. This means that for those panels for which report definition checking is defined (typically those that cover report definitions), access is validated for READ, UPDATE, CREATE, and SCRATCH of the report or associated data whenever any of the above is attempted. The applicable security definitions are to resource CAREPORT, with the entity DEF.reportnm.jobname.

VIEW

Report viewing level security checking is enabled. This means that for those panels for which report viewing checking is defined (Online viewing panels that display or delete reports from the Online Viewing file), access is validated for READ, UPDATE, and SCRATCH of the report data whenever any of the above is attempted. The applicable security definitions are to resource CAREPORT, with the entity VIEW.reportnm.jobname.

PCDN

Report download to a PC is enabled. This means that in order for a PC download request to be created, UPDATE must be allowed.

Note: The applicable security definitions are to resource CAREPORT, with the entity PCDN.reportnm.jobname.

PCUP

Report upload to a PC is enabled. This means that in order for a PC upload request to be created, UPDATE must be allowed.

Note: The applicable security definitions are to resource CAREPORT, with the entity PCUP.reportnm.jobname.

NO

None of the parameters (DEF, VIEW, PCUP, PCDN) is enabled.

RECIDID={YES|NO}**YES**

RECIDID level security check enabled. This means that access is validated for READ, UPDATE, CREATE, and SCRATCH of information relating to recipient definition, whenever any of the above actions is attempted.

NO

RECIDID level security check disabled.

The following parameters are optional when external security is used; they are not allowed when internal security is used.

IDCHK={YES|NO}**YES**

When entered using TSO, ISPF, or CICS this requires that the user sign on to CA Dispatch with the same user ID.

NO

Any user ID defined is allowed. Note that this is the default.

PSWORD=REQUIRED**REQUIRED**

Specify this operand to be sure that the user is always prompted for a password by CA Dispatch, even when signing on through a secured path such as TSO with the same user ID. Generally, when signing on through a secured path such as TSO, CICS, ISPF, or a VTAM session manager, users have already been prompted to enter their system password. Using this operand causes CA Dispatch to prompt the user a second time. If this operand is not specified, no password is required to access CA Dispatch. This is true whether the user signs on automatically, manually, or signs on a subsequent time after signing on automatically.

Note: This is the only allowable value for this parameter.

Blank

No password required.

Note: Be aware that when you set an Installation Option, the value holds for every user defined to the system. For example, if you specify PANEL=YES, you must define panel access for each user to the external security system.

Using Built-In Security

Many users only use CA Dispatch to view their reports online. You want to prevent these users from accessing areas of CA Dispatch that need to be protected, and limit their access to the reports that they are authorized to view. CA Dispatch was designed with built-in security features to avoid the security risks that occur when users have access to the Enter Next Task Code prompt. These risks include:

- Users issuing STOPCADS, even if they are not signed on to CA Dispatch.
- Users able to sign on with another person's user ID unless special precautions are taken. For information about using IDCHECK, see the section [Installation Options \(CADSSEC\)](#) (see page 103).

Built-In Security Features

You can use the following CA Dispatch features to prevent your users from accessing areas of CA Dispatch that you want to protect, and you do not have to invoke external security as an installation option to do it.

Autosignon

Prevents users from seeing the Enter Next Task Code prompt if used in conjunction with installation codes.

Installation Code

A code assigned to a user determines the online panel that users see when they sign on to CA Dispatch. By appending the X parameter to the installation code you prevent a user from ENDing out of the calling screen and accessing the Enter Next Task Code prompt.

Direct User Path to Online Viewing

Option 3 from the Online Viewing Option Menu (Select Reports By Recipient to View) presents Online viewing users a list of reports (or recipients) that they have been connected to. Only reports (or selected pages of reports) that the user is authorized to view are available from the list.

You can restrict your users to this path without having to invoke external security by specifying installation code CARCP, which accesses Option 3 directly.

User Exit RDFGEX06

This user-written security exit is called at signon, dialog entry, update, and signoff. RDFGEX06 can be used with both internal and external security.

Autosignon

Autosignon is an installation option available whether you choose internal or external security in CADSSEC. Autosignon takes the user ID used to sign on to the calling system, such as TSO, and automatically signs the user on to CA Dispatch.

Note: If you choose internal security, the user ID defined to CA Dispatch in the CA IDMS SYSGEN must be the same as that defined to the external security system. For example, your company has CA Top Secret security. You sign on to TSO using your CA Top Secret ID and password. Now you select CA Dispatch from an ISPF list of applications. If you want Auto-signon to work, and you have internal security turned on in #SECPARM, you must define the same user ID to the CA IDMS dictionary that was used to sign on to TSO. Auto-signon propagates the same ID to CA Dispatch that was used to sign on to the calling system.

Invoking Auto-signon

Choose Auto-signon as an installation option if you want to implement automatic signon from a pre-secured path.

Remember that if you access CA Dispatch from VTAM, you must have a session manager with which to propagate logon data, or pass logon data to the CA Dispatch APPLID. For more information, see the section [Using Auto-signon](#) (see page 108).

A statement defined for each LTERM (logical terminal) definition in the CA IDMS SYSGEN makes Auto-signon possible. DSEXUSR1 is the sample JCL with which to assemble the CA IDMS SYSGEN. Input member DSNETWKX has all the LTERMS and PTERMS defined for communications. Each LTERM definition has this parameter:

```
AUTOTASK IS DSMENU
```

This statement invokes Auto-signon if it has been chosen as an installation option.

Preparing for internal or external security

For Autosignon, you can choose either internal or external security:

- If you chose internal security in Installation Options, when you define users in the CA IDMS sysgen, *do not* give them passwords. If you do, they arrive at the Enter Next Task Code prompt and are prompted to supply a password when accessing CA Dispatch. This defeats both the security and convenience of Autosignon. For more information, see the section "[Using Internal Security](#) (see page 112)" later in this chapter.
- If you chose external security as an Installation Option, define the users to the external security system. In the resource class CACMD, give the user access to CA Dispatch through either the main region (DSSIGN01) or one of the OLVO (Online Viewing Only) regions (DSSIGN02 or DSSIGN03).

Using Autosignon

You can use Autosignon through:

- CICS
- TSO
- VTAM

You can use Autosignon with VTAM if you pass logon data to VTAM APPLID. You can do this in one of the following ways:

- From your VTAM network screen, to bypass the session manager, at the logon prompt enter:

```
LOGON APPLID(vtamapplid) DATA('HI userid')
```

- Use a session manager that has the ability to pass logon data to the APPLID of CA Dispatch.

For example, use CA VMAN as your session manager, and at the VMAN application list type E next to the application name for CA Dispatch. On the VMAN Application Expansion Screen, in the LOGON DATA field, enter:

```
LOGON ==> HI &USER. (Use all uppercase characters.)  
DATA ==>
```

By using Autosignon and an installation code you can prevent your users from accessing the Enter Next Task Code prompt.

Choosing Installation Codes

Installation codes determine where users enter the online panels of CA Dispatch and if users return to the calling application when they close out of the original access screen.

The value entered controls the action when users sign on; they go directly to a specific menu screen, according to the code entered.

CAAR

Accesses the Archive and Retrieval Option Menu (VARMIO00).

CADS

Accesses the Report Distribution Option Menu (VRDMIO00).

CAMSG

Accesses the MSGCLASS Job Selection Screen (VOVMI200)

CAOP

Accesses the Operations Option Menu (VOPMI000).

CAOV

Accesses the Online Viewing Option Menu (VOVMI000)

CAPC

Accesses the PC Option Menu (VPCMI000).

CARPT

Accesses the View Report Selection Screen (VOVMI010).

CARCP

Accesses Online Viewing Recipient Selection Screen (VOVMI300)

CASG

Accesses the Sysgen Option Menu (VSGMI100).

CAST

Accesses the Report Selection and Status Screen (VRDMI400).

Note: When you enter, **X** after the code (format CARCP,X), you prevent the user from seeing the Enter Next Task Code prompt. When the user exits the screens, logging off occurs automatically.

Give the users who only use CA Dispatch to view online reports an installation code of CARCP,X. This places them at the list of reports they are permitted to view and takes them out of CA Dispatch and back to the calling application when they end out of the panel on which they entered the system.

Other installation codes may be more appropriate for your other users. CA Dispatch administrators, operators, and others have reasons, other than viewing reports, to access the online system.

Defining Installation Codes

For internal security, define installation codes either in the dictionary or on the Sysgen User Recipient Screen (VSGMU235). The value on the screen overrides the value defined in the dictionary.

For external security, the only place to define installation codes is on the Sysgen User Recipient Screen (VSGMU235).

If you define no installation codes, the default is to display the Enter Next Task Code prompt.

The Direct User Path to Online Viewing

The CA Dispatch administrator connects user IDs to report recipients who are already defined to the database. The user accesses only the online viewing reports defined to those recipients; this includes any recipient page selection.

Giving the user an installation code of CARCP bypasses the C.3 selection and places the user directly into either VOVMI310 or VOVMI300. Appending the characters ,X to the installation code restricts the user to only the screens available from Option 3 from the Online Viewing Option Menu:

VOVMI300: Online Viewing Recipient Selection Screen
VOVMI310: Online Viewing Report Selection Screen, Recipient
VOVMI320: Online Viewing Screen for Report:
VOVMI330: Online Viewing Print Request Screen
VOVMI336: Online Viewing Report Profile List, View
VOVMI337: Online Viewing Report Profile List, Print
VOVMI380: Online Viewing Report Edit Report
VOVMI390: Online Viewing Cut and Paste,Report

When users exit the screen on which they entered CA Dispatch, they return to the calling application.

Note: Implementing Autosignon does not require users to sign on again, after coming from a pre-secured path, such as TSO. When they select CA Dispatch from the list of applications, they immediately access VOVMI310 (or VOVMI300).

To access online viewing, users must do the following:

1. Select Option B, ONLINE VIEWING from the Report Distribution Option Menu (VRDMI000).
2. Choose Option 3 (Select Reports By Recipient to View).

This presents one of the following lists:

- If you connected the user to one recipient, the user sees a list of that recipient's reports that were sent to online viewing on the Online Viewing Report Selection Screen, Recipient (VOVMI310).
- If you connected the user to multiple recipients, the user sees a list of recipients from which to choose on the Online Viewing Recipient Selection Screen (VOVMI300).

Security Exit RDFGEX06

This user-written security exit is called at signon, dialog entry, update, and signoff. The exit is called whether you choose internal or external security.

The exit is of use if you have turned on external security and need to secure selected pages of online viewing through the Online Viewing Option Menu, Option 1: Select All Reports to View.

The source for RDFGEX06 is found in the CA Dispatch installed CADSMAC library.

Note: For more information on RDFGEX06, see the chapter "User Exits" in the *Systems Programmer Guide*.

Using Internal Security

Internal Security uses the CA IDMS data dictionary to validate user IDs, user passwords, CA IDMS security codes, and installation codes, which are all defined to the data dictionary using the CA IDMS SYSGEN. The input member is DSUSERS, and the sample JCL is DSEXUSR1.

To specify internal security, select the INTERNAL Installation Option in CADSSRC member CADSSEC. Then assemble the security macro by executing DSEXSECX (in the CADSJCL library).

Following are descriptions of the IDs, passwords, and codes which Internal Security validates:

User IDs

User IDs are assigned in the USER statement. If you use autosignon, the user ID must be identical to that defined to your external security system.

Note: The user IDs defined here are only used if you chose the INTERNAL security option.

Passwords

If you assign passwords to CA Dispatch users, define them in the USER statement of the DSUSERS member of the CADSOPTN library. If you use Autosignon, only the user ID is defined, not the password. To delete a password, specify PASSWORD IS NULL in DSUSERS /DSEXUSR1.

Security Codes

These codes permit users to update various panels, issue certain commands from the Enter Next Task Code prompt, print reports from online viewing, and so on. They are only used if you chose the internal security option.

You must decide which codes are appropriate for each user. Since these codes are set at task level, you cannot define your permissions with security codes as finely as you can by using external security.

Note: For a complete list of these codes, see the chapter "Security" in the *Systems Programmer Guide*, and in the section Define Users and the Network in the *Getting Started*.

Installation Codes

When you use internal security, you can define an installation code to control the location at which a user enters the online system. These codes are detailed in the Installation Codes section of this chapter. Defining the code in the User Recipient Definition Screen (VSGMU235) overrides the value defined here. If you append ,X to the installation code, the user cannot END out of the calling screen and access the Enter Next Task Code prompt. He or she returns to the calling application.

The following are examples of the USER statement in the DSUSERS member of the CADSOPTN library:

- If you are using internal security and **not** using Autosignon and you want passwords defined in CA Dispatch:

```
USER 'HUGWE01'
  PASSWORD IS SUPPORT
  SECURITY CLASSES = ADD (2,51,56)
  INSTALLATION CODES IS C'CARCP,X'
```

- If you had passwords and are now implementing Auto-signon and want to delete the passwords, specify:

```
USER 'HUGWE01'
  PASSWORD IS NULL
```

- If you want to use internal security with no passwords (because of Auto-signon), specify:

```
USER 'HUGWE01'
  SECURITY CLASSES = ADD (2,51,56)
  INSTALLATION CODES IS C'CARCP,X'
```

Security Exit RDFGEX06

To secure selected pages of reports through the Online Viewing Option Menu, Option 1 (Select All Reports To View), use the security exit RDFGEX06 to do this.

You can use this exit to interface with an external security system, if you chose internal security. The user security exit, which is written in IBM 370 Assembler, is called at signon, entry to each panel, updating of certain fields, and signoff. Prior to Release 5.0, this was the only method of communicating with the external security system. If the exit was coded for Release version 4.2 of CA Dispatch, it still functions—prior releases do not. The exit is useful during transition from internal to external security.

CA recommends that you turn on external security if you want your security system to perform security checking.

The source for RDFGEX06 is found in the CA Dispatch installed CADSSRC library.

Notes:

- For more information on RDFGEX06, see the chapter "User Exits" in the *Systems Programmer Guide*.
- The security module is assembled and linked using *internal* security as the default when CA Dispatch is shipped.

Using External Security

Choosing the external security option utilizes your external security system to validate which users have access to what resources, and what type of access they have. The CA IDMS data dictionary is no longer checked to validate users. DSEXUSR1 must still be executed to assemble the CA IDMS SYSGEN, but you are not required to use DSUSERS as input.

External security can be far more complex than internal. The degree of complexity depends on your security needs. External security has the ability to be much more specific in your permissions. Internal security does not offer this level of refinement, unless you are willing to code the user security exit RDFGEX06.

All Installation Options are available when you choose external security in the CADSSEC member. You use only your external security system to validate signon and a few commands; see the Resource Class CACMD. The minimum checking is signon validation. The maximum depends on the other options that you choose in CADSSEC.

Decide the options that are necessary for your site. After choosing the options, tailor the CADSSEC member in CADSSRC. Assemble the security macro by executing DSEXSECX (CADSJCL library). For more information, see the section Installation Options earlier in this chapter.

The following section presents an example of the least complex method for setting up external security.

Setting Up Quick External Security

The security that is built into CA Dispatch allows you to set up effective security very quickly. The information that you must supply to your external security system does not need to be very extensive if your site meets the following criteria:

- The administration of CA Dispatch is centralized.
- The administrative staff is to have unlimited access to CA Dispatch.
- The majority of your user communities are online viewing users for whom CA Dispatch is a utility for online report viewing.

Quick External Security Setup Procedures

To use the security setup quickly, do the following:

1. Define users on the Sysgen User Screen (VSGMU230).
2. Assign the installation codes on the Sysgen User Recipient Screen (VSGMU235) as follows:
 - For online viewing users, assign an installation code of **CARCP,X** and connect those users to appropriate recipients on the Sysgen User Recipient Screen (VSGMU235).
 - For administration personnel, assign an installation code that puts them into the most convenient screen when they sign on to CA Dispatch. Do not append the ,X parameter.

Note: Defining the logon User ID to this screen does not grant access to CA Dispatch.

3. For this example, tailor the CADSSEC member in the CADSSRC library, and specify the following installation options in CADDSEC:

```
EXTERNAL
AUTOSGN=REQUIRED
PANEL=NO
RECIPIID=NO
CAREPORT=NO
IDCHK=YES
```

where,

EXTERNAL

Indicates that you have a security system in place such as CA Top Secret or CA ACF2 that you want to control all your applications.

AUTOSGN=REQUIRED

Indicates that you want the terminal ID dropped if Autosignon fails. The user is returned to the calling application and never gets to the Enter Next Task Code prompt. You do not want casual users to be placed at this prompt.

PANEL=NO

Indicates that you do not need PANEL checking. The staff that administers CA Dispatch has unlimited access, while the online viewing users can only reach a restricted number of panels because you assigned users an installation code of CARCP,X.

RECIPID=NO

Indicates that you have centralized the administration of CA Dispatch. One group of people is responsible for all recipient definitions to the database, so it is not necessary to restrict who can define or modify recipient definitions.

CAREPORT=NO

Indicates that you do not restrict the viewing of reports for the administrative personnel, therefore CAREPORT=VIEW is also not necessary. Online viewing users only see a list of reports they have permission to view. There is no need to further restrict them.

IDCHK=YES

Forces the user to sign on to CA Dispatch with the same ID as the calling application.

For example, if you accessed CA Dispatch through TSO, you must sign on to CA Dispatch with the same user ID as the one you used to sign on to TSO.

4. Assemble the security macro #SECPARM by executing DSEXSECX. The execution JCL is in the CADSJCL library.
5. Use the external security system to secure the signon.

With all of the above in place, use the external security system to secure the signon. In the resource class CACMD, give the user access to either the main region (DSSIGN01) or to one of the OLVO (Online Viewing Only) regions (DSSIGN02 or DSSIGN03). This allows the majority of the online viewing users access to CA Dispatch. The built-in security takes care of the rest.

6. In addition to granting SIGNON permission, give the CA Dispatch administrative personnel additional permissions. In the resource class CACMD, do the following:
 - Issue DCUF commands (DSOPER01)
 - Change passwords for archived datasets (DSOPER02)
 - Start and end subtasks (DSOPER03)
 - Issue JES commands from Report Selection and Status screen (DSOPER04)
 - Issue DCMT commands (DSSYSPRG)

Note: For more information, see the chapter "Security" in the *Systems Programmer Guide*.

Quick Security Considerations

The quick security method probably does not work if your programmers want to see their MSGCLASS messages as well as reports online.

You cannot assign multiple installation codes to one user ID.

Your security needs must be carefully considered before any final security decisions are made.

Chapter 6: Defining Users for Online Viewing

This chapter discusses the types of users who sign on to CA Dispatch and methods of defining these users for Online Viewing.

A whole new group of users who only want to see their reports and MSGCLASS data online can now access CA Dispatch, because CA Dispatch can have an unlimited number of users signed on.

This chapter clarifies the differences between recipients, users, and Online Viewing users, and how to define Online Viewing users so that they only have access to the data they are authorized to view.

Topics covered in this chapter include:

- Online viewing terms and concepts
- Restricting access to Online Viewing
- Defining Online Viewing users
- Using the Sysgen User Recipient Screen (VSGMU235)
- Connecting users to recipients
- Performing soft deletes
- Installation codes

Online Viewing Terms and Concepts

Changing to Online Viewing generated some new procedures and some familiar terms may have an expanded meaning. The following definitions help you distinguish among the terms recipient, user, and Online Viewing user and indicate where each entity is defined. Option 3 from Online Viewing (Select Report By Recipient To View) is also explained.

Recipient

A recipient is an entity that receives output from CA Dispatch. This output can be sent to a printer, a PC, or to Online Viewing. Recipients are defined to the CA Dispatch database and attached to the reports they are to receive on the Report Recipient Definition Screen, Reports (VRDMU130).

Even though a person has been defined as a recipient of a report, this does not necessarily mean that this person can sign on to the online system. For recipients to access their reports in Online Viewing, recipients must also be defined as a user. Only a user who has been defined to security and to Online Viewing can sign on to Online Viewing and access reports through Option 3: View Reports By Recipient (which is a list that is customized for this particular user). Note that a user can have the same name or ID as a recipient, but they are defined in different places.

User

A user is a person who has access to online CA Dispatch. To access the online system, a user must be defined in one of two places, depending on the security option you choose:

- For internal security, the user is defined using the CA IDMS Sysgen (DSEXUSR1) to the data dictionary.
- For external security, the user is defined to your external security system.

For more information:

[Security – What You Need to Know](#) (see page 99)

Online Viewing User

This is a person who signs on to the system with the intent of viewing reports through Option 3. To be an Online Viewing user, the person must first be defined as a user to access the system.

Then the user is defined for Online Viewing on the Sysgen User Screen (VSGMU230), (Option 9.C).

Next, the permissions are set on the Sysgen User Recipient Screen (VSGMU235). The information on these two screens (VSGMU230 and VSGMU235) can be added online or through batch.

For more information:

[Using the Database Load/Unload Utility DSEXLODL](#) (see page 265)

Online Viewing Option 3 - Select Reports By Recipient to View

This option limits a user's access to Online Viewing. It allows a CA Dispatch administrator to secure Online Viewing reports, restrict the selection of reports in Online Viewing, and restrict the user's access of online screens to just the selection list of viewable reports and the screen that displays the report data.

Restricting Access to Online Viewing

The Online Viewing Option Menu (VOVM1000) offers Option 3 - Select Reports By Recipient to View, which is a restricted route to Online Viewing. When users are set up to use this path, as they log on to CA Dispatch, they see one of two screens:

- The Online Viewing Recipient Selection Screen (VOVM1300), that presents users with a list of recipients whose reports they have access to
- The Online Viewing Report Selection Screen (VOVM1310) that lists only the reports that this user can view

Note: If this user is connected to only one recipient, the recipient list (on the Online Viewing Recipient Selection Screen (VOVM1300)) is bypassed and this list of reports is accessed directly on the Online Viewing Report Selection Screen (VOVM1310).

Reasons why you may want to restrict access to Online Viewing include the following:

- To secure online viewing reports, or selected pages of reports, without having to code the security exit (RDFGEX06)
- To limit the selection of reports in Online Viewing to only a list that this user is authorized to view
- To restrict access of online screens to just the selection list of viewable reports and report data

Accessing the Online Viewing User Definition Screens

To add an Online Viewing user, you access the Sysgen User Screen (VSGMU230), on which you can add or delete users.

1. Position yourself on the Report Distribution Option Menu (VRDMI000), Enter Option 9 on the Command line, and press **Enter**.

```
VRDMI000----- CA Dispatch r11.7 -----  
                Report Distribution Option Menu  
- - - - -  
COMMAND ==> 9  
  
-> 9 SYSGEN   View, Update Sysgen Information  
- - - - -
```

2. Enter Option C on the Command line of the Sysgen Option Menu, and press **Enter** to access the Sysgen User Screen where you can add Online Viewing users.

```
VSGMI100-----Sysgen Option Menu-----  
  
COMMAND ==> C  
  
Select Option (0 - D)  
  
Optional Maildrop, Dest, or Form Name ==>  
  
- - - - -  
C  USER DEFINITION - Define OnLine Viewing Users and Associated Recipients
```

Adding an Online Viewing User

Use the Sysgen User Screen to add and describe Online Viewing users.

To add user ID USER001:

1. Tab to the ADD line.
2. Enter the user ID (USER001) and a description (USER 001) and press **Enter**.

```
VSGMU230----- Sysgen User Screen -----
COMMAND =>
X1  USER TEMPLATE

   Opt  User Id      Description
ADD =>  USER001     USER 001
=>     USER002     USER 002
=>     USER003     USER 003
=>     USER004     USER 004
```

The newly added user ID is placed in the list (in alphabetic order). If the list of users extends beyond one page, you may have to scroll or use the Locate command to place the newly added user at the top of the list.

Note: If you are using external security, a valid user ID (signon) is one that matches the ID defined to your security system (for example, CA ACF2, CA Top Secret). In this case a signon ID is limited to eight characters or less (the standard for security systems). It does not matter where the ID is defined first, on this screen (VSGMU230) or to your security system.

If you are using internal security, a valid user ID (signon) is one that matches the ID defined to the CA Dispatch data dictionary through DSEXUSR1. The ID is defined using the CADSOPTN member DSUSERS.

- From the Sysgen User Screen (VSGMU230), enter **S** next to USER001 and press **Enter** to select this user for definition.

This displays the Sysgen User Recipient Screen (VSGMU235) where you can define attributes for Online Viewing user USER001.

```
VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER001          Description: USER 001
Installation Codes ==>
Reprint Definitions:                                     Find Command Definitions:
  Reprint Type (P,O,C) ==> 0                            Override ==> N
  Printer Id ==>                                         Max Find Pages ==>
  Class, Destination ==> , ,
  Max Reprint Pages ==>
  Printer Override ==> N          Copies Override (0-999,0=NO) ==> 0
  Opt Recipient          Description
ADD==>
==>
==>
```

Using VSGMU235 to Define Online Viewing Users

At this point, you must decide what kind of access USER001 is to have, and how you want to set reprint definitions and FIND command permission.

Defining Attributes for an Online Viewing User

This section describes the choices you can make on the VSGMU235 screen; the steps to take to complete this definition are listed at the end of this section.

Installation Codes

The installation code determines which screen users have access to when they enter CA Dispatch. If you chose external security as an installation option, this is the only place the installation code is defined. If you are using internal security, the installation code can be specified in the USER statement, member DSUSERS in the CA IDMS Sysgen (DSEXUSR1). A value entered in this field overrides a value defined in the USER statement.

Specify the installation code appropriate for this Online Viewing user. For example, if the user only views reports in Online Viewing using Option 3 (Select Reports By Recipient To View) from the Online Viewing Option Menu (VOVMI000), assign **CARCP,X**.

Note: For more information about installation codes, see the section [Installation Codes](#) (see page 131) in the chapter "Security – What You Need to Know" in this guide.

Reprint Definitions

The fields that fall under Reprint Definitions contain the information needed for a user to print reports from Online Viewing.

If nothing is defined on this screen, and users attempt to print from Online Viewing, they are prompted to supply information.

Reprint Type (P,O,C)

This field sets the type of reprinting the user is permitted to do.

P—Printer ID

This reprint type uses the Printer ID field, which must have a value. When using this type, if you enter values in the Class and Destination fields, they are ignored.

O—Original

This reprint type causes the report to be reprinted using the original report recipient definition. When using this type, if you enter values in the Class and Destination fields, they are ignored.

C—Original with Class and Destination

This reprint type causes the report to be reprinted using the original report recipient's definition with one of the following two situations:

- If a Printer ID is entered, the Printer ID's Class and Destination values are used when reprinting. They override the original report recipient's class and destination.
- If Class and Destination values are entered, on reprint these values are used to override the report recipient's original class and destination.

Printer ID

This is a 16-character alphanumeric field. A valid Printer ID is one of the recipients defined to the report named PRINTER which has a jobname of *PRINTER.

Class, Destination

This field contains the Class and Destination overrides to be used for reprint type C (Class, Destination). The original report recipient definition is used, but these values override class and destination.

Maximum Reprint Pages

Enter the maximum number of pages allowed for reprinting of a single report from Online Viewing in one command. This prevents this user from inadvertently printing a very large report; it requires the user to print the report in several segments.

Printer Override

Possible values are Y or N. The default is N.

This field allows users to override the Printer ID. This means users can specify a different Printer ID than the one specified as their default Printer ID. If you enter **Y** in this field, when users attempt to print a report from Online Viewing, the Online Viewing Print Request Screen (VOVMI330) displays, provided users specified **O** (PRNT Override) on the Online Viewing Report Selection Screen (VOVMI310) when selecting from their list of reports to print.

For more information:

[Defining Printer IDs](#) (see page 193)

FIND Command Parameters

In Online Viewing, the FIND command allows the user to search *nnnnn* number of report pages for a string of characters. The FIND command default value is set on the Sysgen Online Viewing Control Screen (VSGMU190). You can use the FIND Command Definitions fields if you want to allow this user to override those defaults.

Note: If VSGMU190 has no value set, the system default is one page.

If you enter **Y** in the Command Override field to allow override, enter the number of pages this user can scan in Command Pages.

Note: You may want to restrict the FIND command to conserve system resources. This prevents a user from inadvertently searching a very large report with a single FIND command.

Completing the Definition

To complete the definition, perform the following steps on the Sysgen User Recipient Screen (VSGMU235):

1. Enter **CARCP,X** in the Installation Codes field.
2. Enter **O** in the Reprint Type field.
3. Enter **Y** in the Find Command Override field.
4. Enter **9999** in the Max Find Pages field.

5. Enter **999** in the Max Reprint Pages field.
6. Enter **Y** in the Printer Override field.

```

VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER001          Description: USER 001
Installation Codes ==> CARCP,X
Reprint Definitions:
  Reprint Type (P,O,C) ==> 0
  Printer Id           ==>
  Class, Destination  ==>
  Max Reprint Pages   ==> 999
  Printer Override    ==> Y
  Opt Recipient       ==>
  ADD==>              ==>
Find Command Definitions:
  Override             ==> Y
  Max Find Pages      ==> 9999
Copies Override (0-999,0=NO) ==> 0

```

Connecting Online Viewing Users to Recipients

Use the lower half of the Sysgen User Recipient Screen (VSGMU235) to connect Online Viewing users to recipients. Once these connections are made, the reports attached to one (or more) recipient are viewable for this user through Option 3. To connect recipients:

Enter the Recipient ID on the ADD line and press **Enter**.

The user is connected to the recipient if:

- The report was routed to Online Viewing. This means that on the Report Base Definition Screen (VRDMU110) you entered **Y** in the View Online field.
- The recipient you enter was defined to the report on the Report Recipient Definition Screen, Reports (VRDMU130), and you entered a **Y** in Online Viewing on that screen.
- CA Dispatch processed the report after the report recipient was added.

The following sections explain how to connect the user to one recipient and to several recipients of Online Viewing reports.

Important! User can be restricted to view the reports defined to a single recipient (perhaps only their own reports) or to view the reports defined to many recipients.

Connecting One User and One Recipient – an Example

One individual, USER 001, is set up as follows:

- USER 001 is already defined to the database of CA Dispatch as recipient USER 001.
- USER 001 is also defined to the external security system as user USER001, and is given access to CA Dispatch.

- We defined USER001's attributes (installation codes, find, and reprint permissions, and so on) to CA Dispatch on the Sysgen User Recipient Screen (VSGMU235). See the example on the previous page.
- We use the lower portion of that screen to attach his recipient ID, USER 001.

```
VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER001           Description: USER 001

Printer Override   ==> Y           Copies Override (0-999,0=N0) ==> 0
 Opt Recipient    Description

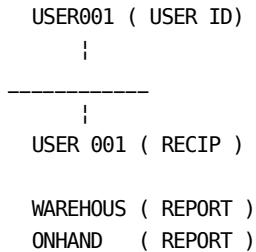
ADD ==> USER 001     SUPPORT EXPERT
==>
==>
```

USER 001 received hard copy of two reports: WAREHOUS and ONHAND. Now as user USER001, when he accesses his reports online he sees the following list displayed under his recipient ID on the Online Viewing Report Selection Screen (VOVMI310).

```
VOVMI310---Online Viewing Report Selection Screen, Recipient: USER 001
COMMAND==>
 X1 PC Rqst Queue   X2 Add PC Upload Rqst
Start Date (mmdyyyy) ==>           End Date (mmdyyyy) ==>

 Opt Report  Jobname  Date       Time     Desc (24 characters)  Typ  Pages
=> -  ONHAND  INVTRJOB 04/08/2009 05:13  STORE INVENTORY
=> -  WAREHOUS INVTRJOB 04/08/2009 05:13  WAREHOUSE INVENTORY
=> -
=> -
```

A diagram of the relationship between the user ID, the recipient ID, and the reports User 001 receives might look like this:



Connecting One User to Multiple Recipients - An Example

This example connects USER 003 to several recipients - and gives him access to all their reports. His set up is as follows:

- USER 003 is already defined to the external security system as user USER003 and is given access to CA Dispatch.
- USER003's attributes (installation code, Find and Reprint permissions, and so on) are defined on the Sysgen User Recipient Screen (VSGMU235).

```
VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER003          Description: ACCOUNTANT
Installation Codes ==> CARCP,X
Reprint Definitions:
  Reprint Type (P,O,C) ==> 0          Find Command Definitions:
  Printer Id           ==>           Override           ==> Y
  Class, Destination  ==>           Max Find Pages ==> 9999
  Max Reprint Pages   ==> 999
  Printer Override     ==> Y          Copies Override (0-999,0=NO) ==> 0
  Opt Recipient       Description
ADD==>
==>   USER 002.      SUPPORT EXPERT
==>   USER 001      SUPPORT EXPERT
==>   USER 004      SUPPORT EXPERT
```

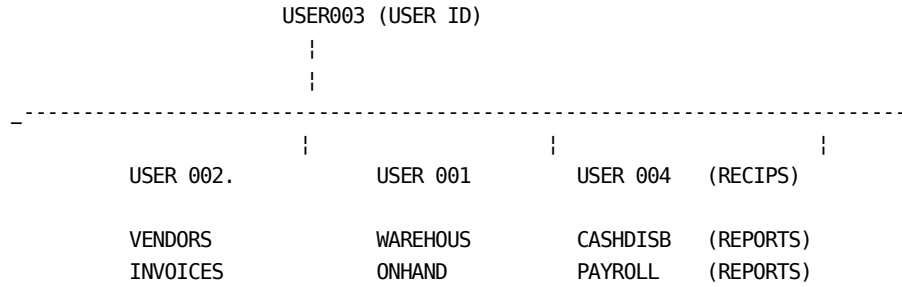
- On the lower half of this screen we attach recipients USER 004, USER 001, and USER 002.

Selecting a Recipient's Reports

When Online Viewing user USER003 signs on to CA Dispatch, he accesses the Online Viewing Option Menu (VOVMI000) and selects Option 3. He accesses the Online Viewing Recipient Selection Screen (VOVMI300).

```
VOVMI300----- Online Viewing Recipient Selection Screen -----
COMMAND ==>
User: USER003          Description:
  Opt Recipient       Description
==> -   USER 002      SUPPORT EXPERT
==> -   USER 001      SUPPORT EXPERT
==> -   USER 004      SUPPORT EXPERT
==> -
```

Each of these recipients is defined to two reports. A diagram of USER003's relationship to his users and their reports might look like:



This gives user USER003 access to six reports.

Performing Soft Deletes

Because you have access to reports defined to other users, you now have the ability, through Option 3 (Select Reports By Recipient to View) of the Online Viewing Option Menu, to perform a soft delete. This deletes the report from that recipient's list, but it does not delete the report from Online Viewing.

A hard delete (which deletes the report from Online Viewing) can only be done using View Report Selection Screen (VOVMIO10) or the MSGCLASS Job Selection Screen (VOVM200). You can reverse a soft delete by typing **Restore** on the command line from the Online Viewing Report Selection Screen (VOVM310).

WARNING! If multiple users have access to the same recipient's reports and one of the users has performed a soft delete on the list of reports that the recipient receives, the list is not complete when another user accesses the list on the Online Viewing Report Selection Screen (VOVM310).

Example of a Soft Delete

In the first example, USER001 can view reports for USER 001.

In the second example user USER003 has access to three recipients' reports: USER 004, USER 001, and USER 002.

If user USER003 looks at USER001's reports online and decides to do a soft delete on the WAREHOUS report because he has finished looking at it, when USER001 signs on, he does not see that report in his list on the Online Viewing Report Selection Screen (VOVMI310).

Consider this possibility carefully when you decide to tie multiple users to a recipient's reports. Update authority is necessary for users to print from Online Viewing. If you have permission to update, you can also do soft deletes.

Installation Codes

The following list of installation codes indicates where the user enters the system. Putting ,X after any of these codes prevents the user from ending out of the initial screen and arriving at the Enter Next Task Code prompt. When users exit all the screens, they are automatically logged off.

CAAR

Accesses the menu for archive (reports that have been put on tape): Archive and Retrieval Option Menu (VARM1000).

CADS

Accesses the main menu, the Report Distribution Option Menu (VRDM1000).

CAMSG

Accesses a selection list of all MSGCLASS messages: MSGCLASS Job Selection Screen (VOVMI200).

CAOP

Accesses the Operations Options Menu (VOPMI000).

CAOV

Accesses a menu that allows you to choose to view either reports or MSGCLASS messages online: Online Viewing Option Menu (VOVMI000).

CAPC

Accesses the PC Option Menu (VPCMI000).

CARCP

Accesses the selection list of recipients whose reports you (as the user signed on to CA Dispatch) are authorized to view.

You access the Online Viewing Recipient Selection Screen (VOVMI300), or, if you (the user) are only authorized to view one recipient's reports, CARCP takes you to Online Viewing Report Selection Screen (VOVMI310).

CARPT

Accesses the selection list of all reports that can be viewed online: View Report Selection Screen (VOVMI010).

CASG

Accesses the option menu for Sysgen information: Sysgen Option Menu (VSGMI100).

CAST

Accesses the Report Selection and Status Screen (VRDMI400).

Note: CARCP,X is the installation code to give users who only use CA Dispatch as a method of viewing online reports.

For more information:

[Security – What You Need to Know](#) (see page 99)

Chapter 7: Using the Writer Field

Topics covered in this chapter include:

- A description of the Writer field and how it is used
- The impact on printers of using the Writer field
- Use of the Writer field to route output from CA Dispatch back through itself

Defining the Writer Field

The Writer field is used for the following purposes:

- To identify output (bundles) coming from CA Dispatch
- To route reports that CA Dispatch has processed back into CA Dispatch

Identifying Output

Before CA Dispatch was installed at your site, output on the JES queue was identified by the originating jobname. Now that CA Dispatch is installed, all reports processed by it have the output name of CADSDISP, the name of the CA Dispatch started task.

There are several methods to help your operations staff identify a particular report after CA Dispatch has processed it. One is to specify a value in the Writer field. If you use the Writer field to identify output, you may have to modify the Workload Selection parameter of the JES2 Initialization statement to enable your printer to print this output. This procedure is explained in the section [Effects on Printing](#) (see page 135) in this chapter.

Routing Reports Back

The Writer field can also be used to route reports that CA Dispatch has already processed back into itself. This field allows identification of a new report name with new specifications, based on a report that has already been defined to the database. You can use this technique to send selected pages of a report to Online Viewing, to separate multiple reports that were produced by one DD statement, or to combine the output of several reports.

This use of the Writer field is explained in the section [Routing Output From/Back Through CA Dispatch](#) (see page 137) later in this chapter.

Using the Writer Field

There are three screens that allow you to define the Writer field. They are:

- Report Recipient Definition Screen, Reports (VRDMU130)
- Report Base Definition Screen (VRDMU110)
- Sysgen Control Information Screen (VSGMU110)

The Report Recipient Definition Screen, Reports (VRDMU130)

The Writer field, on the Report Recipient Definition Screen, Reports (VRDMU130), is a maximum of eight alphanumeric characters and must start with an alphabetic or national character. Entering a value in the Writer field on this screen causes CA Dispatch to include the JCL External Writer operand in the dynamic allocation.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
  X1 DJDE           X3 PC Extension   X5 Copy Recip   Data Center:
  X2 Def Pages     X4 Recipient Def   ADD Add Recip
                                     DEL Delete Recip
-----
Recipient ==> USER001           1 Report: RDUTILIZ   Jobname: DSEXSTAT
.
.
.
.
Sysout Definitions:
Normal Sysout(Y/N) ==>          Repeat ==>          FCB ==>          Hold ==>
Fiche Class(Y/N) ==>          Priority ==>        Form ==>
Specific Class ==>          Copies ==>         Writer =>
Align/Verify (A/V) ==>        Destination =>
    
```

The Report Base Definition Screen (VRDMU110)

Specifying a numeric value in the Jobname Identification field of the Report Base Definition Screen puts the first *n* (1-8) characters of the jobname in the External Writer field.

```

VRDMU110----- Report Base Definition Screen -----
COMMAND ==>
  X1 Rpt Events    X4 Add Fiche Rcp   X7 0lv         X10 Reprint
  X2 #1 Fiche Rcp X5 Add Rpt Recip  X8 Msgclass   ADD Report
  X3 Recip List    X6 Tracking        X9 Archive Ret DEL Report
-----
Report Processing Options:  Report ==> RDUTILIZ   Jobname ==> DSEXSTAT
Print (Y/N) ==> Y          Convert CC to Mach. (Y/N) ==>
PC Download (Y/N) ==> N    Lines Per Page (0-143) ==> 60
Archive (D,O,S,T,N) ==> T  Due Out Time (0000-2400) ==> 0000
Passthru (Y/N) ==>        Jobname Identification ==>
    
```

The Sysgen Control Information Screen (VSGMU110)

Entering **Y** in the Use Maildrop As External Writer field of the Sysgen Control Information Screen (VSGMU110) causes CA Dispatch to use the report's maildrop as the External Writer.

```
VSGMU110----- Sysgen Control Information Screen -----
COMMAND ==>
CADDSP Options:
  Task Suffix =>   Root LDS DSN =>
Distribution Options:
  Default Report Name           ==>
  Generic Jobname Length (1-8) ==>   Universal Report Character ==>
  Job Scheduling Interface (1,2,N) ==>   JES Interface (Y/N) ==>
  Use Report JCL Copies (Y/N) ==>   Use Maildrop as Ext Wtr (Y/N) ==>
```

Effects on Printing

Using the Writer field to identify output may prevent your output from printing, unless you follow the procedures described in the following sections.

Changing the Workload Selection Parameter

For a job to print, there must be a match between the job output element and the output device on which it is to print. If you want to use the Writer field for a job going to a printer, be aware of the following:

- The JES2 initialization statement specifies the characteristics for each printer. One of the parameters is workload selection (known as WS). The workload selection criteria define the precise specifications of job and output characteristics that JES2 considers when selecting work for an output device.
- A job's output datasets are grouped into JOEs (Job Output Elements) based on the output requirements of the data set.
- The output requirements are defined in the job's JCL or by JES2-supplied defaults.
- If there is not a match between a JOE and one of the output devices, the data set remains on the spool.

In the specification of the work selection there may be a slash, which separates criteria that *must be matched* and *criteria that do not need to be matched*. All criteria to the left of the slash indicate a *must match* between the job output element and the output device.

An example of the work selection parameter is:

```
WS=(R, Q, LIM, /P, C, W)
  {      } {      }
  |      |
  |      |
  must  match not required,
  match ignore any Writer
         specified
```

- The W represents Writer. If that parameter is to the right of the slash, having a value in the Writer field on this screen will have no impact on whether JES selects this SYSOUT data set to print.
- If the Writer parameter is to the left of the slash, the SYSOUT data set is not selected to print unless the Writer field contains one of the specific Writers that have been defined to this printer.

Remember that the match is between the Job Output Element and the output device. To use the Writer field freely, you should move the W to the right of the slash. In this way, the Writer will be ignored.

Printers Not Printing Output Under JES2

If your printers will not print output from CA Dispatch, you can change the printer characteristics without cycling JES2.

Use the JES2 command to show the printers defined to JES and their attributes:

```
$DU, PRTS
```

If printer1 (PRT1) has the W, which is the Writer parameter, to the left of the slash, move it to the right with the following command:

```
$TPRT1 WS=/W.
```

You may be affecting other parameters, so consult the JES2 site specialist and request that the system parameters be changed. These changes will take effect after JES2 is cycled again.

Note: For more complete information on the work selection parameter, see IBM's *JES2 Initialization and Tuning Manual*.

Routing Output

You may want to route output from CA Dispatch back through CA Dispatch to:

- Send selected pages to Online Viewing
- Separate multiple reports that are produced by one DD statement
- Combine the output of several reports

Example of Sending Selected Pages to Online Viewing

Our example sends selected pages of report ABCDEFG1 job XYZABC1 to online viewing. This report and job have already been defined to the database.

The process requires you to set up for printing, define page selection, add a new report to the database, and define the recipient.

Step 1: Set up for Printing

1. Access the Report Base Definition Screen (VRDMU110) for report ABCDEFG1.
2. Enter **Y** in the Print field.

This causes CA Dispatch to spool the report, or selected pages of the report, back to the JES spool.

```

VRDMU110----- Report Base Definition Screen -----
COMMAND =>
X1 Rpt Events          X4 Add Fiche Rcp      X7 0lv                X10 Reprint
X2 #1 Fiche Rcp       X5 Add Rpt Recip      X8 Msgclass           ADD Report
X3 Recip List         X6 Tracking           X9 Archive Ret        DEL Report
-----
Report Processing Options:  Report => ABCDEFG1      Jobname => XYZABC1
Print      (Y/N) => Y      Convert CC to Mach. (Y/N) =>
PC Download (Y/N) => N      Lines Per Page   (0-143) => 60
Archive (D,O,S,T,N) => T    Due Out Time   (0000-2400) => 0000
Passthru   (Y/N) =>        Jobname Identification =>

```

3. Add a new (dummy) report recipient using the following procedure:
 - a. Enter **X5** and press Enter to access the Report Recipient Definition Screen, Reports (VRDMU130), where the SYSOUT characteristics for recipients are defined.
 - b. Create a dummy recipient DUMMY RECIPIENT.

- c. Be sure to send the output to the JES class or Class/Destination combination that belongs to RPI, as set on the Dedicated Sysout Control Information Screen (VSGMU105).
- d. In the Writer Field on this screen, enter a report name, which has not yet been defined to the database.

This example uses report name ABCDEFG1. This name is similar to the original report name and will be an easy association for your users.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
OnLine Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64): Use Dates (MMDDYYYY)
Maidrop Pages ==> Start ==> Due Out Time(HHMM) ==>
Recipient Pages ==> End ==> VSM Delay in Days ==>
Manifest Copies ==> User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==> Repeat ==> FCB ==> Hold ==>
Fiche Class(Y/N) ==> Priority ==> Form ==>
Specific Class ==> Copies ==> Writer ==>
Align/Verify (A/V) ==> Destination => ,
Printer Options:
Flash ==> Burst (Y/N)==> TRC ==>
Modify ==> Count ==> CHARS ==>
OPTCD (J) ==> Copygroups ==>
AFP Mode:
Output/IAFP ==> Page Format ==> Copygroup ==>
    
```

Step 2: Define Page Selection

Access the Report Recipient Definition Screen, Pages (VRDMU140) and define your page selection.

```

VRDMU140-----Report Recipient Definition Screen, Pages -----
COMMAND ==>
-----
Report: ABCDEFG1 Jobname: XYZABC1
Recipient: DUMMY RECIPIENT
-----
Report Pages (ALL, BKT) ==> or:
Number Page Line Column Test Text
0001 => Y => 1 => 70 => EQ => 'SUMMARY'
    
```

Step 3: Add a New Report to the Database

To add a new report to the database on the Report Base Distribution Screen (VRDMU110), define the report as follows:

1. Enter report name **BBCDEFG1**.
2. The jobname is optional but you may wish to use the CA Dispatch started task name.
3. Enter the output characteristics (print, archive, Online Viewing) necessary to properly distribute the report.

```
VRDMU110-----Report Base Definition Screen -  
COMMAND ==>  
- - - Report ==> BBCDEFG1 - - Jobname:  
-----  
Print          (Y/N) ==> Y <-- - - -  
PC Download    (Y/N) ==> N - - -  
Archive (D,0,S,T,N) ==> T- - -  
-----
```

Step 4: Define a Recipient

Access the Report Recipient Definition Screen, Reports to define your real recipient. Perform the following steps:

1. Enter **REAL RECIPIENT** in the Recipient field.
2. Enter **Y** in the Print field and **Y** in the Online Viewing field.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>                                     Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                     Report:                                     Jobname:
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):                               Use Dates (MMDDYYYY)
Maildrop Pages ==>                               Start ==>                               Due Out Time(HHMM) ==>
Recipient Pages ==>                               End ==>                               VSM Delay in Days ==>
Manifest Copies ==>                               User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==>                               Repeat ==>                               FCB ==>                               Hold ==>
Fiche Class(Y/N) ==>                               Priority ==>                               Form ==>
Specific Class ==>                               Copies ==>                               Writer ==>
Align/Verify (A/V) ==>                               Destination =>                               ,
Printer Options:
Flash ==>                               Burst (Y/N)==>                               TRC ==>
Modify ==>                               Count ==>                               CHARS ==>
OPTCD (J) ==>                               Copygroups ==>
AFP Mode:
Output/IAFP ==>                               Page Format ==>                               Copygroup ==>
    
```

This technique is useful when only certain pages of a very large report are needed. You can select your targeted pages, route them back into CA Dispatch, then send them to Online Viewing.

Chapter 8: Using IBM Advanced Function Printing

This chapter explains how you can use CA Dispatch to perform various operations for IBM's AFP (Advanced Function Printing) and discusses these specific functions as well as some AFP concepts.

Topics covered in this chapter are:

- Inline AFP glossary of terms and concepts
- Inline AFP resources and JCL OUTPUT statements
- Inline AFP search sequence
- Defining inline AFP defaults, including:
 - Library groups
 - Libraries
 - Resource groups
 - Resources for a report
- Implementing inline AFP processing
- Implementing non-inline AFP processing
- Printer definitions – an example
- The CADSDISP procedure

Inline AFP Terms and Concepts

The following are inline AFP terms and concepts and their definitions:

AFP Library

A file (MVS PDS or VM minidisk) that contains a collection of AFP resources such as Formdefs and Pagedefs.

Copygroup

An AFP resource that defines one or more copies of a sheet of paper. Each copy can have modifications such as text suppression, forms flash, and overlays. Defined as part of a Formdef.

Form Definition (Formdef)

An AFP resource that defines the characteristics of the form that include overlays, text suppression, the position of page data on the form and the number and modifications of a page; it is a collection of Copygroups and other resources.

Page Definition (Pagedef)

An AFP resource that defines a set of formatting controls for printing logical pages of data. Includes controls for number of lines per printed sheet, font selection, print direction, and mapping individual fields in the data to positions on the printed sheets.

Page Format

AFP resources containing controls governing the arrangement of text on a page. Defined as part of a Pagedef.

Inline AFP Library

A database defined AFP library name used by CA Dispatch's RPO (Report Output Processor) subtask to search for AFP resources. Defined as part of an Inline AFP Library Group.

Inline AFP Library Group

A database defined collection of Inline AFP Libraries that are used by RPO to search for AFP resources. RPO searches all libraries defined to a Library Group for the required AFP resources.

Inline AFP Resource Group

A database definition specifying the Inline AFP Library Group, AFP Pagedef, and AFP Formdef that are used by RPO to dynamically insert the requested resources into a bundle data set. Once defined, the Resource Group name is specified on the Report Recipient Definition Screen (VRDMU130) for a given report.

Separator Page Copygroup

This is the name of the AFP Copygroup that is inserted into the bundle for use on separator pages. An AFP control record is used to switch to this Copygroup just before a separator page is written.

Separator Page Page Format

This is the name of the AFP Page Format that is inserted into the bundle for use on separator pages. An AFP control record is used to switch to this Page Format just before a separator page is written.

Inline AFP Resources and JCL OUTPUT Statements

Prior to Release 6.0, CA Dispatch users had to add a JCL OUTPUT statement to the started task JCL that defined the Pagedef and Formdef for use by a recipient's report. The OUTPUT statement name is specified on the Report Recipient Definition Screen (VRDMU130). When the bundle that contains the recipient's report is allocated, the OUTPUT statement name is passed along with the allocation. This tells JES that the Pagedef and Formdef specified in the JCL will be used for the printing bundle. This process has the following limitations:

- Every Pagedef and Formdef combination used by any of the reports defined to CA Dispatch must have a supporting JCL OUTPUT statement in the CA Dispatch started task JCL. This JCL requires modification for every change in your AFP setup.
- The Page Format and Copygroup used for separator pages must be defined in the Pagedef and Formdef used by a bundle. This means defining the same Page Format and Copygroup in every Pagedef and Formdef. Any change to the separator page resources requires a change to every Pagedef and Formdef.

With Inline AFP Resources, CA Dispatch offers the online ability to specify all of the AFP resources needed for your reports, and dynamically load these resources directly into the printed output. This approach offered the following advantages:

- Only one JCL OUTPUT statement needs to be defined to the started task JCL.
- Page Formats and Copygroups for separator pages only need to exist in one Pagedef and Formdef.

There is now single point control of AFP resources used by CA Dispatch.

Inline AFP Search Sequence

Before defining Inline AFP information, an understanding of RPO's search sequence for AFP resources is necessary. These are the search sequences used to find the requested Pagedef and Formdef as defined in the bundle Inline AFP Resource Group:

Pagedef Search

The search is proceeds as follows:

1. The Pagedef libraries, defined to the bundle's Inline AFP Library Group, are searched for the requested Pagedef name.
2. The default Pagedef Library is searched for the requested Pagedef name.
3. The default Pagedef Library is searched for the default Pagedef.

Formdef Search

The search is proceeds as follows:

1. The Formdef libraries, defined to the bundle's Inline AFP Library Group, are searched for the requested Formdef name.
2. The default Formdef Library is searched for the requested Formdef name.
3. The default Formdef Library is searched for the default Formdef.

Separator Page, Page Format Search

The search is proceeds as follows:

1. The Pagedef, found in the above search sequence, is searched for the separator page, page format.
2. The Library Group libraries are searched for the default Pagedef. If found, go to step 4.
3. The default Pagedef Library is searched for the default Pagedef. If found, go to step 4.
4. The separator page, page format is searched for in the current Pagedef.

Separator Page, Copygroup Search

The search is proceeds as follows:

1. The Formdef, found in the above search sequence, is searched for the separator page Copygroup.
2. The Library Group libraries are searched for the default Formdef. If found, go to step 4.
3. The default Formdef Library is searched for the default Formdef. If found, go to step 4.
4. The separator page, Copygroup is searched for in the current Formdef.

If any of the resources cannot be found, a message is issued by RPO, and the bundle continues to be written to JES. The default resources, as defined to the AFP printer that eventually prints the bundle, is used.

Defining Inline AFP Defaults

Certain default information must be defined to CA Dispatch to fully implement Inline AFP processing.

Default information is defined as follows:

1. From the Report Distribution Option Menu (VRDMI000), enter **9** on the Command line and press Enter to access the Sysgen Option Menu.

```
VRDMI000----- CA Dispatch r11.7 -----
                    Report Distribution Option Menu

COMMAND ==> 9                               Data Center: DEVL
          Select Option (1 - C)
```

2. Enter **D** (INLINE AFP, Define Inline AFP Resource and Library Groups) on the Command line and press Enter.

```
VSGMI100----- Sysgen Option Menu -----

COMMAND ==> D
          Select Option (0 - D)
          Optional Maildrop, Dest, or Form Name ==>
-----
          D  INLINE AFP    - Define InLine AFP Resource and Library Groups
```

You access the Inline AFP Option Menu (VSGMI240). The Inline AFP Resource options are accessed from this screen.

3. Enter **1** on the Command line and press Enter to access the Default AFP Resources Screen (VSGMU241).

```
VSGMI240----- InLine AFP Option Menu -----

COMMAND ==> 1
          Select Option (1 - 3)

-----
          1 DEFAULT AFP RESOURCES    - View, Update Default AFP Resource Names
          2 INLINE AFP RESOURCES     - View, Update InLine AFP Resource Groups
          3 INLINE AFP LIBRARIES     - View, Update InLine AFP Library Groups
```

4. Tailor this screen to establish the default information to be used by CA Dispatch when processing AFP resources.

Before you can assign default AFP resources, contact your system administrator to find out what AFP resources are available to CA Dispatch and which libraries CA Dispatch uses.

For this sample setup, we assume the following:

- The JCL OUTPUT name is CADSOULT.
- The default Pagedef name is CAIPDF.
- The default Formdef name is CAIFDF.
- The separator Page Format name is CAIPFMT.
- The separator Copygroup name is CAICPYGR.
- The default Pagedef Library name is SYS2.PDEFLIB.
- The default Formdef Library name is SYS2.FDEFLIB.
- The ACIF Parm Library name is SYS2.ACIFPARM.
- The ACIF Load Library name is SYS2.ACIFLOAD.
- The CADS Load Library name is CAI.CADSLOAD.

The first value to define is the JCL OUTPUT statement in the started task JCL used by RPO for Inline AFP resources. This is the only OUTPUT statement needed in the started task JCL. When RPO allocates a bundle data set, it uses this value on the dynamic allocation request.

1. Enter **CADSOULT** in the JCL Output Name field.

The corresponding JCL OUTPUT statement in the CA Dispatch started task JCL looks like this:

```
//CADSOULT OUTPUT PAGEDEF=DUMMY, FORMDEF=DUMMY
```

2. Define the default AFP resource definitions.

The default Pagedef Name and default Formdef Name fields respectively specify the Pagedef and Formdef that RPO loads if the Pagedef, Formdef, or both, defined for the bundle, cannot be found. For this example, we use CAIPDF and CAIFDF as the defaults.

Enter **CAIPDF** in the Pagedef Name field and enter **CAIFDF** in the Formdef Name field.

- Define the Page Format and Copygroup names that RPO loads for separator pages.

```

VSGMU241----- Default AFP Resources Screen -----
COMMAND =>

Default AFP Resources:

JCL Output Name  => CADSOUT

Pagedef Name     => CAIPDF           Separator Page Format => CAIPFMT
Formdef Name     => CAIFDF           Separator Copy Group  => CAICPYGR

Pagedef Library  => SYS2.PDEFLIB
Formdef Library  => SYS2.FDEFLIB

Default ACIF Information:

ACIF Parm Library => SYS2.ACIFPARM
ACIF Load Library => SYS2.ACIFLOAD
CADS Load Library => CAI.CADSLOAD

```

By defining the separator page values here, you eliminate the need for defining these AFP resources in every Pagedef and Formdef. These values are only used for Inline AFP resources.

- Enter **CAIPFMT** in the Separator Page Format field.
- Enter **CAICPYGR** in the Separator Copygroup field

Like the default Pagedef and Formdef, you need to specify a default Pagedef Library and Formdef Library. If the specified AFP resources cannot be found in the AFP libraries defined for the bundle's Inline AFP Library Group, RPO searches for the resources in these default libraries.

- Enter **SYS2.PDEFLIB** in the Pagedef Library field.
- Enter **SYS2.FDEFLIB** in the **Formdef** Library field and press Enter.

- Press PF3 to return to the Inline AFP Option Menu.

Defining Inline AFP Library Groups

For CA Dispatch to dynamically insert AFP Pagedefs and Formdefs inline, it needs to know where to find those resources. An Inline AFP Library Group specifies all of the libraries that are searched for AFP resources.

From the Inline AFP Option Menu (VSGMI240):

1. Enter **3** on the Command line and press Enter.

```
VSGMI240----- Inline AFP Option Menu -----  
COMMAND ==> 3  
Select Option (1 - 3)  
  
-----  
1  DEFAULT AFP RESOURCES   - View, Update Default AFP Resource Names  
2  INLINE AFP RESOURCES    - View, Update Inline AFP Resource Groups  
3  INLINE AFP LIBRARIES    - View, Update Inline AFP Library Groups
```

You access the Inline AFP Library Group Definition Screen (VSGMU250) where you can establish an Inline AFP Library Group to be used by CA Dispatch when processing AFP resources.

2. Tailor this screen as follows to add an Inline AFP Library Group:
 - a. Tab to the ADD line.
 - b. Enter the Library Group Name, **LGROUP1**, and a description, **LIBRARY GROUP 1**, and press **Enter**.

```
VSGMU250-----Inline AFP Library Group Definition Screen-----  
COMMAND ==>  
X1 Resource Groups  
  
Opt      Group      Description  
      Name  
ADD==>  LGROUP1    LIBRARY GROUP 1  
=>
```

The newly added Library Group is placed in the list in alphabetic order. If the list extends past one page, you may have to scroll or use the Locate command to place the newly added Library Group at the top of the list.

Defining Inline AFP Libraries

From the Inline AFP Library Group Definition Screen (VSGMU250):

Enter **S** next to LGROUP1 and press Enter to display the Inline AFP Library Definition Screen (VSGMU255).

```
VSGMU250-----Inline AFP Library Group Definition Screen-----
COMMAND ==>
X1 Resource Groups

  Opt          Group Name          Description
  S            LGROUP1             LIBRARY GROUP 1
==>
```

Use this screen to define all of the AFP resource libraries that are searched when using the LGROUP1 Library Group.

Use the following procedure to add an AFP resource library:

1. Tab to the ADD line.
2. Enter the Library Type **Formdef** and an AFP Formdef Library Name, and press **Enter**.
3. Repeat the process for all Formdef libraries used in the search sequence. The libraries are searched in the sequence in which they are entered.
4. Repeat the process for all Pagedef libraries used in the search sequence but use a Library Type of Pagedef.

```
VSGMU255----- Inline AFP Library Definition Screen-----
COMMAND ==>

Library Group: LGROUP1 Copy Library Group==>

  Opt          Library          Library Name
  ADD==> FORMDEF             SYS2.FDEFLIB
==> -
==> -
==> -
```

At this point you have finished defining an Inline AFP Library Group with all of its associated libraries.

Defining Inline AFP Resource Groups

For CA Dispatch to dynamically insert AFP Pagedefs and Formdefs inline, it needs to know where to find those resources. An Inline AFP Resource Group specifies the Library Group, Pagedef and Formdef names used by RPO to dynamically load the requested resources.

Enter **2** on the Command line and press **Enter** to access the Inline AFP Resource Group Definition Screen (VSGMU245).

```
VSGMI240----- Inline AFP Option Menu -----
COMMAND ==> 2
Select Option (1 - 3)

-----
 1 DEFAULT AFP RESOURCES   - View, Update Default AFP Resource Names
 2 INLINE AFP RESOURCES    - View, Update Inline AFP Resource Groups
 3 INLINE AFP LIBRARIES    - View, Update Inline AFP Library Groups
```

Use this screen to establish an Inline AFP Resource Group used by CA Dispatch when processing AFP resources. Tailor this screen with the desired information.

Use the following procedure to add an Inline AFP Resource Group:

1. Tab to the ADD line.
2. Enter the Resource Group Name **RGROUP1**.
3. Enter the Library Group name **LGROUP1**.
4. Enter the AFP Pagedef name to be used for a bundle. This Pagedef should exist within one of the Pagedef libraries defined for the Library Group LGROUP1.
5. Enter the AFP Formdef name to be used for a bundle. This Formdef should exist within one of the Formdef libraries defined for the Library Group LGROUP1, and press Enter.

```
VSGMU245-----Inline AFP Resource Group Definition Screen -----
COMMAND ==>
X1 Library Groups

  Opt      Group      Library      Pagedef      Formdef
  ADD==>   RGROUP1   LGROUP1     PGBUN01      FMBUN01
=> -
=> -
=> -
```

The newly added Resource Group is placed in the list in alphabetic order. If the list extends beyond one page, you may have to scroll or use the Locate command to place the newly added Resource Group at the top of the list.

You have finished defining an Inline AFP Resource Group. This Resource Group and its associated Library Group now define a logical entity that CA Dispatch uses to load the requested Pagedef and Formdef dynamically into a bundle.

Defining AFP Resources for a Report

CA Dispatch uses the Inline AFP Resource Groups at the bottom of the Report Recipient Definition Screen (VRDMU130) to pass to RPO the information needed to dynamically load AFP resources into a bundle.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>                                     Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                     Report:          Jobname:
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):          Use Dates (MMDDYYYY)
Maildrop Pages ==>          Start ==>          Due Out Time(HHMM) ==>
Recipient Pages ==>          End ==>          VSM Delay in Days ==>
Manifest Copies ==>          User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==>          Repeat ==>          FCB ==>          Hold ==>
Fiche Class(Y/N) ==>          Priority ==>          Form ==>
Specific Class ==>          Copies ==>          Writer ==>
Align/Verify (A/V) ==>          Destination ==>          ,
Printer Options:
Flash ==>          Burst (Y/N)==>          TRC ==>
Modify ==>          Count ==>          CHARS ==>
OPTCD (J) ==>          Copygroups ==>
AFP Mode:
Output/IAFP ==>          Page Format ==>          Copygroup ==>

```

Use the following procedure to get RPO to use Inline AFP Resources:

1. Set up the Inline AFP Resource fields.

Access the Report Recipient Definition Screen, Reports (VRDMU130) for your targeted recipient and enter an Inline AFP Resource Group name **RGROUP1** into the Output/IAFP field. Optionally, enter a Page Format and Copygroup name into their respective fields. Be sure that the Pagedef and Formdef, defined for the Resource Group RGROUP1, contain the Page Format and Copygroup, respectively. All three of these fields appear at the bottom of the screen.

2. Set up the Started Task JCL.

Put an output statement in the JCL of the CA Dispatch started task JCL that looks like this:

```
//CADSOUT OUTPUT PAGEDEF=DUMMY,FORMDEF=DUMMY
```

The name of the OUTPUT statement CADSOUT must match the name specified on the JCL Output Name field on the Default AFP Resources Screen (VSGMU241).

Printer Options:		
Flash	⇒	Burst (Y/N)⇒ TRC ⇒
Modify	⇒	Count ⇒ CHARS ⇒
OPTCD (J)	⇒	Copygroups ⇒
AFP Mode:		
Output/IAFP	⇒ RGROUP1	Page Format ⇒ CAIPFMT Copygroup ⇒ CAIPYGP

Implementing Inline AFP Processing

The implementation of Inline AFP processing can be done in stages. AFP processing in prior releases of CA Dispatch is still supported in release 11.0. The Report Recipient Definition Screen (VRDMU130) allows the user to enter either an Output name (as in prior releases) or an Inline AFP Resource Group name. If an Output name is specified in the Output/IAFP field, the corresponding Output JCL statement, in the started task JCL, is used for AFP processing. If a resource group name is specified, the Inline AFP definitions are used for AFP processing.

By supporting both types of AFP processing, CA Dispatch allows you to systematically convert from JCL Output based processing to Inline AFP processing at your convenience.

Inline AFP Runtime Processing

When a bundle is released for printing, RPO accesses the database and attempts to find an Inline AFP Resource Group record with a name that matches the value specified on the Report Recipient Definition, Report Screen (VRDMU130). In this example, that value is RGROUP1. Based on the result of the database query, RPO processes in two different ways.

Non-Inline AFP Processing

If the resource group record is not found, RPO assumes the value (RGROUP1) is the name of a JCL OUTPUT statement and dynamically allocates the bundle data set using that name as the OUTPUT parameter. An OUTPUT JCL statement needs to be specified in the CA Dispatch started task JCL with the name RGROUP1 and have the appropriate Formdef, Pagedef, or both specified. This is the method used by prior releases of CA Dispatch.

Inline AFP OUTPUT Statement

Pagedef and Library Group names are extracted from the resource group and saved. RPO now dynamically allocates the bundle data set using the OUTPUT statement name as specified on the Default AFP Resources screen (VSGMU241). In this example, that value is CADSOUT. The CADSOUT OUTPUT statement is specified in the started task JCL with DUMMY Formdef and Pagedef values.

Inline AFP Formdef Processing

The database is accessed for the Inline AFP Library Group record using the saved library group name. All of the Formdef libraries assigned to the library group are searched for the saved Formdef name.

If the saved Formdef name is not found, the same Formdef libraries are searched for the Default Formdef name. If the Default Formdef is not found in the library group libraries, the Default Formdef Library is used to search for Default Formdef.

Once a Formdef is found, it is read from the library and written to the bundle, record by record. As the Formdef is being written to the bundle, RPO checks if the separator page Copygroup resides within it. If the Copygroup exists within the current Formdef, the Formdef **end** record is written to the bundle.

If the Copygroup does not exist within the current Formdef and the Formdef is not the Default Formdef, the library group libraries are searched for the Default Formdef. If found, the Default Formdef reads the separator page Copygroup and writes it to the bundle. If the Default Formdef is not found within the library group libraries, the Default Formdef Library is searched for the Default Formdef. If found, the Default Formdef reads the separator page Copygroup and writes it to the bundle.

Once the separator page Copygroup is written to the bundle, the Formdef *end* record is written to the bundle.

Inline AFP PAGEDEF Processing

The same processing sequence used to insert inline Formdefs and separator page Copygroups is used to insert inline pagedefs and separator page formats.

Implementing Non-Inline AFP Processing

CA Dispatch uses the AFP Mode fields at the bottom of the Report Recipient Definition Screen, Report (VRDMU130) to pass control information to an AFP mode printer.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>                                     Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                     Report:                                     Jobname:
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
OnLine Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):                               Use Dates (MMDDYYYY)
Maildrop Pages ==>                               Start ==>                               Due Out Time(HHMM) ==>
Recipient Pages ==>                               End ==>                               VSM Delay in Days ==>
Manifest Copies ==>                               User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==>                               Repeat ==>                               FCB ==>                               Hold ==>
Fiche Class(Y/N) ==>                               Priority ==>                               Form ==>
Specific Class ==>                               Copies ==>                               Writer ==>
Align/Verify (A/V) ==>                               Destination ==>                               ,
Printer Options:
Flash ==>                               Burst (Y/N)==>                               TRC ==>
Modify ==>                               Count ==>                               CHARS ==>
OPTCD (J) ==>                               Copygroups ==>
AFP Mode:
Output/IAFP ==>                               Page Format ==>                               Copygroup ==>
    
```

Use the following procedure to send control information to an AFP mode printer:

1. Set up the AFP Mode fields.

Access the Report Recipient Definition Screen, Report (VRDMU130) for your targeted recipient and enter an Output/IAFP name, a Page Format name, and a Copygroup name in the AFP Mode fields at the bottom of the screen.

2. Set up the JCL.

Put an output statement (with the same name) in the JCL of the job that distributes the output to this recipient. This output statement is in the CADSDISP procedure if you are using internal distribution.

You may want to include the output statement in the above procedure so that it is in place if you decide to change from one mode to another. In the output statement, refer to a PAGEDEF and a FORMDEF as follows:

- Verify that the PAGEDEF you use contains the Page Format referred to on the Report Recipient Definition Screen, Reports (VRDMU130). Also verify that the PAGEDEF contains another PAGE-FORMAT called CAIPFMT.

- Verify that the FORMDEF contains the Copygroup referred to on the Report Recipient Definition Screen, Reports (VRDMU130). Also verify that the FORMDEF contains another COPY-GROUP called CAICPYGR.

CA Dispatch inserts a hexadecimal 5A control character (indicating structured text line) in front of the PAGE-FORMAT and COPY-GROUP. This indicates to the printer that control information is coming, and is not to be printed as report data.

Setting up for AFP Mode Printing

On the Report Recipient Definition Screen, Reports (VRDMU130), the lower section of the screen contains fields to be used for AFP mode printing definitions.

AFP MODE: Output/IAFP ==>	Page Format ==>	Copygroup ==>
------------------------------	-----------------	---------------

AFP Mode printing uses the Output/IAFP name, Page Format, and Copygroup fields.

Output/IAFP

Enter the name you use in the JCL output statement in the JCL jobstream of the output procedure. Our example uses the OUTPUT name OUT1.

Place the output statement in the CADSDISP procedure.

Example:

```
//BR14    EXEC PGM=IEFBR14
//CAIDC1A EXEC PGM=CAISYS01,REGION=5500K
//OUT1    OUTPUT PAGEDEF=DISPDEF,FORMDEF=DISPFD
```

For an example of the CADSDISP procedure, see the section [The CADSDISP Procedure](#) (see page 159) later in this chapter.

Page Format

Enter the name of the page format that you want to use for this recipient's copy of this report. Remember that the Page Format is a unique definition for processing a report - it contains specifications needed to format the data such as page size, fonts, and line spacing. You must already have defined this to the IBM printer within a PAGEDEF. Our example uses Page Format DEPSC.

- A PAGEDEF can be a single page-format or a collection of PAGE-FORMATS. For PAGEDEFS used by reports coming from CA Dispatch, a PAGEDEF must be a collection of PAGE-FORMATS because at least two are required: the desired PAGE-FORMAT for the report, and a PAGE-FORMAT named CAIPFMT for the separator pages.

- CAIPFMT is the hard-coded page-format name for the separator pages that CA Dispatch produces. Define the control parameters within CAIPFMT to suit your needs. This name must appear within all PAGEDEFs used by CA Dispatch.

It may help to consider a PAGEDEF as being similar to a PDS (partitioned data set) with each of the page-formats as members, as follows:

```
PAGEDEF
PAGE-FORMAT
PAGE-FORMAT
PAGE-FORMAT
CAIPFMT
```

Copygroup

Enter the name of the copygroup you want to use for this recipient's copy of this report. The copygroup is a unique definition for processing a report that contains specifications needed to position a page on a form. This includes overlays, forms flash, and data suppression. (You must already have defined this to the IBM printer within a FORMDEF.) Our example uses copygroup name DFD105.

- FORMDEF can be a single copygroup or a collection of copygroups. It is a variable name representing a storage area of the IBM printer that holds your output report copygroup definitions. For FORMDEFs used by reports coming from CA Dispatch, a FORMDEF must be a collection of copygroups because at least two are required. The desired copygroup for the report, and a copygroup named CAICPYGR for the separator pages.
- CAICPYGR is a hard coded copygroup name for the separator pages that CA Dispatch produces. Define the control parameters within CAICPYGR according to your needs. This name must appear within all FORMDEFs used by CA Dispatch.

Think of a FORMDEF as a PDS with each of the COPY-GROUPs being members:

```
FORMDEF
COPY-GROUP
COPY-GROUP
COPY-GROUP
CAICPYGR
```

When making PAGEDEFs and FORMDEFs collections rather than single PAGE-FORMATS and COPY-GROUPs, consider that there can only be one OUTPUT statement referenced per bundle. Using different OUTPUT statements causes reports to bundle separately as they are part of one dynamic allocation.

AFP MODE: Output/IAFP ==> OUT1 Page Format ==> DEPSC Copygroup ==> DFD105
--

For more information:

[Controlling Report Bundling](#) (see page 215)

Setting Up the JCL for Non-Inline AFP Mode Printing

The Report Recipient Definition Screen, Reports (VRDMU130) for this recipient contains the following:

AFP MODE: Output/IAFP ==> OUT1	Page Format ==> DEPSC	Copygroup ==> DFD105
❶	❷	❸

For this example, the following output statement is used in the JCL:

```
//OUT1 OUTPUT PAGEDEF=DISPDEF,FORMDEF=DISPFD
❶                ❷                ❸
```

For Distribution in the CADSDISP procedure, place the statement after the second EXEC statement.

Note: For an example of a CADSDISP procedure, see the section [The CADSDISP Procedure \(Internal Distribution\)](#) (see page 159) at the end of this chapter.

Printer Definitions - an Example

Control statements matching the parameters defined in CA Dispatch must already be defined to the printer.

The output statement, the PAGE-FORMAT DEPSC, the PAGEDEF, FORMDEF, COPY-GROUP, and so on, are variable names used in this example. They have no special meaning. CAIPFMT and CAICPYGR are hard-coded names that must be used. Customize these control statements for your site.

The numbers next to the statements refer to the example in the previous section.

- ④ PAGEDEF DISPDEF
 - REPLACE YES ;
 - FONT LGT10 GT10 ;
 - FONT LGT12 GT12 ;
 - SETUNITS 1 IN 1 IN ;
 - PAGEFORMAT CAIPFMT
 - WIDTH 12
 - HEIGHT 8
 - LINEONE .5 .7 ;
 - SETUNITS LINESP 8 LPI ;
 - PRINTLINE CHANNEL 1 FONT LGT12
 - POSITION MARGIN TOP REPEAT 58 ;

- ⑤ PAGEFORMAT DEPSC
 - WIDTH 12
 - HEIGHT 8 ;
 - SETUNITS LINESP 7 LPI ;
 - PRINTLINE CHANNEL 1 FONT LGT12
 - POSITION .08 .75 ;
 - PRINTLINE CHANNEL 2 FONT LGT12
 - POSITION .0 1.65
 - REPEAT 43;

PAGEFORMAT DEPSF

 - WIDTH 12
 - HEIGHT 8 ;
 - SETUNITS LINESP 7 LPI ;
 - PRINTLINE CHANNEL 1 FONT LGT10
 - POSITION .08 .75 ;
 - PRINTLINE CHANNEL 2 FONT LGT10
 - POSITION .0 1.65
 - REPEAT 43;

- ⑥ FORMDEF DISPFD
 - REPLACE YES ;
 - SETUNITS 1 IN 1 IN ;
 - COPYGROUP CAICPYGR
 - OFFSET 0 .0 ;

- ⑦ COPYGROUP DFD105
 - OFFSET 0 .0 ;

The CADSDISP Procedure

The following example displays the CADSDISP procedure set up for internal distribution.

```
//CADSDISP PROC DSHLQ='CAI.DISP',          * DATASET PREFIX
//      LOADLIB='CAI.CADSLOAD              * LOAD LIBRARY
//      OPTLIB='CAI.CADSOPTN',            * OPTION CARD LIBRARY
//      START=DSSTAR00,                   * START-UP MEMBER
//      SYSNO='S=1',                      * SYSTEM NUMBER
//      END=DSEND11                       * SHUTDOWN MEMBER
/*-----*
/* CA Dispatch
/*-----*
/*
/*      THIS PROC WILL INITIATE THE CA DISPATCH MAIN REGION
/*
/*      NOTE: 'DSSTAR00' WILL NOT AUTOSTART TASKS.
/*
/*-----*
/*      CA DISPATCH IDMS STARTUP PROGRAM
/*-----*
//BR14   EXEC PGM=IEFBR14
//CAIDC1A EXEC PGM=CAISYS01,REGION=7000K,PARM='&SYSNO'
/*-----*
/*      CA DISPATCH OUTPUT NAMES
/*
/*      IF USING INLINE AFP RESOURCES, THE "CADSOUT"
/*      OUTPUT NAME MUST MATCH THE VALUE ON CA DISPATCH
/*      SYSGEN SCREEN, VSGMU241.
/*-----*
//CADSOUT OUTPUT PAGEDEF=DUMMY,FORMDEF=DUMMY
//LINEOFF OUTPUT LINECT=0,DEFAULT=YES
/*
```

```

/**      CA DISPATCH LOAD LIBRARIES
/**
//STEPLIB DD DSN=&LOADLIB,DISP=SHR
//CDMSLIB DD DSN=&LOADLIB,DISP=SHR
/**
/**      CA DISPATCH IDMS DICTIONARY FILES
/**
//CAIDDB  DD DSN=&DSHLQ..DICTDB,DISP=SHR
//CAILOAD DD DSN=&DSHLQ..DLOddb,DISP=SHR
//CAIMDB  DD DSN=&DSHLQ..DMSGDB,DISP=SHR
//CAISDB  DD DSN=&DSHLQ..DSCRDB,DISP=SHR
//CAIQDB  DD DSN=&DSHLQ..DRUNDB,DISP=SHR
/**
/**      CA DISPATCH LOG FILES
/**      1. CAILOG - IDMS-DC ERROR MESSAGES
/**      2. DSLOG  - CA DISPATCH DISTRIBUTION ERROR MESSAGES
/**      3. PCLOG  - CA DISPATCH PC TRANSFER ERROR MESSAGES
/**
//CAILOG  DD SYSOUT=*
//DSLOG   DD SYSOUT=*
//PCLOG   DD SYSOUT=*
/**
/**      CA DISPATCH IDMS SYSTEM CONTROL AND JOURNAL FILES
/**
//CAICTL  DD DSN=&DSHLQ..SYSCTL,DISP=SHR
//CAIJRNL1 DD DSN=&DSHLQ..J1JRNL,DISP=SHR
//CAIJRNL2 DD DSN=&DSHLQ..J2JRNL,DISP=SHR
//CAIJRNL3 DD DSN=&DSHLQ..J3JRNL,DISP=SHR
//CAIJRNL4 DD DSN=&DSHLQ..J4JRNL,DISP=SHR
//SYSJRNL DD DUMMY
/**
/**      CA DISPATCH IDMS DATA BASE FILES
/**
//AR      DD DSN=&DSHLQ..AR,DISP=SHR
//ARM     DD DSN=&DSHLQ..ARM,DISP=SHR
//DQ      DD DSN=&DSHLQ..DQ,DISP=SHR
//HELPTXT DD DSN=&DSHLQ..HELPTXT,DISP=SHR
//OQ      DD DSN=&DSHLQ..OQ,DISP=SHR
//OV      DD DSN=&DSHLQ..OV,DISP=SHR
//RD      DD DSN=&DSHLQ..RD,DISP=SHR
//RDM     DD DSN=&DSHLQ..RDM,DISP=SHR
//RDS     DD DSN=&DSHLQ..RDS,DISP=SHR
//RDX     DD DSN=&DSHLQ..RDX,DISP=SHR
//SYSGEN  DD DSN=&DSHLQ..SYSGEN,DISP=SHR
/**

```



```
/**      CA DISPATCH IDMS BATCH SIMULATOR OPTION FILES
/**
/**SIMIN1 DD DSN=&OPTLIB(&START),DISP=SHR
/**SIMOUT1 DD DUMMY,DCB=(RECFM=FBA,LRECL=121,BLKSIZE=1210)
/**SIMIN2 DD DSN=&OPTLIB(&END),DISP=SHR
/**SIMOUT2 DD DUMMY,DCB=(RECFM=FBA,LRECL=121,BLKSIZE=1210)
/**
/**      CA DISPATCH SYSMDUMP FILES
/**
/**      BY DEFAULT CA DISPATCH SHOULD TAKE DUMPS TO YOUR SYS1.DUMPX
/**      DATASETS. HOWEVER, IF THIS IS UNDESIRABLE, PLEASE
/**      USE THE SYSMDUMP DD CARD BELOW.
/**
/**SYSDUMP DD DSN=****,****,DCB=(RECFM=F,LRECL=4160,BLKSIZE=4160), X
/**          DSORG=PS,SPACE=(4160,(****,****),RLSE),DISP=SHR
/**
/**      CA DISPATCH SYSUDUMP FILES
/**
/**      NOTE THAT THE FOLLOWING, SEEMINGLY DUPLICATE LINES,
/**      ARE NOT IN ERROR. THEY ASSURE THAT MULTIPLE DUMPS
/**      WILL BE INDIVIDUALLY RELEASED TO JES.
/**
/**      NOTE: SYSUDUMP MAY NOT PROVIDE ALL REQUIRED
/**            INFORMATION FOR PROBLEM DETERMINATION.
/**
```

```
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
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//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYSUDUMP DD SYSOUT=*,FREE=CLOSE
//SYMDUMP DD DUMMY
//*
//*      CA DISPATCH EXTERNAL BATCH OPTION FILES AND
//*      THE INTERNAL READER FILES THEY ARE SUBMITTED
//*      THROUGH.
//*
//JESRDR DD SYSOUT=(A,INTRDR)
//TAPERDR DD SYSOUT=(A,INTRDR)
//ACIFRDR DD SYSOUT=(A,INTRDR)
//AJNLJOB DD DSN=&JCLLIB(DSEXJNL1),DISP=SHR
//TLMJCL DD DSN=&JCLLIB(DSEXTLMS),DISP=SHR
//ARCH1JOB DD DSN=&JCLLIB(DSEXXTAR),DISP=SHR
//ARCH2JOB DD DSN=&JCLLIB(DSEXSTR2),DISP=SHR
//ARCH3JOB DD DSN=&JCLLIB(DSEXSTR3),DISP=SHR
//EXTRJOB DD DSN=&JCLLIB(DSEXXTEX),DISP=SHR
//*
//*      CA DISPATCH MISCELLANEOUS FILES
//*
//SYSOUT DD SYSOUT=*,DCB=(RECFM=VBA,LRECL=137,BLKSIZE=1370)
//LOCKAR DD DSN=&DSDLQ..LOCK.AR,DISP=OLD
//LOCKARM DD DSN=&DSDLQ..LOCK.ARM,DISP=OLD
//LOCKOV DD DSN=&DSDLQ..LOCK.OV,DISP=OLD
//LOCKRD DD DSN=&DSDLQ..LOCK.RD,DISP=OLD
//LOCKRDS DD DSN=&DSDLQ..LOCK.RDS,DISP=OLD
//LOCKSG DD DSN=&DSDLQ..LOCK.SYSGEN,DISP=OLD
//LOCKHT DD DSN=&DSDLQ..LOCK.HELPTXT,DISP=OLD
//ABNLIGNR DD DUMMY
//*-----*
```

Chapter 9: Using Xerox Printers and DJDEs

This chapter addresses questions and problems that you may encounter when using Xerox printers and DJDEs. Topics and questions include:

- Preparation checklist for Xerox printing
- Terms and concepts
- Tailoring the Default Xerox IDEN/Default Screen (VSGMU170)
- Customizing a recipient's report
- The purpose of the Xerox DJDE Embedded field
- Special considerations for the 4075 Printer Series
- Special considerations for using the DJDE Copies statement
- Troubleshooting

Preparation Checklist

If you are a new user of CA Dispatch, make sure to:

1. Review the instructions in the chapter "[Getting Your First Report Processed](#) (see page 49)".
2. Allow CA Dispatch to process your report by sending the output to a printer that does not use DJDEs to ensure that you are satisfied with the basic processing options.
3. Read this chapter to help you implement the use of Xerox printers that use DJDEs with CA Dispatch.

Terms and Concepts

- **JDE**—Job Descriptor Entry
- **DJDEs**—Dynamic Job Descriptor Entries; the DJDE allows you to override, from within the body of data (your report), the JDEs defined to your printer.

These terms represent printer control information meant specifically for Xerox printers. Xerox printers that support DJDEs have memory and libraries where this information is stored.

Tailoring the Default Xerox IDEN/Default Screen (VSGMU170)

Use this screen to tailor the Sysgen parameters for Xerox printing.

```

VSGMU170 ----- Default Xerox IDEN/Default Screen -----
COMMAND ==>
  X1 DJDE Freeform Extension      DEL Delete Defaults

IDEN Definition:
Default JDE Id ==>                Offset ==>                OPRINFO ==>                Skip ==>
Prefix ==>
==>

Default Separator Page Definition:
JDE Id ==>                        Forms ==>                , ,
JDL Id ==>                        Bform ==>                , ,
Duplex ==>                        Modify ==>                , ,
Copies ==>                        Shift ==>                , ,
Format ==>                        Side ==>                ,
Collate ==>                       Number ==>                , , ,
Feed ==>                          Begin ==>                , , ,
Pmode ==>                         Data ==>                ,
TOF ==>                           Fontindex ==>                ,
BOF ==>                           Margin ==>                ,
Overprint ==>
Assign ==>                ,( ) ==>                ,( )
==>                ,( ) ==>                ,( )
    
```

You can access the Default Xerox IDEN/Default Screen (VSGMU170) by selecting Option 7 on the Sysgen Option Menu (9.7).

This screen has the following sections:

- The IDEN Definition defines the Xerox IDEN information to CA Dispatch.
- Default Separator Page Definition defines the default Dynamic Job Descriptor Entries (DJDEs) for the separator pages.

IDEN Definition

This definition tells the printer where (in the data) the DJDEs are found. The IDEN information within CA Dispatch is created based on the data defined to the Xerox printer. The Prefix values should be the same, but both the Offset and Skip parameters should be set (in CA Dispatch) at **one greater** than whatever value was defined to the Xerox.

Example:

```
iden prefix='$DJDE',skip=8,offset=2,oprinfo=no
```

Perform the following to set these definitions:

1. From the Report Distribution Option Menu (VRDMI000) enter Option 9 (SYSGEN - View, Update Sysgen Information), and press **Enter**.
2. From the Sysgen Option Menu (VSGMII00) enter Option 7, (IDEN DEFAULTS, Define Xerox DJDE Default Options), and press **Enter**.
3. On the Default Xerox IDEN/Default Screen (VSGMU170) enter:
 - Prefix ==> **\$DJDE**
 - Offset ==> **3**
 - OPRINFO==> **N**
 - Skip ==> **9**

```

VSGMU170 ----- Default Xerox IDEN/Default Screen -----
COMMAND ==>
  X1 DJDE Freeform Extension      DEL Delete Defaults
IDEN Definition:
Default JDE Id ==>                Offset ==> 3      OPRINFO ==> N      Skip ==> 9
Prefix           ==> $DJDE
    
```

The values for Skip and Offset must be one greater for CA Dispatch than for the Xerox printer because Xerox counts columns beginning at zero, while CA Dispatch begins at one. If there were 120 columns, Xerox would count from 0–119, and CA Dispatch from 1–120.

This example shows how these values look in the body of a report:

```

OFFSET SKIP
(3)    (9)
|      |
V      V
bb$DJDEbJDE=DFLT,;    [b indicates a blank space]
|      |
|      |
PREFIX
    
```

Following are descriptions of these fields:

Offset

This value tells the Xerox printer in what column of each line to search for the DJDE prefix. The prefix is a character string that you have specified.

Important! If the OFFSET on the Xerox is 0, the OFFSET in CA Dispatch is 1.

Skip

This value tells the printer where on the line the actual DJDE begins. The default is 1.

Important! If the Skip on the Xerox is 1, the SKIP in CA Dispatch should be 2.

Prefix

The DJDE prefix is a byte string of up to 80 characters. For a DJDE record to be processed, the prefix string must be contained on all DJDE records in the input data stream. There is no default for this field.

Default Separator Page Definition

This definition has the following purposes:

- To control how the separator pages print.

Use this screen to establish DJDEs that control the printing of separator pages for bundles that are printed on Xerox printers.

- To reset the DJDEs between reports.

When deciding the Default Separator Page Definitions to set for the separator pages in a bundle, use as many of the DJDEs as possible. Even if the DJDEs are set in your system as defaults, set them again here.

The reason you define the maximum number of DJDEs possible for the separator pages is that CA Dispatch has the ability to group reports that are going to the same maildrop together in bundles. Therefore, one bundle can contain multiple reports. For a Xerox printer, if the first report sets a DJDE that is not reset by the default DJDEs, the second report prints with this characteristic. This may not be what the recipient wants. By setting as many of the default separator page definitions as possible, you decrease the chance of this occurring.

Customizing a Recipient's Report

Now that the Sysgen is tailored, customize the report (that was previously run through CA Dispatch) to print it properly on a Xerox printer that uses DJDEs.

Access the Report Distribution Option Menu (VRDMI000) and do the following:

1. Enter **Option 1** (REPORT DEFINITION, View, Update Report and Assoc Recipient Data) on the Command line and press **Enter** to access the Report Base Definition Screen (VRDMU110).
2. On the Report Base Definition Screen, enter **X3** on the Command line to access the Report Recipient Selection Screen (VRDMI120).

3. Enter **S** next to a recipient and press **Enter** to select that recipient to receive output destined for a Xerox printer that uses DJDEs.

This brings up the Report Recipient Definition Screen, Reports (VRDMU130).

4. Verify that the Sysout Definitions (Normal Sysout/Specific Class/Destination) are correct to ensure that the output gets to the correct printer.
5. Enter **X1** on the Command line to access the Xerox DJDE Screen (VRDMU131).

```

VRDMU131 ----- Xerox DJDE Screen -----
COMMAND =>
  X1 DJDE Extension  X2 DJDE Freeform  ADD Add DJDE  DEL Delete DJDE
-----
Report:              Jobname:              Recipient:
JDE Id =>              Dept =>
JDL Id =>              Forms =>      ,      ,
Duplex =>              Bform =>     ,      ,
Copies =>              Modify =>    ,      ,
Format =>              Shift =>     ,      ,
Collate =>             Side =>      ,
Feed =>               Number =>   ,      ,      ,
Pmode =>              Begin =>    ,      ,      ,
Fonts:
=>      ,      ,      =>      ,      ,      =>      ,      ,
=>      ,      ,      =>      ,      ,      =>      ,      ,
=>      ,      ,      =>      ,      ,      =>      ,      ,
=>      ,      ,      =>      ,      ,      =>      ,      ,
=>      ,      ,      =>      ,      ,      =>      ,      ,
=>      ,      ,      =>      ,      ,      =>      ,      ,
  
```

On this screen, the default JDE ID that you defined in the Default Xerox IDEN/Default Screen (VSGMU170) appears in the JDE ID field.

6. Do *one* of the following:
 - To inform CA Dispatch that this report is going to a Xerox printer that uses DJDEs, press **Enter** to update the screen.

Note: If you do not want to do any updating, press **PF2** to Cancel and exit the screen. If you press **PF3** you update the screen and attach the JDE ID to the recipient's report.
 - To override the default JDE ID or override specific DJDEs, enter the JDE ID that you want used for this report and enter the specific DJDEs on this screen or on the Xerox DJDE Extension Screen (VRDMU132).

The Purpose of the Xerox DJDE Embedded Field

To call a user exit each time you encounter an embedded DJDE, use the Xerox DJDE Embedded (Y/N) field on the Report Base Definition Screen (VRDMU110).

Enter **Y** in the Xerox DJDE Embedded field if you want the user exit RDFGEX02 called each time an embedded DJDE is encountered while CA Dispatch is processing the report for print.

```
VRDMU110----- Report Base Definition Screen -----
COMMAND ==>
X1 Rpt Events          X4 Add Fiche Rcp      X7 0lv                X10 Reprint
X2 #1 Fiche Rcp       X5 Add Rpt Recip     X8 MsgClass           ADD Report
X3 Recip List         X6 Tracking          X9 Archive Ret        DEL Report
-----
XEROX Options:  Embedded DJDE  (Y/N) ==> Y

Report Description    ==>
User Numeric Field   ==>
Special Instructions  ==>
```

Note: This field is not interrogating for the presence of DJDEs.

You can allow the exit to verify or change the DJDE. This prevents individuals from slipping overrides into the body of a report to override site standards. For example, a site may place a limit on the number of report copies. Copies can be specified through DJDEs. The exit can check the DJDE Copies parameter.

Notes:

- You can also use exit RDFGEX02 to strip embedded DJDEs from a report. It is more convenient to have the DJDEs defined by a CA Dispatch screen than to have them embedded - they can be easily changed by modifying a field on a screen. When they are embedded, the user may have to submit a change control to have a program modified.
- If Y is specified, and you are using report recipient page selection, the last continuous block of embedded DJDE control records from unselected pages will also be retained within the recipients view of the report. Preserve these DJDEs within the report to allow it to print correctly.

Special Considerations of the 4075 Printer Series

Xerox 4075 printers require customization to be able to handle certain DJDEs. To establish compatibility between CA Dispatch and the 4075 series, contact Xerox support for the necessary modifications.

The prefix used to identify a DJDE is hard-coded in the 4075 and has to be specified in the Prefix field on the VRDMU110 screen as `%%%DJDE`.

Special Considerations for Using DJDE Copies

CA Dispatch builds data sets that contain multiple DJDE packets. Since a bundle starts with separator pages, the first packet of DJDEs passed down is for the Maildrop Start and the Recipient Start separator pages. This is followed by a packet of DJDEs for the report, the report itself and then another set of DJDEs for the End Separator pages.

The Xerox printer only honors the first DJDE copies unless it has been told that the data set contains multiple reports. The copies from the default DJDE packet are always first; DJDE copies specified at the report recipient level are not honored.

To get the DJDE Copies function to work at the recipient level, the user must let the printer know that there is a series of reports in a single data set. Tell the printer that reports have been stacked using the RSTACK statement within the JDE. The RSTACK statement allows an end-of-report definition. A single data set can be treated as multiple reports. Multiple DJDE Copies parameters can be defined within a bundle.

The following example defines a RSTACK within a JDE:

```
CADISP: TABLE CONSTANT='constant character string for your site'  
HDR2: CRITERIA CONSTANT=(2,14,EQ,CADISP,LINENUM=(3,3)  
RSTACK TEST=HDR2,DELIMITER=NO
```

CADISP

Shows the character string that is used as a constant to indicate the beginning of a new report.

HDR2

Specifies that the constant to look for is CADISP on line 3, column 3.

RSTACK TEST

Indicates that this job has multiple reports and that HDR2 should be checked.

Troubleshooting

Following are some common questions you might have about Xerox printers and DJDEs.

Why are DJDEs printing?

When DJDEs are printing, check the IDEN information; most likely it is not set up correctly.

Why are DJDEs recognized only when processed outside of CA Dispatch?

DJDEs that are embedded in the report are printing when the report is processed by CA Dispatch, but when printed outside of CA Dispatch, the printer uses them as control characters.

If reports coming into CA Dispatch have no carriage control, CA Dispatch inserts carriage controls into them. Inserting carriage controls moves the report data one column to the right. This shifts the IDEN information that the Xerox printer is looking for. Since the control characters are no longer where the printer expects them to be, they are seen as data and are printed.

Check the DCB information for the report and verify that carriage controls are specified. For example, an FB or VB in the DCB implies no carriage control. If CA Dispatch receives that information, carriage control is added, shifting all data in the report by one column. Correct the DCB information that is input to the report.

Why is the copies DJDE not being honored?

The most likely cause is that the RSTACK test is not being used or is not being used correctly. For more information, see the section Special Considerations for Using DJDE Copies earlier in this chapter.

Can I use a DJDE option not listed on the DJDE screens?

You may use a DJDE option that is not listed on the DJDE screens. Code the desired DJDE option to the DJDE you are calling.

Can I get multiple copies without using Xerox DJDE copies?

If you are not using duplex printing (printing on both sides of the paper), you can use the REPEAT option on the Report Recipient Definition Screen, Reports (VRDMU130). This requires processing the report multiple times, based on the number of REPEAT's specified. Therefore, it can have an impact on performance.

Chapter 10: Getting Print Times/Bundle Status

This chapter discusses techniques you can use to get the information you require on the Report Selection and Status Screen (VRDMI400). Topics include:

- Preparation checklist for obtaining print times
- Fundamentals - what you need to know
- Answers to the questions:
 - Why I am not getting print times?
 - Why does BP (bundle printed) not show in the Bundle Status field on the Report Selection and Status Screen (VRDMI400)?
 - My report printed, so why is the status of that bundle still BQ?

Preparation Checklist

Use the following preparation checklist for obtaining print times:

- The report/jobname is defined to the database on the Report Base Definition Screen (VRDMU110).
- On the Report Base Definition Screen (VRDMU110), you entered **Y** in the Print field.
- On at least one Report Recipient Definition Screen, Reports (VRDMU130), you entered **Y** in the Recipient: Print field.
- CA Dispatch processed the report and released it to JES.

When you access the Report Selection and Status Screen (VRDMI400), BQ (Bundle Queued to JES) appears in the ST (Status) column.

After the report has actually printed, the report's status changes from BQ to BP (Bundle Printed).

Note: If reports have printed and they remain in BQ status, you are not getting print times.

Fundamentals - What You Need to Know

The information displayed on the Report Selection and Status Screen (VRDMI400) is obtained through SMF (System Management Facilities) records.

```

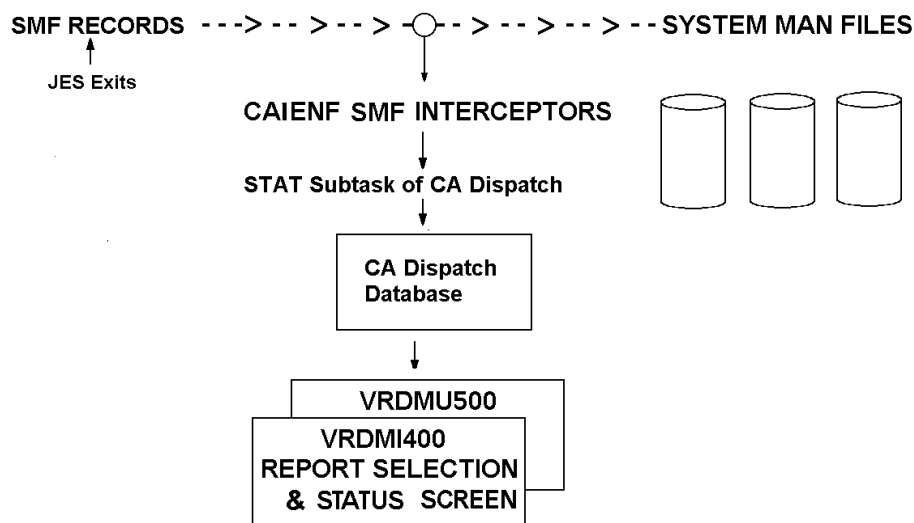
VRDMI400----- Report Selection And Status Screen -----
COMMAND ==>
  X1 Job/Rpt   X2 Bundle   X3 Active Bundle   X4 Active Recipient
-----
Jobname ==>           Job # ==>           Bundle ==>           Mode ==> BQ
Report ==>           Max Time ==>           :   Dest ==>           ,
JES Command ==>

Pri C Jobname Report   Job # St Date   Time Bundle Destination
244 A ABCSCJOB NTMDWC  2855 BQ 06202009 1342 AA1AE4AS 3136 USLAGLP9
211 D NOGGSAA1 NTMDWC  1375 BP 06192009 1735 A9F4BEAP 2138 USLAGLP9
041 A NOGGSAA5 LARPT499 0879 BQ 06192009 1642 A9F489AN 2451 USLAGLP9
248 A NOGGSBZ  MASTR2  2981 BQ 05132009 1701 B0AB10AD 3422 USLAGLP9
001 A ORDRJOB  MASTER   2868 BP 05112009 1926 CF9A7EAT 3422 USLAGLP9
    
```

SMF records are cut when certain events occur. For example, 20=job initiation, 5=job termination, 26=job purge. These records are posted to the System MAN Files. The SMF interceptors, installed through CAIENF, intercept these records.

The Status subtask of CA Dispatch asks CAIENF for some of its events and posts the information to the VRDMI400 screen.

The following diagram shows the components and the flow of information:



The following processes are involved in getting print times, which are obtained from SMF type 144 records:

- On the way to the MAN files, the record is intercepted and passed to CAIENF, which then writes it to its own database.
- The Status task asks CAIENF for those events and updates the database with the time that the bundle was printed. This time parameter is posted to the Report Selection and Status Screen (VRDMI400).

Note: When print times are not recorded to the database, one or more of the processes is not functioning correctly.

Troubleshooting

Following are possible questions you might have relating to print times and bundle status

Why am I not getting print times?

After a report has printed, BP should appear in the ST (Status) column. When CA Dispatch releases a report back to the JES queue, the status is BQ (bundle queued). Once the report has printed, it goes from BQ to BP (bundle printed) status. If the reports have printed and the status screen shows a status of BQ, you are not getting print times.

If you analyze the three processes involved, it helps you to determine why you are not getting print times on the Report Selection and Status Screen (VRDMI400). You can get print times from SMF-type 6 records. The process is as follows:

1. The JES2 or JES3 print process writes an SMF-type 6 record for each processed report. This record is passed to the SMF MAN files and intercepted by the CAIENF intercept.
2. The CAIENF intercept creates a CAIENF JOBPRINT event for each SMF-type 6 intercepted record.
3. The CA Dispatch STATUS task looks for these CAIENF events, and updates the database with the time that the bundle was printed.

Use the following steps to analyze why print times are not being recorded:

1. Be sure that the CAIENF address space is up and running. Make sure the CAIENF JOBPRINT events are collected and stored in the CAIENF database.

Use the CAIENF EVENT (JOBPRINT) to give you the status of this event. (See the *CA Common Services Administrator Guide*.)

2. Be sure that the STATUS task is active.
Sign on to CA Dispatch and issue TS (task status) at the Enter Next Task Code prompt to display all active tasks. If RDBGSTAT does not appear in the display, the STATUS task is not active. Issue the S STAT command to start the task.
3. Determine if SMF-type 6 records are being recorded:
 - a. Execute a job and have CA Dispatch process the report.
 - b. Release and print the resulting bundle.
 - c. The execution JCL is in the CAI.CADSJCL library; select member DSEXENF6, which executes the procedure CADSENF6.
 - d. Submit DSEXENF6. This prints all the CAIENF JOBPRINT events currently recorded on the CAIENF database.
4. Check the CA Dispatch joblog for the message: DC970320 mod=RDFGSTAT Fct=Control – Checkpoint = *yyddttttttt*. This message provides the Julian date and time of the last checkpoint into the ENF Event database.
 - If this date is more than a few hours into the past, our recovery of events has probably not caught up to the time the bundle was released. Keep the Status task running to catch up
 - If the DC970320 message does not appear, you have probably cleared the checkpoint. If the bundle was released prior to this, the BP status will not be received.

Why is my report not appearing on this screen?

- If the job was run recently, the bundle may still be open waiting for time or pages to be exceeded. From the Report Distribution Option Menu (VRDMI000), investigate Option 8 (OPERATIONS - Subtask Status, RIDF and Active Bundle Queue).
- If the job was run a while ago, the status record may have been purged through the batch job that runs with the PURGE command.
- If there was no report name on the External Writer field of the JCL of the job that produced the report, and the default report name was defined to the database, that is the way it appears on this screen. For example, if the default report name is defined to the database (VSGMU110) as SYSDATA, then Jobname/SYSDATA is how this report shows on this screen.
- If the status area of the database has not been maintained, it could be full. Run DSEXSTAT (the file utilization report) to learn how full the RD-STAT area is. If necessary clean it out with the batch PURGE.

My report printed - Why is the status of that bundle still BQ?

- Did the report print by a third-party software?

If it did, any third-party software which does not create SMF record 6 does not permit CA Dispatch to be aware of the actual printing of the bundle.

- Was the printer managed by software (JES or other) running on the same system as CA Dispatch?

If it was not, see the topic VTAM Bridge in the *CA Systems Programmer Guide*.

Chapter 11: Using Page Selection

This chapter discusses page selection in CA Dispatch.

Now that you have defined, printed, archived, and sent your reports to Online Viewing, you can use page selection, one of CA Dispatch's most powerful features.

Page selection sends only the pages you select to your recipients.

Topics covered in this chapter include:

- Page selection
- Page flags
- The test field
- Reusable code
- Page selection tips
- Troubleshooting

Page Selection

If you used the worksheets in the "[Planning Implementation](#) (see page 13)" chapter, refer to them now to determine which pages will be designated for your report recipients and Online Viewing users.

If you are a new user and have not already read the chapter "[Getting Your First Report Processed](#) (see page 49)", do so now. Our page selection examples continue with the example (report RDUTILIZ, jobname DSEXSTAT) that we worked with in that chapter.

At this point, the report has been defined to the database with recipients. The Online Viewing flag was set at the report level and at the recipient level. You are ready to define pages.

Use the Report Recipient Definition Screen, Pages (VRDMU140) to define the logic that allows CA Dispatch to test report text for the presence or absence of character strings.

```
VRDMU140----- Report Recipient Definition Screen, Pages -----  
  
COMMAND ==>  
      X1 Online Viewing   X2 OLV w/New Page Def   X3 OLV w/Curr Page Def  
Report:                    Jobname: -----  
Recipient:                  Maildrop:  
Description:  
  Report Pages (ALL, BKT) ==>      or:  
Number  Page Line  Column  Test  Text  
=>      =>      =>      =>      =>  
=>      =>      =>      =>      =>  
=>      =>      =>      =>      =>
```

Based on the results of the tests that you design, a page is either selected or omitted from the recipient's version of the report.

Follow these steps to test and use the page selection function for report name: RDUTILIZ, jobname DSEXSTAT:

1. Sign on to CA Dispatch and access the Report Distribution Option Menu (VRDM1000).
2. In the Optional Names section, enter RDUTILIZ in Report and DSEXSTAT in Jobname, enter 1 on the Command line, and press **Enter**.
3. From the Report Base Definition Screen (VRDMU110) enter X3 on the Command Line to access the recipient list, and press **Enter** to access the Report Recipient Selection Screen (VRDMI120).
4. Enter S in the Opt field to select a recipient, and press **Enter**.
Now you are positioned at the report recipient definition.
5. From the Report Recipient Definition Screen, Reports (VRDMU130), enter X2 (Def Pages) on the Command line and press Enter to access the Report Recipient Definition Screen, Pages (VRDMU140).
6. Enter X1 on the Command line to access Online Viewing, and press **Enter** to access the View Report Selection Screen (VOVMI010).
7. Enter S next to the report RDUTILIZ DSEXSTAT to select it for Online Viewing, and press **Enter**.
Now you arrive at the Online Viewing Screen for Report (VOVMI100).
8. Use the FIND command to find the first occurrence of your text string, as follows:
 - a. Enter F 'FILE UTILIZATION' and press Enter. Use single quotes around your text string because it contains embedded blanks.
 - b. After you press **Enter**, the first occurrence of the text string is highlighted. You may have to shift the page view to the right to see it.

9. Now enter L (for LOCATE) on the Command line. Move your cursor under the first letter of the text string, and press **Enter**.

The line and column of the text string are highlighted in the top right corner of your screen. In our example, Line 3 and Column 76 are the location of the beginning of the text.

10. Press **PF3** twice to return to the Report Recipient Definition Screen, Pages (VRDMU140).

Notice that the line and column information is carried back to this screen.

11. Blank out the word ALL. The default is to receive all of the report.

Enter your page selection criteria as follows:

- a. Enter S in the Page column to indicate that you want to select any page that meets the text criteria.
- b. Enter 3 in the Line column.
- c. Enter 76 in the Column column.
- d. Enter EQ (for equal) in the Test column.
- e. Enter FILE UTILIZATION in the Text column.

12. Now you can test your new criteria in Online Viewing. Enter X2 (OLV W/New Page Def) on the Command line, and press **Enter**.

At this point, you should be back on the Online Viewing Screen for Report (VOVMI100). Only those pages that have FILE UTILIZATION positioned at Line 3, Column 76 should be viewable.

Page selection can be as simple as the above example or very complex, requiring several pages to enter your selection criteria, depending on your needs.

Page Flags

A page flag indicates how the page definition on that line should be handled.

Blank

A blank specified for the page flag indicates continuing the definition begun on the previous line. This indicates an 'and' condition:

Example:

Page	Line	Column	Test	Text
Y	22	35	EQ	'DEPARTMENT 17'
	28	45	EQ	TOTAL

The displayed page selection criteria translates to: Print every page that occurs with a value on line 22, column 35 equal to the text string DEPARTMENT 17, and has the word TOTAL on line 28, column 45.

D

Specifying D for the page flag indicates deleting this page definition. If you delete a line with an S page flag indicating the start of a page range, then you must also delete the corresponding E or X.

S

Specifying S for the page flag indicates starting to select a range of pages of this report for this recipient with the first page that meets the selection criteria. CA Dispatch searches every page until it finds the starting criteria. Then it searches every succeeding page until it finds the end criteria. If the end criterion is not found, the recipient receives the rest of the report.

Example:

Page	Line	Column	Test	Text
S	25	40	EQ	45

The displayed page selection criteria translates to: start selecting a range of pages of this report for this recipient, beginning with the page that has the text '45' on line 25, column 40.

E

Specifying E for the page flag indicates ending the range of pages with the first page to meet this test. Include the page that meets the end criterion.

Example:

Page	Line	Column	Test	Text
E	25	40	GT	52

The displayed page selection criteria translates to: stop selecting pages of this report for this recipient when the value on line 25, column 40 is greater than 52, and INCLUDE the page that has the value greater than 52.

X

Specifying an X in the page flag field indicates ending the range of pages with the first page to meet this criterion, and EXCLUDE this page.

Example:

Page	Line	Column	Test	Text
X	25	40	GT	45

The displayed page selection criteria translates to: stop selecting pages of this report, for this recipient, when the value on line 25, column 40 is greater than 45. Exclude the page whose value exceeded 45 in that location.

The TEST Field

The following values can be entered, and the code for page selection can be created so as to be reusable.

Values That Can Be Entered

This field must contain one of the following test codes:

- EQ—Equal
- GT—Greater than
- GE—Greater than or equal to
- NE—Not equal
- LT—Less than
- LE—Less than or equal to

Reusable Code

The code for page selection is reusable. Once a criterion has been found, CA Dispatch continues to search the entire report for a reoccurrence.

Example:

Page	Line	Column	Test	Text
S	8	50	EQ	'DEPARTMENT 17'
E	55	50	EQ	'TOTAL: DEPARTMENT 17'

The displayed page selection criteria tells CA Dispatch to start selecting pages of this report for this recipient with the page that has the character string DEPARTMENT 17 on line 8, column 50, and to stop selecting pages of this report with the page that has the words TOTAL: DEPARTMENT 17 on line 55, column 50.

If CA Dispatch has finished selecting the range of pages and encounters the words DEPARTMENT 17 on line 8 column 50 again, then it once more begins selecting pages of this report for this recipient. It continues to do so, until the end criterion is once more encountered.

Non-Selected Pages

If you must keep records (for legal or corporate purposes) of every page of the report, but not all the pages, are elected among all the recipients, you can define a single recipient to receive all the non-selected pages. Specify BKT instead of ALL in the Entire Report field.

Page Selection Tips

When using page selection, consider the following:

- This is PAGE SELECTION, not line selection—if the criteria are met, the entire page is selected.
- The START and END criteria cannot be on the same page.
- If the text contains embedded blanks, enclose the text string in single quotes. However, if the blanks are at the end of the string, they are not considered.

For example, to select all pages that have the value 310 on line 15 column 70, enter:

```
Y 15 70 EQ '310 ' (note the embedded blank at the end)
```

You may get pages selected that have 3100, 3101, 3102...3109, 310a, and so forth, at that line and column.

Enter the following to achieve the desired results:

Y 15 70 GE '310 ' (note the embedded blank at the end)

15 70 LE '3100 ' (note the embedded blank at the end)

- If the END criteria is not found or not specified, the recipient receives the remainder of the report.
- Page selection does not cause multiple passes or processing of a report.
- When in INSERT mode, you can insert new page selection criteria on the Report Recipient Definition Screen, Pages (VRDMU140).
- To determine the line and column for the text string to use for page selection criteria, always send the report to Online Viewing.

As the administrator, you have access to the report through the Online Viewing Screen for Report (VOVMI100) where you can see the entire report. Locate your text string as follows:

1. Find the first occurrence of your text string in the report.
2. Enter L on the Command line.
3. Move the cursor to the beginning of the string, and press **Enter**.

A message appears at the top of the screen indicating the line and column of the text.

Examples

Following are examples of page selection:

Example 1

Recipient A needs to select the pages that have no data on a certain line and column, and Recipient B needs pages that have any data in that line and column. How can you set up the criteria for recipients A and B?

For Recipient A:

Page	Line	Column	Test	Text
Y	25	10	EQ	' '

For Recipient B:

Page	Line	Column	Test	Text
Y	25	10	GT	' '

Example 2

A report is produced with a user ID that appears on line 1, column 171. The ID varies throughout the report (USER01, USER02, USER03, and so on), but the location is consistent. Recipients 1, 2 and 3 have all received their selected pages. How can you set up a report to receive the balance of the report, the pages that were not sent to anyone?

For Recipient 1:

Page	Line	Column	Test	Text
Y	1	171	EQ	USER01

For Recipient 2:

Page	Line	Column	Test	Text
Y	1	171	EQ	USER02

For Recipient 3:

Page	Line	Column	Test	Text
Y	1	171	EQ	USER03

For Recipient 4:

Page	Line	Column	Test	Text
Y	1	171	EQ	USER01
	1	171	EQ	USER02
	1	171	EQ	USER03

Troubleshooting

Following are possible questions you might have relating to page selection.

What if the Location of the Text String Varies?

If you cannot depend on the text string being on the same line each time the report is generated, you have the option of specifying '999' in the LINE field. Specifying '999' causes every line of the report to be scanned in the specified column.

Note: If you use 999 in the LINE column and combine that with NE (Not Equal), CA Dispatch searches every line of the report for any value other than what was specified in the TEXT field. It is likely that at least one line on every page has a value that is not equal to the TEXT. Using the combination of 999/NE often results in the recipient getting the entire report.

Important! Performance can be affected if CA Dispatch must scan every line of a report.

Can We Define Page Selection With Mixed Case for Output to Lasers

With CA Dispatch, you can obtain page selection with mixed case criteria text. As the default, all terminals are set in upper case, and they should be that way for most functions. However, to reset a terminal temporarily, enter the following command from the Enter Next Task Code prompt:

```
DCUF SET UPLOW
```

Page selection criteria entered on the Report Recipient Definition Screen, Pages (VRDMU140) on that terminal will remain in mixed case. After you complete the database updates, reset the terminal using:

```
DCUF SET UPPER
```

Note: CA Dispatch commands are all in upper case (for example, S STAT). If you do not reset your terminal, your commands will not be recognized. If the selection is to be changed later, set UPLOW before entering the page selection screen.

Can I Use the Batch Load/Unload Utility to Modify Page Selection Criteria?

You can use the batch load/unload utility to modify page selection criteria. Review topic [Using DSEXLODL for Page Selection](#) (see page 274) in Chapter 18, Using the Database Load/Unload Utility DSEXLODL in this guide.

Can I Copy Page Selection Criteria Between Report Recipients?

You can copy the page selection criteria from one report recipient to another recipient of the same report. Do the following:

1. Access the Report Recipient Selection Screen (VRDMI120).
2. Enter S next to a report recipient and press ENTER to access the Report Recipient Definition Screen (VRDMU130), then do the following:
 - a. Enter ADD on the Command line.
 - b. Overtyping the report recipient ID with a new one.
 - c. Press ENTER.

All of the recipient's characteristics will be carried over to the new recipient.

Can I Copy Page Selection from Recipients of Other Reports?

The Report Recipient Copy Screen (VRDMU135) allows you to do this.

Can I Insert Another Line In Page Selection Criteria?

You can insert the line on the Report Recipient Definition Screen, Pages (VRDMU140).

Can Batch Load Handle Duplicate Recipients w/Different Page Selection?

Yes. We now count duplicate recipients and are able to attach a number to each duplicate recipient.

Chapter 12: Controlling Page Breaks

This chapter discusses the factors that affect the way page breaks occur in a printed report including:

- Factors that affect page breaks
- Specifying carriage controls
- Controlling page breaks
- LINECT considerations

Factors That Affect Page Breaks

Factors that affect page breaks for reports include:

- The presence of embedded carriage controls in the data set to be printed
- The LINECT (line count) parameter

The LINECT is the number of lines to print per page for this job's SYSOUT data sets. If LINECT is not specified for the data set, JES uses a default LINECT, providing that no carriage controls were encountered prior to the number of specified lines in the JES default.

You can request that page breaks be added by filling in a value in the LINES PER PAGE field on the Report Base Definition Screen (VRDMU110). If there are already embedded carriage controls in the data set, those are honored and the value entered in LINES PER PAGE is ignored.

Specifying Carriage Controls

Carriage controls are specified in the DCB for that data set. Sources of DCB information include the program and the JCL. Some of the standard DCB parameters are:

LRECL

BLKSIZE (which is a multiple of an LRECL)

RECFM (examples of record formats are U, V, VB, F, FB)

An A appended to a record format indicates that the records contain ANSI control characters. A RECFM of FBA or VBA indicates that the data set is fixed block (FBA) or variable block (VBA), with embedded ANSI carriage control.

A RECFM of FBM or VBM indicates that the data set is fixed block (FBM) or variable block (VBM), with embedded machine carriage control.

A RECFM of FB indicates that there is no carriage control embedded in the report.

Specifying LINECT

You can specify LINECT as follows (in order of precedence):

1. In an OUTPUT statement in the job's JCL, such as the following:

```
//ACCT01  OUTPUT  LINECT=50
```
2. In a JOB statement, the LINECT field of the accounting information parm, which is the ninth field:

```
//CHJOHNM1  JOB  (LVL2-DISP,,,,,,,,,45)
```
3. Installation default specified at JES2 initialization.

If you omit LINECT, JES2 uses an installation default specified at initialization. If you code a zero, JES2 does not eject to a new page when the number of lines exceeds the installation default.

Controlling Page Breaks

To specify page breaks using CA Dispatch, enter a value in the Lines Per Page field of the Report Base Definition Screen (VRDMU110).

- If the value is zero, no page eject control characters are inserted. CA Dispatch does not insert any page breaks and the report is processed as a single page.
- If the value is non-zero, CA Dispatch inserts page breaks at the number of lines specified for reports without carriage control.

- In a report with carriage control, CA Dispatch inserts a page break after 255 lines if no page break has been encountered.

CA Dispatch optionally converts all carriage control from ANSI to Machine. If you do not want CA Dispatch to convert the characters, then enter **N(o)** in the Convert CC to Mach field on the Report Base Definition Screen (VRDMU110). When leaving input CCs, only reports with the same CCs can be bundled together. If all CCs are converted to Machine, input reports with ANSI CCs and input reports with Machine CCs can be bundled together. IBM Page Mode reports bundles with either Machine CCs or ANSI CCs.

- Enter **Y** to convert input printer control characters to IBM Machine printer control characters. Enter **N** to leave the characters as is.

LINECT Considerations

Important! JES has a default LINECT parameter that was specified at JES initialization. If JES does not encounter a page break prior to reaching that default number, JES inserts a page break.

The following OUTPUT statement is included in the CA Dispatch JCL jobstream following the second execute statement that turns off the default LINECT parameter of JES2 for SYSOUT coming from CA Dispatch.

```
//LINEOFF    OUTPUT    LINECT=0,DEFAULT=YES
```

The LINECT has been turned off for the following reasons:

- If a report is processed by CA Dispatch and page breaks are inserted after 120 lines and the JES default LINECT is 65, JES inserts page breaks after 65 lines. The result is that there are page breaks after every 65 and 120 lines.
- If you have an FCB that prints a form six lines long, occasionally the printer does a page break in the middle of the form. JES could be inserting that page break based on the default LINECT parameter.
- Printing complications can arise from the ASSIGN statement for the Xerox printers that use DJDEs.

Note: For more information, see IBM's *MVS/XA JCL Reference Guide* and the *Xerox 9700 Reference Manual*.

Chapter 13: Defining Printer IDs

Topics covered in this chapter include:

- The purpose of printer IDs
- Defining printer IDs
- Printing reports in Online Viewing
- Overriding printer IDs

The Purpose of a Printer ID

The printer ID allows a user to print reports after accessing them from Option 3 on the Online Viewing Option Menu.

```
VOVMI000----- Online Viewing Option Menu -----  
  
COMMAND ==> 3  
  Select Option (1 - 4)  
  
Optional Names:  
Report ==>  
Jobname ==>  
Recipient ==>  
-----  
 1 Select All Reports To View  
 2 Select MSGCLASS Data To View  
 3 Select Reports By Recipient To View  
 4 Select Archived Reports to Reprint
```

The CA Dispatch Report Administrator must set up a default definition for each user who wants to print reports from Online Viewing.

Defining the Printer ID

The Report Administrator, who has access to this Sysgen screen, updates the user's reprint definition so that the user can print from Online Viewing. To generate a valid printer ID:

1. Set up the printer as a 'dummy' report recipient of a report named PRINTER which has a job name of *PRINTER.
2. Enter the printer ID in the Printer ID field on the Sysgen User Recipient Screen (VSGMU235).

These steps are explained in detail in the sections that follow.

Setting Up the Printer as a 'Dummy' Recipient

Use the following procedure to set up the printer as a 'dummy' recipient:

1. Access the Report Base Definition Screen and do the following:
 - Define a special report to the database with a report name of PRINTER and a job name of *PRINTER.
 - Under Report Processing Options, enter **Y** in the Print field.

```

VRDMU110----- Report Base Definition Screen -----
COMMAND ==>
X1 Rpt Events      X4 Add Fiche Rcp  X7 Olv           X10 Reprint
X2 #1 Fiche Rcp   X5 Add Rpt Recip X8 Msgclass      ADD Report
X3 Recip List     X6 Tracking      X9 Archive Ret   DEL Report
-----
Report Processing Options:  Report ==> PRINTER      Jobname ==> *PRINTER
Print                      (Y/N) ==> Y          Convert CC to Mach. (Y/N) ==>
    
```

2. Attach your recipients to the report by using the Report Recipient Definition Screen, Reports (VRDMU130).

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>
Print (Y/N) ==> Y Mon==> Y Tues==> Y Wed==> Y Thur==> Y Fri==> Y Sat==> Y Sun==> Y
OnLine Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):
Maildrop Pages ==> Start ==> Due Out Time(HHMM) ==>
Recipient Pages ==> End ==> VSM Delay in Days ==>
Manifest Copies ==> User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==> Repeat ==> FCB ==> Hold ==>
Fiche Class(Y/N) ==> Priority ==> Form ==>
Specific Class ==> Copies ==> Writer ==>
Align/Verify (A/V) ==> Destination ==> ,
Printer Options:
Flash ==> Burst (Y/N)==> TRC ==>
Modify ==> Count ==> CHARS ==>
OPTCD (J) ==> Copygroups ==>
AFP Mode:
Output/IAFP ==> Page Format ==> Copygroup ==>
    
```

Note: The name or ID of each recipient is equivalent to a printer ID.

These are the names you entered in the printer ID field when you defined Online Viewing users on the Sysgen User Recipient Screen (VSGMU235).

Printer ID names (dummy recipients) are as flexible as any recipient ID (16 alphanumeric characters). Make the Printer ID names meaningful.

Example of How to Print Online Viewing Reports for a Specific User

In the following example, we are going to enable user USER007, a member of the Technical Support group, to print Online Viewing reports. We need to create a dummy recipient to route output to the technical support printer, PRINTPR3, the closest to USER007's desk.

Follow these steps to enable USER007 to print online viewing reports.

1. Enter the following values in the indicated fields:
 - Enter the printer ID **PRINTPR3** as a Recipient of report PRINTER, job *PRINTER.
 - Enter **A** in Specific Class.
 - Enter **PRINTPR3** in Destination.
 - Set the Release Flag to **A**; this tells CA Dispatch to close the bundle immediately after this user's report is printed. If this is not specified, the maildrop remains open for the time and pages specified for the original report.

```

VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>                                     Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>                                     Report:                                     Jobname:
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64):                               Use Dates (MDDYYYY)
Maildrop Pages ==>                               Start ==>                               Due Out Time(HMM) ==>
Recipient Pages ==>                               End ==>                               VSM Delay in Days ==>
Manifest Copies ==>                               User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==>                               Repeat ==>                               FCB ==>                               Hold ==>
Fiche Class(Y/N) ==>                               Priority ==>                               Form ==>
Specific Class ==>                               Copies ==>                               Writer ==>
Align/Verify (A/V) ==>                               Destination ==>                               ,
Printer Options:
Flash ==>                               Burst (Y/N)==>                               TRC ==>
Modify ==>                               Count ==>                               CHARS ==>
OPTCD (J) ==>                               Copygroups ==>
AFP Mode:
Output/IAFP ==>                               Page Format ==>                               Copygroup ==>

```

Note: Defining printer IDs as report recipients is a method of pulling in a set of printing instructions. These instructions are whatever is defined on the VRDMU130 screen for that printer ID. You may choose to define more than one Printer ID for a given printer—each definition using different output instructions.

Set up at least one printer ID for each of the company's printers that print reports from CA Dispatch. For an impact printer, the necessary information may simply be the correct class and destination.

For a laser printer, such as an IBM 3800 M3, it may be necessary to set up many printer IDs (meaning *dummy* recipients of the special report PRINTER/*PRINTER) that have the same class and destination, but each may have a unique PAGE FORMAT to control such print characteristics as page size, fonts, or line spacing. Each may have a unique COPY-GROUP to take advantage of different overlays or forms flash.

2. Add a Printer ID to VSGMU235

Use the following procedure to enter the printer ID on the Sysgen User Recipient Screen:

- a. Access the Report Distribution Option Menu:
- b. Enter **9** (SYSGEN) and press **Enter**.

```
VRDMI000----- CA Dispatch r11.7 -----  
                        Report Distribution Option Menu  
  
COMMAND ==> 9          - - - - - Data Center: DEVL  
      Select Option (1 - C)  
-----  
-----  
->  9 SYSGEN          View, Update Sysgen Information
```

- c. On the Sysgen Option Menu, enter C (USER DEFINITION) and press Enter.

```
VSGMI100-----Sysgen Option Menu-----  
  
COMMAND ==> C          - - - - -  
      Select Option (0 - D)  
Optional Maildrop, Dest, or Form Name ==>  
-----  
-----  
->  C USER DEFINITION  Define OnLine Viewing Users and Associated Recipients  
      - - - - -
```

- d. On the Sysgen User Screen, enter **S** next to your user and press Enter to display the Sysgen User Recipient Screen (VSGMU235).

```
VSGMU230----- Sysgen User Screen -----
COMMAND ==>
X1 User Template

   Opt  User Id      Description
ADD ==>
=> -   USER231      TECHNICAL SUPPORT MGR.
=> -   USER324      TECHNICAL SUPPORT
=> -   USER779      WENDY HUGS
=> S   USER007      TECHNICAL SUPPORT
```

3. For complete information on defining users, see the chapter "[Defining Users for Online Viewing](#) (see page 119)" in this guide.

On the Sysgen User Recipient Screen, enter **PRINTPR3** in the printer ID field.

```
VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER007      Description: TECHNICAL SUPPORT
Installation Codes ==>
Reprint Definitions:
  Reprint Type (P,0,C) ==> P      Find Command Definitions:
  Printer Id          ==> PRINTPR3  Override ==>
  Class, Destination ==> ,      Max Find Pages ==>
  Max Reprint Pages  ==>
  Printer Override   ==> Y      Copies Override (0-999,0=NO) ==>
  Opt Recipient      Description
ADD==>
=> S. SMITH          SUPPORT EXPERT
```

Printing Reports In Online Viewing

Users who have access to Online Viewing through Option 3 - Select Reports by Recipient from the Online Viewing Option Menu (VOVM1000) can print in one of the following ways:

- From the Online Viewing Report screen
- From the Online Viewing Print Request screen
- From the Online Viewing Screen for Report screen

Printing from the Online Viewing Report Selection Screen (VOVMI310)

To print from the Online Viewing Report Selection screen, enter **P** in the OPT field by the targeted report.

```
VOVMI310---Online Viewing Report Selection Screen, Recipient: S. SMITH
COMMAND=>
  X1 PC Rqst Queue   X2 Add PC Upload Rqst
Start Date (mmdyyyy) =>                               End Date (mmdyyyy) =>

  Opt Report  Jobname Date          Time  Desc (24 characters)  Typ  Pages
=> -
=> P  RDUTILIZ DSEXSTAT 09/30/2009  5:13  FILE UTILIZATION RD-AREA
=>
```

This prints that recipient's version of the report with the user's assigned print definition.

Note: Remember that the print definition is assigned for a user on the Sysgen User Recipient Screen (VSGMU235).

Printing from the Online Viewing Print Request Screen (VOVMI330)

The user who has permission to override the printer ID (and wants to do this) can use this procedure to print from the Online Viewing Report Selection Screen:

1. Enter **O** in the OPT field and press **Enter**.

```
VOVMI310---Online Viewing Report Selection Screen, Recipient: S. SMITH
COMMAND=>
  X1 PC Rqst Queue   X2 Add PC Upload Rqst
Start Date (mmdyyyy) =>                               End Date (mmdyyyy) =>

  Opt Report  Jobname Date          Time  Desc (24 characters)  Typ  Pages
=> -
=> O  RDUTILIZ DSEXSTAT 09/30/2009  5:13  FILE UTILIZATION RD-AREA
=>
```

The user now has access to the Online Viewing Print Request Screen and can override the printer ID. If the user does not have permission to override the ID, the requested pages of the report are printed with the assigned ID.

```

VOVMI330 ----- Online Viewing Print Request Screen -----
COMMAND =>
  X1 List Printers   X2 List Profiles

User       : USER007
Recipient  : S. SMITH
Report     : RDUTILIZ   Jobname: DSEXSTAT

Reprint Type => 0  P - Use Printer *Printer Definition
                0 - Use Original Rpt/Rcp Definition
                C - Use Original Rpt/Rcp Defn with Class/Dest Overrides
Global Print Parameters:
  Profile =>
  Maildrop =>
  Copies =>

Reprint Type P Parameters:
  Printer => PRINTPR3

Reprint Type C Parameters:
  Class =>           Destination =>           ,
  Printer =>

```

Note: A user can only access this screen if Y(es) is specified in the Printer Override field on the Sysgen User Recipient Screen (VSGMU235).

On the Online Viewing Print Request Screen (VOVMI330) the user can overtype the assigned ID with another printer ID.

2. Enter **X1** on the Command line and press **Enter** to view a list of printer IDs on the Online Viewing Printer Selection Screen (VOVMI340).

Printing from the Online Viewing Screen for Report (VOVM1320)

A user who is viewing a report on the Online Viewing Screen For Report screen can print using the following procedure:

1. Enter a print command (such as PA - Print All the report), and press **Enter**.

```
VOVM1320 ----- OnLine Viewing Screen For Report: RDUTILIZ Job: DSEXSTAT ----
COMMAND ==>                                     Page      1 Col  1 Lin  19 Scr HALF
        X1 Print Report      X2 Request PC Download      X3 Reprint From Tape

IDMSDUMP S10211 10.2
PROCESS=AREA,DMCL=CAIDMCL,REPORTS=ONLY,LDKEYS=NO                00010000
LARGEST PAGE SIZE IN THE DMCL IS 6,100
AREA=RD-AREA                                                    00100000
IDMSDUMP IDMS SECURITY DUMP - DATABASE UTILIZATION
REPORTK04/02/2009                PAGE 1
PAGE SIZE IS 4,628 CHARACTERS. DUMPED 1,000 PAGES, FROM AREA RD-AREA
SPACE USED 156,680 CHARACTERS, EMPTY SPACE LEFT 4,439,320 CHARACTERS, FILE UTI

* * * * *          * * * * *          SPACE DISTRIBUTION PER RECORD          * * * * *
          MAXIMUM *****ACTIVE*****
RECORD TYPE LENGTH OCCURRENCES TOTAL SPACE USED PERCENT OF TOTAL USED
SR1000      240         68          16,320          10
SR1001      164        224          36,736          23
SR1003      316         82          25,912          17
SR1004       84        525          44,100          28
SR1009       36         1           36             0
SR1010      148         78          11,544           7
```

2. Enter **X1** on the Command line and press **Enter**.

Overriding a Printer ID

There are two ways of overriding a printer ID:

- Using the Sysgen User Recipient Screen (VSGMU235)
- Using the Online Viewing Print Request Screen (VOVM1330)

Using the Sysgen User Recipient Screen (VSGMU235)

To allow a user to specify a different printer ID than the one presented in the Printer ID field of the VSGMU235 screen, enter **Y(es)** in the Printer Override field on the Sysgen User Recipient Screen (VSGMU235).

```
VSGMU235----- Sysgen User Recipient Screen -----
DC900036 ONLY PAGE
COMMAND ==>
User: USER007          Description: TECHNICAL SUPPORT
Installation Codes ==>
Reprint Definitions:          Find Command Definitions:
  Reprint Type (P,O,C) ==> P          Override ==>
  Printer Id ==> PRINTPR3          Max Find Pages ==>
  Class, Destination ==> , ,
  Max Reprint Pages ==>
  Printer Override ==> Y          Copies Override (0-999,0=N0) ==>
  Opt Recipient          Description
ADD==>
==> S. SMITH          SUPPORT EXPERT
```

A different printer ID is another dummy recipient that has been attached to special report PRINTER/*PRINTER.

Using the Online Viewing Print Request Screen (VOVMI330)

If a company has several printing sites and an employee travels among these sites, this employee may want to route print output to his or her location. The special report PRINTER/*PRINTER should have as many *dummy* recipients as there are printers processing CA Dispatch reports. There may be more recipients than printers, because some recipients may be set up for special printing characteristics (such as landscape or portrait) and others set up for special forms.

When you are located at a different site, inquire what the appropriate printer ID is to get print routed to the appropriate site and to get the desired SYSOUT characteristics.

Example:

USER007 visits a site in California and needs to reroute his output.

```
VOVMI330 ----- Online Viewing Print Request Screen -----
COMMAND ==>
  X1 List Printers   X2 List Profiles

User       : USER007
Recipient  : S. SMITH
Report     : RDUTILIZ   Jobname: DSEXSTAT

Reprint Type ==> 0  P - Use Printer *Printer Definition
                  0 - Use Original Rpt/Rcp Definition
                  C - Use Original Rpt/Rcp Defn with Class/Dest Overrides

Global Print Parameters:
Profile    ==>
Maildrop   ==>
Copies     ==>

Reprint Type P Parameters:
Printer    ==> PRINTPR3

Reprint Type C Parameters:
Class      ==>           Destination ==>           ,
Printer    ==>
```

1. From the Online Viewing Print Request Screen, enter **X1** on the Command line and press Enter to access the Online Viewing Printer Selection Screen (VOVMI340).
2. You are now presented with a list of all the printers (dummy recipients) defined to PRINTER/*PRINTER. When you select a printer from this list, it is automatically placed in the PRINTER field on the VOVMI340 screen.

Enter **S** next to USCALPR1 (the California printer ID definition) and press **Enter**.

```
VOVMI340----- Online Viewing Printer Selection Screen -----
COMMAND ==>

  Opt      Printer      Description      Maildrop
==> S      USCALPR1     L.A. CAL LASER  LOCLA224
==> -      PRINTPR1     MTL. LASER 01   LOCNJA01
==> -      PRINTPR2     MTL. LASER 02   LOCNJB02
==> -      PRINTPR3     MTL. LASER 03   LOCNJC03
```

The Online Viewing Print Request Screen now shows the new printer.

```
VOVMI330 ----- Online Viewing Print Request Screen -----  
COMMAND ==>  
  X1 List Printers   X2 List Profiles  
  
User       : USER007  
Recipient  : S. SMITH  
Report     : RDUTILIZ   Jobname: DSEXSTAT  
  
Reprint Type ==> 0  P - Use Printer *Printer Definition  
                  0 - Use Original Rpt/Rcp Definition  
                  C - Use Original Rpt/Rcp Defn with Class/Dest Overrides  
Global Print Parameters:  
  Profile ==>  
  Maildrop ==>  
  Copies ==>  
  
Reprint Type P Parameters:  
  Printer ==> USCALPRI  
  
Reprint Type C Parameters:  
  Class ==>           Destination ==>           ,  
  Printer ==>
```


Chapter 14: Generating Labels

This chapter addresses the questions and considerations for generating labels using CA Dispatch including:

- Reasons to generate labels
- The types of labels that can be produced
- How labels can be generated

Why Labels Are Generated

Many users set up automatic generation of labels. CA Dispatch produces an address label for every bundle generated. The bundles are shrink-wrapped, the pre-pasted labels applied, and the bundles mailed to their final destinations.

CA Dispatch can generate maildrop labels and individual report labels.

Maildrop Label

This maildrop label is produced if the report is bundled with other reports destined for a given maildrop.

MAILDROP=_____	BUNDLE ID=_____
MEDIA=_____	
DATE=___/___/___	TIME=__:__:__
____\-	_____
____\-	_____
____\-	_____
____\-	_____
____\-	_____
____\-	_____
____\-	_____
____\-	_____

- Manual generation allows the user to print labels on an as-needed basis for recipients of a report that CA Dispatch distributes or for recipients of offline fiche.
- Automatic generation by the RPO (Report Output) subtask.

Automatic generation produces a label when the report is processed by the RPO subtask.

Implementing Label Generation

To implement label generation, users must define the printer to CA IDMS. Users can then choose to generate labels manually or automatically.

Defining the Printer to CA IDMS

After installation of CA Dispatch, it is necessary to run a batch Sysgen of the CA IDMS system, referred to as the User Generation (Usergen). Printers, terminals, and users are defined to CA IDMS through the Usergen. The JCL member, DSEXUSR1, is in the common JCL library, CADSJCL.

Two types of printer definitions are required to identify a printer device to CA IDMS: a physical terminal element (PTE) and a logical terminal element (LTE). Make the indicated changes to the input member to the Usergen job. The appropriate member DSNETWKX, can be found in CADSOPTN.

1. To change the PTE, find the PTERM VTMPT017 statement:

```
PTERM VTMPT017
    DISABLED          <= Change to enable
    IN LINE VTMSYS01
    MAXIMUM ERROR IS 30
    PRINTER DESTINATION IS VTMPRT1
    TYPE IS 3287     <= Change to type of VTAM printer
    ACQUIRE
    FORMFEED
    MODEL IS 2
    NAME IS PRT0157. <= Change to VTAM printer name
                    (This is the VTAM LU name)
```


2. To change the LTE, find the following statement:

```
LTERM VTMP017
  PTERM IS VTMP017
  AUTOTASK IS NULL
  ENABLE
  PRINTER CLASS ADD ALL NOBANNER <== *
  CHECKPOINT IS OFF
  UPPER.
```

In the line PRINTER CLASS ADD ALL NOBANNER, ALL means that a label sent to any CA IDMS print class is printed on this device.

For example, you can also designate to send labels only to CA IDMS print classes 1 and 2, which are printed on this device:

```
PRINTER CLASS ADD (1 2) NOBANNER
```

If you only have one printer for labels, use PRINTER CLASS ADD ALL NOBANNER. It is not necessary for users to know a specific CA IDMS class when filling in the class information on the CA Dispatch screens. The label is still printed regardless of the class entered.

Generating Labels Manually

Labels can be generated manually using the Label Generation Screen, (VRDMI700) and the Report Recipient Definition Screen, Fiche (VRDMU160).

The Label Generation Screen

Use the Label Generation Screen (VRDMI700), (Option 7 from the Main Menu) to print a label for recipients of a particular report.

```
VRDMI700----- Label Generation Screen -----  
COMMAND ==>                                     Data Center:  
  
Either Print  
  Labels For Recipients Of:  
    Report ==> RDUTILIZ  
    Jobname ==> DSEXSTAT  
  
Or Print  
  Alignment Labels:  
    Samples (Y/N) ==> N  
    # Of Labels To Print ==>  
  
On  
  Terminal ==>                                     Or  
  Class ==> 1
```

The values entered cause a label to be generated for each recipient of the selected report. Enter report name, jobname, and class. Do not use a Terminal value since this option has not been implemented on this screen.

Labels are printed for recipients of report RDUTILIZ, DSEXSTAT on Printer VTMP017, located in a remote office.

The Report Recipient Definition, Fiche Screen

You can manually produce labels for offline microfiche recipients by using the Report Recipient Definition Screen, Fiche (VRDMU160).

```

VRDMU160----- Report Recipient Definition Screen, Fiche -----
COMMAND ==>
X1 Print Label          X2 Update Status      Datercenter:
X4 Next Recip          ADD Add Recip         X3 Update Delivery
                        DEL Delete Recip

Report: RDUTILIZ      Jobname: DSEXSTAT

Recipient ==> RANDY

Number Of Copies      ==> 1
Use Dates: (MMDDYYYY)
  Start ==>          End ==>
Due Out Time (0000-2400) ==>          VSM Delay In Days ==>
User Field (16 Chars) ==>

If A Label Is To Be Printed Please Supply:
  Terminal Name ==>
  Or
  Class Number ==> 1

```

For example, if you are logging in the offline microfiche of the report RDUTILIZ, which was produced by the job DSEXSTAT for recipient RANDY and you want labels produced, fill in the Class Number field with 01. Do not use Terminal Name, as this option has not been implemented on this screen.

The Class field on both the Label Generation Screen and the Report Recipient Definition Screen, Fiche relates to the PRINTER CLASS ADD (N N) NOBANNER line in the LTE statement.

You must also define the following in your Usergen:

```

PTERM VTMP017
  NAME IS LU123456. <= VTAM printer
                                     (This is the LU name)

LTERM VTML017
  PRINTER CLASS ADD (1 2) NOBANNER.

```

Generating Labels Automatically

Use the following procedure to generate labels automatically through the Distribution subtask:

1. Define printer PTE/LTE in the Usergen for manual generation of labels.

```
PTERM VTMP017
      NAME IS LU123456. <=VTAM printer, can be in
                          a remote office. This is
                          the LU name.
```

```
LTERM VTML017
      PRINTER CLASS ADD (1 2) NOBANNER.
```

2. Enter values on the Report Recipient Definition Screen (VRDMU130) as indicated in the following screen:

```
VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND =>
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient => Report: Jobname:
Print (Y/N) => Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
OnLine Viewing (Y/N) => Y PC (Y/N) => N
Release Flag (N=Normal,B=Before,A=After,T=Both) => N Multi Pass (Y/N) => N
Bundle Options (0-64): Use Dates (MDDYYYY)
Maildrop Pages => Start => Due Out Time(HHMM) =>
Recipient Pages => End => VSM Delay in Days =>
Manifest Copies => User =>
Sysout Definitions:
Normal Sysout(Y/N) => Repeat => FCB => Hold =>
Fiche Class(Y/N) => Priority => Form =>
Specific Class => Copies => Writer =>
Align/Verify (A/V) => Destination => ,
Printer Options:
Flash => Burst (Y/N) => TRC =>
Modify => Count => CHARS =>
OPTCD (J) => Copygroups =>
AFP Mode:
Output/IAFP => Page Format => Copygroup =>
```

3. Enter the destination name RMT13 in the Destination field to relate the recipient JIMBO to a JES destination.

At this point, you must relate Destinations to Classes.

4. Return to the Report Distribution Option Menu, then access the Sysgen Option Menu.

- Select Option 2 on the Sysgen Option Menu (VSGMI100) and press ENTER to access the Label Sysgen Screen (VSGMU120).

```
VSGMU120----- Label Sysgen Screen -----
COMMAND ==>
      Opt      JES Destination      Related Printer      Action
      (D)      (Dest)                (Classnn)
==>  ADD==>
==>  - RMT13      ,                ==>  CLASS01
==>  -           ,                ==>
==>  -           ,                ==>
```

- Enter the same JES Destination (remote) that you specified in the Destination field on the Report Recipient Definition Screen, Reports (VRDMU130).
- Enter the appropriate CA IDMS class (which in turn is associated with a VTAM printer in your Usergen). (Class is entered as Classnn on this screen.)

Checklist for Automatic Label Generation

- Specify a Destination at the report recipient level (on the Report Recipient Definition Screen, Reports (VRDMU130)).
- Tie that Destination to a CA IDMS print class on the Label Sysgen Screen (VSGMU120).
- In the LTE section of the Usergen, the class is associated with a PTERM ID.
- In the PTE section of the Usergen, the PTERM is associated with the name of a device (the LU name) to which the label is written.

Diagnostic Commands

If you have sufficient security permissions, you can issue online commands to evaluate the status of the printer you have just defined to CA IDMS.

From the Enter Next Task Code prompt, enter one of the following:

- DCMT D PT VTMP017

This indicates the following:

- The device is ACTIVE
- Correct terminal ID
- Number of read/writes to the device
- Number of read/write errors

2. DCMT D LT VTMLT017

This indicates the following:

- The device is ACTIVE
- Correct physical terminal ID
- Number of read/writes to device
- Number of read/write errors

3. DCMT D PRI

This indicates that the CA IDMS print classes and PTE destinations associated with a particular logical terminal.

4. DCMT D REP

This indicates the number of reports (which in this case are labels) on the queue waiting to be printed. Labels should print immediately. Labels waiting on the queue may indicate missing printer class definitions and/or inactive connected printer devices.

Chapter 15: Controlling Report Bundling

This chapter discusses the factors that control bundling. Use the information presented here to determine why your reports are not bundling as expected.

CA Dispatch can place reports of like characteristics in the same bundle; they can be delivered together to a maildrop before the individual reports are burst.

If a retail store has 47 departments, each department can have its own maildrop. All the reports for that maildrop are collected in one bundle. This bundle can be delivered in a single package, and the reports can then be distributed to the individuals who are to receive them. You can define a department or an individual recipient to be a maildrop, depending on how you want the reports to bundle.

Topics covered in this chapter include:

- Bundle contents
- Factors that control bundling

Terms and Concepts

Make sure you are familiar with the following terms for CA Dispatch users:

Bundle

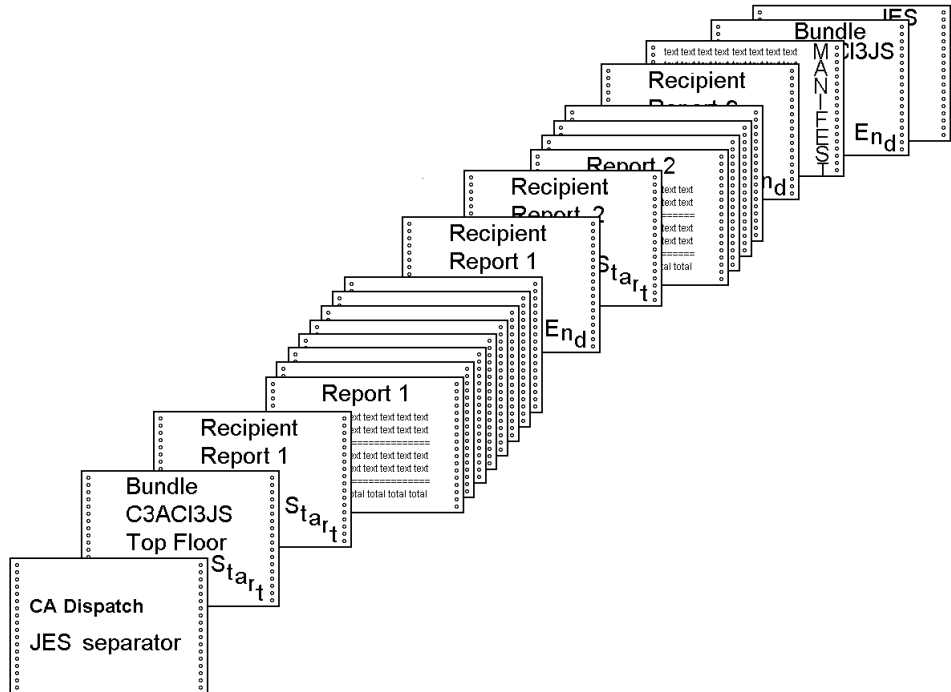
A bundle is a single JES output data set.

Maildrop

A maildrop is a location in the end-user organization where the report is to be delivered. Maildrops are associated with a recipient or several recipients (the person or persons who are to receive the reports). There can be one or more reports and one or more recipients assigned to a maildrop. CA Dispatch uses an alphanumeric code to designate maildrops.

Bundle Contents

Each bundle consists of JES separator pages, a bundle start page (identifying the location of the maildrop) and end page, start and end pages for each recipient's report, the reports themselves, and a manifest report listing every report in the package and the end user to whom the report should be delivered.



Factors That Control Bundling

The factors that cause reports to bundle together (or not) are grouped into the following categories:

- Maildrop parameters
- Different report recipient parameters
- Carriage control conversion
- Use of the jobname identification field
- System abends

Maildrop Parameters

Reports only bundle together if they are destined for recipients who are defined to the same maildrop. For example, if the maildrop is Technical Support, only the people in the technical support group find their reports in that bundle.

Bundles are closed depending upon how the time and pages parameters are defined for the maildrop.

When a maildrop is opened, reports begin collecting in a bundle. Bundles stay open until they are closed by either the time parameters, pages parameters, or both, that are defined for the maildrop or by other situations.

Maildrop time and pages parameters can be set in the following locations:

- The Sysgen Control Information Screen (VSGMU110)
- The Maildrop Sysgen Screen (VSGMU130)

The Sysgen Control Information Screen (VSGMU110)

The Sysgen Control Information Screen (VSGMU110) establishes a global default for time and page criteria for closing of bundles.

```
VSGMU110----- Sysgen Control Information Screen -----
COMMAND ==>
Distribution Options:
-----
Maildrop Defaults:
  Max Time (Mins) ==>           Max Pages           ==>
```

Note: If you specify only a page count or a time, but not both, the unspecified variable defaults to 0. This causes your bundle to close as soon as a report is finished being written to it.

If you have not defined the maildrop on the Maildrop Sysgen Screen (VSGMU130) and are adding a recipient on the Report Recipient Definition Screen, Reports (VRDMU130), when you press **Enter** to add the recipient, the Recipient Definition Screen (VRDMU310) appears. You can enter a maildrop name here. If the maildrop that you enter here is not already defined to the system, CA Dispatch allows you to define it on the spot, but the value for time and pages is taken from the defaults set on Sysgen Control Information Screen (VSGMU110).

Bundles that take default values for time, pages, or both from the Sysgen Control Information Screen (VSGMU110) close as soon as a report has finished writing to them if either of the values is 0.

The Maildrop Sysgen Screen (VSGMU130)

When a maildrop is defined on the Maildrop Sysgen Screen, you can override the default time and pages specified on the Sysgen Control Information screen (VSGMU110).

```
VSGMU130----- Maildrop Sysgen Screen -----
COMMAND ==>

  Opt      Maildrop      Max Time      Max Pages      Release TOD      Address
  ADD==>      (HHMM)      (Y/N)
==> _
```

For more information:

[Getting Your First Report Processed](#) (see page 49)

Different Report Recipient Parameters

If the output parameters defined for your report recipients on the Report Recipient Definition Screen, Reports (VRDMU130) are different from one another, their reports will not bundle together.

```
VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
Data Center:
X1 DJDE X2 Def Pages X3 PC Ext X4 Recip Def X5 Copy Recip ADD Recip DEL Recip
-----
Recipient ==>
Print (Y/N) ==> Y Mon=> Y Tues=> Y Wed=> Y Thur=> Y Fri=> Y Sat=> Y Sun=> Y
Online Viewing (Y/N) ==> Y PC (Y/N) ==> N
Release Flag (N=Normal,B=Before,A=After,T=Both) ==> N Multi Pass (Y/N) ==> N
Bundle Options (0-64): Use Dates (MMDDYYYY)
Maildrop Pages ==> Start ==> Due Out Time(HHMM) ==>
Recipient Pages ==> End ==> VSM Delay in Days ==>
Manifest Copies ==> User ==>
Sysout Definitions:
Normal Sysout(Y/N) ==> Repeat ==> FCB ==> Hold ==>
Fiche Class(Y/N) ==> Priority ==> Form ==>
Specific Class ==> Copies ==> Writer ==>
Align/Verify (A/V) ==> Destination => ,
Printer Options:
Flash ==> Burst (Y/N)==> TRC ==>
Modify ==> Count ==> CHARS ==>
OPTCD (J) ==> Copygroups ==>
AFP Mode:
Output/IAFP ==> Page Format ==> Copygroup ==>
```

Look for the report recipient definitions in:

- The release flag
- The SYSOUT definitions
- The OUTPUT statement for AFP mode parameters

The Release Flag

The release flag influences bundle opening and closing. Options for this Release Flag field include:

- **N**—Normal. Keep this bundle open for time or pages specified for this maildrop.
- **B**—Before. If a bundle is open for this maildrop, close it and open a new bundle *before* this recipient's report is written to the bundle. This assures that this report is the first in the bundle.
- **A**—After. If a bundle is open for this maildrop, insert this recipient's report into that bundle and close it *after* this report is completed. This assures that this report is the last in the bundle. If this is a 'hot' report, it is not waiting for time or pages to be satisfied.
- **T**—Separately. If a bundle is open for this maildrop, close it and open a new bundle *before* this recipient's report is written, and close it *after* it is completed. This assures that this recipient's report is bundled separately. Active bundles for this maildrop are released both before and after this report is processed. This report is in its OWN bundle.

SYSOUT Definitions

A bundle is a single JES data set; it cannot contain reports that are to be written to different SYSOUT classes, on different forms, and so forth. If any of the variables in the Sysout Definitions portion of the Report Recipient Definition Screen (VRDMU130) varies from one recipient to another, even if the maildrop is the same, the reports must go into separate bundles.

Note: One special consideration here is COPIES. CA Dispatch writes one copy of the report into the bundle, specifying multiple copies to be printed. The *bundle* (not copies of the report) is printed multiple times. Multiple copies do not appear within the same bundle.

If you want multiple copies in the same bundle, use the REPEAT option. Enter **COPIES=1**, **REPEAT=n** (where *n* is the actual number of copies desired). When using REPEAT, CA Dispatch processes the input report *n* number of times. As a result, the time required to process that report is greater. There are no report recipient separator pages to separate copies of that report.

If you want multiple copies in the same bundle with separator pages between copies of the report, you must add the recipient multiple times to the report at the time the recipient is being defined to the report.

The OUTPUT/IAFP Statement for AFP Reports

You can define AFP parameters that can cause reports to bundle separately or together. Defining different JCL OUTPUT statement names or Inline AFP Resource Group names for different recipients causes their reports to bundle separately. Only one Pagedef, one Formdef, or one of each can be specified for a given print data set (the bundle). If the value happens to be a JCL OUTPUT statement name, the Pagedef and Formdef names are passed to the print subsystem through the OUTPUT statement in the CA Dispatch started task JCL. If the value is a CA Dispatch Inline AFP Resource Group name, the Pagedef and Formdef are dynamically inserted into the bundle data set directly.

In the following example, the CULPRIT3 and CULPRIT4 reports have different Resource Group names and bundle separately. The Page Format and Copy Group values do not impact the bundling process.

```
VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
X1 DJDE           X3 PC Extension   X5 Copy Recip   Data Center:
X2 Def Pages     X4 Recipient Def   ADD Add Recip
                                     DEL Delete Recip
-----
Recipient ==> TOM                1 Report: CULPRIT3   Jobname:DSEXculp
AFP Mode:
Output/IAFP ==> RGROUP1   Page Format ==> DEPSC   Copygroup ==> DFD105
```

```
VRDMU130----- Report Recipient Definition Screen, Reports -----
COMMAND ==>
X1 DJDE           X3 PC Extension   X5 Copy Recip   Data Center:
X2 Def Pages     X4 Recipient Def   ADD Add Recip
                                     DEL Delete Recip
-----
Recipient ==> TOM                1 Report: CULPRIT4   Jobname:DSEXculp
AFP Mode:
Output/IAFP ==> RGROUP2   Page Format ==> DEPST   Copygroup ==> DFD106
```

In the examples just presented, the Output/IAFP value for the resource group names are different. Here are the resource group definitions:

```
VSGMU245----- Inline AFP Resource Group Definition Screen -----
COMMAND ==>
X1 Library Groups
   Opt      Group Name      Library Group      Pagedef      Formdef
   Add ==>
==> -       RGROUP1        LGROUP1          PDEF1        FDEF1
==> -       RGROUP2        LGROUP2          PDEF2        FDEF2
==> -
==>
```

Even if the two different resource group definitions have the same Pagedef and Formdef values, they still bundle separately.

If the examples indicated JCL OUTPUT statement values instead of Resource Group values, the CA Dispatch started task JCL must contain two OUTPUT statements, which match the names specified on the VRDMU130 screens. Failure to do so results in a dynamic allocation error when the RPO subtask attempts to write the bundle to JES.

Carriage Control Conversion

By default, CA Dispatch converts the carriage control characters of an input report to IBM Machine carriage controls when releasing a bundle to JES. You have the option of bypassing this conversion and allowing the original carriage controls to remain the same. Specify **N(o)** in the Convert CC to Mach. (Y/N) field on the Report Base Definition Screen (VRDMU110).

```

VRDMU110----- Report Base Definition Screen -----
COMMAND ==>
X1 Rpt Events      X4 Add Fiche Rcp  X7 0lv           X10 Reprint
X2 #1 Fiche Rcp   X5 Add Rpt Recip X8 Msgclass      ADD Report
X3 Recip List     X6 Tracking       X9 Archive Ret   DEL Report
-----
Report Processing Options:  Report ==> RDUTILIZ      Jobname ==> DSEXSTAT
Print      (Y/N) ==> Y      Convert CC to Mach. (Y/N) ==> N
-----

```

Your selection on this field impacts the way reports are bundled. Reports with the same carriage control characters can be bundled together. If all carriage controls are converted to Machine, input reports with ANSI, Machine or no carriage controls can be bundled together. If they are not converted, these types of reports bundle separately. IBM AFP Page Mode reports bundle with ANSI and Machine carriage control reports.

Use of the Jobname Identification Field

On the Report Base Definition Screen (VRDMU110) if you specify Jobname Identification, CA Dispatch allows only those reports with the same jobname (and jobname length) to bundle together.

```
VRDMU110----- Report Base Definition Screen -----  
COMMAND ==>                                         Data Center:  
X1 Rpt Events           X4 Add Fiche Rcp       X7 0lv                X10 Reprint  
X2 #1 Fiche Rcp        X5 Add Rpt Recip      X8 Msgclass           ADD Report  
X3 Recip List          X6 Tracking           X9 Archive Ret        DEL Report  
-----  
Report Processing Options:  Report ==> RDUTILIZ      Jobname ==> DSEXSTAT  
Print (Y/N) ==> Y          Convert CC to Mach. (Y/N) ==>  
PC Download (Y/N) ==> N    Lines Per Page (0-143) ==> 60  
Archive (D,O,S,T,N) ==> T  Due Out Time (0000-2400) ==> 0000  
Passthru (Y/N) ==>        Jobname Identification ==>
```

System Abends

CA Dispatch writes all open bundles to the bundle recovery data set during any normal or abnormal termination. Upon restart, the bundles are restored but they are in a closed (ready) status.

Chapter 16: Accessing Reports Before End of Job

CA Dispatch allows you to access reports before the job or TSO session that generates the report completes.

This chapter includes the following topics:

- JCL parameters, or equivalent parameters for the TSO ALLOCATE and FREE commands
- The use of these parameters
- The differences between using CADDSP to intercept reports and using the SAPI interface to process output

Sample JCL statements are included in this chapter. The following table describes the format style or abbreviations used in the JCL:

Format Style/Abbreviation	Meaning
UPPERCASE	Identifies commands and fixed operands
lowercase	Represents variable data
c	Represents a SYSOUT output class used for CA Dispatch reports
rptname	Represents a report name defined to CA Dispatch
dest	Represents an output destination

TSO Commands

The types of TSO commands that follow execute in a regular TSO session and when running the TSO command processor in batch:

- Specifying JCL to make a report available before end of job when CADDSP is intercepting output.

Specify FREE=CLOSE in the DD statement to make a report available before a job terminates. The following DD statement makes the output report available to CA Dispatch as soon as the program closes the data set:

```
//SYSPRINT DD SYSOUT=(c,rptname),DEST=dest,FREE=CLOSE
```

- Specifying JCL to make a report available before end of job by using the SAPI interface to process output.

When using the SAPI interface to process output, use different JCL to direct the output to that interface.

The following JCL makes the report available for the SAPI interface as soon as the step terminates:

```
//SYSPRINT DD  SYSOUT=(c,rptname),DEST=dest,SPIN=UNALLOC
```

The following JCL makes the report available for the SAPI interface to process as soon as the program closes the data set:

```
//SYSPRINT DD  SYSOUT=(c,rptname),DEST=dest,SPIN=UNALLOC,  
//           FREE=CLOSE
```

- Specifying TSO commands to make a report available before the end of when CADDSPPL is intercepting output.

The TSO ALLOCATE command does not have an analog to the FREE=CLOSE parameter as specified in the JCL. The command sequence can specify the FREE command, which provides equivalent processing. When the following TSO command sequence executes, the report is available for CA Dispatch when the FREE command executes:

```
ALLOCATE FILE(SYSPRINT)SYSOUT(c)DEST(dest) WRITER(rptname)
```

Execute TSO commands to write data to the data set defined by file name SYSPRINT:

```
FREE FILE(SYSPRINT)
```

- Specifying TSO commands to make a report available before end of job when using the SAPI interface to process output.

The TSO ALLOCATE command does not have an analog to the FREE=CLOSE parameter as specified in the JCL. The command sequence can specify the FREE command, which provides equivalent processing. When the TSO command sequence executes, the report is available for CA Dispatch when the FREE command executes.

The SPIN (UNALLOC) parameter directs JES2 to release output for the SAPI interface when the data set is released. It can be specified in the ALLOCATE command or the FREE command.

```
ALLOCATE FILE(SYSPRINT) SYSOUT(c) DEST(dest) -  
WRITER(rptname) SPIN(UNALLOC)
```

Execute TSO commands to write data to the data set defined by file name SYSPRINT:

```
FREE FILE(SYSPRINT)
```


Using the SEGMENT option

The SEGMENT option as specified in either JCL or dynamic allocation is another method to make output available to CA Dispatch while the job is still executing. The SEGMENT option only works when using the SAPI interface to process output. It is ignored if the output is being gathered while the job is executing.

Using SPIN (UNALLOC)

When the JCL specifies SPIN=UNALLOC or the dynamic allocation function specifies SPIN (UNALLOC), CA Dispatch does not intercept the output as it is being written by the job, even if this is implied by the combination of output class and output destination.

If the FREE command specifies SPIN (UNALLOC), and CA Dispatch is intercepting output as it is being written, the FREE command may abnormally terminate.

Any reference to the TSO ALLOCATE or FREE commands also applies to equivalent functions when using program invoked dynamic allocation.

Chapter 17: Archiving

This chapter discusses archiving concepts and specific situations that may arise when you use the archive function of CA Dispatch at your site.

Topics in this chapter include:

- How to prepare for archiving
Explains the file structures, the archive process, retention concepts, report selection, report retrieval, active archive Volsers management, and archive maintenance.
- How to implement archiving
Provides the information you need to make informed archiving decisions on the Sysgen Archive Control Information Screen (VSGMU210) and the Sysgen Archive task Information Screen (VSGMU215), and how to use tape management systems.
- How to condense and duplicate existing archive tapes using the archive batch utilities
- A Troubleshooting section to help you resolve archiving questions
These troubleshooting questions and answers address issues that may arise as you use your archiving system.

How to Prepare for Archiving

When preparing to archive, be sure you are familiar with the following archiving concepts and considerations:

- The archive system
- The types of archive database records
- Retention parameters
- Archive report selection methods
- The Archive subtask process
- How archived reports are retrieved from the database
- How active archive Volsers are managed
- Archive database maintenance
- Determining internal or external archive and extract tasks

The Archive System

The CA Dispatch archiving system consists of two distinct pieces:

- The archived data sets (reports or MSGCLASS).

The archived data sets are the actual reports stored offline on tapes, cartridges, DASD, optical disks, and so on. Your storage management system controls the offline storage. The interaction of CA Dispatch with storage management depends on the option you choose on the Sysgen Archive Control Information Screen (VSGMU210). For more information, see the section [Tape Management System](#) (see page 240) in this chapter.

- An index of archive records that point to the storage media where the data sets are stored.

This archive area of the database (AR-AREA) keeps track of the reports, which are stored offline. The AR-AREA contains records that store information such as VOLSERS, data set names, and retention information.

CA Dispatch manages only the index portion of the archive system; your storage management system or your operations personnel control the data storage.

Types of Archive Database Records

The archive area of CA Dispatch contains two different types of database records, AR-BASE and AR-REPORT.

The AR-BASE records supply the data for all occurrences of the report. This data includes:

- The report name
- The original jobname
- The retention (days, generations, or both)
- A flag indicating if this record was *autobuilt*

Autobuilt means that when this report was archived, there was no archive definition record (VARMU100) defined for this report and jobname. The default retention parameters were taken from the Sysgen Archive Control Information Screen (VSGMU210). The autobuilt flag is set on.

- A flag indicating if a Duplicate copy is to be made
- SMS classes

The AR-REPORT records are database records attached to the AR-BASE record. They contain information about individual archived occurrences of the report, as follows:

- Date and time—the actual date and time RPI or the Archive task queued the report for Archive
- Storage media on which this report occurrence resides
- VOLSER on which this report occurrence resides
- Sequence number
- Dataset name
- UNIT name (for example, tape or cartridge, media on which the record was archived)
- Number of records (lines or pages) for that version of the report
- Type of archive (primary or duplicate)
- Whether the report was archived with AFP resources
- Retention specific for this report
- Report DCB attributes

Retention Parameters

The retention parameters tell CA Dispatch how long to keep a report and how many iterations of the report should be kept.

You define archive retention to CA Dispatch using the following screens:

- The Sysgen Archive Control Information Screen (VSGMU210)
- The Report Archive Definition Screen (VARMU100)

Default retention is set on the Sysgen Archive Control Information Screen (VSGMU210).

```
VSGMU210----- Sysgen Archive Control Information Screen -----
COMMAND ==>
Archive Task and Current Volser Usage:
  Opt(s)  Taskid      Volser File      Volser File
==>      ARCH1      Tape ==>         Optical ==>
==>      ARCH2      Tape ==>         Optical ==>
==>      ARCH3      Tape ==>         Optical ==>

Retention:
  Tape Gens==>      DASD Gens ==>      Optical Gens ==>
  Days==>          Days ==>          Days ==>

SMS Classes:
  Data ==>          Mgmt ==>          Storage ==>

General Archive Processing Options:
Archive Resource Utilization SMF Record (0=None or 129-255) ==> 0
Encrypt <Y/N> ==>          Key Interval <001 - 365> ==> 0
Bundle Reprint: Available Media (T,D,S,O,N) ==> D , T , S , 0

Tape Management System ==> 0  0=None,      2=Online TLMS  3=Batch CA-1
                               4=Batch TLMS  5=Batch RMM   9=98000
```

You can override the default retention for individual reports by defining retention on the Report Archive Definition Screen (VARMU100).

```
VARMU100-----Report Archive Definition Screen-----
COMMAND ==>
ADD Add Archive Definition      Data Center:
DEL Delete Archive Definition

Report ==>          Jobname ==>

Retention:
  Tape Gens ==>      DASD Gens ==>      Optical Gens ==>
  Days ==>          Days ==>          Days ==>

Duplicate Copy (Y/N) ==>

DASD Unit ==>

SMS Classes:
  Data ==>
  Management ==>
  Storage ==>

Archive Resource Parameters:
  Archive With Resources ==>
  Report Resource Group ==>
  Report Resource Parm  ==>

-----
| Archive With Resources Options: |
| N = 1 Copy Without Resources   |
| Y = 1 Copy With Resources      |
| B = 1 Copy With Resources,    |
|   1 Copy Without Resources    |
-----
```

Be sure to consider the amount of time you want reports to be retained and the number of occurrences of a report that are to be kept in your database.

Retention for New Reports

When you archive a report for the first time, CA Dispatch determines retention by checking the retention value set for the report on the Report Archive Definition Screen (VARMU100).

- If this report matches a report definition's report and jobame, CA Dispatch uses the retention set on the VARMU100 screen.
- If there is no match, CA Dispatch autobuilds the AR-BASE record using the default retention from the Sysgen Archive Control Information Screen (VSGMU210) and sets the AUTOBUILT flag on.

Note: The retention set at this time remains in effect for *this* report until the last archived occurrence (generation) of the report is removed from the database. The autobuilt base record is deleted at that time.

Changing Default Retention

If you decide to change the default retention on the Sysgen Archive Control Information Screen (VSGMU210), all reports subsequently archived with the system default retention (SD) will now use the new default retention.

Note: Changing this screen does not change retentions for reports that were created with the old retention definitions. Existing AR-BASE records are not changed.

To change any existing archive report base records that do not use the system default retention (SD), update each base record with the new retention through the Report Archive Definition Screen (VARMU100).

Note: When producing the DSCULP21 Archive Volser Report, any report that has a retention value of SD (indicating use of the sysgen or system default), retention will show on the DSCULP21 output with a value of all 9s in both the DAYS and GENERATIONS fields. All 9's is the value that is stored on our database and what triggers the archive cleanup process (DSEXTMIG or DSEXPSAR) to use the sysgen defined retention from the VSGMU210 screen.

Archive Report Selection

Reports are selected for archive processing based on the following:

- Any report processed by the RPI subtasks that includes archive storage media on the Report Base Definition Screen (VRDMU110) screen.

On this screen, indicate which storage media you want to use to archive the report. When you specify archive option D(ASD), O(ptical), S(MS), or T(ape), the CA Dispatch RPI subtasks update the report on CADDSP, indicating that the report is to be archived, and all the storage media requested.

- Any report matching the SYSOUT class/destination combination defined on the Dedicated Sysout Control Information Screen (VSGMU105)

This method saves system overhead if your site does not plan to initially print the report or send it to online viewing.

Archive Subtask Process

When the Archive subtask starts, it queries CADDSP for reports to be archived. CA Dispatch archives the report to each storage media defined on the Report Base Definition Screen (VRDMU110). This can involve mounting the media device, allocating a data set to the media, and writing the report to the media. A database record (AR-REPORT), which contains the archive date, media device type and data set information is stored after the report is archived. Reports are archived individually with individual retentions.

Retrieving Archived Reports from the Database

The Extract subtask is responsible for retrieving archived reports. A full copy of the report is cycled back through the distribution process with the requested distribution attributes.

Extract and distribution options are:

- Original distribution for all recipients
- Original distribution with selected recipients

For example, a report has fifty recipients and Joe L., one of those recipients, has lost his report. He was originally defined to receive only selected pages. When you extract this report from archive, indicate that you want to reprint it with selected recipients. From the list of recipients of this report, select only Joe L.

When this report is distributed, only Joe's report with his selected pages is distributed.

- Distribute with a completely new definition
- Send directly to Online Viewing

- Re-archive with original retention
- Re-archive with new retention parameters

Note: To reprint a report that is on the tape currently being used by the Archive subtask, end the Archive subtask before attempting to extract from that tape. See the [Active Archive Volser Management](#) (see page 233) section for more information.

Active Archive Volser Management

When one or more archive tasks are active and writing to tape, the currently active tapes are not available to the Extract subtask for reprinting reports. The active Volsers are displayed on screens VSGMU210, VARMI200 and VARMI220.

There are several ways to free the current archive tape for use by the Extract subtask. Be aware that when you close the tape out (see the second and third options), the Archive subtask requests that a new tape be mounted; it no longer appends reports to the closed Volser. Closing out Archive tapes results in the inability to exploit a tape's full capacity.

- Manually issue the END command (E ARCH) from the ENTER NEXT TASK CODE prompt.

Once the report(s) are extracted from this Volser, simply restart the ARCHIVE subtask through normal channels by manually issuing the S ARCH or S ARCH XT command.

Note: The archive tape is only deallocated; it is not permanently closed with this process.

- Use the Sysgen Archival Control Information Screen (VSGMU210)

To permanently close the tape, use the space bar to clear the Act VOLSER(s) field, then press **Enter**.

- Use the online CLEAR command which closes the active Archive Volser. The command can be executed in the following ways:
 - Execute the task from the Enter Next Task Code prompt.
 - Execute the task from the console.
 - Submit a UCFBAT job, which executes in batch mode.

Use the following command syntax from the Enter Next Task Code prompt and Batch:

```
CLEAR option
```

Use the following command syntax from the console:

```
R xx,99CLEAR option
```

Command options include:

CLEAR ALL (all TAPE and OPTICAL volsers for all archive tasks)
CLEAR ALLTAPE (all TAPE volsers for all archive tasks)
CLEAR ALLOPTI (all OPTICAL volsers for all archive tasks)
CLEAR ARCHxTAPE (only the TAPE volser for the archive task specified by x)
CLEAR ARCHxOPT (only the TAPE volser for the archive task specified by x)

Maintaining the Archives by Deleting Expired Reports

An archive is essentially an index system. CA Dispatch does not directly control storage media—it tracks the data sets it created, which are stored as archive records.

When a report's retention parameters are met, the report is eligible for deletion. A batch maintenance utility (DSEXTMIG or DSEXPSAR) is run which executes the MIGRATE command. The MIGRATE command deletes archive records (each AR-REPORT occurrence) that have exceeded their retention.

Note: If all AR-REPORT records for an AR-BASE are deleted and the record has been autobuilt, the AR-BASE is deleted. If the record was not autobuilt, or if it was autobuilt and later the default retention was overridden, the AR-BASE is not deleted automatically.

For reports archived to tape, when all the records for an entire VOLSER have been deleted, that tape appears on the VOLSER Report from the batch maintenance job (DSEXTMIG or DSEXPSAR). This tape is now available for the scratch pool. What happens next depends on how you set up the Tape Management System interface on the Sysgen Archive Control Information Screen (VSGMU210). For more information, see [Tape Management Systems](#) (see page 240) later in this chapter.

Note: DASD datasets migrated to "ARCHIV", "ARCIVE" and "MIGRAT" will not be recalled. Archive maintenance utilities will not operate correctly if ARCHIV, ARCIVE or MIGRAT are assigned to real tape volumes.

For more information:

[Checklist of Daily Procedures](#) (see page 277)

Determining Whether to Run Internal or External Archive and Extract

You can run the Archive and Extract tasks internally under the main region of CA Dispatch or as external tasks, running in their own address spaces.

External is the recommended method. You can distribute reports at the same time you are archiving and extracting them. The online system does not wait for a tape mount to be satisfied to continue, which happens with internal Extract and Archive.

Note: For information about running the external tasks as started tasks rather than batch jobs, see the chapter "[Starting CA Dispatch and the Subtasks](#) (see page 33)" in this guide.

How to Implement Archiving

This section provides a detailed explanation of:

- The Sysgen Archive Control Information Screen (VSGMU210)
- Sysgen Archive Task Information Screen (VSGMU215). The screen fields are grouped in topics.

Use these screens to supply your archiving parameters. Be sure to carefully consider the following before you enter your values:

- Where do you want to archive the reports?
- How long do you want to retain the archived reports?
- Is microfiche a viable option for reports saved longer than six months?
- Do you want to dedicate a tape drive to CA Dispatch?
- Do you want to mount a new tape at startup?
- What are the special retention considerations for tape library management systems?

The Sysgen Archive Control Information Screen (VSGMU210)

Use the Sysgen Archive Control Information Screen to establish default characteristics for archiving reports to tape. Supply definitions in these fields and press **Enter**.

To access the Sysgen Archive Control Information Screen (VSGMU210):

1. From the Report Distribution Option Menu (VRDMI000), select Option 9, SYSGEN.
2. From the Sysgen Option Menu (VSGMI100), select Option A.

```

VSGMU210----- Sysgen Archive Control Information Screen -----
COMMAND ==>
Archive Task Options:
  Opt Taskid  Current Volser/File      Current Volser/File  Class  Dest
=> - ARCH1  Tape ==> 294927      3 Optical ==>          R   B7ARCH
=> - ARCH2  Tape ==>          Optical ==>          R   B7ARCH
=> - ARCH3  Tape ==>          Optical ==>          R   B7ARCH
  S - Select

Retention Options:
Tape Gens ==>          DASD Gens ==>          Optical Gens ==>
  Days ==> 99999      Days ==> 99999      Days ==> 99900

SMS Class Options:
  Data ==> SMSXDATA  Mgmt ==> SMSXMGMT  Storage ==> SMSXSTRG

General Archive Processing Options:
Archive Resource Utilization SMF Record (0=None or 129-255) ==> 0
Encrypt (Y/N) ==> N          Key Interval (001-365) ==> 0
Bundle Reprint Available Media Sequence (N or T,D,S,0) ==> D , T , S , 0

Tape Management System ==> 0    0=None          2=Online TLMS    3=Batch CA-1
                              4=Batch TLMS    5=Batch RMM      9=98000
    
```

Archive Task and Current Volser Usage:

These fields indicate the volume serial number and file sequence number that each of the individual Archive tasks is currently using.

Note: To define more processing options for a specific archive task, select that task and press **Enter**. This displays the Sysgen Archive Task Information Screen (VSGMU215), discussed later in this chapter.

Tape ==>

The volume serial number of the tape currently being recorded on. You can only input spaces in this field. If this value is set to spaces, the currently mounted tape is closed and the next time a report is archived, it goes to a new tape. This field is automatically updated by the archiving function to indicate the volume being written to.

Note: When the archive task is active and writing to tape, the currently active tape is not available to the Extract subtask for reprinting reports. Review the topic [Active Archive Volser Management](#) (see page 233) earlier in this chapter.

File:

The file sequence number on the tape assigned to the next report to be archived. The archiving function automatically updates this field as reports are archived.

Optical ==>

The volume serial number of the 'virtual tape' used by the optical device currently being recorded on. You can only input spaces in this field. If this value is set to spaces, the currently mounted optical device is closed and the next time a report is archived, it goes to a new volume. This field is automatically updated by the archiving function to indicate the volume being written to.

File:

The file sequence number on the optical device assigned to the next report to be archived. The archiving function automatically updates this field as reports are archived.

Retention:

When retention has not been specifically defined for the report, the following retention information fields determine how long a report is kept before CA Dispatch deletes the AR-Report record pointing to it.

You can specify retention values for either days or generations specific to the media type (Tape, DASD, or Optical device). If you specify both Gens and Days, CA Dispatch processes this as an AND condition; both days and generations must be reached before the archive report can be deleted.

Important! Give careful thought to how long your site wants to retain an archived report before this retention is set. Changing retention at a later date can be a labor-intensive task. Review the topic [Changing Default Retention](#) (see page 231) earlier in this chapter.

Tape Gens ==>

The number of generations (number of occurrences of this report) to hold a report before deleting it from tape. This three-character numeric value is in the format nnn. This field is not relevant to external tape generations and is used within CA Dispatch only.

Days ==>

The number of days to hold a report before deleting it from tape. This five-character, numeric value is in the format DDDDD. This field allocates expiration dates for individual reports. If your tape management system cannot handle individual data set expirations, set this field to the longest expiration of any report and do not use the individual report retention in days. In general, tape management systems use the expiration of the first data set on a volume for the entire volume.

DASD Gens ==>

The number of generations (the number of occurrences of this report) to hold a report before deleting it from DASD. This three-character numeric value is This three-character numeric value is in the format nnn. This field is not relevant to external tape generations. It is used within CA Dispatch only.

Days ==>

The number of days to hold a report before deleting it from DASD. This value is used when none is specifically defined for the report. This five-character numeric value is in the format DDDDD.

Optical Gens ==>

The number of generations (number of occurrences of this report) to hold a report before deleting it from an optical storage device. This three-character numeric value is in the format nnn. This field is not relevant to external tape generations It is used within CA Dispatch only.

Days ==>

The number of days to hold a report before deleting it from an optical storage device. This value is used when none is specifically defined for the report. This five-character numeric value is in the format DDDDD.

Note: Retention affects how quickly the AR-AREA of the database fills. When file utilization exceeds 80%, performance is affected. See the Troubleshooting section for information about running DSEXSTAT.

SMS Classes

The following parameters are used when archiving reports to DASD under SMS (IBM's Data Facility Storage Management System) control:

Data ==>

The Data Class assigned to a data set determines the characteristics of the data set, such as whether the data set is VSAM or non-VSAM and the number of records that the data set contains. Data Class also indicates DCB information.

Management ==>

The Management Class indicates how the data set is treated by DFHSM. The Management Class also defines data set retention information.

Storage ==>

The Storage Class assigned to a data set reflects the service requirements of the data set; these include performance and availability requirements. Storage class also indicates the type of storage on which the data set resides.

Encrypt (Y/N)

Use this option to control whether all new report or MSGCLASS data, processed by the Archive tasks, will be stored on all archive media using the ICSF AES algorithm.

The encryption key is stored in the ICSF CKDS data set and is changed every *nnn* days throughout the year. The client must backup the ICSF CKDS data set and restore this data set at the DR site. The ICSF CKDS data set is required for decrypting report data.

Note: This option has the potential to significantly impact performance and increase the operating system resources required to operate the product. True business need should be determined before activating this option.

Y

This option indicates that key encryption will be performed on all report data processed by the Archive tasks; and the report data will be stored on all archive media in ICSF key encrypted format.

N

This option indicates that key encryption will not be performed on report data processed by the Archive tasks. This is the default option.

Key Interval (001-365)

This parameter is required if the Encrypt option is set to 'Y'. This parameter specifies the control interval, in number of days, to rotate ICSF encryption keys. Valid days are 1 thru 365. The recommended value is 365 days.

Bundle Reprint: Available Media (T, D, S, O, N) ==>

Values for available media are T (Tape), D (DASD), S (SMS), O (Optical), and N (None).

The VRDMI440 screen uses the entries in this Available Media field as a list of Archive Media that can be used to reprint reports.

Available Media Considerations:

- The Available Media field on the VRDMI440 screen determines the order the Archive Media should be used. If a report has been archived to DASD and to Tape, the sequence that the media appears determines the order the media are used.

For example, if a report is archived to DASD and to Tape, the Bundle Reprint builds an Extract request for the version of the report residing on DASD.
- For Available Media D, S, or T, the Optical media option is not being used for Bundle Reprint.
- For Available Media N, the Bundle Reprint does not use archived reports.

- If the report is in OLV (Online Viewing), the report is reprinted.
- If the report is not in OLV but has been archived, the VRDMI440 screen lists the report as Not available since the available media indicates None.

Archive Resource Utilization SMF Record (0=None or 129-255) ==>

If you want to maintain an audit of Archive resources used by reports, enter a value that is used as the SMF record type for the resource utilization record.

Note: This audit record is recorded in the SMF files. If zero is specified, the audit record is not created. Valid values are from 129 to 255. We recommend that you do not use 144, 145 or 146; these values are the default special user SMF records that CA Dispatch uses for print times, bar code tracking, and NJE tracking, respectively.

Tape Management Systems

Use this value to activate the tape management interface code. You must specify 0, 2, 3, 4, 5 or 9. See the section [Using Tape Management Systems](#) (see page 240) for more information.

Archive Sysout Options: Class: Destination

These fields display CADDSP class and destination designated in the Archive Input field on the Dedicated SYSOUT Control Information Screen (VSGMU105).

Using Tape Management Systems

The possibilities for tape interface include:

- No interface - Option 0 (the default)
No interface exists between the tape management system and CA Dispatch or you do not have a tape management system.
- No interface – Sets 98000 expiration - Option 9
- Interface with CA Dynam/TLMS for Online - Option 2
- Interface with CA 1 for Batch - Option 3
- Interface with CA Dynam/TLMS for Batch - Option 4
- Interface with DFSMSrmm for Batch – Option 5

No Tape System Interface - Option 0 or Option 9

Be aware of the following:

- If you do not use a tape management system,
CA Dispatch batch maintenance will provide a Volser Report that lists information about when a Volser can be scratched. It will also identify these Volsers as available in the Sysgen Tape Pool.
- If you have a tape management system:
 - Specifying Option 0 means that CA Dispatch will not communicate Volser retention and expiration information to the tape management system.
 - Specifying Option 9 causes the expiration date to be set to 98000.
Note: By allowing CA Dispatch to control tapes in this manner, you lose the advantages that an automated tape management system provides.

Retention Considerations, Option 0 and 9

Option 0, No Interface, implies that there is no communication between CA Dispatch and the tape management system.

Note: CA Dispatch puts a retention date on each archived data set.

How the tape management system handles the scratching of the VOLSERS depends on what tape management system you have and what default options are set up for it. With Option 9, the expiration date is set to 98000 communicating to most tape management systems that this is an externally managed tape.

Results When Using Option 0 or 9

Specify Option 0 with the following results:

- If you have a tape management system, it tracks the multiple data sets that CA Dispatch stacks on a tape. This causes your tape management system considerable overhead and adversely affects CA Dispatch performance when archiving and extracting reports.
- When the batch maintenance job with the MIGRATE command is executed, eligible archived records are deleted. The VOLSER Report lists the tapes that can be scratched.
- Your tape management system may prematurely scratch one of CA Dispatch's archived tapes when you have no interface.

Note: With this option, you should not specify Generations as a parameter for retention of archived data sets.

Specify Option 9 and establish a subpool in the Sysgen Tape Volser Pool Screen (VSGMU220) with the following results:

- When the batch maintenance job with the MIGRATE command is executed, eligible archived records are deleted. Tapes eligible to be overwritten are returned to the Sysgen Tape Volser Pool.
- The option prevents your tape management system from prematurely scratching archive tapes.
- The option reduces overhead to your tape management system. By assigning 98000 retention, the data sets are not tracked. This alleviates performance problems for CA Dispatch.
- CA Dispatch determines when the archive tapes can be overwritten. You can specify archive retention in both days and generations.

CA Dynam/TLMS for Online - Option 2

Option 2 is one of two interface options available with CA Dynam/TLMS.

Every time the Archive task ends or a tape becomes full, the retention of the tape that is currently being used is updated and set to the highest retention date of any report that has been put on that tape. At the time the tape is dismounted, a batch update job (DSEXTLMS) referenced by the //TLMS DD statement in the JCL jobstream of the CA Dispatch main task is submitted to the internal reader. It invokes CATRPTS, the CA Dynam/TLMS batch update procedure. CA Dynam/TLMS is then responsible for scratching the tape when the retention date is reached.

One limitation with selecting Option 2 for Online TLMS is that the retention of archived reports can only be specified in days, not generations. The parameters for retention can be specified in the following places:

- The system default retention value is set on this screen (VSGMU210) in the Retention field.
- This default retention can be overridden for individual reports on the Report Archive Definition Screen (VARMU100).

In either case, specify a retention value for Days but leave the Gens field blank.

Note:

- For either the batch option or the online option, the high-level qualifier of the DSN prefix set on the VSGMU215 screen must be defined to CA Dynam/TLMS as a CA Dynam/TLMS TYPE 2 (Keep Date) retention-method data set.
- For more information, see the topic CA Dynam/TLMS Tape Management in the chapter "Product Integration" of the *Systems Programmer Guide*.

Retention Considerations, Option 2

TLMS tracks only the name of the first data set on the tape. The keep date is the highest retention of any data set on the tape. All other data sets (reports) are given a 98000 retention.

Once the retention of an individual tape is set, CA Dynam/TLMS will determine when to actually scratch it. If an archive retention is changed within CA Dispatch, the base record for retention may not be in synchronization with the keepdate set for any previously archived tapes.

For example, a report was archived today. If the retention was 30 days for that report and it had the longest retention of any data set on this tape, then the keepdate for the tape is 30 days from today. Later, the report administrator decides he needs to keep new occurrences of the report for 60 days and changes the retention on VARMU100. CA Dispatch maintains an entry for today's report for 60 days. TLMS scratches the tape on which today's report was written in 30 days.

To use Option 2, follow these steps:

1. Perform the setup procedures described in the chapter "Product Integration" in the *Systems Programmer Guide*.
2. When adding or changing report definitions (VSGDU210 or VARMU100), the retention date should be specified in days only.
3. Execute the batch maintenance utility (CADSPSAR/CADSTMIG) with the MIGRATE command on a regular basis.

Results when Using Option 2

- The first data set on a tape initially retains its original expiration date. The remaining data sets receive an expiration date of 98000. When the tape is dismantled after archive, a CA Dynam/TLMS command is created requesting update of the TLMS catalog and the expiration date of the longest held data set on the tape. This command is passed to the batch job referenced by the TLMS JCL DD statement in the startup JCL for CA Dispatch.
- Changing retention of archived report definitions on VARMU100 may cause CA Dispatch and CA Dynam/TLMS to be out of synchronization.

Notes:

- Retention changes made manually in CA Dispatch are not picked up for already managed tapes by CA Dynam/TLMS.
- When using TLMS Option 2, CA Dispatch does not communicate to TLMS that the reports on a tape have been condensed to a new tape and that the old tape can be scratched. The old tapes have to be manually scratched. The alternative and suggested method is to setup and use TLMS BATCH Option 4.

CA 1 for Batch - Option 3

Option 3 indicates that CA Dispatch is to be treated as an External Data Manager (EDM) to CA 1. The Archive tapes are set with permanent retention by CA 1. Only CA Dispatch tracks the individual data sets on this tape. CA Dispatch must notify CA 1 when a tape can be scratched.

Note: For more information, see the topic CA 1 Tape Management in the chapter "Product Integration" of the *Systems Programmer Guide*.

Retention Considerations, Option 3

Option 3 causes the first data set on a CA Dispatch archive tape to be set with an expiration date of 2099365 and to presume that its tapes will be treated as externally managed by CA 1.

If the proper EDM interface is established, CA 1 will assign PERM for the tape retention and treat it as a single file, single volume tape. It is up to CA Dispatch to track those data sets. When an execution of the CA Dispatch batch maintenance utility with the MIGRATE command indicates that all data sets on a tape have exceeded their retentions, CA 1 is called directly to scratch the tape. Since CA Dispatch controls when the tapes are scratched, you can specify retention in both Days and Gens.

To use Option 3, follow these steps:

1. Perform the setup procedures described in the chapter "Product Integration" in the *Systems Programmer Guide*.
2. Execute the batch maintenance utility (CADSPSAR/CADSTMIG) with the MIGRATE command on a regular basis. When all the archived records for a particular VOLSER have been deleted from the Archive database, this job will call the CA 1 interface program (TMSTMSTV) to scratch that Volser.

Results when Using Option 3

- Enhanced performance of CA Dispatch during Archive and Extract.
- CA 1 handles the tape scratching based on a call from CA Dispatch when the MIGRATE command is executed. You have maximum flexibility in defining retention (Days or Gens) because CA Dispatch determines when the tape is scratched.
- You can change the retention of archived reports on VARMU100 and cause the retention of previously archived reports to be changed.

CA Dynam/TLMS for Batch - Option 4

When you specify Option 4, the Archive tapes are set with permanent retention. Only CA Dispatch tracks the data sets on this tape. CA Dispatch must notify CA Dynam/TLMS when a tape can be scratched. Use the batch maintenance utility with the MIGRATE command to produce the VOLSER Report. The VOLSER Report contains a list of tapes to be scratched. This data set is passed on to the job that executes the CA Dynam/TLMS CATRPTS PROC for processing.

Note:

- For either the batch option or the online option, the archive high-level qualifier of the DSN prefix set on the VSGMU215 screen must be defined to CA Dynam/TLMS as a CA Dynam/TLMS TYPE 2 (Keep Date) retention-method data set.
- For more information, see the topic CA Dynam/TLMS Tape Management in the chapter "Product Integration" of the *Systems Programmer Guide*.

Retention Considerations, Option 4

Option 4 causes the first data set on a CA Dispatch archive tape to be set with a permanent expiration date of 2099365. The remaining data sets receive an expiration date of 98000. It is up to CA Dispatch to track those data sets and communicate with CA Dynam/TLMS when a tape should be scratched. When an execution of the CA Dispatch batch maintenance utility with the MIGRATE command determines that all data sets on a tape have exceeded their retentions, a record requesting tape scratch is written to a file. This file is then input to the CA Dynam/TLMS batch update process. Since CA Dispatch controls when the tapes are scratched, you can specify retention in both Days and Gens.

To Use Option 4, follow these steps:

1. Perform the setup procedures described in the chapter "Product Integration" in the *Systems Programmer Guide*.
2. Execute the batch maintenance utility (CADSPSAR/CADSTMIG) with the MIGRATE command on a regular basis.

When all the archived records for a particular VOLSER have been deleted from the Archive database, this job will write the command to scratch that VOLSER to the dataset specified by the //SCRATCH DD statement.

3. Execute CATRPTS, the batch job that updates the TLMS VMF (volume master catalog). Be sure that each time this job runs, it deletes the scratch file that is allocated from the prior batch maintenance utility run.

Results When Using Option 4

- Enhanced performance of CA Dispatch during Archive and Extract.
- CA Dynam/TLMS handles tape scratching using commands sent from CA Dispatch when batch maintenance utility (CADSPSAR/CADSTMIG) with the MIGRATE command is executed. You have maximum flexibility in defining retention (Days or Gens) because CA Dispatch determines when the tape is scratched.
- You can change the retention of archived reports on VARMU100 and cause the retention of previously archived reports to be changed.

DFSMSRmm for Batch - Option 5

Option 5 indicates that CA Dispatch archives data sets to tapes managed by DFSMSrmm. Only CA Dispatch tracks the data sets on this tape. CA Dispatch must notify DFSMSrmm (Data Facility System Managed Storage Removable Media Manager) when a tape can be scratched.

Note: For more information, see the topic DFSMSrmm Tape Management in the chapter "Product Integration" in the *Systems Programmer Guide*.

Retention Considerations, Option 5

Option 5 causes the first data set on a CA Dispatch archive tape to be set with an expiration date of 2099365 and to presume that its tapes will be treated as externally managed by DFSMSrmm.

If the proper EDM interface is established, DFSMSrmm will assign PERM for the tape retention and treat it as a single file, single volume tape. It is up to CA Dispatch to track those data sets. When an execution of the CA Dispatch batch maintenance utility with the MIGRATE command indicates that all data sets on a tape have exceeded their retentions, the programming interface EDGTVEXT is invoked to request DFSMSrmm to release tape volumes. Since CA Dispatch controls when the tapes are scratched, you can specify retention in both Days and Gens.

To use Option 5, follow these steps:

1. Perform the setup procedures described in the chapter "Product Integration" in the *Systems Programmer Guide*.
2. Execute the batch maintenance utility (CADSPSAR/CADSTMIG) with the MIGRATE command on a regular basis. When all the archived records for a particular VOLSER have been deleted from the Archive database, this job will call the programming interface EDGTVEXT to scratch that Volser.

Results When Using Option 5

- Enhanced performance of CA Dispatch during Archive and Extract.
- DFSMSrmm handles the tape scratching based on a call from CA Dispatch when the MIGRATE command is executed. You have maximum flexibility in defining retention (Days or Gens) because CA Dispatch determines when the tape is scratched.
- You can change the retention of archived reports on VARMU100 and cause the retention of previously archived reports to be changed.

The Sysgen Archive Task Information Screen (VSGMU215)

To access the Sysgen Archive Task Information Screen (VSGMU215) from the Sysgen Archive Control Information Screen (VSGMU210), select one of the Taskids (enter **S** in the Opt field) and press Enter.

```
VSGMU215----- Sysgen Archive Task Information Screen -----
COMMAND ==>
Task ==>
Archive Task Characteristics:
  Dsn Prefix ==>
  Tape:
    Unit ==>
    Dedicated Tape Drive (Y/N) ==>
    Mount New Volser at Startup (Y/N) ==>
  Optical:
    Unit ==>
    Type (M/D/F) ==>
    Mount New Volser at Startup (Y/N) ==>
  DASD:
    Unit ==>
```

Archive Task Characteristics (for Individual Reports):

Use this screen to establish Archive Task Characteristics for archiving reports by media type. Enter definitions in these fields, and press **Enter**.

DSN Prefix ==>

Defines a set of JCL characteristics. The DSN prefix is the first 20 characters of the data set name for the file where the report is archived. It must end with a period. The suffix of the name is generated automatically by the archive task when it allocates the file. This prefix allows you to follow your site's naming standards.

Notes:

- The DSN prefix must meet site standards if you are using SMS or it is excluded from SMS control. Refer to the appropriate IBM publication and consult your system programming staff.
- To avoid contention with duplicate file names when using multiple archive tasks, add unique qualifiers (such as ARCH1, ARCH2, ARCH3) to the DSN prefix defined on the Sysgen Archive Task Information Screen (VSGMU215).

The following variables are permitted in this definition and allow identification of data and the files to be secured outside of CA Dispatch:

- &JOBN is the job name of the report being archived.
- &RPTN is the report name of the report being archived. If you allow CA Dispatch to archive MSGCLASS messages using the VIEW ARCH command, the &RPTN is MSGCLASS.

If a VOLSER is inadvertently deleted from the CA Dispatch database and the tape has not been scratched yet, you can still recover a report that is on that tape. First generate a tape map which lists the file names. The individual reports are easily identified by the resolved &JOBN and &RPTN in the DSN Prefix field. You can copy the desired report to a data set and print it.

Using &JOBN and &RPTN also allows you to secure archived data sets individually with your external security system, preventing unauthorized users from accessing, copying or printing it..

Archive automatically assigns the rest of the data set name in the following format:

Dyyddd - The constant D followed by the Julian date on which the report was archived.

Thhmmss - The constant T followed by the time in hh:mm:ss format when the report was archived.

mnn - A constant, D(ASD), S(MS), O(ptical) or F(tape) followed by the number of reels or units on which the data set resides.

Tape:

Unit ==>

The generic unit names. The field is eight characters and alphanumeric. If you are using the Tape Volser Pool (see VSGMU220), this unit field must be the same value for *all* Archive tasks.(The tapes specified in the Tape Volser Pool must be only one type – all 3480's, all 3490's, all 3590's, etc.)

Note: If you are not using the CA Dispatch tape pool, you can specify differing unit names for the three ARCH subtasks.

Important! If your site is switching from tapes to cartridges, some reports may be archived to tapes, others to cartridges. You can extract a report from a reel when you specified CART in this unit field. The Extract task of CA Dispatch obtains the device type from the AR-REPORT record for each archived occurrence.

Dedicated Tape Drive (Y/N) ==>

Specify either Y or N.

If you do not dedicate a tape drive, each report to be archived requests a new tape mount on any available drive. See [Dedicated Tape Drive Considerations](#) (see page 250) later in this chapter.

Mount New Volser at Startup (Y/N) ==>

Specify either Y or N for Tape.

When you specify Y, a new tape volume is used each time you start the Archive subtask. With N specified, the current volume is remounted and used for archive until it is completely filled.

Note: Specifying a value of Y for this parameter causes CA Dispatch to not take full advantage of a tape's capacity.

Optical:

Unit ==>

Enter the optical unit name that your site has defined for the optical drive.

Type (M/D/F) ==>

Enter a value to indicate the vendor of the optical disks you are using.

- **M**—indicates Memorex. This support is achieved through normal archive processing because it operates in tape/cart emulation mode.
- **D**— indicates Data/Ware. This support is achieved through normal archive processing because it operates in tape/cart emulation mode.
- **F**—indicates FileTek. This support is achieved through a special interface between CA Dispatch and FileTek's Storage Machine.

Note: Only Option F causes special archive processing to occur.

Mount New Volser at Startup: (Y/N) ==>

Specify either Y or N for the optical types that use tape emulation. When you specify Y, a new optical volume is used each time you start up Archive. With N specified, the current volume is remounted and used for archive until it is completely filled.

DASD:

Unit ==>

The Generic Disk unit name, such as SYSDA for DASD disk units.

Dedicated Tape Drive Considerations

When reports are written to tape, they are written as individual files and always appended to the currently active tape so that full use of a physical tape is made.

When there are many reports to be archived, a dedicated tape drive saves the time required to mount the active tape and scan it to write the new report as the next sequential file. If a site cannot afford to dedicate a tape drive for the life cycle of the CA Dispatch processes, it can schedule periodic startup and shutdown cycles of the Archive task as reports to be archived accumulate in the archive queue. A dedicated tape drive is only allocated during the time the Archive task is active. When the Archive task is brought down, the tape drive is de-allocated.

For example, there are ten reports sitting in CADDSPSPL waiting to be archived to tape. If you specify YES and dedicate the tape drive, while the Archive subtask is active, CA Dispatch will:

1. Call for the VOLSER that Archive has been using.
2. Archive the ten reports individually with their own retention.

When the Archive subtask ends, the tape drive is released. The starting and ending of the subtask can either be handled manually by operations personnel at the Enter Next Task Code prompt, or you can schedule the starting and ending of Archive through your scheduling system using DSEXBCMD. The execution JCL for this program resides in the CADSJCL library.

If you specify NO, do not dedicate a tape drive, CA Dispatch will:

1. Call for the VOLSER that Archive has been using.
2. Archive only one report of the ten to be archived.
3. Request that the tape be dismounted.
4. Request that the same tape be mounted again.

This sequence is repeated for each of the remaining reports.

Condensing Existing Archive Tapes

To manage and reduce tape usage, it is beneficial to move reports that have long term retention definitions from a largely unused tape (most reports have expired) to a new tape. The CONDENSE component is a batch utility that identifies candidate VOLSERS by selection criteria, moves every unexpired report from the target VOLSER(s) to a new one and updates the archive database with the new volser, unit and file sequence information while maintaining the original report's expiration. CONDENSE also produces the following reports:

- Condensed VOLSER Activity Report
- Archive Condense Selection Report

Notes:

- The archive condense utility does not work with reports that have been archived to DASD.
- Tapes that are freed by execution of the archive condense are only "flagged" for deletion by the condense utility. The tapes are not actually deleted or freed until the archive cleanup process (DSEXTMIG or DSEXPSAR) is executed and communication is made to the tape management system so that the tapes can be scratched.

Running the CONDENSE Utility

To run the CONDENSE Utility, you must do the following:

1. Locate DSEXARC(L).
2. Modify the parameters.
3. Modify the SYSIN members.
4. Submit the job.
5. Review the reports.

Each of these steps is explained in the following steps.

Step 1: Locate DSEXARC

Locate DSEXARC (or DSEXARCL) in the CADSJCL library. It looks like this example:

```
//DSEXARC JOB
//*JOBPARM SYSAFF=----
//*
//*****
//* FUNCTION : PROCEDURE TO EXECUTE ARCHIVE BATCH UTILITY
//*
//* DSEXARC - EXECUTES ARCHIVE BATCH UTILITY PROGRAM CADRARUT
//*          USING THE 'CONDENSE' FUNCTION.
//*
//* *** RUN THIS PROC WITH THE CA DISPATCH ONLINE UP ***
//*
//*------
//*          I M P O R T A N T
//*
//* PROC CADRARUT IS A TWO STEP PROCEDURE. STEP EXECARCN (VOLSER
//* SELECTION) CREATES AN INTERFACE FILE (DD NAME ARUTOUT) THAT
//* WILL BE USED BY STEP EXECARUT (ARCHIVE UTILITY). THIS FILE
//* CONTAINS CURRENT DATABASE INFORMATION. FAILURE TO EXECUTE
//* THE STEPS CONSECUTIVELY MAY RESULT IN DATABASE ERRORS.
//*
//*------
//*
//* THE FOLLOWING IS LIST OF INPUT MEMBERS
//*
//*          DSARCN01 = DEFAULT CONDENSE 'INVOL' INPUT PARAMETERS
//*          DSARUT01 = DEFAULT CONDENSE 'OUTVOL' INPUT PARAMETERS
//*
//*****
//*
```

```
//EXECARC EXEC CADSARC,
//*
//      LOGIC='LOGIC=AND',           * CONDENSE LOGIC PARM
//      LINES='#LINES=001000000000', * CONDENSE #LINES PARM
//      REPORTS='#REPORTS=001',      * CONDENSE #REPORTS PARM
//      TUNIT='CART',                * CONDENSE OUTPUT UNIT
//      INVALID='D',                 * CONDENSE INVALID PARM
//      MEMBER1='DSARCN01',          * CADSARC CONTROL MEMBER
//      MEMBER2='DSARUT01',          * CADSARUT CONTROL MEMBER
//      DSHLQ='CAI.DISP',            * DSN HIGH LEVEL QUALIFIER
//      LOADLIB='CAI.CADSLoad',       * LOAD LIBRARY
//      OPTLIB='CAI.CADSOPTN',        * OPTION LIBRARY
//      SRTLIB='SYS1.SORTLIB',        * SORT LIBRARY
//      SOUT='*',                     * SYSOUT CLASS FOR REPORT
//      UNIT='SYSDA'                  * DISK UNIT
//*-----
```

DSEXARCL is the condense utility that should be run with CA DISPATCH ONLINE down. It also can be found in the CADSJCL library.

Step 2: Modify the JCL Symbolic Parameters

There are two steps in the CONDENSE utility procedure.

1. This step, EXECARCN, performs the selection process. The format of the procedure statement is:

```
//EXECARCN EXEC PGM=CADSARCN,REGION=4096K,
//          PARM='&LOGIC,&LINES,&REPORTS,&TYPE'
```

Modify the symbolic parameters in the JCL as follows:

- a. // LOGIC='LOGIC=AND', * CONDENSE LOGIC PARM

LOGIC specifies the type of logic the program is to apply when selecting VOLSERS.

AND specifies that both #LINE and #REPORT limits must be met in order for the VOLSER to be selected for CONDENSE processing.

OR specifies that either #LINE or #REPORT limits must be met in order for the VOLSER to be selected for CONDENSE processing.

- b. // LINES='#LINES=001000000000', * CONDENSE #LINES PARM

#LINES=nnnnnnnnnnnn specifies a number of lines per VOLSER limit. If the number of lines on the VOLSER is over this limit, it is not selected for condense processing.

c. // REPORTS='#REPORTS=001', * CONDENSE #REPORTS PARM

#REPORTS=*nnnn* specifies the number of reports per VOLSER limit. If the number of reports on the VOLSER is over this limit, it is not selected for condense processing.

The following example of the resolved parameter specifies that to be selected for condensing the VOLSER must have no more 199999 lines OR no more than 100 reports:

```
PARM=' LOGIC=OR,#LINES=000000199999,#REPORTS=00100'
```

2. This step, EXECARUT, actually condenses the data sets and updates the archive data base. The format of the procedure statement is:

```
//EXECARUT EXEC PGM=CADSARUT,REGION=4096K,  
// PARM='CONDENSE,&TUNIT,INVALID=&INVALID'
```

Modify the symbolic parameters in the JCL as follows:

a. // TUNIT='CART', * CONDENSE OUTPUT UNIT

TUNIT specifies the type of tape media on which the reports are stored. This gives you the ability to migrate VOLSERS from tape to cart easily. The default is CART.

b. // INVALID='D', * CONDENSE INVALID PARM

INVALID indicates the type of processing to be done if an invalid VOLSER is encountered during CONDENSE processing.

- **D**—Indicates that the invalid AR-REPORT entry is soft deleted, meaning that this record is flagged for deletion and is no longer displayed on the VARM1200 screen. INVALID=D is the default setting.
- **U**—Indicates that an invalid AR-REPORT entry is flagged as invalid on the VARM1200 screen.

In either case, the report is bypassed during CONDENSE processing.

The following example of the resolved parameter specifies CART media and soft deletion of invalid VOLSER :

```
PARM=' CONDENSE, CART, INVALID=D
```

Step 3: Modify the SYSIN Members

To modify the SYSIN members:

1. In addition to the parameter selection criteria defined above, the EXECARCN step also allows selection of specific input Volsers for condense processing, regardless of whether they meet selection criteria limits.

Use the following command format:

```
INVOL=volser
```

This control card must be updated in the member defined by

```
// MEMBER1='DSARCN01',          * CADSARCN CONTROL MEMBER
```

You can manually create these control cards in the library defined for

```
//INVOL DD DSN=&OPTLIB(&MEMBER1),DISP=SHR
```

The following example creates controls cards for VOLSERS 080117 and 080118. They must be placed in the CADSOPTN library member defined by the INVOL control DD statement:

```
INVOL=080117
```

```
INVOL=080118
```

2. The EXECARUT uses the SYSIN commands to indicate whether to output the condensed reports to "scratch" VOLSERS, specific output VOLSERS, or VOLSERS from the CA Dispatch tape pool.

You can manually create and alter these control cards using the following format:

```
OUTVOL=volser/SCRATCH/POOL
```

This control card must be updated in the member defined by

```
// MEMBER2='DSARUT01',          * CADSARUT CONTROL MEMBER
```

You can manually create these control cards in the library defined by

```
//CARDIN DD DSN=&OPTLIB(&MEMBER2),DISP=SHR
```

The following example indicates that condensed reports will use scratch VOLSERS allocated by the tape management system you have specified on the VSGMU210 screen:

```
OUTVOL=SCRATCH
```

Step 4: Submit the Job

Submit the DSEXARC job with CA Dispatch up and the archive and extract subtasks down. Or submit DSEXARCL with CA Dispatch ended.

This job can fill up the archive database file. To avoid this problem:

1. After condense processing, execute either of the CA Dispatch maintenance utilities DEXPSAR or DEXTMIG to automatically delete expired archive records.
These utilities will also expire the original tapes within tape management systems CA 1, CA Dynam/TLMS, or DFSMSRmm.
2. Execute DSEXARCL on a frequent schedule.
3. Limit the number of Volsers to be condensed in a single run by altering the selection parameters used when running DSEXARC or DSEXARCL.

For more information:

[Checklist of Daily Procedures](#) (see page 277)

Step 5: Review reports produced by the Archive Condense utility

- Archive Condense Selection Report
- Condensed Volser Activity Report

Archive Condense Selection Report

The following is an example of the Archive Condense Selection Report:

```

07/22/2009-----CA DISPATCH ARCHIVE CONDENSE SELECTION REPORT-----PAGE      1
INPUT PARAMETERS = 'LOGIC=AND,#REPORTS=0001,#LINES=001000000000
VOLSER=405012  SELECTED FOR CONDENSE PROCESS - TOTAL LINES=      1 523565  TOTAL REPORTS=      18  SELECTED BY INVOL PARM

UNIT  VOLSER  FILE#      ARCHIVE DATASET NAME          # OF LINES  OVRFLO  FILE# RPTNAME  JOBNAME
CART  405012   1  ABCJA01.DSAR.ARCH.D09180.T160221.F01      8
CART  405012   2  ABCJA01.DSAR.ARCH.D09188.T160613.F01     99999
CART  405012   3  ABCJA01.DSAR.ARCH.D09188.T161601.F01     10
CART  405012   4  ABCJA01.DSAR.ARCH.D09188.T161802.F01     99999
CART  405012   5  ABCJA01.DSAR.ARCH.D09188.T162131.F01     99999
CART  405012   6  ABCJA01.DSAR.ARCH.D09188.T163144.F01     99999
CART  405012   7  ABCJA01.DSAR.ARCH.D09188.T163839.F01     99999
CART  405012   8  ABCJA01.DSAR.ARCH.D09188.T164231.F01     99999
CART  405012   9  ABCJA01.DSAR.ARCH.D09188.T164652.F01     99999
CART  405012  10  ABCJA01.DSAR.ARCH.D09189.T112447.F01     99999
CART  405012  11  ABCJA01.DSAR.ARCH.D09189.T113402.F01     99999
CART  405012  12  ABCJA01.DSAR.ARCH.D09189.T114152.F01     99999
CART  405012  13  ABCJA01.DSAR.ARCH.D09189.T114714.F01     99999
CART  405012  14  ABCJA01.DSAR.ARCH.D09189.T115159.F01     99999
CART  405012  15  ABCJA01.DSAR.ARCH.D09189.T115725.F01     99999
CART  405012  16  ABCJA01.DSAR.ARCH.D09189.T121231.F01     99999
CART  405012  17  ABCJA01.DSAR.ARCH.D09189.T122327.F01     99999
CART  405012  18  ABCJA01.DSAR.ARCH.D09189.T122737.F01    23562  454580  1  JIMARCH  ABCJA01J
    
```

Condensed Volser Activity Report

The following is an example of the Condensed Volser Activity Report:

```

DATE 2009/05/25 08:42:06
UNIT  VOLSER  SEQ      JOB      REPORT  CONDENSED VOLSER ACTIVITY REPORT          PAGE      1
-----
CART  201421   1  SIEAB01T  LESTAPE  2009/05/04 00:13:39 APCMTL.DSAR.LESTAPE.D09125.T134811.F01  *** E R R O R ***
                                           REPORT  DELETED
CART  202287   1  SIEAB01T  LESTAPE  2009/05/05 00:15:22 APCMTL.DSAR.LESTAPE.D09133.T153149.F01  ARCH. RPT DELETED
CART  202771   1  SIEAB01T  LESTAPE  2009/05/05 00:15:22 APCMTL.DSAR.LESTAPE.D09133.T153149.C01  ARCH. RPT ADDED
CART  202287   2  SIEAB01T  LESTAPE  2009/05/05 00:15:22 APCMTL.DSAR.LESTAPE.D09133.T153507.F01  *** E R R O R ***
                                           REPORT  DELETED
    
```


Offsite Report Duplication for Archive

You can optionally store a duplicate copy of each new archive report onto another Volser for offsite disaster recovery storage.

To identify reports for archive duplication, set the Duplicate Copy (Y/N) ==> field to Y on the Report Archive Definition (VARMU100) screen. If this field is set to Y, the main Archive task, after it has completed archiving the new report to all of the defined media types, will place the report into the Archive Duplication Queue for subsequent batch duplication processing.

When the batch Archive Duplication utility DSEXARB(L) is executed, all of the reports currently residing in the Archive Duplication Queue will be written to a alternate or Duplicate Volser. The CA Dispatch archive database is updated to track the duplicate copy of the report. After the report has been processed by the utility, the LDS file is updated to indicate that DUPLICATE processing is complete. The duplicate Volsers produced by the utility can then be moved offsite for disaster recovery purposes.

Note: DSEXARB(L) does not create full duplicate copies of existing archive tapes. This utility will create a new archive tape that contains all eligible duplicate archive requests.

Running the DUPLICATE Utility

To run the Duplicate Utility, do the following:

1. Locate DSEXARB(L).
2. Modify the JCL symbolic parameters.
3. Modify the SYSIN members.
4. Submit the job.
5. Review the reports.

Each of these steps is explained in the following sections.

Step 1: Locate DSEXARB

Locate DSEXARB (or DSEXARBL) in the CADSJCL library.

Step 2: Modify the JCL Symbolic Parameters

EXECARUT is the only step in the duplication procedure. The format of the procedure statement is:

```
//EXECARUT EXEC PGM=CADSARUT,REGION=4096K,  
//          PARM='DUPLICATE,&TUNIT'
```

Modify the symbolic parameters in the JCL as follows:

```
//          TUNIT=' CART' ,                * DUPLICATE OUTPUT UNIT
```

TUNIT specifies the type of tape media on which the reports are stored. This gives you the ability to migrate VOLSERS from tape to cart easily. The default is CART.

The following example of the resolved parameter specifies CART media:

```
PARM=' DUPLICATE, CART'
```

Step 3: Modify the SYSIN member

There are two commands that can be included in the control cards for the Duplicate utility:

1. Indicate whether to output the duplicate reports to "scratch" Volsers or to specific output Volsers.

Note: You cannot use Volsers from the CA Dispatch tape pool for the duplicate process.

To manually create and alter these control cards, use the following format:

```
OUTVOL=VOLSER/SCRATCH
```

This control card must be updated in the member defined by:

```
//          MEMBER1='DSARUT02' ,          * CADRARUT CONTROL MEMBER
```

You can manually create these control cards in the library defined by:

```
//CARDIN  DD  DSN=&OPTLIB(&MEMBER1) ,DISP=SHR
```

The following example indicates that Duplicate utility will use scratch VOLSERS allocated by the tape management system you have specified on the VSGMU210 screen:

```
OUTVOL=SCRATCH
```

2. Identify the high-level qualifier that is used by the DUPLICATE utility to automatically generate the file names for the duplicate archive files. The prefix command lets you specify a unique DSN for reports that are to be stored off-site. Note that the prefix also lets you adhere to your site's naming standards; if using SMS, the DSN must meet site standards or be excluded from SMS control.

You can use the two variables &RPTN and &JOBN: CA Dispatch substitutes report name/job name when creating the data set name (&JOBN may be MSGCLASS).

If no prefix card is specified, the Sysgen archive DSN prefix is used.

Define a prefix in the following format:

PREFIX=*prefix*.

The following example specifies the prefix "CAI.DUPL.ARCH.CAI.":

PREFIX=CAI.DUPL.ARCH.

Important! Prefix must end with a ".".

The archive utility automatically assigns the rest of the data set name in the following format:

- DYYDDD is the constant D followed by the Julian date.
- THHMMDD is the constant T followed by the hours, minutes and seconds.
- FNNN is the constant F followed by the extent number for this file or for files that span two or more tapes; this is usually 001.

Step 4: Submit the Job

Submit the DSEXARB job with CA Dispatch up and the archive and extract subtasks down. Or submit DSEXARBL with CA Dispatch ended.

Step 5: Review reports produced by the Archive Duplicate utility

Review the reports produced by the Archive Duplicate utility.

Duplicate Volser Activity Report

The following is an example of the Duplicate Volser Activity Report:

DATE		DUPLICATE VOLSER ACTIVITY REPORT						PAGE
UNIT	VOLSER	SEQ	JOB	REPORT	DATE	TIME	DATASET NAME	ACTION
CART	123567	1	ABCJA01J	JIMARCH	03/14/2009	10:50	ABCJA01.DSAR.ARCH.D09073.T105048.F01	DUPL. RPT ADDED
CART	123567	2	ABCJA01J	KRISARCH	03/14/2009	10:50	ABCJA01.DSAR.ARCH.D09073.T105051.F01	DUPL. RPT ADDED
CART	123567	3	ABCJA01J	KRISARCH	03/14/2009	10:50	ABCJA01.DSAR.ARCH.D09073.T105051.F01	DUPL. RPT ADDED
CART	123567	4	ABCJA01J	KRISARCH	03/14/2009	10:50	ABCJA01.DSAR.ARCH.D09073.T105051.F01	DUPL. RPT ADDED

Troubleshooting

The following troubleshooting questions and answers pertain to archiving.

Question

Can I get a report that I need from a deleted Volser?

A Volser was inadvertently deleted from the CA Dispatch database. The tape has not been scratched and I need a report that is still on it. Is there any way of retrieving it?

Answer

You cannot use CA Dispatch to distribute this report unless you restore the database to a backup taken prior to deletion.

Question

Will problems occur when we switch from tapes to carts?

Our site is changing over from tapes to cartridges and reports are archived on both media. What will happen when we attempt an extract request from a reel when we've specified CART in the UNIT field?

Answer

The device type is stored in the base record for archive. When you attempt to extract a report, the Extract task has the correct device information.

Question

Can I send a report directly to Archive without going through the Distribution process?

Answer

Yes. Specify the CLASS or CLASS/DESTINATION combination dedicated to Archive on the SYSOUT statement in the JCL of the job that produced the report.

Use this alternate archiving process to save system overhead if your site does not plan to initially print a report or send it to online viewing. If you find you later want a copy of that report printed, it can be retrieved from tape and distributed with the parameters you specified on the database for that report.

Question

Can I suppress ARCHIVE IDLE and DC980087 EXTRACT IDLE messages?

Answer

Yes, there are special features available to control these messages.

Question

Is the Archive database large enough to meet our needs? How can I tell how quickly the Archive area is filling up?

Answer

Run the file utilization report DSEXSTAT (found in the CADSJCL library) on a regular basis to evaluate how quickly your Archive area is filling. Monitor the AR-AREA file.

Question

Can I force the start of Archive to be external?

Answer

Yes, a special feature is available to control the Archive task.

Question

SA13 or S813 occurred while I was archiving reports, what should I do?

Answer

Blank out the Volser on the Sysgen Archive Control Information Screen (VSGMU210) for the appropriate Archive task so that CA Dispatch begins archiving to a new tape. Investigate what happened to the VOLSER to which you were originally archiving.

Question

SA13 or S813 occurred while I was extracting reports, what should I do?

Answer

Your tape management system may have prematurely scratched a CA Dispatch archive tape.

1. Cancel the extract request.
2. Determine if the tape management system scratched the tape.
3. If the tape was scratched, run DSEXARD with PARM= VOLSER= delete. This deletes all database entries for that VOLSER. Investigate the way you set up your interface. Review the topic [Tape Management Systems](#) (see page 240) in this chapter.

Question

What are the recommended disaster recovery procedures?

Answer

If you have a utility (such as CA 1/COPYCAT), copy the archive tapes using the same VOLSERs and store them off-site in a secure location.

Begin using the duplicate copy archive feature to create tapes that can be sent offsite.

Question

Can I force the start of Archive to be external? (I specified XTARMAIN as the program to CA 1; if someone starts Archive internal, the program name is not CAISYS01 and my tapes will not be EDM-controlled.)

Answer

Yes, a special feature is available to force the start of Archive to be external.

Question

How can I verify that CA Dispatch is set up as an EDM to CA 1?

Answer

You can retrieve information from the CA 1/ISPF interface for a particular VOLSER. Perform an inquiry on that VOLSER and examine FLAG3. If the VOLSER is externally managed it should display:

FLAG3=20=(EDM)

Question

Does file utilization have an affect on database performance?

Answer

Yes, when file utilization exceeds 80%, performance is affected.

Question

How can I determine how quickly the AR-AREA of the database is filling?

Answer

Run the file utilization report DSEXSTAT (found in the CADSJCL library) regularly to monitor the AR-AREA *and* evaluate your archive area.

Question

When condensing tapes, why do I get mount messages for tapes that were not selected with an INVOL control card or by selection criteria?

This happens when reports span multiple tapes and create overflow files.

Answer

Prior to condensing the Archive tapes, do the following to identify all VOLSER numbers:

1. Separate DSEXARCL into two jobs, CADSARCN for the first job and CADSARUT for the second job.
2. Execute the first job calling CADSARCN. Refer to the Archive Condense Selection Report. In addition to the VOLSER column, check under the OVRFLO column to determine all Volsers to use during the condense process,
3. Execute the second job calling CADSARUT to complete the condense process.

For more information:

[Checklist of Daily Procedures](#) (see page 277)

Chapter 18: Using the Database Load/Unload Utility DSEXLODL

This chapter discusses the batch database load/unload utility DSEXLODL.

The DSEXLODL utility allows you to add, delete, or modify database records in Sysgen, AR (Archive) and RD (Report Distribution) portions of the database using a batch job.

Topics covered in this chapter include:

- Using DSEXLODL
- Preparing for DSEXLODL
- Performing DSEXLODL
- Using the correct version of DSEXLODL
- Using DSEXLODL for page selection
- Using unload records
- Using the Type R record to change default masks

Using DSEXLODL

DSEXLODL requires the addition of a complete report definition to the database. You can then use the unloaded record formats to unload any of the record types that were added.

The records are unloaded to a sequential file. You edit the file, using the unloaded records as models (for example, replicate the records, change the field definitions such as report names, jobnames, processing options, and so on). Then you can reload the new records to the database, probably as ADDs. The database is modified when the file is reloaded.

To use this utility to modify your database, run DSEXLODL two times, once to unload the database records to a file and a second time to reload the modified file.

For more information, see the section [Performing the Load/Unload Procedure](#) (see page 269) later in this chapter. Review also the Utilities chapter in the *Systems Programmer Guide*.

Note: The DSEXLODL utility is useful for making global changes, such as changing naming standards for reports, recipients, or maildrops.

Preparing for DSEXLODL

To prepare for the unload procedure create at least one complete report definition using CA Dispatch online screens. A complete report definition may include some or all of the following screens:

- Report Base Definition Screen (VRDMU110)
- Recipient Definition Screen (VRDMU310)
- Maildrop Sysgen Screen (VSGMU130)
- Maildrop Address Screen (VSGMU135)
- Report Recipient Definition Screen, Reports (VRDMU130)
- Report Recipient Definition Screen, Pages (VRDMU140)
- Report Recipient Definition Screen, Fiche (VRDMU160)
- Xerox DJDE Screen (VRDMU131)
- Xerox DJDE Extension Screen (VRDMU132)
- Xerox DJDE Freeform Screen (VRDMU133)
- Report Archive Definition Screen (VARMU100)

The records created using the CA Dispatch screens correspond to record types on the database.

Record Types and Formats

There are seventeen different record types that can be unloaded/loaded by DSEXLODL. Sixteen of the records correspond to specific CA Dispatch screens. The other record, Type R, is a special character reset. The record types include the following:

Type 1

Report Base record. This data corresponds to the Report Base Definition Screen (VRDMU110).

Type 2

Recipient records. This data corresponds to the Recipient Definition Screen (VRDMU310).

Type 3

Report Recipient records. This data corresponds to the Report Recipient Definition Screen, Reports (VRDMU130).

Type 4

Report Recipient Pages (Page Selection) records. This data corresponds to the Report Recipient Definition Screen, Pages (VRDMU140).

Type 5,6

Maildrop (and continuation record). This data corresponds to the Maildrop Sysgen Screen (VSGMU130) and the Maildrop Address Screen (VSGMU135).

Type 7,A

DJDE for Xerox printers (and continuation) records. This data corresponds to the Xerox DJDE Screen (VRDMU131).

Type 8,9

DJDE Extension (and continuation) records. This data corresponds to the Xerox DJDE Extension Screen (VRDMU132).

Type B,C

Report Events (and continuation). This data corresponds to the Report Event Definition Screen (VRDMU115) and the Report Event Definition Extension Screen (VRDMU116).

Type D,E

Sysgen Events (and continuation), the MSGCLASS Event Definition Screen (VSGMU180), and the MSGCLASS Event Definition Extension Screen (VSGMU185).

Type F

Sysgen User records. This corresponds to the Sysgen User Screen (VSGMU230).

Type G

Sysgen User Recipient. This corresponds to the Sysgen User Recipient Screen (VSGMU235).

Type H

Report Recipient Transfer Extension Screen (VRDMU150).

Type J

Archive Report Definition. This corresponds to the Archive Report Definition Screen (VARMU100).

Type K,L,M

Report Recipient DJDE Freeform. This corresponds to the Xerox DJDE Freeform Screen (VRDMU133).

Type R

Reset Record.

Each record type has two different formats: the unload format and the load format that are used by DSEXLODL:

- The Unload format is short and contains only the controls necessary to unload specific records, and possibly related record types.

Unload records always contain a U in the first byte. U tells the utility that this is a database READ procedure - that it is to copy the specified records to a sequential file.

- Load format are the records that actually change the database. These records are long because they contain information for every field on the screen that they correspond to. The first byte of these records contains:
 - ADD these records
 - Delete
 - Modify

Note: For more information about the unload and load record formats, see the chapter "Using the Database Update Facility" in the *Systems Programmer Guide*.

UNLOAD ALL Field

Use the UNLOAD ALL field on the unload record to unload all record types associated with the record you are unloading. For example, if you unload a Type 1 record (report base) and specify **UNLOAD ALL = Y**, the result is:

- Type 2 records (recipients)
- Type 3 records (report recipients)
- Type 4 records (page selection criteria)
- Any other associated records may include:

Type 7,A

DJDE for Xerox printers and continuation

Type 8,9

DJDE Extension and continuation

Type B,C

Report (Events) Message and continuation *for that individual* report are also unloaded

Type K, K, M

DJDE Freeform and continuation

Performing DSEXLODL

The report definition data created when you defined one complete report is used as a model. After your full report definition is ready, use the following Checklist as a guide to populating your database using DSEXLODL for Type 1 records.

1. Allocate an input (flat) file for the records.
2. Edit the file to supply unload control characters.
3. Customize the JCL.
4. Run DSEXLODL to unload these records to a flat file.
5. Edit the LOADOUT file (make your changes).
6. Change the JCL again.
7. Run DSEXLODL to load this file and modify the database.

Each of these steps is explained in detail in this section.

Step 1: Allocating an Input File

Use a utility, such as ISPF (Option 3.2 - Utility.Dataset), to create an input file (in this example LOADIN.DSN) that has the following characteristics:

- RECFM=FB
- LRECL=255
- BLKSIZE=any multiple of 255

Step 2: Editing the LOADIN.DSN File

The LOADIN.DSN file supplies the unload control characters to the utility. Access LOADIN.DSN with an editor (for example, PDF), turn COLS on, and edit this file to create a control record.

The file contains only one control record.

For this example, we only show how to unload a Type 1 (base report record, but NOT its associated records). The format for the Type 1 unload is:

```
COL: 12345678901234567890123456789012345678901234567890 (to 255)
      U1ANREPORTNMJOBNAME REPORT DESCRIPTION.....
```

This table describes the columns and their contents:

Column	Description of column's contents
1	U for unload This tells the utility what to do with this record.
2	Record Type 1 for Type 1 Report Base Record This tells the utility what type of record to select.
3	Unload Type A to Unload intending to ADD This tells the utility what kind of modification is done to the database when this record is reloaded. This character prefixes all unloaded records.
4	Unload ALL (Y/N) N to unload only Type 1 records for this example. Y when this flag is set to Y, records associated with the record type specified in column 2 are also unloaded.
5-12	REPORT NAME This is the REPORTNM for 8 characters. Masking characters may be used in this field.
13-20	JOBNAME This is the name of the job that produces the report (8 characters). Masking characters may be used in this field.
21-52	REPORT DESCRIPTION A description of the report (32 characters). Masking characters may be used in this field.
53-255	Filler (not used)

Note: For information about other record layouts, see the *Systems Programmer Guide*.

Using Special Unload Mask Characters

You can use masking characters to unload a group of a specific record type. Special characters allow you to mask certain key characters when you are using the unload function. You can unload records of a certain character pattern and not have to type in every individual entry.

These mask characters are used in any field in any unload record except the FUNCTION and TYPE fields. If you are currently using * or ? as part of your record identifier for any type record, change these character defaults to fit your specific needs.

PROPAGATE CHAR '*'

This character is positional and only masks the remainder of the field. All characters entered after this character are ignored.

REPLACEMENT CHAR '?'

This character is positional and only masks the corresponding character in database record fields.

The following table contains examples of using the mask characters:

Report Field	Results In
TESTREPT	Only the report 'TESTREPT' is selected
TES????T	All reports (8 character) that begin with 'TES' and end with 'T' are selected
????REPT	All reports (8 character) that end with 'REPT' are selected
TE?????	All reports (2 - 7 characters) that begin with 'TE' and end with '' are selected
TEST*	All reports beginning with 'TEST' are selected
*	All reports are selected

Step 3: Customizing the DSEXLODL JCL

DSEXLODL executes the CADSLODL procedure, which in turn executes a program RDBTUPDT. The DSEXLODL sample JCL and CADSLODL are listed at the end of this chapter.

In CADSLODL two files, ERRFILE and LOADOUT, are allocated:

```
//ERRFILE DD DSN=&ERROR. ,DISP=(NEW,CATLG,DELETE) ,
//          UNIT=&UNIT. ,VOL=SER=&SERIAL. ,SPACE=(CYL,(1,1),RLSE) ,
//          DCB=(RECFM=FB,LRECL=255,BLKSIZE=2550)
//LOADOUT DD DSN=&UNLOAD. ,DISP=(NEW,CATLG,DELETE) ,
//          UNIT=&UNIT. ,VOL=SER=&SERIAL. ,SPACE=(CYL,(1,1),RLSE) ,
//          DCB=(RECFM=FB,LRECL=255,BLKSIZE=2550)
```

- ERRFILE indicates the error file. Modify the &ERROR. symbolic.

If a record is rejected, it is copied into the error file (ERRFILE).

The errors can later be corrected and the error file can actually be used as input to the upload. In this case, specify the name of the error file in CONVERT=.

```
//          DSHLQ='CAI.DISP',      * DSN HIGH LEVEL QUALIFIER  
-> //          CONVERT='ERROR.DSN', * ERROR FILE DSN
```

The symbolic CONVERT points to the input file. Specify the name of the file you have just created in CONVERT=.

- LOADOUT indicates the output file. Modify the &UNLOAD symbolic.

LOADOUT is a sequential file where the records that are read from the database are loaded.

Step 4: Executing DSEXLODL

Run the database utility to create the LOADOUT file.

Step 5: Editing the LOADOUT file

The LOADOUT file is loaded to modify the database. When the records are unloaded, all unloaded records have an A at the first offset because you specified A for ADD at offset 3 in the unload record.

The first offset is the control card that tells the program what to do. Possible choices are:

- A (Add)
- D (Delete)
- M (Modify)
- U (Unload)

Example of a LOADOUT File

The LOADOUT file for our unloaded Type 1 record resembles the following:

```
(Co1) 123456789012345678901234567890123456789012345678901234567890... (to 255)
```

```
(data) A1  REPORTNMJOBNAME REPORT DESCRIPTION.....
```


To build five new records, replicate the record 5 times and edit each line to reflect new report names, jobnames, processing options Y or N, and so forth. For example:

```
123456789012345678901234567890123456789012345678901234567890... (to 255)
```

```
A1 REPORT01JOBACT1 ACCOUNTING REPORT FOR PAYROLL FOR THE PE...
A1 REPORT02JOBACT2 INVENTORY REPORT FOR NEW YORK WAREHOUSE...
A1 REPORT03JOBACT3 DISBURSEMENT REPORT FOR DEPOT 12.....
A1 REPORT04JOBACT4 PERSONNEL REPORT FOR BENEFIT ANALYSIS OF...
A1 REPORT05JOBACT5 EQUIPMENT REPORT FOR MOTOR POOL 13 (NJ) ...
```

Note: Column 1 contains the character A: this record is being added. Column 2 contains the number 1: this is a Type 1 record.

All fields on the Report Base Definition Screen are present in the Type 1 LOAD record. You can use the text editor to set all processing parameters, such as ONLINE VIEWING, ARCHIVE, PRINT, and GRAPHICS.

Note: For a complete Type 1 LOAD record layout and other layouts, see the chapter "Using the Database Update Facility" in the *Systems Programmer Guide*.

Step 6: Changing the JCL again

To change the JCL again, enter in the CONVERT symbolic the name of the output (LOADOUT) file. Point the CONVERT= parameter to the LOADOUT file, the name previously specified in the &UNLOAD. symbolic.

```
// CONVERT='UNLOAD.DSN'
```

Step 7: Executing DSEXLODL again

When you execute DSEXLODL again, the database is actually modified.

You may want to retain the input file for recovery purposes. If you need to restore your database files, your updates can easily be reloaded.

Be aware of the following:

- Even if you intend to do a load (for example, defining new reports, recipients, and so on), do an UNLOAD first. Use the unloaded records as models.
- The load/unload procedure in CA Dispatch is more accurately referred to as unload/load. Unload the records and modify them, and then reload them.

Using the Correct Version of DSEXLODL

The DSEXLODL utility has two versions, DSEXLODL and DSEXLOD; JCL for each is in the CADSJCL library.

- DSEXLODL is the version that runs with CA Dispatch *down*; this is known as running local.
- DSEXLOD is the version that runs with CA Dispatch *up*; this is known as running under CV. Subtasks must be down.

We recommend running the local version (DSEXLODL) for the following reasons:

- DSEXLODL takes backups of the critical files.
- DSEXLODL restores those files if the job abends.
- DSEXLODL runs faster because no journaling is done for LOCAL mode jobs.

Note: Whether you use DSEXLOD or DSEXLODL, you are not able to process reports while the utility is running.

Using DSEXLODL for Page Selection

It is not possible to directly use the batch load/unload utility for modifying page selection criteria. You can modify page selection criteria using the following procedure:

1. Unload the type 4 (page selection) records.
The unload, which is a READ of the database, puts the records in a sequential file.
2. Unload with a DELETE specified.
3. After executing the unload, copy the LOADOUT file and rename it.
4. Execute DSEXLODL again to delete the records.
5. Edit the copy of the LOADOUT file that you have renamed.
6. Change the first control character from a D (delete) to an A (add).
7. Run DSEXLODL a third time, specifying in the symbolic CONVERT the edited file (see the previous two steps) as input.

You have modified the records by deleting and re-adding them.

Note: For complete instructions about using the DSEXLODL utility, see the chapter "Using the Database Update Facility" in the *Systems Programmers Guide*.

Using Unload Records

The following is an illustration of an unload record layout for a Type 1 record (report Base Unload):

Field	Offset	Length	Type	Description
FUNCTION	1	1	A/N	U for unloading a record.
TYPE	2	1	A/N	1
UNLOAD TYPE	3	1	A/N	Only applies to unload function. M unloads the specified records with an M (modify) in the Function field. A unloads the records with an A (add) in the Function field. D unloads the specified records with a D (delete) in the Function field. The default is A.
UNLOAD ALL	4	1	A/N	Only applies to the unload function. Y in this field unloads the Type 1 record(s) and the Type 2,3,4,7,8 and 9 records associated with each Type 1 record selected for offloading. N in this field unloads the specified Type 1 records only.
REPORT NAME	5	8	A/N	Report name A single * in the first position of this field selects all occurrences.
JOBNAME	13	8	A/N	Job name or spaces A single * in the first position of this field selects all occurrences.
REPORT DESCRIPTION	21	32	A/N	Any user text A single * in the first position of this field selects all occurrences. This field is only used if the report and job are not specific. If you do not use this field, fill it with blanks.
FILLER	53	203	A/N	Not used

This record is equivalent to the information defined on the Report Base Definition Screen (VRDMU110); it sets report options and definitions at the report level.

The following is the format for the Type 1 unload:

```
COL: 12345678901234567890123456789012345678901234567890 (to 255)
      U1ANREPORTNMJOBNAME REPORT DESCRIPTION.....
```

Note: For more information about the record layouts, see the chapter "Using the Database Update Facility" in the *Systems Programmer Guide*.

Using the Type R Record to Change Default Masks

The Type R record, Special Character Reset, has no CA Dispatch screen equivalent. Use the Type R record to change the default mask * and ? for an unload or delete run. Include the Type R record if you are using the special characters * or ? as part of any record identifiers. This reset takes place after this record has been processed; make the Type R record the first one in the input file.

The following is an illustration of an unload record layout for a Type R record (Special Character Reset):

Field	Offset	Length	Type	Description
FUNCTION	1	1	A/N	M for unloading a record.
TYPE	2	1	A/N	R
PROPAGATE CHAR	3	1	A/N	* character replacement This can be any character. Blanks are ignored.
POSITION CHAR	4	1	A/N	? character replacement This can be any character. Blanks are ignored.
FILLER	5	251	A/N	Not used.

Chapter 19: Checklist of Daily Procedures

This chapter provides maintenance instructions and suggestions for CA Dispatch.

To ensure maximum efficiency, CA recommends that you perform each of the tasks in the following checklist daily, unless otherwise indicated.

Topics covered in this chapter:

- The Daily Maintenance Checklist
 1. Examine journal status and perform any necessary corrective tasks.
 2. Bring CA Dispatch down using STOPCADS.
 3. Run DSEXBR05.
 4. Perform maintenance on database files.
 5. Perform a backup using DSEXBR01.
 6. Run DSEXJFIX once per month.
 7. Bring CA Dispatch back up.
 8. Run DSEXSTAT.
- The Daily Maintenance Job Table

Note: Procedure CADSBCMD in the PROCLIB library communicates with CA Dispatch in batch mode. All the maintenance procedures can be set up as a job stream in your scheduling system. Sample commands for starting and ending the subtasks are found in CADSOPTN member DSBCMD01.

Daily Maintenance Checklist

Use the following checklist for daily maintenance:

1. Examine the status of the journals before CA Dispatch is brought down prior to daily backup.

The journal files log before and after images of database records that have been changed. When a recovery operation is performed against the database, changes are backed off the journal files in either a forward or backward direction.

The operator signs on to CA Dispatch and enters the command **DCMT D J** at the Enter Next Task Code prompt.

```
      D J
      JRNL  FILE  NAME  SGNO  LORBN  HIRBN.....FUL  ACT  RCV  AJNL
      CAIJRNL1          193    10 10000  ....NO  NO  NO   NO
      CAIJRNL2          194    10 10000        NO  NO  NO   NO
      CAIJRNL3          195    10 10000        NO  YES NO   NO
      CAIJRNL4          192    10 10000        NO  NO  NO   NO
```

If the display shows no journals full (FUL=NO), one journal active (ACT=YES), continue to the next step.

If any journal is displayed as full (FUL=YES) with CONDense or OFFLoad displayed in the AJNL column, that journal is currently offloading to tape. Delay stopping CA Dispatch until the journals have successfully offloaded.

If any journal is full and NOT OFFLoading or CONDensing there may be a problem with the DSEXJNL1 job. Once the problem is found, the operator has to manually submit DSEXJNL1 once for each full journal.

If one of the jobs abends, examine the output.

Note: See the procedures outlined under the Journal Problems topic in the "Troubleshooting" chapter of the *Systems Programmer Guide*. You may also contact Technical Support.

When all full journals have been dumped, the operator should once again interrogate the status of all journals with the DCMT D J command to be sure that all full journals have been successfully unloaded.

2. Bring CA Dispatch down with STOPCADS to prevent storage fragmentation.

CA Dispatch must be brought down on a daily basis with STOPCADS to prevent storage fragmentation.

3. Run DSEXBR05.

This job offloads the active journal and prepares the journals for the next time that CA Dispatch is active. When the software is again executed, all journals that are offloaded contain information for the current execution of CA Dispatch. DSEXBR05 makes sure that the journals contain the proper starting point so that a roll-forward can be done in an emergency.

In rare cases, a roll-forward (DSEXBR06) may be required to recover from a hardware failure.

Even if you do not plan to do a roll-forward, leave this job in place. If CA Dispatch has not been brought down cleanly, this job fails with a U2109, thereby providing a fail-safe mechanism to ensure the quality of your backup.

4. Perform daily maintenance on your database files.

See the [Daily Maintenance Job Table](#) (see page 282) later in this chapter for a description of the maintenance jobs. Note that daily maintenance is performed by using one of two sets of jobs that perform exactly the same functions-- one set is run with CA Dispatch up, and the other is run in local mode with CA Dispatch down.

Each method has certain factors that must be taken into consideration, as explained in the sections that follow.

■ CA Dispatch down

If you run the maintenance jobs with CA Dispatch down, they run faster and without contention. Automatic backup of the critical files is built into the process.

You must indicate your database sizes in the maintenance jobs. To determine the database sizes, see the Upgrade the Database step in the *Installation Guide*. The maintenance jobs are DSEXPURG, DSEXVIEW, and DSEXTMIG. They can be run simultaneously.

Be aware of the following:

- If the maintenance job fails for some reason, the job automatically restores the database files that were affected by the job. If the operator cancels the job, you must restore the database files manually by running the maintenance job using the RESTORE ONLY parameter in the JCL to indicate that you want to restore the database files.
- The OLVO (Online Viewing Only) region can remain up while the database maintenance is running.

■ CA Dispatch Up

When you run the set of batch jobs with CA Dispatch up, any change made to the database is journaled. This requires frequent journal offloading. This procedure may be four times slower than running with CA Dispatch down, but if the job fails, CA Dispatch can recover from its journals.

If you choose to run the batch maintenance with CA Dispatch up, perform this maintenance before bringing CA Dispatch down. There is no longer any restriction to active tasks that may run concurrently with these jobs. The jobs are DSEXPSAR and DSEXPSVW.

5. Run DSEXBR01 daily to back up the database.

After maintenance is complete, run DSEXBR01, the database backup job. Our job uses IDCAMS. You may have a more efficient utility available, such as CA ASM2®, DFDSS, or FDR. Whatever method you use, be sure that it backs up the database files listed in the CADSBR01 procedure. Test it.

6. Run DSEXJFIX on a monthly basis to initialize the journals.

Important! CA Dispatch must first be brought down cleanly.

7. Bring CA Dispatch back up.

8. Run DSEXSTAT.

This is a file utilization report that tells you how full each database file is by giving you a percentage of use. Use as a guideline to determine when it is time to migrate to a larger size database. For a description of the migration procedure, see the chapter "Migrating the Report Distribution Database" in the *Systems Programmer Guide*.

Note: You as the administrator are in the best position to determine when to enlarge the database. Monitor the utilization on the RD, RDS, AR, DICTDB, SYSGEN, and OV files. If you are running the batch jobs (with PURGE, VIEW, and MIGRATE commands) to clean up the database daily, and DSEXSTAT is telling you that *utilization is rapidly increasing*, the database size must be increased soon. It is probably time to schedule a migration.

The only file in the database that can be increased in size without going through the migration procedure is the OLV file.

The following is sample output from a run of DSEXSTAT.

Output From DSEXSTAT

The following reports show output from DSEXSTAT:

```
.refset id=dsexstt
IDMSDUMP S10211 10.2
PROCESS=AREA,DMCL=CAIDMCL,REPORTS=ONLY,LDKEYS=NO
LARGEST PAGE SIZE IN THE DMCL IS 6,100
AREA=RD-AREA
IDMSDUMP IDMS SECURITY DUMP - DATABASE UTILIZATION REPORTK04/02/2009
PAGE SIZE IS 4,628 CHARACTERS. DUMPED 1,000 PAGES, FROM AREA RD-AREA
SPACE USED 156,680 CHARACTERS, EMPTY SPACE LEFT 4,439,320 CHARACTERS, FILE UTILIZATION IS 3 PERCENT

* * * * * SPACE DISTRIBUTION PER RECORD * * * * *
* * * * * ACTIVE * * * * * LOGICALLY DELETED * * * * *
RECORD TYPE LENGTH OCCURENCES TOTAL SPACE USED PERCENT OF TOTAL USED OCCURENCES TOTAL SPACE USED PERCENT OF TOTAL USED
SR1000 240 68 16,320 10 0 0 0
SR1001 164 224 36,736 23 0 0 0
SR1003 316 82 25,912 17 0 0 0
SR1004 84 25 44,100 28 0 0 0
SR1009 36 1 36 0 0 0 0
SR1010 148 78 11,544 7 0 0 0
SR1014 36 1 36 0 0 0 0
SR1015 436 2 872 1 0 0 0
SR1016 316 2 632 0 0 0 0
SR1019 40 21 840 1 0 0 0
SR1020 404 14 5,656 4 0 0 0
SR1024 200 47 9,400 6 0 0 0
SPACE INV 4,596 1 4,596 3
```



```

IDMSDUMP  IDMS SECURITY DUMP - DATABASE UTILIZATION REPORTK04/02/2009  PAGE 2
*****   SPACE DISTRIBUTION PER PAGE   *****
CHARACTERS USED  NUMBER OF PAGES
    0-99                848
    100-199            0
    200-299            5
    300-399           64
    400-499           12
    500-599            1
    600-699            8
    700-799            5
    800-899            0
    900-999            4
    1,000-1,099        7
.
.
.
    3,400-3,499        0
    3,500-3,599        2
    3,600-3,699        1
    3,700-3,799        0
    3,800-3,899        1
    3,900-3,999        0
    4,000-4,099        0
    4,100-4,199        0
    4,200-4,299        0
    4,300-4,399        0
    4,400-4,499        0
    4,500-4,599        3
    4,600-4,699        0
END OF IDMS SECURITY DUMP - IDMSDUMP

```

Note: You may want to have CA Dispatch process the two reports generated by DSEXSTAT and define a report event for this situation. The job can be run daily: as long as the critical files are below 80% utilization, no one has to look at the report. Once the percentage rises above 80, a report event can notify you. For more information on using report event processing, see the *Reference Guide*.

Interpreting the Reports Produced by DSEXSTAT

DSEXSTAT produces two reports, one for each of two database areas, as follows:

- RD Database. Report Distribution and related files:

RD-AREA

RDS-AREA

SYSGEN

- AR Database. Archive and related files:

AR-AREA

OV-AREA

After you generate the report, use the following procedure to determine how full the file is.

For this example we are using the RD file.

1. Use the FIND command. Enter **F RD-AREA** and press **Enter**.

The first FIND brings you to a list of the database files. Refind (RFIND) brings you to a page that shows a breakdown of the RD-AREA.

2. Enter **F 'FILE UTILIZATION IS'** on the Command line.

When file utilization is above 80%, performance is affected. Consider migrating to a larger database size for those files that have reached that critical situation.

Daily Maintenance Job Table

Use the following table to assist you in managing daily maintenance jobs:

Execution JCL found in CADSJCL LIB	PROC (procedure)	Runs with	COMMAND	FUNCTION
DSEXPSVW	CADSPSVW	CA Dispatch UP, subtasks ACTIVE or INACTIVE	VIEW	Deletes reports/MSGCLASS messages that have exceeded their retention from Online Viewing.
DSEXPSVW	CADSPSVW	CA Dispatch UP, subtasks ACTIVE	VIEW ARCH	Archives new MSGCLASS data and deletes expired OLV reports and MSGCLASS.
DSEXPSAR	CADSPSAR	CA Dispatch UP, subtasks ACTIVE	MIGRATE Set this up with PRIOR DAY and it will not have to be changed	Deletes archive index pointers that have exceeded their retention.

Execution JCL found in CADSJCL LIB	PROC (procedure)	Runs with	COMMAND	FUNCTION
DSEXPURG	CADSPURG	CA Dispatch DOWN	PURGE Example 1: The minimum is set for the desired number of status records to save: the date is set with a wide span so that it will not have to be changed (that is, 01012001 to 12312060). Example 2: The minimum is set to 0 and the date is reset daily.	Deletes status records from the Feedback Update Screen (VRDMU500) and the Report Selection and Status Screen (VRDMI400) that have exceeded the minimum as set in Sysgen Control Information Screen (VSGMU110).
DSEXPST	CADSPST	CA Dispatch UP	PURGE Example 1: The minimum is set for the desired number of status records to save: the date is set with a wide span so that it will not have to be changed (that is, 01012001 to 12312060). Example 2: The minimum is set to 0 and the date is reset daily.	Deletes status records from the Feedback Update Screen (VRDMU500) and the Report Selection and Status Screen (VRDMI400) that have exceeded the minimum as set in Sysgen Control Information Screen (VSGMU110).
DSEXVIEW	CADSVIEW	CA Dispatch DOWN	VIEW	Deletes reports/MSGCLASS messages that have exceeded their retention from Online Viewing.
DSEXVIEW	CADSVIEW	CA Dispatch DOWN	VIEW ARCH	Archives new MSGCLASS data and deletes expired OLV reports and MSGCLASS.
DSEXPLAT	CADSPLAT	CA Dispatch UP or DOWN	Contains LATE and PLAN commands	Produce PLAN and LATE reports

Execution JCL found in CADSJCL LIB	PROC (procedure)	Runs with	COMMAND	FUNCTION
DSEXTMIG	CADSTMIG	CA Dispatch DOWN	MIGRATE – set this up with PRIOR DAY and it will not have to be changed	Deletes archive index pointers that have exceeded their retention.

Note: For more information, see the chapter Utilities in the *Systems Programmer Guide*.

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