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ACR/File

User Guide

For z/OS



Notices



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Contents

Chapter 1 Introduction

Manual Organization	9
Documentation Set	10
ACR/File Description and Benefits	11
ACR/File Terms	12
How ACR/File Works	12
System Overview Diagram	13
Summary of ACR/File Features	15
Reports	17
Implementing ACR/File: An Overview	19
Questions about Implementing ACR/File in Production.....	20

Chapter 2 The User Interface

User Interface Diagram	26
Panel Components	28
Panel Types and Functions	33
Messages	37
Exiting ACR/File.....	38
Navigational Conventions.....	38

Chapter 3 Tutorial

Getting Ready.....	39
Lesson 1: Preparing the Environment	42
Lesson 2: Implementing the Capture Steps	57
Lesson 3: Implementing the Verify Step	76
Tutorial Reports	89

Chapter 4 Definition and History Databases

ACR/File Databases Diagram	94
Definition Database	94

History Database	95
Test Versus Production Databases.....	95
Establishing a Database.....	95
Updating the Definition Database.....	99
Using the Databases	101
Securing the Production Databases	102
Maintaining the Databases	102
Backup and Recovery	103

Chapter 5 Preparing the Environment

Summary of Environment Preparation Tasks	105
Before You Start	107
Specifying Default Values.....	109
Allocating User Files.....	112
Setting Up a Job Card	113
Building a User Options File	114
Initializing the ACR/File Databases	124
Creating the Capture/Verification JCL	127
Creating the Automatic Rerun Step JCL.....	130
Specifying Definition Entry Options	131

Chapter 6 Job Definitions

About Job Definitions.....	133
Specifying Job Definitions	134
Assigning a Job ID.....	134
Defining Capture Steps and Verify Steps	135
Specifying Basic Job Information	136
Specifying Cycle/Rerun Parameters.....	140
Setting Job-Level Verification Options.....	145
Specifying Input File Information and Options.....	149
Specifying Output File Information	157
Assigning Alternate Job IDs.....	158
Copying Job Definitions.....	159
Specifying JCL ParmS	161

Chapter 7	Table Definitions	
	Entering Cycle Table Definitions	167
	Accessing the Cycle Table Definition Panels.....	168
	Specifying a Cycle Table Description	169
	Viewing Existing Cycle Tables	171
	Copying Cycle Table Definitions	173
Chapter 8	Activating, Backing Up, and Restoring Definitions	
	About the On-Line Utilities	175
	Activating Definitions	175
	Backing Up and Restoring Definitions	176
	Creating Batch Definition Transactions	179
Chapter 9	User Options and User Exits	
	About the User Options File (UNIUF)	183
	Dynamic Allocation Options	184
	Execution Options (UNIXOPT)	186
	ACR/File Site-Level Processing Options	189
	User Exits	192
Chapter 10	Utilities	
	Utilities and How to Use Them	208
	Update Definitions: UPDATE DEFN	211
	List Definitions: LIST DEFN	213
	List Histories: LIST HIST	215
	Delete History Record: DELETE HIST	217
	Reorganize History Database: REORG HIST	219
	Print Selected Job Summary Information from History: PRINT JOB and PRINT EXCSUMM	222
	Print Selected Job Detail Information from History: PRINT JOB DETAIL and PRINT EXCDTL.....	224
	Sort Directory Records on the History Database: SORTDIR HIST .	226
	List Cross Reference Definitions: LIST XREF	227
	Build Batch Transactions: BUILD DEFN.....	230

Chapter 11 Implementation Tools

Accessing the Implementation Tools 233
JCL Modifier (UNIJCLM)..... 233
Definition Generator (UDCDGEN)..... 239

Chapter 12 Reviewing Job History On-line

Contents of a Job History Record..... 251
Searching for Job Histories 252
Displaying a Job History Summary..... 253
Displaying Job History Detail..... 255

Appendix A Reports

Appendix B JCL and Control Statements

Initializing the ACR/File Databases (UDCINIT) 280
Using the Capture Step (UDCFCAPT) 284
Using the Verify Step (UDCFCRFY)..... 285
Using the Automatic Rerun Step (UDCARUN)..... 286
Updating the Definition Database..... 286
Listing the History Database..... 290
Deleting Selected Histories 292
Reorganizing the History Database..... 294
Printing Summary Information about Jobs with Capture or Verify Steps
299
Printing Summary Information about Jobs with Exceptions 302
Printing Detail Information about Jobs with Capture or Verify Steps 304
Printing Detail Information About Jobs with Exceptions 306
Sorting the Directory Records of the History Database..... 308
Listing Cross References 311
Building Batch Transactions 313

Appendix C Batch Transactions

Definition Information Categories 315
Coding Batch Transactions..... 315

Transaction Key Structure	316
Transaction Key Layouts	317
Batch Definition Transaction Sets.....	318
Updating the Definition Database.....	319
Transaction Layout Information Summary.....	320
Transaction Layout List with Page Numbers	321

Appendix D Transaction Layouts from UDCDGEN

DO: Transaction Key Record Layouts	331
D2: Transaction Key Record Layout.....	334

Glossary335

Index 341

Introduction

This manual is the user guide for Infogix's Automated Controls and Reporting/File (ACR/File) system. This is a useful reference whether you are implementing your first ACR/File application or are verifying the use of a particular feature or processing parameter.

The following sections are included

- “Manual Organization” on page 9
- “Documentation Set” on page 10
- “ACR/File Description and Benefits” on page 11
- “ACR/File Terms” on page 12
- “How ACR/File Works” on page 12
- “System Overview Diagram” on page 13
- “Summary of ACR/File Features” on page 15
- “Reports” on page 17
- “Implementing ACR/File: An Overview” on page 19
- “Questions about Implementing ACR/File in Production” on page 20

Manual Organization

This manual is organized based on the flow of data through ACR/File. When you have questions about a particular ACR/File feature, refer to the Index.

A list of the chapters and appendixes, as well as a brief description of what they contain, follows:

Chapter 1, “Introduction”: In addition to the manual organization and notational conventions, contains an overview of ACR/File, a description of what ACR/File does when a job is found to have verification exceptions, and an overview of ACR/File's installation and implementation procedures.

Chapter 2, “The User Interface” on page 25: contains a description of ACR/File's on-line component, and shows how the User Interface functions with the rest of ACR/File.

Chapter 3, “Tutorial” on page 39: introduces you to ACR/File. We recommend that you read chapters 1 and 2 before taking the tutorial.

Chapter 4, “Definition and History Databases” on page 93: contains information about the initialization, updating, and maintenance of the databases.

Chapter 5, “Preparing the Environment” on page 105: describes the tasks that must be completed before you can use ACR/File.

Chapter 6, “Job Definitions” on page 133: walks you through the process of defining file capture and verification requirements to ACR/File.

Chapter 7, “Table Definitions” on page 167: walks you through the process of defining Table definition requirements to ACR/File.

Chapter 8, “Activating, Backing Up, and Restoring Definitions” on page 175: describes how to activate, back up, and restore definitions.

Chapter 9, “User Options and User Exits” on page 183: describes how to take advantage of the several user options and user exits.

Chapter 10, “Utilities” on page 207: describes each of the utilities and provides suggested uses.

Chapter 11, “Implementation Tools” on page 233: describes each of the implementation tools and provides suggested uses.

Chapter 12, “Reviewing Job History On-line” on page 251: describes ways of viewing job history through the User Interface.

Appendix A, “Reports” on page 265: includes sample copies of the primary reports that ACR/File produces.

Appendix B, “JCL and Control Statements” on page 279: includes sample JCL for many ACR/File batch functions.

Appendix C, “Batch Transactions” on page 315: describes the format and use of the batch definition transactions.

Appendix D, “Transaction Layouts from UDCDGEN” on page 331: contains transaction layouts for the skeletal definitions created by the ACR/File Definition Generator (UDCDGEN).

Documentation Set

Other valuable sources of information are available to you:

- For more information about the installation procedure, consult the *ACR/File Installation Guide*.
- For a tutorial that introduces you to the product, consult *Getting Started with ACR/File*.

- For an explanation of system messages, consult the *Messages and Codes Manual*.

ACR/File Description and Benefits

This chapter provides an overview of ACR/File and its major features.

ACR/File is a comprehensive software package that acts as a gatekeeper for your applications by ensuring that they process the correct files. ACR/File executes as a step in your application job. It automatically monitors, verifies, and reports on how your application system uses datasets, thereby improving your data integrity.

ACR/File has a variety of features to help tailor the product to your individual specifications. These features include the automatic recognition of reruns, override options at a system-level, user exits with capabilities to customize data center-dependent information, modification of Cycle Numbers and return codes, and many others.

Some of the important benefits of ACR/File are:

- **Prevention of errors.** Before a job begins processing, ACR/File checks to determine whether it is using the correct files. This enables it to abort a job before it uses the wrong files.
ACR/File prevents jobs from executing more than once per cycle. It also prevents them from processing a file more times than it should, and detects when a job does not process a file that it should.
ACR/File eliminates problems caused by operations personnel mounting the wrong tape, forgetting to change the JCL, or using the wrong generation of a generation data group (GDG) as input.
- **Reduced reruns.** By detecting errors early, ACR/File ensures that you run only error-free jobs, eliminating costly reruns. You also save time required to execute the full job stream, and thus improve data center throughput.
- **Enhanced controls.** ACR/File implements effective audit and control procedures for application systems. In addition to preventing the most common operational errors, it maintains an audit trail of the creation and use of files as well as information about reruns.
- **Effective generation data group management.** ACR/File detects incorrect generation numbers and identifies missing generations.

- **Flexibility.** ACR/File is used to verify files as the first step in a job and/or as the last step of a job, capturing information about files that were created during the job. Each step will return a completion code which can be tested to control continued execution of the job stream. The software has built-in exits for the incorporation of tape management library data. The ACR/File step runs as a normal application program and requires no special privileged execution.

ACR/File Terms

Term	Definition
Batch definition transaction records	These are 80-character records used to add and update Job and Table definitions in the definition database. They must follow the layout for each record type as presented in this manual.
Cycle ID	This is an 11-digit, ascending number that uniquely identifies the processing cycle associated with a particular execution of an ACR/File step. It consists of an 8-digit Cycle Number and the optional 3-digit Run Number. The Run Number is used when an ACR/File step needs to be executed more than once per processing cycle (for example, a multi-daily job).
Job ID	This is an 18-character key that uniquely identifies an ACR/File step. It consists of an 8-character job name, an 8-character step name, and an optional 2-character job-step qualifier (JSQ).
Return code	This is a 4-digit code that indicates the completion status of an application program. ACR/File uses and sets return codes to control processing.

For additional terms, see the “Glossary” on page 335.

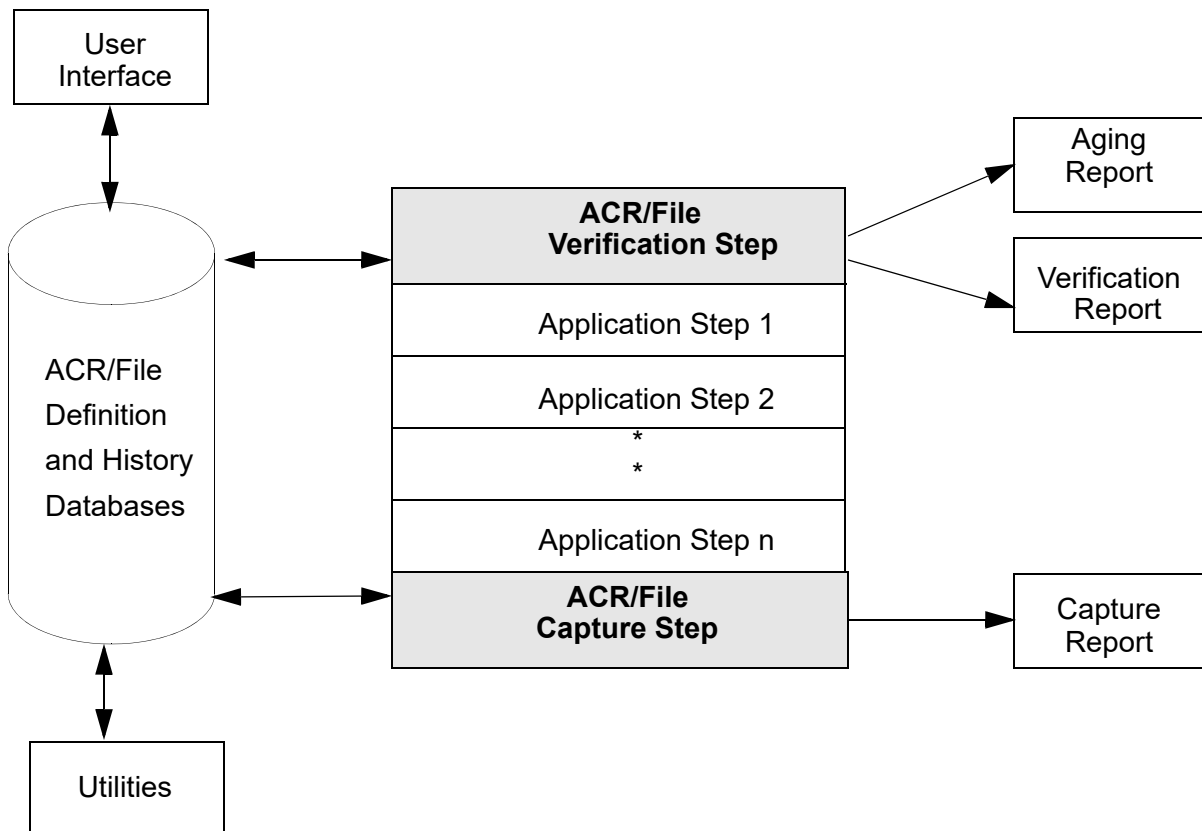
How ACR/File Works

After the environment has been established, ACR/File is executed as the first and last step in a job. The first step verifies the input files according to the rules in the definition database. If there is a verification exception, the

remaining job-steps can be bypassed. The last step captures file information for later use in verification steps or reporting. Following is a brief explanation of the system functions.

System Overview Diagram

The following diagram shows an overview of ACR/File. The ACR/File system contains four major components: the User Interface, the Databases, the Dataset Control Program (UDC2000) and the utilities. Each of these components is described in more detail throughout this manual. Brief descriptions of these components follow.



User Interface

The User Interface is provided as a convenience and is not required to use ACR/File. All functions pertaining to setting up the ACR/File databases, creating and maintaining definitions, and running ACR/File and its utilities can be accomplished through batch processing or through the User Interface.

The User Interface consists of several types of panels: Menu, Data Entry, Selection List, and Help. Menu panels present a list of subordinate panels from which to choose. The data entered on each data entry panel is validated on-line, allowing immediate detection and correction of errors. Selection List panels provide lists of items which you may select either to examine a particular item in more detail, or to modify it. Help panels provide guidance in using ACR/File. In addition, LIST and COPY functions, available within some of the User Interface panels, permit you to list job information or to copy definition information from one job to another.

Warning: The User Interface operates under ISPF version 2.3 and above. However, you must have PTF UY17473 installed on your system or you will receive an ISPF188 message while attempting many of the interface functions.

For more information, see [“The User Interface” on page 25](#).

Databases

The criteria for verifying input files and capturing output files defined by the user are stored in the ACR/File databases. The information about file creation and usage are also stored in the ACR/File databases.

The information required by ACR/File to perform capture/verification is specified by the user as a set of parameters. These parameters are referred to as definitions. The ACR/File Databases consists of two physical files: the definition database and the history database.

The definition database is a key-sequenced VSAM file containing various types of ACR/File definitions, including the definitions of the capture/verification requirements for different jobs. These definitions are created through the User Interface or as batch definition transactions. The definitions tell ACR/File when and how to perform the capture/verification process.

The history database is a relative-record VSAM file. It contains information about the captured/verified files and results from each ACR/File execution.

For more information, see [Chapter 4, "Definition and History Databases"](#) on page 93.

Dataset Control Program (UDC2000)

UDC2000 is a batch program that is executed as a separate step in the application job stream. The definitions are used as input to this program. The UDC2000 program then uses the information contained in the definition database to verify the information on the actual files being processed in the job stream, and to capture information about the files created in the job stream. This program also reports the results using the options specified in the definitions.

Utilities

ACR/File's several utilities perform many important functions. For example, various utilities can be used to selectively list the definition database or history database, update the contents of the definition database, delete the history records from the history database, print selected job summaries of histories, and expand and reorganize the Databases.

For more information, see [Chapter 10, "Utilities"](#) on page 207.

Summary of ACR/File Features

The ACR/File System incorporates the following standard features:

- Implementation without program changes. All of the verification rules are defined outside the application system. The rules are applied by a separate job-step which is added to the job stream JCL. The capture of the file information is also accomplished through a separate step, which is added to the JCL. There are no program changes required to implement ACR/File.
- Menu-driven user interface. The parameters required by ACR/File are entered by you into formatted fields in User Interface panels. These parameters are kept in the definition database for use at execution time.
- Global parameters. You can define certain global parameters that apply to all files within a shop. These parameters function as user-defined defaults to speed up and simplify the definition process, but can be overridden for specified jobs or files.
- Up to 999 histories per job-step. The actual number of histories kept is determined by you based on available disk space and processing needs.

1 ■ Introduction

Summary of ACR/File Features

- **Input file verification.** The File Verification Rules are applied as the first step in the job stream. Potential problems are identified before they occur.
- **Multiple files/multi-volume datasets.** ACR/File can process an unlimited number of files. It can also accommodate multi-volume datasets.
- **Verification of concatenated files.** Concatenated files are verified individually and by concatenation sequence, assuring that all expected files are present and that these files are entered in the correct order. This is particularly valuable for sequenced transmissions or chronologically-sequenced files.
- **Verification of GDGs.** The dataset name of a GDG file is taken from the volume, rather than the catalog, at creation time. This allows ACR/File to verify the full data set name and volume instead of the relative generation number and catalog pointer. The problems of restart/rerun with GDGs are avoided. Similarly, the use of GDGs to concatenate data collection files is fully verified.
- **Not-cataloged errors.** When a NOT CATLG 2 dataset is created, a message is produced by ACR/File that this has occurred. ACR/File also identifies on which volume the new, uncataloged dataset resides. If this message is ignored, and a later step attempts to use the cataloged dataset as input, ACR/File will detect the use of the incorrect dataset caused by the previous NOT CATLGD 2 error. Even though the catalog is incorrect, ACR/File knows when and where the new, uncataloged dataset was created. The verification step will detect the inconsistency between the volume and creation date.
You can also have ACR/File correct a NOT CATLG 2 error by recataloging the dataset to the proper volume(s).
- **Protection against modified files.** ACR/File prevents the use of unauthorized remakes of production files. The file must agree completely with the information that was captured when the file was created.
- **Automatic cycle generation.** ACR/File provides several options to automatically generate the Cycle Numbers associated with the execution of application jobs.
- **Automatic rerun handling.** ACR/File can automatically handle reruns of the last cycle or a specified prior cycle of a job.

- Audit trail of file creation and usage. ACR/File maintains the following file creation information:
 - Job/step/ddname
 - Creation date and time
 - Volume serial numberACR/File also keeps a record of usage and reruns for those files under its control.
- Detail and exception reports. Many of the ACR/File reports can be generated automatically or only when an exception occurs.
- Report Only mode. This facilitates testing the definitions for a job. In Report Only mode, ACR/File captures and verifies the files that you have specified. When it detects exceptions, it will only report these exceptions, and will not set a condition code or generate a user abend.
- Implementation Tools. ACR/File Definition Generator helps you to create your definitions by analyzing SMF data. The Infogix JCL Modifier automatically inserts the ACR/File steps into your job stream. These tools simplify and speed up the implementation of ACR/File when it is to be implemented in a large number of jobs.

Reports

ACR/File produces a variety of standard reports that document the results of processing. Reports are produced following the initialization of the databases, for each Verify and Capture step, and by the utilities.

Following are brief descriptions of the reports produced by the Verify and Capture steps. The database initialization report is described in [Chapter 5, "Preparing the Environment"](#) on page 105. The utility reports are described in [Chapter 10, "Utilities"](#) on page 207.

Samples of the Capture and Verify reports can be found in [Appendix A, "Reports"](#) on page 265.

Verify Reports

The Input File Verification Report (UDCR002) shows the expected and actual datasets for the input file, including both matches and mismatches of datasets.

The Input File Verification Expanded Messages Report (UDCR003) describes each verification exception in detail and suggests how to correct it.

The Input File Exception Report (UDCR004) shows expected and actual datasets for mismatches only. An Input File Exception Expanded Messages Report (UDCR005) accompanies it.

The Maximum Age Notification Report (UDCR007) shows any file that has to been used yet, but should have been, based upon specified age limits.

The System Messages and Return Codes Report (UDCMSGS) lists every error by return code or message ID and suggests how to correct it.

Capture Reports

The Output File Capture Report (UDCR006) shows file creation, again and other characteristics about the output file it captured. The information contained in this report is identical to the information available through History Browse.

The System Messages and Return Codes Report (UDCMSGS) lists every error by return code or message ID and suggests how to correct it.

How to Read an ACR/File Report

This section explains the layout of a ACR/File report. All ACR/File reports maintain a consistent format.

Report Header

The report header includes various items of information. It displays the name of your company (optional), the report page number, the date and time of the report, and the database version you are using. If applicable, the Job ID (Job Name, Step Name, and JSQ), and the Cycle ID (Cycle Number and Run Number) of the ACR/File processing.

Body of Report

This section details ACR/File transactions processed, verification or capture information or error messages, depending on the report. At the left side of the report is a reference for this data (by transaction number, step name or message).

Report Footer

The Report Footer displays information about ACR/File processing.

A Sample Report

Following is a sample report.

ACR/F releasenumber	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.
DATE: 03/07/29	TRANSACTION VALIDATION REPORT ID: UDCINIT	PAGE 1
TIME: 12:27:21	UDCINIT INPUT TRANSACTIONS	DEF/HST VERSION: 0000000/00000000000
TRAN# OK?	I N P U T T R A N S A C T I O N	V A L I D A T I O N M E S S A G E S
-----1-----2-----3-----4-----5-----6-----7-----8-----		
00003 YES DFDSN USERID.UDC.UDCDEFN		
00002 YES HFDSN USERID.UDC.UDCHIST		
00001 YES HFS 0000001000000150		
DEFINITION FILE CREATED PER PARM INFO	(FILE=BOTH) NBR OF DEF RECS WRITTEN:	1
HISTORY FILE CREATED PER PARM INFO	(FILE=BOTH) NBR OF HST RECS WRITTEN:	152

Implementing ACR/File: An Overview

The procedure for implementing ACR/File is shown summarized below.

1. Establish ACR/File Database

The ACR/File databases consists of two physical files: the definition database and the history database. The definition database contains the verification rules as well as information about which files are to be captured and which files are to be verified. The history database contains the information from each execution of the Dataset Control Program.

Establishing the databases can be done through the User Interface to generate the JCL to initialize the databases or by executing a JCL procedure named UDCINIT. This procedure allocates and initializes the databases. For more information, see “[UDCINIT JCL](#)” on [page 280](#).

2. Prepare ACR/File Definitions

This step involves analyzing the File Verification requirements of the application system and selecting the relevant options and parameters available in ACR/File. The following are among the available File Verification options:

- The required application step and DD are present in the JCL.
- The correct dataset name is being used.
- A file is in the proper sequence in a concatenation.
- The source of the file is verified by job, step, ddname, and relative cycle.
- The file creation date and time is validated.
- File use count is within user-specified limits.

- File use falls within a time range or job cycle range.
- 3. Update definition database
This can be done either through the User Interface (to add definitions to the definition database) or by executing the UDCUPDT JCL procedure. This procedure validates the definitions and updates the definition database with the definition information.
- 4. Implement the ACR/File Capture Step
This step creates the JCL for the Capture step. In a production job, this JCL would be inserted in your production JCL as the last step in jobs where files are being created that are to be used as input into subsequent jobs.
- 5. Implement the ACR/File Verification Step
This step creates the JCL for the verification step. For production jobs, this JCL would be inserted into your production JCL as the first step in jobs where files are being brought in as input from previous jobs.

Questions about Implementing ACR/File in Production

Following are answers to some commonly-asked questions about how to use ACR/File in a production environment.

For which jobs should I use ACR/File?

To get the most out of ACR/File, identify the jobs and files that cause you the most reruns. These jobs and files can be identified by: reviewing problem logs that your data center may have, reviewing reports produced from your scheduling or performance monitoring software that show rerun activity, or simply by asking the data center staff which jobs cause them the most problems. You can then use this information to determine what files need to be captured and where those files need to be verified. Once you have this information, you have everything that you need to code the definitions and insert the ACR/File steps where appropriate.

Should I use ACR/File to control all of the files in my shop?

ACR/File is designed so that it can control all of the files in your shop, but the real question is: are all of the files in your shop causing you problems? You can probably use the 80/20 rule here. Twenty percent of the files are causing eighty percent of the problems. To make a more effective use of

your time and resources, identify those files that fit into the twenty percent category and control them with ACR/File. Remember, the more jobs and files that ACR/File controls, the larger the definition and history databases that you'll need.

If ACR/File controls everything, you'll have very large databases that will require a significant amount of DASD. These large databases, coupled with the fact that all of your jobs will be competing for access to these databases, may add as much as 15 to 30 seconds of wall time (or about .5 to 1.5 CPU seconds on a 3090-600) to jobs that really don't normally have file problems. Also, you will need to maintain definitions for all of your jobs when only twenty percent of those jobs cause problems. You need to decide whether to incur the additional overhead in every job to catch all the file problems, or whether to spend extra time up front to determine where your most frequent problems occur, and then focus your efforts on preventing these problems.

For example, if you were to use ACR/File to control all of your jobs, with the following assumptions:

- 7,000 jobs
- 6 files per job to be tracked
- 7 cycles per file to be kept
- Databases to be stored on 3380 device
- Automatic rerun step in each job
- Verify step in each job
- Capture step in each job,

The database calculations would be as follows:

1 ■ Introduction

Questions about Implementing ACR/File in Production

Definition Database Calculation

$14,000 + (7,000 \times 6) + 1 = 56,001$ records needed

$56,001 \times 128 = 7,168,128$ bytes needed

$7,168,128 / 47,476 = 151$ tracks needed

$151 / 15 = 10$ cylinders needed

History Database Calculation

$(21,000 / 32) + (14,000 \times 7) + (14,000 \times 6 \times 7) + 1 = 686,656$ records needed

$686,656 \times 1,020 = 700,389,120$ bytes needed

$700,389,120 / 47,476 = 14,752$ tracks needed

$14,752 / 15 = 983$ cylinders needed

Is there a faster way to create the ACR/File definitions if I want to put ACR/File into many jobs?

Yes. ACR/File comes with two implementation tools which are described in detail in Chapter 10. One of these tools, the ACR/File Definition Generator, can automatically analyze your job streams and create the capture and verification definitions needed. The Generator does this by reading your SMF data to determine where datasets are created and used. You can tell the Generator to focus on datasets created and/or used by certain jobs by using control cards.

The output of the Generator is a set of batch definition transactions that can be reviewed and modified and then used as input to UDCUPDT (the batch definition update program).

How can I control who updates the ACR/File definition and history databases?

The easiest way to control update access to your ACR/File databases is through your normal security software (for example, RACF, ACF, Top Secret, etc.). If you don't want to allow on-line updates to your definition database, you can restrict access to read only and require use of the batch update process (UDCUPDT) to add or modify definitions on the definition database.

Allow users on-line update access to a test definition database for testing new definitions. Once their test definitions have been tested, they can use the Create Batch Transactions process, described earlier in this chapter, to

create and store the batch definition transactions. Change control personnel can then run the UDCUPDT batch update program to update the Production definition database.

What other things should I take into consideration when putting ACR/File into a production environment?

- Consider the impact of where (what volumes) you place your ACR/File Databases and other ACR/File files. Since each ACR/File step will want to access the ACR/File Load Library, Control File, definition database, history database and User Options File (if being used), put these files on separate volumes to minimize channel and volume contention.
- Any job containing an ACR/File Verification or Capture step will require a region of 2 megabytes. This allows ACR/File to core-up much of the information it processes, reducing I/O and processing time.
- If your shop has JES initiators that use address space above-the-line (where the SWA is above-the-line), ensure that your COBOL run-time libraries are concatenated so that the COBOL II libraries come before the COBOL VS libraries. This allows COBOL to pick up the IBM I/O modules that recognize above-the-line addresses. If the COBOL VS libraries are first in the concatenation, the old, pre-COBOL II, IBM I/O modules will be used. These do not recognize above-the-line addresses and will cause a S0C4 or a DD NOT FOUND condition to occur.
- If your shop is using IBM's System Managed Storage (SMS) product, the VOLSER information may not be available for ACR/File to capture or verify. This does not cause ACR/File any problems, but does make the reports look unusual, since the VOLSER field is blank. To make sure that you do not get a verification exception, set the Verify VOLSER option to N.
- Due to an IBM restriction with the LOCATE MACRO, ACR/File can only verify the first 20 volumes of any data set.

1 ■ Introduction

Questions about Implementing ACR/File in Production

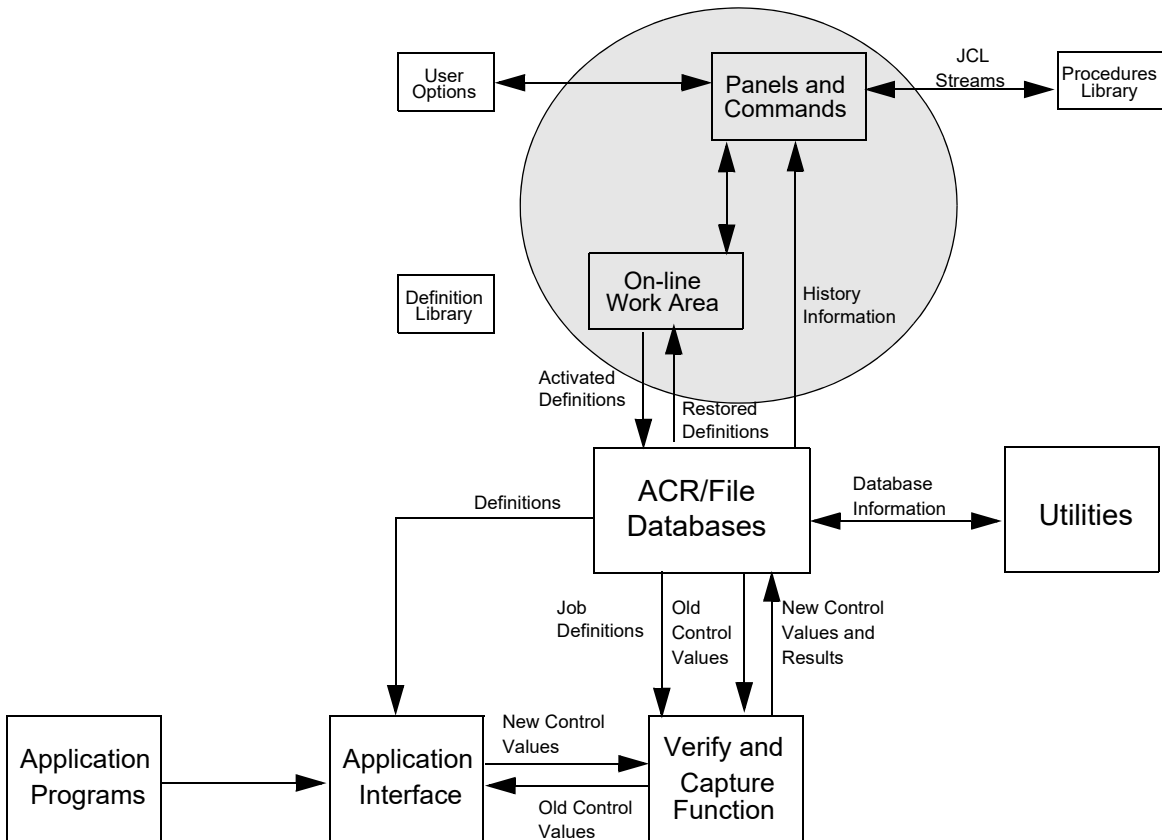
The User Interface

This chapter explains the User Interface, which consists of panels and commands for entering information, programs and messages for processing the data, and user files to store the information from session to session. In turn, the panels consist of a series of menus, data entry panels, selection lists and help panels. The following sections are included

- “User Interface Diagram” on page 26
- “Panel Components” on page 28
- “Panel Types and Functions” on page 33
- “Messages” on page 37
- “Exiting ACR/File” on page 38
- “Navigational Conventions” on page 38

User Interface Diagram

Most ACR/File users will use ACR/File via the User Interface, illustrated below.



The User Interface runs under ISPF (Interactive System Productivity Facility). ISPF is an IBM software product that allows applications such as ACR/File to use full-screen panels in a TSO (Time Sharing Option) environment.

User Interface Functions

The User Interface is usually used to set up a working environment for each user. You use the Environment Set Up portion of the interface to set user defaults, allocate user files, create a Job Card, and generate/submit the JCL needed to establish and initialize a test database. This setup needs to be done only once per user, to create the working environment.

The primary use of the User Interface, however, is to enter verification/capture specifications through the panels to create definitions. The Definitions Menu allows you to select options to enter definition fields. During an on-line session, the definition fields you enter on the data entry panels are manipulated in an on-line work area. At the end of the session, they are automatically backed up to a member of each user's definition library. Additional backups (members) can also be saved/restored at any time.

-
- Note:**
- You should back up your work area every half hour. Doing so will reduce the amount of information that is lost in the event of a system failure.
 - Periodically reallocating the Definition library will prevent it from becoming too large and impeding performance. Because allocating refreshes the file, you may want to activate the definitions and then reallocate.
-

When you begin another on-line session, the work area is immediately restored from the automatic backup member in the Definition library. You can then enter additional definitions or browse through and modify existing definitions. After completing your entries/changes, you activate the definitions by applying them to the definition database.

The User Interface also generates JCL job streams that execute various ACR/File utilities programs (for example, job streams to establish a database, selectively list the contents of the Definition or history databases, or update the contents of the definition database). JCL job streams can be either displayed in the edit mode or automatically submitted before being stored in a user's JCL library.

The User Interface allows you to tailor the way definitions are entered to suit your particular needs. It also provides panels to create user options records for dynamic allocation of ACR/File files, Dual History option, Automatic Rerun option, and other ACR/File options. See [Chapter 9, "User Options and User Exits"](#) on page 183 for more explanation of user options.

2 ■ The User Interface

Panel Components

Panel Components

All ACR/File User Interface panels share common components. The example below shows you the component parts of a typical User Interface panel. Each part is described below.

Panel Title/Rel No.>	----- ALTERNATE JOB ID INFORMATION ----- ACR/F R40V0M00
Com. Line/Panel ID->	====> PANEL: UDC1170
Instruction Line--->	SPECIFY AN ALTERNATE JOB ID BELOW:
Fields----->	PRIMARY JOB ====> STEP ====> QUAL ====>
	ITEM NUMBER ====> 001 (1 - 100)
	ALTERNATE JOB ID:
	JOB NAME ====>
	STEP NAME ====>
	QUALIFIER ====>
Panel Footer----->	PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

■ Panel Title

The Panel Title appears highlighted in the middle of the first line of the panel and describes the panel's function. In the example above, the Panel Title indicates that the panel is used to specify Alternate Job ID Information.

■ Release/Version Number

The Release/Version Number identifies the specific release and version of the ACR/File software you are using. If you should have to call Customer Support, it is very helpful to know this number. In the example above, Release/Version Number R40V0M00 indicates that you are using software Release 4.0. Note that this number will change in the product panels for any Version created for ACR/File.

The Release/Version Number area is also used to display short panel messages which can be informational or error messages. When short panel messages appear, longer panel messages can be obtained by pressing the F1. The Release/Version Number is temporarily overlaid with the message text and is restored once the messages are cleared.

■ Panel Identifier

The Panel Identifier is a 7- or 8-character code that uniquely identifies the panel. All ACR/File panel names begin with the letters UDC, followed by numbers representing the panel's placement in the panel hierarchy, with trailing zeroes ignored. In the example above, UDC1170 indicates that this is function ACR/File 1.1.7.

■ Command Line

The command line appears on the second line of all panels. It is identified with an arrow: ===>. Here you may key in commands that tell the ACR/File Interface which action to take. For example, you might key in the command A (ADD) to request that this Alternate Job ID Information be added to the on-line definitions.

■ Instruction Line

The Instruction Line usually appears on the panel's third line. It tells you what you must do to process the panel. The line usually begins with a verb such as SELECT, ENTER, SPECIFY, or COPY.

■ Fields

Fields are used to enter or to display definition information. Most fields are unprotected input fields that allow you to enter information, while others are protected fields that only display information. All fields are highlighted and are identified by the prompt symbol (===>). Some fields are required fields, while others are optional, depending on your processing requirements.

Note: In this context, optional means that ACR/File does not require that information to process the panel. However, your particular application's requirements may call for certain optional fields to be filled.

■ Panel Footer

The Panel Footer is the last line of the panel. This line uses the IBM default settings to give you a PF (Program Function) key legend, which indicates which keys are active on that panel. Selection list panels do not have a Panel Footer; instead, the function (PF) key legend appears on the fourth line, under the instruction line.

2 ■ The User Interface

Panel Components

Processing Information on a Panel

After you have keyed your information into a panel, you must press **Enter** to tell the system to process this information.

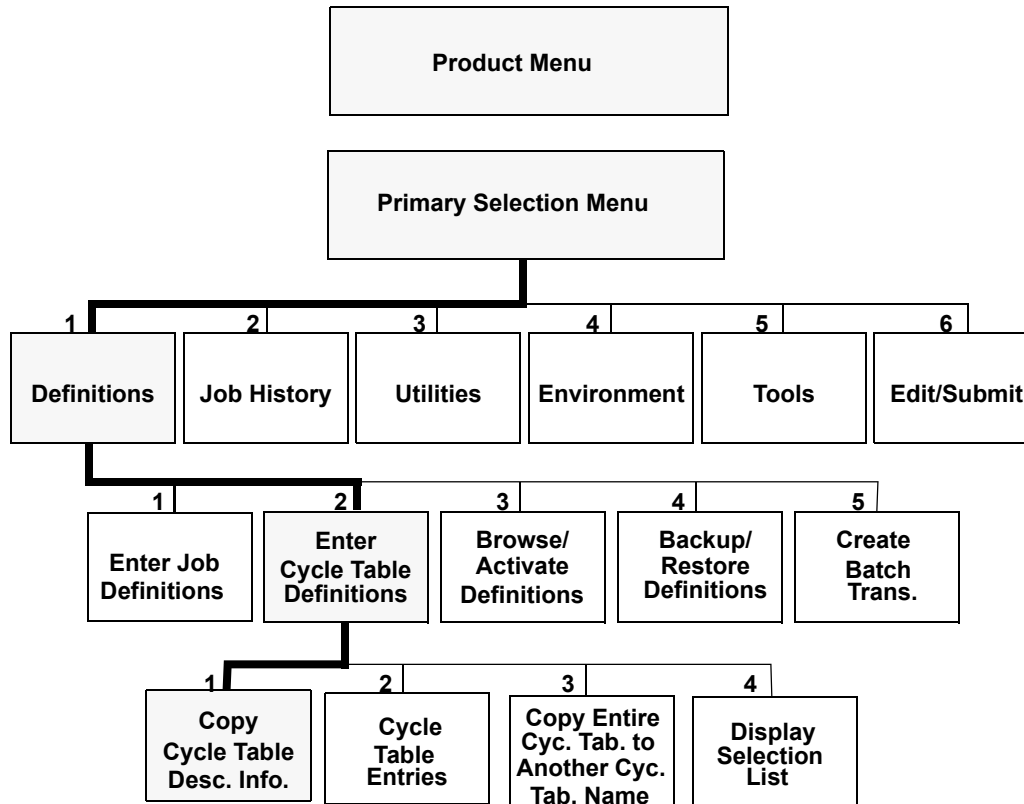
Note: Important: If you press any other key besides **Enter**, the information is not processed. When you press **Enter**, the system checks the information you entered and responds in one of the following ways:

If the information is valid, the system gives you a processing message confirming that the panel was processed successfully (for example, BASIC INFO ADDED). Depending on the particular panel, you either see the same panel redisplayed to enter new information, or the system takes you to a different panel.

If the information is not valid, or if required information is missing, the system re-displays the screen with a short error message in the upper right-hand corner. In addition, the cursor is placed at the field in error. Additional error information can be obtained by pressing **F1**. Correct the invalid information and press **Enter** to verify the new information.

Moving Through the Panel Hierarchy

The ACR/File User Interface's panels are arranged in a hierarchy, as shown in the following diagram.



For example, the ACR/File Primary Selection Menu (UDC0000) offers six options; each of those options displays its own panel, and some of those panels offer still more options. Each option lies one or more levels beneath the ACR/File Primary Selection Menu. Each time you access a lower level panel, you go deeper into the panel hierarchy.

Each panel's Panel Identifier indicates its location within the hierarchy. You can use this Identifier to get to the particular panel you want by panel jumping (that is, moving from one panel to another by entering the destination panel's identifier number. For example, enter 1.1.7 for panel UDC1170). Alternatively, you may use function keys to move back up the menu structure.

Moving Between Panels

You can move between panels in several ways.

- The most common method is to select an option from a menu. For example, if you type 1 at the command line of the Primary Selection Menu (UDC0000) and press Enter, the system displays the ACR/File Definitions Menu (UDC1000).
- To access panels directly from the Primary Selection Menu (UDC0000), type the number of the panel you wish to access on the command line, separating each number by a period, and press Enter. For example, if you type 4.1 at the Primary Selection Menu (UDC0000), the Specify Default Values Panel (UDC4100) appears. To jump between branches of the panel hierarchy or to go backward in the hierarchy, type an equal sign (=) followed by the panel number (separating digits with a period) of the panel you want to access, and press Enter. The Primary Selection Menu is the common reference point for the ACR/File menus and panels, and the equal sign takes you back up to that menu. The numbers that follow the equal sign then take you back down the hierarchy to the panel you requested. For example, suppose you have finished at the Initialize Data Base Panel (UDC4500), and you want to enter job parameters at the Enter Job Definitions Panel (UDC1110). At the command line, type =1.1.1 and press Enter.
- You can also move to panels by using function keys. The number of function keys can vary from site to site. The descriptions below show the commonly used assignments for function keys. After the key assignments have been made, you can refer to the keys by their function names.

This key:	Does this:
F3 (End)	Tells the system that you are finished with the current panel. Depending on the panel you are on, you either go on to the next screen in the sequence or return to a previous screen.
F4 (Return)	Takes you back to the ACR/File Primary Selection Menu (UDC0000) from any panel in the system.
F1 (Help)	Allows you to see explanatory information. By using this key you can access the Help Facility which consists of panels explaining each field on a panel.

Panel Types and Functions

The User Interface provides a variety of panel types including the following: menus, data entry, selection list, and help. These types of panels are described below. Panel functions are described after the panel types.

Menus

Menus offer you choices, often numbered as in the following example. You can either type the number desired on the command line, or type an S (for SELECT). Some menus offer L (LIST) and C (COPY) as menu options. Invoking these options will take you to selection list and copy submenus.

```

----- ACR/F PRIMARY SELECTION MENU ----- ACR/F releasnumber
====>                                     PANEL: UDC0000

- 1  DEFINITIONS  : ENTER AND PROCESS DEFINITIONS
                   DSN: USERID.FILE1.DEFN

- 2  JOB HISTORY  : SEARCH AND DISPLAY JOB HISTORIES
                   DSN: USERID.FILE1.HIST

- 3  UTILITIES    : CREATE JCL TO EXECUTE ACR/F UTILITIES

- 4  ENVIRONMENT  : SET UP FILES, JOB CARD, DATA BASE, AND DEFAULTS

- 5  TOOLS        : IMPLEMENTATION TOOLS

- 6  EDIT/SUBMIT  : EDIT FILES AND SUBMIT JOBS

                   PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

Data Entry Panels

Data entry panels contain fields in which data is entered or displayed as in the following example. All fields are highlighted and are identified by a prompt symbol (====>). Some fields are required (that is, you must enter data in order for the panel to be processed), while other fields are optional. Where appropriate, valid values for fields are displayed in parentheses. In

2 ■ The User Interface

Panel Types and Functions

some data entry panels, as values are entered in fields, the cursor may move to the next field. Pressing Enter will process the information entered in the fields. ACR/File then maintains the input data in an on-line work area.

```
----- SPECIFY OUTPUT FILE INFORMATION ----- ACR/F releasenumber
====>                                     PANEL: UDC1120

      JOB ==>          STEP ==>          QUAL ==>
      OUTPUT FILE ITEM NUMBER ==>      (1 - 32)

OUTPUT FILE CREATED BY:
  APPLICATION STEP      ==>
  STEP OCCURRENCE      ==>          (1 - 999)
  DDNAME                ==>

FILE USE RESTRICTIONS:
  MAXIMUM NBR OF USES  ==>          (0 - 999)
  MUST BE USED WITHIN ==>          CYCLES OF CREATION (0 - 999)
  MUST BE USED WITHIN ==>          DAYS OF CREATION  (0 - 999)

VERIFY:
  FILE IS PRESENT     ==>          ENTER Y, N, OR X WHERE Y = VERIFY,
                                   REPT & CONTINUE; N = DON'T VERIFY;
                                   X = VERIFY, REPT & SET COND CODE
                                   (BLANK = JOB-LEVEL OPT TO BE USED)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

JCL Panels

JCL panels are data entry panels that prompt you for the job information necessary to create JCL (see the following example). After you have entered the requested information and pressed Enter, ACR/File will generate the requested JCL stream. The JCL can be submitted automatically or displayed in EDIT mode for review or modification.

```
----- JCL FOR OUTPUT FILE CAPTURE STEP ----- ACR/F releasenumber
====>                                     PANEL: UDC4610

STEP NAME                                ==>

DATA SET INFORMATION:
  DEFINITION FILE (VSAM):
    DSN ==>                                <====
  HISTORY FILE (VSAM):
    DSN ==>                                <====
  USER OPTIONS FILE (SEQUENTIAL)
    DSN ==>                                <====
  JCL LIBRARY (PDS):
    DSN ==>                                <====
    MEMBER NAME ==>                        <====

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

Selection List Panels

Selection list panels display lists of informational items. The Basic Job Information Selection List Panel is one example. This panel shows all the jobs currently defined for a particular Job ID. In most cases, items in the list have a list option (OPT) to the far left of the item. If more detailed information is required, one of the listed items can be selected by typing an S in the OPT field. Then, pressing Enter causes the related data entry panel, which shows all the currently defined information for that item, to be displayed. You can also delete items by typing a D in the OPT field. Finally, you can copy an item's definition to another set of definitions by typing a C next to that item. Then, pressing Enter will cause the appropriate copy screen to be shown.

```

----- BASIC JOB INFORMATION - SELECTION LIST -----ACR/F releasenumbr
===>                                                    PANEL:UDC111L

ENTER ONE OF THESE OPTIONS: S=SELECT, C=COPY FROM, D=DELETE

  OPT      JOB        STEP      QUAL      DESCRIPTION/TITLE
  -----
  -   JOBX      UDCFCAPT      CAPTURE JOBX VALID AND INVALID TRANS
  -   JOBY      UDCFCAPT      CAPTURE JOBY NEW MASTER FILE
*****
***** BOTTOM OF DATA *****

```

Help Panels

The User Interface has a Help Facility to assist you in learning and in using the system, as shown in the following example. The Help Facility is a series of text panels containing explanations of the menu and data entry panels. Each panel in the User Interface has at least one help panel. When you request help, a description of the current panel appears. These help panels assist you in using the menus and in filling in the proper data entry values. Although every data entry panel has literals that show the permissible values for most fields, the help panels provide a more detailed explanation of those values for each field.

The Help Facility also provides expanded (long) messages that work in conjunction with the help panels. These messages are either processing messages or error messages. Long messages provide up to 80 characters of text further explaining a short message.

You can access the Help Facility by pressing the Help key. (The default key is F1.) If you press the Help key when no short message is present, ACR/File displays the first help panel corresponding to the ACR/File panel you were on when you pressed the Help key. If you press the Help key when a short

2 ■ The User Interface

Panel Types and Functions

message is present in the upper-right corner of a panel, ACR/File displays the long message on the third line of the panel. If you press the Help key again, ACR/File displays the appropriate help panel.

To exit the Help Facility, press F3. The system returns you to the panel you were working on when you invoked the Help Facility.

```
-----HELP FACILITY-----PAGE 1 OF 1
===>

          |-----|
          | TABLE DEFINITIONS |
          |-----|

SELECT CHOICE AND OPTIONALLY ENTER TABLE NAME BELOW:

          TABLE NAME ===>                <===

1  CYCLE TABLE DESCRIPTION INFORMATION
2  CYCLE TABLE ENTRIES
C  COPY ENTIRE TABLE TO ANOTHER TABLE NAME
L  DISPLAY SELECTION LIST

TO SELECT DESIRED CATEGORY, EITHER TYPE THE NUMBER ON THE COMMAND LINE AND PRESS
ENTER, OR TYPE AN 'S' IN THE SPACE NEXT TO THAT CATEGORY, AND PRESS ENTER.

IF YOU WISH TO VIEW HELP SCREENS IN OTHER CATEGORIES, FROM WHERE YOU ARE NOW,
TYPE THE NUMBER OF THE DESIRED CATEGORY ON THE COMMAND LINE AND PRESS ENTER.
```

Panel Functions

Several panel functions are available from the various User Interface panels. For example, within a data entry panel you may enter processing instructions on the command line: ADD to add definition information to the panel (note that ACR/File will accept only A as a valid command, and other processing instructions must be specified similarly), DELETE to delete definition information, or REPLACE to replace current information. After the information in the data entry panel has been changed, pressing Enter will process the information.

Two other functions, LIST and COPY, can be invoked from several panels within the hierarchy. A set of Job ID and Table ID definitions may be copied, or specific definition items may be copied. When C or L are entered at the command line, data entry panels for copying or listing information will be displayed. List panels may permit you to (a) select an item by specifying an S next to the desired item, or (b) browse the list to review definition information by specifying a B.

Messages

ACR/File includes two types of messages: panel and error. The system displays both types of messages at the top right of the panel.

Panel Messages

When the system has processed your instructions successfully, it displays a panel message (for example, 4 DATA SETS ALLOCATED). Error messages describe a data entry error that you must correct in order to process the panel (for example, ENTER REQUIRED FIELD).

After you complete a panel and press Enter, a short message appears. Short messages appear on the last 30 characters of the top line, where the release number usually appears. To see a longer explanation of the short message, press the Help key. The system displays a long message (80 characters). Long messages appear on the third line, temporarily overlaying the panel instruction line.

If you need further information, press the Help key a second time to access the help panels.

Error Messages

Error messages tell you which data is incorrect on a panel and (sometimes) how to correct it. Usually, errors on panels occur either because you did not enter required information, or because you entered it incorrectly.

The most common error message is ENTER REQUIRED FIELD. A required field is a field that must be filled in to process the panel. If you leave a required field blank and press Enter, the program displays an error message and places the cursor at the missing field.

You can also receive error messages during the batch processing of your ACR/File test or production jobs. The Messages and Codes Manual lists and explains the batch processing messages.

Exiting ACR/File

You can exit from ACR/File in three ways. Each method returns you to the Infogix Product Menu.

- At each menu, press F3 to work your way up the menu structure.
- From any panel, press the Return key (the default is F3). The Primary Selection Menu (UDC0000) appears. From this menu, press F3.
- From any panel, enter =X at the prompt (===>) and press Enter.

Navigational Conventions

To avoid unnecessary detail, the > symbol will sometimes be used to abbreviate navigational information. For example, the following convention tells you how to access the Basic File Information panel in the Expert File Editor:

To access the Infogix Product Menu (UNI0000), select Product > ACR/File. (Notice that we do not tell you to press Enter, but you must do so.)

This is an abbreviated way of saying the following:

1. Select the option that accesses the Infogix Product Menu (UNI0000) as follows:
2. Press F4 to place the cursor in the action bar.
3. The cursor moves next to the Product menu.
4. Press Enter to display the product selection menu.
5. Type 3 (ACR/File) and press Enter.

USERID is shown on panels to represent your User ID. In some cases, the User ID may be represented as USERIDA (your USERID appended with the letter A).

Tutorial

We recommend that you read [Chapter 1, “Introduction”](#) and [Chapter 2, “The User Interface”](#) before you begin the tutorial

This tutorial introduces you to ACR/File. You will see first-hand how you can use ACR/File to verify correct file usage before your jobs run. You will set up the ACR/File environment and then define and run sample Capture and Verify steps. The sample jobs demonstrate many of the commonly-used features of ACR/File.

Getting Ready

This tutorial consists of the following lessons:

- [“Lesson 1: Preparing the Environment”](#) on page 42
- [“Lesson 2: Implementing the Capture Steps”](#) on page 57
- [“Lesson 3: Implementing the Verify Step”](#) on page 76

For the reports generated by the tutorial, see [“Tutorial Reports”](#) on page 89.

Lessons are usually divided into tasks. Each task is usually divided into steps.

After completing the tutorial, you will be able to do the following:

- Allocate user files and initialize the ACR/File database
- Define and run a Capture step
- Define and run a Verify step
- Generate and interpret ACR/File reports

Keep the following in mind:

- Complete the lessons in order.
- You can stop at any time; your data will be saved from session to session.
- Allow approximately 3-5 hours to complete the tutorial.

ACR/File Operating Modes

You can use ACR/File in either Beginner or Expert Mode. In Beginner Mode, ACR/File displays definition panels in a fixed order. That is the mode you'll use in the tutorial. (In Expert Mode, you tell ACR/File which panel to display next.)

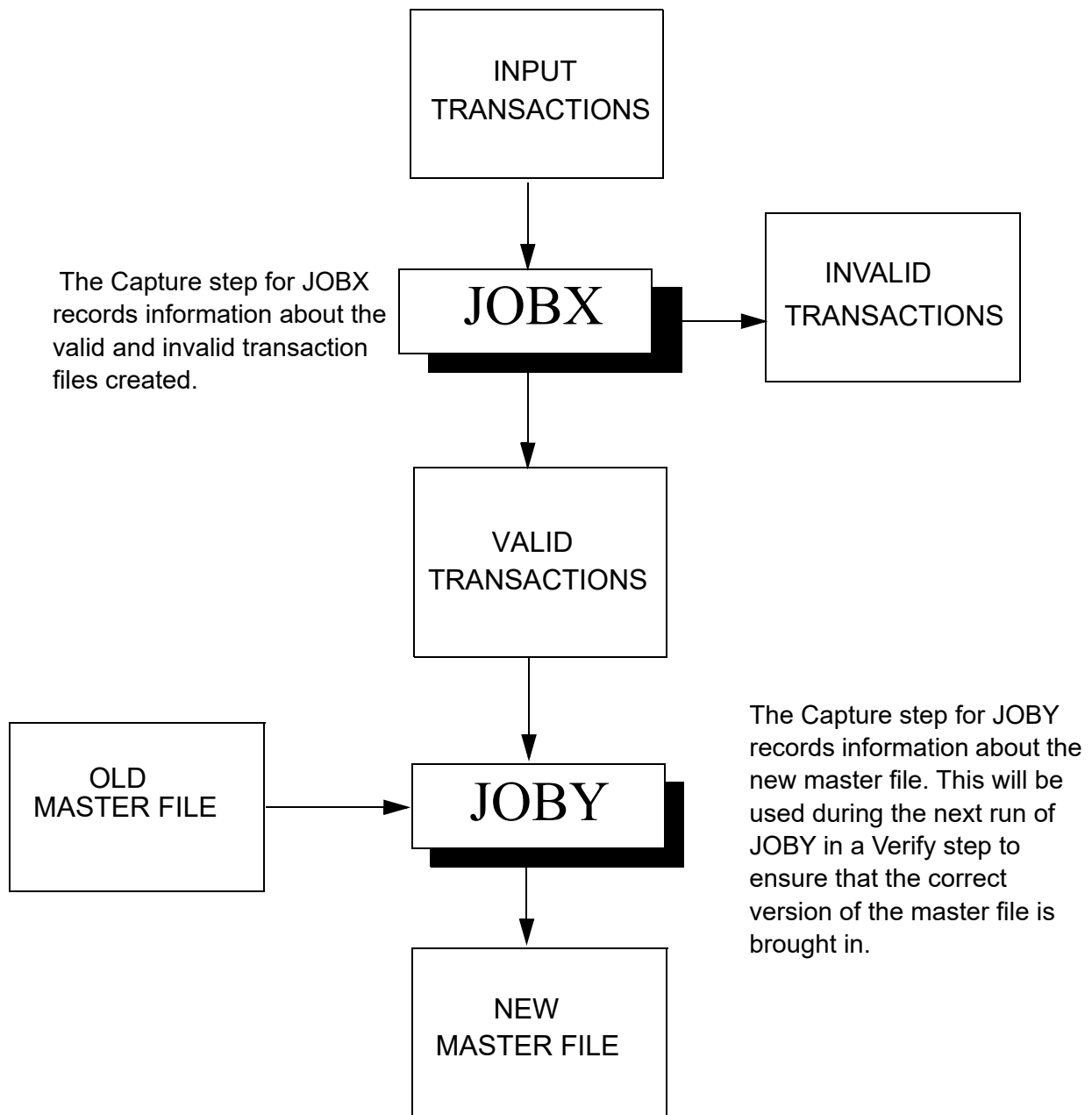
To set the mode, see “[Specifying Definition Entry Options](#)” on page 131.

The Sample Jobs

- **JOBX** is a daily job that usually runs only once a day, but sometimes runs twice a day. It accepts and edits input transactions. Input transactions that pass all edits are written to a valid transaction file. Input transactions that fail the edits are written to an invalid transaction file.
- **JOBY** is a daily job that usually runs only once a day, but should be run twice a day if **JOBX** is run twice a day. It brings in the valid transaction file from the correct run of **JOBX** and applies these transactions to the old master file (created during the last run of **JOBY**) to create the new master file.

You'll use ACR/File to ensure that when **JOBY** runs, brings in the valid transaction file from the last run of **JOBX**, and applies those transactions to the master file that was created during the last run of **JOBY**. The valid transaction file, invalid transaction file, and master file are all GDG files.

Following is an illustration of **JOBX** and **JOBY** processing.



3 ■ Tutorial

Lesson 1: Preparing the Environment

Before You Begin

Before you begin the tutorial, ensure that you have the following:

- Valid TSO sign on ID (logon ID)
- Access to ACR/File
- Dataset naming conventions for:
 - VSAM files
 - Permanent, sequential workfiles
 - Partitioned datasets
 - Disk VOLSER
 - Unit types
- Job card parameters
- Dataset security clearance

Lesson 1: Preparing the Environment

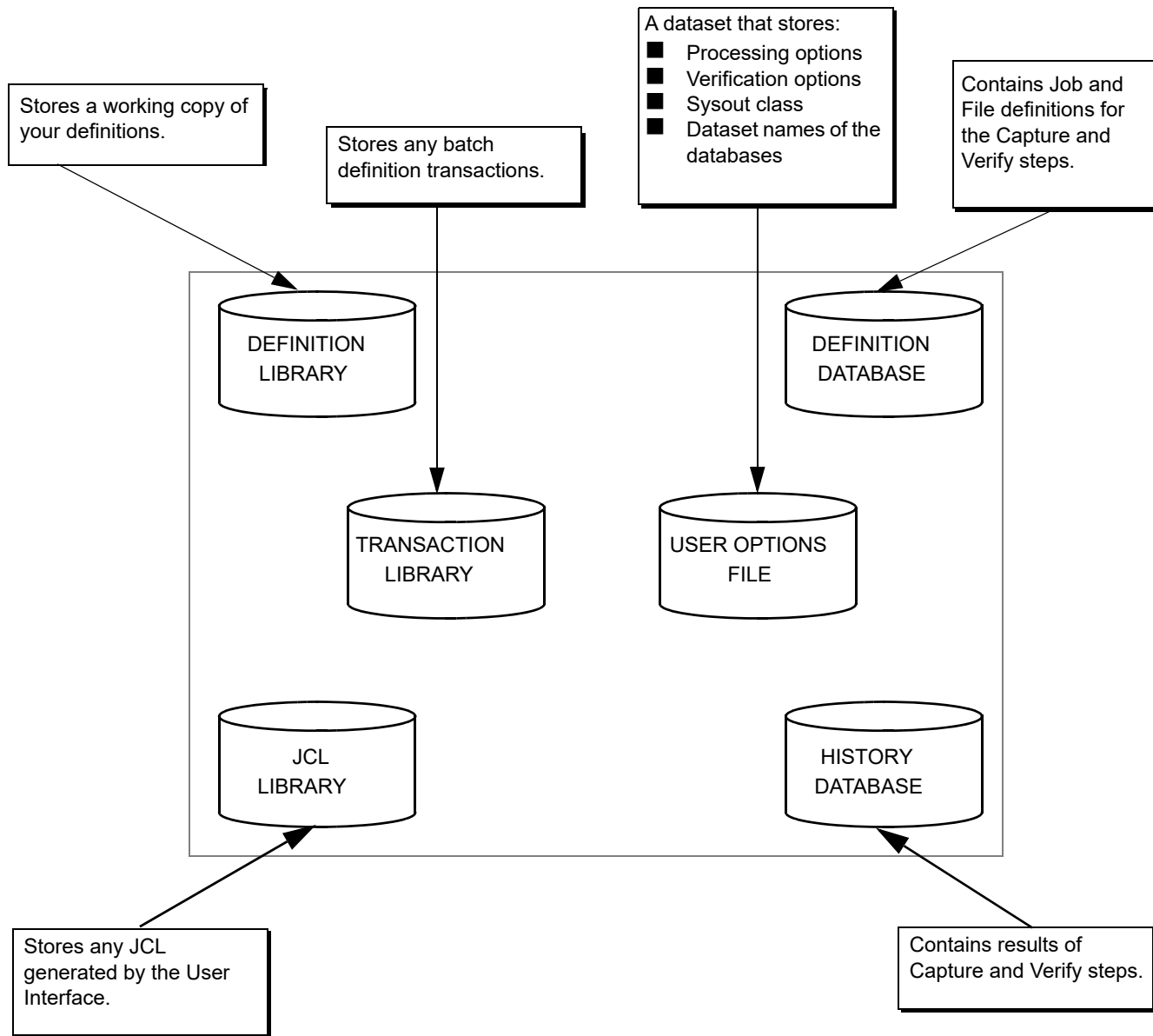
This section takes you quickly through the tasks detailed in [Chapter 5, “Preparing the Environment”](#) on page 105 as they pertain to this tutorial.

Note: Before you start, review the [Navigational Conventions](#) on page 38.

These tasks are as follows:

- “[Task 1: Naming the Files](#)” on page 45
- “[Task 2: Allocating User Files](#)” on page 46
- “[Task 3: Creating a Job Card](#)” on page 47
- “[Task 4 Building a User Options File](#)” on page 48
- “[Task 5: Initializing the ACR/File Databases](#)” on page 49
- “[Task 6: Specifying Definition Entry Options](#)” on page 51
- “[Task 7: Creating the JCL](#)” on page 52

ACR/File Environment Diagram



3 ■ Tutorial

Lesson 1: Preparing the Environment

Accessing and Using the Environment Set Up Panels

Accessing the Panels

To prepare the environment, you must access the Environment Set Up Panel (UDC4000). This panel allows you to access the panels that set default values, allocate user files, and create a job card. To access this panel, follow these steps:

1. Log on to the ISPF system using the procedure for your site.
2. Select Product > ACR/File. The ACR/File Primary Selection Menu displays.

ACR/File Primary Selection Menu

```
----- ACR/F PRIMARY SELECTION MENU ----- ACR/F releasenumbr
====>                                     PANEL: UDC0000

- 1  DEFINITIONS  : ENTER AND PROCESS DEFINITIONS
                   DSN: USERIDA.FILE1.DEFN

- 2  JOB HISTORY  : SEARCH AND DISPLAY JOB HISTORIES
                   DSN: USERIDA.FILE1.HIST

- 3  UTILITIES    : CREATE JCL TO EXECUTE ACR/F UTILITIES

- 4  ENVIRONMENT  : SET UP FILES, JOB CARD, DATA BASE, AND DEFAULTS

- 5  TOOLS        : IMPLEMENTATION TOOLS

- 6  EDIT/SUBMIT  : EDIT FILES AND SUBMIT JOBS

- 7  CFR PROCESS  : CONTROLLED FILE RELEASE QUERY/UPDATE

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

Select the Environment option and press Enter. ACR/File displays the Environment Set Up Panel.

Environment Set Up Panel

```

----- ENVIRONMENT SET UP ----- ACR/F releasenumbr
===>                                PANEL: UDC4000

- 1 SPECIFY DEFAULT VALUES : SPECIFY DEFAULT VALUES FOR USER USERIDA
- 2 ALLOCATE USER FILES      : ALLOCATE WORK FILES FOR USER USERIDA
- 3 SPECIFY JOB CARD INFO    : BUILD JCL JOB CARD FOR USER USERIDA
- 4 BUILD USER OPTIONS FILE : SPECIFY DYNAMIC ALLOCATION/EXECUTION OPTIONS
- 5 INITIALIZE DATA BASE    : CREATE UDCINIT JCL FOR DEFINITIONS/HISTORY FILES
- 6 CAPTURE/VERIFY JCL      : CREATE UDC2000 JCL FOR CAPTURE/VERIFY PROGRAM
- 7 AUTOMATIC RERUN JCL     : CREATE UDCARUN JCL FOR AUTOMATIC CYCLE JOBS
- 8 DEFINITION ENTRY OPTS   : SPECIFY VARIOUS OPTIONS FOR DEFINITION ENTRY
- 9 TRAINING JCL            : CREATE TRAINING JCL THAT DEMONSTRATES PRODUCT

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

You are now ready to prepare the ACR/File environment.

Using the Environment Set Up Panels

Enter a command, such as ADD or REPLACE, on the command line and press Enter on each of the panels. ACR/File then displays an appropriate confirmation. For example: # DATA SETS ALLOCATED, where # represents the number of datasets.

Warning: If you press the PF3 key to end, before pressing Enter, ACR/File will not save your selections.

Task 1: Naming the Files*Specify Default Values Panel (UDC4100)*

You name the database and supporting files using the Specify Default Values Panel (UDC4100). You also use this panel to tell ACR/File whether to display the created JCL or to automatically submit it for processing. To access this panel, select Specify Default Values from the Environment Set Up Panel and press Enter.

3 ■ Tutorial

Lesson 1: Preparing the Environment

Default user file and database dataset names containing your User ID will appear.

```
----- SPECIFY DEFAULT VALUES -----ACR/F releasenumbr
====>                                     PANEL: UDC4100
ENTER OR CHANGE THE FOLLOWING DEFAULT VALUES:

  USER FILE DATA SET NAMES:
  1. USERIDA.UDC.DEFNLIB                (DEFINITION LIBRARY)
  2. USERIDA.UDC.TRANLIB                (TRANSACTION LIBRARY)
  3. NULLFILE                          (USER OPTIONS FILE)
  4. USERIDA.UDC.PROCLIB                (JCL LIBRARY)
  USER FILES DASD UNIT TYPE ==> SYSALLDA
  DASD VOL SER NBR ==>

  DATA BASE DATA SET NAMES: (VSAM DATA SETS)
  1. USERIDA.FILE1.DEFN                (DEFINITION DATA BASE)
  2. USERIDA.FILE1.HIST                (HISTORY DATA BASE)

  MANGEMENTCLASS ==>                   STORAGECLASS ==>
  DATACLASS ==>                       DASD VOL SER NBR ==>

  SUBMIT/DISPLAY JCL    ==> D          (S=SUBMIT JCL, D=DISPLAY JCL)

  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

Complete the fields on this panel by verifying or over typing one or more names to conform to your site's standards or your personal preference.

For this tutorial, complete the following fields as shown below.

USER FILE DATASET NAMES (USER OPTIONS FILE). Change NULLFILE to: XXXXXXXX.UDC.USEROPT
where XXXXXXXX is your User ID.

Note: You must fill in the null file information for item #3 because it has a default of No File. The other fields are pre-filled.

SUBMIT/DISPLAY JCL. Enter D.

Press PF3. ACR/File redisplay the Environment Set Up Panel with the message DEFAULTS SAVED displayed in the upper-right corner.

You have completed setting the default values for the User Interface.

Task 2: Allocating User Files

Allocate User Files Panel (UDC4200)

To allocate means to assign a resource, such as disk space, for a file. You allocate the supporting files named on the Specify Default Values Panel (UDC4100) using the Allocate User Files Panel (UDC4200).

To access this panel, on the Environment Set Up Panel, select Allocate User Files. When the panel displays, the user file names, VOLSERs, and UNIT TYPE default to the corresponding values set on the Specify Default Values Panel. The size of each user file also defaults to a particular number of tracks. The default amount can be adjusted.

```

----- ALLOCATE USER FILES ----- ACR/F releasenumber
===>                                PANEL: UDC4200
ENTER AN 'S' NEXT TO ONE OR MORE TO ALLOCATE FILE(S):

- 1  USERIDA.UDC.DEFNLIB              (DEFINITION LIBRARY)
      VOLSER ===>                      SIZE ===> 0020 (TRACKS)
- 2  USERIDA.UDC.TRANLIB              (TRANSACTION LIBRARY)
      VOLSER ===>                      SIZE ===> 0015 (TRACKS)
- 3  USERIDA.UDC.USEROPT              (USER OPTIONS FILE)
      VOLSER ===>                      SIZE ===> 0002 (TRACKS)
- 4  USERIDA.UDC.PROCLIB              (JCL LIBRARY)
      VOLSER ===>                      SIZE ===> 0020 (TRACKS)

      UNIT TYPE ===> SYSALLDA

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

For this tutorial, you want to allocate all four files:

Type an S (SELECT) to the left of each dataset name. You can overwrite any of the dataset names, VOLSERs, SIZES, or the default UNIT TYPE, if desired. Press Enter. The system responds by returning to the Environment Set Up Panel and displaying the message: 4 DATASETS ALLOCATED.

You have completed allocating your user files.

Task 3: Creating a Job Card

Job Card Information Panel

The Job Card Information Panel provides four lines in which to enter a template Job statement. ACR/File uses this information to automatically place a Job statement at the top of every JCL stream you create. Typically, you get the information for the job card from your systems department.

Each line is a continuation of the line before it. Usually, you will not need all four lines.

3 ■ Tutorial

Lesson 1: Preparing the Environment

To access this panel, from the Environment Set Up Panel, select Specify Job Card Info.

```
----- JOB CARD INFORMATION -----ACR/F releasenumber
===>                                     PANEL: UDC4300
ENTER OR CHANGE JOB CARD INFORMATION BELOW:

-----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----
===> //USERIDA  JOB (ACCOUNTING),YOURNAME
===> // REGION=2M,CLASS=E,MSGCLASS=X,NOTIFY=USERID
===> /**
===> /**

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

Enter the Job Card information. A typical Job statement consists of a job name, accounting information, programmer name field, job class, and various other parameters. What you enter depends on your site.

A `/**` line signifies a comment line. When the job card is processed, comment lines are ignored. If you erase the asterisk on a blank line, the rest of the JCL is not processed. Make sure that unused lines have an asterisk (*) beside the two slashes.

Press Enter to process the entered information and create the Job Card.

If all of the information is in the correct format, ACR/File displays the message: JOB CARD CREATED. Be sure that your Job Card Information is correct. Incorrect Job Card Information will result in a JCL error.

Press PF3 key to return to the Environment Set Up Panel.

Task 4 Building a User Options File

Build User Options File Panel (UDC4400)

The Build User Options File Panel (UDC4400) allows you to access panels to modify several system default options to satisfy the processing needs at your site. These options are usually determined by your Infogix Administrator. They are entered into the User Options File and accessed through a DD statement with the ddname UNIUF.

The functions of the User Options File are as follows:

- To provide values for processing and verification options at a site level. This will cause all ACR/File steps at your site to run with the same processing and verification options. This also reduces the amount of effort required to code and maintain definitions because only the exceptions to these site level values need to be entered in the definitions.
- To provide a way for dynamically allocating the files used in all of your ACR/File steps. This will cause all ACR/File steps at your site to run with the same definition and History files unless these data set names are overridden in the JCL. This will also reduce the number of JCL statements that need to be coded in the ACR/File steps.
- To provide a way for dynamically allocating the reports used in all ACR/File steps. This will cause all ACR/File steps at your site to have the necessary report DDs pre-allocated and will allow you to set a standard sysout class for these reports. This will reduce the number of JCL statements that need to be coded in the ACR/File steps.

To access this panel, from the Environment Set Up Panel (UDC4000), select Build User Options File. This will display the Build User Options File Panel (UDC4400).

```

----- BUILD USER OPTIONS FILE ----- ACR/F releasenumbr
===>                                     PANEL: UDC4400

- 1  SPECIFY DYNAMIC ALLOCATION OPTIONS
- 2  SPECIFY DUAL HISTORY AND AUTOMATIC RERUN OPTIONS
- 3  SPECIFY SITE-LEVEL MESSAGE, PROCESSING, AND REPORT OPTIONS
- 4  SPECIFY SITE-LEVEL VERIFICATION OPTIONS

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

Separate sections are devoted to each of the options. For more details, see [Chapter 9, “User Options and User Exits”](#) on page 183.

Task 5: Initializing the ACR/File Databases

Initialize ACR/F Database Panel (UDC4500)

Together the definition and history databases contain all of the information ACR/File needs to verify input files and capture output files (definitions). They also contain information about file creation and usage (histories).

You'll need to use the Initialize ACR/F Database Panel (UDC4500) to initialize both databases for the tutorial.

3 ■ Tutorial

Lesson 1: Preparing the Environment

To access this panel, select Initialize Database from the Environment Set Up Panel.

```
----- INITIALIZE ACR/F DATA BASE ----- ACR/F releasenumbr
====>          (1=DEFN, 2=HIST, BLANK=BOTH)          PANEL: UDC4500
SELECT CHOICE ABOVE AND SPECIFY JCL/DATA BASE SIZE INFORMATION BELOW:

  JOB NAME   ====>  USERIDI
  JCL LIBRARY:
    DSN      ====>  USERID.UDC.PROCLIB          S          <====
    MEMBER   ====>  UDCINIT
DATA BASE NAME INFORMATION:
  DEFINITION DATA BASE:
    DSN      ====>  USERID.UDC.DEFN          <====
    MANGEMENTCLASS ====>          STORAGECLASS ====>
    DATACLASS  ====>          VOLSER   ====>
  HISTORY DATA BASE:
    DSN      ====>  USERID.UDC.HIST          <====
    MANGEMENTCLASS ====>          STORAGECLASS ====>
    DATACLASS  ====>          VOLSER   ====>
DATA BASE SIZE INFORMATION:
  ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS          ====>  5
  ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS                ====>  5
  AVERAGE NUMBER OF HISTORIES PER JOB ID                 ====>  5
  AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP ====>  5  (1 - 32)
  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For this tutorial, complete the following fields as shown below.

JOB NAME. Enter USERIDI (Append an I to your User ID).

ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS. Enter 5.

ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS. Enter 5.

AVERAGE NUMBER OF HISTORIES PER JOB ID. Enter 5.

AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP. Enter 5.

Verify or overtype the job name, JCL library user file DSN, and the member name to contain the JCL stream. The dataset names default to those specified on the Default Values Panel.

Verify the dataset name, VOLSER, and UNIT for each database file. To use a different dataset name, etc., overtype the name in that field.

Note: You may have to enlarge these files when you start working with your own data.

Then press Enter to process the entered information and create/submit the UDCINIT JCL. The system displays a JCL stream.

Enter SUB on the command line to submit the JCL stream.

When you submit this JCL, it automatically invokes IDCAMS to define the database files in one job-step, and then invokes the UDCINIT program to initialize the files in a second job-step.

After submitting the JCL:

- Press Enter at the three asterisks.
- Press the PF3 key to return to the Environment Set Up Panel.
- After the UDCINIT job is completed, Use your site's standard facility for displaying job output. Review the output listing and verify that the processing was successful. You should expect step completion codes of zero for both job-steps.

The Transaction Validation Report (Database Initialization Report) will show the Database files created.

The Transaction Validation Report (Database Initialization Report)

After you submit the UDCINIT JCL, ACR/File generates the Transaction Validation Report, also called the Database Initialization Report. This report lists the UDCINIT transactions and any validation messages. It also presents a summary of the transactions.

The following figure shows a sample report. For more information, see “Establishing a Database” on page 95.

```

ACR/F Releasenumbr          INFOGIX, INCORPORATED          COPYRIGHT INFOGIX, INC.
DATE:  m/dd/yy              TRANSACTION VALIDATION REPORT    REPORT ID: UDCINIT      PAGE    1
TIME:  8.43.46              UDCINIT INPUT TRANSACTIONS DEF/HST  VERSION: 0000000/00000000000
TRAN# OK?                   I N P U T   T R A N S A C T I O N          VALIDATION MESS
-----  -+-----1-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----+-----8-----
00003 YES DFDSN USERIDA.UDC.UDCDEFN
00002 YES HFDSN USERIDA.UDC.UDCHIST
00001 YES HFS   0000001000000150

DEFINITION FILE CREATED PER PARM INFO      (FILE=BOTH)      NBR OF DEF RECS WRITTEN:      1
HISTORY FILE CREATED PER PARM INFO         (FILE=BOTH)      NBR OF HST RECS WRITTEN:     152
***** END OF REPORT UDCINIT *****

```

Task 6: Specifying Definition Entry Options

Definition Entry Options Panel (UDC4800)

Now you need to set options that determine how the system displays the panels as you enter definitions.

You'll need to use the Definition Entry Options Panel (UDC4800) to set these options.

3 ■ Tutorial

Lesson 1: Preparing the Environment

To access this panel, select Definition Entry Opts from the Environment Set Up Panel.

```
----- DEFINITION ENTRY OPTIONS ----- ACR/F releasenumbr
===>                                     PANEL: UDC4800
SPECIFY OPTIONS TO CONTROL THE ENTRY OF DEFINITIONS BELOW:

      BEGINNER OR EXPERT MODE OF ENTRY  ===> B      (B=BEGINNER, E=EXPERT)

NOTE: BEGINNER MODE LEADS YOU THROUGH THE PANELS IN A SPECIFIC ORDER;
      EXPERT MODE ALLOWS YOU TO JUMP FROM ONE PANEL TO ANOTHER.

THE FOLLOWING OPTION IS VALID ONLY IF BEGINNER MODE IS SET:
      DISPLAY ITEM SCREENS WITH ADD OPTION PRE-SET      ===> Y      (Y OR N)

THE FOLLOWING OPTIONS ARE VALID IN BOTH BEGINNER AND EXPERT MODES:
      ASK FOR VERIFICATION OF REPLACE OR DELETE REQUESTS  ===> Y      (Y OR N)
      BLANK FIELDS ON SCREEN AFTER ADD, REPLACE, OR DELETE  ===> N      (Y OR N)
      GO TO LIST SCREEN IF SIMILAR ITEMS ALREADY EXIST     ===> N      (Y OR N)

      PERFORM AUTOMATIC COMPRESS OF DEFINITION LIBRARY     ===> Y      (Y OR N)
      REPLACE DSN DEFAULTS WITH OVERRIDES                 ===> Y      (Y OR N)

      PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
F1=HELP  F2=SPLIT  F3=END  F4=RETURN  F5=RFIND  F6=RCHANGE
F7=UP    F8=DOWN  F9=SWAP  F10=LEFT  F11=RIGHT  F12=RETRIEVE
```

For this tutorial, complete the following fields as shown below.

Beginner or expert mode of entry. Enter B.

Display item screens with add option pre-set. Enter Y.

Ask for verification or replace or delete requests. Enter N.

Blank fields on screen after add, replace, or delete. Enter N.

Go to list screen if similar items already exist. Enter Y.

Perform automatic compress of definition library. Enter Y.

Replace DSN defaults with overrides. Enter Y.

Press Enter. The system responds by returning to the Environment Set Up Panel and displaying the message: DEFINE OPTIONS SAVED in the upper right corner.

You have completed the definition entry options.

Task 7: Creating the JCL

The Create Capture/Verification JCL Panel (UDC4600) allows you to access the panels used to create the JCL for the capture and verify steps.

Entering Job definitions for a Capture step consists of the following steps:

- "Step 1: Create the Capture Step JCL" as described in the following section.
- "Step 2: Create the Verify Step JCL" on page 54.
- "Step 3: Create the Training JCL" on page 54. This step applies only to the tutorial.

Step 1: Create the Capture Step JCL

Create JCL for Output File Capture Panel (UDC4610)

To complete this step, you use the Create JCL for Output File Capture Panel (UDC4610). To access this panel, select Capture/Verify JCL on the Environment Set Up Panel and press Enter to display the Create Capture/Verification JCL Panel, and select option 1.

```

----- CREATE CAPTURE/VERIFICATION JCL -----ACR/F releasenumbr
====>                                     PANEL: UDC4600

S 1 CREATE JCL FOR OUTPUT FILE CAPTURE STEP

- 2 CREATE JCL FOR INPUT FILE VERIFICATION STEP

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

Select option 1 (Create JCL for Output File Capture Step) and press Enter. The JCL for Output File Capture Step Panel is displayed.

JCL for Output File Capture Step Panel

```

----- JCL FOR OUTPUT FILE CAPTURE STEP ----- ACR/F releasenumbr
====>                                     PANEL: UDC4610

STEP NAME      ==> UDCFCAPT

DATA SET INFORMATION:
  DEFINITION FILE (VSAM)
    DSN        ==> USERIDA.UDC.UDCDEFN          <====
  HISTORY FILE  (VSAM)
    DSN        ==> USERIDA.UDC.UDCHIST          <====
  USER OPTIONS FILE (SEQUENTIAL)
    DSN        ==> USERIDA.UDC.USEROPT          <====
  JCL LIBRARY  (PDS)
    DSN        ==> USERIDA.UDC.PROCLIB          <====
  MEMBER       ==> UDCFCAPT

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

Accept the defaults displayed by pressing Enter and press the PF3 key to end. ACR/File redisplay the Create Capture/Verification JCL Panel with the message JCL CREATED displayed.

3 ■ Tutorial

Lesson 1: Preparing the Environment

Step 2: Create the Verify Step JCL

JCL for the Input File Verification Step Panel (UDC4620)

To access this panel, select Create JCL for Input File Verification Step from the Create Capture/Verification JCL Panel and press Enter.

```
----- JCL FOR INPUT FILE VERIFICATION STEP ----- ACR/F releasenumber
====>                                           PANEL: UDC4620

STEP NAME      ==> UDCFVRFY

DATA SET INFORMATION:
  DEFINITION FILE (VSAM)
    DSN        ==> USERIDA.UDC.UDCDEFN          <====
  HISTORY FILE  (VSAM)
    DSN        ==> USERIDA.UDC.UDCHIST         <====
  USER OPTIONS FILE (SEQUENTIAL)
    DSN        ==> USERIDA.UDC.USEROPT        <====
  JCL LIBRARY  (PDS)
    DSN        ==> USERIDA.UDC.PROCLIB       <====
  MEMBER       ==> UDCFVRFY

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

Accept the defaults displayed by pressing Enter and press the PF3 key twice to end. ACR/File displays the Environment Set Up Panel.

Step 3: Create the Training JCL

Create Training JCL Panel (UDC4900)

To complete this step, you use the Create Training JCL Panel (UDC4900), located under the Environment Set Up Panel. To access this panel, select Training JCL on the Environment Set Up Panel and press Enter.

```
----- CREATE TRAINING JCL ----- ACR/F releasenumber
====>                                           PANEL: UDC4900

- 1  EASY EXAMPLES: CREATE THE EXAMPLE JCL (EXSETUP, EXJOBX, AND EXJOBY)
      REFERRED TO IN YOUR PRODUCT DOCUMENTATION

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

F1=HELP      F2=SPLIT      F3=END      F4=RETURN      F5=RFIND      F6=RCHANGE
```

Select Option 1 (Easy Examples) and press Enter. The Create Examples JCL Panel (UDC4910) is displayed.

Create Examples JCL Panel (UDC4910)

```

----- CREATE EXAMPLES JCL ----- ACR/F releasenumber
====>                                     PANEL: UDC4910

ENTER VARIOUS INFORMATION BELOW FOR CREATION OF THE EXAMPLES JCL MEMBERS:

    JOB NAME    ====> USERIDA    (MUST BE A SEVEN CHARACTER JOB NAME WITH NO
                                SUFFIX - THE SYSTEM WILL SUPPLY THE SUFFIX)

EXAMPLES INFORMATION:
WHERE TO STORE EXAMPLES JCL  ====> USERIDA.UDC.PROCLIB
(NOTE: THIS DSN MUST BE AN EXISTING PARTITIONED DATA SET)
TEST DASD UNIT TYPE         ====> SYSALLDA
TEST DASD VOL SER NBR       ====> UNI001

-----
| WHEN YOU PRESS ENTER, THE EXAMPLES JCL WILL BE BUILT.          |
| THIS PROCESS WILL KEEP YOUR TERMINAL BUSY FOR A FEW MINUTES.   |
-----

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

Accept the defaults displayed by pressing Enter. ACR/File automatically returns to the Create Training JCL Panel.

Press the PF3 key twice to return to the ACR/File Primary Selection Menu.

Select Edit/Submit on the ACR/File Primary Selection Menu.

The Edit Files and Submit Jobs Panel (UDC6000) is displayed.

Edit Files and Submit Jobs Panel (UDC6000)

```

----- EDIT FILES AND SUBMIT JOBS ----- ACR/F releasenumber
====>                                     PANEL: UDC6000
SPECIFY NAME OF THE FILE TO EDIT BELOW:

    DSN        ====> USERID.UDC.PROCLIB          <====

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

1. Press Enter to see a list of members containing the Training JCL.
2. Select member EXSETUP by typing an S in front of it and pressing Enter. The JCL is displayed.
3. Append the letter A to your User ID.

3 ■ Tutorial

Lesson 1: Preparing the Environment

4. Submit the JCL by typing SUB on the command line and pressing Enter. The EXSETUP JCL will create the GDG bases needed by EXJOBX and EXJOBY. It will also seed the GDG files and create an input transactions file for use in EXJOBX.
5. Press Enter at the three asterisks.
6. Save your changes to EXSETUP by pressing the PF3 key.
7. Press the Up key to see the entire listing of members containing the Training JCL.
8. Select member EXJOBX by typing an S in front of it and pressing Enter. The JCL is displayed.
9. Submit the JCL by typing SUB on the command line and pressing Enter. The EXJOBX JCL will use the input transactions to create a new generation of the valid transaction and invalid transaction files.
10. Press Enter at the three asterisks.
11. Save your changes to EXJOBX by pressing the PF3 key.
12. Press the Up key to see the entire listing of members containing the Training JCL.
13. Select member EXJOBY by typing an S in front of it and pressing Enter. The JCL is displayed.
14. Submit the JCL by typing SUB on the command line and pressing Enter. The EXJOBY JCL will use the valid transaction file and the old master file (the +0, current generation of the master file) to create the new master file (the +1 generation).
15. Press Enter at the three asterisks.
16. Save your changes to EXJOBY by pressing the PF3 key.
17. Press the PF3 key two more times to return to the ACR/File Primary Selection Menu.

You can now log off or begin the next lesson.

Lesson 2: Implementing the Capture Steps

This lesson introduces you to the tasks used to implement a Capture step. It contains the following sections:

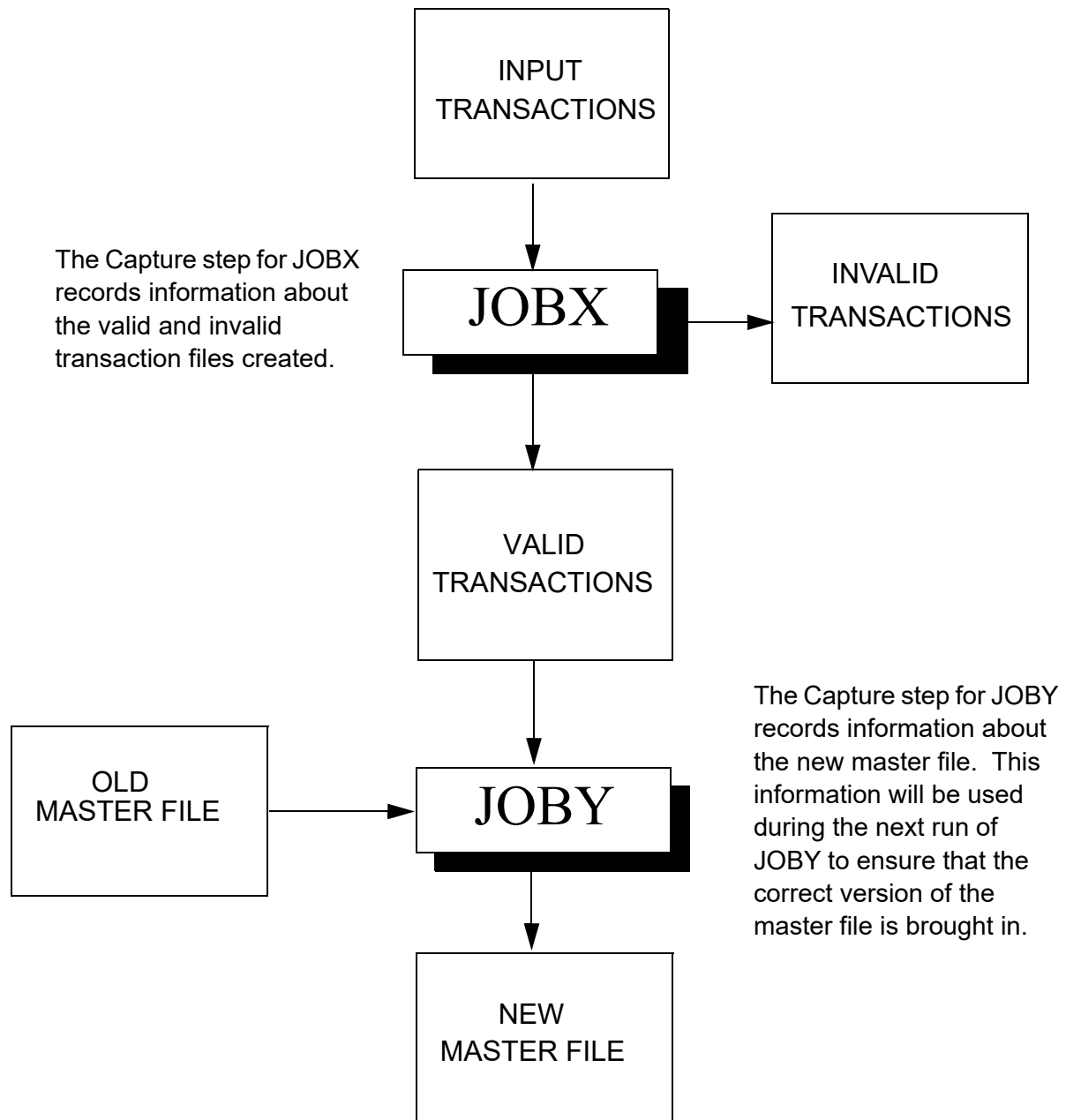
- “Capture Steps for the Example Jobs” on page 57
- “Task 1: Entering Job Definitions for JOBX” on page 59
- “Task 2: Completing Job Definitions for JOBY” on page 65
- “Task 3: Specifying Alternate Job IDs” on page 70
- “Task 4: Activating Job Definitions” on page 72
- “Task 5: Inserting Capture Steps into Your Jobs” on page 73
- “Task 6: Executing Capture Steps” on page 75

Capture Steps for the Example Jobs

Capture steps are needed for both JOBX and JOBY. The Capture steps will be inserted at the end of JOBX and JOBY. The following figure shows the flow of JOBX and JOBY and explains what information needs to be captured.

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps



Task 1: Entering Job Definitions for JOBX

Entering Job definitions for a Capture step consists of the following steps:

- "Step 1: Name the Job"
- "Step 2: Set Defaults and Report Options"
- "Step 3: Set Cycle/Rerun Parameters"
- "Step 4: Set Job-Level Verification Options"
- "Step 5: Enter Output File Information"

Step 1: Name the Job

Enter Job Definitions Panel (UDC1100)

To name a job, you use the Enter Job Definitions Panel (UDC1100). To access this panel, from the ACR/File Primary Selection Menu, select **Definitions > Enter Job Definitions**.

```

----- ENTER JOB DEFINITIONS ----- ACR/F releasnumber
====>                                PANEL: UDC1100
SELECT CHOICE AND OPTIONALLY ENTER JOB ID BELOW:

      JOB ====>          STEP ====>          QUAL ====>

- 1  BASIC JOB INFORMATION
- 2  CYCLE/RERUN PARAMETERS
- 3  JOB-LEVEL VERIFICATION OPTIONS
- 4  INPUT FILE INFORMATION
- 5  INPUT FILE VERIFICATION OPTIONS
- 6  OUTPUT FILE INFORMATION
- 7  ALTERNATE JOB-ID INFORMATION
- C  COPY ALL THE DEFINITIONS FROM ONE JOB ID TO ANOTHER
- L  DISPLAY SELECTION LIST

```

Naming a job consists of completing the JOB, STEP, and sometimes, QUAL (qualifier) fields. The job name on this panel will be carried forward to all Job definition panels.

For this tutorial, complete the following fields as shown below.

JOB. Enter JOBX.

STEP. Enter UDCFCAPT

This job name does not include a qualifier.

Then select Basic Job Information and press Enter. The system displays the Specify Basic Job Information Panel (UDC1110).

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

Step 2: Set Defaults and Report Options

Specify Basic Job Information Panel (UDC1110)

On this panel, you describe the job, instruct ACR/File how to process the job, and indicate which reports to generate.

```
----- SPECIFY BASIC JOB INFORMATION -----ACR/F releasenumber
====>                                     PANEL: UDC1110
(ENTER "V" ON CMD LINE TO DISPLAY THE JOB LEVEL VERIFICATION SCREEN)

      JOB ==> JOBX      STEP ==> UDCFCAPT  QUAL ==>

DESCRIPTION/TITLE  ==>                                     < ==
NUMBER OF HISTORIES ==>                                     (1-999)

PROCESSING OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
STORE HISTORY      (C,V) ==> (ENTER Y OR N)
SET RETURN CODE    (C,V) ==> (ENTER Y,N OR X)
CHECK DATA SET NOT FOUND (V) ==> (ENTER Y,N OR X)
CHECK NOT CATLG 2   (C)  ==> (ENTER Y,N,X OR C)
CHECK FOR RERUN     (C,V) ==> (ENTER Y,N OR X)

REPORT PRINT OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
INPUT FILE VERIFICATION (V) ==> (ENTER Y, N OR X)
INPUT FILE EXCEPTION    (V) ==> (ENTER Y, N OR X)
OUTPUT FILE CAPTURE     (C) ==> (ENTER Y OR N)
MAXIMUM AGE NOTIFICATION (V) ==> (ENTER Y OR N)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For **JOBX**, you want to provide a description, specify that histories should be stored, and specify how many histories to store. You also want to check for a **NOT CATLG 2** condition, and for whether the job is being rerun. For reports, you only want an Output File Capture Report.

For this tutorial, complete the following fields as shown below.

DESCRIPTION/TITLE. Enter **CAPTURE JOBX VALID AND INVALID TRANS.**

NUMBER OF HISTORIES. Enter **10.**

STORE HISTORY. Enter **Y.**

SET RETURN CODE. Enter **Y.**

CHECK NOT CATLG 2. Enter **Y.**

CHECK FOR RERUN. Enter **Y.**

INPUT FILE EXCEPTION. Enter **N.**

OUTPUT FILE CAPTURE. Enter **Y.**

MAXIMUM AGE NOTIFICATION. Enter **N.**

Then type A (ADD) on the command line and press Enter. The message BASIC JOB INFO ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to save the parameters and end. The system displays the Specify Cycle/Rerun Parameters Panel (UDC1120).

Step 3: Set Cycle/Rerun Parameters

Specify Cycle/Rerun Parameters Panel (UDC1120).

Cycle IDs identify the processing cycle for a Capture or Verify step. They are composed of an 8-digit Cycle Number (usually a date) and a 3-digit Run Number. You must have a Cycle ID for each Capture and Verify step you define.

You'll use the Specify Cycle/Rerun Parameters Panel to instruct ACR/File how to assign Cycle IDs to jobs. You can also tell ACR/File whether the Automatic Rerun step will exist in the job stream.

When you use Automatic Cycle Processing, ACR/File assigns a Cycle ID based on the Cycle Option you indicate.

```

----- SPECIFY CYCLE/RERUN PARAMETERS ----- ACR/F releasenumber
====>                                     PANEL: UDC1120

JOB ==> JOBX      STEP ==> UDCFCAPT QUAL ==>

CYCLE TABLE NAME      ==>
CYCLE REFERENCE JOB-ID:
  JOB NAME              ==>
  STEP NAME             ==>
  QUALIFIER             ==>

CYCLE OPTION           ==>          (G0/G1/G9/J0/J1/J9/X0/X1/X9
                                     T0/T1/T9, BLANKS)

AUTOMATIC RERUN OPTION ==>          BLANK = USE SITE-LEVEL OPTION
                                     Y      = USE AUTO RERUN STEP
                                     N      = DO NOT USE AUTO RERUN

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

For JOBX, you want to use Automatic Cycle Processing.

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

Because JOBX can run more than once per day, you'll also want to use a Cycle Reference Job. This job tells ACR/File to get the cycle for the current job from the reference job. You'll also need to choose a Cycle Option. The option you choose must allow for a Cycle Reference Job and automatically increment the Run Number of the Cycle ID. Remember, JOBX can run more than once a day.

For this tutorial, complete the following fields as shown below.

CYCLE REFERENCE JOB ID:

JOB NAME. Enter JOBX.

STEP NAME. Enter UDCFCAPT.

CYCLE OPTION. Enter G1.

Then type A (ADD) on the command line and press Enter. The message CYCLE/RERUN PARM ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. Because you are in Beginner Mode, the system displays the Specify Job-Level Verifications Options Panel (UDC1130).

Note: For more information about cycle/rerun parameters, you can do one of the following:

- See [Specifying Cycle/Rerun Parameters](#) on page 140 of this guide.
 - Press the Help key from the Specify Cycle/Rerun Parameters panel. When the help displays, press Enter until you see the information you are interested in. Press F3 to exit the help.
-

Step 4: Set Job-Level Verification Options

Specify Job-Level Verifications Options Panel (UDC1130)

You'll use the Specify Job-Level Verification Options Panel to set verification defaults for all files to be captured for one Job ID. At this panel, you enter verification values for each job. These values will override any system-wide defaults, and can be overridden at the file-level for specific files.

```

----- SPECIFY JOB-LEVEL VERIFICATION OPTIONS -----ACR/F releasenumber
====>
                                           PANEL: UDC1130

JOB ==> JOBX      STEP ==> UDCFCAPT QUAL ==>

VERIFY:
  HISTORY IS PRESENT (V) ==>          ENTER A VALUE FOR EACH OPTION .
  FILE IS PRESENT (C,V) ==> Y        VALID VALUES ARE:
  DATA SET NAME (V) ==>              Y = REPORT EXCEPTIONS AND
  CONCAT. SEQUENCE (V) ==>              CONTINUE PROCESSING
  CREATION DATE (V) ==>              N = DON'T REPORT EXCEPTIONS
  CREATION TIME (V) ==>              X = REPORT EXCEPTIONS AND
  CREATION JOB (V) ==>              SET A CONDITION CODE
  CREATION STEP (V) ==>              BLANK = USE SITE-LEVEL OPTION
  CREATION DD (V) ==>
  VOLSER NUMBERS (V) ==>          ADDITIONAL VALID DSN VALUES:
  NUMBER OF RECORDS (V) ==>        J/K = RPT OLDEST CAPT NOT IN JCL
  NUMBER OF USES (V) ==>          L/M = RPT NEWEST CAPT NOT IN JCL
  MAXIMUM AGE (CYCLES) (V) ==>    ADDITIONAL VALID VOLSER VALUES:
  MAXIMUM AGE (DAYS) (V) ==>      J/K = RPT IF 1ST VOL NOT IN JCL
  CONCAT. NUM EXPECTED (V) ==>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

For a Capture step, only the FILE IS PRESENT verification option is used. Complete the FILE IS PRESENT field by entering Y.

After entering the field value, Type A (ADD) on the command line and press Enter. The message VER. OPTIONS ADDED is displayed in the upper-right corner of the panel. Press the PF3 key to end. The system returns to the Enter Job Definitions Panel.

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

Step 5: Enter Output File Information

Specify Output File Information Panel (UDC1160)

For a Capture step, you must indicate the application step and DDname in which the output file is created, whether ACR/File should verify that this application step and DD are present in the job, and any file-use restrictions you want to impose. JOBX produces two output files: a valid transaction file and an invalid transaction file, so you'll need to provide output file information on each.

You'll enter this information using the Specify Output File Information Panel (UDC1160). To access this panel, select Output File Information from the Enter Job Definitions Panel and press Enter. The Specify Output File Information Panel is displayed. Because this is the first file that you are defining for the Job ID, the Output File Item Number is set to 001.

```
----- SPECIFY OUTPUT FILE INFORMATION -----ACR/F releasenum  
====>                                     PANEL: UDC1160  
  
      JOB ==> JOBX      STEP ==> UDCFCAPT QUAL ==>  
      OUTPUT FILE ITEM NUMBER ==> 001      (1 - 32)  
  
OUTPUT FILE CREATED BY:  
  APPLICATION STEP      ==>  
  STEP OCCURRENCE      ==> 001      (1 - 999)  
  DDNAME                ==>  
  
FILE USE RESTRICTIONS:  
  MAXIMUM NBR OF USES  ==>                                     (0 - 999)  
  MUST BE USED WITHIN ==>      CYCLES OF CREATION (0 - 999)  
  MUST BE USED WITHIN ==>      DAYS OF CREATION   (0 - 999)  
  
VERIFY:  
  FILE IS PRESENT      ==>      ENTER Y, N, X OR BLANK  
  
CONTROLLED FILE RELEASE (CFR):  
  TARGET ID            ==>  
  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For this tutorial, complete the following fields as shown below.

OUTPUT FILE CREATED BY:

APPLICATION STEP. Enter EDIT.

STEP OCCURRENCE. Enter 1.

DDNAME. Enter VALIDTRN.

FILE USE RESTRICTIONS:

MAXIMUM NBR OF USES. Enter 1.

MUST BE USED WITHIN (CYCLES OF CREATION). Enter 1.

MUST BE USED WITHIN (DAYS OF CREATION). Enter 3.

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel. Notice that the information you've entered on the screen stays there, but the Output File Item Number has automatically been incremented to 002.

Because the invalid transaction file has the same file use restrictions as the valid transaction file, you'll only need to change one field to complete the Output File Information:

In the DDNAME field, change VALIDTRN to INVLDTRN. This establishes the DDNAME for the invalid transaction file.

Type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. The Enter Job Definitions Panel is displayed.

Task 2: Completing Job Definitions for JOBY

Completing the Job definitions for JOBY consists of the following steps:

- "Step 1: Copy the Job Definitions" in the next section.
- "Step 2: Modify the Basic Job Information" on page 66
- "Step 3: Modify the Cycle/Rerun Parameters" on page 67
- "Step 4: Set Job-Level Verification Options" on page 68
- "Step 5: Modify the Output File Information" on page 69

Step 1: Copy the Job Definitions

JOBY captures the new master file when it is created so that during the next run of JOBY, it can verify that the correct version of the master file is being brought in as input. Since the definitions for the JOBY Capture step are similar to those for the JOBX Capture step, you can copy the JOBX UDCFCAPT definitions and modify them.

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

You'll use the Copy ACR/File Basic Job Information Panel (UDC111C) to do the copy. To access this panel, from the Enter Job Definitions Panel, select option C (Copy all the Definitions from one Job ID to another) and press Enter.

```
----- COPY ACR/FILE BASIC JOB INFORMATION -----ACR/F releasenumber
===> C                                           PANEL:UDC111C

COPY FROM:
  JOB ===> JOBX      STEP ===> UDCFCAPT QUAL ===>

COPY TO:
  JOB ===>           STEP ===>           QUAL ===>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

For this tutorial, complete the following fields as shown below.

Copy to:

JOB NAME. Enter JOBY.

STEP NAME. Enter UDCFCAPT.

Press Enter. The system copies all the definitions from the Copy From Job ID to the Copy To Job ID you specified and returns to the Enter Job Definitions Panel. The message BASIC INFO COPIED is displayed in the upper-right corner of the panel, and the Copy To Job ID now appears on the screen for further processing, if desired.

Step 2: Modify the Basic Job Information

Select option 1 from the Enter Job Definitions Panel and press Enter.

The Specify Basic Job Information Panel is displayed with the fields filled in with the data that was copied.

For JOBY, you want to change the Description/Title field to something meaningful. Enter the following:

DESCRIPTION/TITLE. CAPTURE JOBY NEW MASTER FILE

Leave the rest of the information as it is.

Then type R (REPLACE) on the command line and press Enter.

When the replace processing has been completed, the message BASIC JOB INFO REPLACED is displayed.

Press the PF3 key to end. The Specify Cycle/Rerun Parameters Panel is displayed with the fields filled in with the data that was copied.

Step 3: Modify the Cycle/Rerun Parameters*Specify Cycle/Rerun Parameters Panel*

You'll use this panel to instruct ACR/File how to assign Cycle IDs to jobs. You can also tell ACR/File whether the Automatic Rerun step will exist in the job stream.

```

----- SPECIFY CYCLE/RERUN PARAMETERS -----ACR/F releasenumbr
====>                                     PANEL: UDC1120

JOB ==> JOBY      STEP ==> UDCFCAPT QUAL ==>

CYCLE TABLE NAME      ==>

CYCLE REFERENCE JOB-ID:
  JOB NAME              ==>
  STEP NAME             ==>
  QUALIFIER             ==>

CYCLE OPTION           ==>          (G0/G1/G9/J0/J1/J9/X0/X1/X9
                                T0/T1/T9, BLANKS)

AUTOMATIC RERUN OPTION ==> N          BLANK = USE SITE-LEVEL OPTION
                                         Y      = USE AUTO RERUN STEP
                                         N      = DO NOT USE AUTO RERUN

```

For this tutorial, complete the following fields as shown below.

CYCLE REFERENCE JOB ID:

JOB NAME. Enter JOBX.

STEP NAME. Enter UDCFCAPT.

CYCLE OPTION. Blank out the value in this field.

Then type A (ADD) on the command line and press Enter. The message CYCLE/RERUN PARM ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. The system takes you to the Specify Job-Level Verification Options Panel (UDC1130).

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

Step 4: Set Job-Level Verification Options

Specify Job-Level Verification Options Panel

You'll use this panel to set verification defaults for all files to be captured for one Job ID. On this panel, you enter verification values for each job. These values will override any system-wide defaults and can be overridden at the file-level for specific files.

```
----- SPECIFY JOB-LEVEL VERIFICATION OPTIONS -----ACR/F releasenumber
====>                                           PANEL: UDC1130

JOB ==> JOBY      STEP ==> UDCFCAPT QUAL ==>

VERIFY:
  HISTORY IS PRESENT (V)  ==>      ENTER A VALUE FOR EACH OPTION .
  FILE IS PRESENT   (C,V) ==>      VALID VALUES ARE:
  DATA SET NAME    (V)  ==>          Y = REPORT EXCEPTIONS AND
  CONCAT. SEQUENCE  (V)  ==>          CONTINUE PROCESSING
  CREATION DATE     (V)  ==>          N = DON'T REPORT EXCEPTIONS
  CREATION TIME     (V)  ==>          X = REPORT EXCEPTIONS AND
  CREATION JOB      (V)  ==>          SET A CONDITION CODE
  CREATION STEP     (V)  ==>          BLANK = USE SITE-LEVEL OPTION
  CREATION DD       (V)  ==>
  VOLSER NUMBERS    (V)  ==>      ADDITIONAL VALID DSN VALUES:
  NUMBER OF RECORDS (V)  ==>      J/K = RPT OLDEST CAPT NOT IN JCL
  NUMBER OF USES    (V)  ==>      L/M = RPT NEWEST CAPT NOT IN JCL
  MAXIMUM AGE (CYCLES) (V) ==>      ADDITIONAL VALID VOLSER VALUES:
  MAXIMUM AGE (DAYS) (V) ==>      J/K = RPT IF 1ST VOL NOT IN JCL
  CONCAT. NUM EXPECTED (V) ==>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

FILE IS PRESENT. Enter Y.

Type A (ADD) on the command line and press Enter. The message VER. OPTIONS ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. The system returns to the Enter Job Definitions Panel.

Step 5: Modify the Output File Information

Specify Output File Information Panel (UDC1160)

Select option 6 (Output File Information) from the Enter Job Definitions Panel and press Enter to display this panel.

```

----- SPECIFY OUTPUT FILE INFORMATION -----ACR/F releasenumber
===> L                                          PANEL: UDC1160

      JOB ===> JOBY      STEP ===> UDCFCAPT QUAL ===>
      OUTPUT FILE ITEM NUMBER ==> 001      (1 - 32)

OUTPUT FILE CREATED BY:
APPLICATION STEP      ===>
STEP OCCURRENCE      ===> 001      (1 - 999)
DDNAME                ===>

FILE USE RESTRICTIONS:
MAXIMUM NBR OF USES  ===>                        (0 - 999)
MUST BE USED WITHIN ===>      CYCLES OF CREATION (0 - 999)
MUST BE USED WITHIN ===>      DAYS OF CREATION  (0 - 999)

VERIFY:
FILE IS PRESENT      ===>      ENTER Y, N, X OR BLANK

CONTROLLED FILE RELEASE (CFR):
TARGET ID            ===>
PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

Enter the Jobname/Stepname of the job you would like to access as shown above.

Type L (LIST) on the command line and press Enter. The Output File Item Selection List Panel (UDC116L) appears.

The Output File Item Selection List Panel (UDC116L)

The Output File Items that were copied are displayed on this panel. For JOBY, two items appear because you copied all of the JOBX items.

```

----- OUTPUT FILE ITEM SELECTION LIST ----- ROW 5 FROM 6
===>                                          START FROM ===>                                          PANEL: UDC116L

ENTER ONE OF THESE OPTIONS: S=SELECT, C=COPY FROM, D=DELETE

OPT   JOB      STEP      QUAL   ITEM   APPL.   STEP
-----  -      -      -      -      -      -      -
-     JOBY     UDCFCAPT  001   001   EDIT    001   VALIDTRN
-     JOBY     UDCFCAPT  002   002   EDIT    001   INVLDTRN
***** BOTTOM OF DATA *****

```

Type S to select the first item (Item Number 001) and press Enter.

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

The Specify Output File Information Panel (UDC1160) is displayed with the data that was copied.

Do the following:

1. Change APPLICATION STEP from EDIT to UPDTMSTR.
2. Change DDNAME from VALIDTRN to NEWMSTR. This is the name of the step and DD where the new master file is created.
3. Type R (REPLACE) on the command line and press Enter. The message ITEM REPLACED will be displayed.
4. Press the PF3 key to end. The system returns you to the Enter Job Definitions Panel.
5. Select option 6 (Output File Information) and press Enter. The Specify Output File Information Panel (UDC1160) appears.
6. Type L (LIST) on the command line and press Enter. The Output File Item Selection List Panel (UDC116L) appears. The Output File Items that were copied are displayed on it. For the JOBY example, you will only be capturing one file, so you need to delete the second item.
7. Type D (DELETE) in front of the second item (Item Number 002) and press Enter. The message ITEM DELETED will be displayed on the Output File Item Selection List Panel.
8. Press the PF3 key twice to end. ACR/File returns you to the Enter Job Definitions Panel.

Task 3: Specifying Alternate Job IDs

Alternate Job IDs allow you to use the definitions from one job while running with a different job name. The Alternate Job ID acts as an alias for a Primary Job ID.

For example, in your company you may need authorization to run a job with a production name, but you want to test your definitions with the production job name before moving ACR/File into the production JCL. You can assign an Alternate Job ID with your test job name that points to the production job name as the Primary Job ID. When the test job runs, it will access the Primary Job ID definitions, and store the results of the run in the history file under the Primary Job ID.

For this tutorial, you need to specify an Alternate Job ID for JOBX and for JOBY.

You will perform the following steps:

- "Step 1: Assign Alternate Job ID for JOBX" as explained in the next section.
- "Step 2: Assign Alternate Job ID for JOBY" on page 71

Step 1: Assign Alternate Job ID for JOBX

Alternate Job ID Information Panel (UDC1170)

You'll use the Alternate Job ID Information Panel (UDC1170) to accomplish this task. To access this panel, from the Enter Job Definitions Panel, select option 7 (Alternate Job-ID Information) and press Enter.

```

----- ALTERNATE JOB ID INFORMATION ----- ACR/F releasenumber
====> A                                     PANEL: UDC1170
SPECIFY AN ALTERNATE JOB ID BELOW:

PRIMARY JOB ====> JOBX          STEP ====> UDCFCAPT  QUAL ====>

ITEM NUMBER    ====> 001 (1 - 100)

ALTERNATE JOB ID:
JOB NAME       ====>
STEP NAME      ====>
QUALIFIER      ====>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

For this tutorial, complete the following fields as shown below.

PRIMARY JOB. Enter JOBX

STEP. Enter UDCFCAPT

ALTERNATE JOB ID:

JOB NAME: Enter USERIDX. (Append an X to your User ID.)

STEP NAME. Enter UDCFCAPT

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel. Notice that the information that you've entered on the screen stays there, but the Item Number has automatically been incremented by one.

Step 2: Assign Alternate Job ID for JOBY

On the same panel, complete the following fields as shown below.

PRIMARY JOB. Enter JOBY

STEP. Enter UDCFCAPT

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

ITEM NUMBER. Enter 1

ALTERNATE JOB ID:

JOB NAME. Enter USERIDY. (Append a Y to your User ID)

STEP NAME. Enter UDCFCAPT

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key twice to end. The system returns to the ACR/File Definitions Panel.

Task 4: Activating Job Definitions

Browse/Activate Selection List (Keys) Panel (UDC1300)

When you enter the definitions, you are storing them in a work area. However, the ACR/File Capture step cannot access these definitions until they are part of the ACR/File definition database.

You'll use the Browse/Activate Selection List (Keys) Panel (UDC1300) to view a list of the definitions in your work area by Job ID or Table ID. From this panel you can select which definitions to browse or activate.

To access this panel, from the ACR/File Definitions Panel, select option 3 (Browse/Activate Definitions) and press Enter.

```
----- BROWSE/ACTIVATE SELECTION LIST (KEYS) ----- ROW 1 OF 9
===>                                     (BLANK=BROWSE, A=ACTIVATE)      PANEL: UDC1300

SEL ST  JOB ID/TABLE ID      TYPE      DESCRIPTION/TITLE
-----
-  MOD  JOBX      UDCFCAPT  JOB ID    CAPTURE JOBX VALID AND INVALID TRANS
-  MOD  JOBY      UDCFCAPT  JOB ID    CAPTURE JOBY NEW MASTER FILE
-  ADD  USERIDX   UDCFCAPT  ALT JOB   ALTERNATE KEY FOR JOBX      UDCFCAPT
-  ADD  USERIDY   UDCFCAPT  ALT JOB   ALTERNATE KEY FOR JOBY      UDCFCAPT
***** BOTTOM OF DATA *****
```

1. To activate definitions, type A (ADD) on the command line, and press Enter. The A should remain displayed on the command line. The Browse/Activate Selection List Panel is displayed again. This time it lists only the definitions that you can activate (those with a status of ADD, MOD, or DEL). You will see no change in the list because all of the definitions are eligible to be activated.
2. Type S next to the four definitions you added: JOBX UDCFCAPT, JOBY UDCFCAPT, USERIDAX UDCFCAPT, and USERIDAY UDCFCAPT.

3. Press Enter. The message: ACTIVATE COMPLETE is displayed in the upper-right corner of the panel, confirming that the definitions have been applied to the ACR/File definition database.
4. Press the PF3 key twice to return to the ACR/File Primary Selection Menu.

Task 5: Inserting Capture Steps into Your Jobs

Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100)

The capture definitions need to be inserted as the last step in JOBX and JOBY. You'll do so using the JCL Modification Tool (UNIJCLM) to automatically insert the UDCFCAPT JCL into your jobs.

You'll use the Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100) to instruct ACR/File where to store the UNIJCLM JCL that will be generated. You also describe what JCL Library and members should be modified, how to modify the members, and where to store the modified members.

To access this panel, from the ACR/File Primary Selection Menu, select option 5 (Tools) and press Enter. Then the Implementation Tools Panel (UDC5000) is displayed, select option 1 (JCL Modifier) and press Enter.

```

-----CREATE JCL TO EXECUTE JCL MODIFIER UNIJCLM----- ACR/F releasenumbr
====>                                                    PANEL: UDC5100
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:
  JOB NAME          ====> USERIDAM
  JCL LIBRARY DSN   ====> USERIDA.UDC.PROCLIB             <====
                        MEMBER   ====> UNIJCLM

IN JCL LIBRARY DSN   ====>                               <====
OUT JCL LIBRARY DSN  ====>                               <====
                                (OUT JCL LIBRARY MAY EQUAL IN JCL LIBRARY)
STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY:
  DSN      ====> USERIDA.UDC.PROCLIB                     <====
  MEMBER   ====>

CONTROL STATEMENTS PARAMETERS:
  JCL MEMBERS:      FROM ====>                            TO ====>
  TARGET TYPE       ====> ('STEP' OR 'EXEC')
  STEPNAME/EXEC NUMBER ====> (STEPNAME, 'FIRST', 'LAST', 'F+L', 99999)
  OCCURRENCE        ====> (OCCURRENCE NBR OR 'ALL' FOR 'STEP')
  OPERAND           ====> ('<' = BEFORE OR '>' = AFTER)
  IEBUPDTE ACTION   ====> ('NONE', 'ADD' OR 'REPLACE')
  COMMENT           ====>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

For this tutorial, complete the following fields as shown below.

JOB NAME. Enter USERIDM. (Append an M to your User ID.)

JCL LIBRARY:

3 ■ Tutorial

Lesson 2: Implementing the Capture Steps

DSN. Accept the default.

MEMBER. Accept the default.

IN JCL LIBRARY DSN. Enter the name of the library storing the EXJOBX and EXJOBY JCL.

OUT JCL LIBRARY DSN. Enter the name of the library used for the IN JCL LIBRARY DSN.

STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY:

DSN. Enter the name of the library containing the UDCFCAPT JCL. It will default to your PROCLIB.

MEMBER. Enter UDCFCAPT

JCL MEMBERS:

FROM. Enter EXJOBX

TO. Enter EXJOBY

TARGET TYPE. Enter EXEC

STEPNAME/EXEC NUMBER. Enter LAST

OCCURENCE. Enter BLANK

OPERAND. Enter >

IEBUPDTE ACTION. Enter REPL

COMMENT. Enter INSERT CAPT

The Control Statement Parameters build the control card which is input to UNIJCLM. This control card identifies which members to modify and where in those members to insert the JCL statements.

1. After entering the field values, press Enter. The JCL for running the JCL Modifier is displayed.
2. Type SUB on the command line and press Enter to submit the JCL. When the UNIJCLM JCL is submitted, it will cause the members that you have specified in the IN JCL LIBRARY to be placed in the OUT JCL LIBRARY in their newly-modified format.
3. Press Enter at the three asterisks.
4. Press the PF3 key twice to end. The system returns you to the Implementation Tools Panel and the JCL CREATED message is displayed in the upper-right corner.
5. Press the PF3 key again. The system returns you to the ACR/File Primary Selection Menu. When the UNIJCLM job ends, you can review the reports produced. They will show you what members were modified and how many statements were added to each member.

You can also use ISPF to edit or browse the EXJOBX and EXJOBY members to see that the UNIJCLM process has inserted the UDCFCAPT step as the last step in each of these sets of JCL. To access ISPF EDIT, select option 6 from the ACR/File Primary Selection Menu.

Task 6: Executing Capture Steps

Edit Files and Submit Jobs Panel (UDC6000)

You are now ready to run JOBX and JOBY. You'll submit them using the Edit Files and Submit Jobs Panel (UDC6000). To access the panel, at the ACR/File Primary Selection Menu, select option 6 (Edit/Submit) and press Enter.

```

----- EDIT FILES AND SUBMIT JOBS ----- ACR/F releasenumbr
====>                                     PANEL: UDC6000
SPECIFY NAME OF THE FILE TO EDIT BELOW:

      DSN      ====> USERIDA.UDC.PROCLIB      <====

      PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

1. Confirm that DSN contains the name of the dataset that contains the EXJOBX JCL.
2. Press Enter. A list of members for that dataset is displayed.
3. Select member EXJOBX, and press Enter.
4. Submit the EXJOBX JCL by entering SUB on the command line and pressing Enter.
5. Press Enter at the three asterisks.
6. Press the PF3 key to end. This returns you to the list of members where your example JCL has been stored.
7. Select member EXJOBY and press Enter.
8. When the JOBX job has successfully completed, submit the EXJOBY JCL by entering SUB on the command line and pressing Enter.
9. Press Enter at the three asterisks.
10. Press the PF3 key three times to return to the ACR/File Primary Selection Menu.

You can now log off or begin the next lesson.

Lesson 3: Implementing the Verify Step

This lesson introduces you to the tasks used to implement a Verify step. It contains the following sections.

- "The Verify Step for the Example Jobs" below.
- "Task 1: Entering Job Definitions for JOBY" on page 76.
- "Task 2: Specifying the Alternate Job ID" on page 84.
- "Task 3: Activating Job Definitions" on page 85.
- "Task 4: Inserting the Verify Step into Your Jobs" on page 86.
- "Task 5: Executing the Verify Step" on page 88.

The Verify Step for the Example Jobs

JOBY should bring in the valid transaction file from the last run of JOBX, and apply those transactions to the last master file created. The Verify step will be inserted as the first step in JOBY. The information needed to verify that the correct files are being used was obtained from running the Capture steps. It is stored in the history database.

Task 1: Entering Job Definitions for JOBY

Entering Job definitions for a Verify step consists of the following steps:

- "Step 1: Name the Job" below.
- "Step 2: Set Defaults and Report Options" on page 78
- "Step 3: Set Cycle/Rerun Parameters" on page 79
- "Step 4: Set Job-Level Verification Options" on page 80
- "Step 5: Enter Input File Information" on page 81
- "Step 6: Set Input File Verification Options" on page 84

Step 1: Name the Job

Enter Job Definitions Panel (UDC1100)

You name ACR/File jobs on the Enter Job Definitions Panel (UDC1100). To access this panel, from the ACR/File Primary Selection Menu, select Definitions > Enter Job Definitions.

```

----- ENTER JOB DEFINITIONS ----- ACR/F releasenumber
====>                                     PANEL: UDC1100
SELECT CHOICE AND OPTIONALLY ENTER JOB ID BELOW:

      JOB ====>      STEP ====>      QUAL ====>

-  1  BASIC JOB INFORMATION
-  2  CYCLE/RERUN PARAMETERS
-  3  JOB-LEVEL VERIFICATION OPTIONS
-  4  INPUT FILE INFORMATION
-  5  INPUT FILE VERIFICATION OPTIONS
-  6  OUTPUT FILE INFORMATION
-  7  ALTERNATE JOB-ID INFORMATION
-  C  COPY ALL THE DEFINITIONS FROM ONE JOB ID TO ANOTHER
-  L  DISPLAY SELECTION LIST

```

Naming a job consists of completing the JOB, STEP, and sometimes, QUAL fields. The job name from this panel will be carried forward to all job definition panels. Job names and Step names can be up to 8 characters each; they are used in the EXEC statement and invoke ACR/File.

For this tutorial, complete the following fields as shown below.

JOB. Enter JOBY

STEP. Enter UDCFVRFY

Then select option 1 (Basic Job Information) and press Enter. The system displays the Specify Basic Job Information Panel (UDC1110).

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

Step 2: Set Defaults and Report Options

Specify Basic Job Information Panel (UDC1110)

On this panel, you describe the job, instruct ACR/File how to process the job, and indicate which reports to generate.

```
----- SPECIFY BASIC JOB INFORMATION -----ACR/F releasenumber
====>                                     PANEL: UDC1110
(ENTER "V" ON CMD LINE TO DISPLAY THE JOB LEVEL VERIFICATION SCREEN)

      JOB ==>JOBY          STEP ==>UDCFVRFY    QUAL ==>

DESCRIPTION/TITLE  ==>                                     < ==
NUMBER OF HISTORIES ==>                                     (1-999)

PROCESSING OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
STORE HISTORY      (C,V) ==>                               (ENTER Y OR N)
SET RETURN CODE    (C,V) ==>                               (ENTER Y,N OR X)
CHECK DATA SET NOT FOUND (V) ==>                         (ENTER Y,N OR X)
CHECK NOT CATLG 2   (C)  ==>                               (ENTER Y,N,X OR C)
CHECK FOR RERUN     (C,V) ==>                             (ENTER Y,N OR X)

REPORT PRINT OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
INPUT FILE VERIFICATION (V) ==>                           (ENTER Y, N OR X)
INPUT FILE EXCEPTION   (V) ==>                           (ENTER Y, N OR X)
OUTPUT FILE CAPTURE     (C) ==>                           (ENTER Y OR N)
MAXIMUM AGE NOTIFICATION (V) ==>                         (ENTER Y OR N)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For **JOBY**, you want to provide a description, and specify that histories should be stored and how many. You also want to set a return code if any of the datasets needed are not found, and whether the job is being rerun. For reports, you want an Input File Exception Report and a Maximum Age Notification Report.

For this tutorial, complete the following fields as shown below.

DESCRIPTION/TITLE. Enter **VERIFY JOBY VALID TRANS AND MASTER FILES**

NUMBER OF HISTORIES. Enter **10**

STORE HISTORY. Enter **Y**

SET RETURN CODE. Enter **Y**

CHECK NOT CATLG 2. Enter **N**

CHECK FOR RERUN. Enter **Y**

INPUT FILE VERIFICATION. Enter **X**

INPUT FILE EXCEPTION. Enter **N**

OUTPUT FILE CAPTURE. Enter **N**

MAXIMUM AGE NOTIFICATION. Enter Y

Then type A (ADD) on the command line and press Enter. The message BASIC JOB INFO ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. Because you are in Beginner Mode, the system displays the Specify Cycle/Rerun Parameters Panel (UDC1120).

Step 3: Set Cycle/Rerun Parameters

Specify Cycle/Rerun Parameters Panel

You'll use the Specify Cycle/Rerun Parameters Panel to instruct ACR/File how to assign Cycle IDs to jobs. You can also tell ACR/File whether the Automatic Rerun step will exist in the job stream.

```

----- SPECIFY CYCLE/RERUN PARAMETERS -----ACR/F releasenumber
====>                                     PANEL: UDC1120

JOB ==> JOBY      STEP ==> UDCFVRFY QUAL ==>

CYCLE TABLE NAME      ==>

CYCLE REFERENCE JOB-ID:
  JOB NAME              ==>
  STEP NAME             ==>
  QUALIFIER             ==>

CYCLE OPTION           ==>          (G0/G1/G9/J0/J1/J9/X0/X1/X9
                                     T0/T1/T9, BLANKS)

AUTOMATIC RERUN OPTION ==> N          BLANK = USE SITE-LEVEL OPTION
                                     Y      = USE AUTO RERUN STEP
                                     N      = DO NOT USE AUTO RERUN

```

Because JOBY should bring in the most current valid transaction file from JOBX, both jobs should have the same Cycle ID. By using a Cycle Reference Job ID, you tell ACR/File to assign the Cycle ID from one job to the job currently running.

For this tutorial, complete the following fields as shown below.

CYCLE REFERENCE JOB ID:

JOB NAME. Enter JOBX

STEP NAME. Enter UDCFVRFY

AUTOMATIC RERUN OPTION. Enter N

Then type A (ADD) on the command line and press Enter. The message CYCLE/RERUN PARM ADDED is displayed in the upper-right corner of the panel.

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

Press the PF3 key to end. Because you are in Beginner Mode, the system displays the Specify Job-Level Verifications Options Panel (UDC1130).

Step 4: Set Job-Level Verification Options

You'll use the Specify Job-Level Verification Options Panel to set verification defaults for all files to be captured for one Job ID. On this panel, you enter verification values for each job. These job-level verification values will override any system-wide defaults. These values can be overridden at the file-level for specific files.

```
----- SPECIFY JOB-LEVEL VERIFICATION OPTIONS -----ACR/F releasenumber
====>
                                PANEL: UDC1130

JOB ====>JOBY          STEP ====>UDCFVRFY   QUAL ====>

VERIFY:
  HISTORY IS PRESENT   (V)   ====>          ENTER A VALUE FOR EACH OPTION .
  FILE IS PRESENT     (C,V)  ====>          VALID VALUES ARE:
  DATA SET NAME      (V)   ====>          Y = REPORT EXCEPTIONS AND
  CONCAT. SEQUENCE    (V)   ====>          CONTINUE PROCESSING
  CREATION DATE       (V)   ====>          N = DON'T REPORT EXCEPTIONS
  CREATION TIME       (V)   ====>          X = REPORT EXCEPTIONS AND
  CREATION JOB        (V)   ====>          SET A CONDITION CODE
  CREATION STEP       (V)   ====>          BLANK = USE SITE-LEVEL OPTION
  CREATION DD         (V)   ====>
  VOLSER NUMBERS     (V)   ====>          ADDITIONAL VALID DSN VALUES:
  NUMBER OF RECORDS  (V)   ====>          J/K = RPT OLDEST CAPT NOT IN JCL
  NUMBER OF USES     (V)   ====>          L/M = RPT NEWEST CAPT NOT IN JCL
  MAXIMUM AGE (CYCLES) (V)  ====>          ADDITIONAL VALID VOLSER VALUES:
  MAXIMUM AGE (DAYS)  (V)   ====>          J/K = RPT IF 1ST VOL NOT IN JCL

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

The value you enter for a Verification option tells ACR/File whether to do the verification and how to process the results. Y says report exceptions and continue processing. X says report exceptions and set a condition code.

For this tutorial, make the entries shown below for the following fields:

HISTORY IS PRESENT. Enter X

FILE IS PRESENT. Enter X

DATASET NAME. Enter X

CONCAT. SEQUENCE. Enter N

CREATION DATE. Enter X

CREATION TIME. Enter X

CREATION JOB. Enter X

CREATION STEP. Enter X

CREATION DD. Enter X

VOLSER NUMBERS. Enter N

NUMBER OF RECORDS. Enter X

NUMBER OF USES. Enter Y

MAXIMUM AGE (CYCLES). Enter Y

MAXIMUM AGE (DAYS). Enter Y

Then type A (ADD) on the command line and press Enter. The message VER. OPTIONS ADDED is displayed in the upper-right corner of the panel.

Press the PF3 key to end. The system returns to the Enter Job Definitions Panel.

Step 5: Enter Input File Information

Specify Input File Information Panel (UDC1140)

For a Verify step, you must indicate the application step, DDname, and concatenation sequence number of each file to be verified; where the file comes from, and whether the verification is based upon another job.

You'll enter this information on the Specify Input File Information Panel (UDC1140). To access this panel, select option 4 (Input File Information) from the Enter Job Definitions Panel) and press Enter.

Because you will be verifying two input files, you will complete the panel twice.

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

Completing the Panel for the First Input File

The first time you display the panel, the Input File Item Number is set to 001, because this is the first file that you are defining for the Job ID.

```
----- SPECIFY INPUT FILE INFORMATION ----- ACR/F releasenumber
====>                                     PANEL: UDC1140

      JOB ==> JOBY      STEP ==> UDCFVRFY  QUAL ==>
      INPUT FILE ITEM NUMBER ==> 001      (1 - 32)
INPUT FILE PROCESSED IN:
      APPLICATION STEP      ==>
      STEP OCCURRENCE      ==> 001      (1 - 999)
      DDNAME                ==>
      CONCATENATION SEQUENCE ==> 001      (1 - 150)
INPUT FILE CREATED BY (EXPECTED FROM):
      JOB NAME ==>        STEP NAME ==>        QUALIFIER ==>
      OUTPUT FILE ITEM NUMBER ==>        (1 - 32)
      RELATIVE CYCLE        ==> +00      (-99 TO +00)
      MOST RECENT?        ==> N        (Y, N OR BLANK)

VARIABLE CYCLE INFORMATION:
      VARIABLE CYCLE INDICATOR ==> N        (Y, N OR X)
      VAR CYC JOB NAME ==>        STEP NAME ==>        QUAL ==>
      VAR CYC RELATIVE CYCLE ==> +00      (-99 TO +00)
      VAR CYC MOST RECENT IND ==>        (Y OR N)
      PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For this file, you complete the following fields as shown below.

INPUT FILE PROCESSED IN:

APPLICATION STEP. Enter UPDTMSTR

STEP OCCURRENCE. Enter 1

DDNAME. Enter UPDTTRNS

INPUT FILE CREATED BY:

JOB NAME. Enter JOBX

STEP NAME. Enter UDCFCAPT

OUTPUT FILE ITEM NUMBER. Enter 001

RELATIVE CYCLE. Enter +00

MOST RECENT? Enter N

Note: Setting RELATIVE CYCLE to +00 ensures that the input to JOBY will have the same cycle as JOBX. Setting MOST RECENT? to N ensures that the Cycle Number of the creation job is equal to the Cycle Number of the current job.

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel.

Completing the Panel for the Second Input File

You will now complete the information for the second input file. This time complete the following fields as shown below.

INPUT FILE PROCESSED IN:

APPLICATION STEP. Enter UPDTMSTR

STEP OCCURRENCE. Enter 1

DDNAME. Enter OLDMSTR.

INPUT FILE CREATED BY:

JOB NAME. Enter JOBY

STEP NAME. Enter UDCFCAPT

OUTPUT FILE ITEM NUMBER. Enter 001

RELATIVE CYCLE. Enter -01

MOST RECENT? Enter N

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel. Press the PF3 key to end and return to the Specify Input File Verification Options Panel.

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

Step 6: Set Input File Verification Options

Specify Input File Verification Options Panel (UDC1150)

If you need to add additional verification options for a particular file used in a Verify step, you use the Specify Input File Verification Options Panel (UDC1150).

```
----- SPECIFY INPUT FILE VERIFICATION OPTIONS -----ACR/F releasenumber
====>                                                                                   PANEL:UDC1150

JOB ==> JOBY          STEP ==> UDCFVRFY  QUAL ==>
INPUT FILE ITEM NUMBER ==> 001 (1 - 32)
VERIFY:
  HIST IS PRESENT      (V) ==>
  FILE IS PRESENT      (V) ==>
  DATA SET NAME       (V) ==>
  CONCAT. SEQUENCE     (V) ==>
  CREATION DATE        (V) ==>
  CREATION TIME        (V) ==>
  CREATION JOB         (V) ==>
  CREATION STEP        (V) ==>
  CREATION DD          (V) ==>
  VOLSER NUMBERS       (V) ==>
  NUMBER OF RECORDS    (V) ==>
  NUMBER OF USES       (V) ==>
  MAXIMUM AGE (CYCLES) (V) ==>
  MAXIMUM AGE (DAYS)   (V) ==>
  CONCAT. NUM EXPECTED (V) ==>

  ENTER A VALUE FOR EACH OPTION.
  VALID VALUES ARE:
    Y = REPORT EXCEPTIONS AND
      CONTINUE PROCESSING
    N = DON'T REPORT EXCEPTIONS
    X = REPORT EXCEPTIONS AND
      SET A CONDITION CODE
  BLANK = USE JOB-LEVEL OPTION
  ADDITIONAL VALID DSN VALUES:
    J/K = RPT OLDEST CAPT NOT IN JCL
    L/M = RPT NEWEST CAPT NOT IN JCL
  ADDITIONAL VALID VOLSER VALUES:
    A/B = RPT IF VOL NOT IN JCL
    D/E = RPT VOL USED IN PREV CYC
    G/H = RPT NBR VOLS DIFF EXPECT
    J/K = RPT IF 1ST VOL NOT IN JCL

  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

Because there are no special requirements, press the PF3 key to end. The Enter Job Definitions Panel is displayed.

Task 2: Specifying the Alternate Job ID

Alternate Job IDs allow you to use the definitions from one job while running with a different job name. The Alternate Job ID acts as an alias for a Primary Job ID.

Just as you did for the Capture steps, you want to specify an Alternate Job ID for the JOBY Verify step.

You'll use the Alternate Job ID Information Panel (UDC1170) to accomplish this task. To access this panel, from the Enter Job Definitions Panel, select option 7 (Alternate Job-ID Information) and press Enter.

```

----- ALTERNATE JOB ID INFORMATION ----- ACR/F releasenumbr
====> A                                     PANEL: UDC1170
SPECIFY AN ALTERNATE JOB ID BELOW:

PRIMARY JOB ====> JOBY          STEP ====> UDCFVRFY  QUAL ====>

ITEM NUMBER  ====> 001 (1 - 100)

ALTERNATE JOB ID:
  JOB NAME   ====>
  STEP NAME  ====>
  QUALIFIER  ====>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

For this tutorial, complete the following fields as shown below.

PRIMARY JOB. Enter JOBY

STEP. Enter UDCFVRFY

ALTERNATE JOB ID:

JOB NAME. Enter USERIDY (Append a Y to your User ID.)

STEP NAME. Enter UDCFVRFY

Then type A (ADD) on the command line and press Enter. The message ITEM ADDED is displayed in the upper-right corner of the panel. Notice that the information that you've entered on the screen stays there, but the Item Number has automatically been incremented by one.

Press the PF3 key twice to end. The ACR/File Definitions Panel is displayed.

Task 3: Activating Job Definitions

Browse/Activate Selection List (Keys) Panel (UDC1300)

Now that you've entered the Job definitions for the Verify step, you need to activate them. You'll do this using the Browse/Activate Selection List (Keys) Panel (UDC1300). This panel lists the definitions in your work area by Job ID or Table ID. From this panel you can select which definitions to browse or activate.

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

To access this panel, from the ACR/File Definitions Panel, select option 3 (Browse/Activate Definitions) and press Enter.

```
----- BROWSE/ACTIVATE SELECTION LIST (KEYS) ----- ROW 1 OF 9
===>                                     (BLANK=BROWSE, A=ACTIVATE)   PANEL: UDC1300

SEL ST  JOB ID/TABLE ID      TYPE      DESCRIPTION/TITLE
-----
-       JOBX      UDCFCAPT  JOB ID      CAPTURE JOBX VALID AND INVALID TRANS
-       JOBY      UDCFCAPT  JOB ID      CAPTURE JOBY NEW MASTER FILE
-   MOD  JOBY      UDCFVRFY  JOB ID      VERIFY JOBY VALID TRANS AND MASTER FILES
-       USERIDX  UDCFCAPT  ALT JOB     ALTERNATE KEY FOR JOBX      UDCFCAPT
-       USERIDY  UDCFCAPT  ALT JOB     ALTERNATE KEY FOR JOBY      UDCFCAPT
-   ADD  USERIDY  UDCFVRFY  ALT JOB     ALTERNATE KEY FOR JOBY      UDCFVRFY
```

To activate definitions, type A (ADD) on the command line, and press Enter. The Browse/Activate Selection List Panel is displayed again. This time it lists only the definitions that you can activate (those with a status of ADD, MOD, or DEL).

Type S next to the two definitions you added: JOBY UDCFVRFY and USERIDAY UDCFVRFY and press Enter. The message ACTIVATE COMPLETE is displayed, confirming that the definitions have been applied to the ACR/File definition database.

Press the PF3 key twice to return to the ACR/File Primary Selection Menu.

Task 4: Inserting the Verify Step into Your Jobs

Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100)

The Verify step you created needs to be inserted as the first step in EXJOBY. You use the JCL Modification Tool (UNIJCLM), available from the Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100), to do this automatically. On this panel, you describe where to store the UNIJCLM JCL that will be generated. You also describe what JCL library and members should be modified, how to modify the members, and where to store the modified members.

To access the Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100), from the ACR/File Primary Selection Menu, select Tools > JCL Modifier.

```

-----CREATE JCL TO EXECUTE JCL MODIFIER UNIJCLM----- ACR/F releasenumbr
====>
                                PANEL: UDC5100
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:
  JOB NAME          ==> USERIDA
  JCL LIBRARY DSN   ==> USERIDA.UDC.PROCLIB          <===
                    MEMBER   ==> UNIJCLM

IN JCL LIBRARY DSN   ==>                               <===
OUT JCL LIBRARY DSN   ==>                               <===
                                (OUT JCL LIBRARY MAY EQUAL IN JCL LIBRARY)

STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY:
  DSN      ==> USERIDA.UDC.PROCLIB          <===
  MEMBER   ==>

CONTROL STATEMENTS PARAMETERS:
  JCL MEMBERS:      FROM ==>                TO ==>
  TARGET TYPE       ==>                ('STEP' OR 'EXEC')
  STEPNAME/EXEC NUMBER ==>                (STEPNAME, 'FIRST', 'LAST', 'F+L', 99999)
  OCCURRENCE        ==>                (OCCURRENCE NBR OR 'ALL' FOR 'STEP')
  OPERAND           ==>                ('<' = BEFORE OR '>' = AFTER)
  IEBUPDTE ACTION   ==>                ('NONE', 'ADD' OR 'REPLACE')
  COMMENT           ==>

```

For this tutorial, complete the following fields as shown below.

JOB NAME. Accept the default value entered during the Capture Step lesson.

JCL LIBRARY:

DSN. Accept the default.

MEMBER. Accept the default.

IN JCL LIBRARY DSN. Enter the name of the library used for the IN JCL LIBRARY DSN.

OUT JCL LIBRARY DSN. Enter the name of the library storing the EXJOBX and EXJOBY JCL.

STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY:

DSN. Enter the name of the library containing the UDCFVRFY JCL.

MEMBER. Enter the name of the library member containing the JCL statements to be inserted: UDCFVRFY

JCL MEMBERS:

FROM. Enter EXJOBY

TO. Enter EXJOBY

TARGET TYPE. Enter EXEC

3 ■ Tutorial

Lesson 3: Implementing the Verify Step

STEPNAME/EXEC NUMBER. Enter FIRST

OPERAND. Enter <

IEBUPDTE ACTION. Enter REPL

COMMENT. Enter INSERT VRFY

1. After entering the field values, press Enter. The JCL for running the JCL Modifier is displayed.
2. Type SUB on the command line and press Enter to submit the JCL. When the UNIJCLM JCL is submitted, it will cause the members that you have specified in the In JCL Library to be placed in the Out JCL Library in their newly-modified format.
3. Press Enter at the three asterisks.
4. Press the PF3 key to end. The system returns you to the Implementation Tools Panel and the JCL CREATED message is displayed.
5. Press the PF3 key again.

The system returns you to the ACR/File Primary Selection Menu. When the UNIJCLM job ends, you can review the reports produced. They will show you what members were modified and how many statements were added to each member. You can also use ISPF to edit or browse the EXJOBX and EXJOBY members to see that the UNIJCLM process has inserted the UDCFVRFY step as the first step in each of these sets of JCL.

If you want to access ISPF EDIT, you can select option 6 from the ACR/File Primary Selection Menu.

Task 5: Executing the Verify Step

Edit Files and Submit Jobs Panel (UDC6000)

You are now ready to run a job that contains an ACR/File Verify step. You'll submit the job using the Edit Files and Submit Jobs Panel (UDC6000). To access the panel, at the ACR/File Primary Selection Menu, select option 6 (Edit/Submit) and press Enter.

```
----- EDIT FILES AND SUBMIT JOBS ----- ACR/F releasenumbr
===>                                     PANEL: UDC6000
SPECIFY NAME OF THE FILE TO EDIT BELOW:

DSN      ===> USERIDA.UDC.PROCLIB          <===
```

Note: You'll be running JOBX again to ensure that it has the same Cycle ID as JOBY.

1. Confirm that DSN contains the name of the dataset that contains the EXJOBY JCL.
2. Press Enter.
3. A list of members for that dataset is displayed. Select member EXJOBX, and press Enter.
4. Submit the EXJOBX JCL by entering SUB on the command line and pressing Enter.
5. Press Enter at the three asterisks.
6. Press the PF3 key to end. This returns you to the list of members where your example JCL has been stored.
7. Select member EXJOBY and press Enter.
8. When the JOBX job has successfully completed, submit the EXJOBY JCL by entering SUB on the command line and pressing Enter.
9. Press Enter at the three asterisks.
10. Press the PF3 key three times to return to the ACR/File Primary Selection Menu.

This concludes the tutorial. As you implement Capture and Verify steps for your jobs, refer to the remainder of this user guide for more information.

Tutorial Reports

This section contains the following reports generated during the tutorial.

- “Output File Capture Report for JOBX” on page 90
- “Input File Exception Report” on page 90
- “Input File Exception Report” on page 90
- “Output File Capture Report for JOBY” on page 91
- “Maximum Age Notification Report” on page 91

3 ■ Tutorial

Tutorial Reports

Output File Capture Report for JOBX

```
ACR/F Releasenumbr          CAPTURE JOBX VALID AND INVALID TRANS          COPYRIGHT INFOGIX, INC.
DATE:  4/14/03              OUTPUT FILE CAPTURE REPORT          REPORT ID:  UDCR006          PAGE          1
TIME:  8:24:37              FOR:  JOB=JOBX          STEP=UDCFCAPT JSQ=          DEF/HST VERSION: 0000007/0000000017
                              CYCLE=20030414  RUN=001
STEPNAME - OCC  DDNAME          INFORMATION ABOUT DATASET THAT WAS CAPTURED
-----
EDIT    - 001  VALIDTRN  DSN=USERIDA.VALID.TRANS.G0008V00
          VOLRSERS= UNII002
          CRDATE=03/04/14  CRTIME= 8:24:37  #RECS=00000000000  MAX-USES=001  MAX-CYC-AGE=001  MAX-DAY-AGE=003
EDIT    - 001  INVLDTRN  DSN=USERIDA.INVALID.TRANS.G0008V00
          VOLRSERS= UNII002
          CRDATE=03/04/14  CRTIME= 8:24:37  #RECS=00000000000  MAX-USES=001  MAX-CYC-AGE=001  MAX-DAY-AGE=003

          PROGRAM NAME=UDC2000          LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04          LINKEDIT DATE=UNKNOWN
***** END OF REPORT UDCR006 *****
```

Input File Verification Report

```
ACR/F Releasenumbr          VERIFY JOBY VALID TRANS AND MASTER FILES          COPYRIGHT INFOGIX, INC.
DATE:  d/mm/yy              INPUT FILE VERIFICATION REPORT          REPORT ID:  UDCR002          PAGE          1
TIME:  8:43:46              FOR:  JOB=JOBX          STEP=UDCFVRFY JSQ=          DEF/HST VERSION: 0000007/0000000025
                              CYCLE=20030414  RUN=004
STEPNAME  DDNAME          ACTUAL INPUT DATASET          EXPECTED INPUT DATASET          ER
-----
UPDTMSTR  UPDTTRNS  USERIDA.VALID.TRANS.G0009V00          USERIDA.VALID.TRANS.G0009V00
OCC:001    CONCAT-NBR=001  #RECS=00000000000          CONCAT-NBR=001  #RECS=00000000000
          CRDATE=03/04/14  CRTIME= 0:00:00          CRDATE=03/04/14  CRTIME= 8:40:48
          VOLRSERS= UNII002
          FROM JOB:          STEP:          DD:          FROM JOB:USERIDAX STEP:EDIT  DD:VALIDTRN
          JOB-ID:JOBX  UDCFCAPT  CYC:20030414004
          #USES=001  MAXUSE=001  CYC-AGE=000  DAY-AGE=000
UPDTMSTR  OLDMSTR  USERIDA.MASTER.FILE.G0009V00          USERIDA.MASTER.FILE.G0009V00
OCC:001    CONCAT-NBR=001  #RECS=00000000000          CONCAT-NBR=001  #RECS=00000000000
          CRDATE=03/04/14  CRTIME= 0:00:00          CRDATE=03/04/14  CRTIME= 8:40:48
          VOLRSERS= UNII002
          FROM JOB:          STEP:          DD:          FROM JOB:USERIDAX STEP:UPDTMSTR DD:NEWMSTR
          JOB-ID:JOBX  UDCFCAPT  CYC:20030503001
          #USES=001  MAXUSE=001  CYC-AGE=000  DAY-AGE=000

          PROGRAM NAME=UDC2000          LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04          LINKEDIT DATE=UNKNOWN
***** END OF REPORT UDCR002 *****
```

Input File Exception Report

```
ACR/F Releasenumbr          VERIFY JOBY VALID TRANS AND MASTER FILES          COPYRIGHT INFOGIX, INC.
DATE:  m/dd/yy              INPUT FILE EXCEPTION REPORT          REPORT ID:  UDCR004          PAGE          1
TIME:  8:43:46              FOR:  JOB=JOBX          STEP=UDCFVRFY JSQ=          DEF/HST VERSION: 0000007/0000000025
                              CYCLE=20030414  RUN=004
STEPNAME  DDNAME          ACTUAL INPUT DATASET          EXPECTED INPUT DATASET          ERR
-----
***** NO INPUT FILE EXCEPTIONS *****

          PROGRAM NAME=UDC2000          LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04          LINKEDIT DATE=UNKNOWN
***** END OF REPORT UDCR004 *****
```

Output File Capture Report for JOBY

```

ACR/F releasenumbr          CAPTURE JOBY NEW MASTER FILE          COPYRIGHT INFOGIX, INC.
DATE:  4/14/03              OUTPUT FILE CAPTURE REPORT          REPORT ID:  UDCR006          PAGE          1
TIME:  8:32:26              FOR:  JOB=JOBY          STEP=UDCFCAPT JSQ=          DEF/HST VERSION: 0000007/00000000021
                                CYCLE=20030414  RUN=002
STEPNAME - OCC  DDNAME          INFORMATION ABOUT DATASET THAT WAS CAPTURED
-----
UPDTMSTR - 001  NEWMSTR          DSN=USERIDA.MASTER.FILE.G0008V00
                                VOLRSERS= UNI002
                                CRDATE=03/04/14  CRTIME= 8:32:26  #RECS=00000000000  MAX-USES=001  MAX-CYC-AGE=001  MAX-DAY-AGE=003
                                PROGRAM NAME=UDC2000          LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04          LINKEDIT DATE=UNKNOWN
***** END OF REPORT UDCR006 *****
    
```

Maximum Age Notification Report

```

ACR/F releasenumbr          VERIFY JOBY VALID TRANS AND MASTER FILES          COPYRIGHT INFOGIX, INC.
DATE:  4/14/03              MAXIMUM AGE NOTIFICATION REPORT          REPORT ID:  UDCR007          PAGE          1
TIME:  8:43:46              FOR:  JOB=JOBY          STEP=UDCFVRFY JSQ=          DEF/HST VERSION: 0000007/00000000025
                                CYCLE=20030414  RUN=004
STEPNAME - OCC  DDNAME          INFORMATION ABOUT DATASET THAT HAS AGED
-----
***** NO MAX AGE INFO TO REPORT *****
                                PROGRAM NAME=UDC2000          LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04          LINKEDIT DATE=UNKNOWN
***** END OF REPORT UDCR007 *****
    
```

3 ■ Tutorial

Tutorial Reports

Definition and History Databases

This chapter describes the ACR/File definition and history databases, as well as how the databases are used, maintained, and secured. Each database is a physical file. Together the databases contain the criteria for verifying input files and capturing output files defined by the user (definitions) and information about file creation and usage (histories). The following sections are included

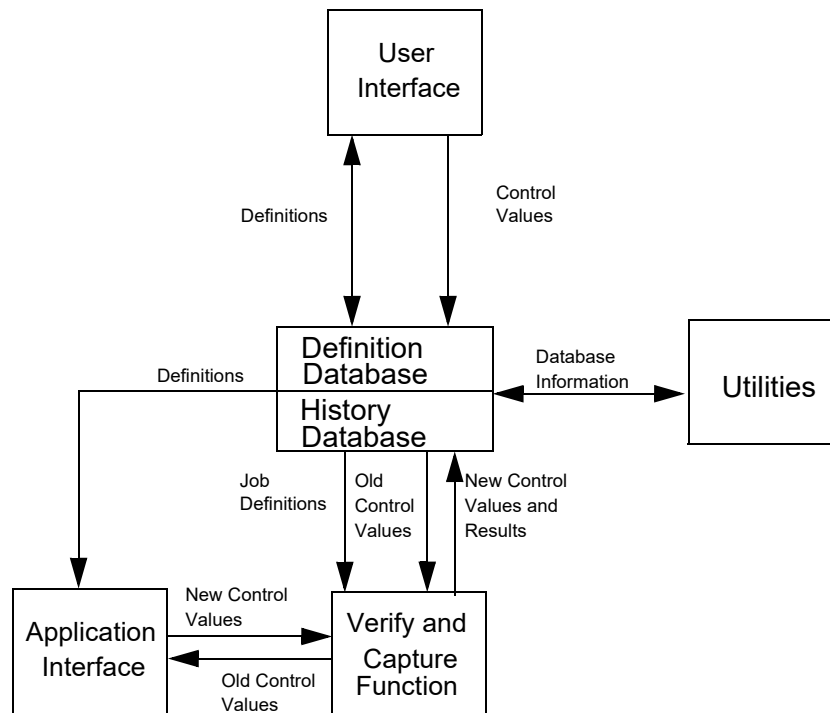
- “ACR/File Databases Diagram” on page 94
- “Definition Database” on page 94
- “History Database” on page 95
- “Test Versus Production Databases” on page 95
- “Establishing a Database” on page 95
- “Updating the Definition Database” on page 99
- “Using the Databases” on page 101
- “Securing the Production Databases” on page 102
- “Maintaining the Databases” on page 102
- “Backup and Recovery” on page 103

4 ■ Definition and History Databases

ACR/File Databases Diagram

ACR/File Databases Diagram

The databases are the central component of ACR/File, as shown in the diagram below.



Definition Database

The definition database is a key-sequenced VSAM file containing various types of ACR/File definitions, including job definitions and Table definitions. The definitions contain the parameters specifying the verification and capture requirements. These definitions are created either through the User Interface or as batch definition transactions.

History Database

The history database is a relative-record VSAM file containing the histories of different Verify and Capture steps. The definition database contains the parameters to apply for verifying and capturing files; the history database contains the actual values and results from having applied those parameters. Actual data values used in the Verify/Capture steps are called control values. Each time a Verify/Capture step is completed, the current control values are stored in the History Database as a history record.

Test Versus Production Databases

In most applications, several test databases are established (one for each user of the ACR/File system). However, you should normally have only one production Database.

Establishing a Database

This section explains how to create and initialize a definition database and a history database. The same procedure is used for establishing one of your test databases or the production databases.

Required DASD Space

The DASD space required by the ACR/File databases is determined by the total number of files to be verified and (for the history database) the aggregate number of cycles or histories to be stored in the database. Each job is identified by a unique key referred to as the Job ID. This key consists of the name of the job that contains the ACR/File step(s), the name of the ACR/File step to be executed, and a 2-character suffix called the qualifier of JSQ (job step qualifier).

4 ■ Definition and History Databases

Establishing a Database

History Database

You specify the number of cycles of ACR/File histories to be retained at any one time for each Job ID in the definition database. The aggregate number of histories is the sum of the number of histories for all Job IDs in the history database. The amount of space required by the history database is a function of the total number of history records required.

The number of total history records required is calculated automatically from the initialization panels of the User Interface, and is given by:

$$THR = 1 + ((nC + nV)(nH(nF + 1))) + ((nA + nC + nV) / 32)$$

where:

THR = Total History Records

nA = Number of Automatic Rerun steps to be implemented

nC = Number of Capture Steps to be implemented

nV = Number of Verify Steps to be implemented

nH = Average number of histories to be kept for each Capture/Verify step

nF = Average number of files to be captured/verified per Capture/Verify step

The amount of space required by the history database (UNIHF) is calculated as follows:

$$TBH = THR (1020)$$

where:

TBH = Total bytes required for History

Number of 3380 tracks required = $TBH / 47,476$ for the history database

Definition Database

The amount of space required by the definition database (UNIDF) is a function of the total number of records. The total number of definitions records is the sum of the definitions records for all the Job IDs stored in UNIDF.

The amount of space required by UNIDF is calculated as follows:

$$TDR = 1 + ((nC + nV)(nF + 1)) + nX$$

where:

TDR = Total Definition Records required

nC = Number of Capture steps to be implemented

nV = Number of Verify steps to be implemented

nX = Number of alternate Job IDs

nF = Average number of files to be captured/verified per Capture/Verify step.

The amount of space required by the UNIDF file is calculated as follows (each definition record is 128 bytes long):

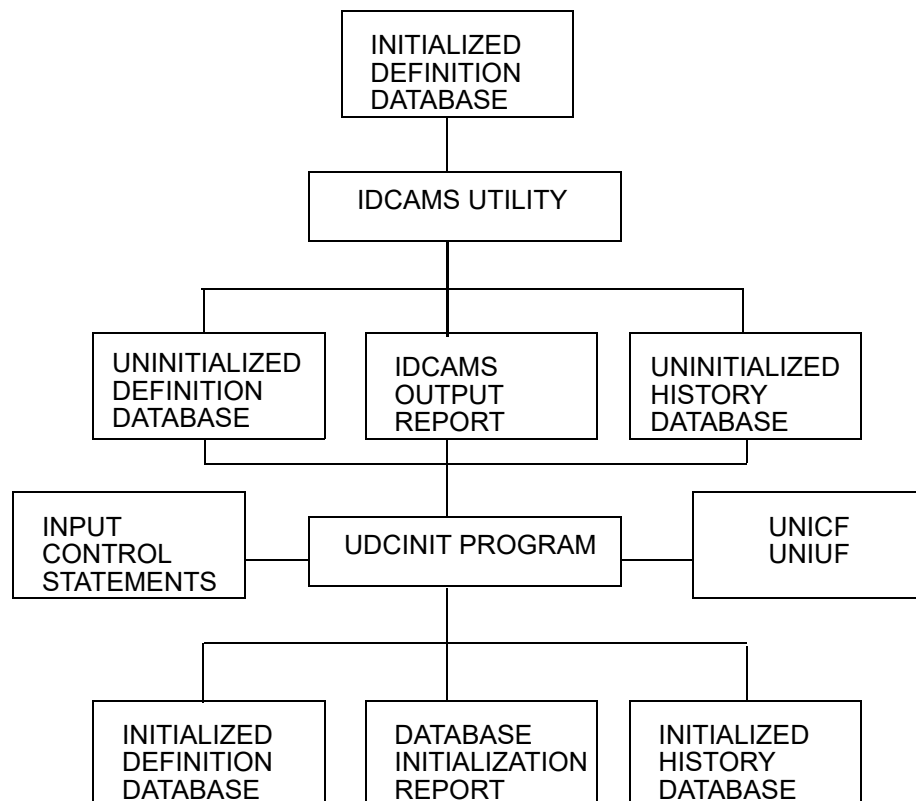
$$TBD = TDR (128)$$

where TBD = Total Bytes required for definitions

Number of 3380 tracks required for the definition database = $TBD/47,476$

UDCINIT Procedure

The databases are established by executing the JCL procedure UDCINIT diagrammed below.



The UDCINIT JCL can easily be generated by using the User Interface. You select whether to establish one or both databases, supply the data set names and locations for each database, and the size of the Database, as discussed above. The User Interface will use this information to generate the necessary JCL and control statements.

4 ■ Definition and History Databases

Establishing a Database

Once submitted, UDCINIT will create and then initialize the definition database and the history databases. (You have the option to establish both databases at once or to establish only one of the two (see “[Establishing the Databases Together or Separately](#)” on page 98).

UDCINIT requires the following steps:

1. IDCAMS

IDCAMS, an IBM VSAM utility, deletes the existing definition database and history database and allocates a new definition database and history database. The input to this step consists of the necessary IDCAMS control statement generated by the User Interface (note, however, that these statements may have to be modified to conform to specific installation standards). The output is the IDCAMS system services report on SYSPRINT.

2. UDCINIT

The UDCINIT program initializes the definition database and the history database. The UDCINIT step produces the Database Initialization Report. (For an example, see “[Database Initialization Report](#)” on page 266.

Establishing the Databases Together or Separately

Both a definition database and a history database are necessary for ACR/ File to operate properly; and you’ll usually establish (create and initialize) them at the same time. However, if required, you can separately establish either a definition database or a history database by specifying an appropriate parameter for the UDCINIT program on the STEP2 EXEC statement as shown below:

If both the UNIDF and UNIHf files are to be established, the parameter is specified as PARM='FILE=BOTH'

```
//STEP2 EXEC PGM=UDCINIT,PARM='FILE=BOTH'
```

If only the definition database is to be established, the parameter is specified as PARM='FILE=DEFN'.

```
//STEP2 EXEC PGM=UDCINIT,PARM='FILE=DEFN'
```

If only the history database is to be established, the parameter is specified as PARM='FILE=HIST'.

```
//STEP2 EXEC PGM=UDCINIT,PARM='FILE=HIST'
```

In addition to the parameter, the IDCAMS control statements are changed to indicate that only one of the databases is being established. When both the definition and history databases are created, this parameter is omitted.

Whether the User Interface is used to create just one database or both databases, it automatically generates the proper JCL and the appropriate set of control statements.

JCL and Control Statements

Sample JCL and the associated control statements used to allocate the definition and history databases are shown in [Appendix B, "JCL and Control Statements"](#) on page 279.

Updating the Definition Database

Using the User Interface

Definitions are usually specified through the User Interface panels. During an on-line session, these definitions are entered into data entry panels and manipulated in an on-line work area. Afterwards, they are automatically backed up in a member of the definition library. Additional backups (members) can also be stored.

When a new on-line session is begun, the work area is restored from the definition library. Additional definitions may be added or existing definitions modified. After definition entries or changes are completed, the definitions can be activated (that is, applied to the definition database).

Using Batch Definition Transactions

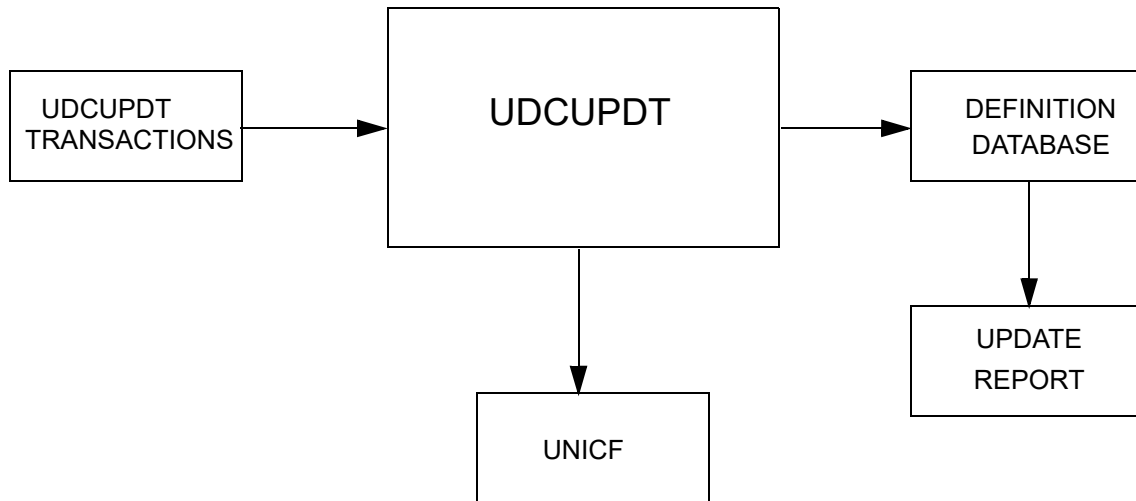
An alternative to activating definitions on-line through the User Interface is to use batch definition transactions. The User Interface can create batch definitions instead of activated definitions or batch definition transactions can be created by using an interactive editor (such as ISPF Edit) to specify the definitions in a sequential file or PDS. Definition fields are entered in precise positions in 80-character transaction records. The formats of the various kinds of batch definition transactions can be found in [Appendix C, "Batch Transactions"](#) on page 315.

After the batch definition transactions are created, the UDCUPDT procedure may be used to apply them to the definition database. This procedure is diagrammed below.

4 ■ Definition and History Databases

Updating the Definition Database

UDCUPDT Job Flow



The UDCUPDT procedure involves two stages: transaction validation and transaction processing. During Transaction Validation, the UDCUPDT program first sorts the definition transaction records in the proper sequence. It then validates the sorted transactions for internal consistency and valid values.

If any validation errors are found, the definition database is not updated and the UDCUPDT step terminates. Error messages flagging the invalid transaction(s) are shown in the Transaction Validation section of the Definitions Update Report. (For an example, see “[Database Update Report](#)” on page 266.

If no validation errors are found, the UDCUPDT program continues with Transaction Processing. Each batch definition transaction has a transaction type indicating the action to be applied against the definition database. For example, a transaction type of A will ADD a new definition to the database; a transaction type of D will DELETE a definition record. If any Transaction Processing errors occur (if, for example, an attempt is made to add a duplicate definition), processing is terminated, and the transactions in error are flagged with a message in the Transaction Processing section of the Definitions Update Report.

The User Interface can be used to generate the UDCUPDT JCL. Note, however, that certain parameters in the JCL may have to be changed to conform to the naming conventions and standards in a particular data center. Sample UDCUPDT JCL may be found in this manual's Appendix B.

Using the Databases

The Application Interface

When an ACR/File application is executed, the Application Interface extracts information from the system control blocks (JFCB). After extracting this information (the actual data set information), the Application Interface invokes the Verify/Capture Function.

The Verify/Capture Function

The Verify/Capture Function uses both the definition database and the history database. The Verify/Capture Function reads the definition database to retrieve the requirements (Job definitions) for the current step. It uses those definitions to determine whether to do a capture or a verify. If a Capture Function is being performed, it uses the definitions to decide which files to capture and how to report exceptions. If a Verify Function is being performed, it uses the definitions to retrieve previously captured information (the expected data set information) from the history database and to decide which files to verify and how to report exceptions. After applying the user-defined definitions the Verify/Capture Function stores the results as a new (or updated) history record, and prints those results on the “[Input File Verification Report \(UDCR002\)](#)” on page 268 or the “[Output File Capture Report \(UDCR006\)](#)” on page 269.

Utilities

Several utilities are available to list the contents of the definition and history databases in formatted reports. These utilities allow you to list the definitions, list all or portions of the Definition or history database, or print selected job summary information from the history database.

Generally, histories are created/updated only through the Verify/Capture Function. However, you can use other utilities to delete history records.

Utilities are also available to reorganize a history database.

See [Chapter 10, “Utilities”](#) on page 207 for more information about these functions.

User Interface

The User Interface (discussed in Chapter 2) is usually used to enter and activate definitions in the definition database. You can also restore definitions from the definition database to your work area for on-line review.

The User Interface is also very useful for reviewing results because it allows you to view the history database on-line. You can define search criteria to limit the number of history records displayed, or you can review an index of histories, a summary of histories, or the file detail for a particular Capture or Verify step.

Securing the Production Databases

You should take steps to secure your installation of ACR/File. Any security software (RACF, ACF2, Top Secret, etc.) that you presently employ may be used to secure either all or portions of ACR/File.

At a minimum, you should protect the databases by allowing read-only access to the production databases for non-production jobs. Assign one or more ACR/File Administrators (usually your change control administrators) to perform quality assurance and migration of definitions from test to production. Only these ACR/File Administrators should have read/write access to the production databases.

You should also consider the impact of where (what volumes) you place your ACR/File databases and other ACR/File files. Since each ACR/File step will want to access the ACR/File Load Library, Control File, definition database, history database and User Options File (if being used), it will make sense to put these files on separate volumes, so as to minimize channel and volume contention.

Maintaining the Databases

The databases generally require very little maintenance. The ACR/File utilities can assist you in managing the databases.

Expanding the Database

The most commonly required maintenance procedure is probably expanding the databases. The LIST DEFN (List Definitions) and LIST HIST (List Histories) utilities can be used to monitor Database size. Then, for example, if the history database is getting full, the REORG HIST

(Reorganize History Database) utility can be used to enlarge the history database, while simultaneously improving its internal organization. The definition database, on the other hand, may be expanded simply by using standard IBM IDCAMS utility statements.

Deleting Histories

Occasionally, you may need to delete a history record. This necessity is usually caused by skipped cycles: for instance, a Wednesday job that had been skipped, and the error not caught until Thursday's cycle was run. In such a case you would need to use the DELETE HIST utility to delete Thursday's history record before Wednesday's can be stored in the history database.

You can find more information on the utilities in [Chapter 10, "Utilities" on page 207](#).

Backup and Recovery

The extent to which you provide backups for ACR/File depends upon the disaster recovery procedures at your site.

System Backups

We recommend that the production databases be included in your normal daily and weekly (incremented and full) backups. In the event of a head crash or similar system failure, backups will allow you to recover the definition and history databases at least to the state they had been in the night before the failure.

Further history backups can be created by using the IDCAMS REPRO to store a sequential backup of the history file.

Dual History Option

To protect yourself further, you can use the dual history capability that ACR/File provides. This capability allows you to create two identical history databases. Each time a new history record is stored, an exact copy is stored in the dual history database. If a system failure occurs, recovery will be more complete than one made from a nightly backup.

A dual history database is established by using the UDCINIT procedure to create a history database only. Usually, you specify the name of the production history database with a 2 appended (for example, UNIHF2). You switch on the Dual History Option through the User Options file. You can then use the IDCAMS REPRO utility to copy the production history database to the dual history database to make them initially identical.

For more information, see the section concerning the Dual History Option in [“Dual History File Option” on page 186](#).

Warning: Use of the Dual History facility causes an increase in processing time for the ACR/File step, because twice as much history file maintenance is performed. Benchmarks have shown that ACR/File processing time will increase by approximately 50% if dual histories are maintained.

Preparing the Environment

This chapter describes tasks that prepare the environment. These tasks must be performed before you can use ACR/File. They include: setting up default values, allocating user files, setting up a job card, building the user options file, and initializing the databases. Once you have prepared the environment, you should not need to repeat these tasks. If you need to change the defaults later, refer to this section. The following sections are included

- “Summary of Environment Preparation Tasks” on page 105
- “Before You Start” on page 107
- “Specifying Default Values” on page 109
- “Allocating User Files” on page 112
- “Setting Up a Job Card” on page 113
- “Building a User Options File” on page 114
- “Initializing the ACR/File Databases” on page 124
- “Creating the Capture/Verification JCL” on page 127
- “Creating the Automatic Rerun Step JCL” on page 130
- “Specifying Definition Entry Options” on page 131

Summary of Environment Preparation Tasks

Each environment preparation task is fulfilled either by completing or modifying an ACR/File panel. Following is a brief description of each of these tasks. The number of the panel associated with the task is shown in parentheses.

Set User-Level Default Values (UDC4100)

When you enter defaults, you are specifying the user file names and processing options that ACR/File will use as defaults on other panels.

Allocate User Files (UDC4200).

ACR/File uses the user files to store the on-line definitions, batch transactions, user options, and JCL streams. You must allocate these files to have a place to store your work.

5 ■ Preparing the Environment

Summary of Environment Preparation Tasks

Set Up the Job Card (UDC4300).

You set up a job card to serve as a template for the job statement in the JCL you will create through the ACR/File panels. Once you set up the job card, you only have to change the job name in the JCL for each job.

Build the User Options File (UDC4400).

This is an optional task. When you build the user options file, you are modifying ACR/File's default settings to conform to your site's processing needs. You can specify which files to dynamically allocate and whether to invoke the automatic rerun option and dual history option. You can also specify ACR/File execution options, as well as which information you want ACR/File to verify.

Initialize the Databases (UDC4500).

In this task, you establish the Database. You enter information about the definition database, history database, and estimate the size of the databases.

Create the Capture/Verify JCL (UDC4600).

In this task, you create the JCL for the capture and verification steps. These steps will be inserted into jobs where the capture or verify process will take place.

Create the Automatic Rerun JCL (UDC4700).

In this task, you create the JCL for the ACR/File Automatic Rerun Step. This step is usually inserted as the first step in any job doing a capture or verify. It can be used to automatically tell the capture/verify steps that a rerun is being processed.

Specify Definition Entry Options (UDC4800).

You select options to control how the system will respond when you enter definitions. You also choose which mode to work in: Beginner or Expert.

Before You Start

To save time in preparing the ACR/File environment, gather the information you need before starting the on-line environment preparation procedure. Reviewing the panels in this chapter will help you understand what kind of information you need to obtain.

Be sure to enter a command, such as ADD or REPLACE, on the command line and press Enter on each of the panels you use in preparing the environment. ACR/File will then display an appropriate confirmation. For example:

```
# DATA SETS ALLOCATED
```

Where # represents the number of data sets.

Warning: If you press F3 before pressing Enter, ACR/File will not save your selections.

As you enter the default values, user file information, and job card information, you will enter data set names and file sizes. The values you enter depend on the requirements of your site.

Checklist of Data You Will Need

Following is a checklist for gathering pertinent information from your information services department:

- Data Set naming conventions for the following:
 - VSAM files
 - Permanent sequential workfiles
 - Partitioned data sets (PDS)
 - Disk VOLSER
 - Unit Types (such as DISK or SYSDA)
 - SMS Classes
 - Logon access to TSO
- Procedure to access Product Menu
- Job card parameters
- Data Set security clearance

5 ■ Preparing the Environment

Before You Start

Environment Set Up Panel (UDC4000)

To prepare the environment, you must access the Environment Set Up Panel (UDC4000), located under the ACR/File Primary Selection Panel (UDC0000). To access this panel, follow these steps:

1. Log on to ISPF using the procedure for your site. The Infogix main panel displays.
2. Press F4 to move the cursor to the action bar and press Enter. The Product Menu displays.
3. Select option 3 (ACR/ File) to display the ACR/File Primary Selection Menu (UDC0000).
4. Select option 4 (Environment) to display the Environment Set Up Panel (UDC4000).

You'll use the Environment Set Up Panel (UDC4000) to access the panels that set default values, allocate user files, set up a job card, initialize the databases, set options for entering definitions, and create sample JCL.

```
-----ENVIRONMENT SET UP -----ACR/F releasenumbr
===>                                     PANEL: UDC4000

S  1 SPECIFY DEFAULT VALUES : SPECIFY DEFAULT VALUES FOR USER USERID
-  2 ALLOCATE USER FILES    : ALLOCATE WORK FILES FOR USER USERID
-  3 SPECIFY JOB CARD INFO  : BUILD JCL JOB CARD FOR USER USERID
-  4 BUILD USER OPTIONS FILE : SPECIFY DYNAMIC ALLOCATION/EXECUTION OPTIONS
-  5 INITIALIZE DATA BASE  : CREATE UDCINIT JCL FOR DEFINITIONS/HISTORY FILES
-  6 CAPTURE/VERIFY JCL    : CREATE UDC2000 JCL FOR CAPTURE/VERIFY PROGRAM
-  7 AUTOMATIC RERUN JCL   : CREATE UDCARUN JCL FOR AUTOMATIC CYCLE JOBS
-  8 DEFINITION ENTRY OPTS : SPECIFY VARIOUS OPTIONS FOR DEFINITION ENTRY
-  9 TRAINING JCL          : CREATE TRAINING JCL THAT DEMONSTRATES PRODUCT

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For information on each option, see the following:

1. ["Specifying Default Values" in the next section.](#)
2. ["Allocating User Files" on page 112](#)
3. ["Setting Up a Job Card" on page 113](#)
4. ["Building a User Options File" on page 114](#)
5. ["Initializing the ACR/File Databases" on page 124](#)

6. “Creating the Capture/Verification JCL” on page 127
7. “Creating the Automatic Rerun Step JCL” on page 130
8. “Specifying Definition Entry Options” on page 131
9. Training JCL. For information on this JCL, see Getting Started with ACR/File.

Specifying Default Values

Specify Default Values Panel (UDC4100)

The Specify Default Values Panel (UDC4100) allows you to specify certain default values that will be used in the User Interface. These include the data set names of the user files, the data set names of the databases, and the UNIT and VOLSER parameters for these files.

```

----- SPECIFY DEFAULT VALUES -----ACR/F releasenumbr
====>                                     PANEL: UDC4100
ENTER OR CHANGE THE FOLLOWING DEFAULT VALUES:

  USER FILE DATA SET NAMES:
    1. USERID.FILE1.DEFNLIB           (DEFINITION LIBRARY)
    2. USERID.FILE1.TRANLIB          (TRANSACTION LIBRARY)
    3. USERID.FILE1.USEROPT          (USER OPTIONS FILE)
    4. USERID.FILE1.PROCLIB          (JCL LIBRARY)
  USER FILES DASD UNIT TYPE ==> SYSDA
  DASD VOL SER NBR ==> UNI004

  DATA BASE DATA SET NAMES: (VSAM DATA SETS)
    1. USERID.FILE1.DEFN             (DEFINITION DATA BASE)
    2. USERID.FILE1.HIST             (HISTORY DATA BASE)

  MANGEMENTCLASS ==>                 STORAGECLASS ==>
  DATACLASS ==>                     DASD VOL SER NBR ==>

  SUBMIT/DISPLAY JCL      ==> D      (S=SUBMIT JCL, D=DISPLAY JCL)

  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
  
```

USER FILE DATA SET NAMES: For each User File Data Set Name, verify or overtype one or more names to conform to your site's standards or your personal preference.

1. USER FILE DATA SET NAME (DEFINITION LIBRARY)

The name of the partitioned data set (PDS) that will be created and used to store a working copy of your definitions. Your definitions are kept here until you remove them. They do not become part of your definition database until you activate them.

5 ■ Preparing the Environment

Specifying Default Values

2. USER FILE DATA SET NAME (TRANSACTION LIBRARY)

The name of the PDS that will be created and used to store any batch definition transactions that you may create out of the Create Batch Transaction process.

3. USER FILE DATA SET NAME (USER OPTIONS FILE)

The name of the sequential data set that will be created and used to store any or all of the following:

- The data set names of the definition and history databases to be dynamically allocated by ACR/File during capture and verification processing.
- The Sysout classes for the reports that ACR/File will produce.
- The processing options that will normally be used at your site for all ACR/File steps.
- The verification options that will normally be used at your site for all ACR/File steps.

Because this is an optional file, the field will read NULLFILE until changed. To make use of this file, change NULLFILE to XXXXXXXX.UDC.USEROPT, where XXXXXXXX is your User ID.

4. USER FILE DATA SET NAME (JCL LIBRARY)

The name of the PDS that will be created and used to store any JCL that will be created and used to store any JCL that is generated by the ACR/File User Interface. This will include all of the JCL that is generated for using the ACR/File Utilities and Implementation Tools.

USER FILE DASD UNIT TYPE

The DASD Unit Type tells ACR/File on what type of storage device the user files will reside. The response will depend upon how your site organizes storage. Usual entries are DISK, SYSDA, SYSALLDA, 3380, etc.

DASD VOL SER NBR

The volume serial number tells the operating system the particular storage volume where the user files will reside. The format of the VOLSER depends on the standards at your site.

DATA BASE DATA SET NAMES. Verify or overtype one or more names to conform to your site's standards or personal preferences.

1. DEFINITION DATA BASE (DATA BASE DATA SET NAME)

This is a keyed VSAM file. It contains the definitions ACR/File needs to identify which files to capture, which files to verify, what verification to perform, and how to handle verification exceptions.

2. HISTORY DATA BASE (DATA BASE DATA SET NAME)

The history database is a relative-record VSAM file that contains all of the ACR/File histories. Each time a Capture or Verification step is executed, the information captured or verified is stored in the history database.

VSAM FILES SMS MANAGEMENTCLASS

Tells ACR/File the Management class in which the database will reside. The format depends on your specific site standards.

VSAM FILES SMS STORAGECLASS

Tells ACR/File the Storage class in which the database will reside. The format depends on your specific site standards.

VSAM FILES SMS DATACLASS

Tells ACR/File the Data class in which the database will reside. The format depends on your specific site standards.

DASD VOL SER NBR

The volume serial number tells the operating system the particular storage volume where the Database will reside. The format of the VOLSER depends on the standards at your site.

SUBMIT/DISPLAY JCL

This option specifies whether to submit or display the JCL job streams as you create them. If Display is chosen, you have the option of reviewing/modifying the JCL before typing a SUBMIT command.

5 ■ Preparing the Environment

Allocating User Files

Allocating User Files

Allocate User Files Panel (UDC4200)

The Allocate User Files Panel (UDC4200) allows you to allocate user files, which are spaces in which to store your work.

```
----- ALLOCATE USER FILES ----- ACR/F releasenumbr
===>                                PANEL: UDC4200
ENTER AN 'S' NEXT TO ONE OR MORE TO ALLOCATE FILE(S):

- 1  USERID.UDC.DEFNLIB              (DEFINITION LIBRARY)
      VOLSER ===>                     SIZE ===> 0020 (TRACKS)

- 2  USERID.UDC.TRANLIB              (TRANSACTION LIBRARY)
      VOLSER ===>                     SIZE ===> 0015 (TRACKS)

- 3  USERID.UDC.USEROPT              (USER OPTIONS FILE)
      VOLSER ===>                     SIZE ===> 0002 (TRACKS)

- 4  USERID.UDC.PROCLIB              (JCL LIBRARY)
      VOLSER ===>                     SIZE ===> 0020 (TRACKS)

      UNIT TYPE ===>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For each user file you want to allocate, enter an S (Select) to the left of the data set name. You may overtype any of the data set names, VOLSERs, sizes, or the default Unit type, if desired.

The names of the files and the VOLSER information have been carried forward from the Specify Default Values Panel (UDC4100). A default size (in tracks) is provided for each file.

Note: If you select no data sets, ACR/File processes the panel and saves the changes, but the message indicates that zero data sets were allocated.

Warning: If you have already been doing work in the ACR/File User Interface, this work has been stored in these user files. When you allocate a user file, the work in that file will be deleted. Be sure that you do not need any of the work in a user file **before** you allocate it.

Setting Up a Job Card

Job Card Information Panel (UDC4300)

The Job Card Information Panel (UDC4300) provides four lines in which to enter a template job statement. Each line is a continuation of the line before it. Usually, you will not need all four lines.

A typical Job statement consists of a job name, accounting information, programmer name field, job class, and various other parameters. What you enter depends on your site.

ACR/File uses the information you enter on the job card panel to automatically place a standard job statement at the top of every JCL stream you create. However, you will usually want to change some of the information for different jobs (for example, the job name). To change the information, overtype the job card when the JCL is displayed.

```

----- JOB CARD INFORMATION ----- ACR/F releasenumber
====>                                     PANEL: UDC4300
ENTER OR CHANGE JOB CARD INFORMATION BELOW:

-----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----
====> //USERIDA  JOB (ACCOUNTING),YOURNAME
====> //  REGION=2M,CLASS=E,MSGCLASS=X,NOTIFY=USERID
====> // *
====> // *

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

Note: If there is a particular field you change every time (such as the job name), you may want to enter all Xs for that field on the job card. That way, when you look at the JCL, the Xs remind you that you need to enter a different job name

Ensure that unused lines have an asterisk (*) beside the two slashes. A '//*' line signifies a comment line. When the job card is processed, comment lines are ignored. If you erase the asterisk on a blank line, the rest of the JCL is not processed.

Building a User Options File

Build User Options File Panel (UDC4400)

The Build User Options File Panel (UDC4400) allows you to access panels to modify several default options to satisfy the processing needs at your site. These options are usually determined by your Infogix Administrator. They are entered into the User Options File and accessed through a DD statement with the ddname UNIUF. For more information, see [Chapter 9, "User Options and User Exits"](#) on page 183.

The functions of the User Options File are as follows:

- To provide values for processing and verification options at a site level. This will cause all ACR/File steps at your site to run with the same processing and verification options. This also reduces the amount of effort required to code and maintain definitions because only the exceptions to these site level values need to be entered in the definitions.
- To provide a way for dynamically allocating the files used in all of your ACR/File steps. This will cause all ACR/File steps at your site to run with the same definition and history files unless these data set names are overridden in the JCL. This will also reduce the number of JCL statements that need to be coded in the ACR/File steps.
- To provide a way for dynamically allocating the reports used in all ACR/File steps. This will cause all ACR/File steps at your site to have the necessary report DDs pre-allocated and will allow you to set a standard sysout class for these reports. This will reduce the number of JCL statements that need to be coded in the ACR/File steps

```

----- BUILD USER OPTIONS FILE ----- ACR/F releasenumbr
====>                                     PANEL: UDC4400

- 1 SPECIFY DYNAMIC ALLOCATION OPTIONS

- 2 SPECIFY DUAL HISTORY AND AUTOMATIC RERUN OPTIONS

- 3 SPECIFY SITE-LEVEL MESSAGE, PROCESSING, AND REPORT OPTIONS

- 4 SPECIFY SITE-LEVEL VERIFICATION OPTIONS

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

For information on each option, see the following:

1. “Specify Dynamic Allocation Options” on page 115
2. “Specify Dual History and Auto Rerun Options” on page 117
3. “Specify Site-level Message/Processing/Report Options” on page 118
4. “Specify Site-level Verification Options” on page 121

Specify Dynamic Allocation Options

Selection List for Dynamic Allocation Records Panel (UDC440L)

This panel provides a list of standard ddnames used in ACR/File JCL. These data set names are usually provided through DD statements in the JCL. You can have these files dynamically allocated by selecting them here, thereby eliminating the need to code them in the JCL.

```

----- SELECTION LIST FOR DYNAMIC ALLOCATION RECORDS----- ROW 1 FROM 9
====>                                     PANEL: UDC440L
ENTER AN OPTION BESIDE ONE ITEM: S=SELECT, D=DELETE
OR YOU CAN PRESS A PF KEY: 3=END 7=PAGE UP 8=PAGE DOWN

OPT DDNAME TYPE CLASS DSN MEMBER
-----
- UNIDF S USERID.UDC.UDCDEFN
- UNIHF S USERID.UDC.UDCHIST
- UDCMSG S O X
- UDCR002 O X
- UDCR003 O X
- UDCR004 O X
- UDCR005 O X
- UDCR006 O X
- UDCR007 O X
***** BOTTOM OF DATA *****
    
```

5 ■ Preparing the Environment

Building a User Options File

To select a ddname, type S in the OPT field next to it and press Enter. ACR/ File will then display the Dynamic Allocation Options Panel (UDC4410) (see the next section), allowing you to enter specific information about the data set to be dynamically allocated.

Dynamic Allocation Options Panel (UDC4410)

This panel allows you to enter specific information about the data set to be dynamically allocated.

```
----- DYNAMIC ALLOCATION OPTIONS ----- ACR/F releasenumber
===>          (A=ADD, R=REPLACE, L=LIST)          PANEL: UDC4410

DYNAMIC ALLOCATION INFORMATION:
  DDNAME          ===> UDCMSG5

  FILE TYPE       ===> O   (S=SEQUENTIAL OR VSAM, P=PDS, O=SYSOUT)

  DATA SET NAME  ===>          (DATA SET NAME NOT VALID FOR SYSOUT)

  MEMBER NAME     ===>          (MEMBER NAME VALID FOR PDS ONLY)

  SYSOUT CLASS    ===> X   (SYSOUT CLASS VALID FOR SYSOUT ONLY)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

DDNAME

This field contains the ddname selected.

FILE TYPE

This field indicates the file type for the specified ddname.

DATA SET NAME

This field indicates the name of the field at the ddname indicated above.

MEMBER NAME

This field indicates the member name in the dataset indicated above. This field is valid for a PDS only.

SYSOUT CLASS

This field indicates the output class to which reports should be directed.

Specify Dual History and Auto Rerun Options

Specify Dual History and Automatic Rerun Options Panel (UDC4420)

You'll use the Specify Dual History and Auto Rerun Options Panel (UDC4420) to set these options for all jobs at your site.

```

----- SPECIFY DUAL HISTORY AND AUTO RERUN OPTIONS ----- ACR/F releasenumber
===>                                                         PANEL: UDC4420

SPECIFY DUAL HISTORY AND AUTO RERUN OPTIONS BELOW:

  DUAL HISTORY OPTION      ===> N          (ENTER Y,N OR BLANK)

  AUTOMATIC RERUN OPTION  ===> N          (ENTER Y,N OR BLANK)

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

For each option, specify Y, N, or Blank, where:

Y Turn the option on.

N Turn the option off.

Blank

Use the system default.

DUAL HISTORY OPTION

Determines whether ACR/File will keep two sets of history records. The dual history is updated when the primary history database is updated.

Dual history allows rapid recovery in case of DASD failure on the primary history database. The secondary history database (specified under ddname: UNIHF2) should be allocated on a separate DASD volume. See [Chapter 9, "User Options and User Exits" on page 183](#) for more information on using dual histories.

AUTOMATIC RERUN OPTION

Determines whether ACR/File will provide automatic tracking of the last run of the job. This option should be used if Cycle Numbers are to be automatically generated. See [Chapter 9, "User Options and User Exits" on page 183](#) for more information on the Automatic Rerun Option.

5 ■ Preparing the Environment

Building a User Options File

Specify Site-level Message/Processing/Report Options

Site-Level Message/Processing/Report Options Panel (UDC4430)

You will use the Site-Level Message/Processing/Report Options Panel (UDC4430) to set these option types at the site level, as shown in the following example. Any fields you leave blank will use either the system-level default or the override specified at the job or file level.

```
-----SITE-LEVEL MESSAGE/PROCESSING/REPORT OPTIONS ----- ACR/F releasenumber
===>                                                                PANEL: UDC4430

ENTER SITE-LEVEL OPTIONS BELOW:

MESSAGE OPTIONS:
  DISPLAY MESSAGES           ===>           (ENTER Y,N OR X)
  PRINT UDCMSGs REPORT       ===>           (ENTER Y OR N)
  PRINT INFORMATIONAL MSGS    ===>           (ENTER Y,N OR X)
PROCESSING OPTIONS:
  STORE HISTORY              ===>           (ENTER Y OR N)
  SET RETURN CODE            ===>           (ENTER Y,N,X, OR O)
  CHECK DATA SET NOT FOUND  ===>           (ENTER Y,N OR X)
  CHECK NOT CATLG 2          ===>           (ENTER Y,N,X, OR C)
  CHECK FOR RERUN            ===>           (ENTER Y,N OR X)
  CHECK FOR DEFINITIONS      ===>           (ENTER Y,N OR X)
REPORT PRINT OPTIONS:
  INPUT FILE VERIFICATION     ===>           (ENTER Y, N OR X)
  INPUT FILE EXCEPTION         ===>           (ENTER Y, N OR X)
  OUTPUT FILE CAPTURE          ===>           (ENTER Y OR N)
  MAXIMUM AGE NOTIFICATION     ===>           (ENTER Y OR N)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

MESSAGE OPTIONS

The Message Options are a collection of 1-character indicators that control the printing of generated messages, as follows:

DISPLAY MESSAGES. Enter one of the following:

- Y Display messages on SYSOUT.
- N Do not display messages on SYSOUT.
- X Display messages on SYSOUT and the console.

PRINT UDCMSGs REPORT

Type Y (the default) to print the report and type N to suppress its printing.

PRINT INFORMATIONAL MESSAGES

Indicates whether informational message are to be printed, as follows:

- Y Always print messages.
- N Never print messages.

X Print messages only if a system error occurs.

PROCESSING OPTIONS

The Processing Options are a collection of 1-character indicators that show various job processing options, as follows:

STORE HISTORY

Type Y (the default) to store history information in the history database. If you do not want to store the results of the capture process, type N.

SET RETURN CODE

Enter one of the following codes:

Y Set step completion code (the default).

N Set zero completion code.

X Set step completion code and abend job.

CHECK DATA SET NOT FOUND

Indicate what you want ACR/File to do if it discovers a Data Set Not Found condition:

Y Report that this condition exists and continue processing (the default).

N Do not report on this condition.

X Report that this condition exists and set a return code.

Data Set Not Found conditions only apply to verification steps.

CHECK NOT CATLG 2

Indicate what you want ACR/File to do if it discovers a condition where a new data set has been created, but this new data set could not be cataloged because a

data set with the same name already exists in the catalog.

Y Report that this condition exists and continue processing (the default).

N Do not report on this condition.

X Report that this condition exists and set a return code.

Correct the NOT CATLG 2 error by recataloging the data set to the proper volume(s). If the recatalog operation fails, report that this condition exists and set a return code, as if an X were specified.

This value is valid for Capture steps only.

5 ■ Preparing the Environment

Building a User Options File

CHECK FOR RERUN

Indicate what you want ACR/File to do if it discovers that a job and cycle are being run that have already been run, but you have not specified a rerun through a parm or the Automatic Rerun process.

- Y Report that a non-specified rerun is being processed and continue processing (the default).
- N Do not report on this condition.
- X Report that a non-specified rerun is being processed and set a return code.

CHECK FOR DEFINITIONS

Indicate what you want ACR/File to do if it discovers that a step has been executed for which there are no definitions:

- Y Issue a fatal message and set a condition code.
- N Issue a warning message and continue.
- X Issues a fatal message and abend with a user abend code.

REPORT PRINT OPTIONS

The Report Print Options are a collection of 1-character indicators that control the printing of reports. Valid values are as follows:

- Y Print basic report (the default).
- N Do not print report.
- X Print expanded report (only available for Input File reports).

The Basic Input File reports will contain a short 20-character message about verification exceptions that were found during processing. The expanded report gives a much longer message, in addition to giving a recommendation about what to do to correct the exception condition.

Note: Any fields below that you leave blank will default to the site-level options, if specified, or to the system default.

INPUT FILE VERIFICATION. The Input File Verification Report (UDCR002) summarizes the results of ACR/File execution as the first step in a job stream. It reports actual versus expected file usage, and user defined recommended actions.

INPUT FILE EXCEPTION. The Input File Exception Report (UDCR004) is generated when ACR/File encounters a mismatch between actual and expected file usage.

OUTPUT FILE CAPTURE. The Output File Capture Report (UDCR006) lists all output data sets that have been created along with user-defined usage limits (maximum age, maximum number of uses etc.).

MAXIMUM AGE NOTIFICATION. The Maximum Age Notification Report (UDCR007) lists data sets that have aged (remained unused) longer than user-defined limits.

Specify Site-level Verification Options

Site-Level Verification Options Panel (UDC4440)

You will use the Site-Level Verification Options Panel (UDC4440) to set these option types at the site level (see below). Any fields you leave blank will use either the system-level default or the override specified at the job or file level.

```

----- SITE-LEVEL VERIFICATION OPTIONS -----ACR/F releasenumber
===>                                           PANEL: UDC4440

ENTER SITE-LEVEL VERIFICATION OPTIONS BELOW:

      HIST IS PRESENT      ===>      ENTER Y, N OR X FOR EACH OPTION;
      FILE IS PRESENT      ===>
      DATA SET NAME       ===>      WHERE Y = DO THE VERIFY, REPORT
      CONCAT. SEQUENCE     ===>      DIFFERENCES & CONTINUE
      CREATION DATE        ===>      PROCESSING
      CREATION TIME        ===>      N = DON'T DO THE VERIFY
      CREATION JOB         ===>      X = DO THE VERIFY, REPORT
      CREATION STEP        ===>      DIFFERENCES & SET A
      CREATION DD          ===>      CONDITION CODE
      VOLSER NUMBERS       ===>
      NUMBER OF RECORDS    ===>
      NUMBER OF USES       ===>
      MAXIMUM AGE (CYCLES) ===>
      MAXIMUM AGE (DAYS)   ===>
      CONCAT. NUM EXPECTED ===>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
    
```

For each option, indicate Y, N, X, or Blank where:

- Y** Verify this data, report any exceptions and continue processing.
- N** Verify this data and continue processing without reporting and exceptions.
- X** Verify, report any exceptions, and set a condition code if any exceptions are reported.
- Blank**

Use system-level default. If no site-level defaults are specified, the options will revert to ACR/File defaults.

5 ■ Preparing the Environment

Building a User Options File

HISTORY IS PRESENT

Looks for history information in the history database to confirm that history for this file is present.

FILE IS PRESENT

Looks for the step name, step occurrence and ddname in the job stream JCL to confirm that the file is present.

DATA SET NAME

Compares the data set name that was actually used as input with the data set name that was expected.

CONCAT. SEQUENCE

Compares the relative number of the data set in a set of concatenated data sets used as input with the expected relative number of the data set in the concatenation.

CREATION DATE

Compares the date that the data set was actually created with the date of creation of the expected data set.

CREATION TIME

Compares the time that the data set was actually created with the time of creation of the expected data set.

CREATION JOB

Compares the name of the job that actually created the data set with the name of the job that created the expected data set.

CREATION STEP

Compares the name of the step that actually created the data set with the name of the step that created the expected data set.

CREATION DD

Compares the ddname that actually created the data set with the ddname that created the expected data set.

VOLSER NUMBERS

Compares the actual volume serial numbers of the volumes of the data set with the expected volume serial numbers.

NUMBER OF RECORDS

Compares the actual number of records in the data set with the expected number of records in the data set. The number of records is only available if the file being captured or verified is a VSAM file or a tape file and the tape management user exit is installed.

NUMBER OF USES

Compares the number of times the data set has actually been used with the maximum number of times that the data set is to be used.

MAXIMUM AGE (CYCLES)

Compares the number of cycles that have been processed since the data set was created with the maximum number of cycles within which the data set should be processed.

MAXIMUM AGE (DAYS)

Compares the number of calendar days that have passed since the data set was created with the maximum number of calendar days within which the data set should be processed.

CONCAT. NUM EXPECTED

Compares the actual number of concatenated data sets used as input with the expected number of data sets in the concatenation for a particular DD.

Note: The options set on this panel are only used if verification options have not been set at the job- or file-levels.

5 ■ Preparing the Environment

Initializing the ACR/File Databases

Initializing the ACR/File Databases

Initialize ACR/F Data Base Panel (UDC4500)

```
----- INITIALIZE ACR/F DATA BASE ----- ACR/F releasenumbr
====>          (1=DEFN, 2=HIST, BLANK=BOTH)          PANEL: UDC4500
SELECT CHOICE ABOVE AND SPECIFY JCL/DATA BASE SIZE INFORMATION BELOW:

JOB NAME      ====> USERIDAF
JCL LIBRARY:
  DSN         ====> USERID.FILE.PROCLIB             <====
  MEMBER      ====> UDCINIT
DATA BASE NAME INFORMATION:
  DEFINITION DATA BASE:
    DSN       ====> USERID.FILE1.DEFN             <====
    MANGEMENTCLASS ====>          STORAGECLASS ====>
    DATACLASS  ====>          VOLSER   ====>
  HISTORY DATA BASE:
    DSN       ====> USERID.FILE1.HIST             <====
    MANGEMENTCLASS ====>          STORAGECLASS ====>
    DATACLASS  ====>          VOLSER   ====>
DATA BASE SIZE INFORMATION:
  ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS      ====> 1
  ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS            ====> 1
  AVERAGE NUMBER OF HISTORIES PER JOB ID              ====> 1
  AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP ====> 1 (1 - 32)
  PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

To initialize the definition database only, enter a 1 on the command line.

To initialize the history database only, enter a 2 on the command line.

To initialize both the definition and history databases, leave the command line blank.

JOB NAME

Verify or overwrite.

JCL LIBRARY

The data set and member to store all JCL generated by ACR/File. The JCL library file name was specified on the Specify Default Values Panel (UDC4100).

DSN

The data set name for the JCL library.

MEMBER

The name of the member that will contain the JCL.

DEFINITION DATA BASE NAME INFORMATION

The data set and VOLSER for the definition database. Information displayed is carried forward from the Specify Default Values Panel (UDC4100).

DSN

The data set name for the definition database.

MANAGEMENTCLASS

The SMS Management class in which the database will reside.

STORAGECLASS

The SMS Storage class in which the database will reside.

DATACLASS

The SMS Data class in which the database will reside.

VOLSER

The VOLSER on which the definition database DSN will reside.

HISTORY DATA BASE NAME INFORMATION

The data set and VOLSER for the history database. Information displayed is carried forward from the Specify Default Values Panel (UDC4100).

DSN

The data set name for the history database.

MANAGEMENTCLASS

The SMS Management class in which the database will reside.

STORAGECLASS

The SMS Storage class in which the database will reside.

DATACLASS

The SMS Data class in which the database will reside.

VOLSER

The VOLSER on which the history database DSN will reside.

5 ■ Preparing the Environment

Initializing the ACR/File Databases

DATA BASE SIZE INFORMATION

Parameters which tell ACR/File how much space to reserve for the Database.

ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS

Valid values are 0000000-9999999. The Database's size will be automatically calculated from the values you enter for this and the remaining fields on this panel.

ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS

Valid values are 0000001-9999999.

AVERAGE NUMBER OF HISTORIES PER JOB ID

Valid values are 001-999.

AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP

Valid values are 01-32.

Checking the Output

Once the UDCINIT job has completed, review the output listing and verify that the processing was successful. Use your site's standard facility for displaying job output.

You should expect step completion codes of zero for both job-steps. The Database Initialization Report will show the databases created.

Database Initialization Report

After you submit the UDCINIT JCL, ACR/File generates the Database Initialization Report (for an example, see [“Database Initialization Report” on page 266](#)).

This report has two parts. The first part lists the UDCINIT transactions and any validation messages. The second part presents a summary of the transactions.

Creating the Capture/Verification JCL

Create Capture/Verification JCL Panel

The Create Capture/Verification JCL Panel (UDC4600) allows you to access the panels used to create the JCL for the ACR/File capture step and the ACR/File verification step. Access this panel from the Environment Set Up Panel (UDC4000).

```

----- CREATE CAPTURE/VERIFICATION JCL -----ACR/F releasenumbr
====>                                     PANEL: UDC4600

- 1 CREATE JCL FOR OUTPUT FILE CAPTURE STEP

- 2 CREATE JCL FOR INPUT FILE VERIFICATION STEP

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

See the following for information on the options:

1. "Creating the Capture Step JCL" in the next section
2. "Creating the Verify Step JCL" on page 129

Creating the Capture Step JCL

JCL for Output File Capture Step Panel (UDC4610)

When you select option 1 (Create JCL for Output File Capture Step) from the Create Capture/Verification JCL (UDC4600), the JCL for Output File Capture Step Panel (UDC4610) will be displayed.

```

----- JCL FOR OUTPUT FILE CAPTURE STEP ----- ACR/F releasenumbr
====>                                     PANEL: UDC4610

STEP NAME      ==> UDCFCAPT

DATA SET INFORMATION:
  DEFINITION FILE (VSAM)
    DSN        ==> USERID.UDC.UDCDEFN          <====
  HISTORY FILE  (VSAM)
    DSN        ==> USERID.UDC.UDCHIST         <====
  USER OPTIONS FILE (SEQUENTIAL)
    DSN        ==> USERID.UDC.USEROPT        <====
  JCL LIBRARY  (PDS)
    DSN        ==> USERID.UDC.PROCLIB        <====
    MEMBER     ==> UDCFCAPT

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

5 ■ Preparing the Environment

Creating the Capture/Verification JCL

To accept the defaults, press Enter. ACR/File will then put you into the ISPF Edit Mode, allowing you to review or modify the created JCL.

Note that the JCL has a COND=EVEN statement that causes the ACR/File Capture step to run even if a prior step abends. It does this so that it can capture files that were created in the steps prior to the abending step. It does this so that if a restart is issued at the abending step (after the cause of the abend has been fixed) the Capture step, (which is rerun), will not think that the files located prior to the abending step are missing.

STEP NAME

The name of the step that will be inserted into all jobs where an ACR/File capture process will be performed. This field defaults to UDCFCAPT.

Warning: The step name (UDCFCAPT, if you accepted the default) is important because it will be used as the step name in the Job ID for all of the definitions that you will create later for capturing files.

DATA SET INFORMATION

The names of the data sets accessed during a Capture step.

DEFINITION FILE DSN

The data set name of the definition database.

HISTORY FILE DSN

The data set name of the history database.

USER OPTIONS FILE DSN

The data set name of the User Options file.

JCL LIBRARY

DSN

The data set name of the JCL library.

MEMBER NAME

The member name in which to store the JCL.

Creating the Verify Step JCL

If you select option 2 (Create JCL for Input File Verification Step) from the Create Capture/Verification JCL Panel (UDC4600), the JCL for the Input File Verification Step Panel (UDC4620) will be displayed.

```

----- JCL FOR INPUT FILE VERIFICATION STEP ----- ACR/F releasenumber
====>                                           PANEL: UDC4620

STEP NAME      ==> UDCFVRFY

DATA SET INFORMATION:
  DEFINITION FILE (VSAM)
    DSN        ==> USERID.UDC.UDCDEFN          <====
  HISTORY FILE  (VSAM)
    DSN        ==> USERID.UDC.UDCHIST          <====
  USER OPTIONS FILE (SEQUENTIAL)
    DSN        ==> USERID.UDC.USEROPT          <====
  JCL LIBRARY  (PDS)
    DSN        ==> USERID.UDC.PROCLIB          <====
  MEMBER       ==> UDCFVRFY

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

To accept the defaults, press Enter. ACR/File will then put you into the ISPF Edit Mode, allowing you to review or modify the created JCL.

STEP NAME

The name of the step that will be inserted into all jobs where an ACR/File verify process will be performed. This field defaults to UDCFVRFY.

DATA SET INFORMATION

The names of the data sets accessed during a Verify step.

DEFINITION FILE DSN

The data set name of the definition database.

HISTORY FILE DSN

The data set name of the history database.

USER OPTIONS FILE DSN

The data set name of the User Options file.

JCL LIBRARY

DSN. The data set name of the JCL library.

MEMBER NAME. The member name in which to store the JCL.

5 ■ Preparing the Environment

Creating the Automatic Rerun Step JCL

Creating the Automatic Rerun Step JCL

JCL for Automatic Rerun Step Panel

The JCL for Automatic Rerun Step Panel (UDC4700) allows you to create the JCL for the ACR/File Automatic Rerun step. This step is usually inserted as the first step in any job where an ACR/File capture or verification will be performed. During a rerun situation, you can automatically notify the ACR/File capture or verification step that this is a rerun by simply bypassing this Automatic Rerun step.

To access this panel, select option 7 (Automatic Rerun JCL) from the Environment Set Up Panel (UDC4000).

```
----- JCL FOR AUTOMATIC RERUN STEP -----ACR/F releasenumbr
====>                                     PANEL: UDC4700

STEP NAME      ====> UDCFARUN

DATA SET INFORMATION:
  HISTORY FILE   (VSAM):
    DSN          ====> USERID.UDC.UDCHIST          <====
  JCL LIBRARY (PDS):
    DSN          ====> USERID.UDC.PROCLIB          <====
    MEMBER       ====> UDCFARUN

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

To accept the defaults, press Enter. ACR/File will then put you into the ISPF Edit Mode, allowing you to review and/or modify the created JCL. When you are satisfied that the JCL is correct, press Enter and you will be returned to the JCL for Automatic Rerun Step Panel (UDC4700). The message JCL CREATED will be displayed.

DATA SET INFORMATION

The names of the data sets accessed during a Rerun step.

HISTORY FILE DSN

The data set name of the history database.

JCL LIBRARY (PDS):

DSN. The data set name of the JCL library.

MEMBER. The member name in which to store the JCL.

Specifying Definition Entry Options

Definition Entry Options Panel (UDC4800)

The options you identify in the Definition Entry Options Panel (UDC4800) control certain characteristics of the definition entry screens. To access the panel, select option 8 (Definition Entry Opts) from the Environment Set Up Panel (UDC4000).

```

----- DEFINITION ENTRY OPTIONS ----- ACR/F releasenumber
===>                                     PANEL: UDC4800

SPECIFY OPTIONS TO CONTROL THE ENTRY OF DEFINITIONS BELOW:

      BEGINNER OR EXPERT MODE OF ENTRY  ===> B      (B=BEGINNER, E=EXPERT)

NOTE: BEGINNER MODE LEADS YOU THROUGH THE PANELS IN A SPECIFIC ORDER;
      EXPERT MODE ALLOWS YOU TO JUMP FROM ONE PANEL TO ANOTHER.

THE FOLLOWING OPTION IS VALID ONLY IF BEGINNER MODE IS SET:
      DISPLAY ITEM SCREENS WITH ADD OPTION PRE-SET      ===> N      (Y OR N)

THE FOLLOWING OPTIONS ARE VALID IN BOTH BEGINNER AND EXPERT MODES:
      ASK FOR VERIFICATION OF REPLACE OR DELETE REQUESTS  ===> Y      (Y OR N)
      BLANK FIELDS ON SCREEN AFTER ADD, REPLACE, OR DELETE  ===> N      (Y OR N)
      GO TO LIST SCREEN IF SIMILAR ITEMS ALREADY EXIST    ===> Y      (Y OR N)
      PERFORM AUTOMATIC COMPRESS OF DEFINITION LIBRARY    ===> Y      (Y OR N)
      REPLACE DSN DEFAULTS WITH OVERRIDES                ===> Y      (Y OR N)

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
    
```

BEGINNER OR EXPERT MODE OF ENTRY

If you choose Beginner Mode, the system will present the panels in a specific order. If you choose Expert Mode, you can control the navigation through the panels.

DISPLAY ITEM SCREENS WITH ADD AND REPLACE OPTIONS PRE-SET

If you type `Y`, when you move through detail screens, the system will determine what the next item number would be, and display that item number, with an `A` (for `ADD`) at the command line.

ASK FOR VERIFICATION OF REPLACE OR DELETE REQUESTS

This field indicates whether you want the system to ask for verification before executing any replace or delete commands.

5 ■ Preparing the Environment

Specifying Definition Entry Options

BLANK FIELDS ON SCREEN AFTER ADD, REPLACE, OR DELETE

This field indicates whether you want the system to blank all fields on the screen after you enter an ADD, REPLACE, or DELETE command.

GO TO LIST SCREEN IF SIMILAR ITEMS ALREADY EXIST

This field indicates whether you want the system to bring you directly to the list screen if any definitions of the type being selected already exist.

PERFORM AUTOMATIC COMPRESS OF DEFINITION LIBRARY

This field indicates whether you want the system to automatically compress the Definition library each time that you go in to enter or modify definitions. If you turn this option off, you risk running out of space in the middle of entering definitions and this can result in losing all data entered up to that point.

REPLACE DSN DEFAULTS WITH OVERRIDES

This field indicates whether you want the system to use the data set name that you enter in an input screen as the default wherever else that data set name appears.

Job Definitions

This chapter describes job definitions. The following sections are included

- “About Job Definitions” on page 133
- “Specifying Job Definitions” on page 134
- “Assigning a Job ID” on page 134
- “Defining Capture Steps and Verify Steps” on page 135
- “Specifying Basic Job Information” on page 136
- “Specifying Cycle/Rerun Parameters” on page 140
- “Setting Job-Level Verification Options” on page 145
- “Specifying Input File Information and Options” on page 149
- “Specifying Output File Information” on page 157
- “Assigning Alternate Job IDs” on page 158
- “Copying Job Definitions” on page 159
- “Specifying JCL Params” on page 161

About Job Definitions

Job definitions are sets of parameters that identify which files to capture and/or verify, what verifications to perform, and how to handle verification exceptions. ACR/File processes the files according to the definition and, during a capture process, captures information from the operating system about the data set being captured and stores this information in the history database. During a verification process, ACR/File compares information from the history database about the data set that is expected to be used to information provided by the operating system about the data set that is actually being used.

Each time you invoke ACR/File in an application, the system invokes either the verification or the capture process. The job definition parameters you specify define these verification and capture requirements.

Job definitions entered through the User Interface are stored in an on-line work area. Before ACR/File can use these definitions, they must be made part of the definition database. This is done by activating (transferring)

6 ■ Job Definitions

Specifying Job Definitions

them into the definition database. See [Chapter 8, “Activating, Backing Up, and Restoring Definitions”](#) on page 175 for information on activating definitions.

If you are specifying job definitions as batch definition transactions, refer to the transaction record layouts in [Appendix C, “Batch Transactions”](#) on page 315.

Specifying Job Definitions

Before you enter job definitions, you need to analyze the file requirements of your application and select the ACR/File options that apply. Look at your job flow, focusing on where files created by one job are to be used as input by another job. Determine, generally, which files cause the most reruns and what kind of information you need to know about these particular files. More specifically, must the step and DD of the file to be captured be found in the JCL? Do you need to know if a NOT CATLGD 2 condition occurred, and if so, should processing be stopped? For example, during a Capture step, ACR/File can verify the following:

- ACR/File can verify that required files are present.
- ACR/File can verify that a NOT CATLGD 2 condition does not exist.
- ACR/File can verify that an unintentional rerun has not occurred.

Assigning a Job ID

A job ID uniquely identifies a set of job definitions that apply to a particular ACR/File step. The job ID identifies an ACR/File step. It consists of an 8-character job name, an 8-character step name, and an optional 2-character job-step qualifier (JSQ). You use a JSQ whenever you need to capture/verify more than 32 files in an ACR/File step.

Following are some sample job IDs (these job IDs do not contain the optional qualifier):

Job Name	Step Name	Qualifier (JSQ)
JOBX	UDFCAPT	
JOBX	UDCVRFY	
JOBX	UDFCAPT	
JOBX	UDFCAPT	

Defining Capture Steps and Verify Steps

Both Capture and Verify steps require job definitions. However, some panels are used only with Capture steps, and some are used only with Verify steps. The following table documents the panels used for each type of step.

Panel	Capture Step	Verify Step
Specify Basic Job Information (UDC1110)	Y	Y
Specify Cycle/Rerun Parameters (UDC1120)	Y	Y
Specify Job-Level Verification Options (UDC1150)	Optional	Optional
Specify Input File Information (UDC1140)	N	Y
Specify Input File Verification Options (UDC1150)	N	Optional
Specify Output File Information (UDC1160)	Y	N
Alternate Job ID Information (UDC1170)	Optional	Optional

Definitions Panel (UDC1000)

To specify job definitions, you must access the Enter Job Definitions Panel (UDC1100), located under the ACR/File Primary Selection Panel (UDC0000). To access this panel, follow these steps:

1. Enter 1 (Definitions) on the ACR/File Primary Selection Menu (UDC0000) and press Enter.

The ACR/File Definitions Panel (UDC1000) will be displayed.

```

-----ACR/F DEFINITIONS -----ACR/F releasenumber
====>                                PANEL: UDC1000

_ 1 ENTER JOB DEFINITIONS
_ 2 ENTER CYCLE TABLE DEFINITIONS
_ 3 BROWSE/ACTIVATE DEFINITIONS
_ 4 BACKUP/RESTORE DEFINITIONS
_ 5 CREATE BATCH TRANSACTIONS
_ 6 ENTER CFR TARGET ID DEFINITIONS

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

6 ■ Job Definitions

Specifying Basic Job Information

2. Select option 1 (Enter Job Definitions) from the ACR/File Definitions Panel (UDC1000) to display the Enter Job Definitions Panel (UDC1100).

Enter Job Definitions Panel (UDC1100)

```
----- ENTER JOB DEFINITIONS -----ACR/F releasenumbr
====>                                PANEL: UDC1100
SELECT CHOICE AND OPTIONALLY ENTER JOB ID BELOW:

      JOB ==>          STEP ==>          QUAL ==>

- 1  BASIC JOB INFORMATION
- 2  CYCLE/RERUN PARAMETERS
- 3  JOB-LEVEL VERIFICATION OPTIONS
- 4  INPUT FILE INFORMATION          (VERIFY PROCESS)
- 5  INPUT FILE VERIFICATION OPTIONS (VERIFY PROCESS)
- 6  OUTPUT FILE INFORMATION         (CAPTURE PROCESS)
- 7  ALTERNATE JOB-ID INFORMATION
- C  COPY ALL THE DEFINITIONS FROM ONE JOB ID TO ANOTHER
- L  DISPLAY SELECTION LIST

      PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

From this panel you can enter Basic Job Information, Cycle/Rerun Parameters, and Specify Input and Output File Information. You can also list and copy job definitions.

The set of job definitions for a particular invocation of a Capture or Verify step is identified by an 18-character Job ID. For more information, see [“Assigning a Job ID” on page 134](#).

If you want the same Job ID to appear for each option on this menu, enter a Job ID by filling in the JOB, STEP, and, optionally, QUAL fields.

To select an option, type an S in front of the option and press Enter.

Specifying Basic Job Information

Basic Job Information defines job processing requirements, cycle use information, and job-level verification options. You must specify these job parameters for each Capture and Verify step. Each time an application invokes ACR/File in a job stream, it needs the following information:

- Basic Job Information
- Cycle/Rerun Parameters
- Job-Level Verification Options

Specify Basic Job Information Panel (UDC1110)

To display Specify Basic Job Information Panel (UDC1110), select option 1 (Basic Job Information) from the Enter Job Definitions Panel (UDC1100). On this panel, you describe the job, instruct ACR/File how to process the job, and indicate which reports to generate. The JOB, STEP, and QUAL fields default to the Job ID you specified on the Enter Job Definitions Panel (UDC1100).

```

----- SPECIFY BASIC JOB INFORMATION -----ACR/F releasenumber
====>                                     PANEL: UDC1110
(ENTER "V" ON CMD LINE TO DISPLAY THE JOB LEVEL VERIFICATION SCREEN)

      JOB ====>          STEP ====>          QUAL ====>

DESCRIPTION/TITLE  ====>                                < ===
NUMBER OF HISTORIES ====>                                (1-999)

PROCESSING OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
STORE HISTORY      (C,V)  ====>          (ENTER Y OR N)
SET RETURN CODE    (C,V)  ====>          (ENTER Y,N OR X)
CHECK DATA SET NOT FOUND (V)  ====>          (ENTER Y,N OR X)
CHECK NOT CATLG 2   (C)    ====>          (ENTER Y,N,X OR C)
CHECK FOR RERUN     (C,V)  ====>          (ENTER Y,N OR X)

REPORT PRINT OPTIONS: (BLANK CAUSES SITE-LEVEL OPTION TO BE USED)
INPUT FILE VERIFICATION (V)  ====>          (ENTER Y, N OR X)
INPUT FILE EXCEPTION    (V)  ====>          (ENTER Y, N OR X)
OUTPUT FILE CAPTURE     (C)  ====>          (ENTER Y OR N)
MAXIMUM AGE NOTIFICATION (V)  ====>          (ENTER Y OR N)

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

DESCRIPTION/ TITLE

Enter the descriptive title (up to 40 characters) of the ACR/File step. The description/title you entered will be displayed as a page heading on each report associated with the Job ID.

NUMBER OF HISTORIES

Indicate the maximum number of histories ACR/File should store for this Job ID in the history database. This is a required field. Each time ACR/File is invoked, it creates a history record for that Job ID and stores the file information in the history database. When it reaches the maximum number you specify (001-999), ACR/File replaces the oldest history with the newest one.

Note: Any fields below that you leave blank will default to the site level options, if specified, or to the system default.

PROCESSING OPTIONS

The Processing Options are a collection of 1-character indicators that show various job processing options, as follows:

STORE HISTORY

Type Y (the default) to store history information in the history database. If you do not want to store the results of the capture process, type N.

SET RETURN CODE

Enter one of the following codes:

Y Set step completion code (the default).

N Set zero completion code.

X Set step completion code and abend job.

CHECK DATA SET NOT FOUND

Indicate what you want ACR/File to do if it discovers a data set Not Found condition:

Y Report that this condition exists and continue processing (the default).

N Do not report on this condition.

X Report that this condition exists and set a return code.

Data Set Not Found conditions only apply to verification steps.

CHECK NOT CATLG 2

Indicate what you want ACR/File to do if it discovers a condition where a new data set has been created, but this new data set could not be cataloged because a data set with the same name already exists in the catalog.

Y Report that this condition exists and continue processing (the default).

N Do not report on this condition.

X Report that this condition exists and set a return code.

C Correct the NOT CATLG 2 error by recataloging the data set to the proper volume(s). If the recatalog operation fails, report that this condition exists and set a return code (as if an X had been specified).

As a result of the correction process, the data set that was cataloged will now be uncataloged.

This value is valid for Capture steps only.

CHECK FOR RERUN

Indicate what you want ACR/File to do if it discovers that a job and cycle are being run that have already been run, but you have not specified a rerun through a parm or the Automatic Rerun process.

- Y Report that a non-specified rerun is being processed and continue processing (the default).
- N Do not report on this condition.
- X Report that a non-specified rerun is being processed and set a return code.

REPORT PRINT OPTIONS:

- Y Print basic report (the default).
- N Do not print report.
- X Print expanded report (only available for Input File reports).

The Basic Input File reports will contain a short 20-character message about verification exceptions that were found during processing. The expanded report gives a much longer message, in addition to giving a recommendation about what to do to correct the exception condition.

Note: Any fields below that you leave blank will default to the site level options, if specified, or to the system default.

INPUT FILE VERIFICATION

The Input File Verification Report (UDCR002) summarizes the results of ACR/File execution as the first step in a job stream. It reports actual versus expected file usage, and user defined recommended actions.

INPUT FILE EXCEPTION

The Input File Exception Report (UDCR004) is generated when ACR/File encounters a mismatch between actual and expected file usage.

OUTPUT FILE CAPTURE

The Output File Capture Report (UDCR006) lists all output data sets that have been created along with user-defined usage limits (maximum age, maximum number of uses etc.).

MAXIMUM AGE NOTIFICATION

The Maximum Age Notification Report (UDCR007) lists data sets that have aged (remained unused) longer than user-defined limits.

In a Capture step, the Output File Capture Option is typically set to Y, and all other print options are set to N.

Specifying Cycle/Rerun Parameters

You will use the Specify Cycle/Rerun Parameters Panel (UDC1120) to instruct ACR/File how to assign Cycle IDs to jobs if you have decided to use Automatic Cycle Processing. You can also tell ACR/File whether the Automatic Rerun step will exist in the job stream. With Automatic Cycle Processing, you can assign Cycle IDs using the system date; instruct ACR/File to reference another job's history to assign a Cycle ID; or obtain a Cycle Number from a Cycle Table. If you do not want to use Automatic Cycle Processing, you will leave the Cycle Table ID, Cycle Reference Job ID and Cycle Option fields blank. If Automatic Cycle Processing is not used, the Cycle ID will need to be supplied through the CYC# parm at execution time.

Specify Cycle/Rerun Parameters Panel (UDC1120)

To display this panel, select option 2 (Cycle/Rerun Parameters) from the Enter Job Definitions Panel (UDC1100).

```

----- SPECIFY CYCLE/RERUN PARAMETERS -----ACR/F releasenumbr
====> A                                     PANEL: UDC1120

      JOB ====> JOBX      STEP ====> UDCFCAPT QUAL ====>

      CYCLE TABLE NAME      ====>

      CYCLE REFERENCE JOB-ID:
      JOB NAME                ====>
      STEP NAME               ====>
      QUALIFIER               ====>

      CYCLE OPTION            ====>          (G0/G1/G9/J0/J1/J9/X0/X1/X9
                                          T0/T1/T9, BLANKS)

      AUTOMATIC RERUN OPTION ====>          BLANK = USE SITE-LEVEL OPTION
                                          Y      = USE AUTO RERUN STEP
                                          N      = DO NOT USE AUTO RERUN

      PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB ID

The Job Name, Step Name and qualifier of the job-step.

CYCLE TABLE NAME

The Cycle Table Name uniquely identifies a cycle table that contains the valid Cycle Numbers for this Job ID. In this field, you can enter the 16-character name of the cycle table.

CYCLE REFERENCE JOB-ID

The Cycle Reference Job ID is the 18-character combination of job name, step name and qualifier, and is typically the same as the Basic

Job Information Job ID. When no Cycle Option is specified, the Cycle Reference Job ID tells ACR/File which Job ID on the history database contains the Cycle ID that is to be assigned to this Job ID. For example, let's say Jobs A through Z run daily, and make up one cycle. Since they all process the same period of information, they should all use the same Cycle ID. You can set the Cycle ID in Job A and instruct ACR/File to refer to Job A for Jobs B through Z. If a Cycle Option of G1, J1, X1 or T1 is specified, then the Cycle Reference Job ID is required and tells ACR/File where to get the Cycle ID from so that it can increment the Run Number by 1.

JOB NAME

Indicate a job name of up to 8-characters.

STEP NAME

Indicate an 8-character step name.

QUALIFIER

Indicate a 2-character Job-Step Qualifier (JSQ) which together with the job name and step name uniquely identifies the Job ID (optional).

CYCLE OPTION

The cycle option instructs ACR/File how to calculate the Cycle Number for this job step. You can complete this field in a number of ways, as follows:

To set cycle options G0 through J9:

Enter one of the options from the following table:.

Option	Meaning
G0	ACR/File calculates the Cycle Number as ccyyymmdd, where ccyyymmdd is the current system date in Gregorian format (for example, February 15, 2011 would be stored as Cycle ID 20110215000). It always sets the Run Number nnn to 000.
G1	ACR/File calculates the Cycle Number as ccyyymmdd, where ccyyymmdd is the current system date in Gregorian format. It sets the Run Number to nnn, where nnn is 001 to 999, inclusive. If ccyyymmdd is greater than the corresponding value for the most recent Cycle Number of the Cycle Reference Job ID, it sets nnn to 001. If they are equal, it increments nnn by one.
G9	ACR/File calculates the Cycle Number as ccyyymmdd, where ccyyymmdd is the current system date in Gregorian format. It always sets the Run Number nnn to 999.

6 ■ Job Definitions

Specifying Cycle/Rerun Parameters

Option	Meaning
J0	The Cycle Number is computed as 0ccyyjjj where 0ccyyjjj is the current system date in Julian format and the Run Number nnn is always set to 000 (for example, February 15, 2011 would be stored as Cycle ID 02011046000).
J1	ACR/File calculates the Cycle Number as 0ccyyjjj, where 0ccyyjjj is the current system date in Julian format. It sets the Run Number to nnn, where nnn is 001 to 999, inclusive. If 0ccyyjjj is greater than the corresponding value for the most recent Cycle Number of the Cycle Reference Job ID, ACR/File sets nnn to 001. If they are equal, it increments nnn by one.
J9	ACR/File calculates the Cycle Number as 0ccyyjjj, where 0ccyyjjj is the current system date in Julian format. It always sets the Run Number nnn to 999.

To specify No Automatic Cycle Processing:

Leave this field blank if you do not want Automatic Cycle Processing. You will supply a Cycle ID through a JCL parm or through a Cycle Reference Job ID.

To set cycle option X0, X1, or X9:

You can manually assign a Cycle Number using a Cycle Option of X0, X1, or X9 and by allocating the file UDCCYCLE and then entering the Cycle Number. See the "[UDCCYCLE File Record Layout](#)" below.

UDCCYCLE File Record Layout

Field	Description	Pos.	Length	Format	Values
1	Reserved	1-15	15	X(15)	Any value
2	Cycle Number	16-23	8	X(8)	Spaces or numeric > 0
3	Reserved	24-80	57	X(57)	Any value

Cycle Options X0 through X9

For Cycle Options X0, X1, and X9, the Cycle Number is determined by the most recent Cycle Number of the Cycle Reference Job ID, and, if present, the Cycle Number for the UDCCYCLE file.

If the UDCCYCLE file is not present, or if it is present and contains no records, or it contains spaces in the Cycle Number field, then the Cycle

Number of the current job is set to the Cycle Number of the most recent run of the Cycle Reference Job ID.

If the UDCCYCLE file is present and contains a numeric value greater than zero in the Cycle Number field, the UDCCYCLE Cycle Number is compared to the Cycle Number of the most recent run of the Cycle Reference Job ID. If the UDCCYCLE Cycle Number is less than the Cycle Reference Cycle Number, an error is set. If the UDCCYCLE Cycle Number is greater than or equal to the Cycle Reference Cycle Number, then the Cycle Number of the current job is set to the Cycle Number from the UDCCYCLE file.

Run numbers for Cycle Options X0, X1, and X9 are set as follows:

Option	Meaning
X0	The Run Number is always set to 000 for each job-step execution for a particular cycle.
X1	If the Cycle Number of the current job, as determined above, is greater than the Cycle Number of the most recent run of the Cycle Reference ID, the Run Number is set to 001. If the Cycle Number of the current job, as determined above, is equal to the Cycle Number of the most recent run of the Cycle Reference Job ID, the Run Number is set to the Run Number of the most recent Cycle Reference Job ID plus 1.
X9	The Run Number is always set to 999 for each job-step execution for a particular cycle.

6 ■ Job Definitions

Specifying Cycle/Rerun Parameters

Examples of Cycle Options X0, X1, and X9

Cycle Option	UDCCYCLE Cycle Nbr	Cyc Ref Cyc Nbr	Cyc Ref Run Nbr	Cyc Nbr Set This Run	Run Nbr Set This Run
Any	00001031 <	00001101	003	ERROR	
X0	00001101 =	00001101	003	00001101	000
X0	00001102 >	00001101	003	00001102	000
X1	00001101 =	00001101	003	00001101	004
X1	00001102 >	00001101	003	00001102	001
X9	00001101 =	00001101	003	00001101	999
X9	00001102 >	00001101	003	00001102	999

To set cycle option T0, T1, or T9, refer to the following table:

Option	Meaning
T0	ACR/File calculates the Cycle Number with reference to the current Cycle Number of the Cycle Reference Job ID. It matches the reference Cycle Number with the Cycle Numbers in the cycle table. It selects the Cycle Number which is next in the cycle table as the Cycle Number for the current job. It always sets the Run Number to 000 for each job-step execution for a particular cycle.
T1	ACR/File calculates the Cycle Number and Run Number with reference to the current Cycle Number and Run Number of the Cycle Reference Job ID. If the Cycle Reference Job ID's Run Number is less than 999, ACR/File sets the Cycle Number to the Cycle Number of the Cycle Reference Job ID and sets the Run Number to one greater than the Run Number of the Cycle Reference Job ID. If the Cycle Reference Job ID's Run Number equals 999, ACR/File matches the reference Cycle Number with the Cycle Numbers in the Cycle Table and selects the next Cycle Number in the table as the Cycle Number for the current job. It sets the Run Number to 001.
T9	ACR/File calculates the Cycle Number in the same way as option T0. It always sets the Run Number nnn to 999.

AUTOMATIC RERUN OPTION

Enter one of the following codes to indicate whether the Automatic Rerun option is in effect for this step. Automatic Rerun alerts ACR/File that this job contains an Automatic Rerun step that will automatically notify the ACR/File Verification step and Capture step when a rerun is taking place.

Y Turns on Automatic Rerun for this step.

Blank

The field defaults to what exists in the Build User Options File on the Specify Dual History and Auto Rerun Options Panel (UDC4420).

Setting Job-Level Verification Options

You use the Specify Job-Level Verification Options Panel (UDC1130) to set verification defaults for all files to be captured and/or verified for one Job-ID (see Figure 5-6). At this panel, you enter verification values for an individual job. These job-level verification values will override any system-wide defaults for this job. These values can be overridden at the file level for specific files.

6 ■ Job Definitions

Setting Job-Level Verification Options

Specify Job-Level Verification Options Panel (UDC1130)

To display this panel, select option 3 (Job-Level Verification Options) from the Enter Job Definitions Panel (UDC1100).

```
----- SPECIFY JOB-LEVEL VERIFICATION OPTIONS -----ACR/F releasenumber
====>                                     PANEL: UDC1130

JOB ==>          STEP ==>          QUAL ==>

VERIFY:
HISTORY IS PRESENT (V) ==>          ENTER A VALUE FOR EACH OPTION .
FILE IS PRESENT   (C,V) ==>          VALID VALUES ARE:
DATA SET NAME     (V) ==>          Y = REPORT EXCEPTIONS AND
CONCAT. SEQUENCE  (V) ==>          CONTINUE PROCESSING
CREATION DATE     (V) ==>          N = DON'T REPORT EXCEPTIONS
CREATION TIME     (V) ==>          X = REPORT EXCEPTIONS AND
CREATION JOB      (V) ==>          SET A CONDITION CODE
CREATION STEP     (V) ==>          BLANK = USE SITE-LEVEL OPTION
CREATION DD       (V) ==>
VOLSER NUMBERS    (V) ==>          ADDITIONAL VALID DSN VALUES:
NUMBER OF RECORDS (V) ==>          J/K = RPT OLDEST CAPT NOT IN JCL
NUMBER OF USES    (V) ==>          L/M = RPT NEWEST CAPT NOT IN JCL
MAXIMUM AGE (CYCLES) (V) ==>          ADDITIONAL VALID VOLSER VALUES:
MAXIMUM AGE (DAYS) (V) ==>          J/K = RPT IF 1ST VOL NOT IN JCL
CONCAT. NUM EXPECTED (V) ==>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

For each option, enter one Y, N, X, or blank, as follows:

- Y** Verify this data, report any exceptions and continue processing.
- N** Verify this data and continue processing without reporting exceptions.
- X** Verify, report any exceptions, and set a condition code if any exceptions are reported.

Blank.

A blank field will revert to site-level defaults. If no site level defaults were specified, the options will revert to the ACR/File system defaults.

HISTORY IS PRESENT

Looks for history information in the history database to confirm that history for this file is present.

FILE IS PRESENT

Looks for the step name, step occurrence and ddname in the job stream JCL to confirm that the file is present.

DATA SET NAME

Compares the data set name that was actually used as input with the data set name that was expected. For the DATA SET NAME (DSN) option, you can also specify the following values:

- J Check if the DSN in the JCL is the same as the oldest capture that has not been verified, report and set return code.
- K Check if the DSN in the JCL is the same as the oldest capture that has not been verified, and report.
- L Check if the DSN in the JCL is the same as the newest capture that has not been verified, report and set return code.
- M Check if the DSN in the JCL is the same as the newest capture that has not been verified, and report.

CONCAT. SEQUENCE

Compares the relative number of the data set in a set of concatenated data sets used as input with the expected relative number of the data set in the concatenation.

CREATION DATE

Compares the date that the data set was actually created with the date of creation of the expected data set.

CREATION TIME

Compares the time that the data set was actually created with the time of creation of the expected data set.

Note: The Create Date/Time Verification option for tape data sets cannot be invoked unless UDCEX02 user exit has been installed by the user.

CREATION JOB

Compares the name of the job that actually created the data set with the name of the job that created the expected data set.

CREATION STEP

Compares the name of the step that actually created the data set with the name of the step that created the expected data set.

CREATION DD

Compares the ddname that actually created the data set with the ddname that created the expected data set.

VOLSER NUMBERS

Compares the actual volume serial numbers of the volumes of the data set with the expected volume serial numbers.

Note: Due to an IBM restriction with the LOCATE macro, ACR/File verifies only the first 20 volumes of any data set.

For the VOLSER option, you can also specify the following values:

6 ■ Job Definitions

Setting Job-Level Verification Options

J Report if the first VOLSER of the input file differs from what was expected and continue processing.

K Report if the first VOLSER of the input file differs from what was expected and set a condition code.

NUMBER OF RECORDS

Compares the actual number of records in the data set with the expected number of records in the data set. The number of records is only available if the file being captured or verified is a VSAM file or is a tape file and the tape management user exit is installed by the user.

Note: This option is only available for VSAM data sets. If the data sets are tape data sets and the UDCEX02 user exit has been installed, the option allows comparison of number of block (not records). Only if there is one record per block, this number reflects the record count.

NUMBER OF USES

Compares the number of times the data set has actually been used with the maximum number of times that the data set is to be used.

MAXIMUM AGE (CYCLES)

Compares the number of cycles that have been processed since the data set was created with the maximum number of cycles within which the data set should be processed.

MAXIMUM AGE (DAYS)

Compares the number of calendar days that have passed since the data set was created with the maximum number of calendar days within which the data set should be processed.

CONCAT. NUM EXPECTED

Compares the actual number of concatenated data sets used as input with the expected number of data sets in the concatenation for a particular DD.

-
- Note:**
- For a Capture step, only the 'File is Present' verification option is used.
 - The combination of verification option values and the Set Return Code option value determine what action ACR/File will take when an exception is discovered. A verification option of X says get ready to set a return code if this type of exception is discovered. If an exception is discovered, ACR/File looks at the Set Return Code option and does nothing (if the Set Return Code option is N); or sets a return code that is passed to the next step (if the Set Return Code option is Y); or, abends with a user abend code (if the Set Return Code option is X).
-

Specifying Input File Information and Options

Specify Input File Information Panel (UDC1140)

For a Verification step, you must indicate the application step, ddname, and concatenation sequence number of each file to be verified, where this file is to come from, and whether this verification should be conditional on another job. You enter this information using the Specify Input File Information Panel (UDC1140).

6 ■ Job Definitions

Specifying Input File Information and Options

To access this panel, select option 4 (Input File Information) from the Enter Job Definitions Panel (UDC1100).

```
----- SPECIFY INPUT FILE INFORMATION -----ACR/F releasenumbr
====>                                     PANEL: UDC1140

JOB ====>          STEP ====>          ====>
INPUT FILE ITEM NUMBER ====> 001      (1 - 32)
INPUT FILE PROCESSED IN:
APPLICATION STEP   ====>
STEP OCCURRENCE   ====> 001      (1 - 999)
DDNAME            ====>
CONCATENATION SEQ ====>          (1 - 150)
INPUT FILE CREATED BY (EXPECTED FROM):
JOB NAME ====>          STEP NAME====>          QUALIFIER====>
OUTPUT FILE ITEM # ====>          (1 - 32)
RELATIVE CYCLE     ====> +00      (-99 TO +00)
MOST RECENT?      ====> N        (Y, N OR BLANK)
VARIABLE CYCLE INFORMATION:
VARIABLE CYCLE INDICATOR ====> N      (Y, N OR X)
VAR CYCLE:JOB NAME====>          STEP NAME====>          QUALIFIER ====>
VARIABLE CYC RELATIVE CYCLE ====> +00      (-99 TO +00)
VARIABLE CYC MOST RECENT IND ====>          (Y OR N)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

INPUT FILE ITEM NUMBER

A 3-digit number associated with a file in an ACR/File step. The value is set to 001 when the panel is first accessed for a particular Job ID.

APPLICATION STEP

Indicate the name of the JCL step in which the input file is processed.

STEP OCCURRENCE

Indicate the occurrence of this step (if this step is used more than once within the job).

DDNAME

Indicate the ddname (within the above application step/step occurrence) in which the input file is processed.

CONCATENATION SEQ

Indicate the relative position of the data set within the concatenation sequence (if several data sets are concatenated).

If you do not want to check the concatenation sequence, leave this number at 001, and set the field CONCAT. SEQUENCE on the Specify Job-Level Verification Options Panel (UDC1130) and Specify Input File Verification Options Panel (UDC1150) to N.

JOB NAME

Indicate the 8-character job name of the Job ID that captured this input file.

STEP NAME

Indicate the 8-character step name of the Job ID that captured this input file.

QUALIFIER

Enter the 2-digit qualifier (if it applies).

OUTPUT FILE ITEM #

Indicate the item number of the Output File within the Job ID that captured the file.

RELATIVE CYCLE

Accept the default, or enter the Relative Cycle Number of the job which created the input file.

Once you have identified the Job ID and Item Number used to capture this input file, you need to indicate which history you want. By specifying a relative cycle, you can tell ACR/File which history you want relative to the current cycle (for example, the current history, the one before that, etc.).

The value for the relative cycle ranges from +00 to -99. The current relative history has a value of +00, the most recent previous cycle has a value of -01, the next most recent previous cycle has a value of -02, etc. Remember that the relative reference point ACR/File uses is always the cycle you are currently running.

MOST RECENT?

Indicate whether ACR/File should use the most recent Cycle Number of the creation job as a reference to locate the Relative Cycle Number discussed above. The Most Recent Cycle Indicator refers to the relative cycle.

Y Instructs ACR/File to use the most recent Cycle Number, even if that Cycle Number is not equal to the current Cycle Number.

N or Blank

Instructs ACR/File to use the Cycle Number of the creation job that is equal to the current job's Cycle Number.

VARIABLE CYCLE INDICATOR

The variable cycle indicator does two things: one, it indicates whether or not to use Variable Cycle Processing; and if so, it spells out the conditions under which ACR/File should perform verification of this file.

6 ■ Job Definitions

Specifying Input File Information and Options

Indicate whether using this Input File Item for verification depends on the Cycle ID and run time of another Job ID.

Y ACR/File will use this Input File Item for verification only if either one of the following conditions is true:

- The Cycle ID of the input file item is greater than the Cycle ID of the Variable Cycle Reference Job ID, or
- The Cycle ID of the Input File Item is equal to the Cycle ID of the Variable Cycle Reference Job ID, and the run date of the Input File Item is greater than or equal to the run date of the Variable Cycle Reference Job ID and, if run dates are equal, the run time of the Input File Item is greater than the run time of the Variable Cycle Reference Job ID.

N For this Input File Item, Variable Cycle processing is not in effect.

X ACR/File will use the Input File Item for verification only if the Cycle ID of the Input File Item is greater than the Cycle ID of the Variable Cycle Reference Job ID.

VAR CYCL

Enter the Variable Cycle Job ID key (Job Name, Step Name, and Qualifier, if any) whose Cycle ID and run time determine whether ACR/File should use this Input File Item for verifying.

VARIABLE CYC RELATIVE CYCLE

Identify the relative cycle of the Variable Cycle Job ID. The relative cycle has a value of +00 for the current cycle, -01 for the prior cycle, -05 for the sixth most recent cycle, and so on.

VARIABLE CYC MOST RECENT IND

Use the following values to indicate how the system will interpret Variable Cycle Relative Cycle:

Y Interprets Variable Cycle Relative Cycle +00 as the most recent cycle, whether or not the most recent Cycle Number is equal to the Cycle Number of this verification run.

N Variable Cycle Relative Cycle +00 refers only to the Cycle Number of the verification run.

Specify Input File Verification Options Panel (UDC1150)

You use the Specify Input File Verification Options Panel (UDC1150) to specify verification options at the file-level. Any options that you specify at the file-level will take precedence over those specified at the job-level or site-level. File-level options can be overridden at run-time by using a JCL parm. The use of JCL parms is discussed later in this chapter.

To access this panel, select option 5 (Input File Verification Options) from the Enter Job Definitions Panel (UDC1100).

```

----- SPECIFY INPUT FILE VERIFICATION OPTIONS -----ACR/F releasenumber
====>                                           PANEL: UDC1150

JOB ==> JOBY          STEP ==> UDCFVRFY  QUAL ==>
INPUT FILE ITEM NUMBER ==> 001 (1 - 32)
VERIFY:
HIST IS PRESENT      (V) ==>          ENTER A VALUE FOR EACH OPTION.
FILE IS PRESENT      (V) ==>          VALID VALUES ARE:
DATA SET NAME        (V) ==>          Y = REPORT EXCEPTIONS AND
CONCAT. SEQUENCE     (V) ==>          CONTINUE PROCESSING
CREATION DATE        (V) ==>          N = DON'T REPORT EXCEPTIONS
CREATION TIME        (V) ==>          X = REPORT EXCEPTIONS AND
CREATION JOB         (V) ==>          SET A CONDITION CODE
CREATION STEP        (V) ==>          BLANK = USE JOB-LEVEL OPTION
CREATION DD          (V) ==>          ADDITIONAL VALID DSN VALUES:
VOLSER NUMBERS       (V) ==>          J/K = RPT OLDEST CAPT NOT IN JCL
NUMBER OF RECORDS    (V) ==>          L/M = RPT NEWEST CAPT NOT IN JCL
NUMBER OF USES       (V) ==>          ADDITIONAL VALID VOLSER VALUES:
MAXIMUM AGE (CYCLES) (V) ==>          A/B = RPT IF VOL NOT IN JCL
MAXIMUM AGE (DAYS)   (V) ==>          D/E = RPT VOL USED IN PREV CYC
CONCAT. NUM EXPECTED (V) ==>          G/H = RPT NBR VOLS DIFF EXPECT
                                           J/K = RPT IF 1ST VOL NOT IN JCL

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

For each option, indicate Y, N, X, or blank, as follows:

Y Verify this data, report any exceptions, and continue processing.

N Do not verify this data.

X Verify, report any exceptions, and set a condition code if any exceptions are reported.

Blank

Use job-level option.

For the VOLSER option you can also specify the following options:

A Report that an expected VOLSER is not contained in the JCL and continue processing.

B Report that an expected VOLSER is not contained in the JCL and set a condition code.

D Report that a VOLSER in the JCL was already used in a previous cycle and continue processing.

6 ■ Job Definitions

Specifying Input File Information and Options

- E Report that a VOLSER in the JCL was already used in a previous cycle and set a condition code.
- G Report if the number of VOLSERs contained in the JCL differs from the number expected and continue processing.
- H Report if the number of VOLSERs contained in the JCL differs from the number expected and set a condition code.
- J Report if the first VOLSER of the input file differs from what was expected and continue processing.
- K Report if the first VOLSER of the input file differs from what was expected and set a condition code.

Note: Options G and H are an extension of Options A and B, respectively. If you need to determine if expected VOLSERs are in the JCL and you need to determine if the expected number of VOLSERs are in the JCL, use Options G or H.

For the DATA SET NAME (DSN) option you can also specify the following options:

- J Check if the DSN in the JCL is the same as the oldest capture that has not been verified, report and set return code.
- K Check if the DSN in the JCL is the same as the oldest capture that has not been verified, and report.
- L Check if the DSN in the JCL is the same as the newest capture that has not been verified, report and set return code.
- M Check if the DSN in the JCL is the same as the newest capture that has not been verified, and report.

HIST IS PRESENT

Looks for history information in the history database to confirm that history for this file is present.

FILE IS PRESENT

Looks for the step name, step occurrence, and ddname in the job stream JCL to confirm that the file is present.

DATA SET NAME

Compares the data set name that was actually used as input with the data set name that was expected.

CONCAT. SEQUENCE

Compares the relative number of the data set in a set of concatenated data sets used as input with the expected relative number of the data set in the concatenation.

CREATION DATE

Compares the creation date of the step that actually created the data set with the creation date of the step that created the expected data set.

CREATION TIME

Compares the creation time of the step that actually created the data set with the creation time of the step that created the expected data set.

Note: The Create Date/Time Verification option for tape data sets cannot be invoked unless UDCEX02 user exit has been installed by the user.

CREATION JOB

Compares the name of the job that actually created the data set with the name of the job that created the expected data set.

CREATION STEP

Compares the name of the step that actually created the data set with the name of the step that created the expected data set.

CREATION DD

Compares the ddname that actually created the data set with the ddname that created the expected data set.

VOLSER NUMBERS

Compares the actual volume serial numbers of the volumes of the data set with the expected volume serial numbers.

6 ■ Job Definitions

Specifying Input File Information and Options

NUMBER OF RECORDS

Compares the actual number of records in the data set with the expected number of records in the data set. For VSAM files, ACR/File captures the record count from MVS. From non-VSAM files, user exit UDCEX02 must still be used to obtain record counts.

Note: This option is only available for VSAM data sets. If the data sets are tape data sets and the UDCEX02 user exit has been installed, the option allows comparison of number of block (not records). Only if there is one record per block, this number reflects the record count.

NUMBER OF USES

Compares the number of times the data set has actually been used with the maximum number of times that the data set is to be used.

MAXIMUM AGE (CYCLES)

Compares the number of cycles that have been processed since the data set was created with the maximum number of cycles within which the data set should be processed.

MAXIMUM AGE (DAYS)

Compares the number of calendar days that have passed since the data set was created with the maximum number of calendar days within which the data set should be processed.

CONCAT. NUM EXPECTED

Compares the actual number of concatenated data sets used as input with the expected number of data sets in the concatenation for a particular DD.

Specifying Output File Information

Specify Output File Information Panel (UDC1160)

For a Capture step, you must indicate the application step and DD in which the output file is created, whether ACR/File should verify that this application step and DD are present in the job, and any file use restrictions you want to impose. You enter this information using the Specify Output File Information Panel (UDC1160).

To access this panel, select option 6 (Output File Information) from the Enter Job Definitions Panel (UDC1100).

```

----- SPECIFY OUTPUT FILE INFORMATION -----ACR/F releasenumber
====>                                     PANEL: UDC1160

      JOB ==>          STEP ==>          QUAL ==>
      OUTPUT FILE ITEM NUMBER ==> 001      (1 - 32)

OUTPUT FILE CREATED BY:
  APPLICATION STEP      ==>
  STEP OCCURRENCE      ==> 001          (1 - 999)
  DDNAME                ==>

FILE USE RESTRICTIONS:
  MAXIMUM NBR OF USES  ==>                (0 - 999)
  MUST BE USED WITHIN ==>                CYCLES OF CREATION (0 - 999)
  MUST BE USED WITHIN ==>                DAYS OF CREATION   (0 - 999)

VERIFY:
  FILE IS PRESENT      ==>          ENTER Y, N, X OR BLANK

CONTROLLED FILE RELEASE (CFR):
  TARGET ID            ==>
  PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

OUTPUT FILE ITEM NUMBER

A 3-digit number associated with a file in an ACR/File step. The value is set to 001 when the panel is first accessed for a particular Job ID.

OUTPUT FILE CREATED BY:

APPLICATION STEP

Indicate the step name in which the output file is created.

STEP OCCURRENCE

If the step name is used more than once in the job, indicate the number of occurrences

(001-999).

DDNAME

6 ■ Job Definitions

Assigning Alternate Job IDs

Indicate the ddname (within the above application step/step occurrence) in which the output file is created.

MAXIMUM NBR OF USES

Specify the maximum number of times the file can be used (000-999).

MUST BE USED WITHIN (CYCLES OF CREATION)

Specify the number of cycles of creation that the file must be used within (000-999).

MUST BE USED WITHIN (DAYS OF CREATION)

Specify the number of days of creation that the file must be used within (000-999).

FILE IS PRESENT

Y Verify, report any exceptions, and continue processing.

N Verify, and continue processing without reporting any exceptions.

X Verify, report any exceptions, and set a condition code if there is an exception.

Blank

Job-level option to be used.

Assigning Alternate Job IDs

Alternate Job ID Information Panel (UDC1170)

Alternate Job IDs allow you to use the definitions from one job while running with a different job name. The Alternate Job ID acts as an alias for a Primary Job ID. It is another name that you can use to invoke the primary job's definition. For example, in your company you may need authorization to run a job with a production name, but you want to test your definitions with the production job name before you move ACR/File into the production JCL.

To do this, you can use the Alternate Job ID Information Panel (UDC1170) to assign an Alternate Job ID with your test job name that points to the production job name as the Primary Job ID. When the test job runs, ACR/File will then access the Primary Job ID definitions and will store the results of the run in the history file under the Primary Job ID. You can use any number of unique Alternate Job IDs for a Primary Job ID.

To access this panel, select option 7 (Alternate Job-ID Information) from the Enter Job Definitions Panel (UDC1100).

```

----- ALTERNATE JOB ID INFORMATION ----- ACR/F releasenumbr
====> A                                     PANEL: UDC1170
SPECIFY AN ALTERNATE JOB ID BELOW:

PRIMARY JOB ====>          STEP ====>          QUAL ====>

ITEM NUMBER  ====> 001 (1 - 100)

ALTERNATE JOB ID:
  JOB NAME  ====>
  STEP NAME ====>
  QUALIFIER ====>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

PRIMARY JOB ID

The job name, step name, and qualifier of the job whose definitions will be used.

ITEM NUMBER

The Item Number is incremented by one for each Alternate Job ID you have for a Primary Job ID. You can have more than one Alternate Job ID for a Primary Job ID.

ALTERNATE JOB ID:

The job name, step name, and qualifier of the job that will use the Primary Job ID's definitions.

Copying Job Definitions

Copy ACR/File Basic Job Information Panel (UDC111C)

You'll use the Copy ACR/File Basic Job Information Panel (UDC111C) to copy job definitions (see Figure 5-11).

6 ■ Job Definitions

Copying Job Definitions

To access this panel, select option C (Copy All The Definitions from One Job ID to Another) from the Enter Job Definitions Panel (UDC1100).

```
----- COPY ACR/F BASIC JOB INFORMATION -----ACR/F releasenum  
====>                                     PANEL: UDC111C  
  
COPY FROM:  
  JOB ====>          STEP ====>          QUAL ====>  
  
COPY TO:  
  JOB ====>          STEP ====>          QUAL ====>  
  
PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

-
- Note:**
- You must enter COPY on the command line.
 - The Copy function does not copy Alternate Job ID information.
-

COPY FROM:

Indicates the source information, as follows:

JOB

Enter the 8-character job name to copy from.

STEP

Enter the 8-character step name to copy from.

QUAL

Enter the 2-digit qualifier associated with the job name and step name above to copy from (if it applies).

COPY TO:

Indicates the target information, as follows:

JOB

Enter the 8-character job name to copy to.

STEP

Enter the 8-character step name to copy to.

QUAL

Enter the 2-digit qualifier associated with the job name and step name above to copy to (if it applies).

Specifying JCL Params

The EXEC statement for the ACR/File Capture step is usually in the format:

```
//UDFCAPT EXEC PGM=UDC2000,COND=EVEN
```

The COND=EVEN tells MVS to execute this step even if a prior step issued a non-zero return code or abended. It is important that the Capture step be set up this way so that it can capture information about files that were created in steps prior to any steps that issued non-zero return codes or abended.

The normal execution of an ACR/File step can be altered by passing execution parameters to ACR/File. These parameters can be used to indicate that a rerun is being performed; set the Cycle ID; or override the message, processing and verification options.

Parm information can be entered on the UDC2000 EXEC card in the JCL. It is in the format:

```
//UDCFSTEP EXEC PGM=UDC2000,COND=EVEN,PARM=' PARM INFORMATION'
```

The parm information consists of keywords and values associated with those keywords. Acceptable keywords and their values are described below.

Setting the Cycle ID

If you are using Automatic Cycle Processing, the following parm information would only be supplied to set the initial Cycle ID of a Job ID that is used as a cycle reference job or to indicate a particular Cycle ID that is being rerun. If you are not using Automatic Cycle Processing, you will need to supply the following parm information each time the job is run.

Keyword	Notes
CYC#=cccccccccccccc	Must be numeric and greater than 0.
RUN#=rrr	Must be numeric.

If you normally use Cycle Option G0, G1 or G9 (which are based on Gregorian dates), be sure to specify the parm in Gregorian format (20110315).

If you normally use Cycle Option J0, J1 or J9 (which are based on Julian dates), be sure to specify the parm in Julian format (02011074).

Indicating a Rerun

If you are using UDCARUN to automatically recognize reruns, it is not necessary to indicate to ACR/File that a rerun is being performed. If you are not using UDCARUN, then you will need to supply the following information.

Keyword	Possible Values	Notes
RERUN=a	Y, R	Y is used to indicate that a rerun of the most recent cycle for this job-step is being performed. R is also used to indicate that a rerun of the most recent cycle for this job-step is being performed. Use R when interfacing with restart/rerun packages requiring that value to indicate a rerun or restart.

Overriding the Message Options

If you need to override any of these options, you can supply the following parm information.

Keyword	Possible Values	Notes
MOPTS=bc	b=Display ACR/File Messages (Y,N,X) c=Print UDCMSGS Report (Y,N)	For b: Y=All messages will be displayed to Sysout. N=Nothing will be displayed to Sysout or to console, unless overridden for specific Message IDs through the message override User Exit (UDCEX00). X=All messages will be displayed to Sysout and E-level messages will be displayed on console. (Operator should respond continue to all ACR/File console messages.) For c: Y=The UDCMSGS Report will print. N=The UDCMSGS Report will not print.

Overriding the Run Options

The run options that would normally be used can be overridden by supplying the keyword shown below and an appropriate value. If a value of blank is supplied, ACR/File will not override that option, but instead will determine its value through normal processing.

Keyword	Possible Values
RUNOPTS=defg\$	d=Store History Option (Y, N, or Blank) e=Set Return Code Option (Y,N,X,0 or Blank) f=Check data set Not Found Cond.(Y,N,X, or Blank) g=Check Not Catlg 2 Cond.(Y,N,X,C or Blank) \$=Check If Rerun (Y,N,X, or Blank)

Overriding the Check for Definitions Option

To override the Check for Definitions Option, use the following keyword and values:

Keyword	Possible Values
CHKDEFS=Z	(Y,N,X)

Overriding the Report Print Options

The report print options that would normally be used can be overridden by supplying the KEYWORD shown below and an appropriate value. If a value of blank is supplied, ACR/File will not override that option, but instead will determine its value through normal processing.

Keyword	Possible Values
RPTOPTS=hijk	h=Print Verification Report (Y,N,X or Blank) i=Print Exception Report (Y,N,X or Blank) j=Print Capture Report (Y, N or Blank) k=Print Max Age Report (Y,N or Blank)

6 ■ Job Definitions

Specifying JCL Params

Overriding the Automatic Rerun Option

See Chapter 5, “Preparing the Environment” on page 105 for more information.

Keyword	Possible Values
ARUN=I	I=Auto Rerun Option (Y,N)

Overriding the Dual History File Option

See Chapter 9, “User Options and User Exits” on page 183 for a detailed explanation.

Keyword	Possible Values
DUALHF=@	@=Dual History File Option (Y or N)

Overriding the Verification Options

The verification options that would normally be used can be overridden by supplying the KEYWORD shown below and an appropriate value. If a value of blank is supplied, ACR/File will not override that option, but instead will determine its value through normal processing.

Keyword	Possible Values	Notes
VOPTS=mno pqrstuvwxyz	m=Verify History is Present (Y,N,X, or Blank) n=Verify File is Present (Y, N,X or Blank) o=Verify Data Set Name (Y,N,X or Blank) p=Verify Concat Sequence (Y,N,X or Blank) q=Verify Creation Date (Y, N,X or Blank) r=Verify Creation Time (Y, N,X or Blank) s=Verify Creation Job (Y, N,X or Blank) t=Verify Creation Step (Y, N,X or Blank) u=Verify Creation DD (Y, N,X or Blank) v=Verify Volser Numbers (A,B,D,E,G, H,Y,N,X or Blank) w=Verify Number of Records (Y, N, X or Blank) x=Verify Number of Uses (Y, N, X or Blank) y=Verify Max Age (Cycles) (Y, N, X or Blank) z=Verify Max Age (Days) (Y, N, X or Blank)	A value of Blank tells ACR/File not to override that particular option but to determine its value through normal processing.

Overriding the Job Name and/or Step Name

If you need to override the name of the job and/or the step that is being executed, enter either or both of the keywords described below. This feature is particularly useful if you need to run a job with a test job name but want to use definitions that have a production job name.

Keyword	Notes
JNAM=jjjjjjj	jjjjjjj must consist of 1 to 8 characters with no embedded blanks
STEP=sssssss	sssssss must consist of 1 to 8 characters with no embedded blanks.

Limiting Processing to One Job-Step Qualifier

If you need to limit processing to a particular job-step qualifier, rather than allowing ACR/File to process all job-step qualifiers for a particular job-step, supply the following information.

Keyword	Notes
QUAL=qq	qq must consist of at least one character and no more than 2 characters. Blanks are allowed.

Execution Parm Examples

Only those keywords and the associated values that you wish to indicate or override need be entered as parm information. Examples of how to use these powerful execution parameters are shown below.

The following example indicates the last run of this job-step is being rerun.:

```
//UDCFVRFY EXEC PGM=UDC2000 ,PARM='RERUN=Y'
```

The following example indicates the Cycle Number to be used for the current job-step:

```
//UDCFVRFY EXEC PGM=UDC2000 ,PARM='CYC#=2010501'
```

6 ■ Job Definitions

Specifying JCL Parms

The following example indicates that cycle 20100501000 is being rerun and that you want to override some of the verification options:

```
//UDCFVRFY EXEC PGM=UDC2000,PARM=UDC2000,PARM=('RERUN=Y,CYC#=20100501',  
//      'RUN#=000,VOPTS=XXXXYN X YYY')
```

Table Definitions

This chapter describes how to define a Cycle Table through the User Interface. Cycle Tables are used with job definitions to validate the current Cycle Number.

If you are specifying Table definitions as batch definition transactions, refer to the transaction record layouts in [Appendix C, “Batch Transactions” on page 315](#).

The following sections are included

- “Entering Cycle Table Definitions” on page 167
- “Accessing the Cycle Table Definition Panels” on page 168
- “Specifying a Cycle Table Description” on page 169
- “Viewing Existing Cycle Tables” on page 171
- “Copying Cycle Table Definitions” on page 173

Entering Cycle Table Definitions

Cycle Tables contain the valid Cycle Numbers for a job or group of jobs. You might have several Cycle Tables (for example, for daily, weekly, monthly and quarterly jobs).

A 16-character Cycle Table name uniquely identifies each Cycle Table.

A Cycle Table definition consists of the following:

- Cycle Table Description
- Cycle Table Entries

Entering a Cycle Table definition is a two-step process. First you enter a Cycle Table description, which describes the table. Second, you specify Cycle Table entries, which means you assign Cycle Numbers to a particular table.

You will use the Cycle Table Definitions Menu (UDC1200) to access the required panels.

7 ■ Table Definitions

Accessing the Cycle Table Definition Panels

Accessing the Cycle Table Definition Panels

To define a Cycle Table, you need to access the Cycle Table definition panels. To do so, select option 1 (Definitions) from the ACR/File Primary Selection Menu (UDC0000). The ACR/File Definitions panel will display.

ACR/File Definitions Panel (UDC1000)

```
----- ACR/F DEFINITIONS -----ACR/F releasenumber
====>                                PANEL: UDC1000

- 1  ENTER JOB DEFINITIONS
- 2  ENTER CYCLE TABLE DEFINITIONS
- 3  BROWSE/ACTIVATE DEFINITIONS
- 4  BACKUP/RESTORE DEFINITIONS
- 5  CREATE BATCH TRANSACTIONS
- 6  ENTER CFR TARGET ID DEFINITIONS

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

Select option 2 (Enter Cycle Table Definitions). The Cycle Table Definitions Menu (UDC1200) appears as shown in the following example.

Cycle Table Definitions Menu (UDC1200)

From this menu, you can add or change a description for a Cycle Table, add to or modify Cycle Table entries, copy Cycle Tables, or display a list of existing Cycle Tables.

```
----- CYCLE TABLE DEFINITIONS ----- ACR/F releasenumber
====>                                PANEL: UDC1200
SELECT CHOICE AND OPTIONALLY ENTER TABLE NAME BELOW:
      CYCLE TABLE NAME ==> JAN-2011-CYC-TBL <===

S 1  CYCLE TABLE DESCRIPTION INFORMATION
- 2  CYCLE TABLE ENTRIES
- C  COPY ENTIRE CYCLE TABLE TO ANOTHER CYCLE TABLE NAME
- L  DISPLAY SELECTION LIST

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

CYCLE TABLE NAME

Enter a name of up to 16 characters for the table. This field is alphanumeric. This name will be carried forward to all Cycle Table definition panels. In the example above, the CYCLE TABLE NAME is JAN-2011-CYC-TBL.

Specifying a Cycle Table Description

Specify Cycle Table Description Panel (UDC1210)

From the Cycle Table Definitions Menu, select option 1 (Cycle Table Description Information) and press Enter to display the Specify Cycle Table Description panel.

```

----- SPECIFY CYCLE TABLE DESCRIPTION -----ACR/F releasenumber
====>                                     PANEL: UDC1210

CYCLE TABLE NAME  ====> JAN-2011-CYC-TBL

DESCRIPTION/TITLE  ====> JANUARY 2011, CYCLE TABLE          <===

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

CYCLE TABLE NAME

Defaults to the 16-character Cycle Table Name entered on the Cycle Table Definitions Menu (UDC1200).

DESCRIPTION/TITLE

You can use up to 40 alphanumeric characters to describe the table. In the example above, DESCRIPTION/TITLE is JANUARY 2011, CYCLE TABLE.

Specifying Cycle Table Entries

Specifying Cycle Table Entries

When you enter Cycle Table entries, you are giving ACR/File a list of the cycles that form a table.

Specify Cycle Table Entries Panel (UDC1220)

You enter Cycle Table entries using the Specify Cycle Table Entries Panel (UDC1220). Each entry is an 8-digit number. Most users choose to fill these tables with dates, but you could fill them with batch numbers, or other meaningful numbers.

7 ■ Table Definitions

Specifying a Cycle Table Description

When you run a job that refers to a Cycle Table, ACR/File looks at this list and matches the Cycle Number of the run with a cycle in that table. If a match is found, and the Cycle Option is not set to T0, T1 or T9, ACR/File continues processing, knowing that the Cycle Number is valid for that job.

When you run a job that has a Cycle Option of T0, T1, or T9, ACR/File calculates the Cycle Number by looking at the list of cycles that form the Cycle Table specified, and matching the Cycle Number of the Cycle Reference Job ID with a cycle in that table. It then selects the Cycle Number which is the next Cycle Number in the Cycle Table as the Cycle Number for the current job.

If the Cycle Reference Job ID is the same as the Job ID and there is no current Cycle Number for the Job ID available (as is the case when the job is running for the first time), then it selects the first entry in the Cycle Table as the Cycle Number for the job. The Run Number is determined by the Cycle Option chosen.

To access the Specify Cycle Table Entries Panel (UDC1220), from the Cycle Table Definitions Menu (UDC1200), select option 2 (Cycle Table Entries).

```
----- SPECIFY CYCLE TABLE ENTRIES ----- ACR/F releasnumber
====> A                                     PANEL: UDC1220
TABLE ====> JAN-2011-CYC-TBL
ITEM # ====> 001 (1 - 999)
CYCLE NUMBERS:
  1 ====> 20110101
  2 ====> 20110102
  3 ====> 20110103
  4 ====> 20110104
  5 ====> 20110105
  6 ====> 20110106
  7 ====> 20110107
  8 ====> 20110108
  9 ====> 20110109
 10 ====> 20110110

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

ITEM NUMBER

This is a system-assigned number. It provides a convenient way of grouping Cycle Numbers. Up to 999 Item Numbers can be specified.

CYCLE NUMBERS 1 - 10

Enter an 8-digit, ascending number that identifies the processing cycle associated with a particular execution of ACR/File.

In the example above, ten Cycle Numbers have been entered. To add more Cycle Table entries, do the following:

1. Increment the Item Number.

2. Overtyping the Cycle Number(s).

Viewing Existing Cycle Tables

There are two ways of viewing existing cycle tables.

Method A: Using the Table Selection List

Table Selection List Panel (UDC12L0)

You can use the Table Selection List Panel (UDC12L0). To access this panel, from the Cycle Table Definitions Menu (UDC1200), select option L (Display Selection List) to display the panel, which lists each table by its name and description.

```

----- TABLE SELECTION LIST -----          ROW 5 OF 9
===>                START FROM ===>                PANEL:UDC12L0
ENTER AN OPTION BESIDE ONE ITEM:  S=SELECT, C=COPY FROM, D=DELETE
OR YOU CAN PRESS A PF KEY:  3=END      7=PAGE UP    8=PAGE DOWN
OPT      TABLE NAME          TABLE DESCRIPTION
-----
-      JAN-2011-CYC-TBL      JANUARY 2011, CYCLE TABLE
***** BOTTOM OF DATA *****

```

To select a Cycle Table Name, type S (SELECT) next to the Table name in the OPT column, and press Enter. The Specify Cycle Table Description Panel (UDC1210) appears.

Specify Cycle Table Description Panel (UDC1210)

If you want to narrow this selection list of Cycle Tables, at the START FROM field enter several characters for the table name and press Enter. Only the table names that match these characters will appear on the list.

```

----- SPECIFY CYCLE TABLE DESCRIPTION -----ACR/F releasenum
===>                PANEL: UDC1210

CYCLE TABLE NAME  ===> JAN-2011-CYC-TBL

DESCRIPTION/TITLE  ===> JANUARY 2011, CYCLE TABLE          <===

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

7 ■ Table Definitions

Viewing Existing Cycle Tables

Method B: Using the Cycle Table Item Selection List

Cycle Table Item Selection List Panel (UDC122L)

You can also access existing Cycle Tables from the Cycle Table Item Selection List Panel (UDC122L).

From the Cycle Table Definitions Menu (UDC1200), select option 2 (Cycle Table Entries). If the List Panel option on the Definition Entry Panel (UDC4800) is set to Y, the Cycle Table Item Selection List Panel (UDC122L) is displayed. This panel lists the Cycle Numbers assigned to each item number for a Cycle Table.

```
----- CYCLE TABLE ITEM SELECTION LIST ----- ROW 6 OF 9
====> START FROM ====> PANEL:UDC122L
ENTER AN OPTION BESIDE ONE ITEM: S=SELECT, C=COPY FROM, D=DELETE
OR YOU CAN PRESS A PF KEY: 3=END 7=PAGE UP 8=PAGE DOWN
OPT TABLE NAME ITEM -----TABLE ENTRIES 1 THRU 10-----
-----
- JAN-2011-CYC-TBL 001 20110101 20110102 20110103 20110104 20110105
20110106 20110107 20110108 20110109 20110110
- JAN-2011-CYC-TBL 002 20110111 20110112 20110113 20110114 20110115
20110116 20110117 20110118 20110119 20110120
- JAN-2011-CYC-TBL 003 20110121 20110122 20110123 20110124 20110125
20110126 20110127 20110128 20110129 20110130
- JAN-2011-CYC-TBL 004 20110131 00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000 00000000
***** BOTTOM OF DATA *****
```

To select a group of cycle entries to modify, type S next to the item and press Enter to display the next panel.

Specify Cycle Table Entries Panel (UDC1220)

At this panel, you can modify the cycle entries, but you must be sure to maintain the ascending sequence. If you had selected Item 001 on the Cycle Table Item Selection List panel, the Specify Cycle Table Entries Panel (UDC1220) would appear. Because TABLE defaults to the value you entered on the Cycle Table Definitions Menu, the system displays the Cycle Table and item you selected.

Note: If you want to narrow your search of Cycle Tables, at the START FROM field, enter the first few characters of a table name and press Enter. The panel displays only the table cycle(s) that match these characters.

```

----- SPECIFY CYCLE TABLE ENTRIES ----- ACR/F releasenumbr
====>                                     PANEL: UDC1220

TABLE  ====> JAN-2011-CYC-TBL
ITEM #  ====> 001 (1 - 999)
CYCLE NUMBERS:
  1  ====> 20110101
  2  ====> 20110102
  3  ====> 20110103
  4  ====> 20110104
  5  ====> 20110105
  6  ====> 20110106
  7  ====> 20110107
  8  ====> 20110108
  9  ====> 20110109
 10  ====> 20110110

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

Copying Cycle Table Definitions

If you have more than one Cycle Table and want to use the same definitions, you can copy definitions. For example, you might copy the table definitions of your daily Cycle Table to your monthly Cycle Table and modify them as needed.

Copy Cycle Table Definitions Panel (UDC12C0)

From the Cycle Table Definitions Menu (UDC1200), select option C (Copy Entire Cycle Table to Another Cycle Table Name) to display the Copy Cycle Table Definitions Panel (UDC12C0).

7 ■ Table Definitions

Copying Cycle Table Definitions

On this panel you can copy all Table definitions and save them with another name.

```
----- COPY CYCLE TABLE DEFINITIONS ----- ACR/F releasenumbr
===>                                           PANEL: UDC12C0
SPECIFY COPY FROM/TO INFORMATION BELOW:

COPY ALL TABLE DEFINITIONS FROM:
      TABLE NAME  ===>                               <===

COPY ALL TABLE DEFINITIONS TO:
      TABLE NAME  ===>                               <===

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

Enter the COPY ALL TABLE DEFINITIONS FROM information.

TABLE NAME

Specify the 16-character table name to copy from.

Enter the COPY ALL TABLE DEFINITIONS TO: information.

TABLE NAME

Enter a new 16-character table name.

Activating, Backing Up, and Restoring Definitions

This chapter discusses the utilities that are available to use with the on-line work area. The following sections are included

- “About the On-Line Utilities” on page 175
- “Activating Definitions” on page 175
- “Backing Up and Restoring Definitions” on page 176
- “Creating Batch Definition Transactions” on page 179

About the On-Line Utilities

When you update definitions through the User Interface panels, the data is written to a storage area called the on-line work area. The data within the on-line work area may be applied to a definition database through an on-line activation process, or you can create batch transactions and update the definition database by running a batch job.

There are several utility functions that you may want to use on your on-line work area. For example, you may want to backup the work area periodically for recovery purposes.

Activating Definitions

ACR/File stores the definitions you enter in a work area. However, ACR/File Capture and Verification steps cannot access these definitions until they are part of the definition database.

In this section, you will learn how to transfer these definitions to the definition database so the Capture and Verification steps can access them. You'll do this using the Browse/Activate Selection List (Keys) Panel.

8 ■ Activating, Backing Up, and Restoring Definitions

Backing Up and Restoring Definitions

Browse/Activate Selection List (Keys) Panel (UDC1300)

Select option 3 (Browse/Activate Definitions) from the ACR/File Definitions Panel to display the Browse/Activate Selection List (Keys) Panel (UDC1300). This panel lists the definitions in your work area by Job ID or Table ID. From this panel you can select which definitions to browse or activate.

```
----- BROWSE/ACTIVATE SELECTION LIST (KEYS) ----- ROW 1 FROM 9
===>                                     (BLANK=BROWSE, A=ACTIVATE)   PANEL: UDC1300

SEL ST  JOB ID / TABLE ID      TYPE      DESCRIPTION/TITLE
-----
_       ALTJOB  UDCFCAPT    ALT JOB   ALTERNATE KEY FOR JOBX   UDCFCAPT
_       JOBX   UDCFCAPT    JOB ID    CAPTURE JOBX VALID AND  INVALID TRANS
_       MOD JOBXYZ UDCFCAPT    JOB ID    CAPTURE JOBX VALID AND  INVALID TRANS
***** BOTTOM OF DATA *****
```

1. To activate definitions, type A at the command line, and press Enter. The Browse/Activate Selection List appears again. This time it lists only the definitions that you can activate (those with a status of ADD, MOD or DEL).
2. Type S next to the definitions you want to activate and press Enter. The message: ACTIVATE COMPLETE appears in the upper-right corner of the Browse/Activate Selection List (Keys) Panel (UDC1300), confirming that the definitions have been applied to the definition database.
3. Press F3 twice to return to the ACR/File Primary Selection Menu (UDC0000).

Backing Up and Restoring Definitions

This section explains the housekeeping functions you can perform on your Job and Cycle Table definitions: back up and restore/merge.

To back up definitions means to save the set of definitions that you are currently working on to a separate dataset for later use.

To restore/merge definitions means to retrieve definitions from the definition database or a previously saved backup file to a work area and either merge or replace them with the definitions that are in your current work area, or replace the definitions in your current work area with the definitions that have been retrieved. You can define these functions using the Backup/Restore Definitions Panel (UDC1400).

Backup/Restore Definitions Panel (UDC1400)

To access the panel, from the ACR/File Definitions Menu (UDC1000), select option 4 (Backup/Restore Definitions).

```

----- BACKUP/RESTORE DEFINITIONS ----- ACR/F releasenumber
====>                                     PANEL: UDC1400
MAKE SELECTION AND SPECIFY/VERIFY INFORMATION BELOW:
- 1  BACKUP WORK AREA TO ON-LINE DEFINITION LIBRARY:
      DSN      ====> USERID.UDC.DEFNLIB          (===
      MEMBER   ====>
- 2  RESTORE/MERGE WORK AREA FROM ON-LINE DEFINITION LIBRARY:
      DSN      ====> USERID.UDC.DEFNLIB          (===
      MEMBER   ====>
      MERGE OR REPLACE THE WORK AREA====> M (M OR R)
      REPLACE DUPLICATE DEFINITIONS?====> N (Y OR N)
- 3  RESTORE WORK AREA FROM DEFINITION DATABASE:
      DSN      ====> USERID.UDC.UDCDEFN          (===
      WHAT TYPE OF DEFINITIONS?      ====> (J FOR JOB, T FOR TABLE)
      MERGE OR REPLACE THE WORK AREA====> M (M OR R)
      REPLACE DUPLICATE DEFINITIONS?====> N (Y OR N)
- L  LIST DEFINITION LIBRARY MEMBERS
      DSN      ====> USERID.UDC.DEFNLIB          (===

      PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

Only one of the four options can be processed at a time. Select an option and complete the fields as described below:

1. BACKUP WORK AREA TO ON-LINE DEFINITION LIBRARY:

This option enables you to back up the current set of definitions to any dataset you specify.

DSN

Defaults to the dataset name indicated on the Specify Default Values Panel (UDC4100). This can be changed.

MEMBER

Specify the member name in the dataset where you want the definitions to be stored.

After completing these fields, press Enter. The message BACKUP COMPLETED appears in the upper-right corner of the panel.

2. RESTORE/MERGE WORK AREA FROM ON-LINE DEFINITION LIBRARY:

This option allows you restore a set of definitions from a specified backup member to the work area.

DSN

Defaults to the dataset name indicated on the Specify Default Values Panel (UDC4100). This can be changed.

8 ■ Activating, Backing Up, and Restoring Definitions

Backing Up and Restoring Definitions

MEMBER

Specify the member name in the dataset from which you want to restore the definitions.

MERGE OR REPLACE THE WORK AREA

Indicate M or R to specify whether to merge the definitions being restored with those that exist in the work area, or to replace them. Merge will leave these current definitions in your work area and will add the restored definitions to them. Replace will delete the contents of your work area and replace the work area with the restored definitions. The default is M.

IF MERGE - REPLACE DUPLICATE DEFINITIONS?

Indicate Y or N to specify whether to replace definitions when duplicates are encountered. The default is N.

After completing these fields, press Enter. The message RESTORE COMPLETED appears in the upper-right corner of the panel.

3. RESTORE WORK AREA FROM DEFINITION DATABASE:

This option enables you to restore a set of definitions from the VSAM definition database to the work area.

DSN

Defaults to the dataset name indicated on the Specify Default Values Panel (UDC4100). This can be changed.

WHAT TYPE OF DEFINITIONS?

Enter a J or a T to specify whether you want to restore job definitions or Table definitions.

MERGE OR REPLACE THE WORK AREA

Indicate M or R to specify whether to merge the definitions being restored with those that exist in the work area, or to replace them. Merge will leave these current definitions in your work area and will add the restored definitions to them. Replace will delete the contents of your work area and replace the work area with the restored definitions. The default is M.

IF MERGE - REPLACE DUPLICATE DEFINITIONS?

Indicate Y or N to specify whether to replace definitions when duplicates are encountered. The default is N.

After completing these fields, do the following:

1. Press Enter. A list is displayed of the job definitions (if WHAT TYPE OF DEFINITIONS? is J) or of the Table definitions (if WHAT TYPE OF DEFINITIONS? is T) that currently exist on the definition database.
2. Type S in front of each definition you want restored and press Enter. The Ss disappear.
3. Press Enter. The Backup/Restore Definitions Panel (UDC1400) is redisplayed with the message RESTORE COMPLETED showing in the upper-right corner.

L LIST DEFINITIONS LIBRARY MEMBERS

This option displays a list of the available library members containing definitions.

DSN

Defaults to the dataset name indicated on the Specify Default Values Panel. This can be changed.

After completing this field, do the following:

1. Press Enter. A list of the members is presented for you to browse. Typically, you'll use Option 4 to ensure that a backup member exists.

Note: The contents of the members are encoded for ISPF and are not readable.

2. Press Enter twice to return to the ACR/File Definitions Panel (UDC1000).

Creating Batch Definition Transactions

Although most users prefer to activate their definitions through the User Interface, there is an alternative method: Instead of activating definitions from the work area, you can create batch definition transactions and use the UDCUPDT program to apply them to the definition database.

Note: For more information on batch definition transactions, see [Appendix C, "Batch Transactions"](#) on page 315.

8 ■ Activating, Backing Up, and Restoring Definitions

Creating Batch Definition Transactions

To create batch transactions, you specify the transaction library and select the job and cycle definitions for which you want batch transactions created. The Create Batch Transactions function takes the definitions you've selected and creates a file of batch transactions. This file consists of 80-character data records that can be used as input to the UDCUPDT program.

The next step is to apply these batch transactions (ACR/File definitions) to the definition database, by executing the program UDCUPDT. UDCUPDT sorts the ACR/File definition transaction records into the proper sequence. Then, it validates the sorted ACR/File definition transactions. If there are no validation errors, it adds, deletes or changes the ACR/File definitions in the definition database.

If there are validation errors, UDCUPDT does not update the definition database and the UDCUPDT step terminates with a return code of 16. You can create the JCL for UDCUPDT by selecting option 1 on the Utilities Menu (see [Chapter 10, "Utilities" on page 207](#)).

The UDCUPDT program produces the Database Update Report. For a report sample, see ["Database Update Report" on page 266](#).

You'll use the Create Batch Transactions Panels (UDC1500 and UDC1510) to create batch transactions. To access the panels, from the ACR/File Definitions Panel (UDC1000), select option 5 (Create Batch Transactions). The first Create Batch Transactions Panel (UDC1500) appears.

First Create Batch Transactions Panel (UDC1500)

On this panel, you specify where ACR/File should store the batch transactions.

```
----- CREATE BATCH TRANSACTIONS -----ACR/F releasenumber
====>                                     PANEL: UDC1500

TRANSACTION LIBRARY:
  DSN    ====> USERID.UDC.TRANLIB          <====
  MEMBER ====>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

DSN

Enter the dataset name where ACR/File will store the transactions.

MEMBER

Enter the dataset member name where ACR/File will store the transactions.

Press Enter to display the next panel.

Second Create Batch Transaction Panel (UDC1510)

On this panel, you select the Job and Table definitions for which ACR/File should create batch transactions.

```

----- CREATE BATCH TRANSACTIONS ----- ROW 1 FROM 9
===>                                     PANEL: UDC1510

ENTER 'S' TO SELECT JOB-ID/TABLE-ID

SEL  JOB ID/TABLE ID      TYPE      DESCRIPTION/TITLE
-----
-   ALTJOB  UDCFCAPT      ALT JOB  ALTERNATE KEY FOR JOBX  UDCFCAPT
-   JOBX    UDCFCAPT      JOB ID   CAPTURE JOBX VALID AND INVALID TRANS
-   JOBXYZ  UDCFCAPT      JOB ID   CAPTURE JOBX VALID AND INVALID TRANS
-   USERIDA UDCFCAPT      ALT JOB  ALTERNATE KEY FOR JOBX  UDCFCAPT
***** BOTTOM OF DATA *****
    
```

To select jobs or tables, type S in the SEL column next to each job or table you want, and press Enter. The following message appears: nnnn ROWS SELECTED, where nnnn is the number of jobs or tables you selected.

To return to the ACR/File Definitions Panel (UDC1000), press F4.

The panel appears with the following message displayed: BATCH TRANS CREATED.

8 ■ Activating, Backing Up, and Restoring Definitions

Creating Batch Definition Transactions

User Options and User Exits

Several default options in the system can be modified to conform to processing needs at your site. These site options and parameters can be specified in either of two ways: through the User Options File or through user exits. This chapter explains all of the user options as well as the available user exit options. The following sections are included

- “About the User Options File (UNIUF)” on page 183
- “Dynamic Allocation Options” on page 184
- “Execution Options (UNIXOPT)” on page 186
- “ACR/File Site-Level Processing Options” on page 189
- “User Exits” on page 192

About the User Options File (UNIUF)

The User Options File (UNIUF) helps provide certain site-dependent information via a sequential file. This file contains one or more records that specify user options and parameters that will override system defaults. The name of the User Options File is either provided through the JCL in a DD statement with ddname UNIUF, or dynamically allocated through the UDCUOPT user exit.

The UNIUF file contains one or more 80-character records which specify the user options and parameters desired. Each user options record is identified with an option type field. The types of options available are shown below:

Description	Option Type
Dynamic Allocation Options:	
a. OS/MVS datasets	UNIDSN
b. OS/MVS partitioned datasets	UNIPDS
c. OS/MVS sysout datasets	UNIOUT
Execution Options:	
a. Dual History Option	UNIXOPT
b. Automatic Rerun Option	UNIXOPT
c. ACR/File Site-Level Processing Options	UDCXOPT

The User Options File can be maintained by using any editor (such as ISPF) and the record layouts shown in Appendix C, or by using the User Interface. To add to or modify the User Options File using the User Interface, select user option 4.2 from the ACR/File Primary Selection Menu to allocate the User Options File (if it has not already been allocated) and option 4.4 to access the User Options File.

Dynamic Allocation Options

The dataset names or Sysout output classes of ACR/File files are usually provided through DD statements in the JCL. Alternatively, these files can be dynamically allocated using the specifications in the UNIUF User Options File. Using Dynamic Allocation allows you to specify the dataset names of the definition and history databases in one place throughout your JCL, making global changes to these dataset names easier.

How Dynamic Allocation Works

When an ACR/File step is executed and the system does not find a DD statement for an ACR/File file in the JCL, it will search the User Options File for a dynamic file allocation record with that same ddname. If the ddname is found in the UNIUF file, the system will use the designated dataset name (for files) or the designated sysout class (for output reports), and dynamically allocate the DD statement for the file.

Note: The Control File (UNICF) and the User Options File itself (UNIUF) cannot be allocated in this manner. They can, however, be allocated through the UDCCNTL and UDCUOPT user exit programs.

Dynamic Allocation Records Transaction Layout

Field #	Description	Position	Length	Format	Value
VSAM and Sequential datasets					
1	Type	1 - 10	10	X(10)	UNIDSN
2	DD Name	11 - 18	8	X(8)	
3	Reserved	19 - 20	2	X(2)	Blanks
4	Dataset Name	21 - 64	44	X(44)	
5	Reserved	65 - 80	16	X(16)	Blanks
Partitioned Datasets					
1	Type	1 - 10	10	X(10)	UNIPDS
2	DD Name	11 - 18	8	X(8)	
3	Reserved	19 - 20	2	X(2)	Blanks
4	Data Set Name	21 - 64	44	X(44)	
5	Reserved	65	1	X(1)	Blank
6	Member Name	66 - 73	8	X(8)	
7	Reserved	74 - 80	7	X(7)	Blanks
Sysout Datasets					
1	Type	1 - 10	10	X(10)	UNIOUT
2	DD Name	11 - 18	8	X(8)	
3	Reserved	19 - 20	2	X(2)	Blanks
4	Reserved	21	1	X(1)	*
5	Sysout Class	22	1	X(1)	A-Z, 0-9
6	Reserved	23 - 80	58	X(58)	Blanks

Placing an * (asterisk) in column 1 of any record causes it to be treated as a comment.
Dataset name must be fully qualified without quotes.

Execution Options (UNIXOPT)

Dual History File Option

When ACR/File stores history records, they are written to the primary history file. The Dual History option, however, allows histories to be written to a secondary history database in addition to the primary history database. The dual history is updated when the primary history database is updated.

Dual history allows rapid recovery in case of DASD failure (for example, a head crash) on the primary history database. The secondary History Database (specified under DDNAME: UNIHF2) should be allocated on a separate DASD volume.

To use the Dual History option, do the following:

1. Use the Database initialization JCL stream (UDCINIT) to initialize a secondary history database. Give the dual history database the same name as the primary history database, only with a '2' suffix. The secondary history database must be allocated and initialized using the same size parameters as the primary history database.
2. Use the IDCAMS REPRO utility to copy the primary history database to the secondary history database. Do this when you wish to synchronize the two history databases.
3. Do one of the following:
 - Add a DD statement giving the dataset name of the secondary history database name to each ACR/File step, for example:

```
//UNIHF2 DD DSN=UNI.UNIHF2,DISP=SHR
```
 - Use dynamic dataset allocation to dynamically allocate DD:
UNIHF2.
4. Turn the Dual History option on by specifying the Dual History Indicator as Y on the Execution Options record. The default option is N. To activate this option, specify Y on the Execution Options record.

The Dual History option may be suppressed by changing the indicator from a Y to an N in the Execution Options record. The record layout is shown in Figure 8-2.

Automatic Rerun Option

Note: Be sure to include the User Option File DD(UNIUF) with the correct DSN in every ACR/File step. The Execution Options record also contains an indicator for the Automatic Rerun option. This option is discussed below.

In most cases, ACR/File steps will use Cycle Numbers provided through one of the following methods:

- The Cycle Number from a previous job
- Through a parameter in the JCL
- Automatically generated as specified in the cycle option.

If the Cycle Number is automatically generated, the Automatic Rerun option should be used to provide automatic tracking of the last run of the job. When Automatic Rerun is in effect, an additional job-step invoking the UDCARUN program is executed before any ACR/File Verify or Capture step. If the job is rerun, bypassing the UDCARUN step will ensure that the Verify and Capture steps will be treated as a rerun.

To use the Automatic Rerun option, two actions must be taken:

1. The Automatic Rerun option must be specified at the system- wide or at the ACR/File step level.
2. An UDCARUN JCL step must be included in the job stream prior to any ACR/File steps that will use Automatic Rerun.

To specify the option on a system-wide basis, set the Automatic Rerun indicator to Y (Yes) in the Execution Options record of the User Options File. All ACR/File steps will now invoke the Automatic Rerun feature. However, a particular step may override the option at the step level.

To specify the option at the step level, set the option in each ACR/File step by specifying the Auto Rerun Option in the Cycle/Rerun Parameter of the job definitions. Unless the system-wide option is explicitly set to N, specifying Auto Rerun = Y (Yes) will invoke the Automatic Rerun feature.

The combination of the system-wide and ACR/File step-level specification determines whether Automatic Rerun is in effect. Usually, the option is either set to Y at the system-wide level, and turned off for steps not needing it at the step level, or left blank at the system-wide level, and set to Y for those steps needing it at the ACR/File step level. In either case, this option need only be used for steps using Automatic Cycle Processing.

9 ■ User Options and User Exits

Execution Options (UNIXOPT)

No matter how the option is set, an additional JCL step invoking the UDCARUN program must be added to the beginning of each job stream containing ACR/File steps using the Automatic Rerun option. This program tracks the execution of the ACR/File steps, and will automatically treat each ACR/File step as a rerun if the job stream is rerun and the UDCARUN step is bypassed.

There are at least three ways to bypass the UDCARUN step.

- Use a job restart parameter to specify that the job should be restarted at a step below the UDCARUN step.
- Code a COND parameter on the UDCARUN EXEC statement, and then pass a condition code from an automatic job restart facility that will cause the UDCARUN step to be bypassed.
- Supply a parameter on the UDCARUN EXEC statement indicating that a rerun is in process. The UDCARUN program can accept two parms: one specifying a rerun, and one to supply a job name (for testing purposes). To explicitly tell UDCARUN that this is a rerun, the rerun parameter must be 'RERUN=Y' or 'RERUN=R'. If a job name different than the one on the job card is being specified, the job name (JNAM) parameter must be coded. Symbolic parameters are allowed if the UDCARUN step is being executed within a JCL procedure.

For a sample JCL step for invoking the UDCARUN program, see [“Using the Automatic Rerun Step \(UDCARUN\)”](#) on page 286.

UNIXOPT Transaction Layout

Field	Description	Pos.	Length	Format	Value
1	Type	1-10	10	X(10)	UNIXOPT
2	Dual History Option	11	1	X(1)	Y, N, or Blank
3	Automatic Rerun Indicator	12	1	X(1)	Y, N, or Blank
4	Reserved	13-80	68	X(68)	Blanks

Placing an '*' in column 1 of any record causes it to be treated as a comment.

The Dual History Option values are used as follows:

- 'Y' = Write to a second history database in all ACR/File steps unless overridden for a particular step with a JCL Parm.
- 'N' = Do not write to a second history database in all ACR/File steps unless overridden for a particular step with a JCL Parm.
- 'Blank' = Use the ACR/File step specification.

The Automatic Rerun Indicator values are used as follows:

- 'Y' = Use Auto Rerun in all ACR/File steps unless 'N' is explicitly specified at the step level.
- 'N' = Do not use Auto Rerun regardless of the ACR/File step specification.
- 'Blank' = Use the ACR/File step specification

ACR/File Site-Level Processing Options

The ACR/File Site-Level Options (UDCXOPT) are used to set the options at the site-level. These options can be overridden at the job definitions level or File Item definition level. These options can also be defined and overridden in the JCL. If the User Options are not specified, the following ACR/File defaults will take effect:

Option	System Default
Display ACR/File Messages	YY
Print UDCMSGSGS Report	
Print Informational Messages ¹	X
Store History	Y
Set Return Code ²	Y
Check Dataset Not Found Cond	Y
Check Not Catlg 2 Cond	Y
Check For Rerun	Y

9 ■ User Options and User Exits

ACR/File Site-Level Processing Options

Option	System Default
Check for Definitions ³	N
Print Verification Report	N
Print Exception Report	Y
Print Capture Report	Y
Print Max Age Report	Y
Dual History File Option	N
Auto Rerun Option	N
Verify History is Present	Y
Verify File is Present	Y
Verify Dataset Name	Y
Verify Concat Sequence	Y
Verify Creation Date	Y
Verify Creation Time	Y
Verify Creation Job	Y
Verify Creation Step	Y
Verify Creation DD	Y
Verify VOLSER Numbers	Y
Verify Number of Records	Y
Verify Number of Uses	Y
Verify Max Age (Cycles)	Y
Verify Max Age (Days)	Y

1 Print Informational Messages: This option allows the user to decide when ACR/File should print the informational messages that provide a good audit trail of which databases were used, what parms were used, and what options were in effect at the time of the run. A value of N will cause the informational messages to never be printed. A value of Y will cause them to always be printed. A value of X (default) will cause them to be printed only if a system error occurs. This option can only be set through site-level options or the IMSGS JCL parm.

2 Set Return Code: A value of 0 can only be given to the Set Return Code option through these site-level options or through the RUNOPTS JCL parm. This 0 will cause ACR/File to produce a zero return code, no matter what errors are encountered during processing. This can be helpful during testing of large implementations where the user may have made JCL mistakes, forgotten some capture definitions, or allocated a history file that is too small. If an error is encountered, ACR/File will force the return code to zero, and will issue a message showing you what the return code would have been, if not forced to zero.

3 Check for Definitions option. This allows the user to decide what action ACR/File should take if an ACR/File step is executed that has no definitions. A value of N (default) will cause a warning message to be issued (#UDC401W). A value of Y will cause an error message to be issued (#UDC401E) and a step condition code to be set. A value of X will cause an error message to be issued (#UDC401E) and a user abend to be generated. This option can only be set through site-level options or the CHKDEFS JCL parm.

Site-level Processing Options Transaction Layout

Field	Description	Position	Length	Format	Value
1	Type	1-10	10	X(10)	UDCXOPT
Processing Options:					
2	Display Messages	11	1	X(1)	Y or N
3	Print UDCMSGGS	12	1	X(1)	Y or N
4	Store History	13	1	X(1)	Y, N or X
5	Set Return Code	14	1	X(1)	Y, N, 0 or X
6	Check Dataset Not Found	15	1	X(1)	Y, N or X
7	Check Not Catalogued 2	16	1	X(1)	Y, N, X, or C
8	Check for Rerun	17	1	X(1)	Y, N or X
9	Reserved	18-21	4	X(4)	Blanks
Report Print Options:					
10	Input File Verification	22	1	X(1)	Y, N or X
11	Input File Exception	23	1	X(1)	Y, N or X
12	Output File Capture	24	1	X(1)	Y or N
13	Maximum Age Notification	25	1	X(1)	Y or N
Verification Options:					
14	Verify Hist. is Present	26	1	X(1)	Y, N or X
15	Verify File is Present	27	1	X(1)	Y, N or X
16	Verify Dataset Name	28	1	X(1)	Y, N or X
17	Verify Concat Sequence	29	1	X(1)	Y, N or X
18	Verify Creation Date	30	1	X(1)	Y, N or X
19	Verify Creation Time	31	1	X(1)	Y, N or X
20	Verify Creation Job	32	1	X(1)	Y, N or X
21	Verify Creation Step	33	1	X(1)	Y, N or X
22	Verify Creation DD	34	1	X(1)	Y, N or X
23	Verify Volser Numbers	35	1	X(1)	Y, N or X
24	Verify Number of Records	36	1	X(1)	Y, N or X
25	Verify Number of Uses	37	1	X(1)	Y, N or X

9 ■ User Options and User Exits

User Exits

Field	Description	Position	Length	Format	Value
26	Verify Max Age(Cycles)	38	1	X(1)	Y, N or X
27	Verify Max Age(Days)	39	1	X(1)	Y, N or X
28	Reserved	40-45	6	X(6)	Blanks
29 ¹	Check for Definitions	46	1	X(1)	Y, N or X
30 ²	Print Information. Msg.	47	1	X(1)	Y, N or X
31	Reserved	48-80	33	X(33)	Blanks

- 1 Check for Definitions:
Y = If an ACR/File step is executed for which there are no definitions, issue an E-level message and a Return code.
N = If an ACR/File step is executed for which there are no definitions, issue a Warning message and continue processing.
X = If an ACR/File step is executed for which there are no definitions, issue an E-level message and abend the job.
- 2 Print Informational Messages:
Y = Always print the informational (I-level) system messages.
N = Never print the informational system messages.
X = Only print the informational system messages when a system error occurs.

User Exits

ACR/File's user exits allow you to specify site-specific actions and values. The source code for these exits can be found in the UNI.SRCELIB and UNI.COPYLIB. To use the exits, you will need to make the changes described for the exits and then compile the exits. The load library that contains the modified user exit should then be concatenated in front of the production ACR/File load library or the newly-modified members should replace the old members.

UDCCNTL User Exit

This exit allows you to customize data center-dependent information. The options provided in this exit will override the system's default options.

Available options are:

- The Control File dataset name. This dataset will be dynamically allocated at execution time, eliminating the need to code this DD and dataset name in the JCL. If desired, the dataset name may be overridden by a DD statement in the JCL.
- Licensee Name to appear on ACR/File reports. This name will appear on all ACR/File reports.
- Lines per page. This parameter determines the number of lines per page on all ACR/File reports. The default value is 60.

- The enqueue/reserve wait time. This parameter specifies the maximum time an ACR/File program will wait if another job has exclusive possession of definition database. The default is 900 seconds.
- The enqueue or reserve request option. This parameter specifies whether an enqueue and volume reserve or just an enqueue is to be used when accessing the ACR/File History file. The default is to issue an enqueue only. Both enqueue and reserve use the following formats:

File Description	QNAME	RNAME
ACR/File History file	ACRHIST	Dataset name from JCLDDNAME UNIHF
Control file	ACRCNTL	Dataset name from JCL DDNAME UNICF

- The VTOC Stamp option. This option tells ACR/File whether a creation time stamp should be put on the Volume Table of Contents (VTOC) each time an ACR/File controlled dataset is captured. This option also tells ACR/File that the user has his own time stamping routine. (Note: Default option is not to do VTOC stamping.)

Warning: The use of the VTOC Stamping Option, and particularly the value of the VTOC offset to be used, should be discussed with the user's systems programming area before turning on the VTOC Stamping Option. The Offset and Value When Empty fields are extremely sensitive. Specifying incorrect values in these fields can result in the inadvertent destruction of MVS system data and loss of the ability to access production files.

Following is the source listing.

UDCCNTL User Exit Source Listing (Part 1 of 4)

9 ■ User Options and User Exits

User Exits

```
IDENTIFICATION DIVISION.  
PROGRAM-ID.      UDCCNTL.  
EJECT  
ENVIRONMENT DIVISION.  
CONFIGURATION SECTION.  
INPUT-OUTPUT SECTION.  
FILE-CONTROL.  
DATA DIVISION.  
FILE SECTION.  
    EJECT  
WORKING-STORAGE SECTION.  
01  FILLER.  
    05  WS-CNTL-USER-INFO.  
        10  WS-CNTL-DSNAME          PIC X(44)  
            VALUE 'XXXX.XXXXXXXXXX.XXXXXXXXXX'.  
*-----*  
*  THE FOLLOWING VALUES WILL CAUSE THE  SYSTEM  -  
*  TO APPLY DEFAULTS.                      -  
*      1. USER NAME OF SPACES              -  
*      2. PAGE SIZE OF ZEROS               -  
*      3. WAIT TIME OF ZEROS               -  
*      4. RESERVE OPTION OF SPACES         -  
*      5. RETURN CODES OF 9999            -  
*-----*  
        10  WS-CNTL-USER-NAME          PIC X(40) VALUE SPACES.  
        10  WS-CNTL-PAGE-SIZE          PIC 9(3)  VALUE ZEROS.  
            88  WS-CNTL-PAGE-SIZE-OK    VALUES 30 THRU 999.  
        10  WS-CNTL-WAIT-SECONDS       PIC 9(4)  VALUE ZEROS.  
            88  WS-CNTL-WAIT-SECONDS-OK VALUE 600 THRU 3600.  
        10  WS-CNTL-RESERVE            PIC X(1)  VALUE ' '.  
            88  WS-CNTL-RESERVE-OK     VALUE 'Y' 'N'.  
        10  WS-CNTL-RETURN-CODE-I      PIC 9(4)  VALUE 9999.  
            88  WS-CNTL-RETURN-CODE-I-OK VALUE 0 THRU 4000.  
        10  WS-CNTL-RETURN-CODE-W      PIC 9(4)  VALUE 9999.  
            88  WS-CNTL-RETURN-CODE-W-OK VALUE 0 THRU 4000.  
        10  WS-CNTL-RETURN-CODE-E      PIC 9(4)  VALUE 9999.  
            88  WS-CNTL-RETURN-CODE-E-OK VALUE 0 THRU 4000.  
EJECT
```

UDCCNTL User Exit Source Listing (Part 2 of 4)

```

* THE FOLLOWING VTOC STAMP FIELDS ARE INITIALIZED SO THAT -
* VTOC STAMPING WILL NOT TAKE PLACE UNLESS THE USER PROVIDES -
* THE VALUES NEEDED TO STAMP THE VTOC IN THE FIELD THAT IS -
* APPROPRIATE FOR THAT USER'S MVS ENVIRONMENT. -
* -
* *** WARNING *** -
* THE USAGE OF THE VTOC STAMPING OPTION, AND PARTICULARLY -
* THE VALUE OF THE VTOC OFFSET TO BE USED, SHOULD BE -
* DISCUSSED WITH THE USER'S SYSTEMS PROGRAMMING AREA -
* BEFORE TURNING ON THE VTOC STAMPING OPTION. THE -
* OFFSET AND VALUE WHEN EMPTY FIELDS ARE EXTREMELY -
* SENSITIVE FIELDS. SPECIFYING INCORRECT VALUES IN -
* THESE FIELDS CAN RESULT IN THE INADVERTENT DESTRUCTION -
* OF MVS SYSTEM DATA AND LOSS OF THE ABILITY TO ACCESS -
* PRODUCTION FILES. -
* -----
10 WS-CNTL-VTOC-STAMP-OPTS-AREA.
15 WS-CNTL-VTOC-OFFSET PIC 9(2) VALUE 00.
88 WS-CNTL-VTOC-OFFSET-OK
   VALUE 00 THRU 96.
88 WS-CNTL-VTOC-OFFSET-NOT-SUPPLD
   VALUE 00.
88 WS-CNTL-VTOC-OFFSET-DSCB-VOLID
   VALUE 45 THRU 47.
88 WS-CNTL-VTOC-OFFSET-DS1SYSCD
   VALUE 62 THRU 71.
15 WS-CNTL-VTOC-FLD-EMPTY-VALUE PIC X(4)
   VALUE ' '.
88 WS-CNTL-VTOC-FLD-EMPTY-WHEN-BL VALUE 'BBBB'.
88 WS-CNTL-VTOC-FLD-EMPTY-WHEN-LV VALUE 'LLLL'.
88 WS-CNTL-VTOC-FLD-EMPTY-WHEN-HV VALUE 'HHHH'.
* WS-CNTL-VTOC-FLD-EMPTY-VALUE CAN ALSO CONTAIN -
* A PARTICULAR STRING OF USER-DEFND HEX VALUES -
15 WS-CNTL-VTOC-FLD-TYPE PIC X(1) VALUE 'N'.
88 WS-CNTL-VTOC-FLD-TYPE-OK VALUE 'N' 'T' 'C'.
88 WS-CNTL-VTOC-FLD-TYP-NONE VALUE 'N'.
88 WS-CNTL-VTOC-FLD-TYP-TIME VALUE 'T'.
88 WS-CNTL-VTOC-FLD-TYP-CREATE-ID VALUE 'C'.
15 WS-CNTL-VTOC-STAMP-OPT PIC X(1) VALUE 'N'.
88 WS-CNTL-VTOC-STAMP-OPT-OK VALUE 'N' 'Y' 'X'.
88 WS-CNTL-VTOC-STAMP-OPT-NO VALUE 'N'.
88 WS-CNTL-VTOC-STAMP-OPT-YES VALUE 'Y'.
88 WS-CNTL-VTOC-STAMP-OPT-COND VALUE 'X'.
* IF CNTL-VTOC-STAMP-OPT-COND, -
* THEN STAMP ONLY IF VALUE IN OFFSET FIELD -
* IS EQUAL TO CNTL-VTOC-FLD-EMPTY-VALUE -
15 WS-CNTL-CURR-VTOC-FLD-FORMAT PIC X(1) VALUE '0'.
88 WS-CNTL-CURR-VTOC-FLD-FORMT-OK
   VALUE '0', '1', '2', '3'.
88 WS-CNTL-CURR-FORMAT-NOT-APPLIC VALUE '0'.
88 WS-CNTL-CURR-FORMAT-LEN-1 VALUE '1'.
88 WS-CNTL-CURR-FORMAT-LEN-2 VALUE '2'.
88 WS-CNTL-CURR-FORMAT-HHMMSS VALUE '3'.

```

9 ■ User Options and User Exits

User Exits

UDCCNTL User Exit Source Listing (Part 3 of 4)

```
LINKAGE SECTION
01 UNICNTL-AREA.
   COPY UDCCNTL.
EJECT
PROCEDURE DIVISION USING UNICNTL-AREA.
   0000-MAIN-LOGIC.
*-----*
*   THE USER HAS THE OPTION OF PROVIDING THE CONTROL FILE -
*   DATASET NAME. -
*-----*
*   MOVE WS-CNTL-DSNAME           TO CNTL-DSNAME.
*-----*
*   THE FOLLOWING VALUES ARE PRESET IN WORKING STORAGE. -
*   THE USER MUST PROVIDE THE DEFAULT PARAMETERS FOR THE -
*   1. THE NAME TO USE AT THE TOP OF ALL REPORTS -
*   2. REPORT PAGE SIZE IN NUMBER OF LINES -
*   3. THE NUMBER OF SECONDS TO WAIT FOR A CLEAR HISTORY -
*   4. TO USE RESERVE OR ENQUE LOGIC -
*   5. THE INCREMENT FOR INFORMATION LEVEL MESSAGES. -
*   6. THE INCREMENT FOR WARNING LEVEL MESSAGES. -
*   7. THE INCREMENT FOR ERROR LEVEL MESSAGES. -
* -
*   THESE VALUES ARE ACCEPTED FROM THE CONTROL FILE -
*   WHEN NOT PROVIDED/ CHANGED HERE. -
*-----*
*   MOVE WS-CNTL-USER-NAME        TO CNTL-USER-NAME.
*   MOVE WS-CNTL-PAGE-SIZE        TO CNTL-PAGE-SIZE.
*   MOVE WS-CNTL-WAIT-SECONDS     TO CNTL-WAIT-SECNDS.
*   MOVE WS-CNTL-RESERVE          TO CNTL-RESERVE-OPTION.
*   MOVE WS-CNTL-RETURN-CODE-I    TO CNTL-RETURN-CODE-I.
*   MOVE WS-CNTL-RETURN-CODE-W    TO CNTL-RETURN-CODE-W.
*   MOVE WS-CNTL-RETURN-CODE-E    TO CNTL-RETURN-CODE-E.
EJECT
```

UDCCNTL User Exit Source Listing (Part 4 of 4)

```

* THE FOLLOWING FIELDS ARE USED BY THE UNISTMP MODULE -
* FOR STAMPING A CREATION ID (TIME OR NBR) ON THE VTOC -
* AND/OR RETRIEVING THAT CREATION ID FROM THE VTOC. -
* THESE VALUES MUST BE SET BY THE USER IN THE WORKING -
* STORAGE SECTION OF THIS MODULE IF THE VTOC STAMPING -
* OPTION IS TO BE USED. THE DEFAULT IS NOT TO USE THE -
* VTOC STAMPING OPTION. -
* -
* *** WARNING *** -
* THE USAGE OF THE VTOC STAMPING OPTION, AND ESPECIALLY -
* THE VALUE OF THE VTOC OFFSET TO BE USED, SHOULD BE -
* DISCUSSED WITH THE USER'S SYSTEMS PROGRAMMING AREA -
* BEFORE TURNING ON THE VTOC STAMPING OPTION. THE -
* OFFSET AND VALUE WHEN EMPTY FIELDS ARE EXTREMELY -
* SENSITIVE FIELDS. SPECIFYING INCORRECT VALUES IN -
* THESE FIELDS CAN RESULT IN THE INADVERTENT DESTRUCTION -
* OF MVS SYSTEM DATA AND LOSS OF THE ABILITY TO ACCESS -
* PRODUCTION FILES. -
* -
* 1. THE OFFSET TO BE USED WHEN STAMPING THE VTOC -
* 2. THE VALUE THAT THE FIELD AT THE OFFSET WILL -
* CONTAIN WHEN THAT FIELD IS EMPTY (EX. LOW-VALS) -
* 3. THE TYPE OF DATA LOCATED AT THE OFFSET -
* 4. AN OPTION TO TELL UNISTMP WHETHER TO STAMP OR NOT -
* 5. THE FORMAT OF THE DATA LOCATED AT THE OFFSET -
* -
*-----
*
MOVE WS-CNTL-VTOC-OFFSET TO CNTL-VTOC-OFFSET.
MOVE WS-CNTL-VTOC-FLD-EMPTY-VALUE
TO CNTL-VTOC-FLD-EMPTY-VALUE.
MOVE WS-CNTL-VTOC-FLD-TYPE TO CNTL-VTOC-FLD-TYPE.
MOVE WS-CNTL-VTOC-STAMP-OPT TO CNTL-VTOC-STAMP-OPT.
MOVE WS-CNTL-CURR-VTOC-FLD-FORMAT
TO CNTL-CURR-VTOC-FLD-FORMAT.

GOBACK.

```

9 ■ User Options and User Exits

User Exits

UDCCNUM User Exit

This exit allows you to modify the Cycle Number used in ACR/File execution. First, ACR/File will determine the Cycle Number based on the Cycle Option, Cycle Reference Job ID, or PARM. Then it will pass that Cycle Number, along with the Job ID, to the exit.

Following is the source listing.

UDCCNUM User Exit Source Listing

```
IDENTIFICATION DIVISION.  
  
PROGRAM-ID. UDCCNUM.  
  
ENVIRONMENT DIVISION.  
CONFIGURATION SECTION.  
INPUT-OUTPUT SECTION.  
FILE-CONTROL.  
DATA DIVISION.  
FILE SECTION.  
WORKING-STORAGE SECTION.  
01 FILLER.  
    05 FILLER                PIC X(40)  
        VALUE 'WORKING-STORAGE FOR UDCCNUM STARTS HERE.'  
LINKAGE SECTION.  
01 CNUM-AREA.  
    COPY UDCCNUM.  
EJECT  
PROCEDURE DIVISION USING CNUM-AREA.  
*-----  
*   THE USER MAY ADD CODE HERE TO MODIFY THE CYCLE NUMBER   -  
*   FOR YOUR PROCESSING. THE CNUM AREA IN LINKAGE IS PROVIDED -  
*   FOR THAT PURPOSE.                                         -  
*-----  
GOBACK.
```

UDCEXIT User Exit

This exit is used in ACR/File to set the step return code and to issue a user abend if required. The return code to be set is provided in this exit.

Following is the source listing.

UDCEXIT Source Listing Part 1 of 2

```

IDENTIFICATION DIVISION.

PROGRAM-ID. UDCEXIT.

ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
DATA DIVISION.
WORKING-STORAGE SECTION.

01  FILLER.
   05  FILLER                                PIC X(40)
      VALUE  'WORKING-STORAGE FOR UDCEXIT STARTS HERE.'.
   05  UNI-ABEND-CODE                        PIC S9(4) COMP-3.

LINKAGE SECTION.
01  UNI-EXIT-AREA.
   COPY UDCEXIT.

EJECT
PROCEDURE DIVISION USING UNI-EXIT-AREA.
*-----*
*  THE FOLLOWING CODE IS USED BY THE SYSTEM WHEN HANDLING  -
*  RETURN CODE SETTING AND REQUESTS FOR ABENDS. THE USER MAY -
*  ADD CONDITIONAL CUSTOM CODE HERE. IT IS NOT EXPECTED THAT -
*  THE PROVIDED CODE WILL BE CHANGED.                        -
*-----*

0000-PROGRAM-CONTROL.
   PERFORM 1000-PROGRAM-BEGIN.
   PERFORM 2000-PROCESS-EXIT.
   PERFORM 3000-PROGRAM-END.
EJECT
1000-PROGRAM-BEGIN.
   IF (EXIT-OPTION-ABEND
      AND EXIT-RETURN-CODE NOT NUMERIC)
      DISPLAY '#UBS002E: RETURN CODE IS NOT NUMERIC.'
   PERFORM 3000-PROGRAM-END.

   IF (EXIT-OPTION-ABEND
      AND EXIT-RETURN-CODE NUMERIC
      AND EXIT-RETURN-CODE IS GREATER THAN 4096)
      DISPLAY '#UBS003E: RETURN CODE IS GREATER THAN 4096.'
   PERFORM 3000-PROGRAM-END.
EJECT
2000-PROCESS-EXIT.

```

9 ■ User Options and User Exits

User Exits

UDCEXIT Source Listing Part 2 of 2

```
*-----  
*  INSERT COBOL STATEMENTS TO PROCESS EXIT HERE  -  
*-----  
  
    IF EXIT-OPTION-SET-RETURN-CODE  
        MOVE EXIT-RETURN-CODE TO RETURN-CODE.  
    IF (EXIT-OPTION-ABEND  
        AND EXIT-RETURN-CODE NUMERIC  
        AND EXIT-RETURN-CODE IS GREATER THAN ZERO)  
        MOVE EXIT-RETURN-CODE TO UNI-ABEND-CODE  
        CALL 'UNIABND' USING UNI-ABEND-CODE.  
  
EJECT  
3000-PROGRAM-END.  
GOBACK.
```

UDCJNAM User Exit

This exit is provided for modification of the job and step name to be used by ACR/File in processing. The job, step, and proc step names from the JCL are provided in this exit. Following is the source listing.

```
IDENTIFICATION DIVISION.  
  
PROGRAM-ID. UDCJNAM.  
  
ENVIRONMENT DIVISION.  
CONFIGURATION SECTION.  
INPUT-OUTPUT SECTION.  
FILE-CONTROL.  
DATA DIVISION.  
  
WORKING-STORAGE SECTION.  
  
01  FILLER.  
    05  FILLER                PIC X(40)  
        VALUE 'WORKING-STORAGE FOR UDCJNAM STARTS HERE.'.  
  
LINKAGE SECTION.  
  
01  JOB-NAME-AREA.  
    COPY UDCJNAM.  
  
EJECT  
PROCEDURE DIVISION USING JOB-NAME-AREA.  
  
*-----  
*  INSERT COBOL STATEMENTS TO PROCESS JOB AND STEP NAMES HERE.-  
*  THE USER MAY MODIFY THE JOB OR STEP NAME TO BE USED IN DCF -  
*  PROCESSING. THE UNIJNAM AREA IN LINKAGE PROVIDES THE USER -  
*  WITH THE CURRENT JOB, STEP, AND PROC STEP NAMES.           -  
*-----  
  
GOBACK.
```

UDCUOPT User Exit

This exit can be used to provide a system-wide default User Option File dataset name. This dataset will be dynamically allocated at execution time, eliminating the need to code this DD and dataset name in the JCL. The name provided in this exit can be overridden by a DD statement in the JCL.

Following is the source listing.

UDCUOPT Source Listing

```

IDENTIFICATION DIVISION.
PROGRAM-ID.    UDCUOPT.
ENVIRONMENT DIVISION.
CONFIGURATION SECTION.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
DATA DIVISION.
FILE SECTION.

EJECT
WORKING-STORAGE SECTION.
01  FILLER.
    05  WS-UNIUOPT-DSNAME          PIC X(44)
        VALUE 'XXXXXXXX.XXXXXXXXXX.XXXXXXXXXX'.
EJECT
LINKAGE SECTION.
01  UNIUOPT-AREA.
    COPY UDCUOPT.
EJECT
PROCEDURE DIVISION USING UNIUOPT-AREA.
*-----
*   THE USER MAY MODIFY THE DATASET NAME USED FOR THE USER -
*   OPTIONS FILE. MOVE THE DATASET NAME REQUIRED TO THE -
*   UNIUOPT AREA AS SHOWN BELOW. -
*-----
*   MOVE WS-UNIUOPT-DSNAME TO UOPT-DSNAME.
GOBACK.
EJECT

```

UDCEX00 User Exit

This exit allows the user to override the return code, message descriptions, and recommended actions for specific Message IDs. Additionally, the user can change the display option for any Message ID.

To modify the return code, message description, and/or recommended action, do the following:

1. Enter the Message ID of the message to be modified into one of the MSG ID fields.

9 ■ User Options and User Exits

User Exits

2. Enter the return code to be used for this Message ID, if the pre-defined return code is not to be used. (Blanks cause the pre-defined return code to be used).
3. Enter the descriptions to be used for this Message ID, if the pre-defined descriptions are not to be used. (All Xs cause the pre-defined descriptions to be used).
4. Enter the recommended actions to be used for this Message ID, if the pre-defined recommended actions are not to be used. (All Xs cause the pre-defined recommended actions to be used).

The rules for using message modification are:

- Only Message IDs with the format '#UDC3XXE' can have their return code, message descriptions and/or recommended actions overridden. These Message IDs are as follows:

#UDC300E	#UDC325E	#UDC350E
#UDC305E	#UDC335E	#UDC355E
#UDC310E	#UDC336E	#UDC360E
#UDC315E	#UDC337E	#UDC365E
#UDC318E	#UDC338E	#UDC370E
#UDC320E	#UDC340E	#UDC375E
#UDC325E	#UDC345E	#UDC380E

- The return code, if specified, must be numeric and less than 4096.

To change the display option for a Message ID, do the following:

1. Enter the Message ID of the message to be modified into one of the MSG-ID fields.
2. Enter the display options to be used for this Message ID, if the display option that would normally be used at this execution is to be overridden. (Blanks cause the normal display option to be used).

The following rules apply to changing a display option for a Message ID:

- The display option, if specified must be Y or X. A Y will cause the message to be displayed to the Sysout. An X will cause the message to be displayed on the console as well as to Sysout.
- Any Message ID can have its display option modified, but no more than 50 Message IDs can be selected for modification.

Following is the source listing.

9 ■ User Options and User Exits

User Exits

UDCEX00 User Exit Source Listing (Part 2 of 2)

```
LINKAGE SECTION.  
  COPY UDCLEX00.  
EJECT  
PROCEDURE DIVISION  
USING EX00-OVERRIDE-AREA.  
0000-MAIN-LOGIC.  
*-----*  
* THE USER SHOULD NOT MODIFY ANY OF THE CODE BELOW. ALL *  
* MESSAGE OVERRIDE VALUES SHOULD BE SUPPLIED BY THE USER *  
* IN THE WS-MSG-OVERRIDES WORKING STORAGE AREA. *  
*-----*  
MOVE WS-MSG-OVRD-001-VALUES TO EX00-OVERRIDE-001-VALUES.  
  
MOVE WS-MSG-OVRD-050-VALUES TO EX00-OVERRIDE-050-VALUES.  
GOBACK.
```

UDCEX02 User Exit

This assembler exit provides access for collection of data from any tape or disk management system. This exit is invoked by ACR/File before it performs history logging or verification. This allows for the extraction of block counts and creation data from the installation's tape or disk file management system. The area to be passed to and from the UDCEX02 User Exit is included in UNI.COPYLIB as the EPA1MUNI macro.

A sample of a UDCEX02 exit that can be used to extract information from the TMS tape management system can be found in UNI.SRCELIB under the member name: UDCTMSX. If used, ensure that this source matches your requirements. Next, change all references to UDCTMSX to UDCEX02 and assemble and link the exit.

Following is the source listing.

UDCEX02 User Exit Source Listing (Part 1 of 2)

```

        PRINT OFF
        MACRO
        EYE
        DC CL10'&SYSECT' EYE CATCHER
        DCCL10'&SYSDATE'
        DCCL12'&SYSTIME'
        MEND
        PRINT ON
UDCEX02CSECT
        B108(R15)SKIP SAVE AREA
*****
*GENERATE DISPLAY SET TO EASE DEBUGGING
*****
        EYE
*****
*   SET STANDARD SAVE AREA LINKAGE
*****
        USING *,R13,R12
        DC 18F'0'
        STM R14,R12,12(R13)STD SAVE
        ST R13,40(R15)
        LR R3,R13
        LA R13,36(R15)
        ST R13,8(R3)
        LA R12,4095(R13)
        LA R12,1(R12)
*****
*   PARAMETER LIST POINTER
*****
        USING VOLINFO,R11
        L R11,0(R1)
*****
        L R11,0(R11)
        BEGINDS OH
        MVI EPAIRC,C'0'SET CALL RETURN CODE
*****
DONE          DS OH

```

9 ■ User Options and User Exits

User Exits

UDCEX02 User Exit Source Listing (Part 2 of 2)s

```
*****  
*   RETURN TO THE PROGRAM  
*****  
          L           R13,4(R13)  
          ST          R15,16(R13)  
          LM          R14,R12,12(R13)  
          SR          R15,R15  
          BR          R14  
VOLINFOM  DSECT  
          EPA1AUDC  
R0        EQU        0  
R1        EQU        1  
R2        EQU        2  
R3        EQU        3  
R4        EQU        4  
R5        EQU        5  
R6        EQU        6  
R7        EQU        7  
R8        EQU        8  
R9        EQU        9  
R10       EQU        10  
R11       EQU        11  
R12       EQU        12  
R13       EQU        13  
R14       EQU        14  
R15       EQU        15  
          END
```

Utilities

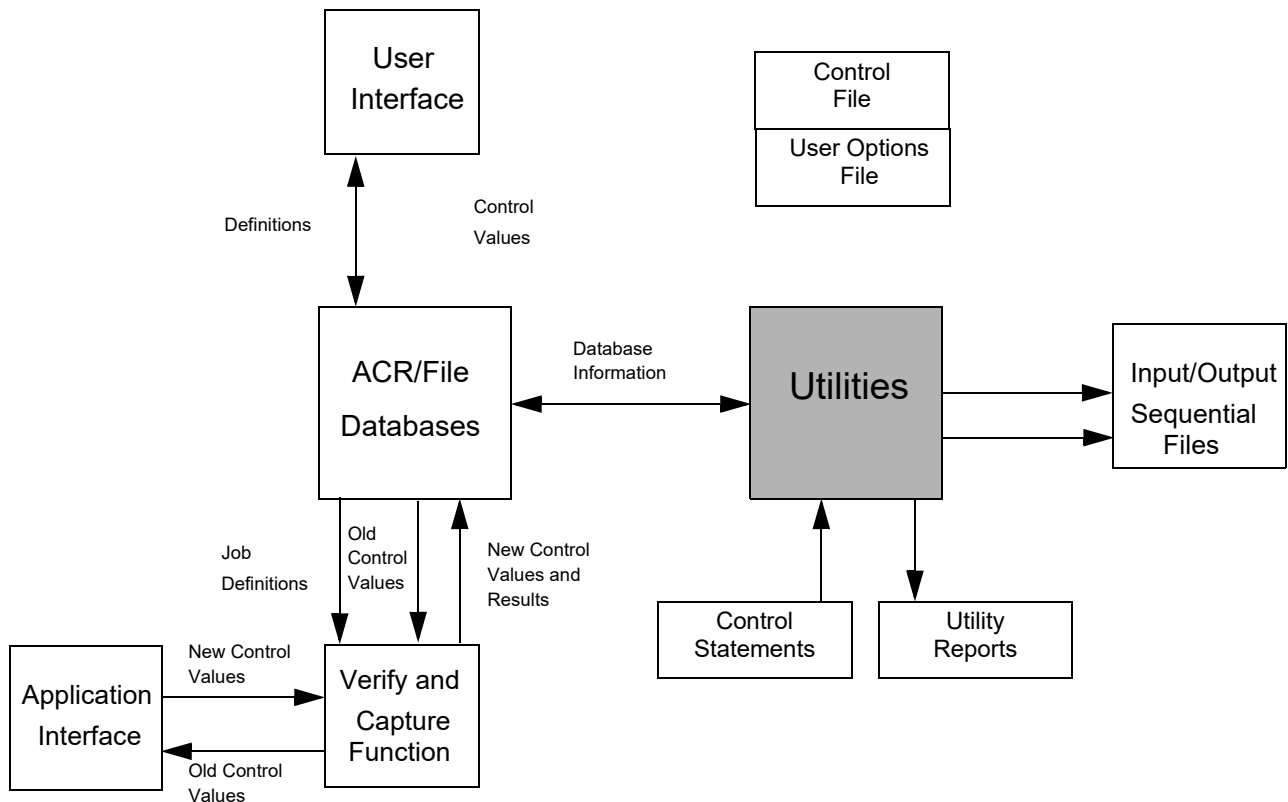
This chapter briefly describes each of the ACR/File Utilities. Included are descriptions of the utility's function and any output report(s) it may generate, and suggestions for its use.

This chapter contains the following sections:

- “Utilities and How to Use Them” on page 208
- “Update Definitions: UPDATE DEFN” on page 211
- “List Definitions: LIST DEFN” on page 213
- “List Histories: LIST HIST” on page 215
- “Delete History Record: DELETE HIST” on page 217
- “Reorganize History Database: REORG HIST” on page 219
- “Print Selected Job Summary Information from History: PRINT JOB and PRINT EXCSUMM” on page 222
- “Print Selected Job Detail Information from History: PRINT JOB DETAIL and PRINT EXCDTL” on page 224
- “Sort Directory Records on the History Database: SORTDIR HIST” on page 226
- “List Cross Reference Definitions: LIST XREF” on page 227
- “Build Batch Transactions: BUILD DEFN” on page 230

Utilities and How to Use Them

Diagram of the ACR/File Utilities



The ACR/File Utilities generate a number of useful output reports, such as the detailed lists of ACR/File definitions and histories within the Database. Many of the utilities also function as tools for maintaining the databases. For example, with these utilities, you can:

- Update the definition database from batch transactions.
- Print a formatted listing of definitions for a specific Job or Cycle ID, or range of Job or Cycle IDs from the definition database.
- Print a formatted list of histories for a specific Job ID or range of Job IDs from the history database. When this report is run for all Job IDs in a history database, you also receive statistics on the number of Job IDs and histories in the Database, including the number allowed, used, and available for use.

- Delete the history for a specific Job ID and Cycle Number from the history database.
- Reorganize and expand the entire history database.
- Print selected job summary information from history.
- Print information about jobs that have run under the control of ACR/File.
- Sort the directory records of the history database to improve performance when working with very large history databases.
- Print information about Cross References between output file items and input file items.

Using the Utilities: UDCUTIL and UDCUPDT

Most of the utilities are invoked by executing the UDCUTIL program. The JCL to execute the UDCUTIL program can be generated through the User Interface. The UDCUTIL program reads control statements, validates and processes them, produces the UDCUTIL transaction listing, and performs the function specified in the control statements.

Another utility function, UPDATE DEFN, is processed through the UDCUPDT program. This program validates and applies ACR/File batch definition transactions to the definition database. See Appendix C— Batch Definition Transactions for more information about UDCUPDT and batch definition transactions.

10 ■ Utilities

Utilities and How to Use Them

UDCUTIL Parameters

Field	Description
Function Name	An 8-character field that specifies the type of processing for a particular utility. Examples of function names are PRINT, DELETE, and LIST.
File/Report Name	An 8-character field. Examples of these File/Report Names are UDCDEFN and UDCHIST.
Record Sequence Field	A 3-digit field (blanks or 001) that specifies the sequence number of the record within the transaction.
Function Parameters Field	A 60-character field used to specify any additional information that may be optional or required.

Where to Find Out More

For examples of utility reports, see [Appendix A, “Reports” on page 265](#).

For examples of the JCL and control cards for the utilities, see [Appendix B, “JCL and Control Statements” on page 279](#).

Utilities Panel

Each ACR/File Utility has a panel associated with it. Each of these panels can be accessed from the ACR/File Utilities Panel.

```

----- ACR/F UTILITIES -----
releasenumbr
===>
ACR/F
PANEL: UDC3000

- 1 UPDATE DEFN      : UPDATE DEFINITION DATA BASE FROM BATCH TRANSACTIONS
- 2 LIST DEFN        : PRODUCE FORMATTED LIST OF DEFINITIONS
- 3 LIST HIST        : PRODUCE FORMATTED LIST OF HISTORY RECORDS
- 4 DELETE HIST      : DELETE HISTORY RECORDS FROM THE HISTORY DATA BASE
- 5 REORG HIST       : REMOVE UNNEEDED RECORDS AND EXPAND HISTORY DATA BASE
- 6 PRINT JOB        : PRINT SELECTED JOB SUMMARY INFORMATION FROM HISTORY
- 7 PRINT JOB DETAIL : PRINT SELECTED JOB DETAIL INFORMATION FROM
- 8 SORTDIR HIST     : SORT DIRECTORY RECORDS ON THE HISTORY DATA BASE
- 9 LIST XREF        : PRODUCE FORMATTED LIST OF CROSS REFERENCES
- 10 BUILD DEFN      : BUILD BATCH TRANSACTIONS FROM DEFINITION DATA BASE

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

Update Definitions: UPDATE DEFN

UPDATE DEFN offers an alternative to updating definitions on-line (that is, activating them). This utility permits you to update definitions directly with a batch process, providing a printed audit trail of changes made to the definition database.

A JCL procedure, UDCUPDT, sorts batch definition transaction records in the proper sequence, and then validates the sorted records. If there are no validation errors, UDCUPDT adds, deletes, and/or replaces the ACR/File definitions in the definition database. If there are validation errors, the Database is not updated, and the UDCUPDT step terminates with a return code of 16.

Reports

UPDATE DEFN produces the ACR/File Definitions Update Report.

Update Definition Database Panel

```

----- UPDATE DEFINITION DATABASE ----- ACR/F releasenum
====>                                     PANEL: UDC3100
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:

JOB NAME====> USERIDA
JCL LIBRARY :
  DSN ====> USERID.UDC.PROCLIB      <====
  MEMBER====> UDCUPDT

DEFINITION DATABASE:
  DSN====> USERID.UDC.UDCDEFN      <====

BATCH TRANSACTION LIBRARY:
  DSN ====> USERID.UDC.TRANLIB      <====
  MEMBER====>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JCL AND MEMBER SELECTION Information:

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY information. The dataset and member name of the library where the UDCUPDT JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCUPDT.

DEFINITION DATABASE information: (VSAM) The definition database to be updated by the batch transactions.

DSN. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

BATCH TRANSACTION LIBRARY information: This is the dataset name of the library where the batch transactions reside that are to be used to update the definition database.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will get the batch definitions from within the specified dataset.

List Definitions: LIST DEFN

LIST DEFN provides thorough documentation for your ACR/File definitions. LIST DEFN shows exactly what definitions are being used for capturing and verifying. It is also helpful during debugging procedures. Finally, LIST DEFN is useful for disaster recovery procedures, because the entire production definition database (including verification requirements) can be stored off-site in readable form, either on paper or on microfilm (fiche).

To produce a report, identify the definition file whose contents you wish to list and specify the range of Definition IDs that you wish to list.

Reports

- The Database History and Statistics Report tells you the date and time of initialization for a given definition database, as well as the date and time of the most recent update. The report also tells you the numbers of different types of records within that Database.
- The Index of Definition Keys Report gives you a list of the definition keys within a definition database (UNIDF). It also tells you each key's type (for example, Job ID or Cycle ID).
- The Detailed Job Definitions Report gives you detailed definitions for one or more Job IDs. Basic Job Information, Alternate Key Information, Input File Items, and Output File Items are summarized and listed. This report can be produced in a list format or an expanded format.
- The Detailed Cycle Table Definitions Report gives you detailed information about particular Cycle Table definitions, listed under individual Cycle Table IDs.

For report samples, see [“LIST DEFN Reports” on page 270](#).

Print Definition Listing Panel (UDC3200)

```

----- PRINT DEFINITION LISTING -----ACR/F releasenumbr
====>                                     PANEL: UDC3200

JOB NAME ====> USERIDA
JCL LIBRARY :
  DSN====> USERID.UDC.PROCLIB           <====
  MEMBER====> UDCDFL

DATABASE NAME INFORMATION:
  DEFINITION DATABASE:
    DSN====> USERID.UDC.UDCDEFN       <====

SELECTION RANGE : (LEAVE BLANK FOR ALL DEFINITIONS)
  FROM====><====
  TO====><====

SELECT KEY TYPE:  ====>  <==== (J=JOB-IDS, T=CYC-TBLS, BLANK=BOTH)
DEFINITION LIST REPORT STYLE:  ====>  <==== (L=LIST STYLE, E=EXPANDED STYLE)

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY information (PDS). The dataset and member name of the library where the LIST DEFN will be stored.

DSN. This field defaults to the library created, using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCDFL.

DATABASE NAME INFORMATION (VSAM):

DEFINITION DATABASE. The definition database whose contents you wish to list. This is the file that holds the definitions.

DSN. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

SELECTION RANGE. The specification for what Job IDs and Cycle IDs are to be displayed in the definition list.

FROM. A unique string of up to 18 characters that represents the beginning point of the definition list.

TO. A unique string of up to 18 characters that represents the ending point of the definition list.

The following listings of definitions can be displayed:

- Complete listing: Leave all Selection Range fields blank.
- Range of definitions (from start to end): Specify the From and To fields.

SELECTION KEY TYPE. A 1-character code indicating the types of definitions to display in the definition list. A value of Blank will result in all definitions being displayed. A value of J will result in only job definitions being displayed. A value of T will result in only Cycle Table definitions being displayed.

DEFINITION LIST REPORT STYLE. A 1-character code indicating the type of report to be produced. A value of Blank or L will result in a List style. A value of E will result in an Expanded style.

List Histories: LIST HIST

The List Histories utility prints a formatted summary of histories in the Database. You select the history database whose contents you wish to have summarized, as well as the range of histories within that database.

This utility is helpful in determining what happened when a verification step last ran, without requiring that the step be rerun. It will also tell you how much space remains in your database. LIST HIST is also helpful for debugging purposes.

Reports

Four output reports may be generated.

- The Database History and Statistics Report gives you detailed information about an individual history database. Included is information such as the date and time of initialization, the date and time of last update, the number of Job ID keys used, the number of Job Id keys still available, the number of histories used, and the number of histories still available.
- The Index of Histories Report lists information for every Job ID in the history database, including the number of active histories for each key.
- The Summary of Histories Report gives you information about each history in the history database. Listed by Job ID key, each history's run date, run time, and status (which shows reruns, updates, and deletes) are provided.
- The History Data Detail Report tells you what happened during a capture or verification process for each of the files that were captured or verified.

10 ■ Utilities

List Histories: LIST HIST

Print History Listing Panel

```
----- PRINT HISTORY LISTING -----ACR/F releasenumbr
====>                                     PANEL: UDC3300
JOB NAME====> USERIDA
JCL LIBRARY :
  DSN====> USERID.UDC.PROCLIB <====
  MEMBER====> UDCHFL

DATABASE NAME INFORMATION:
  HISTORY DATABASE:
    DSN====> USERID.UDC.UDCHIST  <====

SELECTION RANGE : (LEAVE BLANK FOR ALL HISTORIES)
  FROM====><====
  TO====> <====

REPORT TYPE : (BLANK=SUMMARY, D=DETAIL, B=BOTH, I=INDEX)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY (PDS). The dataset and member name of the library where the LIST HIST JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCHFL.

DATABASE NAME INFORMATION: (VSAM).

HISTORY DATABASE. The history database whose contents you intend to list. This is the name of the file that holds the history information for each job run.

DSN. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

SELECTION RANGE. The range of histories to be listed in the report.

FROM. An 18-character Job ID that indicates the starting point of the range of histories to be listed.

TO. An 18-character Job ID that indicates the ending point of the range of histories to be listed.

The following listings of histories can be displayed:

- Complete listing: Leave FROM and TO fields blank.
- Only one Job ID History: Specify the Job ID in the FROM field, but leave the TO field blank.

REPORT TYPE. The type of report that you would like produced. A blank will result in a summary report which gives you statistical information about the history database, an index of all Job IDs on the Database, and information about when a job ran and if it was a rerun. By specifying option D, you will prompt ACR/File to produce a more detailed report. By specifying option B, both summary and detailed reports will be produced. By specifying option I, you will get a report that only shows statistical information about the history database and an index of all Job IDs on the database.

Delete History Record: DELETE HIST

This utility deletes the history records with the specified Job ID and Cycle ID from the history database. Alternatively, you can choose a range of Cycle IDs to be deleted.

This utility is useful if a job has been run out of order, or if a job has been removed from the production processing cycle.

Note: DELETE HIST is a logical delete; that is, the deleted history will continue to take up space within the database. The REORG HIST utility will physically delete all logically deleted records.

Reports

The UDCMSGs Report will display all records that have been marked for deletion.

Delete History Records Panel

```

----- DELETED HISTORY RECORDS ----- ACR/F      releasnumber
====>                                     PANEL: UDC3400
SPECIFY/VERIFY JCL AND RECORD DELETE INFORMATION BELOW:

JOB NAME====> USERIDA
JCL LIBRARY:
  DSN====> USERID.UDC.PROCLIB<====
  MEMBER====> UDCHFD

HISTORY DATABASE:
  DSN====> USERID.UDC.UDCHIST<====

JOB ID:
JOB NAME====>STEP NAME      ==>QUALIFIER      ==>

CYCLE ID RANGE:
FROM: CYCLE NUMBER====>          RUN NUMBER====>

TO: CYCLE NUMBER ==>          RUN NUMBER ==>

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB NAME

An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY (PDS). The dataset and member name of the library where the DELETE HIST JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCHFD.

HISTORY DATABASE (VSAM). The history database that contains history records that are to be deleted. This file holds the DCF history information for each job run.

DSN. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

JOB ID:

JOB NAME. An 8- character field specifying part of the Job ID of the ACR/File History to be deleted.

STEP NAME. An 8- character field specifying part of the Job ID of the ACR/File History to be deleted.

QUAL. A 2-character field specifying part of the Job ID of the ACR/File History to be deleted.

CYCLE ID RANGE. The range of the histories you wish to delete, specified by Cycle Number (typically, the date the job was run) and Run Number.

FROM CYCLE NUMBER. An 8-character field specifying part of the Cycle ID for the beginning of the range of histories.

RUN NUMBER. A 3-character field specifying part of the Cycle ID for the beginning of the range of histories

TO CYCLE NUMBER. An 8-character field specifying part of the Cycle ID for the ending of the range of histories. If you leave the TO fields blank, the ending history in the Cycle ID Range will be the last history in the Database.

RUN NUMBER. A 3-character field specifying part of the Cycle ID for the ending of the range of histories.

Note: You may wish to restrict access to this utility. Use your normal security systems software to restrict access.

Reorganize History Database: REORG HIST

Warning: Before doing a REORG, make a sequential backup copy of the history database. This will protect you against system failure or job cancellation during the REORG.

This utility reorganizes history records into a new history database and provides a method for increasing the database size if your current history database is getting full. During the reorganizing process, all logically deleted histories are permanently erased. Additionally, this utility fixes broken chains that can occur if a job is cancelled while an ACR/File step is executing. The directory records are sorted during this process so that ACR/File performance can be optimized.

If you have a very large history database (over 1,000 Job IDs), you may want to schedule this utility to run as the first or last job in your weekly processing.

You must specify the name of the database to be reorganized (the one that contains logically deleted records) and the name of the database to be created.

Reports

The UDCMSGs Report will tell you which version of the history database has been reorganized, the Record Type, Job ID, and Cycle ID of any history that has been dropped, and the reason it was dropped.

Reorganize the History Database Panel

```

----- REORGANIZE THE HISTORY DATA BASE ----- ACR/F releasenumbr
====>                                     PANEL: UDC3500
SPECIFY/VERIFY JCL AND RECORD REORG INFORMATION BELOW:

JOB NAME      ==> USERIDA
JCL LIBRARY:
  DSN         ==> USERID.UDC.PROCLIB          <====
  MEMBER      ==> UDCHFR

HISTORY DATA BASE TO BE REORGANIZED:
  DSN         ==> USERID.UDC.UDCHIST          <====

NEW HISTORY DATA BASE TO BE CREATED:
  DSN         ==>                               <====
  MANGEMENTCLASS ==>          STORAGECLASS ==>
  DATACLASS    ==>          VOLSER      ==>

NEW HISTORY DATA BASE SIZE PARAMETERS:
ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS      ==> 1
ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS            ==> 1
AVERAGE NUMBER OF HISTORIES PER JOB ID             ==> 1
AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP ==> 1 (1 - 32)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JOB NAME. The 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY (PDS). The dataset and member name of the library where the REORG will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCHFR.

HISTORY DATABASE TO BE REORGANIZED. The file containing data to be reorganized and moved to the new history database.

DSN. This field specifies the dataset name of the history database to be reorganized. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

NEW HISTORY DATABASE TO BE CREATED

DSN. This field specifies the dataset name of the ACR/File Database that will become the new, reallocated, and reorganized version of the history database.

VOLSER. This field indicates the volser for the history you are creating.

MANAGEMENTCLASS. The SMS Management class in which the database will reside.

STORAGECLASS. The SMS Storage class in which the database will reside.

DATACLASS. The SMS Data class in which the database will reside.

NEW HISTORY DATABASE SIZE PARAMETERS

ESTIMATED TOTAL NUMBER OF AUTOMATIC RERUN JOBS. This field identifies the number of Automatic Rerun steps you intend to insert into your job streams. It is needed so that the history size can be determined. It defaults to the number specified on the Initialize ACR/File Database Panel (UDC4500).

ESTIMATED TOTAL NUMBER OF UNIQUE JOB IDS. This field identifies the total number of capture and verification steps you expect to insert into your job streams. It is needed so that the size can be determined. It defaults to the number specified on the Initialize ACR/File Database Panel (UDC4500).

AVERAGE NUMBER OF HISTORIES PER JOB ID. This field identifies the number of histories you expect to keep for each Job ID. It is needed so that history size can be determined. It defaults to the number specified on the Initialize ACR/File Database Panel (UDC4500).

AVERAGE NUMBER OF FILES TO BE CAPTURED/VERIFIED PER STEP. This field identifies the number of files you expect to be captured/verified per step (1 -32), so the history size can be determined. It defaults to the number specified on the Initialize ACR/File Database Panel (UDC4500). The total number of History records required is calculated automatically by ACR/File.

If a new history database is being created, the number of Job IDs and the number of History records for the new database must be equal to or greater than the number of Job IDs and History records on the old history database.

Print Selected Job Summary Information from History: PRINT JOB and PRINT EXCSUMM

This utility is used to create the JCL and UDCUTIL transaction for performing the PRINT JOB or PRINT EXCSUMM utility function.

This utility prints summary information about jobs that have run under the control of ACR/File. This is useful for reviewing information about what jobs had problems, what the problems were, and which jobs were rerun.

By specifying the selection criteria, you can limit what jobs you get information about. The selection criteria are applied in the sequence in which they are listed. If a history record doesn't meet all of the selection criteria, it will not be printed.

Reports

A report of all selected jobs is produced at DD: UDCHFJS if the PRINT JOB function is used, or at DD: UDCHFES if the PRINT EXCSUMM function is used.

Print Job Summary Info From History Panel

```

----- PRINT JOB SUMMARY INFO FROM HISTORY----- ACR/F releasenumbr
====>                                           PANEL: UDC3600
SPECIFY/VERIFY JCL AND RECORD SELECTION INFORMATION BELOW:

JOB NAME      ====> USERIDA
JCL LIBRARY:
  DSN         ====> USERID.UDC.PROCLIB          <====
  MEMBER      ====>

HISTORY DATA BASE TO BE SELECTED FROM:
  DSN         ====> USERID.UDC.UDCHIST          <====

HISTORY SELECTION CRITERIA: (ALL BLANKS WILL GIVE INFO FOR ALL JOBS)
JOBNAME RANGE:          FROM  ====>           TO  ====>
JOBDATE RANGE: (CCYYMMDD) FROM  ====>           TO  ====>
CYCLEID RANGE:          FROM  ====>           TO  ====>
ALL JOBS (A) OR JUST JOBS WITH EXCEPTIONS (E) ?      ====> A    (A OR E)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

Print Selected Job Summary Information from History: PRINT JOB and PRINT EXCSUMM

JCL LIBRARY (PDS). The dataset and member name of the library where the PRINT JOB JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCHFJS.

HISTORY DATABASE TO BE SELECTED FROM. The History file whose contents you intend to have reported.

DSN. This field specifies the dataset name of the history database to be selected from. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

HISTORY SELECTION CRITERIA. The range of histories to be printed.

JOBNAME RANGE. The range of histories you wish to be printed by job name. The JOBNAME RANGE uses the job name from the job card that the Job was run under.

FROM. An 8-character field specifying the beginning of the range of histories.

TO. An 8-character field specifying the ending of the range of histories.

JOBDATE RANGE. The range (00000000-99999999) of histories you wish to be printed by job date. The JOBDATE RANGE must be specified in the format 'CCYYMMDD' (for example, 20110315 for March 15, 2011).

FROM. An 8-character field specifying the beginning of the range of histories.

TO. An 8-character field specifying the ending of the range of histories.

CYCLE ID RANGE. The range (00000000000-99999999999) of histories you wish to be printed by Cycle ID.

FROM. An 11-character field specifying the beginning of the range of histories.

TO. An 11-character field specifying the ending of the range of histories. If you leave this field blank, the ending history in the Cycle ID range will be the last history in the Database.

ALL JOBS (A) OR JUST JOBS WITH EXCEPTIONS (E)? Indicates the type of jobs to be printed. By entering A, the PRINT JOB function will be invoked. This will print summary information about all jobs that meet the selection criteria specified above. By specifying E, the PRINT EXCSUMM function will be invoked. This will print summary information about all jobs with exceptions (capture or verify errors) that meet the selection criteria specified above.

Print Selected Job Detail Information from History: PRINT JOB DETAIL and PRINT EXCDTL

This utility is used to create the JCL and UDCUTIL transaction for performing the PRINT JOB DETAIL or PRINT EXCDTL utility functions.

It prints detail information about jobs that have run under the control of ACR/File. This is useful for reviewing information about on what files had problems, what the problems were, and which jobs were rerun.

By specifying the selection criteria, you can limit what jobs you get information about. The Selection Criteria are applied in the sequence in which they are listed. If a History record does not meet all of the Selection Criteria, it will not be printed.

Reports

A report of all selected jobs is produced at a DD:UDCHFJS if the PRINT JOB DETAIL function is used or at DD: UDCHFED if the PRINT EXCDTL function is used.

Print Job Detail Information From History Panel

```

-----PRINT JOB DETAIL INFORMATION FROM HISTORY-----ACR/F releasenumbr
====>                                                                 PANEL: UDC3700
SPECIFY/VERIFY JCL AND RECORD SELECTION INFORMATION BELOW:

JOB NAME      >>>> USERIDAL
JCL LIBRARY:
  DSN         >>>> USERID.UDC.PROCLIB          <<<<
  MEMBER      >>>>

HISTORY DATABASE TO BE SELECTED FROM:
  DSN         >>>> USERID.UDC.UDCHIST          <<<<

HISTORY SELECTION CRITERIA: (ALL BLANKS WILL GIVE INFO FOR ALL JOBS)
JOBNAME RANGE:                FROM >>>>TO >>>>
JOBDATE RANGE: (CCYYMMDD)     FROM >>>>TO >>>>
CYCLEID RANGE:                FROM >>>>TO >>>>
ALL JOBS (A) OR JUST JOBS WITH EXCEPTIONS (E) ?>>>> A      (A OR E)

      PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB NAME. An 8- character field identifying the job name entered on the JOB statement in the JCL card.

Print Selected Job Detail Information from History: PRINT JOB DETAIL and PRINT EXCDTL

JCL LIBRARY (PDS). The dataset and member name of the library where the PRINT JOB JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCRHFJD.

HISTORY DATABASE TO BE SELECTED FROM. The History file whose contents you intend to take your selection criteria from.

DSN. This field specifies the dataset name of the history database to be selected from. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

HISTORY SELECTION CRITERIA. The range of histories to be printed.

JOBNAME RANGE. The range of histories you wish to be printed by job name. The JOBNAME RANGE uses the job name from the job card that the Job was run under.

FROM. An 8-character field specifying the beginning of the range of histories.

TO. An 8-character field specifying the ending of the range of histories.

JOBDATE RANGE. The range (00000000-99999999) of histories you wish to be printed by job date. The JOBDATE RANGE must be specified in the format 'CCYYMMDD' (for example, 20110315 for March 15, 2011).

FROM. An 8-character field specifying the beginning of the range of histories.

TO. An 8-character field specifying the ending of the range of histories.

CYCLE ID RANGE. The range (00000000000-99999999999) of histories you wish to be printed by Cycle ID.

FROM. An 11-character field specifying the beginning of the range of histories.

TO. An 11-character field specifying the ending of the range of histories. If you leave this field blank, the ending history in the Cycle ID range will be the last history in the Database.

ALL JOBS (A) OR JUST JOBS WITH EXCEPTIONS (E)? Print all or just jobs with exceptions. By entering A, the PRINT JOB DETAIL function will be invoked. This will print detail information about all jobs that meet the selection criteria specified above. By specifying E, the PRINT EXCDTL function will be invoked. This will print detail information about all jobs with exceptions (capture or verify errors) that meet the selection criteria specified above.

Sort Directory Records on the History Database: SORTDIR HIST

This utility is used to create the JCL and UDCUTIL transactions for performing the SORTDIR HIST utility.

This utility sorts the directory records on the history database by job ID. ACR/File can then locate existing history records by using a binary search rather than a sequential search. This can dramatically improve ACR/File performance for very large history databases.

If you have a very large history database (over 1,000 Job IDs), you may want to schedule this utility to run every week as the first or last job in your weekly processing.

If you already run the REORG utility every week to reclaim unused space and reorganize the history database, then it is not necessary to run this utility every week.

Sort Directory Records on the History Database Panel

```

----- SORT DIRECTORY RECORDS ON THE HISTORY DATABASE ---- ACR/F releasenumbr
====>                                                                PANEL:UDC3800
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:

JOB NAME      ====> USERIDA
JCL LIBRARY:
  DSN         ====> USERID.UDC.PROCLIB          <====
  MEMBER      ====> UDCHFDS

HISTORY DATABASE:
  DSN         ====> USERID.UDC.UDCHIST          <====

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JOB NAME

An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY (PDS). The dataset and member name of the library where the SORTDIR HIST JCL is to be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCHFDS.

HISTORY DATABASE (VSAM).

DSN. This field is the name of the history database against which the directory sort is to be run. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

List Cross Reference Definitions: LIST XREF

This utility prints a list of cross references from the Database.

This will aid in the maintenance of the definition databases and help in assessing the impact of JCL changes on production jobs.

To produce a report, specify the range of cross references that you wish to list.

Reports

The following reports can be generated.

- The Capture Verify Report gives detailed information for one or more Job IDs. Output File Job IDs, Item Numbers, Stepname, Occurrence, and DDname are displayed with the corresponding Input File Job IDs, Item Numbers, Stepname, Occurrence, DDnames, Rundate, and Runtime.
- The Capture No Verify Report gives detailed information for one or more Job IDs. Output File, Item Numbers, Stepname, Occurrence, and DDname are displayed with no corresponding input file Job IDs.

Cross Reference Listing Panel

```

----- CROSS REFERENCE LISTING ----- ACR/F releasenumber
====>                                     PANEL:UDC3600

JOB NAME    ==> USERIDA
JCL LIBRARY :
  DSN       ==> USERID.UDC.PROCLIB      <===
  MEMBER    ==> UDCDFX

DATA BASE NAME INFORMATION:
  DEFINITION DATA BASE:
    DSN      ==> USERID.UDC.DEFN       <===

  HISTORY DATA BASE   :
    DSN        ==> USERID.UDC.HIST     <===
SELECTION RANGE: (LEAVE BLANK FOR ALL DEFINITIONS)
  FROM        ==>                       <===
  TO          ==>                       <===

CROSS REFERENCE REPORT STYLE: ==>      <=== (1=CAP/VER , 2=CAP/NO VER)

          PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY information. (PDS) The dataset and member name of the library where the LIST DEFN will be stored.

DSN. This field defaults to the library created, using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCDFL.

DATABASE NAME INFORMATION. (VSAM)

DSN. The definition database whose contents you wish to list. This is the file that holds the definitions. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

HISTORY DATABASE NAME INFORMATION. (VSAM)

DSN. The history database whose contents you wish to list. This is the file that holds the definitions. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100).

SELECTION RANGE. The specification for what Job IDs and Cycle IDs are to be displayed in the definition list.

FROM. A unique string of up to 18 characters that represents the beginning point of the definition list.

List Cross Reference Definitions: LIST XREF

TO. A unique string of up to 18 characters that represents the ending point of the definition list.

Type	FROM-KEY	TO-KEY	Description
Range of Definitions (from the FROM-KEY to the TO-KEY)	non-blank	non-blank	Specify the <i>From</i> and <i>To</i> fields. Batch transactions will be generated from the FROM-KEY to the TO-KEY for those definitions with the same Selection Key Type specified.
Exact Match	non-blank	blank	Batch transactions will be generated for those definitions with an exact match (to the Job name, Step name, and Qualifier) of the FROM-KEY and the same Selection Key Type specified.
Complete Listing	blank	blank	Leave all Selection Range fields blank. Batch transactions will be generated from the beginning of the Definition Database to the end of those definitions with the same Selection Key Type specified.
Range of Definitions (from the beginning to the TO-KEY)	blank	non-blank	Batch transactions will be generated starting from the beginning of the Definition Database to the TO-KEY for those definitions with the same Selection Key Type specified.

CROSS REFERENCE REPORT STYLE. A 1-character code indicating the type of report to be produced. A value of Blank or 1 will result in a report that contains output file items in a capture job with all links to input file items in a verify job. A value of 2 will result in a report that contains output file items in a capture job with no links to input file items in a verify job.

Build Batch Transactions: BUILD DEFN

This utility allows users to build batch transaction cards from the definition database offline and then reload them without having to go online.

Any or all of the records on the definition database may be selected. Batch transactions are 80-character records that reflect the information stored on the definition database.

Build Batch Transactions Panel

```

----- BUILD BATCH TRANSACTIONS ----- ACR/F releasenumbr
====>                                     PANEL:UDC3700

JOB NAME    >>>> USERIDA
JCL LIBRARY :
  DSN       >>>> USERID.UDC.PROCLIB      <<<<<
  MEMBER    >>>> UDCDFB

CREATE BATCH CARDS FROM:
  DEFINITION DATA BASE:
    DSN     >>>> USERID.UDC.DEFN        <<<<<

STORE BATCH CARDS INTO:
  DSN       >>>> USERID.UDC.TRANLIB     <<<<<
  MEMBER    >>>>

SELECTION RANGE: (LEAVE BLANK FOR ALL DEFINITIONS)
  FROM      >>>>                        <<<<<
  TO        >>>>                        <<<<<

SELECTION KEY TYPE: >>>> <<<<< (J=JOB-IDS, T=CYC-TBLS, BLANK=ALL)

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY information:. The dataset and member name of the library where the UDCDFB JCL will be stored.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UDCUPDT.

CREATE BATCH CARDS FROM: DEFINITION DATABASE: Under the Create batch cards from heading, in the DSN field, verify the name of the dataset to create batch cards.

DSN. This field defaults to the dataset name entered on the Specify Default Values Panel (UDC4100). You may change this field or accept the default.

STORE BATCH CARDS INTO.

MEMBER. Enter the member name that will store the batch cards. This field indicates where ACR/File stores the batch cards within the specified dataset. Select a name that will be meaningful for the definitions you are creating.

SELECTION RANGE. The specification for what Job IDs and Cycle IDs where the definitions will be included as batch transactions.

FROM. A unique string of up to 18 characters that represents the beginning point of the definition keys to be included.

TO. A unique string of up to 18 characters that represents the ending point of the definition keys to be included.

The following batch transactions can be generated:

Type	FROM-KEY	TO-KEY	Description
Range of Definitions (from the FROM-KEY to the TO-KEY)	non-blank	non-blank	Specify the <i>From</i> and <i>To</i> fields. Batch transactions will be generated from the FROM-KEY to the TO-KEY for those definitions with the same Selection Key Type specified.
Exact Match	non-blank	blank	Batch transactions will be generated for those definitions with an exact match (to the Job name, Step name, and Qualifier) of the FROM-KEY and the same Selection Key Type specified.

10 ■ Utilities

Build Batch Transactions: BUILD DEFN

Type	FROM-KEY	TO-KEY	Description
All Definitions	blank	blank	Leave all Selection Range fields blank. Batch transactions will be generated from the beginning of the Definition Database to the end of those definitions with the same Selection Key Type specified.
Range of Definitions (from the beginning to the TO-KEY)	blank	non-blank	Batch transactions will be generated starting from the beginning of the Definition Database to the TO-KEY for those definitions with the same Selection Key Type specified.

SELECTION KEY TYPE. The specification to identify the types of definitions that will be included as batch transactions. Your definitions choices include Job IDs (J), Cycle Tables (T), or All definitions (BLANK).

Implementation Tools

This chapter describes the implementation tools that allow you to automatically insert ACR/File steps into your production job streams and to automatically create the ACR/File definitions that tell ACR/File which files to capture and which files to verify. The following sections are included:

- "Accessing the Implementation Tools" below
- "JCL Modifier (UNIJCLM)" below
- "Definition Generator (UDCDGEN)" on page 239

Accessing the Implementation Tools

Implementation Tools Panel

You use the Implementation Tools Panel (UDC5000), to select the tool with which you want to work.

```

----- IMPLEMENTATION TOOLS -----ACR/F releasenumbr
====>                                     PANEL: UDC5000

- 1 JCL MODIFIER: CREATE JCL TO EXECUTE JCL MODIFIER UNIJCLM

- 2 THE GENERATOR: CREATE JCL TO EXECUTE DEFINITION GENERATOR UDCDGEN

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JCL Modifier (UNIJCLM)

The JCL Modifier (UNIJCLM) lets you make global changes to production job streams quickly and easily. It will insert a set of user-defined JCL statements (such as the ACR/File Automatic Rerun step, Capture step, or Verification step) into all or selected members of a user's PROCLIB or other library where JCL exists.

UNIJCLM allows you to specify where in each member the JCL statements should be inserted. You do this by telling UNIJCLM whether you want to perform insertion before or after a particular step name and step occurrence within the members, or whether you want to perform the insertion before or after a particular EXEC number. You can also specify a range of member names to be used as targets of the insertion process.

11 ■ Implementation Tools

JCL Modifier (UNIJCLM)

To automatically insert the Automatic Rerun step as the first step in all of your jobs, the Verify step as the second step in all of your jobs, and the Capture step as the last step in all of your jobs, follow these steps:

1. Create the JCL for each of these ACR/File steps (see [Chapter 5, "Preparing the Environment"](#) on page 105).
2. Run UNIJCLM to insert the UDCFARUN step into all of your jobs that will contain ACR/File Capture or Verify steps. Specify that you want to insert before the first EXEC statement (Target Type = EXEC,STEPNAME/EXEC NUMBER = FIRST, OPERAND = <).
3. Run UNIJCLM to insert the UDCFVRFY step into all of your jobs that contain files that you want verified. Specify that you want to insert after the UDCFARUN step (Target Type=STEP, STEPNAME/EXEC NUMBER = UDCFARUN, OCCURRENCE = 001, OPERAND = >).
4. Run UNIJCLM to insert the UDCFCAPT step into all of your jobs that contain files that you want captured. Specify that you want to insert after the last EXEC statement (Target Type = EXEC, STEPNAME/EXEC NUMBER = LAST, OPERAND = >).

Reports

UNIJCLM produces the following reports:

- A report of validation messages for the control card is produced at DD: UNILIST.
- A list of the JCL statements to be inserted is produced at DD: UNILIST.
- A report of the members processed and whether they were modified is produced at DD: UNISUMM.

Create JCL to Execute JCL Modifier UNIJCLM Panel (UDC5100)

```

-----CREATE JCL TO EXECUTE JCL MODIFIER UNIJCLM-----ACR/F releasenumber
====>                                                                                   PANEL: UDC5100
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:
  JOB NAME          ====> USERIDA
  JCL LIBRARY DSN  ====> USERID.UDC.PROCLIB<====
                    MEMBER ====> UNIJCLM

IN JCL LIBRARY DSN====>                               <====
OUT JCL LIBRARY DSN====>                               <====
                    (OUT JCL LIBRARY MAY EQUAL IN JCL LIBRARY)
STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY:
  DSN====> USERID.UDC.PROCLIB                       <====
  MEMBER  ====> XXXXXXXXX

CONTROL STATEMENTS PARAMETERS:
  JCL MEMBERS:      FROM====>                         TO ====>                               <====
  TARGET TYPE      ====>                             ('STEP' OR 'EXEC')
  STEPNAME/EXEC NUMBER  ====>                       (STEPNAME, 'FIRST', 'LAST', 'F+L', 99999)
  OCCURRENCE       ====>                             (OCCURRENCE NBR OR 'ALL' FOR 'STEP')
  OPERAND          ====>                             ('<' = BEFORE OR '>' = AFTER)
  IEBUPDTE ACTION  ====>                             ('NONE', 'ADD' OR 'REPLACE')
  COMMENT          ====>

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP

```

JOB NAME. An 8-character field identifying the job name entered on the JOB statement in the JCL card.

JCL LIBRARY DSN. The dataset and member name of the library where the UNIJCLM JCL will be stored when it is generated by ACR/File.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default. The name supplied must be an existing PDS.

MEMBER. This field indicates where ACR/File will store the JCL within the specified dataset. This field defaults to UNIJCLM.

IN JCL LIBRARY DSN

The name of the library (PDS) that contains the JCL members that are to be modified.

OUT JCL LIBRARY DSN

The name of the dataset that will contain the newly-modified JCL Library members. If the IEBUPDTE action specified is ADD or REPL, the dataset specified must be an existing PDS. If the IEBUPDTE action specified is NONE, the dataset specified must be a sequential dataset that does not currently exist.

11 ■ Implementation Tools

JCL Modifier (UNIJCLM)

STATEMENTS TO BE ADDED ARE FOUND IN JCL LIBRARY information (PDS). The dataset and member name of the library containing the JCL statements that are to be inserted into the JCL members that will be modified.

DSN. This field defaults to the library created using the Allocate User Files Panel (UDC4200). You may change this field to an existing PDS or accept the default.

MEMBER. This field defaults to Xs and will need to be replaced with a valid member name.

CONTROL STATEMENT PARAMETERS. These parameters are used to build the control card which is input to UNIJCLM. This control card identifies which members to modify and where in those members to insert the JCL statement.

JCL MEMBERS RANGE:

FROM. An 8-character field specifying the beginning of the range from the In JCL Library that you want to modify.

TO. An 8-character field specifying the end of the range from the In JCL Library that you want to modify.

TARGET TYPE

The type of key that will identify the location within the JCL to be modified at which the JCL statements are to be inserted. If **STEP** is specified, UNIJCLM will look for a particular step name and step occurrence within each JCL member. If **EXEC** is specified, UNIJCLM will look for the 'nth' time that the EXEC statement appears within each JCL member.

STEP NAME/EXEC NUMBER

If **STEP** is specified for Target Type, the name of the step that you want to look for should be specified here. If **EXEC** is specified for Target Type, then specify the number of the EXEC statement to look for, or the literals **FIRST**, **LAST**, or **F+L**. If **FIRST** is specified, the JCL statements will be inserted before or after the first EXEC statement within each JCL member. If **LAST** is specified, the JCL statements will be inserted after the last EXEC statement within each JCL member. If **F+L** is specified, the JCL statements will be inserted before or after.

OCCURRENCE

If `STEP` was specified, a step name was also specified. This field is used to indicate which occurrence of that step name, within each JCL member, will be the insertion point. Usually, the same step name will not be used multiple times within a JCL member, so the value here will normally be 1. But, if a step name can occur multiple times within a JCL member, the UNIJCLM needs to know which occurrence of that step name will be the insertion point. If `EXEC` was specified, leave this field blank.

A number from 1 to 999 or the literal 'All' can be specified. Using 'All' will cause the JCL statements to be inserted before or after every occurrence of the step name specified.

OPERAND

A less than sign (<) indicates that the JCL statements are to be inserted before the insertion point. A 'greater than' sign (>) indicates that the JCL statements are to be inserted after the insertion point.

All combinations of Operand, Target Type, step name, and EXEC Number are valid except when using '<' as the operand with a Target Type of 'Exec' and EXEC Number of 'Last'. There is currently no way to insert JCL statements before the last EXEC statement.

IEBUPDTE ACTION

Typically, you will want to either add the newly-modified JCL members to a PDS where these members do not currently exist, or you will want to replace the existing members with the newly-modified members. To add members, specify `ADD` and this will cause the IBM Utility IEBUPDTE to add the members specified in the member name range field to the Out JCL Library that you have specified. To replace members, specify `REPL` and this will cause IEBUPDTE to replace the members specified in the member name range field in the Out JCL Library.

11 ■ Implementation Tools

JCL Modifier (UNIJCLM)

To see what the effect of your UNIJCLM specifications would be, without an IEBUPDTE 'ADD' or 'REPL', specify NONE. UNIJCLM will create a sequential file with the inserts in place in each member. The members in the sequential file will be separated by a comment card in the format:

```
//* MBR: MMMMMMMM FOLLOWS
```

You can use ISPF BROWSE or EDIT to look at this dataset to see which members UNIJCLM would have modified and how it would have modified them.

COMMENT

A comment regarding the information you're inserting, or the field may be left blank.

JCL Modifier Control Card

Field	Desc.	Pos.	Length	Format	Value
1 ¹	Comment Indicator		1	X(1)	Blank or 1
2	Action	2-9	8	X(8)	INSERT
3	Reserved	10-11	2	X(2)	Blanks
4	Operand	12		X(1)	<, >
5	Reserved	13-14	2	X(2)	Blanks
6	Target Type	15-18	4	X(4)	STEP or EXEC
7	Reserved	19-20	2	X(2)	Blanks
8 ²	Target ID	21-32	12	X(12)	Dependent on Target Type (see footnote)
9	Reserved	33-34	3	X(2)	Blanks
10	IEBUPDTE Action	35-38	4	X(4)	ADD, REPL, NONE
11	Reserved	39-40	2	X(2)	Blanks
12	Member Name Range -	41-48	8	X(8)	Any valid member namea
9	Reserved	33-34	3	X(2)	Blanks
10	IEBUPDTE Action	35-38	4	X(4)	ADD, REPL, NONE
11	Reserved	39-40	2	X(2)	Blanks
12	Member Name Range -	41-48	8	X(8)	Any valid member name

Field	Desc.	Pos.	Length	Format	Value
From Member Name:					
13	Reserved	49-50	2	X(2)	Blanks
14	Member Name Range -	51-58	8	X(8)	Any valid member name
To Member Name:					
15	Reserved	59-80	22	X(22)	Blanks
¹ Comment Indicator: Entry of 1 causes the entire card to be treated as a comment. ² Target ID: If Target Type = STEP, then Target ID is defined as follows: Target Step Name: Position: 21-28, Length: 8, Format: X(8), Value: Any valid step name Reserved: Position: 29, Length: 1, Format: X(1), Value: Blank Target Step Occurrence: Position: 30-32, Length: 3, Format: X(3), Value: Numeric or ALL If Target Type = EXEC, then Target ID is defined as follows: Target Execution Number: Position: 21-25, Length: 5, Format: X(5), Value: Numeric, FIRST, Reserved: Position: 26-32, Length: 7, Format: X(7), Value: Blanks					

Definition Generator (UDCDGEN)

This implementation tool generates ACR/File batch definition transactions by analyzing your IBM System Management Facilities (SMF) data. The Generator can extract and create definitions for specific jobs, so that all jobs run during a time period will not have definitions created for them. Once these batch definition transactions are created, they can be applied to the definition database by using the Batch Definition Update utility, UDCUPDT.

Note: SMF data is a collection of chronological information about jobs and dataset utilization. It contains information about when a job started, what datasets it used as input and what datasets it produced as output. The SMF data is usually stored on files that represent a particular time frame. For example, at the beginning of each day a new SMF file may be created that will be used to contain all of that day's SMF data.

Because ACR/File was designed to help you solve your recurring rerun problems, you may want to use information from your data center staff to identify jobs that are most frequently rerun. This information may be available in the form of reports from your data center job scheduling system. You may also want to ask your data center personnel which jobs are rerun the most often because of missing or incorrect files. You can then use this information to specify the Generator extract parameters and to create the appropriate skeletal definitions.

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

Another method that has proven successful is to select an application system that you want to put under the control of ACR/File. In many data centers the job name contains two or three characters that identify what application the job belongs to. By specifying the extract parameters to key off of these characters, you can create definitions for all of the jobs that are part of that application system.

An approach that is not recommended is to create definitions for all of the jobs in your data center. Many of these jobs are test jobs or one time runs that do not require ACR/File controls. The size of your ACR/File databases will be in direct proportion to how many jobs you put under ACR/File control.

Technical Constraints

There are two reasons why a definition may not be generated from the SMF data that you have supplied to the Generator. If a duplicate SMF record is encountered, as will happen if the same job is run twice during the time frame covered by the SMF file, the definitions will only be generated for the first run of that job. If an SMF record for an input dataset is located in the SMF data, but the SMF data does not contain information about the job that created that dataset, no definition will be generated. This can occur if a dataset is created in a time frame previous to the time frame of the SMF file that you have supplied.

General Constraints

This section describes the general constraints of the Generator:

The Generator has the capacity to process SMF data for up to 1000 unique job names. You should limit the amount of SMF data that is input to any single run of the Generator to a time period small enough that no more than 1000 unique job names were run.

All the SMF data input to a run of the Generator must be continuous in terms of chronological time. For example, it is not acceptable to put the data for 1/14/11 and 1/16/11 into the Generator without also inputting 1/15/11. Similarly, if only 1/14/11 were input, that input data must have no gaps in it (the data from 2:00 p.m. to 3:00 p.m. must not be missing). A gap in data may result in the generation of incorrect definitions.

To illustrate, suppose Jobs A, B and C are run in order. Jobs A and B both put out the same DSN. Job C takes that DSN as input. The Verify definition for the DSN input to Job C should point to Job B's output. However, if the SMF data for Job B is missing because of a gap, the Verify definition for Job C will point to Job A.

Occasionally, some duplicate Capture definitions may be created for a job. This will not affect the correct functioning of ACR/File. The conditions under which the duplication will occur are as follows:

- A job is run more than once for the time period which the SMF data covers.
- That job has more than one step with the same step name.
- More than one of the steps having the same step name output a DSN with the same DSN name.

You may let those duplicates go through UDCUPDT or you may review the definitions out of the Generator and delete the duplicates. To repeat, ACR/File will function properly even if the duplicates are processed.

For VSAM DSNs, the following are true:

- Only the 'DATA' component is processed. The SMF data for the 'INDEX' components (KSDS is the only VSAM file type that has such a component) is discarded.
- For a DSN showing only input activity, a verify transaction is generated like any normal input.
- For a DSN showing any output activity (inserts, replaces, or deletes) both a verify and a capture transaction is generated.

Procedure

To use the Generator, complete the following steps:

1. Enter information required to create the JCL to execute the Generator (Create JCL to execute Definition Generator UDCDGEN: Panel UDC5200).

In this step, you provide: the name(s) of the SMF file(s) to be analyzed; the extract control cards that tell the Generator what system IDs, job names, and/or job start dates, and/or job execution classes that you are interested in having the Generator analyze.

After completing the panel, press Enter.

2. Complete the Include/Exclude control cards.

The system will take you to ISPF and present the cards for editing. These Include/Exclude cards tell the Generator the names of the datasets that should, or should not, have definitions generated for them.

After you have completed the control cards, press F3 to save your changes.

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

3. Edit the skeletal definitions.
The system will present you with skeletal definitions. These skeletal definitions identify the jobs that should have definitions generated for them, and provide default processing and verification options for these definitions.
Press F3 after making your changes.
4. Revise and/or submit the JCL to create the batch definition transactions.
5. Run the Batch Definition Update Utility.

Reports

The Generator produces these reports:

- A report is produced on dataset names that were used as input within the time frame of the SMF file but were not created as output within this time frame. This means that the Generator could not determine what job produced these datasets.
- A report is produced on the card images of the skeletal definitions that were input by you and highlights any edit errors that are present within these card images.
- A report is produced on the card images of the ACR/File batch definition transactions that the Generator created. It will also report on SMF records for which it could not create definitions.

Create JCL to Execute Definition Generator UDCDGEN (UDC5200) Panel

```

----- CREATE JCL TO EXECUTE DEFINITION GENERATOR UDCDGEN ----- ACR/F releasenumber
====>                                                                PANEL: UDC5200
SPECIFY/VERIFY JCL AND MEMBER SELECTION INFORMATION BELOW:

    JOB NAME  ====>
                                DSN
                                MEMBER
STORE JCL IN  =>                                <= => UDCDGEN
SMF DATA INPUT=>                                <= => -----
DEFNS OUT    =>                                <= => GENDEFNS
IN/EX RECORDS =>                                <= => INEX
IF IN/EX RECORDS MEMBER EXISTS, REPLACE OR MERGE WITH EXISTING MEMBER ====> R
DEF SKELETONS =>                                <= => SKELDEFNS
IF DEF SKELETONS MEMBER EXISTS, REPLACE OR MERGE WITH EXISTING MEMBER ====> R

SMF EXTRACT CONTROL STATEMENT PARAMETERS:
                                FROM          THRU
SYSTEM ID          ====>
JOBNAME            ====>
DATE (YYYYMMDD)   ====>
JOB CLASSES       ====>          (UP TO 5 CLASSES MAY BE SPECIFIED)

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP

```

JOB NAME

An 8-character field identifying the job name to be put on the JOB statement in the JCL that is generated.

STORE JCL IN:

The dataset and member name of the library where the UDCDGEN JCL will be stored when it is generated.

DSN

This field defaults to the PROCLIB library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default. The name supplied must be an existing PDS.

MEMBER

This field indicates the member within the library specified above where the generated JCL should be stored. This field defaults to UDCDGEN.

SMF DATA INPUT

The dataset name of the SMF file to be used as input into the Generator. If more than one SMF file will be used as input, you will be able to add the additional files as concatenated files at DD: INPUT, after the JCL is generated. For example, if your data center creates a new SMF file each day and you want to generate definitions for all of

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

the jobs that ran during a week, the user will need to concatenate each day's SMF files for that week at the DD: INPUT.

DEFNS OUT:

Use these fields to specify where to store the ACR/File batch definition transactions that will be generated by the Generator. These batch definitions can be reviewed and edited by you. They can then be used as input to the ACR/File Batch Definition Update utility (UDCUPDT). UDCUPDT will apply these transactions to the definition database so that they can be used during the ACR/File Capture and Verification steps.

DSN

This field defaults to the TRANLIB library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default. The name supplied must be an existing PDS.

MEMBER

This field indicates the member within the library specified above where the batch definitions should be stored. This field defaults to GENDEFS.

IN/EX RECORDS: (see [“Include/Exclude Cards Layout”](#) on page 246)

Use these fields to specify where to keep the Include/Exclude cards. These cards specify the dataset names for which SMF data will be extracted.

The record layouts for the Include/Exclude cards are shown at the end of this section, along with a detailed explanation of each field. To edit the Include/Exclude cards, press Enter on this panel and you will be placed into ISPF Edit.

DSN

This field defaults to the TRANLIB library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default. The name supplied must be an existing PDS.

MEMBER

This field indicates the member within the library specified above where the Include/Exclude cards should be stored. This field defaults to INEX.

IF IN/EX RECORDS MEMBER EXISTS, REPLACE OR MERGE WITH EXISTING MEMBER

This field allows you to specify that you want the current contents of the member to be replaced (R) or you want to change or add to the current contents of the member (M).

DEF SKELETONS:

Use these fields to specify where to keep the skeletal definitions. These skeletal definitions are used to tell the Generator what jobs to create definitions for and what default values to use for processing and verification options. When you press F3 after editing the Include/Exclude cards, you will be placed into ISPF edit to edit these skeletal definitions. The record layouts for the skeletal definitions are shown at the end of this section, along with a detailed explanation of each field in the skeletal definitions.

DSN

This field defaults to the TRANLIB library created using the Allocate User Files Panel (UDC4200). You may change this field or accept the default. The name supplied must be an existing PDS.

MEMBER

This field indicates the member within the library specified above where the skeletal definitions should be stored. This field defaults to SKELDEFS.

IF DEF SKELETONS MEMBER EXISTS, REPLACE OR MERGE WITH EXISTING MEMBER

This field allows you to specify that you want the current contents of the member to be replaced (R) or you want to change or add to the current contents of the member (M).

SMF EXTRACT CONTROL STATEMENT PARAMETERS:

These parameters are used to form the extract control cards that tell the Generator what system IDs, job names, and/or job start dates to analyze. The extract parameters are entered as a range of system IDs, job names, and/or job start dates. If information is supplied in any of these fields, it will be used to limit the extraction process to those jobs that fit the extraction parameters. If all are left blank, information for all jobs on the SMF file will be extracted.

SYSTEM ID

Many large data centers have multiple systems (CPUs) that post data to the same SMF file. These fields allow you to limit your extraction to certain system IDs such as SYSA through SYSC.

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

JOBNAME

These fields allow you to limit your extraction to certain job names, such as those that begin with SE (SE_____ through SE999999).

DATE

These fields allow you to limit your extraction to jobs that started during certain dates, such as between 20110210 through 20110215. The dates, if entered, need to be entered in century, year, month, day format.

JOB CLASSES

These fields allow you to limit your extraction to jobs with particular execution classes. Up to five classes may be specified. If this field is left blank, all classes will be extracted.

Include/Exclude Cards Layout

Field	Desc.	Pos.	Length	Format	Values
1	ID	1-2	2	X(2)	IN, EX
2	Filler	3-10	8	X(8)	Blank
3 ¹	DSN	11-54	44	X(44)	See note 1

¹ Any DSN. The first n characters of a DSN may be used as a generic DSN. A wild character of * (asterisk) may be used.

Contents of SKLLIB Member UDCT210S

```

*****
*
* 1.THIS ENTIRE SET OF RECORDS, INCLUDING THESE COMMENTS, CAN
* BE RUN THROUGH THE DEFINITION GENERATOR RUN WITHOUT HARMFUL
* EFFECT. THEY WILL CAUSE ALL DSN RECORDS TO BE SELECTED.
*
* 2.THIS FILE IS INTENDED FOR YOUR MODIFICATION VIA THE USER INTERFACE.
* YOU DO NOT HAVE TO USE THE INTERFACE TO DO THIS IF YOU DO NOT
* WISH TO. IN THAT CASE JUST COPY THIS MEMBER (WHICH IS CALLED
* UDCT210S IN YOUR ISPF SKLLIB) TO ANOTHER DATASET AND MODIFY
* IT AS YOU WISH.
*
* 3.IF YOU DO USE THE INTERFACE, THEN THIS FILE WILL APPEAR ON THE
* SCREEN AT THE APPROPRIATE TIME FOR YOU TO MODIFY IT. YOU MAY
* CHOOSE TO MODIFY IT AT THAT POINT OR WAIT UNTIL LATER. IN EITHER
* CASE, THIS SET OF RECORDS (AS MODIFIED BY YOU, IF ANY)
* WILL BE FILED UNDER SOME DATASET WHICH YOU WILL HAVE ALREADY
* SPECIFIED PRIOR TO SEEING THESE RECORDS.
*
* 4.AFTER THESE RECORDS HAVE BEEN FILED YOU CAN ALWAYS ACCESS
* THAT FILED DATASET AND MODIFY THEM AGAIN IF YOU WISH OR YOU
* CAN START ALL OVER AGAIN IN THE INTERFACE.
*
*****
*+ THE GENERATOR DECIDES WHICH SET OF DEFINITIONS TO USE FOR EACH JOB
+ AND FILE BY MATCHING THE JOBNAME FROM THE SMF RECORDS AGAINST THE
+ DEFINITION JOBNAMES SPECIFIED IN COLUMNS 1 - 8 IN THE CARDS BELOW.
+ AN ASTERISK IN CARD COLS 1-8 IS TREATED AS A WILD CHARACTER. THE
+ SET OF DEFINITIONS THAT BEST MATCH WILL BE USED. IF SMF JOBNAME
+ DOES NOT MATCH A POSITION IN ANY OF THE JOBNAMES BELOW, THEN NO
+ DEFINITIONS WILL BE GENERATED.
+
*****D01P123456789012345678901234567890123456789001YYYYYYYYY
*****D02XXXXXXXXXXXXXXXXXXXXX GON
*****D03YYYYYYYYYYYYYYY
*****D11UDCFVRFYAXXXXXXXXXXXXXX
*****D21UDCFCAPTA001001001X
*99UC09ID01P1234567890123456789012345678901234567890001YYYYYYYYY
*99UC09ID02XXXXXXXXXXXXXXXXXXXXX GON
*99UC09ID03YYYYYYYYYYYYYYY
*99UC09ID11UDCFVRFYAXXXXXXXXXXXXXX
*99UC09ID21UDCFCAPTA001001001X

```

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

Contents of SKLLIB Member UDCT220S

SKLLIB Member UDCT220S Part 1 of 2

```
*****
*
* 1.THIS ENTIRE SET OF RECORDS, INCLUDING THESE COMMENTS, CAN
* BE RUN THROUGH THE DEFINITION GENERATOR RUN WITHOUT HARMFUL
* EFFECT.  THEY WILL CAUSE ALL DSN RECORDS TO BE SELECTED.
*
* 2.THIS FILE IS INTENDED FOR YOUR MODIFICATION VIA THE USER INTERFACE.
* YOU DO NOT HAVE TO USE THE INTERFACE TO DO THIS IF YOU DO NOT
* WISH TO.  IN THAT CASE JUST COPY THIS MEMBER (WHICH IS CALLED
* UDCT220S IN YOUR ISPF SKLLIB) TO ANOTHER DATASET AND MODIFY
* IT AS YOU WISH.
*
* 3.IF YOU DO USE THE INTERFACE, THEN THIS FILE WILL APPEAR ON THE
* SCREEN AT THE APPROPRIATE TIME FOR YOU TO MODIFY IT.  YOU MAY
* CHOOSE TO MODIFY IT AT THAT POINT OR WAIT UNTIL LATER.  IN EITHER
* CASE, THIS SET OF RECORDS (AS MODIFIED BY YOU, IF ANY)
* WILL BE FILED UNDER SOME DATASET WHICH YOU WILL ALREADY SPECIFIED
* PRIOR TO SEEING THESE RECORDS.
*
* 4.AFTER THESE RECORDS HAVE BEEN FILED YOU CAN ALWAYS ACCESS
* THAT FILED DATASET AND MODIFY THEM AGAIN IF YOU WISH OR YOU
* CAN START ALL OVER AGAIN IN THE INTERFACE.
*
*****
*
* THE EXTRACT CONTROL CARDS BELOW ARE USED TO INCLUDE OR EXCLUDE
* SPECIFIC DSN NAMES DURING THE SELECTION PROCESS.  THE FORMAT IS:
* COLS:   1   1   2   2   3   3   4   4   5
* 1---5---0---5---0---5---0---5---0---5---0---
* AA      DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
*
* WHERE:
*       AA = IS THE ID "IN" FOR INCLUDE AND "EX" FOR EXCLUDE.
* COMMENTS CAN BE DENOTED WITH "*" IN COL 1.
*       DD.. DD =THE DSN TO BE INCLUDED OR EXCLUDED.  DO NOT INCLOSE
* THE DSN IN QUOTES.  USE "*" TO DENOTE A DSN POSITION
* THAT WILL MATCH ON ANY CHARACTER IN THE DSN IN THE
* SMF RECORD IN THE SAME POSITION.  GENERIC DSN ARE
* SPECIFIED SIMPLY BY STOPPING AFTER THE LAST SIGNIFICANT
* CHARACTER OF THE NAME AND LEAVING THE REMAINDER BLANK.
```

SKLLIB Member UDCT220S Part 2 of 2

```

*****
*   THE CARD BELOW WILL CAUSE ALL DSN TO BE SELECTED. THIS WOULD ALSO
*   HAPPEN IF NO INCLUDE/EXCLUDE CARDS WERE INPUT TO THE RUN.
*
*   THE FOLLOWING CARDS SHOW EXAMPLES OF DIFFERENT WAYS TO SPECIFY
*   A DSN FOR SELECTION. BECAUSE THE PREVIOUS CARD INCLUDES ALL DSN,
*   THE FOLLOWING CARDS WILL NOT RESTRICT THE SELECTION TO ONLY THOSE
*   DSN (PROVIDED YOU WERE TO RUN WITH ALL THE INCLUDE CARDS PRESENTED
*   IN THIS SAMPLE).
* 1. SELECT A SPECIFIC DSN
IN      THIS.IS.A.SPECIFIC.DSN.NAME
* 2. SELECT A DSN BY A GENERIC NAME
IN      THIS.IS.A.GENER
* 3. USE A WILD CARD (*)
IN      THIS.**.A.GENER
* 4. SEVERAL SPECIFIC DSN
IN      USERID.TEST.AFIL
IN      USERID.TEST.BFIL
IN      USERID.TEST.CFIL
IN      USERID.TEST.DFIL
IN      USERID.PROD.AFIL
IN      USERID.PROD.BFIL
IN      USERID.PROD.CFIL
IN      USERID.PROD.DFIL
* 5. THIS WILL DO ABOUT THE SAME AS SAMPLE 4. NOTE THAT IT WOULD
*   CAUSE THE SELECTION OF A FILE SUCH AS 'USERID.TEST.ZFILE' OR
*   'USERID.SOME.AFIL'.
*
IN      USERID.****.*FIL
*
*   FOLLOWING ARE SAMPLES OF EXCLUDE CARDS. THEY ARE PRECEDED WITH
*   AN ASTERISK BECAUSE EXCLUDE CARDS WILL ALWAYS CAUSE EXCLUSION OF
*   A MATCHING DSN NO MATTER WHAT THE INCLUDE CARDS SAY. A REAL EXCLUDE
*   CARD SHOULD HAVE THE EX IN COLS 1 AND 2 AS DESCRIBED EARLIER.
*
* 1. EXCLUDE EVERY DSN - YOU WOULD NEVER NORMALLY DO THIS.
*EX     *
* 2. EXCLUDE A SPECIFIC DSN
*EX     THIS.IS.A.SPECIFIC.DSN.NAME
* 3. EXCLUDE A DSN BY A GENERIC NAME
*EX     THIS.IS.A.GENER
* 4. USE A WILD CARD (*)
*EX     THIS.**.A.GENER
* 5. SEVERAL SPECIFIC DSN
*EX     USERID.TEST.AFIL
*EX     USERID.TEST.BFIL
*EX     USERID.TEST.CFIL
*EX     USERID.TEST.DFIL
*EX     USERID.PROD.AFIL
*EX     USERID.PROD.BFIL
*EX     USERID.PROD.CFIL
*EX     USERID.PROD.DFIL
* 6. THIS WILL DO ABOUT THE SAME AS SAMPLE 4. NOTE THAT IT WOULD
*   CAUSE THE EXCLUSION OF A FILE SUCH AS 'USERID.TEST.ZFILE' OR
*   'USERID.SOME.AFIL'.
*EX     USERID.****.*FIL
* 7. SO WILL THIS BUT WOULD ALSO EXCLUDE 'USERID.MY.TSTFILE'
*EX     USERID.*****FIL

```

11 ■ Implementation Tools

Definition Generator (UDCDGEN)

Reviewing Job History On-line

By using the on-line History Browse Function (Search and Display Job Histories), you can review the results of any Capture or Verify step. This chapter explains how to use that function. It contains the following sections:

- “Contents of a Job History Record” on page 251
- “Searching for Job Histories” on page 252
- “Displaying a Job History Summary” on page 253
- “Displaying Job History Detail” on page 255

Contents of a Job History Record

A job history is a record of ACR/File processing that is for display only. For each job-step, you can see the following:

- **Job History Summary**

A job history summary is a brief record of what ACR/File captured or verified for a particular cycle and run of a job step. It also includes the return codes set and errors the program encountered.
- **Output File Information**

The Output File Information tells you how and when an output file was created, the verification options you chose and their results, and which Job last accessed this file. It also includes a list of the first 50 VOLSER numbers associated with the output file.
- **Input File Information**

The Input File Information helps you compare expected data sets (based on definitions) to the actual data sets ACR/File found during verification. It includes a list of the first 50 VOLSERS associated with this input file. Finally, it includes a list of verification options, how you set them, and their results.

Searching for Job Histories

Before you can begin viewing histories, you must select a Job ID whose history you want to view.

Job ID Selection List Panel (UDC2000)

To display this panel, from the ACR/File Primary Selection Menu (UDC0000), select Search and Display Job Histories.

The Job ID Selection List Panel (UDC2000) lists a series of jobs, including the number of histories on file for each Job ID.

```

----- JOB ID SELECTION LIST ----- ROW 1 OF 2
===>                                     PANEL:UDC2000
ENTER 'S' TO SELECT JOB ID:
SEL   JOB      STEP   QUAL  HISTORIES
-----
S   JOBX      UDCFCAPT          1
-   JOBY      UDCFCAPT          1
***** BOTTOM OF DATA *****
    
```

To select a Job ID, type S in the SEL column next to the Job ID you want and press Enter to display the Job History Selection List.

Job History Selection List Panel (UDC2010)

This panel displays information for the selected Job ID, including each Cycle Number and run of the Job ID, the return code ACR/File set and the total number of errors ACR/File caught. From this panel, you can further narrow your search for the history you want.

```

----- JOB HISTORY SELECTION LIST ----- ROW 1 OF 1
===>                                     PANEL:UDC2010

SEL   JOB      STEP   QUAL   CYCLE   RUN   RETURN   TOTAL NO.
-----
S   JOBX      UDCFCAPT          20110416  000   0000          0
***** BOTTOM OF DATA *****
    
```

To continue, type S in the SEL column next to the Cycle and Run Number you want. Press Enter to display the Job History Summary Panel.

Displaying a Job History Summary

Job History Summary Panel (UDC2011)

The Job History Summary Panel (UDC2011) shows the Cycle and Run Numbers of the selected job histories. A Job History Summary is a record of the information ACR/File verified and captured for a particular cycle and run of a job step. It tells you how many times the job has rerun, the return codes ACR/File set, and the number of errors ACR/File caught.

```

----- JOB HISTORY SUMMARY ----- ROW 1 OF 1
===>                                     PANEL:UDC2011
JOB: JOBX      STEP: UDCFCAPT QUAL:      CYCLE: 20110406  RUN: 001
JOB START DATE : 90.065          START TIME : 11:43:44
NUMBER OF RERUNS : 0          LAST RERUN DATE :          TIME:
      RETURN CODE : 0000      NUMBER OF ERRORS: 0
FILES VERIFIED/CAPTURED:
      APPL.  STEP      CONCAT.  INPUT/  NO. OF
SEL  STEP  OCC  DDNAME  SEQUENCE  OUTPUT  ERRORS
-----
S  EDIT    1  VALIDTRN   1    OUTPUT    0
-  EDIT    1  INVLDTRN   1    OUTPUT    0
***** BOTTOM OF DATA *****

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
    
```

JOB

The Job ID from the definition database that caused the history to be stored.

CYCLE/RUN

The Cycle ID that was in effect at the time the history was created.

JOB START DATE

The actual date that the job was first started.

START TIME

The actual time the job was first started.

NUMBER OF RERUNS

The number of times the job was rerun.

LAST RERUN DATE

The last date the job was rerun.

TIME

The last time the job was rerun.

RETURN CODE

The return code ACR/File set during the last run.

12 ■ Reviewing Job History On-line

Displaying a Job History Summary

NUMBER OF ERRORS

The number of errors ACR/File identified in the last run.

FILES VERIFIED/CAPTURED:

APPL. STEP

Displays the files you specified on the Output File Capture Panel (UDC1160) or Input File Verification Panel (UDC1150).

STEP OCC

Displays the step occurrence from the Output File Capture Panel (UDC1160) or Input File Verification Panel (UDC1150).

DDNAME

Displays the ddname from the Output File Capture Panel (UDC1160) or Input File Verification Panel (UDC1150).

CONCAT. SEQUENCE

Displays a 001 if a Capture step or the concatenation sequence from the Input File Verification Panel (UDC1150).

INPUT/OUTPUT

If the file was verified through a Verify step, the system displays INPUT. If the file was captured through a Capture step, the system displays OUTPUT.

NO. OF ERRORS

The system displays the number of errors associated with the files in the specified Job ID.

To view detail information for a particular file, type S next to the file you want to view, and press Enter. You will see one of the following:

- If the file has been captured (in that case the INPUT/OUTPUT field shows OUTPUT), you will see the output informatio. See [“Output File Information” on page 255](#).
- If the file has been verified (in that case the INPUT/OUTPUT field shows INPUT), you will see the input information. See [“Input File Information” on page 259](#).

Displaying Job History Detail

Output File Information

Job History: Output File Information Panel (UDC2030)

The first section, the File Creation Information, tells you the name of the output file and how and when it was created. The middle section, Verification Criteria, tells you criterion you set, where you set it, which option you chose, and its results. The last section, Last Usage Information, tells you which Job ID, cycle and run last accessed this file and when.

```

----- JOB HISTORY: OUTPUT FILE INFORMATION ----- ACR/F releasenumber
====>                (V=DISPLAY VOLSER LIST)                PANEL:UDC2030
JOB: JOBX      STEP: UDCFCAPT QUAL:      CYCLE: 20110406  RUN: 001
FILE CREATION INFORMATION:
  CREATED BY: STEP: EDIT      OCCURRENCE :    1      DDNAME: VALIDTRN
  DATA SET NAME : USERID.VALID.TRANS.G0001V00
  CREATION DATE  : 91.106      CREATION TIME: 09:54:22
  NO. OF VOLUMES : 1          (ENTER V ON COMMAND LINE TO DISPLAY LIST)
  NO. OF RECORDS :           ACTUAL NUMBER OF USES : 0
VERIFICATION CRITERIA      OPTION SOURCE      OPTION IN EFFECT      RESULT
  DD STATEMENT IN JCL      JOB DEFINITION      REPORT ONLY           OK
  DATA SET NOT FOUND      JOB DEFINITION      REPORT ONLY           OK
  NOT CATLG 2              JOB DEFINITION      REPORT ONLY           OK
  CHECK FOR RERUN          JOB DEFINITION      REPORT ONLY           OK
LAST USAGE INFORMATION:
  USED BY: JOB      :           STEP:           QUAL:      CYCLE:           RUN:
  DATE      :           TIME      :
  STEP      :           OCCURRENCE :
  DDNAME    :           CONCAT. SEQ:

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
    
```

JOB

The job name for the history you selected.

STEP

The step name for the history you selected.

QUAL

The qualifier for the history you selected.

CYCLE

The Cycle Number for the history you selected.

RUN

The Run Number for the history you selected.

12 ■ Reviewing Job History On-line

Displaying Job History Detail

FILE CREATION INFORMATION:

STEP

The JCL step that created the output file.

OCCURRENCE

The JCL step occurrence that created the output file.

DDNAME

The ddname in the JCL where the output file was created.

DATA SET NAME

The DSN of the output file that was created.

CREATION DATE

The creation date of the output file.

CREATION TIME

The creation time of the output file.

NO. OF VOLUMES

The number of volumes of the output file. To display a list of VOLSERS, type V at the command line.

NO. OF RECORDS

The number of blocks of records in the output file, if this information has been passed from the UDCEX02 user exit. This would be available if the file is on a TMS-controlled tape and you have installed the ACR/File TMS Example User Exit as the UDCEX02 user exit. This will show the number of records for a VSAM file.

ACTUAL NUMBER OF USES

The actual number of times that any ACR/File-controlled job used the file.

VERIFICATION CRITERIA:

OPTION SOURCE

Identifies where you set the verification criteria.

OPTION IN EFFECT

Identifies what you told ACR/File to do when it finds an exception using this criteria.

RESULT

Identifies the result of ACR/File testing the output file for this criteria and responding according to instructions.

LAST USAGE INFORMATION:

JOB

The job name for the ACR/File job that last used the data set.

STEP

The step name for the ACR/File job that last used the data set.

QUAL

The qualifier for the ACR/File job that last used the data set.

CYCLE

The Cycle Number for the ACR/File job that last used the data set.

RUN

The Run Number for the ACR/File job that last used the data set.

DATE

The date when the ACR/File job last used the data set.

TIME

The time when the ACR/File job last used the data set.

STEP

The JCL step of the ACR/File job that last used the data set.

OCCURRENCE

The JCL step occurrence of the ACR/File job that last used the data set.

DDNAME

The ddname in the JCL for the ACR/File job that last used the data set.

CONCAT. SEQ

The concatenation sequence in the JCL for the ACR/File job that last used the data set.

To view the output file VOLSER list, type V and press Enter. The Output File VOLSER List panel is displayed.

12 ■ Reviewing Job History On-line

Displaying Job History Detail

Job History: Output File VOLSER List Panel (UDC2031)

The Job History: Output File VOLSER List Panel (UDC2031) displays the first 50 volume serial numbers for the selected output file.

It displays the same file creation information as the previous output file panel. At the bottom of this panel is the VOLSER list, which displays the first 50 volume serial numbers for this output file.

```
----- JOB HISTORY: OUTPUT FILE VOLSER LIST ----- ACR/F releasenumbr
===>                                           PANEL: UDC2031
JOB: JOBX      STEP: UDCFCAPT QUAL:      CYCLE: 20110406  RUN: 001
FILE CREATION INFORMATION:
  CREATED BY: STEP: EDIT      OCCURRENCE :      1      DDNAME: VALIDTRN
  DATA SET NAME : USERID.VALID.TRANS.G0001V00
  CREATION DATE  : 91.106      CREATION TIME: 09:54:22
VOLSER LIST:
  UNI001

PF KEYS: 1=HELP 2=SPLIT 3=END 4=RETURN 9=SWAP
```

JOB

The job name for the history you selected.

STEP

The step name for the history you selected.

QUAL

The qualifier for the history you selected.

CYCLE

The Cycle Number for the history you selected.

RUN

The Run Number for the history you selected.

STEP

Identifies the JCL step that created the output file.

OCCURRENCE

Identifies the JCL step occurrence that created the output file.

DDNAME

Identifies the ddname in the JCL where the output file was created.

DATA SET NAME

The DSN of the output file that was created.

CREATION DATE

Identifies the creation date of the output file.

CREATION TIME

Identifies the creation time of the output file.

VOLSER LIST

The first 50 VOLSERs for the output file are displayed.

Input File Information

Job History: Input File Information Panel (UDC2020)

For Job IDs that cause the verify process to take place, you can view the input file information on this panel.

When you type S at the Job History Summary Panel (UDC2011) for an input file, the panel appears. The first section of this panel, Expected Data Set, tells you the data set ACR/File expected, according to the definitions you entered. The second section, Actual Data Set, tells you the data set name and file characteristics it found during verification.

```

----- JOB HISTORY: INPUT FILE INFORMATION ----- ACR/F releasenumbr
====>          (V=VOLSER LIST, BLANK=VERIFICATION DETAIL)   PANEL: UDC2020
JOB: JOBY   STEP: UDCFVRFY  QUAL:      CYCLE: 20110406  RUN: 002
EXPECTED DATA SET:
  DCF JOB ID: JOBY   STEP: UDCFCAPT  QUAL:      CYCLE: 20110416  RUN: 001
  DATA SET NAME   : USERID.MASTER.FILE.G0003V00
  CREATION DATE    : 91.121          CREATION TIME: 16:25:01
  APPLICATION JOB   : USERIDAY STEP: UPDTMSTR  OCCURRENCE: 1
  DD NAME          : NEWMSTR          CONCAT. SEQ: 1
  NO. OF VOLUMES   : 1              NO. OF RECORDS :
  MAXIMUM USES     : 1              MAXIMUM AGE (CYC) : 3  MAXIMUM AGE(DAYS): 3
ACTUAL DATA SET:
  DATA SET NAME   : USERID.MASTER.FILE.G0003V00
  CREATION DATE    : 91.107          CREATION TIME: 00:00:00
  APPLICATION JOB   :                STEP:      OCCURRENCE: 0
  DD NAME          :                CONCAT. SEQ:
  NO. OF VOLUMES   : 1              NO. OF RECORDS :
  NUMBER OF USES   : 1              ACTUAL AGE (CYC): 0  ACTUAL AGE(DAYS): 0

          PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
    
```

JOB

The job name for the history you selected.

STEP

The step name for the history you selected.

QUAL

The qualifier for the history you selected.

CYCLE

The Cycle Number for the history you selected.

12 ■ Reviewing Job History On-line

Displaying Job History Detail

RUN

The Run Number for the history you selected.

EXPECTED DATA SET:

JOB

The expected job name.

STEP

The expected step name.

QUAL

The expected qualifier.

CYCLE

The expected Cycle Number.

RUN

The expected Run Number.

DATA SET NAME

The expected data set name.

CREATION DATE

The expected date on which the data set was created.

CREATION TIME

The expected time the data set was created.

APPLICATION JOB

The expected application job from the ACR/File definition.

STEP

The expected application step from the ACR/File definition.

OCCURRENCE

If a step occurs more than once in an application, than this field identifies which occurrence this is.

DDNAME

The expected ddname for the data set.

CONCAT. SEQ

The expected concatenation sequence of the data set.

NO. OF VOLUMES

The expected number of volumes for the data set.

NO. OF RECORDS

The expected number of records for the data set.

MAXIMUM USES

The expected number of times the data set should be used.

MAXIMUM AGE (CYC)

The expected age in relative cycles of the data set.

MAXIMUM AGE (DAYS)

The expected age of the data set in calendar days.

ACTUAL DATA SET:

DATA SET NAME

The DSN that ACR/File actually found.

CREATION DATE

The actual creation date of the data set.

CREATION TIME

The actual creation time of the data set.

APPLICATION JOB

The actual application job name of the data set.

STEP

The actual application step name of the data set.

OCCURRENCE

If a step occurs more than once on an application, this field identifies which occurrence this step is.

DDNAME

The actual ddname of the data set.

CONCAT. SEQUENCE

The actual concatenation sequence of the data set.

NO. OF VOLUMES

The actual number of volumes for the data set. To display a list of VOLSERS, type v at the command line.

NO. OF RECORDS

The number of blocks of records in the output file, if this information has been passed from the UDCEX02 user exit. The number of records is only available if the file being captured or verified is a VSAM file or is a tape file and the tape management user exit is installed by the user.

NUMBER OF USES

The actual number of times the data set was used.

ACTUAL AGE (CYC)

The actual age of the data set in cycles.

12 ■ Reviewing Job History On-line

Displaying Job History Detail

ACTUAL AGE (DAYS)

The actual age of the data set in calendar days.

To view the input file VOLSER list, type V and press Enter.

Job History: Input File VOLSER List Panel (UDC2021)

This panel displays the first 50 volume serial numbers for the expected and actual data set names. It displays the information for a particular job step and its cycle and run.

```
----- JOB HISTORY: INPUT FILE VOLSER LIST ----- ACR/F releasenumbr
===>                                           PANEL: UDC2021
JOB:  JOBY          STEP: UDCFVRFY  QUAL:   CYCLE: 20110406   RUN: 002
EXPECTED DATA SET NAME: USERID.MASTER.FILE.G0003V000
  CREATION DATE       : 91.107           CREATION TIME    :   08:58:04
VOLSER LIST:
  UNI001
ACTUAL DATA SET NAME: USERID.MASTER.FILE.G0003V000
  CREATION DATE       : 91.107           CREATION TIME    :   08:58:04
VOLSER LIST:
  UNI001

PF KEYS: 1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
```

EXPECTED DATA SET NAME:

NAME

Displays the expected DSN.

CREATION DATE

Displays the creation date for the expected data set.

CREATION TIME

Displays the creation time for the expected data set.

VOLSER LIST

Displays the first 50 VOLSERS for the expected data set.

ACTUAL DATA SET NAME:

NAME

Displays the actual DSN.

CREATION DATE

Displays the creation date for the actual data set.

CREATION TIME

Displays the creation time of the actual data set.

VOLSER LIST

Displays the first 50 VOLSERS for the actual data set.

Input File Verification Detail Panel (UDC2022)

This panel details the result of each verification ACR/File performed for the selected Job ID and Cycle and Run Number. It lists each verification ACR/File performed for the selected Job ID. It lists each available verification option (Verification Criteria), where you set the option (Option Source), how you set it (Option in Effect), and its verification result (Result).

To access the panel, press Enter from the Job History: Input File Information Panel (UDC2020).

```

----- INPUT FILE VERIFICATION DETAIL -----ACR/F releasenumber
====>                                     PANEL:UDC2022
JOB: JOBY      STEP: UDCFVRFY QUAL:      CYCLE: 20110417  RUN: 001
VERIFICATION CRITERIA      OPTION SOURCE      OPTION IN EFFECT      RESULT
HISTORY FOR EXPECTED DD    JOB DEFINITION      SET RETURN CODE      OK
DD STATEMENT IN JCL        JOB DEFINITION      SET RETURN CODE      OK
DATA SET NAME              JOB DEFINITION      SET RETURN CODE      OK
CONCAT. SEQUENCE           JOB DEFINITION      NO ACTION             OK
CREATION DATE              JOB DEFINITION      SET RETURN CODE      OK
CREATION TIME              JOB DEFINITION      SET RETURN CODE      UNKNOWN
CREATION JOB               JOB DEFINITION      SET RETURN CODE      UNKNOWN
CREATION STEP              JOB DEFINITION      SET RETURN CODE      UNKNOWN
CREATION DD                JOB DEFINITION      SET RETURN CODE      UNKNOWN
VOLSER NUMBERS             JOB DEFINITION      NO ACTION             OK
NUMBER OF RECORDS          JOB DEFINITION      SET RETURN CODE      OK
NUMBER OF USES             JOB DEFINITION      REPORT ONLY           OK
MAXIMUM AGE (CYCLES)       JOB DEFINITION      REPORT ONLY           OK
MAXIMUM AGE (DAYS)         JOB DEFINITION      REPORT ONLY           OK
DATA SET NOT FOUND         JOB DEFINITION      SET RETURN CODE      OK
NOT CATLG 2                JOB DEFINITION      NO ACTION             OK
CHECK FOR RERUN            JOB DEFINITION      REPORT ONLY           OK
PF KEYS:  1=HELP  2=SPLIT  3=END  4=RETURN  9=SWAP
    
```

VERIFICATION CRITERIA

Lists all the possible verification criteria you can instruct ACR/File to use.

OPTION SOURCE

Identifies where you set the verification criteria.

OPTION IN EFFECT

Identifies what you told ACR/File to do when it finds an exception.

RESULT

Identifies the result of ACR/File testing the output file for this criteria and responding according to instructions.

12 ■ Reviewing Job History On-line

Displaying Job History Detail

Reports

This appendix contains sample ACR/File reports. The reports are as follows:

- “Database Initialization Report” on page 266
- “Database Update Report” on page 266
- “Transaction Processing Report (UDCR001)” on page 267
- “Input File Verification Report (UDCR002)” on page 268
- “Input File Verification Expanded Messages Report (UDCR003)” on page 268
- “Input File Exception Report (UDCR004)” on page 268
- “Input File Exception Expanded Messages Report (UDCR005)” on page 269
- “Output File Capture Report (UDCR006)” on page 269
- “Maximum Age Notification Report (UDCR007)” on page 269
- “LIST DEFN Reports” on page 270
- “LIST HIST Report: Combined Summary and Detail” on page 274
- “DELETE HIST Report” on page 275
- “REORG HIST Report” on page 276
- “Print JOBSUM Report” on page 277
- “PRINT JOBCTL Report” on page 277
- “SORTDIR HIST Report” on page 278
- “BUILD DEFN Report” on page 278

For more information, see “Reports” on page 17.

Database Initialization Report

For more information, see “Establishing a Database” on page 95.

Note: The title in the report header is Transaction Validation Report (UDCINIT) - UDCINIT Input Transactions.

ACR/F R40V0M00	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD	TRANSACTION VALIDATION REPORT	REPORT ID: UDCINIT PAGE 1
TIME: 12:27:21	UDCINIT INPUT TRANSACTIONS	DEF/HST VERSION: 0000000/0000000000
TRAN# OK?	I N P U T T R A N S A C T I O N	V A L I D A T I O N M E S S A G E S
-----1-----2-----3-----4-----5-----6-----7-----8-----		
00003 YES DFSDN USERID.UDC.UDCDEFN		
00002 YES HFSDN USERID.UDC.UDCHIST		
00001 YES HFS 0000001000000150		
DEFINITION FILE CREATED PER PARM INFO	(FILE=BOTH) NBR OF DEF RECS WRITTEN:	1
HISTORY FILE CREATED PER PARM INFO	(FILE=BOTH) NBR OF HST RECS WRITTEN:	152

Database Update Report

For more information, see “Updating the Definition Database” on page 99.

Note: The title in the report header is Transaction Validation Report (UDCUPDT) - UDCUPDT Input Transactions.

ACR/F releasenumbr	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD	TRANSACTION VALIDATION REPORT	REPORT ID: UDCUPDT PAGE 1
TIME: 15:48:42	UDCUPDT INPUT TRANSACTIONS	DEF/HST: 0000005/*****
TRAN #	V A L I D A T I O N M E S S A G E S	I N P U T T R A N S A C T I O N
-----1-----2-----3-----4-----5-----6-----7-----8-----		
00001	JAN-2011-CYC-TBL	TO 0001*
00002	JAN-2011-CYC-TBL	TO 0001AJANUARY 2011, CYCLE TABLE
00003	JAN-2011-CYC-TBL	T2 0011A2011010120110102119001020110010420110105
00004	JAN-2011-CYC-TBL	T2 001220110106201101072011010820110010920110110
00005	JAN-2011-CYC-TBL	T2 0021A2011011120110112201101132011011420110115
00006	JAN-2011-CYC-TBL	T2 0022A2011011620110117120110118201101192011020
00007	JAN-2011-CYC-TBL	T2 0031A2011012120110122201101232011012420110125
00008	JAN-2011-CYC-TBL	T2 0032A2011012620110127201101282011012920110130
00009	JAN-2011-CYC-TBL	T2 004A2011013100000000000000000000000000000000
00010	JAN-2011-CYC-TBL	T2 0042A00000000000000000000000000000000000000
00011	JOBX UDCFCAPT	DO 0001*
00012	JOBX UDCFCAPT	DO 0001ACAPTURE JOBX VALID AND INVALID TRANS 005YYYYNNYN
00013	JOBX UDCFCAPT	DO 0002A JOBX UDCFCAPT GIN
00014	JOBX UDCFCAPT	DO 0003A Y
00015	JOBX UDCFCAPT	D2 0011AEDIT 001VALIDTRN001001003
00016	JOBX UDCFCAPT	D2 0021AEDITR 001INVLDRN001001003
00017	JOBX UDCFCAPT	DO 0001*
00018	JOBX UDCFCAPT	DO 0001ACAPTURE JOBY NEW MASTER FILE 005YYYYNNYN
00019	JOBX UDCFCAPT	DO 0002A JOBX UDCFCAPT N
00020	JOBX UDCFCAPT	DO 0003A Y
00021	JOBX UDCFCAPT	D2 0011AUDPDTMSTR001NEWMSTR 001001003
00022	JOBX UDCFCAPT	DO 0001*
00023	JOBX UDCFCAPT	DO 0001AVERIFY JOBY VALID TRANS AND MASTER FILES005YXXNYXNNY
00024	JOBX UDCFCAPT	DO 0002A JOBX UDCFCAPT N
00025	JOBX UDCFCAPT	DO 0003AXXNNXXXXXXNY
00026	JOBX UDCFCAPT	D1 0011AUDPDTMSTR001UPDTRNS001JOBX YDCFCAPT 001+00NN
00027	JOBX UDCFCAPT	D1 0012A +00
00028	JOBX UDCFCAPT	D1 0013AN +00
00029	JOBX UDCFCAPT	D1 0021AUDTMR001OLDMSTR 001JOBX UDCFCAPT 001-01NN
00030	JOBX UDCFCAPT	D1 0022A
00031	JOBX UDCFCAPT	D1 0023AN +00
00032	USERIDAXUDFCAPT	DO 0001*
00033	USERIDAXUDFCAPT	DO 0001AJOBX UDCFCAPT 000 Y
00034	USERIDAYUDFCAPT	DO 0001*
00035	USERIDAYUDFCAPT	DO 0001AJOBX UDCFCAPT 000 Y
00036	USERIDAYUDFCVFRY	DO 0001*
00037	USERIDAYUDFCVFRY	DO 0001AJOBX UDCFCVFRY 000 Y
NBR OF INPT TRANS VALIDATED: 37		
NBR OF VALID TRANSACTIONS: 37		
NBR OF INVALID TRANSACTIONS: 0		
***** END OF REPORT UDCUPDT *****		

Input File Verification Report (UDCR002)

The Input File Verification Report (UDCR002) shows the expected and actual datasets for the input file, including both matches and mismatches of datasets.

ACR/F Release number		VERIFY JOBY VALID TRANS AND MASTER FILES		COPYRIGHT INFOGIX, INC	
DATE: d/mm/yy		INPUT FILE VERIFICATION REPORT		REPORT ID: UDCR002 PAGE 1	
TIME: 8:43:46		FOR: JOBY=JOBY STEP=UDCFVRFY JSQ=		DEF/HST VERSION: 0000007/00000000025	
		CYCLE=20030414 RUN=004			
STEPNAME	DDNAME	ACTUAL INPUT DATASET	EXPECTED INPUT DATASET	ER	
UPDTMSTR	UPDTRNS	USERIDA.VALID.TRANS.G0009V00	USERIDA.VALID.TRANS.G0009V00		
OCC:001		CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/04/14 CRTIME= 0:00:00 VOLRSERS= UNI002 FROM JOB: STEP: DD:	CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/04/14 CRTIME= 8:40:48 VOLRSERS= UNI002 FROM JOB:USERIDAX STEP:EDIT DD:VALIDTRN JOB-ID:JOBX UDCFCAPT CYC:20030414004 #USES=001 MAXUSE=001 CYC-AGE=000 DAY-AGE=000		
UPDTMSTR	OLDMSTR	USERIDA.MASTER.FILE.G0009V00	USERIDA.MASTER.FILE.G0009V00		
OCC:001		CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/04/14 CRTIME= 0:00:00 VOLRSERS= UNI002 FROM JOB: STEP: DD:	CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/04/14 CRTIME= 8:40:48 VOLRSERS= UNI002 FROM JOB:USERIDAX STEP:UPDTMSTR DD:NEWMSTR JOB-ID:JOBY UDCFCAPT CYC:20030503001 #USES=001 MAXUSE=001 CYC-AGE=000 DAY-AGE=000		
		PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=UNI.UNISEC.PLUS.CVS.B04	LINKEDIT DATE=UNKNOWN	
***** END OF REPORT UDCR002 *****					

Input File Verification Expanded Messages Report (UDCR003)

The Input File Verification Expanded Messages Report (UDCR003) describes each verification exception in detail and suggests how to correct it.

ACR/F release number		VERIFY JOBY VALID TRANS AND MASTER FILES		COPYRIGHT INFOGIX, INC.	
DATE: YY/MM/DD		INPUT FILE VERIF - EXPANDED MESSAGES RPT		REPORT ID: UDCR003 PAGE 1	
TIME: 14:30:00		FOR: JOBY=JOBY STEP=UDCFVRFY JSQ=		DEF/HST VERSION: 0000004/00000000006	
		CYCLE=20080729 RUN=002			
MESSAGE ID	MESSAGE DESCRIPTION	RECOMMENDED ACTION			
*** NO INPUT FILE VERIFICATION ERRORS ***					
		PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=USERID.UNI.LOASLIB	LINKEDIT DATE=UNKNOWN	

Input File Exception Report (UDCR004)

The Input File Exception Report (UDCR004) shows expected and actual datasets for mismatches only.

ACR/F release number		DSN MISMATCH TEST - ISSUE #UDC310E MSG		COPYRIGHT INFOGIX, INC.	
DATE: YY/MM/DD		INPUT FILE EXCEPTION REPORT		REPORT ID: UDCR004 PAGE 1	
TIME: 12:32:18		FOR: JOBY=VRFY01 STEP=UDCFVRFY JSQ=XX		DEF/HST VERSION: 0000002/00000000000	
		CYCLE=20080923 RUN=001			
STEPNAME	DDNAME	ACTUAL INPUT DATASET	EXPECTED INPUT DATASET	ERROR MESSAGES	
STEP02	DDAI	USERID.SFMISMCH.DDBO	USERID.SFMISMCH.DDAO	#UDC310E-DSN MISMT	
OCC:001		CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/09/23 CRTIME= 0:00:00 VOLRSERS= BSTR03 FROM JOB: STEP: DD:	CONCAT-NBR=001 #RECS=000000000000 CRDATE=03/09/23 CRTIME=12:32:05 VOLRSERS= CSTR05 FROM JOB:R99UB04M STEP:STEP01 DD:DDAO JOB-ID:CAPT01 UDCFCAPT CYC:20080923001 #USES=000 MAXUSE=003 CYC-AGE=000 DAY-AGE=000	#UDC335E-VOLRSERS DI	
		PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=USERID.UNI.LOASLIB	LINKEDIT DATE=UNKNOWN	

Input File Exception Expanded Messages Report (UDCR005)

This report accompanies the Input File Exception Report (UDCR004).

ACR/F releasenumbr	DSN MISMATCH TEST - ISSUE #UDC310E MSG	COPYRIGHT INFOGIX, INC.	
DATE: YY/MM/DD	INPUT FILE EXCEP - EXPANDED MESSAGES RPT	REPORT ID: UDCR005	PAGE 1
TIME: 12:32:18	FOR: JOB=VRFY01 STEP=UDCFVRFY JSQ=XX	DEF/HST VERSION: 0000002/0000000000	
	CYCLE=20080923 RUN=001		
MESSAGE			
ID	MESSAGE DESCRIPTION	RECOMMENDED ACTION	
#UDC310E	DSN OF INPUT FILE DIFFERS FROM DSN EXPECTED	CHANGE JCL TO USE CORRECT INPUT DATASET	
#UDC335E	VOLSERS OF INPUT FILE DIFFER FROM WHAT WAS EXPECTED	DETERMINE IF INCORRECT FILE IS BEING USED	
	PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=USERID.UNI.LOADLIB	LINKEDIT DATE=UNKNOWN

Output File Capture Report (UDCR006)

The Output File Capture Report (UDCR006) shows file creation and other characteristics of the captured output file. The information in this report is identical to the information available through History Browse.

ACR/F releasenumbr	CAPTURE JOBX VALID AND INVALID TRANS		COPYRIGHT INFOGIX, INC.	
DATE: YY/MM/DD	OUTPUT FILE CAPTURE REPORT		REPORT ID: UDCR006	PAGE 1
TIME: 13:30:31	FOR: JOB=JOBX	STEP=UDCFVRFY JSQ=	DEF/HST VERSION: 0000002/0000000001	
	CYCLE=20080729 RUN=001			
STEPNAME - OCC	DDNAME	INFORMATION ABOUT DATASET THAT WAS CAPTURED		
EDIT - 001	VALIDTRN	DSN=USERID.VALID.TRANS.G0002V00		
		VOLSERS= UNI001		
CRDATE=03/07/29	CRTIME=13:30:31	#RECS=0000000000	MAX-USES=001	MAX-CYC-AGE=001
MAX-DAY-AGE=003				
EDIT - 001	INVLTRN	DSN=USERID.INVALID.TRANS.G0002V00		
		VOLSERS= UNI001		
CRDATE=03/07/29	CRTIME=13:30:31	#RECS=0000000000	MAX-USES=001	MAX-CYC-AGE=001
MAX-DAY-AGE=003				
	PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=USERID.UNI.LOADLIB	LINKEDIT DATE=UNKNOWN	

Maximum Age Notification Report (UDCR007)

The Maximum Age Notification Report (UDCR007) shows any file that has to been used yet, but should have been, based upon specified age limits.

VERIFY JOBY VALID TRANS AND MASTER FILES	MAXIMUM AGE NOTIFICATION REPORT		COPYRIGHT INFOGIX, INC.	
DATE: YY/MM/DD	OR: JOB=JOBY		REPORT ID: UDCR007	PAGE 1
TIME: 14:30:00	STEP=UDCFVRFY JSQ=	DEF/HST VERSION: 0000004/0000000006		
	CYCLE=20080729 RUN=002			
STEPNAME - OCC	DDNAME	INFORMATION ABOUT DATASET THAT HAS AGED		
STEP40 - 001	SYSUT1	DSN=USERID.JOBXX.GDGFILE.G0003V00		
		CRDATE=03/07/29		
		CRTIME=14:10:00		
		#RECS=00000000		
		VOLSERS= BLN5FF		
FROM: JOB=JOBXX	STEP=STEP50	DD=SYSUT2	MAX-USES=001	MAX-CYC-AGE=001
MAX-DAY-AGE=001				
JOB-ID=JOBXX	STEP80	CYC=00920701000	NBR-USES=000	ACT-CYC-AGE=002
ACT-DAY-AGE=000				
	PROGRAM NAME=UDC2000	LOAD LIBRARY NAME=USERID.UNI.LOADLIB	LINKEDIT DATE=UNKNOWN	

LIST DEFN Reports

LIST DEFN Report: List Style

LIST DEFN Report: List Style (Part 1 of 4)

DATE: YY/MM/DD	DATA BASE UTILITY	PAGE 001
TIME: 17.06.24	UDCUTIL TRANSACTION LISTING	

TRANS		
NO.	T R A N S A C T I O N	VALIDATION MESSAGES
-----1-----2-----3-----4-----5-----6-----7-----8-----		
00001LIST UDCDEFN	L	#UTL0001: PROCESSING COMPLETED WITHOUT ERRORS
*****END OF REPORT*****		
ACR/F releasenumbr	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.
DATE:YY/MM/DD	DATA BASE UTILITY	PAGE 001
TIME: 17.06.28	DEFINITION DATA BASE LISTING	DATA BASE VERSION: 0000006
	DSN=USERID.UDC.UDCDEFN	
	DATA BASE HISTORY AND STATISTICS	
	RELEASE AND VERSION OF DATA BASE:	0000006
	DATE AND TIME OF INITIALIZATION:	19/03/07 AT 12.27.21
	DATE AND TIME OF LAST UPDATE:	19/03/07 AT 15.48.42
	LAST UPDATED BY:	JOBNAME: USERIDAU PROGRAM: UDCUPDT
	NUMBER OF BASIC INFORMATION RECORDS:	3
	NUMBER OF ALTERNATE JOB-ID RECORDS:	3
	NUMBER OF INPUT DD RECORDS:	2
	NUMBER OF OUTPUT DD RECORDS:	3
	NUMBER OF CYCLE TABLE DESC RECORDS:	1
	NUMBER OF CYCLE TABLE ENTRY RECORDS:	4
	AGGREGATE RUN HISTORIES:	15

LIST DEFN Report: List Style (Part 2 of 4)

ACR/F releasenumbr	INFOGIX, INCORPORATED	OPYRIGHT INFOGIX, INC.	DATE: YY/MM/DD	DATA BASE UTILITY
PAGE 002				
TIME: 17.06.28	DEFINITION DATA BASE LISTING	DATA BASE VERSION: 0000006		
	DSN=USERID.UDC.UDCDEFN			
	INDEX OF DEFINITION KEYS			
	DEFINITION KEY	TYPE	COMMENTS	
	JAN-2011-CYC-TBL	TABLE-ID	CYCLE TABLE	
	JOBX UDCFCAPT	JOB-ID	BASIC JOB INFO	
	JOBY UDCFCAPT	JOB-ID	BASIC JOB INFO	
	JOBZ UDCFVRFY	JOB-ID	BASIC JOB INFO	
	USERIDAXUDCFCAPT	JOB-ID	ALTERNATE JOB ID FOR: JOBX	UDCFCAPT
	USERIDAYUDCFCAPT	JOB-ID	ALTERNATE JOB ID FOR: JOBY	UDCFCAPT
	USERIDAZUDCFVRFY	JOB-ID	ALTERNATE JOB ID FOR: JOBZ	UDCFVRFY

LIST DEFN Report: List Style (Part 3 of 4)

```

ACR/F releasenumber  INFOGIX, INCORPORATED  COPYRIGHT INFOGIX, INC.  DATE: YY/MM/DD  DATA BASE UTILITY  PAGE 003
TIME: 17.06.28      DEFINITION DATA BASE LISTING  DATA BASE VERSION: 0000006
                                DSN=USERID.UDC.UDCDEFN
                                DETAILED JOB DEFINITIONS  (LIST STYLE)

JOB-ID: JOBX  UDCFCAPT
A. ALTERNATE JOB ID KEYS:
  USERIDXUDCFCAPT
B. BASIC JOB INFORMATION:
  DESCRIPTION/TITLE:      CAPTURE JOBX VALID AND INVALID TRANS
  NUMBER OF HISTORIES RETAINED:  5
  PROCESSING OPTIONS:
    STORE RUN HISTORY:      ADD          CHECK FOR DATASET NOT FOUND:  REPT-ONLY
    SET RETURN CODE:        YES         CHECK FOR NOT CATALOGED 2:  REPT-ONLY
                                         CHECK FOR ACCIDENTAL RERUN:  REPT-ONLY

  REPORT PRINT OPTIONS:
    PRINT VERIFY REPORT:    NO          PRINT CAPTURE REPORT:      BASIC
    PRINT EXCEPTION REPORT: NO          PRINT MAXIMUM AGE REPORT:  NO
  CYCLE/RERUN PARAMETERS:
    AUTOMATIC CYCLE OPTION:  G1
    CYCLE REFERENCE JOB-ID:  JOBX  UDCFCAPT
    CYCLE TABLE ID:
    AUTOMATIC RERUN OPTION:  NO
  JOB-LEVEL VERIFICATION OPTIONS:
    VERIFY HISTORY PRESENT:  DEFAULT    VERIFY CREATION DATE:      DEFAULT    VERIFY NUMBER OF RECS:  DEFAULT
    VERIFY FILE PRESENT:    REPT-ONLY   VERIFY CREATION TIME:     DEFAULT    VERIFY NUMBER OF USES:  DEFAULT
    VERIFY DATA SET NAME:  DEFAULT     VERIFY CREATION JOB:      DEFAULT    VERIFY CYCLE AGE:       DEFAULT
    VERIFY CONCATENATION SEQ:  DEFAULT  VERIFY CREATION STEP:     DEFAULT    VERIFY DAY AGE:        DEFAULT
    VERIFY VOLSERS:         DEFAULT    VERIFY CREATION DD NAME:  DEFAULT

C. INPUT FILE ITEMS:
  JCL LOC OF FILE TO BE VFYD -----FILE TO BE BROUGHT IN AS INPUT FROM----- REL MOST VCYC  VARIABLE CYCLE  REL MOST
  ITEM STEPNAM OCC  DDNAME  CONC      JOB-ID      ITEM JOBNAM  STEPNAM OCC  DDNAME  CYC RCNT IND      JOB-ID      CYC RCNT

  NO FILES TO BE VERIFIED FOR THIS JOB-ID.

D. OUTPUT FILE ITEMS:
  JCL LOC OF FILE TO BE CAPT MAX  USE WITHIN:
  ITEM STEPNAM OCC  DDNAME  CONC  USES  CYCS  DAYS
  001 EDIT  001 VALIDTRN NONE  1  1  3
  FILE-LVL VERIFICATION OPT: FILE=
  002 EDIT  001 INVLTRN NONE  1  1  3
  FILE-LVL VERIFICATION OPT: FILE=
    
```

LIST DEFN Report: List Style (Part 4 of 4)

```

ACR/F releasenumber  INFOGIX, INCORPORATED  COPYRIGHT INFOGIX, INC.  DATE: YY/MM/DD  DATA BASE UTILITY  PAGE 006
TIME: 17.06.28      DEFINITION DATA BASE LISTING  DATA BASE VERSION: 0000006
                                DSN=USERID.UDC.UDCDEFN
                                DETAILED TABLE DEFINITIONS

TABLE-ID: JAN-2011-CYC-TBL
A. CYCLE TABLE INFORMATION:
  DESCRIPTION/TITLE:  JANUARY 2011, CYCLE TABLE
B. CYCLE TABLE ENTRIES:
ENTRY NBR      1          2          3          4          5          6          7          8          9          0
0001-0010  20110101  20110102  20110103  20110104  20110105  20110106  20110107  20110108  20110109  20110110
0011-0020  20110111  20110112  20110113  20110114  20110115  20110116  20110117  20110118  20110119  20110120
0021-0030  20110121  20110122  20110123  20110124  20110125  20110126  20110127  20110128  20110129  20110130
0031-0040  20110131  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000  00000000
    
```

LIST DEFN Report: Expanded Style

LIST DEFN Report: Expanded Style (Part 1 of 5)

```

ACR/F releasenumber      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD          DATA BASE UTILITY
TIME: 17.07.04         UDCUTIL TRANSACTION LISTING
-----
TRANS
NO.                      T R A N S A C T I O N
-----1-----2-----3-----4-----5-----6-----7-----8-----
00001LIST  UDCDEFN          E          #UTL000I: PROCESSING COMPLETED WITHOUT ERRORS
*****END OF REPORT*****
ACR/F releasenumber      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD          DATA BASE UTILITY
TIME: 17.07.07         DEFINITION DATA BASE LISTING      DATA BASE VERSION: 0000006
                               DSN=USERID.UDC.UDCDEFN
                               DATA BASE HISTORY AND STATISTICS
RELEASE AND VERSION OF DATA BASE:      0000006
DATE AND TIME OF INITIALIZATION:        19/03/07 AT 12.27.21
DATE AND TIME OF LAST UPDATE:           19/03/07 AT 15.48.42
LAST UPDATED BY:                         JOBNAME: USERIDAU  PROGRAM: UDCUPDT
NUMBER OF BASIC INFORMATION RECORDS:      3
NUMBER OF ALTERNATE JOB-ID RECORDS:      3
NUMBER OF INPUT DD RECORDS:              2
NUMBER OF OUTPUT DD RECORDS:            3
NUMBER OF CYCLE TABLE DESC RECORDS:     1
NUMBER OF CYCLE TABLE ENTRY RECORDS:    4
AGGREGATE RUN HISTORIES:                 15
    
```

LIST DEFN Report: Expanded Style (Part 2 of 5)

```

ACR/F releasenumber      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD          DATA BASE UTILITY
TIME: 17.07.07         DEFINITION DATA BASE LISTING      DATA BASE VERSION: 0000006
                               DSN=USERID.UDC.UDCDEFN
                               INDEX OF DEFINITION KEYS
DEFINITION KEY          TYPE          COMMENTS
-----
JAN-2011-CYC-TBL       TABLE-ID    CYCLE TABLE
JOBX  UDCFCAPT         JOB-ID       BASIC JOB INFO
JOBY  UDCFCAPT         JOB-ID       BASIC JOB INFO
JOBZ  UDCFCAPT         JOB-ID       BASIC JOB INFO
USERIDAXUDCFVRFY      JOB-ID       ALTERNATE JOB ID FOR: JOBX  UDCFCAPT
USERIDAYUDCFVRFY      JOB-ID       ALTERNATE JOB ID FOR: JOBY  UDCFCAPT
USERIDAZUDCFVRFY      JOB-ID       ALTERNATE JOB ID FOR: JOBZ  UDCFCAPT
    
```

LIST DEFN Report: Expanded Style (Part 3 of 5)

```

ACR/F releasenumber      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD          DATA BASE UTILITY
TIME: 17.07.07         DEFINITION DATA BASE LISTING      DATA BASE VERSION: 0000006
                               DSN=USERID.UDC.UDCDEFN
                               DETAILED JOB DEFINITIONS (EXPANDED STYLE)
JOB-ID: JOBX  UDCFCAPT
A. ALTERNATE JOB ID KEYS:
  USERIDAXUDCFVRFY
B. BASIC JOB INFORMATION:
  DESCRIPTION/TITLE:      CAPTURE JOBX VALID AND INVALID TRANS
  NUMBER OF HISTORIES RETAINED: 5
  PROCESSING OPTIONS:
    STORE RUN HISTORY:    ADD          CHECK FOR DATASET NOT FOUND: REPT-ONLY
    SET RETURN CODE:      YES          CHECK FOR NOT CATALOGED 2:  REPT-ONLY
                                CHECK FOR ACCIDENTAL RERUN:  REPT-ONLY
  REPORT PRINT OPTIONS:
    PRINT VERIFY REPORT:  NO          PRINT CAPTURE REPORT:      BASIC
    PRINT EXCEPTION REPORT: NO          PRINT MAXIMUM AGE REPORT:  NO
  CYCLE/RERUN PARAMETERS:
    AUTOMATIC CYCLE OPTION: G1
    CYCLE REFERENCE JOB-ID: JOBX  UDCFCAPT
    CYCLE TABLE ID:
    AUTOMATIC RERUN OPTION: NO
  JOB-LEVEL VERIFICATION OPTIONS:
    VERIFY HISTORY PRESENT: DEFAULT          VERIFY CREATION DATE:      DEFAULT          VERIFY NUMBER OF RECS:    DEFAULT
    VERIFY FILE PRESENT:   REPT-ONLY        VERIFY CREATION TIME:     DEFAULT          VERIFY NUMBER OF USES:    DEFAULT
    VERIFY DATA SET NAME: DEFAULT          VERIFY CREATION JOB:      DEFAULT          VERIFY CYCLE AGE:         DEFAULT
    VERIFY CONCATENATION SEQ: DEFAULT        VERIFY CREATION STEP:     DEFAULT          VERIFY DAY AGE:           DEFAULT
    VERIFY VOLSEERS:      DEFAULT          VERIFY CREATION DD NAME:  DEFAULT
C. INPUT FILE ITEMS:
  NO FILES TO BE VERIFIED FOR THIS JOB-ID.
    
```

LIST DEFN Report: Expanded Style (Part 4 of 5)

ACR/F releasenumbr	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.	PAGE 004
DATE: YY/MM/DD	DATA BASE UTILITY		
TIME: 17.07.07	DEFINITION DATA BASE LISTING	DATA BASE VERSION: 0000006	
	DSN=USERID.UDC.UDCDEFN		
	DETAILED JOB DEFINITIONS (EXPANDED STYLE)		
JOB-ID: JOEX UDCFCAPT			
D. OUTPUT FILE ITEMS:			
ITEM NBR: 001			
JCL LOCATION OF FILE TO BE CAPTURED:			
STEPNAME: EDIT STEP OCC: 001 DDNAME: VALIDTRN			
FILE USE RESTRICTIONS:			
FILE MUST BE USED NO MORE THAN 1 TIME(S).			
FILE MUST BE USED WITHIN 1 CYCLE(S) OF ITS CAPTURE.			
FILE MUST BE USED WITHIN 3 DAY(S) OF ITS CREATION.			
FILE-LEVEL VERIFICATION OPTIONS:			
VERIFY FILE PRESENT: DEFAULT			
ACR/F releasenumbr	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.	PAGE 005
DATE: YY/MM/DD	DATA BASE UTILITY		
TIME: 17.07.07	DEFINITION DATA BASE LISTING	DATA BASE VERSION: 0000006	
	DSN=USERID.UDC.UDCDEFN		
	DETAILED JOB DEFINITIONS (EXPANDED STYLE)		
JOB-ID: JOEX UDCFCAPT			
D. OUTPUT FILE ITEMS:			
ITEM NBR: 002			
JCL LOCATION OF FILE TO BE CAPTURED:			
STEPNAME: EDIT STEP OCC: 001 DDNAME: INVLDRN			
FILE USE RESTRICTIONS:			
FILE MUST BE USED NO MORE THAN 1 TIME(S).			
FILE MUST BE USED WITHIN 1 CYCLE(S) OF ITS CAPTURE.			
FILE MUST BE USED WITHIN 3 DAY(S) OF ITS CREATION.			
FILE-LEVEL VERIFICATION OPTIONS:			
VERIFY FILE PRESENT: DEFAULT			

LIST DEFN Report: Expanded Style (Part 5 of 5)

ACR/F releasenumbr	INFOGIX, INCORPORATED	COPYRIGHT INFOGIX, INC.	PAGE 012							
DATE: YY/MM/DD	DATA BASE UTILITY									
TIME: 17.07.07	DEFINITION DATA BASE LISTING	DATA BASE VERSION: 0000006								
	DSN=USERID.UDC.UDCDEFN									
	DETAILED TABLE DEFINITIONS									
TABLE-ID: JAN-2011-CYC-TBL										
A. CYCLE TABLE INFORMATION:										
DESCRIPTION/TITLE: JANUARY 2011, CYCLE TABLE										
B. CYCLE TABLE ENTRIES:										
ENTRY NBR	1	2	3	4	5	6	7	8	9	0
0001-0010	20110101	20110102	20110103	20110104	20110105	20110106	20110107	20110108	20110109	20110110
0011-0020	20110111	20110112	20110113	20110114	20110115	20110116	20110117	20110118	20110119	20110120
0021-0030	20110121	20110122	20110123	20110124	20110125	20110126	20110127	20110128	20110129	20110130
0031-0040	20110131	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

LIST HIST Report: Combined Summary and Detail

LIST HIST Report: Combined Summary and Detail (Part 1 of 3)

```

ACR/F releasenumbr          INFOGIX, INCORPORATED          COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD              DATA BASE UTILITY              PAGE 001
TIME: 17.20.24              DATA BASE (UDCHIST) LISTING    DATA BASE VERSION: *****/0000000008
                               DSN=USERID.UDC.UDCHIST
                               DATA BASE HISTORY AND STATISTICS
                               -----
DATE AND TIME OF INITIALIZATION: 19/03/07 AT 12.27.21 BY VERSION R30V0M00 OF ACR/F
DATE AND TIME OF LAST UPDATE:    19/03/07 AT 14.30.20
NUMBER OF JOB-ID KEYS:
    MAXIMUM:                    10
    USED:                        3
    AVAILABLE:                   7
NUMBER OF HISTORIES (INCLUDING ADJUSTMENTS):
    MAXIMUM:                    150
    USED:                        15
    AVAILABLE:                   135
                                     Page 002

INDEX OF HISTORIES

JOB-ID      NUMBER OF      JOB-ID      NUMBER OF      JOB-ID      NUMBER OF      JOB-ID      NUMBER OF
-----      HISTORIES     -----      HISTORIES     -----      HISTORIES     -----      HISTORIES
JOBX UDCFCAPT      2      JOBY UDCFCAPT      2      JOBY UDCFVRFY      1
    
```

LIST HIST Report: Combined Summary and Detail (Part 2 of 3)

```

ACR/F releasenumbr          INFOGIX, INCORPORATED          COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD              DATA BASE UTILITY              PAGE 003
TIME: 17.20.24              DATA BASE (UDCHIST) LISTING    DATA BASE VERSION: *****/0000000008
                               DSN=USERID.UDC.UDCHIST
                               SUMMARY OF HISTORIES
JOB-ID      CYCLE# RUN# CODE STATUS  RUN DATE RUN TIME  DATE      TIME NO.  UDCDEFN  UDCHIST  JOBNAME
-----
JOBX      UDCFCAPT  20080729  001  0000      19/03/07
JOB: JOBX      STEP: UDCFCAPT
JOB START DATE : 03/07/29  START TIME : 13:30:24
RETURN CODE : 0000  NUMBER OF ERRORS: 000
FILES VERIFIED/CAPTURED: 002
----- OUTPUT FILE VERIFICATION DETAIL -----
JOB: JOBX      STEP: UDCFCAPT QUAL:      CYCLE: 20080729  RUN: 001
NUMBER OF ERRORS:000
CAPTURE FILE-ID: STEP:EDIT      OCCURRENCE : 001  DDNAME: VALIDTRN
FILE CREATION INFORMATION:
DATA SET NAME : USERID.VALID.TRANS.G0002V00
CREATION DATE : 03/07/29  CREATION TIME: 13:30:31
NO. OF VOLUMES : 0001
VOLSER LIST : UNI001
NO. OF RECORDS : 000000000000  ACTUAL NUMBER OF USES :000
VERIFICATION CRITERIA  OPTION SOURCE  OPTION IN EFFECT  RESULT
-----
DD STATEMENT IN JCL      JOB DEFINITION  REPORT ONLY      OK
DATA SET NOT FOUND      JOB DEFINITION  REPORT ONLY      OK
NOT CATLG 2              JOB DEFINITION  REPORT ONLY      OK
CHECK FOR RERUN          JOB DEFINITION  REPORT ONLY      OK
LAST USAGE INFORMATION:
USED BY: JOB :              STEP:      QUAL:      CYCLE:00000000  RUN:000
DATE :00000000              TIME :00000000
STEP :                      OCCURRENCE :000
DDNAME :                    CONCAT SEQ :000
    
```

LIST HIST Report: Combined Summary and Detail (Part 3 of 3)

```

----- OUTPUT FILE VERIFICATION DETAIL -----
JOB:  JOBX      STEP:  UDPCAPT  QUAL:      CYCLE: 20080729  RUN: 001
      NUMBER OF ERRORS:000
CAPTURE FILE-ID: STEP:EDIT      OCCURRENCE : 001  DDNAME: INVLDRN
FILE CREATION INFORMATION:
  DATA SET NAME : USERID.INVALID.TRANS.G0002V00
  CREATION DATE  : 03/07/29  CREATION TIME: 13:30:31
  NO. OF VOLUMES : 0001
  VOLSER LIST   : UNI001
  NO. OF RECORDS : 00000000000  ACTUAL NUMBER OF USES :000
VERIFICATION CRITERIA  OPTION SOURCE  OPTION IN EFFECT  RESULT
-----
  DD STATEMENT IN JCL  JOB DEFINITION  REPORT ONLY      OK
  DATA SET NOT FOUND  JOB DEFINITION  REPORT ONLY      OK
  NOT CATLG 2         JOB DEFINITION  REPORT ONLY      OK
  CHECK FOR RERUN     JOB DEFINITION  REPORT ONLY      OK
LAST USAGE INFORMATION:
  USED BY:  JOB      :      STEP:      QUAL:      CYCLE:00000000  RUN:000
          DATE :00000000      TIME :00000000
          STEP  :      OCCURRENCE :000
          DDNAME :      CONCAT SEQ :000
    
```

DELETE HIST Report

```

ACR/F releasenumbr      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: YY/MM/DD          DATA BASE UTILITY      PAGE 001
TIME: 17.29.30         UDCUTIL TRANSACTION LISTING
-----
TRANS
NO.      T R A N S A C T I O N      VALIDATION MESSAGES
-----1-----2-----3-----4-----5-----6-----7-----8-----
00001 DELETE UDC HIST  JOBY  UDCFVRFY 00000001000999999999999999 #UTL0001: PROCESSING COMPLETED WITHOUT ERRORS
*****END OF REPORT*****
-----
ACR/F releasenumbr      INFOGIX, INCORPORATED      COPYRIGHT INFOGIX, INC.
DATE: MM/DD/YY          SYSTEM RETURN CODES AND MESSAGES  REPORT ID: UDCMSG8  PAGE 1
TIME: 17:29:42         FOR:  JOB=USERIDAD STEP=STEP1  JSQ=**  DEF/HST VERSION: 0000000/00000000008
                        CYCLE=*****  RUN=***
-----
RETURN MESSAGE      MESSAGE DESCRIPTION      RECOMMENDED ACTION
CODE      ID
-----
#UDC611I  DATA SET NAME OF INFOGIX CONTROL FILE BEING USED IS:  CHECK THAT THIS IS THE CONTROL FILE YOU INTENDED
          UNICF:  UNIV.PROD.UNICF.B01
#UDC911I  DATA SET NAME OF THE USER OPTIONS FILE BEING USED IS:  CHECK THAT THIS IS THE USER OPTIONS FILE YOU INTENDED
          UNIUF:  USERID.UDC.USEROPT
#UDC811I  DATA SET NAMES OF THE HISTORY DATABASES BEING USED ARE:  CHECK THAT THESE ARE THE HISTORY DATABASES YOU INTENDED
          UNIH1:  USERID.UDC.UDCHIST
          UNIH2:  NONE ALLOWED
#UDC239I  THE FOLLOWING H30 RECORD IS BEING MARKED FOR DELETION:  NONE - MARKING RECS FOR DELETION PER USER SPEC
          REC:+00000011 JOB-ID/CYC:JOBY  UDCFVRFY /20080729002
          DATE REC CREATED: 07/29/03  TIME REC CREATED: 14:30:00
#UDC259I  THE FOLLOWING H50 RECORD IS BEING MARKED FOR DELETION:  NONE - MARKING RECS FOR DELETION PER USER SPEC
          REC:+00000012 JOB-ID/CYC:JOBY  UDCFVRFY /20080729002
          STEP-OCC/DD-CONCAT: UPDTMSTR-001/UPDTTRNS-001  ITEM=001
#UDC259I  THE FOLLOWING H50 RECORD IS BEING MARKED FOR DELETION:  NONE - MARKING RECS FOR DELETION PER USER SPEC
          REC:+00000013 JOB-ID/CYC:JOBY  UDCFVRFY /20080729002
          STEP-OCC/DD-CONCAT: UPDTMSTR-001/OLDMSTR -001  ITEM=002
#UDC231I  FOLLOWING IS THE BREAKDOWN OF RECS MARKED FOR DELETION:  NONE - MARKED RECS FOR DELETION PER USER SPEC
          CNTS: H10= 0, H20= 0, H30= 1
          H40= 0, H50= 2, H90= 0, OTH= 0
-----
PROGRAM NAME=UDCUTIL      LOAD LIBRARY NAME=USERID.UNI.LOADLIB      LINKEDIT DATE=UNKNOWN
    
```

REORG HIST Report

REORG HIST Report (Part 1 of 2)

TRANS NO.	TRANSACTION	VALIDATION MESSAGES
00001REORG	UDCHIST FOOTPRINT=N	#UTL000I: PROCESSING COMPLETED WITHOUT ERRORS

*****END OF REPORT*****

RETURN CODE	MESSAGE ID	MESSAGE DESCRIPTION	RECOMMENDED ACTION
#UDC611I		DATA SET NAME OF INFOGIX CONTROL FILE BEING USED IS: UNICF: UNIV.PROD.UNICF.B01	CHECK THAT THIS IS THE CONTROL FILE YOU INTENDED
#UDC911I		DATA SET NAME OF THE USER OPTIONS FILE BEING USED IS: UNIUF: USERID.UDC.USEROFT	CHECK THAT THIS IS THE USER OPTIONS FILE YOU INTENDED
#UDC811I		DATA SET NAMES OF THE HISTORY DATABASES BEING USED ARE: UNIH1: USERID.UDC.UDCHIST UNIH2: USERID.UDC.UDCHIST2	CHECK THAT THESE ARE THE HISTORY DATABASES YOU INTENDED
#UDC230I		THE FOLLOWING H30 RECORD HAS BEEN DELETED: REC:+00000011 JOB-ID/CYC:JOBY UDCFVRFY /20080729002 DATE REC CREATED: 07/29/03 TIME REC CREATED: 14:30:00	NONE - AUTOMATICALLY REMOVING DELETED RECORDS
#UDC250I		THE FOLLOWING H50 RECORD HAS BEEN DELETED: REC:+00000012 JOB-ID/CYC:JOBY UDCFVRFY /20080729002 STEP-OCC/DD-CONCAT: UPDTMSTR-001/UPDTTRANS-001 ITEM=001	NONE - AUTOMATICALLY REMOVING DELETED RECORDS
#UDC250I		THE FOLLOWING H50 RECORD HAS BEEN DELETED: REC:+00000013 JOB-ID/CYC:JOBY UDCFVRFY /20080729002 STEP-OCC/DD-CONCAT: UPDTMSTR-001/OLDMSTR -001 ITEM=002	NONE - AUTOMATICALLY REMOVING DELETED RECORDS
#UDC821I		FOLLOWING IS THE BREAKDOWN OF RECS READ FROM UNIH1: CNTS: H10= 1, H20= 1, H30= 5 H40= 6, H50= 2, H90= 137, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY
#UDC213I		RECS NOT WRITTEN TO UNIWK BECAUSE REC-CODE NOT NEEDED: CNTS: H10= 0, H20= 1, H30= 0 H40= 0, H50= 0, H90= 137, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY

REORG HIST Report (Part 2 of 2)

RETURN CODE	MESSAGE ID	MESSAGE DESCRIPTION	RECOMMENDED ACTION
#UDC214I		RECS NOT WRITTEN TO UNIWK BECAUSE REC MARKED FOR DEL: CNTS: H10= 0, H20= 0, H30= 1 H40= 0, H50= 0, H90= 0, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY
#UDC215I		FOLLOWING IS THE BREAKDOWN OF RECS WRITTEN TO UNIWK: CNTS: H10= 0, H20= 0, H30= 4 H40= 6, H50= 0, H90= 0, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY
#UDC212I		FOLLOWING IS THE BREAKDOWN OF RECS READ FROM UNIWK: CNTS: H10= 0, H20= 0, H30= 0 H40= 0, H50= 0, H90= 0, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY
#UDC213I		RECS NOT WRITTEN TO UNIWK BECAUSE REC-CODE NOT NEEDED: CNTS: H10= 0, H20= 1, H30= 0 H40= 0, H50= 0, H90= 137, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY
#UDC885I		FOLLOWING IS THE BREAKDOWN OF RECS WRITTEN TO UNIH2: CNTS: H10= 0, H20= 0, H30= 4 H40= 6, H50= 0, H90= 0, OTH= 0	NONE - THIS MESSAGE IS INFORMATIONAL ONLY

PROGRAM NAME=UDCUTIL LOAD LIBRARY NAME=USERID.UNI.LOADLIB LINKEDIT DATE=UNKNOWN

Print JOBSUM Report

ACR/F releasenumbr		INFOGIX, INCORPORATED		COPYRIGHT INFOGIX, INC.		PAGE 001							
DATE: YY/MM/DD		DATA BASE UTILITY		UDCUTIL TRANSACTION LISTING									
TIME: 17.40.07													

TRANS	T R A N S A C T I O N			V A L I D A T I O N M E S S A G E S									
NO.	-1-	-2-	-3-	-4-	-5-	-6-	-7-						
00001PRINT	JOBSUM			#UTL0001: PROCESSING COMPLETED WITHOUT ERRORS									
*****END OF REPORT*****													
ACR/F releasenumbr		INFOGIX, INCORPORATED		COPYRIGHT INFOGIX, INC.		PAGE 1							
DATE:YY/MM/DD		JOB SUMMARY REPORT		REPORT ID: UDCHFJS									
TIME:17:40:09		FOR SELECTED RECORDS ON FILE		DEF/HST VERSION: *****/0000000002									
JOB NAME	JOB ID	START DATE	START TIME	CYCLE ID	RC	NBR RERUNS	LAST RERUN DATE	TIME	# FILES CAPT	TTL ERRS	# FILES VRFD	TTL VRFD ERRS	
USERIDAX	JOBX	UDFCAPT	03/07/29	13:30:24	20080729001	0000	00/00/00	00:00:00	2				
USERIDAX	JOBX	UDFCAPT	03/07/29	14:06:56	20080729002	0000	00/00/00	00:00:00	2				
USERIDAY	JOBY	UDFCAPT	03/07/29	13:32:42	20080729001	0000	00/00/00	00:00:00	1				
USERIDAY	JOBY	UDFCAPT	03/07/29	14:29:58	20080729002	0000	00/00/00	00:00:00	1				

HISTORY DATASET NAME:		NBR OF		#FILES		CAPTURE		#FILES		VRFD			
USERID.UDC.UDCHIST2		JOBS		#RERUNS		CAPTURE		ERRORS		VRFD		ERRORS	
		-----		-----		-----		-----		-----		-----	
TOTALS:		0000004		0000000		0000006		0000000		0000000		00000	

PRINT JOBCTL Report

PRINT JOBCTL Report (Part 1 of 2)

ACR/F releasenumbr		INFOGIX, INCORPORATED		COPYRIGHT INFOGIX, INC.		PAGE 001						
DATE: YY/MM/DD		DATA BASE UTILITY		UDCUTIL TRANSACTION LISTING								
TIME: 17.58.34												

TRANS	T R A N S A C T I O N			V A L I D A T I O N M E S S A G E S								
NO.	-1-	-2-	-3-	-4-	-5-	-6-	-7-					
00001PRINT	JOBCTL			#UTL0001: PROCESSING COMPLETED WITHOUT ERRORS								
*****END OF REPORT*****												
ACR/F releasenumbr		INFOGIX, INCORPORATED		COPYRIGHT INFOGIX, INC.		PAGE 1						
DATE:YY/MM/DD		JOB SUMMARY DETAIL REPORT		REPORT ID: UDCHFJD								
TIME:17:58:38		FOR SELECTED RECORDS ON FILE		DEF/HST VERSION: *****/0000000002								
		USERID.UDC.UDCHIST2										
JOB NAME	JOB ID	CYCLE ID	DATE	START TIME	NBR RERUNS	DATE	RERUN TIME	RC	STEPNAME	STEP OCC	DDNAME	CONC NBR
USERIDAX	JOBX	UDFCAPT	20080729001	03/07/29	13:30:24	000	00/00/00	00:00:00	0000	EDIT	001	VALIDTRN001
ACTDS=USERID.VALID.TRANS.G0002V00												
HIST=N FILE=Y DSN=N CONC=N CDAT=N CTIM=N CJOB=N CSTP=N CDD=N NREP=000 REP=000												
VOLS=N RECS=N USES=N CYCS=N DAYS=N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												
USERIDAX	JOBX	UDFCAPT	20080729001	03/07/29	13:30:24	000	00/00/00	00:00:00	0000	EDIT	001	INVLTRN001
ACTDS=USERID.INVALID.TRANS.G0002V00												
HIST=N FILE=Y DSN=N CONC=N CDAT=N CTIM=N CJOB=N CSTP=N CDD=N NREP=000 REP=000												
VOLS=N RECS=N USES=N CYCS=N DAYS=N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												
USERIDAX	JOBX	UDFCAPT	20080729001	03/07/29	14:06:56	000	00/00/00	00:00:00	0000	EDIT	001	VALIDTRN001
ACTDS=USERID.VALID.TRANS.G0003V00												
HIST=N FILE=Y DSN=N CONC=N CDAT=N CTIM=N CJOB=N CSTP=N CDD=N NREP=000 REP=000												
VOLS=N RECS=N USES=N CYCS=N DAYS=N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												
USERIDAX	JOBX	UDFCAPT	20080729001	03/07/29	14:06:56	000	00/00/00	00:00:00	0000	EDIT	001	INVLTRN001
ACTDS=USERID.INVALID.TRANS.G0003V00												
HIST=N FILE=Y DSN=N CONC=N CDAT=N CTIM=N CJOB=N CSTP=N CDD=N NREP=000 REP=000												
VOLS=N RECS=N USES=N CYCS=N DAYS=N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												

PRINT JOB DETAIL Report (Part 2 of 2)

ACR/F releasenumbr		INFOGIX, INCORPORATED				COPYRIGHT INFOGIX, INC.						
DATE: YY/MM/DD		JOB SUMMARY DETAIL REPORT				REPORT ID: UDCHFJD PAGE 2						
TIME: 17:58:38		FOR SELECTED RECORDS ON FILE				DEF/HST VERSION: *****/0000000002						
JOB NAME	JOB ID	CYCLE ID	DATE	START TIME	NBR RERUNS	DATE	RERUN TIME	RC	STEPNAME	STEP OCC	DDNAME	CONC NBR
USERIDAY	JOBY	UDCFCAPT	20080729001	03/07/29 13:32:42	000	00/00/00	00:00:00	0000	UPDTMSTR001		NEWMSTR	001
ACTDS=USERID.MASTER.FILE.G0003V00												
HIST-N FILE-Y DSN-N CONC-N CDAT-N CTIM-N CJOB-N CSTP-N CDD-N NREP=000 REP=000												
VOL5-N RECS-N USES-N CYCS-N DAYS-N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												
USERIDAY	JOBY	UDCFCAPT	20080729002	03/07/29 14:29:58	000	00/00/00	00:00:00	0000	UPDTMSTR001		NEWMSTR	001
ACTDS=USERID.MASTER.FILE.G0004V00												
HIST-N FILE-Y DSN-N CONC-N CDAT-N CTIM-N CJOB-N CSTP-N CDD-N NREP=000 REP=000												
VOL5-N RECS-N USES-N CYCS-N DAYS-N NFND=Y NCT2=Y RERN=Y SUMM=V FAT=000 TOTL=000												

NBR OF JOBS		# RERUNS	# FILES CAPTURE	CAPTURE ERRORS	# FILES VRFD	VRFD ERRORS						
TOTALS:		0000004	0000000	0000006	0000000	0000000	0000000					

SORTDIR HIST Report

ACR/F releasenumbr		INFOGIX, INCORPORATED				COPYRIGHT INFOGIX, INC.					
DATE: YY/MM/DD		DATA BASE UTILITY				PAGE 001					
TIME: 18.04.51		UDCUTIL TRANSACTION LISTING									
TRANS NO.	TRANSACTION										VALIDATION MESSAGES
00001	SORTDIR	UDCHIST									#UTL0001: PROCESSING COMPLETED WITHOUT ERRORS
*****END OF REPORT*****											
ACR/F releasenumbr		INFOGIX, INCORPORATED				COPYRIGHT INFOGIX, INC.					
DATE: MM/DD/YY		SYSTEM RETURN CODES AND MESSAGES				REPORT ID: UDCMSG PAGE 1					
TIME: 18:04:52		FOR: JOB=USERIDAG STEP=STEP1 JSQ=**				DEF/HST VERSION: 0000000/0000000002					
		CYCLE=***** RUN=***									
RETURN CODE	MESSAGE ID	MESSAGE DESCRIPTION						RECOMMENDED ACTION			
#UDC611I		DATA SET NAME OF INFOGIX CONTROL FILE BEING USED IS: UNICF: UNIV.PROD.UNICF.B01						CHECK THAT THIS IS THE CONTROL FILE YOU INTENDED			
#UDC911I		DATA SET NAME OF THE USER OPTIONS FILE BEING USED IS: UNIUF: USERID.UDC.USEROPT						CHECK THAT THIS IS THE USER OPTIONS FILE YOU INTENDED			
#UDC811I		DATA SET NAMES OF THE HISTORY DATABASES BEING USED ARE: UNIH1: USERID.UDC.UDCHIST UNIH2: NONE ALLOWED						CHECK THAT THESE ARE THE HISTORY DATABASES YOU INTENDED			
PROGRAM NAME=UDCUTIL		LOAD LIBRARY NAME=USERID.UNI.LOADLIB				LINKEDIT DATE=UNKNOWN					

BUILD DEFN Report

ACR/F releasenumbr		INFOGIX, INCORPORATED				COPYRIGHT INFOGIX, INC.						
DATE: YY/MM/DD		INFOGIX DATA BASE UTILITY				PAGE 001						
TIME: 10.12.30		BUILD UDCUPDT REPORT				DATA BASE VERSION: 0000012/*****						
		DSN=USERID.UDC.DEFNB										
TRANS NO.	RECORD TYPE	TRANSACTION										
00001	JOB ID	JOBY	UDCFCAPT	D0	0001*							
00002	JOB ID	JOBY	UDCFCAPT	D0	0001ACAPTURE	JOBX VALID AND INVALID TRAN				010YY YY Y		
00003	JOB ID	JOBY	UDCFCAPT	D0	0002A	JOBX UDCFCAPT G1						
00004	JOB ID	JOBY	UDCFCAPT	D0	0003A Y							
00005	JOB ID	JOBY	UDCFCAPT	D2	0011AEDIT	001VALIDTRN001001010						
00006	JOB ID	JOBY	UDCFCAPT	D0	0001*							
00007	JOB ID	JOBY	UDCFCAPT	D0	0001ACAPTURE	JOBX NEW MASTER FILE				010YY YY Y		
00008	JOB ID	JOBY	UDCFCAPT	D0	0002A	JOBX UDCFCAPT						
00009	JOB ID	JOBY	UDCFCAPT	D0	0003A Y							
00010	JOB ID	JOBY	UDCFCAPT	D2	0011AUPDTMSTR001NEWMSTR	001001010						
00011	JOB ID	JOBY	UDCFVRFY	D0	0001*							
00012	JOB ID	JOBY	UDCFVRFY	D0	0001AVERIFY	JOBX VALID TRANS AND MASTER FILE				010YYY YXN Y		
00013	JOB ID	JOBY	UDCFVRFY	D0	0002A	JOBX UDCFCAPT N						
00014	JOB ID	JOBY	UDCFVRFY	D0	0003AXXXXXXXXXXX							
00015	JOB ID	JOBY	UDCFVRFY	D1	0011AUPDTMSTR001UPDTTRNS001JOBX	UDCFCAPT				001+00NN		
00016	JOB ID	JOBY	UDCFVRFY	D1	0012A							
00017	JOB ID	JOBY	UDCFVRFY	D1	0013AN					+00		

JCL and Control Statements

This appendix contains sample JCL and, when appropriate, the associated control statements and transaction layouts.

Job cards do not appear in the sample JCL because the information contained in these statements depends on your site. The sample dataset names, VOLSER and unit information, and file size parameters are representative only. Certain parameters in this JCL may have to be changed to conform to specific naming conventions or security standards at your site.

The User Interface can be used to generate any of the JCL streams shown.

This appendix contains the following sections:

- “Initializing the ACR/File Databases (UDCINIT)” on page 280
- “Using the Capture Step (UDFCAPT)” on page 284
- “Using the Verify Step (UDFCRFY)” on page 285
- “Using the Automatic Rerun Step (UDCARUN)” on page 286
- “Updating the Definition Database” on page 286
- “Listing the History Database” on page 290
- “Deleting Selected Histories” on page 292
- “Reorganizing the History Database” on page 294
- “Printing Summary Information about Jobs with Capture or Verify Steps” on page 299
- “Printing Summary Information about Jobs with Exceptions” on page 302
- “Printing Detail Information about Jobs with Capture or Verify Steps” on page 304
- “Printing Detail Information About Jobs with Exceptions” on page 306
- “Sorting the Directory Records of the History Database” on page 308
- “Listing Cross References” on page 311
- “Building Batch Transactions” on page 313

Initializing the ACR/File Databases (UDCINIT)

The UDCINIT JCL is used to initialize the definition and history databases (see [Chapter 4, “Definition and History Databases”](#) on page 93).

When executed, it will delete any previous databases with that name (if it exists) and create fresh, initialized databases.

The UDCINIT job consists of two steps. The first step executes the IBM IDCAMS utility to define the VSAM database cluster. This step uses the IDCAMS control statements input to ddname SYSIN. The second step executes the UDCINIT program, and uses a control statement input to the ddname UNIINP. This control statement specifies the number Job ID keys needed, which is used to calculate the space needed for the databases.

UDCINIT JCL

A complete sample JCL stream for UDCINIT, including the IDCAMS and Infogix UNIINP control statements, is shown in below.

UDCINIT JCL Part 1 of 3 (UDCINIT IDCAMS Control Statement)

```

//*****
//* *                JCL TO INITIALIZE ACR/F DATABASE          * *
//*****
//UDCINIT PROC OUT=                                OUTPUT CLASS
//STEP1 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=&OUT
//SYSIN DD DDNAME=SYSIN
//*****
//*THIS STEP WILL INITIALIZE DEFINITION AND HISTORY DATABASES *
//*****
//STEP2 EXEC PGM=UDCINIT,COND=(4,LT,STEP1),PARM='FILE=BOTH'
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
//        DISP=SHR
//UNIUF DD DSN=USERID.UDC.USEROPT,
//        DISP=SHR
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//UNIRIR DD SYSOUT=&OUT,
//        DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCR001 DD SYSOUT=&OUT,
//         DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//*
// PEND
//UDCINIT EXEC UDCINIT,
//          OUT='*'
//STEP1.SYSIN DD *
DELETE
  USERID.UDC.UDCDEFN -
PURGE
ERASE
IF LASTCC = 8 -
THEN SET MAXCC = 0
DEFINE
  CLUSTER (
    NAME (USERID.UDC.UDCDEFN) -
    UNIQUE -
    SHR(1,3) -
    VOLUMES (XXXXXX) -
    TRACKS(3 1) -
  DATA (
    NAME (USERID.UDC.UDCDEFN.DATA) -
    KEYS(24 0) -
    RECORDSIZE(128 128) -
    FREESPACE(20 10) -
    BUFFERSPACE(12800) ) -
  INDEX(
    NAME (USERID.UDC.UDCDEFN.INDEX) -
    IMBED)

```

B ■ JCL and Control Statements

Initializing the ACR/File Databases (UDCINIT)

UDCINIT JCL Part 2 of 3 (UDCINIT IDCAMS Control Statement, Continued)

```
IF LASTCC = 0          -
  THEN                -
    LISTCAT ENTRIES(  -
      USERID.UDC.UDCDEFN)  -
      ALL
DELETE                -
  USERID.UDC.UDCHIST  -
  PURGE               -
  ERASE               -
IF LASTCC = 8        -
  THEN SET MAXCC = 0
DEFINE                -
  CLUSTER (          -
    FILE (UNIHF)     -
    NAME(USERID.UDC.UDCHIST)  -
    UNIQUE           -
    SHR(3,3)         -
    NUMBERED         -
    VOLUMES(XXXXXX) -
    RECORDS(210)    -
  DATA (            -
    NAME(USERID.UDC.UDCHIST)  -
    RECORDSIZE(1020 1020)  -
    BUFFERSPACE(10200) )
IF LASTCC = 0        -
  THEN                -
    LISTCAT ENTRIES( -
      USERID.UDC.UDCHIST)  -
      ALL
/*
```

UDCINIT JCL Part 3 of 3 (UNIINP Control Statement)

```
//STEP2.UNIINP DD *
HFS      0000001000000150
HFDSN    USERID.UDC.UDCDEFN
DFDSN    USERID.UDC.UDCDEFN
/*
```

UDCINIT Transaction Layouts

UDCINIT Transaction Layout Record 1 of 3

Field#	Description	Position	Length	Format	Value
1	Record ID	1-8	8	X(8)	HFS
2	Number of Job ID Keys	9-16	8	9(8)	00000001 - 99999999
3	Number of Histories	17-24	8	9(8)	00000001 - 99999999
4	Reserved	25-80	56	X(56)	Blanks

UDCINIT Transaction Layout Record 2 of 3

Field#	Description	Position	Length	Format	Value
1	Record ID	1-8	8	X(8)	DFDSN
2	Definition File DSN	9-52	44	X(44)	
3	Reserved	53-80	28	X(28)	Blanks

UDCINIT Transaction Layout Record 3 of 3

Field#	Description	Position	Length	Format	Value
1	Record ID	1-8	8	X(8)	HFDSN
2	History File DSN	9-52	44	X(44)	
3	Reserved	53-80	28	X(28)	Blanks

Using the Capture Step (UDFCAPT)

Capture Step (UDFCAPT) JCL

The JCL for the Capture step, shown below, should be inserted as the last step in any job in which files are to be created for use in subsequent jobs or runs. Many of the DD statements shown can be eliminated if the User Options File Dynamic Allocation options are used.

```
/* *****  
/* ACR/F CAPTURE STEP - CAPTURES OUTPUT FILES CREATED IN STEPS ABOVE *  
/* *****  
/*  
//UDFCAPT EXEC PGM=UDC2000,COND=EVEN  
//STEPLIB DD DSN=USERID.UNI.LOADLIB,  
// DISP=SHR  
//UNICF DD DSN=USERID.UDC.UNICF,  
// DISP=SHR  
//UNIUF DD DSN=USERID.UDC.USEROPT,  
// DISP=SHR  
//UNIDF DD DSN=USERID.UDC.UDCDEFN,  
// DISP=SHR  
//UNIHF DD DSN=USERID.UDC.UDCHIST,  
// DISP=SHR  
//UDCR006 DD SYSOUT=*,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)  
//UDCMSGS DD SYSOUT=*,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)  
//SYSOUT DD SYSOUT=*  
/*
```

Using the Verify Step (UDCFCRFY)

Verification Step (UDCFCRFY) JCL

The JCL for the Verification step, shown below, should be inserted as the first step in any job in which files are to be verified. Many of the DD statements shown can be eliminated if the User Options File Dynamic Allocation options are used.

```

//*****
//*   ACR/F VERIFY STEP - VERIFIES INPUT FILES USED IN STEPS BELOW   *
//*****
//*
//UDCFVRFY   EXEC PGM=UDC2000
//STEPLIB   DD   DSN=USERID.UNI.LOADLIB,
//           DISP=SHR
//UNICF     DD   DSN=USERID.UDC.UNICF,
//           DISP=SHR
//UNIUF     DD   DSN=USERID.UDC.USEROPT,
//           DISP=SHR
//UNIDF     DD   DSN=USERID.UDC.UDCDEFN,
//           DISP=SHR
//UNIHF     DD   DSN=USERID.UDC.UDCHIST,
//           DISP=SHR
//UDCR002   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCR003   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCR004   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCR005   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCR007   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UDCMSGS   DD   SYSOUT=*,
//           DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//SYSOUT    DD   SYSOUT=*
//*
```

Using the Automatic Rerun Step (UDCARUN)

Automatic Rerun Step (UDCARUN) JCL

The JCL for the Automatic Rerun step, shown below, should be inserted before any ACR/File Options File Dynamic Allocation options are used Capture or Verification steps. Many of the DD statements can be eliminated if the User Options File Dynamic Allocation options are used.

```
//*  
/*****  
/* ACR/F AUTOMATIC RERUN STEP - EXECUTED AS A PREDECESSOR STEP TO *  
/* ANY OTHER ACR/F STEP DURING NON-RERUN PROCESSING AND BYPASSED *  
/* (NOT EXECUTED) DURING RERUN PROCESSING. *  
/*****  
/*  
//UDCFARUN EXEC PGM=UDCARUN  
//STEPLIB DD DSN=USERID.UNI.LOADLIB,  
// DISP=SHR  
//UNICF DD DSN=USERID.UDC.UNICF,  
// DISP=SHR  
//UNIUF DD DSN=USERID.UDC.USEROPT,  
// DISP=SHR  
//UNIHF DD DSN=USERID.UDC.UDCDEFN,  
// DISP=SHR  
//UDCMSGS DD SYSOUT=*,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)  
//SYSOUT DD SYSOUT=*  
/*
```

Updating the Definition Database

UDCUPDT (Definition Database Update) JCL

The UDCUPDT JCL is used to update the VSAM definition database with batch definition transactions that come in at the DD: UNIINP.

The record layouts for these transactions are in [Appendix C, “Batch Transactions”](#) on page 315.

```

//*****
//* *                JCL TO UPDATE DEFINITION DATABASE          * *
//*****
//UDCUPDT PROC OUT=,                                OUTPUT CLASS
//                UDCUPDT=,                          UDCUPDT DSN
//                UDFDSN=                             UDCDEFN DSN
//*
//STEP1 EXEC PGM=UDCUPDT
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
//                DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
//                DISP=SHR
//UNIUF DD DSN=USERID.UDC.USEROPT,
//                DISP=SHR
//UNIINP DD DSN=&UDCUPDT,
//                DISP=SHR
//UNIDF DD DSN=&UDFDSN,
//                DISP=SHR
//UNIRTR DD SYSOUT=&OUT,
//                DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCR001 DD SYSOUT=&OUT,
//                DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSOUT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSABOUT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK
//IGZSRTCD DD DUMMY
//UNISWRK DD DSN=&&UDCWORK,
//                DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120),
//                DISP=(,PASS,DELETE),
//                UNIT=DISK,
//                SPACE=(TRK,(10,10),RLSE)
// PEND
//UDCUPDT EXEC UDCUPDT,
//                OUT='*',
//                UDFDSN='USERID.UDC.UDCDEFN',
//                UDCUPDT='USERID.UDC.TRANLIB(EXDEFS)'

```

Listing the Definition Database

UDCDFL (List) JCL

```

//*****
//* * JCL TO LIST ACR/F DEFINITION DATABASE FROM KEY1 TO KEY2 * *
//*****
//UDCUTIL PROC OUT=, OUTPUT CLASS
// UDCDEFN= UDCDEFN DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
// DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
// DISP=SHR
//UNIUF DD DSN=USERID.UDC3.USEROPT,
// DISP=SHR
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIDF DD DSN=&UDCDEFN,
// DISP=SHR
//ADFLIST DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UNIWRK DD DSN=&&UDCWORK,
// DCB=(RECFM=FB,LRECL=200,BLKSIZE=2000),
// DISP=(,PASS,DELETE),
// UNIT=DISK,
// SPACE=(TRK,(10,10),RLSE)
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK
//IGZSRTCD DD DUMMY
//IGZSRTCD DD DUMMY
//UNIINP DD DDNAME=UNIINP
//UNIRTR DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UNIDFL DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMGSGS DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
// PEND
//UDCDFL EXEC UDCUTIL,
// OUT='*',
// UDCDEFN='USERID.UDC.UDCDEFN'
//STEP1.UNIINP DD *
LIST UDCDEFN
/*

```

LIST DEFN Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	LIST
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCDEFN
4	Reserved	17-20	4	X(4)	Blanks
5	Definition ID-1	21-38	18	X(18)	
6	Definition ID-2	39-56	18	X(18)	
7	Definition Type	57	1	X(1)	Blank, J, or T
8	Reserved	58	1	X(1)	Blank
9	Report Style	59	1	X(1)	Blank, L, or E
10	Reserved	60-80	21	X(21)	Blanks

Notes:

For all definitions, leave Definition ID-1, Definition ID-2, and the Definition Type blank.

For one set of definitions, specify only Definition ID-1 and the Definition Type.

For a range of definitions, specify Definition ID-1, Definition ID-2, and the Definition Type. Definition ID-1 must be less than Definition ID-2.

For a particular type of definition, specify a Definition Type of 'T' to get only Table definitions or 'J' to get only job definitions. If all definition types are desired, leave Definition Type blank.

Job definitions can be displayed in a list style format (Report Style = Blank or 'L') or in an expanded style format (Report Style = E). Examples of both styles are shown in [Appendix A, "Reports" on page 265](#).

Listing the History Database

The UDCHFL JCL is used to list the contents of the history database.

UDCHFL JCL

```
/* *****  
/* * UTILITY TO LIST ACR/F HISTORY DATABASE FROM KEY1 TO KEY2 * *  
/* *****  
//UDCUTIL PROC OUT=, OUTPUT CLASS  
// UDCHIST= UDCHIST DSN  
//STEP1 EXEC PGM=UDCUTIL  
//STEPLIB DD DSN=USERID.UNI.LOADLIB,  
// DISP=SHR  
//UNICF DD DSN=USERID.UDC.UNICF,  
// DISP=SHR  
//UNIUF DD DSN=USERID.UDC.USEROPT,  
// DISP=SHR  
//UNIHF DD DSN=&UDCHIST,  
// DISP=SHR  
//UNIHFW DD DSN=&&UDCWORK,  
// DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000),  
// DISP=(,PASS,DELETE),  
// UNIT=DISK,  
// SPACE=(CYL,(10,10),RLSE)  
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK  
//IGZSRTCD DD DUMMY  
//UNIRTR DD SYSOUT=&OUT,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//UNIRHFL DD SYSOUT=&OUT,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//UDCMSGS DD SYSOUT=&OUT,  
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//SYSOUT DD SYSOUT=&OUT  
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133  
//SYSUDUMP DD SYSOUT=&OUT  
//SYSABOUT DD SYSOUT=&OUT  
//UNIINP DD DDNAME=UNIINP  
// PEND  
//UDCHFL EXEC UDCUTIL,  
// OUT='*',  
// UDCHIST='USERID.UDC.UDCDEFN'  
//STEP1.UNIINP DD *  
LIST UDCHIST  
/*
```

LIST HIST Transaction Layout

Field #	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	LIST
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCHIST
4	Reserved	17-20	4	X(4)	Blanks
5 ¹	Key-1	21-38	18	X(18)	
6 ¹	Key-2	39-56	18	X(18)	
7 ²	Reserved	57	1	X(1)	Blank, B,D, or I
8	Reserved	58-80	23	X(23)	Blanks

¹ Key-1 and Key-2:

To list all history records, leave Key-1 and Key-2 blank.

To list history records for only one Job ID, set Key-1 to that Job ID and leave Key-2 blank.

To list all history records through a particular Job ID, leave Key-1 blank and set Key-2 to that Job ID.

To list a range of history records, set Key-1 as the beginning of the range and Key-2 as the end of the range. Key-1 must be less than or equal to Key-2.

² Position 57 (Reserved): Blank = stats, index, and summary records, B = stats, index, summary and detail records, D = detail record only, I = Stats and Index only

Deleting Selected Histories

The UDCHFD JCL is used to delete selected histories from the history database.

UDCHFD JCL

```
//*****  
//* *   UTILITY TO DELETE ACR/F HISTORY *  
//*****  
//UDCUTIL PROC OUT=,                OUTPUT CLASS  
//                UDCHIST=          UDCHIST DSN  
//STEP1 EXEC PGM=UDCUTIL  
//STEPLIB DD DSN=USERID.UNI.LOADLIB,  
//                DISP=SHR  
//UNICF DD DSN=USERID.UDC.UNICF,  
//                DISP=SHR  
//UNIUF DD DSN=USERID.UDC.USEROPT,  
//                DISP=SHR  
//SYSUDUMP DD SYSOUT=&OUT  
//SYSABOUT DD SYSOUT=&OUT  
//SYSOUT DD SYSOUT=&OUT  
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133  
//UNIHF DD DSN=&UDCHIST,  
//                DISP=SHR  
//UDCMSGS DD SYSOUT=&OUT,  
//                DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//UNIRTR DD SYSOUT=&OUT,  
//                DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//UNIINP DD DDNAME=UNIINP  
// PEND  
//UDCHFD EXEC UDCUTIL,  
//                OUT='*',  
//                UDCHIST='USERID.UDC.UDCDEFN'  
//STEP1.UNIINP DD *  
DELETE UDCHIST JOB STEP Q00089010100000890901000
```

DELETE HIST Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	DELETE
2	Reserved	9	1	X(1)	Blanks
3	File Name	10-16	7	X(7)	UDCHIST
4	Record Sequence	17-20	4	X(4)	Blanks
5	Job ID	21-38	18	X(18)	
6 ¹	Cycle ID 1	39-49	11	X(11)	000000001-999999999
7 ¹	Cycle ID 2	50-60	11	X(11)	000000001-999999999
8	Reserved	61-80	20	X(20)	Blanks

¹ Cycle ID 1 and Cycle ID 2:
 To delete all cycles for a Job ID, specify 0000000001 for Cycle ID 1, and 9999999999 for Cycle ID 2.
 To delete only one cycle for a Job ID, specify that cycle in Cycle ID 1, and leave Cycle ID 2 blank.
 To delete a range of cycles for a Job ID, specify Cycle ID 1 as the start of the range, and Cycle ID 2 as the end of the range.

Reorganizing the History Database

The UDCHFR JCL is used to reorganize the history database.

UDCHFR JCL Part 1 of 4

```

//*****
//* *                JCL TO INITIALIZE ACR/F DATABASE                * *
//*****
//UDCINIT PROC OUT=                                OUTPUT CLASS
//STEP1 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=&OUT
//SYSIN DD DDNAME=SYSIN
//*-----
//* THIS STEP WILL INITIALIZE HISTORY DATABASE -
//*-----
//STEP2 EXEC PGM=UDCINIT,COND=(4,LT,STEP1),PARM='FILE=HIST'
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF DD DSN=USERID.DCF.USEROPT,
//          DISP=SHR
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//UNIRIR DD SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=1330)
//UNIDF DD DSN=NULLFILE,DISP=SHR
//UDCR001 DD SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//*
// PEND
//*
//*****
//* *                UTILITY TO REORG ACR/F HISTORY                *
//*****
//*
//UDCUTIL PROC OUT=,                                OUTPUT CLASS
//          UNIH=                                     UNIH DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF DD DSN=USERID.DCF.USEROPT,
//          DISP=SHR
//UNIH DD DSN=&UNIH,
//          DISP=SHR
//UNIH2 DD DSN=&UNIH2,
//          DISP=SHR
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK

```

B ■ JCL and Control Statements

Reorganizing the History Database

UDCHFR JCL Part 2 of 4

```
//UNISWRK DD DSN=&UNISWRK ,
//          DISP=(NEW,PASS,DELETE) ,
//          DCB=(RECFM=FB,LRECL=1060,BLKSIZE=22420) ,
//          UNIT=DISK ,
//          SPACE=(TRK,(10,10),RLSE)
//UNIWRK   DD DSN=&UNIWRK ,
//          DISP=(NEW,PASS,DELETE) ,
//          DCB=(RECFM=FB,LRECL=1060,BLKSIZE=23320) ,
//          UNIT=DISK ,
//          SPACE=(TRK,(10,10),RLSE)
//UNIRTR   DD SYSOUT=&OUT ,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS  DD SYSOUT=&OUT ,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD SYSOUT=&OUT
//SYSABOUT DD SYSOUT=&OUT
//SYSOUT   DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP   DD DDNAME=UNIINP
//*
//          PEND
//*
//UDCINIT EXEC UDCINIT ,
//          OUT='*'
//*
//STEP1.SYSIN DD *
DELETE
  USERID.UDC.UDCHIST1 -
PURGE
ERASE
IF LASTCC = 8 -
  THEN SET MAXCC = 0
DEFINE
  CLUSTER ( -
    NAME(USERID.UDC.UDCHIST1) -
    UNIQUE -
    SHR(3,3) -
    NUMBERED -
    VOLUMES(UNI001) -
    RECORDS(153) -
  DATA ( -
    NAME(USERID.UDC.UDCHIST1.DATA) -
    RECORDSIZE(1020 1020) -
    BUFFERSPACE(10200) )
IF LASTCC = 0 -
  THEN
    LISTCAT ENTRIES( -
      USERID.UDC.UDCHIST1) -
    ALL
```

UDCHFR JCL Part 3 of 4

```
/*
/**
//STEP2.UNIINP DD *
HFS      0000001000000150
HFDSN    USERID.UDC.UDCHIST1
/*
/**
//UDCHFR EXEC UDCUTIL,
//          OUT='*',
//          UNIHF='USERID.UDC.UDCHIST',
//          UNIHF2='USERID.UDC.UDCHIST1'
/**
//STEP1.UNIINP DD *
REORG    UDCHIST    FOOTPRINT=N
/*
/**
```

B ■ JCL and Control Statements

Reorganizing the History Database

UDCHFR JCL Part 4 of 4

```
//*****  
//* RUN THE UDCHFDS UTILITY TO SORT THE ACR/F HIST DIRECTORY ENTRIES *  
//*****  
//* UDCHFDS - EXECUTES THE UTILITY THAT WILL SORT THE HISTORY FILE *  
//*          DIRECTORY ENTRIES, THEREBY ALLOWING ACR/F TO FIND *  
//*          JOB-ID'S IN THE DIRECTORY RECORDS FASTER. *  
//*****  
//*  
//UDCUTIL PROC OUT=,                OUTPUT CLASS  
//          UNIHF=                    UNIHF DSN  
//STEP1 EXEC PGM=UDCUTIL  
//STEPLIB DD DSN=USERID.UNI.LOADLIB,  
//          DISP=SHR  
//UNICF DD DSN=USERID.UDC.UNICF,  
//          DISP=SHR  
//UNIUF DD DSN=USERID.UDC.USEROPT,  
//          DISP=SHR  
//UNIHF DD DSN=&UNIHF,  
//          DISP=SHR  
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK  
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK  
//UNISWRK DD DSN=&UNISWRK,  
//          DISP=(NEW,PASS,DELETE),  
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=23440),  
//          UNIT=DISK,  
//          SPACE=(TRK,(10,10),RLSE)  
//UNIRTR DD SYSOUT=&OUT,  
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//UDCMSGS DD SYSOUT=&OUT,  
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)  
//SYSUDUMP DD SYSOUT=&OUT  
//SYSABOUT DD SYSOUT=&OUT  
//SYSDBOUT DD SYSOUT=&OUT  
//SYSOUT DD SYSOUT=&OUT  
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133  
//UNIINP DD DDNAME=UNIINP  
// PENDING  
//UDCHFR EXEC UDCUTIL,  
//          OUT='*',  
//          UNIHF='USERID.UDC.UDCHIST1'  
//STEP1.UNIINP DD *  
SORTDIR UDCHIST  
/*  
//
```

REORG HIST Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	REORG
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCHIST
4	Reserved	17-20	4	X(4)	Blanks
5	Reserved	21-30	10	X(10)	FOOTPRINT =
6 ¹	Footprint Option	31	1	X(1)	N, L, F, C
7	Reserved	32-80	49	X(49)	Blanks

¹ Important: Do not use any value other than N for the Footprint Option unless told to do so by Customer Support personnel. Improper use of this option can cause your history database to become corrupted.

Printing Summary Information about Jobs with Capture or Verify Steps

The UDCHFJS JCL is used to print summary-level information about jobs that contain Capture or Verification steps.

B ■ JCL and Control Statements

Printing Summary Information about Jobs with Capture or Verify Steps

UDCHFJS JCL

```

//*****
//*      UTILITY TO REPORT RESULTS FOR SELECTED JOBS IN HISTORY
//*****
//*
//UDCUTIL  PROC  OUT=,                OUTPUT CLASS
//          UNIHF=                    UNIHF DSN
//STEP1    EXEC  PGM=UDCUTIL
//STEP1LIB DD  DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF    DD  DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF    DD  DSN=USERID.UDC.USEROPT,
//          DISP=SHR
//UNIHF    DD  DSN=&UNIHF,
//          DISP=SHR
//UNIRTR   DD  SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFJS DD  SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFES DD  SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS  DD  SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD  SYSOUT=&OUT
//SYSABOUT DD  SYSOUT=&OUT
//SYSOUT   DD  SYSOUT=&OUT
//SYSPRINT DD  SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP   DD  DDNAME=UNIINP
//        PEND
//UDCHFJS  EXEC  UDCUTIL,
//          OUT='*',
//          UNIHF='USERID.UDC.UDCHIST'
//*
//*          FJOBNAME TJOBNAME FJOBDATE TJOBDATE FCYCLEID   TCYC
//*          -----
//STEP1.UNIINP DD *
PRINT        JOBSUMM
//*
//*
//
Figure B-16 -- UDCHFJS JCL

```

PRINT JOB Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	PRINT
2	Reserved	9	1	X(1)	Blank
3	Report Name	10-16	7	X(7)	JOBSUMM
4	Reserved	17-20	4	X(4)	Blanks
Notes on Rows 5 through 15:					
To obtain information about all jobs on the history database, leave field numbers 5 through 15 blank.					
To obtain information about specific jobs, specify the appropriate information in field numbers 5 through 15.					
5	From Job Name	21-28	8	X(8)	
6	Reserved	29	1	X(1)	Blank
7	To Job Name	30-37	8	X(8)	Blanks
8	Reserved	38	38	X(1)	Blank
9	From Job Date	39-46	8	X(8)	
10	Reserved	47	1	X(1)	Blank
11	To Job Date	48-55	8	X(8)	
12	Reserved	56	1	X(1)	Blank
13	From Cycle ID	57-67	11	X(11)	
14	Reserved	68	1	X(1)	Blank
15	To Cycle ID	69-79	11	X(11)	
16	Reserved	80	1	X(1)	Blank

Printing Summary Information about Jobs with Exceptions

The UDCHFES JCL is used to print summary-level information about jobs in which ACR/File has detected exception conditions during capture or verification processing.

UDCHFES JCL

```

//*****
//*      UTILITY TO REPORT RESULTS FOR SELECTED JOBS IN HISTORY
//*****
//*
//UDCUTIL  PROC  OUT=,                OUTPUT CLASS
//          UNIH=                      UNIH DSN
//STEP1    EXEC  PGM=UDCUTIL
//STEP1LIB DD   DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF    DD   DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF    DD   DSN=USERID.UDC.USEROPT,
//          DISP=SHR
//UNIH=    DD   DSN=&UNIH,
//          DISP=SHR
//UNIRTR   DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFJS DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFES DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS  DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD   SYSOUT=&OUT
//SYSABOUT DD  SYSOUT=&OUT
//SYSOUT   DD   SYSOUT=&OUT
//SYSPRINT DD   SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP   DD   DDNAME=UNIINP
//        PEND
//UDCHFES  EXEC  UDCUTIL,
//          OUT='*',
//          UNIH='USERID.UDC.UDCHIST'
//*
//*          FJOBNAME TJOBNAME FJOBDATE TJOBDATE FCYCLEID   TCYC
//*          -----
//STEP1.UNIINP DD *
PRINT        EXCSUMM
//*
//*
//

```

PRINT EXCSUMM Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	PRINT
2	Reserved	9	1	X(1)	Blank
3	Report Name	10-16	7	X(7)	EXCSUMM
4	Reserved	17-20	4	X(4)	Blanks
Rows 5 through 15:					
To obtain information about all jobs on the history database, leave field numbers 5 through 15 blank. To obtain information about specific jobs, specify the appropriate information in field numbers 5 through 15.					
5	From Job Name	21-28	8	X(8)	
6	Reserved	29	1	X(1)	Blank
7	To Job Name	30-37	8	X(8)	Blanks
8	Reserved	38	38	X(1)	Blank
9	From Job Date	39-46	8	X(8)	
10	Reserved	47	1	X(1)	Blank
11	To Job Date	48-55	8	X(8)	
12	Reserved	56	1	X(1)	Blank
13	From Cycle ID	57-67	11	X(11)	
14	Reserved	68	1	X(1)	Blank
15	To Cycle ID	69-79	11	X(11)	
16	Reserved	80	1	X(1)	Blank

Printing Detail Information about Jobs with Capture or Verify Steps

The UDCHFJD JCL is used to print detail-level information about jobs that contain the ACR/File Capture or Verification steps.

UDCHFJD JCL

```

//*****
//*      UTILITY TO REPORT DETAIL FOR SELECTED JOBS IN HISTORY
//*****
//*
//UDCUTIL  PROC  OUT=,                OUTPUT CLASS
//          UNIHF=                    UNIHF DSN
//STEP1    EXEC  PGM=UDCUTIL
//STEPLIB  DD   DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF    DD   DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF    DD   DSN=USERID.UDC.USEROPT,
//          DISP=SHR
//UNIHF    DD   DSN=&UNIHF,
//          DISP=SHR
//UNIRTR   DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFJS DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFES DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS  DD   SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD   SYSOUT=&OUT
//SYSABOUT DD  SYSOUT=&OUT
//SYSOUT   DD   SYSOUT=&OUT
//SYSPRINT DD  SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP   DD   DDNAME=UNIINP
//        PEND
//UDCHFJD  EXEC  UDCUTIL,
//          OUT='*',
//          UNIHF='USERID.UDC.UDCHIST'
//*
//*          FJOBNAME TJOBNAME FJOBDATE TJOBDATE FCYCLEID   TCYC
//*          -----
//STEP1.UNIINP DD *
PRINT        JOBCTL
//*
//*
//

```

PRINT JOB DETAIL Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	PRINT
2	Reserved	9	1	X(1)	Blank
3	Report Name	10-16	7	X(7)	JOBDDL
4	Reserved	17-20	4	X(4)	Blanks
Rows 5 through 15:					
To obtain information about all jobs on the history database, leave field numbers 5 through 15 blank. To obtain information about specific jobs, specify the appropriate information in field numbers 5 through 15.					
5	From Job Name	21-28	8	X(8)	
6	Reserved	29	1	X(1)	Blank
7	To Job Name	30-37	8	X(8)	Blanks
8	Reserved	38	38	X(1)	Blank
9	From Job Date	39-46	8	X(8)	
10	Reserved	47	1	X(1)	Blank
11	To Job Date	48-55	8	X(8)	
12	Reserved	56	1	X(1)	Blank
13	From Cycle ID	57-67	11	X(11)	
14	Reserved	68	1	X(1)	Blank
15	To Cycle ID	69-79	11	X(11)	
16	Reserved	80	1	X(1)	Blank

Printing Detail Information About Jobs with Exceptions

The UDCHFED JCL is used to print detail-level information about jobs where ACR/File has detected exception conditions during capture or verification processing.

UDCHFED JCL

```

//USERIDA JOB (PD,0444,999),YOURNAME,
// REGION=2M,CLASS=E,MSGCLASS=X,NOTIFY=USERID
//*
//*
//*****
//* UTILITY TO REPORT DETAIL FOR SELECTED JOBS IN HISTORY
//*****
//*
//UDCUTIL PROC OUT=, OUTPUT CLASS
// UNIHF= UNIHF DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
// DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
// DISP=SHR
//UNIUF DD DSN=USERID.UDC.USEROPT,
// DISP=SHR
//UNIHF DD DSN=&UNIHF,
// DISP=SHR
//UNIRTR DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFJS DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCRHFES DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD SYSOUT=&OUT
//SYSABOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP DD DDNAME=UNIINP
// PEND
//UDCHFED EXEC UDCUTIL,
// OUT='*',
// UNIHF='USERID.UDC.UDCHIST'
//*
//* FJOBNAME TJOBNAME FJOBDATE TJOBDATE FCYCLEID TCYC
//* -----
//STEP1.UNIINP DD *
PRINT EXCDTL
//*
//*
//

```

PRINT EXCDTL Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	PRINT
2	Reserved	9	1	X(1)	Blank
3	Report Name	10-16	7	X(7)	EXCDTL
4	Reserved	17-20	4	X(4)	Blanks
Rows 5 through 15:					
To obtain information about all jobs on the history database, leave field numbers 5 through 15 blank. To obtain information about specific jobs, specify the appropriate information in field numbers 5 through 15.					
5	From Job Name	21-28	8	X(8)	
6	Reserved	29	1	X(1)	Blank
7	To Job Name	30-37	8	X(8)	Blanks
8	Reserved	38	38	X(1)	Blank
9	From Job Date	39-46	8	X(8)	
10	Reserved	47	1	X(1)	Blank
11	To Job Date	48-55	8	X(8)	
12	Reserved	56	1	X(1)	Blank
13	From Cycle ID	57-67	11	X(11)	
14	Reserved	68	1	X(1)	Blank
15	To Cycle ID	69-79	11	X(11)	
16	Reserved	80	1	X(1)	Blank

Sorting the Directory Records of the History Database

The following UDCHFDS JCL is used to sort the directory records of the history database to maximize ACR/File performance with large (over 1,000 jobs) history databases.

UDCHFDS JCL

Sorting the Directory Records of the History Database

```

//*****
//* RUN THE UDCHFDS UTILITY TO SORT THE ACR/F HIST DIRECTORY ENTRIES *
//*****
//* UDCHFDS - EXECUTES THE UTILITY THAT WILL SORT THE HISTORY FILE *
//*          DIRECTORY ENTRIES, THEREBY ALLOWING ACR/F TO FIND *
//*          JOB-ID'S IN THE DIRECTORY RECORDS FASTER. *
//*****
//*
//UDCUTIL PROC OUT=,                OUTPUT CLASS
//          UNIHF=                    UNIHF DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
//          DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
//          DISP=SHR
//UNIUF DD DSN=USERID.UDC.USEROPT,
//          DISP=SHR
//UNIHF DD DSN=&UNIHF,
//          DISP=SHR
//SORTWK01 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK02 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK03 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK04 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK05 DD SPACE=(CYL,5),UNIT=DISK
//SORTWK06 DD SPACE=(CYL,5),UNIT=DISK
//UNISWRK DD DSN=&UNISWRK,
//          DISP=(NEW,PASS,DELETE),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=23440),
//          UNIT=DISK,
//          SPACE=(TRK,(10,10),RLSE)
//UNIRTR DD SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS DD SYSOUT=&OUT,
//          DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//SYSUDUMP DD SYSOUT=&OUT
//SYSABOUT DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIINP DD DDNAME=UNIINP
// PEND
//UDCHFR EXEC UDCUTIL,
//          OUT='*',
//          UNIHF='USERID.UDC.UDCHIST'
//STEP1.UNIINP DD *
SORTDIR UDCHIST
/*
//

```

B ■ JCL and Control Statements

Sorting the Directory Records of the History Database

SORTDIR HIST Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	SORTDIR
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCHIST
4	Reserved	17-80	64	X(64)	Blanks

Listing Cross References

UDCFX JCL

```

//*****
//* * JCL TO LIST CROSS REFERENCE ACR/F FROM KEY1 TO KEY2 * *
//*****
//UDCUTIL PROC OUT=, OUTPUT CLASS
// UDCDEFN=, UDCDEFN DSN
// UDCHIST= UDCHIST DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
// DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
// DISP=SHR
//UNIUF DD DSN=NULLFILE,
// DISP=SHR
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIDF DD DSN=&UDCDEFN,
// DISP=SHR
//UNIHF DD DSN=&UDCHIST,
// DISP=SHR
//UNIWRK DD DSN=&&UDCWORK,
// DCB=(RECFM=FB,LRECL=200,BLKSIZE=2000),
// DISP=(,PASS,DELETE),
// UNIT=SYSALLDA,
// SPACE=(TRK,(10,10),RLSE)
//SORTWK01 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//SORTWK02 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//SORTWK03 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//SORTWK04 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//SORTWK05 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//SORTWK06 DD SPACE=(CYL,(5,5),RLSE),UNIT=SYSALLDA
//UNIINP DD DDNAME=UNIINP
//UNIRTR DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UNIDFL DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMGS DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
// PEND
//UDCDFX EXEC UDCUTIL,
// OUT='*',
// UDCDEFN='USERID.UDC.DEFN',
// UDCHIST='USERID.UDC.HIST'
//STEP1.UNIINP DD *
LIST UDCXREF
/*

```

B ■ JCL and Control Statements

Listing Cross References

LIST XREF Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	LIST
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCXREF
4	Reserved	17-20	4	X(4)	Blanks
5	Definition ID-1	21-38	18	X(18)	
6	Definition ID-2	39-56	18	X(18)	
7	Reserved	57	2	X(2)	Blank
8	Report Style	59	1	X(1)	Blank, 1, or 2
9	Reserved	60-80	21	X(21)	Blanks

Definitions:

If all definitions are desired, leave Definition ID-1, Definition ID-2, and the Definition Type blank.

If only one set of definitions is desired, specify only Definition ID-1 and the Definition Type.

If a range of definitions is desired, specify Definition ID-1, Definition ID-2, and the Definition Type. Definition ID-1 must be less than Definition ID-2.

Report Styles:

Blank or 1=Display Capture steps with links to verify steps, or 2=Capture steps with no links to verify steps. See examples in [Appendix A, "Reports" on page 265](#).

Building Batch Transactions

UDCDFB JCL

```

//*****
//* * JCL TO BUILD ACR/F BATCH TRANSACTIONS FROM KEY1 TO KEY2 * *
//*****
//UDCUTIL PROC OUT=, OUTPUT CLASS
// UDCDEFN= UDCDEFN DSN
//STEP1 EXEC PGM=UDCUTIL
//STEPLIB DD DSN=USERID.UNI.LOADLIB,
// DISP=SHR
//UNICF DD DSN=USERID.UDC.UNICF,
// DISP=SHR
//UNIUF DD DSN=USERID.UDC.USEREPT,
// DISP=SHR
//SYSUDUMP DD SYSOUT=&OUT
//SYSDBOUT DD SYSOUT=&OUT
//SYSOUT DD SYSOUT=&OUT
//SYSPRINT DD SYSOUT=&OUT,DCB=BLKSIZE=133
//UNIDF DD DSN=&UDCDEFN,
// DISP=SHR
//UDCUPDT DD DSN=&UDCDFB,
// DISP=SHR
//IGZSRCTD DD DUMMY
//UNIINP DD DDNAME=UNIINP
//UNIRTR DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCUT08 DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
//UDCMSGS DD SYSOUT=&OUT,
// DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133)
// PEND
//UDCDFB EXEC UDCUTIL,
// OUT='*',
// UDCDEFN='USERID.UDC.UDCDEFN',
// UDCDFB='USERID.UDC.TRANLIB(CARDS)'
//STEP1.UNIINP DD *
BUILD UDCUPDT
/*

```

B ■ JCL and Control Statements

Building Batch Transactions

BUILD DEFN Transaction Layout

Field#	Description	Position	Length	Format	Value
1	Function Name	1-8	8	X(8)	BUILD
2	Reserved	9	1	X(1)	Blank
3	File Name	10-16	7	X(7)	UDCUPDT
4	Reserved	17-20	4	X(4)	Blanks
5	Definition ID-1	21-38	18	X(18)	
6	Definition ID-2	39-56	18	X(18)	
7	Definition Type	57	1	X(1)	Blank, J, or T
8	Reserved	58-80	23	X(23)	Blanks

If all definitions are desired, leave Definition ID-1, Definition ID-2, and the Definition Type blank.

If only one set of definitions is desired, specify only Definition ID-1 and the Definition Type.

If a range of definitions is desired, specify Definition ID-1, Definition ID-2, and the Definition Type. Definition ID-1 must be less than Definition ID-2.

If a particular type of definition is desired, specify a Definition Type of 'T' to get only Table definitions or 'J' to get only job definitions. If all definition types are desired, leave Definition Type blank.

Batch Transactions

ACR/File definition information can be entered in one of two ways: through the User Interface or by creating batch definition transactions. This appendix describes the format and use of the batch definition transactions. See the chapter and sections corresponding to each layout for more information about the definition field values.

The following sections are included:

- “Definition Information Categories” on page 315
- “Coding Batch Transactions” on page 315
- “Transaction Key Structure” on page 316
- “Transaction Key Layouts” on page 317
- “Batch Definition Transaction Sets” on page 318
- “Updating the Definition Database” on page 319
- “Transaction Layout Information Summary” on page 320
- “Transaction Layout List with Page Numbers” on page 321

Definition Information Categories

Definitions are classified into definition information categories. A category contains multiple fields containing related definition information. For example, Input File Item Information is one category of job definitions. Definition fields for Input File Items include the Input File Item Number, the File Location, the File-level verification options, and so forth. These are all fields containing information related to that category of information.

Coding Batch Transactions

The User Interface or any edit facility (such as ISPF Edit) may be used to code each category of information on one or more 80-character definition transaction records. Then, the batch definition transaction records are used to add and update Job and Table definitions information in the definition database. The batch definition transactions can be created in a sequential file or as members of a PDS.

Transaction Key Structure

Each 80-character record contains a Transaction Key that identifies each transaction and specifies how to process it. This Transaction Key is laid out as follows:

The first 26 positions of each Job definition transaction record constitute the Transaction Key. Transactions beginning with an asterisk (*) in position 1 are treated as comments and are ignored during processing. The Transaction Key consists of the following:

Transaction ID: An 18-character string identifying the specific transaction. For job definitions, use the 18-character Job ID, which consists of the 8-character name of the job that will use the definitions, the 8-character name of the ACR/File step that will use the definitions, and an optional 2-character qualifier. For Table definitions, use the 16-character Table name and two blanks.

Transaction Code: A 2-character code identifying the category of information on the transaction record. Codes beginning with a D are job definitions. Codes beginning with a T are Table definitions. Thus we use such codes as D0 (Basic Job Information), D1 (Input File Item Information), and D2 (Output File Information), etc.

Transaction Number: A 3-digit number identifying the specific transaction within its category, such as Input File Item number.

Transaction Sequence: A 1-digit number identifying the sequence of the records for a transaction. Sometimes a transaction requires two or more 80-character transaction records to contain all the definition information. The transaction sequence number is used to control the sequence of those records.

Transaction Type: A 1-character code specifying how the transaction is to be applied to the definition database. Valid transaction types are:

Code	Meaning
A	Add a new definition record to the definition database.
D	Delete an existing record from the definition database. When a transaction consists of more than one transaction record, only the first record (Transaction Sequence 1) is needed for delete processing. This record need contain only the Transaction Key.
R	Replace an existing record in the definition database.
*	Purge a group of records from the definition database.

Note: The Purge Transaction Type is valid only on a Basic Job Information or a Table Information transaction (that is, on the first transaction record for each type of definition). When specified, it causes all definitions for that Definition ID to be deleted from the definition database. The transaction is ignored if no definitions exist for that Job ID key or Table name in the database.

Transaction Key Layouts

Job Definition Transaction Key Layout

Field#	Description	Position	Length	Format	Values
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D0, D1, D2
3	Reserved	21	1	X(1)	Blank
4	Transaction Number	22-24	3	X(3)	000-32
5	Transaction Sequence	25	19	(1)	1, 2, or 3
6	Transaction Type	26	1	X(1)	A, D, R or *

C ■ Batch Transactions

Batch Definition Transaction Sets

Table Definition Transaction Key Layout

Field#	Description	Position	Length	Format	Values
1	Table Name	1-16	16	X(16)	
2	Reserved	17-18	2	X(2)	Blanks
3	Transaction Code	19-20	2	X(2)	T0, T2
4	Reserved	21	1	X(1)	Blank
5	Transaction Number	22-24	3	X(3)	000-100
6	Transaction Sequence	25	19	(1)	1 or 2
7	Transaction Type	26	1	X(1)	A, D, R, or *

Batch Definition Transaction Sets

A set of batch definition transactions is usually headed by a single purge Transaction Type, and then followed by a complete set of one or more Add transactions that contain your Job or Table definition parameters. For example, a set might contain a Basic Job Information Purge transaction (to delete all previous definitions for that Job ID from the definition database), immediately followed by a Basic Job Information Add transaction, and then followed by Input File Item Add, and so on. In other words, you purge all of the old definitions and add the new ones.

Batch definition transactions are automatically sorted by Transaction Key by the ACR/File batch update utility before they are applied to the definition database. This implies that the purge type is always applied first (the utility program will first purge the definition database of any previous definitions for that Transaction ID, and then process all the other batch definition transactions that add to the definition database). This assures that no leftover definitions will interfere with your new definitions, and that the set of Add transactions you process contains the complete set of definitions.

Alternatively, instead of purging a complete set of definitions and then adding the complete revised set to the definition database, you can either Add, Replace and/or Delete individual definitions. The resulting executable definitions will be a combination of whatever definitions were first in the

definition database, with the individual Add, Replace and Delete transactions applied against them. The set of transactions you process is only a subset of the complete set. For this reason, this method is rarely used, and the Transaction Types R and D are rarely used.

Updating the Definition Database

Once the batch definitions have been created, you use the UDCUPDT utility to apply them to the definition database. First, the batch definition transactions are sorted by Transaction Key. The UDCUPDT program processes the batch definition transactions in two passes: next, the transactions are validated; then, if all of the transactions are valid, they are applied to the definition database.

The Transaction Validation pass edits each individual transaction to ensure that valid interrelated information is entered in the proper columns. Each transaction is printed in the Transaction Validation section of the UDCUPDT report (shown in Appendix A). For example, the Number of Histories in Basic Job Information must be numeric and between 1 and 999. If it is not, an error message will appear to the left and on the line below the transaction on the Transaction Validation section of the UDCUPDT report.

If all transactions are valid, transaction processing is performed. Using the transaction type from each transaction's key, the UDCUPDT program attempts to Add, Delete, Replace, or Purge the specified transaction. If any errors occur (such as trying to Add a definition that already exists in the definition database), processing stops and no subsequent transactions are applied. Transactions encountered before the update error will be applied correctly. Any error messages will be printed, along with the transactions in the Transaction Processing section of the UDCUPDT report.

C ■ Batch Transactions

Transaction Layout Information Summary

Transaction Layout Information Summary

The layout information provided in this appendix can be summarized as follows:

Information Category	Transaction ID	Transaction Code	Number of Transactions per Transaction ID	Record Sequence
Basic Job Information	Job ID	D0	1	1,2,3
Input File Information	Job ID	D1	0-32	1,2,3
Output File Information	Job ID	D2	0-32	1
Cycle Table Information	Table ID	T0	1	1

Transaction Code identifies the category of information.

Number of Transactions per Transaction ID shows the minimum and maximum number of transactions allowed for each Transaction ID.

Record Sequence is the sequence of transaction records within a particular transaction code.

Records per Transaction shows the number of records needed for each transaction.

Transaction Layout List with Page Numbers

The transaction layouts provided here are as follows:

- “D0: Alternate Job ID Transaction Layout Record 1 of 1” on page 322
- “D0: Basic Job Information Transaction Layout - Record 1 of 3” on page 322
- “D0: Basic Job Information Transaction Layout (Cycle Rerun Parameters) - Record 2 of 3” on page 323
- “D0: Basic Job Information Transaction Layout (Job-Level Verification Options) - Record 3 of 3” on page 324
- “D1: Input File Information Transaction Layout Record 1 of 3” on page 325
- “D1: Input File Information Transaction Layout Record 2 of 3” on page 326
- “D1: Input File Information Transaction Layout (Variable Cycle Information) - Record 3 of 3” on page 327
- “D2: Output File Items Transaction Layout Record 1 of 1” on page 328
- “T0: Cycle Table Information Transaction Layout Record 1 of 1” on page 329
- “T2: Cycle Table Items Transaction Layout Record 1 of 2” on page 329
- “T2: Cycle Table Items Transaction Layout Record 2 of 2” on page 330

C ■ Batch Transactions

Transaction Layout List with Page Numbers

D0: Alternate Job ID Transaction Layout Record 1 of 1

Field	Description	Pos.	Length	Format	Value
1	Alternate Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D0
3	Reserved	21	1	X(1)	Blank
4	Reserved	22-24	39	(3)	000
5	Transaction Sequence	25	1	9(1)	1
6	Transaction Type	26	1	X(1)	A, R, or D
7	Primary Job ID	27-44	18	X(18)	
8	Reserved	45-79	35	X(35)	Blanks
9	Alternate Job ID Indicator	80	1	X(1)Y	

D0: Basic Job Information Transaction Layout - Record 1 of 3

Field	Description	Pos.	Length	Format	Values
1	Job ID Key	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D0
3	Reserved	21	1	X(1)	Blank
4	Transaction Number	22-24	39	(3)	000
5	Transaction Sequence	25	1	X(1)	1
6	Transaction Type	26	1	X(1)	*, A, R, D
7	Description/Title	27-66	40	X(40)	
8	Number of Histories	67-69	39	(3)	001-999
9	Store History	70	1	X(1)	Y, N or Blank
10	Set Return Code	71	1	X(1)	Y, N, X or Blank
11	Check Dataset Not Found	72	1	X(1)	Y, N, X or Blank
12	Check Not Catlg 2	73	1	X(1)	Y, N, X, C or Blank
13	Check for Rerun	74	1	X(1)	Y, N, X or Blank
14	Input File Verification	75	1	X(1)	Y, N, X or Blank
15	Input File Exception	76	1	X(1)	Y, N, X or Blank

C ■ Batch Transactions

Transaction Layout List with Page Numbers

Field	Description	Pos.	Length	Format	Values
16	Output File Capture	77	1	X(1)	Y, N or Blank
17	Maximum Age Notification	78	1	X(1)	Y, N or Blank
18	Reserved	79-80	2	X(2)	

D0: Basic Job Information Transaction Layout (Cycle Rerun Parameters) - Record 2 of 3

Field	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D0
3	Reserved	21	1	X(1)	Blank
4	Reserved	22-24	39	(3)	000
5	Transaction Sequence	25	1	X(1)	2
6	Transaction Type	26	1	X(1)	A or R
7	Cycle Table Name	27-42	16	X(16)	
8	Reserved	43-44	2	X(2)	Blank
9	Cycle Reference Job ID	45-62	18	X(18)	
10	Cycle Option	63-64	2	X(2)	J0, J1, J9, G0, G1, G9, X0, X1, X9, T0, T1, T9 or Blanks
11	Automatic Rerun Option	65	1	X(1)	Y, N or Blank
12	Reserved	66-80	15	X(15)	

C ■ Batch Transactions

Transaction Layout List with Page Numbers

D0: Basic Job Information Transaction Layout (Job-Level Verification Options) - Record 3 of 3

Field	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D0
3	Reserved	21	1	X(1)	Blank
4	Reserved	22-24	3	9(3)	000
5	Transaction Sequence	25	1	X(1)	3
6	Transaction Type	26	1	X(1)	A or R
7	History is Present	27	1	X(1)	Y, N, X or Blank
8	File is Present	28	1	X(1)	Y, N, X or Blank
9	Dataset Name	29	1	X(1)	Y, N, X or Blank
10	Concat Sequence	30	1	X(1)	Y, N, X or Blank
11	Creation Date	31	1	X(1)	Y, N, X or Blank
12	Creation Time	32	1	X(1)	Y, N, X or Blank
13	Creation Job	33	1	X(1)	Y, N, X or Blank
14	Creation Step	34	1	X(1)	Y, N, X or Blank
15	Creation DD	35	1	X(1)	Y, N, X or Blank
16	Volser Numbers	36	1	X(1)	Y, N, X, J, K, or Blank
17	Number of Records	37	1	X(1)	Y, N, X or Blank
18	Number of Uses	38	1	X(1)	Y, N, X or Blank
19	Max Age (Cycles)	39	1	X(1)	Y, N, X or Blank
20	Max Age (Days)	40	1	X(1)	Y, N, X or Blank
21	Concat. Num Expected	41	1	X(1)	Y, N, X or Blank
22	Reserved	42-80	39	X(39)	Blanks

D1: Input File Information Transaction Layout Record 1 of 3

Field #	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D1
3	Reserved	21	1	X(1)	Blank
4	Input File Item Number	22-24	3	9(3)	001-032
5	Transaction Sequence	25	1	X(1)	1
6	Transaction Type	26	1	X(1)	A,R, or D
Input File Processed in:					
7	Application Step	27-34	8	X(8)	
8	Step Occurrence	35-37	3	9(3)	001-999
9	DDNAME	38-45	8	X(8)	
10	Concatenation Sequence	46-48	3	9(3)	001-150
Input File Created by (Expected from):					
11	Job ID	49-66	18	X(18)	
12	Output File Item Number	67-69	3	9(3)	001-032
13	Relative Cycle	70-72	3	S9(2)	-99 to +00
14	Most Recent?	73	1	X(1)	Y or N
15	Reserved	74-80	7	X(6)	

C ■ Batch Transactions

Transaction Layout List with Page Numbers

D1: Input File Information Transaction Layout Record 2 of 3

Field	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D1
3	Reserved	21	1	X(1)	Blank
4	Input File Item #	22-24	3	9(3)	001 - 032
5	Transaction Sequence	25	1	X(1)	2
6	Transaction Type	26	1	X(1)	A or R
7	History is Present	27	1	X(1)	Y, N, X or Blank
8	File is Present	28	1	X(1)	Y, N, X or Blank
9	Dataset Name	29	1	X(1)	Y, N, X or Blank
10	Concat Sequence	30	1	X(1)	Y, N, X or Blank
11	Creation Date	31	1	X(1)	Y, N, X or Blank
12	Creation Time	32	1	X(1)	Y, N, X or Blank
13	Creation Job	33	1	X(1)	Y, N, X or Blank
14	Creation Step	34	1	X(1)	Y, N, X or Blank
15	Creation DD	35	1	X(1)	Y, N, X or Blank
16	Volser Numbers	36	1	X(1)	Y, N, X, A, B,D, E, G, H, J, K or Blank
17	Number of Records	37	1	X(1)	Y, N, X or Blank
18	Number of Uses	38	1	X(1)	Y, N, X or Blank
19	Max Age(Cycles)	39	1	X(1)	Y, N, X or Blank
20	Max Age(Days)	40	1	X(1)	Y, N, X or Blank
21	Concat. Num Expected	41	1	X(1)	Y, N, X or Blank
22	Reserved	42-80	39	X(39)	Blanks

D1: Input File Information Transaction Layout (Variable Cycle Information) - Record 3 of 3

Field #	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D1
3	Reserved	21	1	X(1)	Blank
4	Input File Item Number	22-24	3	9(3)	001-032
5	Transaction Sequence	25	1	X(1)	2
6	Transaction Type	26	1	X(1)	A,R, or D
7	Variable Cycle Indicator	27	1	X(1)	Y,N, or X
8	Var Cyc Job ID	28-45	18	X(18)	Enter Only if Variable Cycle
9	Var Cyc Relative Cycle	46-48	3	X(3)	-99 to +00, Enter Only if Variable Cycle
10	Variable Cycle: Most Recent Cycle	49	1	X(1)	Blank, Y, or N Enter Only if Variable Cycle Indicator = Y or X
11	Reserved	50-80	31	X(31)	

C ■ Batch Transactions

Transaction Layout List with Page Numbers

D2: Output File Items Transaction Layout Record 1 of 1

Field	Description	Pos.	Length	Format	Value
1	Job ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	D2
3	Reserved	21	1	X(1)	Blank
4	Output File Item Number	22-24	3	9(3)	001 - 032
5	Transaction Sequence	25	1	X(1)	1
6	Transaction Code	26	1	X(1)	A, R, or D
Output File Created by:					
7	Application Step	27-34	8	X(8)	
8	Step Occurrence	35-37	3	9(3)	001 - 999
9	DDname	38-45	8	X(8)	
File Use Restrictions:					
10	Maximum NBR of Uses	46-48	3	9(3)	000 - 999
11	Must be Used Within (Cycles of Creation)	49-51	3	9(3)	000 - 999
12	Must be Used Within (Days of Creation)	52-54	3	9(3)	000 - 999
Verify:					
13	File is Present	55	1	X(1)	Y, N, X or Blank
14	Reserved	56-80	25	X(25)	

T0: Cycle Table Information Transaction Layout Record 1 of 1

Field	Description	Pos.	Length	Format	Value
1	Cycle Table ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	T0
3	Reserved	21	1	X(1)	Blank
4	Reserved	22-24	3	9(3)	000
5	Transaction Sequence	25	1	X(1)	1
6	Transaction Type	26	1	X(1)	A, R, D or *
7	Description/Title	27-66	40	X(40)	
8	Reserved	67-80	14	X(13)	Blanks

T2: Cycle Table Items Transaction Layout Record 1 of 2

Field	Description	Pos.	Length	Format	Value
1	Cycle Table ID	1-18	18	X(18)	
2	Transaction Code	19-20	2	X(2)	T2
3	Reserved	21	1	X(1)	Blank
4	Cycle Table Item #	22-24	3	9(3)	001 - 999
5	Transaction Sequence	25	1	9(1)	1
6	Transaction Type	26	1	X(1)	A,R or D
7	Cycle Number 1	27-34	8	9(8)	
8	Cycle Number 2	35-42	8	9(8)	
9	Cycle Number 3	43-50	8	9(8)	
10	Cycle Number 4	51-58	8	9(8)	
11	Cycle Number 5	59-66	8	9(8)	
12	Reserved	67-80	14	X(14)	Blanks

C ■ Batch Transactions

Transaction Layout List with Page Numbers

T2: Cycle Table Items Transaction Layout Record 2 of 2

Field	Description	Pos.	Length	Format	Value
1	Cycle Table Name	1-16	16	X(16)	
2	Reserved	17-18	2	X(2)	Blanks
3	Transaction Code	19-20	2	X(2)	T2
4	Reserved	21	1	X(1)	Blank
5	Cycle Table Item Number	22-24	3	9(3)	001 - 999
6	Transaction Sequence	25	1	9(1)	2
7	Transaction Type	26	1	X(1)	A or R
8	Cycle Number 6	27-34	8	9(8)	
9	Cycle Number 7	35-42	8	9(8)	
10	Cycle Number 8	43-50	8	9(8)	
11	Cycle Number 9	51-58	8	9(8)	
12	Cycle Number 10	59-66	8	9(8)	
13	Reserved	67-80	14	X(14)	Blanks

Transaction Layouts from UDCDGEN

This appendix contains transaction layouts for the skeletal definitions created by the ACR/File Definition Generator (UDCDGEN), described in “Implementation Tools” on page 233. The layouts are as follows:

- “DO: Transaction Key Record Layouts” on page 331
- “D2: Transaction Key Record Layout” on page 334

DO: Transaction Key Record Layouts

DO: Transaction Key Record Layout 1 of 3

Field	Description	Pos.	Length	Format	Values
1 ¹	Job Name	108	8	X(8)	See note 1
2	Rec-Code	9-10	2	X(2)	D0
3	SEQ-NBR	11	1	X(1)	1
4 ²	UPDT-Action	12	1	X(1)	P or A 2
5	Description	13-52	40	X(40)	Any values
6	NBR HST Records	53-55	3	X(3)	Numeric (> 0)
7	Store-HST-Opt	56	1	X(1)	Blank, Y, N
8	Set-RC-Opt	57	1	X(1)	Blank, Y, N, X
9	Chk-DS-Not-FND	58	1	X(1)	Blank, Y, N, X
10	Chk-Not-Ctlg-2	59	1	X(1)	Blank, Y, N, X, C
11	Chk-if-Rerun	60	1	X(1)	Blank, Y, N, X
12	Prt-Vrfy-Rept	61	1	X(1)	Blank, Y, N, X
13	Prt-Excp-Rept	62	1	X(1)	Blank, Y, N, X
14	Prt-Capt-Rept	63	1	X(1)	Blank, Y, N

D ■ Transaction Layouts from UDCDGEN

DO: Transaction Key Record Layouts

Field	Description	Pos.	Length	Format	Values
15	Prt-Age-Rept	64	1	X(1)	Blank, Y, N
16	Reserved	65-80	16	X(16)	Blanks

1 Job Name: Any combination of alphanumeric characters and WILDCHR, where WILDCHR = a character used to indicate that any value should be considered a match. The default for WILDCHR is "*", however, this can be changed by using a JCL PARM of WILDCHR=?, where ? is replaced with the wild character desired.

2 UPDT-Action: P = Purge all definitions with this Job ID before trying to add these definitions. A = Add these definitions if they don't exist; otherwise, skip these definitions.

DO: Transaction Key Record Layout 2 of 3

Field	Description	Pos.	Length	Format	Values
1 ¹	Job Name	1-8	8	X(8)	See note 1
2	Rec-Code	9-10	2	X(2)	D0
3	SEQ-NBR	11	1	X(1)	2
4	Cyc-Tbl-Name	12-27	16	X(16)	Blank or Name of an existing Cycle Table
5	Reserved	28-29	2	X(2)	Blanks
6	Cyc-Ref-Job ID	30-47	18	X(18)	Any existing Job ID of Blank
7	Cyc-Opt	48-49	2	X(2)	Blank, G0, G1, G9, J0, J1, J9, X0, X1, X9, T0, T1, T9
8	Auto-Rerun-Opt	50	1	X(1)	Blank, Y, N
9	Reserved	51-80	30	X(30)	Blanks

1 Job Name: Any combination of alphanumeric characters and WILDCHR, where WILDCHR = a character used to indicate that any value should be considered a match. The default for WILDCHR is an asterisk (*). However, this can be changed by using a JCL PARM of WILDCHR=?, where ? is replaced with the wild character desired.

D ■ Transaction Layouts from UDCDGEN

DO: Transaction Key Record Layouts

DO: Transaction Key Record Layout 3 of 3

Field	Description	Pos.	Length	Format	Values
1 ¹	Job Name	1-8	8	X(8)	see note 1
2	Rec-Code	9-10	2	X(2)	D0
3	SEQ-NBR	11	1	X(1)	3
4	Vrfy-Hst-Present	12	1	X(1)	Blank, Y, X or N
5	Vrfy-File-Present	13	1	X(1)	Blank, Y, X or N
6	Vrfy-DSN	14	1X	(1)	Blank, Y, X or N
7	Vrfy-Concat-Seq	15	1	X(1)	Blank, Y, X or N
8	Vrfy-Create-Date	16	1	X(1)	Blank, Y, X or N
9	Vrfy-Create-Time	17	1	X(1)	Blank, Y, X or N
10	Vrfy-Create-Job	18	1	X(1)	Blank, Y, X or N
11	Vrfy-Create-Step	19	1	X(1)	Blank, Y, X or N
12	Vrfy-Create-DD	20	1	X(1)	Blank, Y, X or N
13	Vrfy-VOLSERS	21	1	X(1)	Blank, Y, X or N
14	Vrfy-NBR-Recs	22	1	X(1)	Blank, Y, X or N
15	Vrfy-NBR-Uses	23	1	X(1)	Blank, Y, X or N
16	Vrfy-Cyc-Age	24	1	X(1)	Blank, Y, X or N
17	Vrfy-Day-Age	25	1	X(1)	Blank, Y, X or N
18	Reserved	26-80	55	X(55)	Blanks

¹ Any combination of alphanumeric characters and WILDCHR, where WILDCHR = a character used to indicate that any value should be considered a match. The default for WILDCHR is '*'. However, this can be changed by using a JCL P ARM of WILDCHR=?, where ? is replaced with the wild character desired.

D ■ Transaction Layouts from UDCDGEN

D2: Transaction Key Record Layout

D2: Transaction Key Record Layout

D2: Transaction Key Record Layout 1 of 1

Field	Description	Pos.	Length	Format	Values
1	Job Name	1-8	8	X(8)	See note 1
2	Rec-Code	9-10	2	X(2)	D2
3	SEQ-NBR	11	1	X(1)	1
4	Step Name of Capture Step	12-19	8	X(8)	Name of ACR/File Capture step to be used
5	UPDT-Action	20	1	X(1)	A
6	Max-NBR-Uses	21-23	3	X(3)	Numeric
7	Max-Rec-Cyc-Age	24-26	3	X(3)	Numeric
8	Max-Rec-Day-Age	27-29	3	X(3)	Numeric
9	Vrfy-File-Pres	30	1	X(1)	Blank, Y, X or N
10	Reserved	31-80	50	X(50)	Blanks

¹ Any combination of alphanumeric characters and WILDCHR, where WILDCHR = a character used to indicate that any value should be considered a match. The default for WILDCHR is '*'. However, this can be changed by using a JCL P ARM of WILDCHR=?, where ? is replaced with the wild character desired.

Glossary

A

ACR/File databases

Two physical files: the definition database and the history database. Together they contain the capture/verification specifications and the results of applying these processing rules to application jobs.

activate

A means of transferring ACR/File definitions from the work area to the definition database. The definitions must be in the definition database before you can use them and test them.

automatic cycle processing

Allows the ACR/File system to assign Cycle IDs automatically with various cycle processing options. For example, you can specify that ACR/File refer to another Job ID to obtain the Cycle ID or specify that ACR/File use the system date as the Cycle ID.

automatic rerun

Permits the rerunning of jobs without manual interference. ACR/File identifies when a job is being rerun and keeps information about that rerun in the definition database. Automatic Rerun alerts the system that this is a rerun and to overwrite its history.

B

back up

A means of saving the set of definitions that you are currently working on to a separate data set for later use.

batch definition transaction records

These are 80-character records used to add and update Job and Table definitions in the definition database. They must follow the layout for each record type as presented in this manual.

C

cycle ID

This is an 11-digit, ascending number that uniquely identifies the processing cycle associated with a particular execution of an ACR/File step. It consists of an 8-digit Cycle Number and the optional 3-digit Run Number. The Run Number is used when an ACR/File step needs to be executed more than once per processing cycle (for example, a multi-daily job).

cycle table definitions

These definitions contain the valid cycle numbers for a group of jobs. For example, you might have several groups of jobs that run daily, weekly and monthly. Each group would have a Cycle Table that contains cycle numbers (usually valid dates to use during processing). The Cycle Table ID uniquely identifies each Cycle Table definition.

D

DASD

A magnetic disk storage device. It is called Direct Access because it permits the computer to access and store a record directly rather than processing all the records in sequence.

DSN

The data set name of a particular computer file.

definition database

The definition database contains executable ACR/File definitions for many ACR/File steps. It may contain job definitions and Cycle Table definitions.

definition

A set of parameters that specifies how a process (for example, file capture, file verification, etc.) is performed.

dynamic allocation option

An option that allows you to dynamically allocate the data set names or sysout output classes of ACR/File files.

E

error message

When the system cannot perform a requested function, it displays a short Error Message in the panel's upper right-hand corner. The error could occur for many reasons. The message tells you what the problem is, and (sometimes) what to do about it. Additional information about the error message can be obtained by pressing the function key assigned to the help function (F1 is the default).

F

field

A space on a panel in which you can enter information. Fields are identified by the prompt symbol (===>).

function (PF) key

Function keys offer shortcuts for entering commands. Instead of keying in a command, you can press the corresponding function key. The User Interface and this guide use the IBM default settings for these keys; however, you can change the value assigned to a particular function key.

H

help facility

The User Interface contains a Help Facility to assist you in learning and in using the system. A help panel exists for every user menu or panel. When you access the Help Facility, a description of the currently displayed panel will appear.

history database

The history database contains the results of applying the ACR/File definitions to all Capture/Verification steps for all cycles. Each history record contains the Job ID, the Cycle ID, information about the data sets captured and verified, and the associated processing results for each Capture and Verification step.

history record

Contains the results of a past run of an ACR/File Verify or Capture step.

I

IDCAMS

The IBM Access Method Services utility program that performs vital functions for VSAM.

ISPF (Interactive System Productivity Facility)

An IBM software product that allows applications such as ACR/File, to use full screen panels in a TSO environment. ACR/File User Interface panels are usually executed from the ISPF Main Menu panel.

J

job card

A template for a standard JCL JOB statement. A JOB statement identifies the job to the system, indicating the beginning of the job, the job name, and various parameters for the job.

job definitions

Job definitions tell ACR/File which files to capture/verify and which verification rules to apply these files. For example, a Job definition might specify that ACR/File should verify creation date and time and check that the required file is present. Job definitions cover basic information (such as processing and reporting instructions), input parameters, output file information and cycle/rerun information. A Job ID uniquely identifies a set of job definitions that apply to a particular ACR/File step.

job ID

This is an 18-character key that uniquely identifies an ACR/File step. It consists of an 8-character job name, an 8-character step name, and an optional 2-character job-step qualifier (JSQ).

job name

The 8-character name from a JOB Statement on a JCL card.

JOB statement

The first JCL statement in a job stream. It indicates the beginning of the job and assigns a name to the job.

job-step

A subset of a job. Jobs are made up of one or more job-steps. Each job-step is identified by a unique name.

job-step qualifier (JSQ)

A 2-digit suffix used to uniquely identify a Job ID. You use a JSQ whenever you need to capture/verify more than 32 files in an ACR/File step.

L**load library**

A partitioned data set that contains executable programs.

O**on-line definitions**

Definitions you enter through ACR/File panels. On-line definitions can be used to define application capture/verification specifications to the definition database.

P**panel**

An electronic form that displays on a monitor. When you enter information on-line into ACR/File, you do so at a panel. Panels are sometimes referred to as screens.

processing message

When the system has processed your instructions successfully, a processing message is usually displayed in the panel's upper right-hand corner. This message confirms that the requested function has been executed.

R**relative cycle**

Points to a history record of a previously run Job ID relative to the current cycle. For example, you may need to retrieve the most recent history, the one before that, and so on.

required field

A field that must be filled to process the panel. If you leave a required field blank and press Enter, the program displays an error message and places the cursor at the field requiring the entry.

restore/merge

A method of retrieving definitions from the definition database or a previously saved backup file to a work area and merging or replacing them with the definitions that are in your current work area.

restore

A method of retrieving definitions from the definition database or a previously saved backup file to the work area so you can use them.

return code

This is a 4-digit code that indicates the completion status of an application program. ACR/File uses and sets return codes to control processing.

run number

A 3-digit suffix added to the Cycle Number to complete the Cycle ID. It is used whenever an ACR/File step needs to be executed more than once per processing cycle (for example, a multi-daily job).

S

step name

The 8-character name from an EXEC Statement which, together with the job name, identifies a job-step.

T

table definitions

See cycle table definitions

track

A portion of a storage disk that holds a finite amount of information.

transaction records

Optional 80-character records, located in the batch transaction file, that contain the capture/verification specifications (but in a different format from on-line definitions). You can either create transaction records directly or convert on-line definitions to batch transactions by using ACR/File panels. Transaction records can be used to define application capture/verification specifications to the definition database.

TSO (Time Sharing Option)

An interactive processing environment supplied by IBM. The User Interface is executed under the ISPF facility, which runs in a TSO environment.

U

UDCDFL

Used to print a formatted listing of the contents of the definition database.

UDCHFD

Used to delete one or more histories of a specified Job ID.

UDCHFL

Used to print a formatted listing of the contents of the history database.

UDCINIT

An ACR/File JCL procedure which allocates and initializes databases.

UDCUPDT

An ACR/File program which transfers definitions saved as batch transactions to the definition database.

unit type

The type of storage unit on which you wish to store your files (for example, DISK, TAPE).

user files

Disk data sets used by the ACR/File system which contain on-line definitions, batch transaction records, test data, and JCL streams that you create through the ACR/File User Interface.

user exits

Allows you to customize the ACR/File system at strategic points in the processing.

V

variable cycle processing

Instructs ACR/File to process certain files conditionally. It instructs ACR/File to verify a particular input file only if a predecessor job has run. For example, you may want to verify an input file to Job B that is created (and captured) by Job A, but you only want this verification performed if Job A has created the file.

VOLSER

Volume Serial Number. The number that identifies a specific volume.

volume

A reel of tape or a disk pack.

VSAM

Virtual Storage Access Method. An IBM utility that provides random access to data sets through the use of keys.

W

work area

Where data is stored after it is entered into the User Interface panels.

Index

A

- ACR/File
 - implementing 19
 - ACR/File Database. See Database
 - ACR/File Definition Generator
 - general constraints 240
 - Include/Exclude Cards 246
 - technical constraints 240
 - activating definitions 175
 - ADD command
 - explained 36
 - Alternate Job IDs 158
 - Automatic Rerun Option
 - JCL for 130
 - setting 117, 187
 - automatic rerun parameters 140
 - Automatic Rerun step
 - inserting with JCL Modifier 233
- ## B
- backups. See Database, backing up
 - backups. See work area, backing up 176
 - basic job information 136
 - Batch definition transaction
 - records 12
 - batch definition transaction
 - creating 179
 - described 99
 - Batch Definition Transactions
 - Coding 315
 - Job Definition Transaction Key Layout 317
 - Layout Information Summary 320
 - Layout List with Page Numbers 321
 - Table Definition Transaction Key Layout 318
 - Transaction Key 316
 - Transaction Sets 318
 - Updating the Definition Database with 319

- batch definition transactions 179
 - Definition Information Categories 315
- Beginner Mode
 - setting 131
- broken chains
 - fixing with REORG HIST 219
- BUILD DEFN 230
 - Report 278
 - Transaction Layout 314

C

- Capture steps
 - inserting JCL with JCL Modifier 233
 - reports 18
- COBOL
 - COBOL II libraries 23
 - COBOL VS libraries 23
- commands
 - ADD 36
 - COPY 36
 - DELETE 36
 - LIST 36
 - REPLACE 36
- compress
 - Definition library, automatically 132
- concatenation number
 - verifying 123
- COPY command
 - explained 36
- copying
 - Cycle Table definitions 173
- Copying Job Definitions 159
- Cycle
 - ID, defined 12
 - Number. modifying with UDCCNUM User Exit 198
 - Options used with Cycle Tables 170
 - Table
 - definitions, activating 175

- Table, copying definitions 173
- Table, definitions 167
- Table, entries 169
- Table, purpose 167
- Table, viewing on-line 172
- cycle parameters 140
- Cycle Table
 - Description
 - CYCLE TABLE NAME 169
 - DESCRIPTION/TITLE 169
- D**
- DASD space
 - required for Database 95
- Database
 - backing up 103
 - DASD space required 95
 - Definition database 94
 - described 14
 - Dual History Option 104
 - expanding 102
 - History database 95
 - initializing 97
 - physical files 14
 - securing 102
 - sizing algorithms 95
 - test versus production 95
 - updating through the User Interface 99
 - updating using UPDATE DEFN 211
 - updating with batch definition
 - transactions 99
 - use by Verify/Capture Function 101
 - utilities 101
- Database Initialization Report (UDCINT) 266
- Database Update Report (UDCUPDT) 266
- Dataset Control Program
 - described 15
- Default Values Information
 - DASD VOL SER NBR 110
 - DATA BASE DATA SET NAMES 110
 - SUBMIT/DISPLAY JCL 111
 - USER FILE DASD UNIT TYPE 110
 - USER FILE DATA SET NAME (DEFINITION LIBRARY) 109
 - USER FILE DATA SET NAME (JCL LIBRARY) 110
 - USER FILE DATA SET NAME (TRANSACTION LIBRARY) 109
 - USER FILE DATA SET NAME (USER OPTIONS FILE) 110
- defaults
 - See also Default Values Information
 - site-level 189
 - system-level 189
 - user-level 109
- Definition database
 - contents 94
 - initializing separately 98
 - listing contents 213
 - sizing calculation 21
 - updating with UPDATE DEFN 211
- Definition Entry Options
 - ASK FOR VERIFICATION OF REPLACE OR DELETE REQUESTS 131
 - BEGINNER OR EXPERT MODE OF ENTRY 131
 - BLANK FIELDS ON SCREEN AFTER ADD, REPLACE, OR DELETE 131
 - DISPLAY ITEM SCREENS WITH ADD AND REPLACE OPTIONS PRE-SET 131
 - GO TO LIST SCREEN IF SIMILAR ITEMS ALREADY EXIST 132
 - PERFORM AUTOMATIC COMPRESS OF DEFINITION LIBRARY 132
 - REPLACE DSN DEFAULTS WITH OVERRIDES 132
- Definition Generator
 - SKLLIB Member UDCT210S 247
- Definition Generator (UDCDGEN) 239
- Definition library
 - compressing automatically 132
- definitions. See Cycle Table definitions
- definitions. See Job definitions
- DELETE command
 - explained 36

- DELETE HIST 217
 - Report 275
 - Transaction Layout 293
- Dual History Option
 - setting 186
 - use in back ups 104
- Dynamic Allocation Options
 - DATA SET NAME 116
 - DDNAME 116
 - FILE TYPE 116
 - MEMBER NAME 116
 - setting with User Options File 184
 - SYSOUT CLASS 116
- E**
 - enqueue/reserve
 - request option 193
 - wait time 192
 - environment
 - preparation tasks 105
 - error messages 37
 - Execution Options 186
 - exiting the system 38
 - Expert Mode
 - setting 131
- H**
 - Help Facility 35
 - History Browse Function 251
 - History database
 - contents 95
 - deleting records 103, 217
 - Dual History Option 104, 117
 - initializing separately 98
 - listing contents 215
 - maximum number of histories 15
 - physical file format 94
 - printing job and exception summaries 222
 - printing job detail 224
 - reorganizing 219
 - sizing calculation 22
 - sorting directory records 226
- I**
 - Implementation tools 233
- implementing ACR/File
 - procedure 19
- Initialize ACR/F Database Information
 - DATA BASE SIZE INFORMATION 125
 - DEFINITION DATA BASE NAME INFORMATION 124
 - HISTORY DATA BASE NAME INFORMATION 125
 - JCL LIBRARY 124
 - JOB NAME 124
- Initializing the Databases 124
- Input File
 - Exception Expanded Messages Report (UDCR003) 269
 - Exception Expanded Messages Report (UDCR005) 18
 - Exception Report (UDCR004) 18
 - Information and Options 149
 - Information, viewing 259
 - Verification Expanded Messages Report (UDCR003) 18, 268
 - Verification Options 123
 - Verification Report (UDCR002) 18, 268
 - VOLSER List 262
- Input File Exception Report (UDCR004) 268
- J**
 - JCL
 - and Control Statements 279
 - Automatic Rerun 130
 - Capture step 127
 - for Automatic Rerun Step, DATA SET INFORMATION 130
 - for Input File Verification Step, DATA SET INFORMATION 129
 - for Input File Verification Step, STEP NAME 129
 - for Output File Capture Step Information, DATA SET INFORMATION 128

- for Output File Capture Step Information, STEP NAME 128
- Job Card 113
- Modifier (UNIJCLM) 233
- panels 34
- Parameters 161
- Submit/Display Option 111
- Verification step 129
- Job Card
 - creating 113
- Job definitions 133
 - activating 175
 - copying 159
 - deleting 36
 - replacing 36
 - testing with Report Only mode 17
- Job ID
 - defined 12, 134
- job name
 - modifying with UDCJNAM User Exit 200
- job-step qualifier
 - defined 12
- JSQ. See job-step-qualifier

L

- LIST command
 - explained 36
- LIST DEFN 213
- List DEFN Reports 270
- LIST DEFN Transaction Layout 289
- LIST HIST 215
- LIST HIST Report
 - Combined Summary and Detail 274
- LIST HIST Transaction Layout 291
- List panels
 - how to use 36
- LIST XREF 227
- LIST XREF Transaction Layout 312

M

- Maximum Age Notification Report (UD-CR007)
 - 18
- merging definitions 176

- message descriptions
 - modifying with UDCEX00 User Exit 201
- message options
 - site-level 118

N

- NOT CATLG 2
 - checking for 119

O

- Options
 - Definition Entry 131
 - site-level 118
 - Verification, site-level 121
- Output File
 - Capture Report (UDCR006) 269
 - Information 157
 - Information, viewing on-line 255
 - VOLSER List, viewing on-line 258

P

- panels
 - components 28
 - data entry 33
 - functions/commands 36
 - help 35
 - hierarchy 31
 - JCL 34
 - menus 33
 - message types 37
 - moving between 32
 - processing information 30
 - selection list 35
- Parameters
 - JCL 161
- PF keys
 - default settings 32
- PRINT EXCDTL 224
- PRINT EXCDTL Transaction Layout 307
- PRINT EXCSUMM 222
- PRINT EXCSUMM Transaction Layout 303
- PRINT JOB 222
- PRINT JOB DETAIL 224
- PRINT JOB DETAIL Transaction Layout 305
- PRINT JOB Transaction Layout 301
- Print JOBDTL Report 277

Print JOBSUM Report 277

processing options

site-level 118, 189

R

Release/Version Number

identified on panels 28

REORG HIST 219

REORG HIST Report 276

REORG HIST Transaction Layout 299

REPLACE command

explained 36

report options

site-level 118

Reports

ACR/File Definitions Update Report 180

BUILD DEFN Report 278

Capture Reports 18

customizing with UDCCNTL User Exit 192

Database Initialization Report 126

Database Initialization Report (UDCINIT)
266

Database Update Report (UDCUPDT) 266

DELETE HIST Report 275

how to read 18

Input File Exception Expanded Messages
Report (UDCR003) 269

Input File Exception Expanded Messages
Report (UDCR005) 18

Input File Exception Report (UDCR004)
18, 268

Input File Verification Expanded Messages
Report (UDCR003) 18, 268

Input File Verification Report (UDCR002)
18, 268

List DEFN Reports 270

LIST HIST Report

Combined Summary and Detail 274

Maximum Age Notification Report
(UDCR007) 18

Output File Capture Report (UDCR006)
18, 269

Print JOBCTL Report 277

Print JOBSUM Report 277

REORG HIST Report 276

Samples 265

site-level options 118

SORTDIR HIST Report 278

System Messages and Return Codes
Report (UDCMSGS) 18

Transaction Processing Report
(UDCR001) 267

Verify step reports 17

rerun parameters 140

reruns

checking for 119

reserve option. See enqueue or reserve re-
quest option

restoring definitions 176

return code

defined 12

setting at the site-level 119

setting with UDCEXIT User Exit 199

S

security

recommendations 102

Site-Level Message/Processing/Report Op-
tions

CHECK DATA SET NOT FOUND 119

CHECK FOR DEFINITIONS 120

CHECK FOR RERUN 119

CHECK NOT CATLG 2 119

DISPLAY MESSAGES 118

PRINT INFORMATIONAL MESSAGES
118

PRINT UDCMSGS REPORT 118

SET RETURN CODE 119

STORE HISTORY 119

Site-Level Processing Options

setting with User Options File 189

System defaults 189, 191

Site-Level Verification Options

- CONCAT. SEQUENCE 122
- CREATION DATE 122
- CREATION DD 122
- CREATION JOB 122
- CREATION STEP 122
- CREATION TIME 122
- FILE IS PRESENT 122
- HISTORY IS PRESENT 121
- MAXIMUM AGE (CYCLES) 123
- MAXIMUM AGE (DAYS) 123
- NUMBER OF RECORDS 123
- NUMBER OF USES 123
- VOLSER NUMBERS 122

SMS. See System Managed Storage

SORTDIR HIST 226

SORTDIR HIST Report 278

SORTDIR HIST Transaction Layout 310

Specify Dual History and Auto Rerun Options Information

- AUTOMATIC RERUN OPTION 117

- DUAL HISTORY OPTION 117

step name

- modifying with UDCJNAM User Exit 200

system control blocks (JFCB)

- use in ACR/File 101

System Managed Storage (SMS)

- impact on ACR/File processing 23

System Messages and Return Codes Report (UDCMGS) 18

system overview 12

T

Table Definitions. See Cycle Table

Tables. See Cycle Tables

Transaction Layout

- BUILD DEFN 314

- DELETE HIST 293

- LIST DEFN 289

- LIST HIST 291

- LIST XREF 312

- PRINT EXCDTL 307

- PRINT EXCSUMM 303

- PRINT JOB 301

- PRINT JOB DETAIL 305

- REORG HIST 299

- SORTDIR HIST 310

Transaction Processing Report (UDCR001) 267

transaction records. See batch definition transactions

U

UDC2000. See Dataset Control Program

UDCARUN JCL 286

UDCCNTL User Exit 192

UDCCNUM User Exit 198

UDCDFB JCL 313

UDCDFL JCL 288

UDCDGEN 239

- Transaction Layouts 331

UDCEX00 User Exit 201

UDCEX02 User Exit 204

UDCEXIT User Exit 199

UDCFCAPT JCL 284

UDCFCRFY JCL 285

UDCFX JCL 311

UDCHFDS JCL 308

UDCHFED JCL 306

UDCHFES JCL 302

UDCHFJD JCL 304

UDCHFJS JCL 300

UDCHFL JCL 290

UDCHFR JCL 295

UDCINIT 97

- JCL 280

- Transaction Layouts 283

UDCJNAM User Exit 200

UDCUOPT User Exit 201

UDCUPDT
 See also Database, updating with batch
 definition transactions
UDCUPDT JCL 286
UDCUTIL program
 executing utilities 209
UDCXOPT. See Site-Level Processing Op-
tions
UNI.COPYLIB
 and User Exits 192
UNI.SRCELIB
 and User Exits 192
UNIJCLM
UNIUF 183
 see also User Options File 183
UNIXOPT 186
 see also Execution Options 186
UPDATE DEFN 211
User Exits 192
User Files
 allocating 112
 VOL SER for 110
User Interface 25
 PF keys 32
User Options File 114
 contents 183
 described 183
 Dynamic Allocation Option 184
 Execution Options 186
 Site-Level Options 189
Utilities 207
 BUILD DEFN 230
 DELETE HIST 217
 LIST DEFN 213, 227
 LIST HIST 215
 LIST XREF 227
 PRINT EXCDTL 224
 PRINT EXCSUMM 222
 PRINT JOB 222
 PRINT JOB DETAIL 224
 REORG HIST 219
 SORTDIR HIST 226
 UPDATE DEFN 211

V

Verification Detail
 viewing on-line 263
Verification options
 job-level 145
 site-level 121
Verify steps
 inserting JCL with JCL Modifier 233
 reports 17
Verifying
 number of records 123
 number of uses 123
VOLSER list
 input file 262
 output file 258
VTOC Stamp option 193

W

work area 175
 backing up 176
 restoring 176

