ACR/Summary®
and
ACR/Detail®

Installation Guide

For z/OS®
Release 4.0

infogix
Information With Confidence

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Introduction

This chapter introduces you to the ACR/Summary and ACR/Detail installation processes in the z/OS environment. It provides the purpose and audience of the guide and briefly describes each chapter. The sections include:

- "About the Installation Guide" on page 5
- "System Requirements" on page 6
- "What You Should Know Before Starting" on page 7
- "History Database: Managing Shared DASD" on page 8
- "Overview of Installation Steps" on page 9
- "Contacting Customer Support" on page 10

About the Installation Guide

This guide allows the user to install and test the ACR/Summary and ACR/Detail products.

Audience

This guide is written for the personnel at your site who will perform the installation. A knowledge of system installation and JCL procedures is required.

Organization of Information

Chapter 1, "Introduction" includes an overview of the guide, a description of the chapters, system requirements, what you should know before starting, and contact information for Customer Support.

Chapter 2, "Creating the Installation Data Sets" is the installation chapter that includes all the steps necessary to unload the tape or CD, as well as how to prepare the system for operation by creating the necessary data sets.

Chapter 3, "Updating Your License" describes how to create and update the control file used to license Infogix software.

Chapter 4, "Establishing the Online Environment" discusses the tasks necessary to establish your ISPF user interface.

Chapter 5, "Testing the Installation" provides the procedures necessary to test the installation.

Chapter 6, "Preparing the DB2 Environment" discusses how to set up the DB2 environment in order to access a DB2 database.

Chapter 7, "Installing an Upgrade" provides instructions required for any upgrade.

Chapter 8, "Upgrading to Release 4.0" provides additional special instructions for upgrading to this release.

System Requirements

The table below describes the system requirements for a z/OS installation of ACR/Summary or ACR/Detail. Newer versions may also be supported. Contact Customer Support for additional information. See "Contacting Customer Support" on page 10.

Category	Requirement
Operating System	IBM z/OS 1.8
ISPF Profile	Version 5.2 or compatible ISPF profiles are not backward compatible when upgrading from releases of ACR/Summary and ACR/Detail older than 3.0.
TSO Region Size	6144K (7168K suggested) plus space required by LE runtime libraries.
COBOL	Enterprise COBOL 3.3 or any compatible COBOL is required if you wish to compile user exits.

What You Should Know Before Starting

- Before installing the ACR/Summary or ACR/Detail software, call Customer Support at (630) 505-1890. Verify that the software you are about to install is the most current version of the products.

- Log on to our password-protected Web site to download any applicable patches for this product:

  http://support.infogix.com/

  If you do not have Internet access, contact Customer Support for assistance, as described on page 10.

- If you are using spool monitor in ACR/Summary, make sure your loadlib is APF authorized. If you do not use spool monitor, you will not need APF authorization. The TSO LOADLIB never needs APF authorization.

- The TSO LOADLIB must **not** be placed in the system LINKLIST. It will cause a malfunction in either batch or TSO processing, depending on which library is processed first.

- If you are installing any upgrade instead of an initial installation, see Chapter 7, "Installing an Upgrade."

- If you are upgrading to Release 4.0, additional special instructions for upgrading are provided in Chapter 8, "Upgrading to Release 4.0."

Global LE Options Table

An additional step is only required for the very limited number of sites that set Global Option RTEREUS (Force Rent Reuse) to ON in the global LE options table.

Warning:	The IBM-recommended setting for RTEREUS is OFF. However, if your site requirements make it necessary to set global option RTEREUS to ON, you must perform the following procedure to avoid a 4038 abend. For more information, see IBM APAR PQ27319.

Update the sample JCL provided in your site's UNI.PROCLIB data set member LECEEOPT, following the instructions provided in the JCL. Then, submit the job.

Note: If you are not sure which CEEUOPT module library should be used by this job, consult the system programmer in charge of LE. A suitable default CEEUOPT for most sites is supplied in the Infogix LOADLIB (batch) data set.

The LECEEOPT JCL stream updates load member UNI0000C to allow it to override your global RTEREUS option. The JCL links in an override CEEUOPT module with RTEREUS set to OFF.

History Database: Managing Shared DASD

If your site uses shared DASD, you need the following information:

ACR/Summary

The ACR/Summary history database allows concurrent updates. KSDS share options are 3,3 on RRDS datasets, which allows multiple readers and multiple writers. Beginning with Release 3.5, the product by default uses Option 1 below.

ACR/Summary sites with shared DASD can choose between the following methods to avoid contention:

Option 1 (Default): Software SYSTEMS Enqueue

Use an enqueue manager such as GRS to cycle the QNAME 'ACRHIST' and RNAME (your ACR history dataset name) across all systems. The enqueue manager must be active across all systems. The WS-CONTROL-RESERVE parameter in member UNI.SRCELIB(UNICNTL) must match across all systems.

Option 2: Hardware Reserve

Set the RESERVE option in UNI.SRCELIB(UNICNTL) to lock the history database when one system is accessing it. To do this, edit member UNICNTL and change the value of the WS-CNTL-RESERVE field from N to Y. Then recompile the member into the UNI.LOADLIB.

ACR/Detail

In contrast to ACR/Summary, the ACR/Detail history database does not allow concurrent updates. On ACR/Detail, KSDS share options are 1,3 on RRDS datasets, which allows only 1 reader or 1 writer.

In addition, the RESERVE option is not available on ACR/Detail.

To avoid contention and possible data corruption when multiple systems attempt to access the history database, ACR/Detail sites must use an enqueue manager as described under ACR/Summary "Option 1 (Default): Software SYSTEMS Enqueue" above.

Overview of Installation Steps

The steps for installing ACR/Summary or ACR/Detail are outlined in this installation guide. Here is a summary of the steps you will follow:

1. Review the system requirements and information, beginning on page 6.
2. Unload the installation tape or CD. Tape installation requires modifying JCL statements to unload the UNI.PROCLIB data set. CD installation requires a binary transfer of the MASTER.XMI file from the PC to your mainframe. Installation instructions begin on page 11.
3. Verify that you have installed the latest version of the software by logging on to the Infogix Web site or by contacting Customer Support. Contact information is on page 10.
4. Review the descriptions and naming conventions of the data sets installed for the user interface, batch processing, and installation/testing, as specified, beginning on page 15.
5. Create and update the control file that will activate your product licensing.
6. Establish your ISPF user interface (online environment).
7. Modify JCL skeletons so the user interface can automatically generate all the JCL required by the products and perform online balancing and/or reconciliation.
8. Test the online environment.
9. Add an ISPF menu, if desired.
10. Perform installation tests.
11. If applicable, do the following:

■ DB2 Users. Prepare the DB2 environment so ACR/Summary and/or ACR/Detail can access the database by using the DB2 plan(s) you will create.

■ ACR/Workbench. If you purchased ACR/Workbench for Summary or ACR/Workbench for Detail, install it on user PCs. For instructions, see the *ACR/Summary and ACR/Detail Installation Guide for Windows.*

12. If you are installing any upgrade, see Chapter 7, "Installing an Upgrade."

13. If you are upgrading to Release 4.0, additional special instructions for upgrading are provided in Chapter 8, "Upgrading to Release 4.0."

Contacting Customer Support

If you need assistance, contact Infogix Customer Support:

U.S. and Canada: Call us at (630) 505-1890 or send a fax to (630) 505-1883. You can also send e-mail to support@infogix.com.

Outside the U.S. and Canada: Infogix maintains offices around the world. Check our Web site at www.infogix.com for the closest Infogix office or e-mail us at support@infogix.com.

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Creating the Installation Data Sets

This chapter describes how to unload the tape or unpack the CD for ACR/Detail and ACR/Summary. Most steps are applicable to both products; however, any steps specific to one product will be indicated in this guide. If you are installing an upgrade, go to "Installing an Upgrade" on page 47 for additional information.

This chapter contains the following sections:

- ◼ "Installation Procedures for CD and Tape" on page 11
- ◼ "Contents of the Distribution CD and Tape" on page 15

Installation Procedures for CD and Tape

Media Format

ACR/Detail and ACR/Summary are available on both CD and tape. To transfer the product to your system, follow the appropriate procedure below.

Unloading the CD

Follow this procedure to install the ACR/Summary and ACR/Detail products from a CD. You will need to transfer the files from your PC to your mainframe.

The ACR/Summary and ACR/Detail product CD for z/OS contains a file named **MASTER.XMI**.

1. Allocate space.

   The file uses approximately 700 tracks on a 3390 device, so you may need to override the default for your file transfer program. Allocate Secondary space as 70, 3390 disk tracks. (Similar to SPACE=(TRK,(700,70)) in JCL). If possible, use your file transfer program to allocate this space.

2. Using the file transfer program of your choice (most 3270 emulators use IND$FILE), perform a **binary** transfer of the MASTER.XMI file from the PC to your mainframe, forcing the following parameters:

   ```
   Logical Recordsize=80, Blocksize=3120, Record Format=FB
   (aka LRECL=80,BLKSIZE=3120,RECFM=FB)
   ```

   You can use the default file name (MASTER.XMI) or override the name with a mainframe data set name of your choice.

3. Unpack the file.

   To unpack the file, enter the following TSO command from READY mode or ISPF option 6.

   ```
   RECEIVE INDS('userid.MASTER.XMI')
   ```

   where userid is your TSO logon ID, and MASTER.XMI is the default data set name.

   TSO will prompt you to enter restore parameters, or just press **Enter** to accept the default.

Notes:	■ The userid.UNI.MASTER file you just created is a PDS containing XMIT files.
	■ The TSO RECEIVE command has no relationship to the SMP/E command also known as RECEIVE.
	■ If you get an error message indicating that this file is invalid, ensure that the file was transferred to the mainframe from PC in binary format, with no translation and no carriage returns.

   ---

4. Receive the files one at a time, as shown in the following list:

   ```
   RECEIVE INDS('userid.UNI.MASTER(XMITPROC)') will create
   'userid.UNI.PROCLIB' by default.
   ```

Note:	**Space Requirements:** To determine space requirements for all of the remaining datasets that will be received, view the UNLOAD member in PROCLIB.

   ```
   RECEIVE INDS('userid.UNI.MASTER(XMITCMD)') will create
   'userid.UNI.CMDLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITCOPY)') will create
   'userid.UNI.COPYLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITDATA)') will create
   'userid.UNI.DATALIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITHELP)') will create
   'userid.UNI.HLPLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITKEYS)') will create
   'userid.UNI.KEYS' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITLOAD)') will create
   'userid.UNI.LOADLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITMSG)') will create
   'userid.UNI.MSGLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITPNL)') will create
   'userid.UNI.PNLLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITSKL)') will create
   'userid.UNI.SKLLIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITSRCE)') will create
   'userid.UNI.SRCELIB' by default.

   RECEIVE INDS('userid.UNI.MASTER(XMITTJCL)') will create
   'userid.UNI.TRNGJCL' by default.
   ```

```
RECEIVE INDS('userid.UNI.MASTER(XMITTLOA)') will create
'userid.UNI.TSO.LOADLIB' by default.
```
```
RECEIVE INDS('userid.UNI.MASTER(XMITTRPT)') will create
'userid.UNI.TRNGRPT' by default.
```
```
RECEIVE INDS('userid.UNI.MASTER(XMITTSMF)') will create
'userid.UNI.TRNGSMF' by default.
```

At this point you have unloaded all the files. These are the same files that would have been shipped on an install tape on a 3480 cartridge. The dataset names generated at your site will be influenced by the "userid" used to "RECEIVE" these files.

5. Rename the files (optional).
   You can rename any of the files obtained from the CD as necessary.

6. Delete the userid.UNI.MASTER and userid.UNI.MASTER.XMI files, as they will not be used again (optional).

7. Review the section below, "Unloading the Tape.". Then, proceed to Chapter 3, "Updating Your License."

Unloading the Tape

Follow this procedure to install the ACR/Summary and ACR/Detail products from a tape. Tape installation involves unloading a data set (UNI.PROCLIB) that contains a JCL procedure called UNLOAD. The UNLOAD procedure will copy the remaining data sets from the tape to disk.

1. Create the following JCL statements to unload the UNI.PROCLIB data set from the tape, and customize the information, as described:

Change UNIT=3480 to SYS3480R, if your system no longer supports UNIT=3480.

```
----+----1----+----2----+----3----+----4----+----5----+----6----+----7--
//*************************************************************************
//*                                                                      *
//*             JCL STATEMENTS TO COPY UNI.PROCLIB                        *
//*                                                                      *
//*************************************************************************
//UNLOAD     EXEC PGM=IEBCOPY
//SYSPRINT   DD  SYSOUT=*
//SYSUDUMP   DD  SYSOUT=*
//IN1        DD  DSN=UNI.PROCLIB,
//               DISP=OLD,
//               UNIT=3480,VOL=SER=TTTTTT,
//               LABEL=(1,SL,,EXPDT=98000)
//OUT1       DD  DSN=XXXXXXX.UNI.PROCLIB,
//               DISP=(NEW,CATLG,DELETE),
//               UNIT=SYSALLDA,VOL=SER=DDDDDD,
//               SPACE=(TRK,(30,2,10)),
//               DCB=(RECFM=FB,LRECL=80,BLKSIZE=9040,DSORG=PO)
//SYSIN      DD  *
    COPY  INDD=IN1,OUTDD=OUT1
/*
```

Change to the volume serial number of the installation tape.

Change to the volume that the PROCLIB will reside on.

Change to the data set prefix specified for your site or of your choice.

2. Submit the JCL from step 1.

3. Review the output and verify that the return code is zero.

4. Modify the UNLOAD member of UNI.PROCLIB.
   Follow the directions at the top of the data set.

5. Submit the UNLOAD JCL and verify the results.
   Use your site's standard facility for viewing job output.

6. Review the output and verify that the return code is zero.

7. Review the section below, "Contents of the Distribution CD and Tape." Then, proceed to Chapter 3, "Updating Your License."

Contents of the Distribution CD and Tape

The distribution CD and tape both contain a variety of data sets that ACR/Detail and ACR/Summary use. These data sets fit into three categories: User Interface, Batch Processing, and Installation/Testing.

User Interface

UNI.TSO.LOADLIB

Partitioned data set that contains load modules for user interface online programs that are compiled under LE COBOL.

UNI.LOADLIB

Partitioned data set that contains load modules for batch programs. These are also called by the online programs that are compiled under LE COBOL (see UNI.TSO.LOADLIB above).

UNI.CMDLIB

Partitioned data set containing TSO CLIST information.

UNI.PNLLIB

Partitioned data set containing ISPF panel definitions.

UNI.SKLLIB

Partitioned data set containing ISPF skeleton definitions and training file information. These are used when generating JCL within the ISPF interface.

UNI.MSGLIB

Partitioned data set containing ISPF message definitions.

UNI.HLPLIB

Partitioned data set containing ISPF help panel definitions.

UNI.KEYS

The ISPF key lists used to control PF key processing in the user interface. This read-only data set should not be modified.

Batch Processing

UNI.LOADLIB
Partitioned data set that contains load modules for batch programs that are compiled under LE COBOL.

UNI.SRCELIB
Partitioned data set containing source code for the user exit programs.

UNI.COPYLIB
Partitioned data set containing the copybook members used by the user exit programs.

Installation/Testing

UNI.DATALIB
Partitioned data set containing the following:

- The control file contents for your installation
- Sample data for executing the ACR/Summary and ACR/Detail installation verification programs
- The DBRMLIB members for binding DB2 plans
- Sample CLIST and LIBDEF members

UNI.PROCLIB
Partitioned data set containing the following JCL members:

- UNLOAD. JCL that copies the other ACR/Summary and ACR/Detail data sets on the tape to your DASD
- BIND. JCL that performs the DB2 Bind
- ACRSTEST. JCL that tests the ACR/Summary installation
- ACRDTEST. JCL that tests thet ACR/Detail installation
- UNI10PR. JCL that creates product licensing control file
- UNICF50. JCL that updates the licensing control file
- VERREL. JCL that verifies the release of the installation
- SUMEXPDF. JCL that expands your ACR/Summary definition database for upgrading to Release 4.0.
- SUMEXPHF. JCL that expands your ACR/Summary history database for upgrading to Release 4.0.

■ DETEXPDF. JCL that expands your ACR/Detail definition database for upgrading to Release 4.0.

■ DETEXPHF. JCL that expands your ACR/Detail history database for upgrading to Release 4.0.

■ ACRJCL40. JCL that automates multiple JCL edits for upgrading to Release 4.0.

UNI.TRNGJCL

Partitioned data set containing sample JCL and programs for training purposes.

UNI.TRNGRPT

Partitioned data set containing sample reports for training purposes.

UNI.TRNGSMF

Partitioned data set containing sample SMF data.

3

Updating Your License

This chapter discusses the tasks related to updating the control file to activate your product licensing. It also explains how to run the TM Aggregate Transaction Report.

This chapter contains the following sections:

Authorizations Required

At a minimum, users should have read-only access to the control file. The system administrator should also have write access to support control file changes when necessary. All production jobs must have read/write access to allow any necessary warning or error messages to be issued.

Creating Your Control File

The control file, used to license ACR/Summary and ACR/Detail software, is a VSAM KSDS file. The following steps describe how to create your control file.

1. Access the UNICNTL member contained in the UNI.PROCLIB. This JCL member will create and initialize the control file through an IDCAMS delete/define. The default name will be VVVVVV.UNI.UNICF and is referenced by the UNICNTL symbolic in the JCL. Change VVVVVV to the prefix of your choice. Follow the directions at the top of the JCL member to conform to your site standards.

   The following parameters will need to be modified:

   UUUU = VSAM DASD unit name

   DDDDDD = VSAM DASD volume serial number

   VVVVVV = VSAM data set name prefix

   XXXXXX = DATALIB prefix

2. Review the UNICNTL member as needed. It contains documentation for SMS.

3. Submit UNI.PROCLIB (UNICNTL) with an appropriate job card.

4. Review the output and verify that the return code from both steps is zero.

Updating Your Control File

The control file controls product access in accordance with the terms of your license. There are several situations when you need to update the control file. The most common include:

■ When you install a product for the first time.

■ When you create a new control file for any reason.

> **Note:** If you must create a new control file when upgrading from a previous release, you will be instructed to do so in the installation guide.

■ When the terms of your license have changed.

■ When your license is about to expire as indicated by warning or error messages in your SYSOUT.

■ When you want to run the product on a CPU that is not currently included in your license.

Follow the steps below to update the control file.

1. Print the contents of the control file.

   a. Access the UNI10PR member in your UNI.PROCLIB data set. Depending on your licensing, this member will generate 2 or 3 reports that are required by Customer Support in order to generate control cards and a password to use in updating your control file.

   b. Follow the directions at the top of the UNI10PR JCL to conform to your site standards.

   c. Submit the UNI10PR JCL.

   d. Verify that the return code for all steps is zero.

   e. Review the output and print the reports contained in the UNILST, UNIREPT, and UNILSTA (if any) ddnames.

      ■ The Product Report (ddname UNILST) displays licensing information from the associated control file in a readable format.

∎ The CPU Serial # Report (ddname UNIREPT) indicates the CPU on which the reports were generated and will also show up to 16 connected CPUs.

∎ The Transactional Measurement Report (ddname UNILSTA) will be generated only if the control file has ever included TM (Transactional Measurement) licensing.

Note:	If a TM field in the Product Report is blank or has the value of N (No), the TM licensing shown in the Transactional Measurement Report for that product is not currently in effect.

Below are examples of these reports.

Product Report (UNILST)

```
releasenumber              PRODUCT REPORT              COPYRIGHT INFOGIX,INC.
DATE: 05350                                         PAGE:            1
TIME: 09:38                                         REPORT:    UNI10PR

FILENAME: userid.UNI.UNICF
CUSTOMER:    INFOGIX, INCORPORATED
PAGE:060  WAIT:0900  RES:Y  I-RET:0000  W-RET:0000  E-RET:4000  UPDATE:003


PRODUCT  EXP  GRACE AUTH    TYPE TM SERIAL/MODEL   SERIAL/MODEL   SERIAL/MODEL
U/ACF   00/001   0  SEARCH         111111/2222    333333/4444    555555/6666
                                   777777/8888    999999/0000    222222/4444
                                   222222/1111    444444/3333    666666/5555
                                   888888/7777    000000/9999    555555/3333
VIOLATION:   FIRST DATE   LAST DATE   SERIAL/MODEL/LPAR   TYPE
             00/000       00/000           /
             00/000       00/000           /
             00/000       00/000           /
             00/000       00/000           /

PRODUCT  EXP  GRACE AUTH    TYPE TM SERIAL/MODEL   SERIAL/MODEL   SERIAL/MODEL
U/SUM   03/243  60  ALL          Y 111111/2222    333333/4444    555555/6666
                                   777777/8888    999999/0000    222222/4444
                                   222222/1111    444444/3333    666666/5555
```

CPU Serial Number Report (UNIREPT)

```
    INFOGIX,INC.  CPU SERIAL # REPORT
 CPU NUM: 00, CPUID:  110000007490
 CPU NUM: 01, CPUID:  NOT DEFINED
 CPU NUM: 02, CPUID:  NOT DEFINED
 CPU NUM: 03, CPUID:  NOT DEFINED
 CPU NUM: 04, CPUID:  NOT DEFINED
 CPU NUM: 05, CPUID:  NOT DEFINED
 CPU NUM: 06, CPUID:  NOT DEFINED
 CPU NUM: 07, CPUID:  NOT DEFINED
 CPU NUM: 08, CPUID:  NOT DEFINED
 CPU NUM: 09, CPUID:  NOT DEFINED
 CPU NUM: 10, CPUID:  NOT DEFINED
 CPU NUM: 11, CPUID:  NOT DEFINED
 CPU NUM: 12, CPUID:  NOT DEFINED
 CPU NUM: 13, CPUID:  NOT DEFINED
 CPU NUM: 14, CPUID:  NOT DEFINED
 CPU NUM: 15, CPUID:  NOT DEFINED
```

Transaction Management Report (UNILSTA)

```
releasenumber TRANSACTIONAL MEASUREMENT REPORT COPYRIGHT INFOGIX, INC.
DATE: 04350                                              PAGE:        01
 TIME: 15:20                                             REPORT:   UNI10PRA

  CUSTOMER:     INFOGIX, INCORPORATED
   PAGE:060  WAIT:0900  RES:Y  I-RET:0000  W-RET:0000  E-RET:4000  UPDATE:002


            ------------LICENSE----------------     ---------RUNNING--------
PRODUCT TM  IND           VALUE         GRACE     RESET              VALUE
U/SUM   RULD EXEC         5,000            40     03/135             5,060
            --------VIOLATION PER LICENSE INTERVAL-------
            FIRST   LAST               VALUE       COUNT
            03/135  03/135             5,050           3
            ----VIOLATION PER CHANGE OF LICENSE VALUE----
            FIRST   LAST         MAXIMUM VALUE       TOTAL
            03/010  03/135             5,100          50

            ------------LICENSE----------------     ---------RUNNING--------
PRODUCT TM  IND           VALUE         GRACE     RESET              VALUE
U/SUM   RULM EXEC       150,000            40     03/130            10,000
            --------VIOLATION PER LICENSE INTERVAL-------
            FIRST   LAST               VALUE       COUNT
            00/000  00/000                 0           0
            ----VIOLATION PER CHANGE OF LICENSE VALUE----
            FIRST   LAST         MAXIMUM VALUE       TOTAL
            00/000  00/000                 0           0

            ------------LICENSE----------------     ---------RUNNING--------
PRODUCT TM  IND           VALUE         GRACE     RESET              VALUE
U/SUM   RECD EXEC         100(IN 000S)   20     03/135            90,000
            --------VIOLATION PER LICENSE INTERVAL-------
            FIRST   LAST               VALUE       COUNT
            00/000  00/000                 0           0
            ----VIOLATION PER CHANGE OF LICENSE VALUE----
            FIRST   LAST         MAXIMUM VALUE       TOTAL
            00/000  00/000                 0           0
(Actual report may show information for additional TM types and additional
products.)
```

2. Request your control cards and password.

   Using the information in "Contacting Customer Support" on page 10, do the following:

   a. Call Customer Support to advise that you are updating the control file according to your license agreement. Be ready to provide the reason for the update and the scheduled date.

   b. E-mail or fax the reports generated in the previous step to Customer Support. Mention any special considerations. For example, inform Customer Support if you are upgrading to a new release or upgrading a CPU. You will receive an e-mail or fax containing your control cards and password.

   The following sample shows three control cards and a password:

```
0   0   1   1   2   2   3   3   4   4   5
1...5....0....5....0....5....0....5....0...
USUM  CA 2836 A S
USUM  CE 7600 03150 04150
USUM CG 8666 03 30
     PW 6947 JQQJQQJQQJ 673720
```

3. Update the control file.

a. After receiving the control card(s) and password from Customer Support, access the UNICF50 member in the installed UNI.PROCLIB data set. Follow the instructions at the top of the JCL.

It is not necessary to type in the control card(s) and password unless this information was sent by fax. Instead, you can paste these into the JCL from the e-mail as shown in the next steps.

b. Press **F8** to scroll down to the bottom of the UNICF50 member. The location for the control card(s) and password starts in the line below //UNICMD DD. In the default UNICF50 member shown below, there is only one line for a control card, followed by the password line, so you may have to insert additional lines if you have multiple control cards replaced.

```
000023 //UNICMD   DD  *
000024 XXXX  XX XXXX XXXXXXXXX XXXXXXXXX
000025      XX XXXX XXXXXXXXX XXXXXX
000026 //*
000027 //
```

> **Note:** The above example shows a default (new) control file. If the control file was updated previously, it will show actual control card(s) and a password. All of the old control cards and the old password need to be replaced.

c. Paste in the new control card(s) and password. Ensure that the first character of each control card is now in position 1 and that the first character of the password is in position 7.

   ■ If this is the first update, ensure that the JCL contains the correct data set name, as created in .

   ■ If this is not the first update, make sure you deleted all of the old control card(s) as well as the old password.

The following example shows valid placement of three control cards and a password:

```
000023 //UNICMD   DD  *
000026 USUM  CA 2836 A S
000027 USUM  CE 7600 03150 04150
000028 USUM  CG 8666 03 30
000029      PW 6947 JQQJQQJQQJ 673720
000030 //*
000031 //
 ****** **************************** Bottom of Data *********
```

d. Submit the JCL to update the control file with the new licensing information.

4. Verify the update.

    After the job completes, **even if the message log shows a return code of zero (0)**, review the control file Update Report (ddname UNIFAX) in the output listing. Following is an example of this report:

```
          CHANGE ID: 111111222202351003
UNICF:    UNI.REL33.UNICF
          ACCEPTED    USUM  CA 2836 A S
          ACCEPTED    USUM  CE 7600 03150 04150
          ACCEPTED    USUM  CG 8666 03 30
          ACCEPTED          PW 6947 JQQJQQJQQJ 673720
          *******REQUEST PHASE COMPLETE*******
          CHANGED     USUM  CA 6382 A S
          CHANGED     USUM  CE 0067 03150 04150
          CHANGED     USUM  CG 6668 03 30
          UPDATE COMPLETE
```

If the update completed successfully, the report should contain the message **UPDATE COMPLETE**.

If the UNIFAX report showed problems with the update, check the following:

▪ Verify that you updated the correct control file. You may have more than one control file at your site. The control file you update should be the one that was used in the UNI10PR JCL.

▪ Verify that the new control cards and password were correctly copied into the UNICF50 member. This information must be copied exactly and placed in the correct column positions. Any previous control card or password information should have been removed.

▪ Verify that you applied the password within the date range specified. The password works only on the application date or up to 3 days after the application date you give to Customer Support.

Generating the TM Aggregate Transaction Report

The TM Aggregate Transaction report is an encrypted report that you may be asked to run by your Infogix client executive. The report prints aggregate counts for each transaction type that is being tracked (jobs, input sources, records, and/or rules). After you e-mail the report to the requestor at Infogix, it is decrypted and used for the following purposes:

▪ To aid in analyzing your transaction usage.

▪ To implement actual transaction usage licensing where you are billed on a "pay as you go" basis.

What Is the Parameter Card?

The following information describes the parameter card that will display at the end of the JCL for the processing options to Print (UNITMPRT) or Print and Reset (UNITMRST) the aggregate transaction counts. The parameter card specifies which products and processing options are being included. Unless you specify a different option in "Generating the TM Report", step 1 on page 26, the report will include all products in the control file that have aggregation counts.

Below is an example that shows the positions and information options at the left end of the parameter card.

```
          1         2         3         4         5         6
123456789012345678901234567890123456789012345678901234567890
PPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPOPPPPO
```

Note: **PPPPO** is repeated 16 times, because a total of 16 products can be specified in the parameter card to allow TM licensing for additional products in the future. Currently, TM licensing is available beginning with ACR/Summary Release 3.1 and ACR/Detail Release 3.1.

The first four characters in the positions **PPPP** are used to specify the product name, as follows:

- **ALL**, followed by a space, indicates that aggregate counts will be included for each product in the control file for which TM aggregate counts exist. This is the default option.
- **USUM** indicates that only ACR/Summary aggregate counts will be included.
- **UDRS** indicates that only ACR/Detail aggregate counts will be included.

Note: The product names in the parameter card must match those in your control file.

The fifth character, in position **O**, is used to specify the processing option, as follows:

- **P** specifies the Print Only option. This option should be used in UNITMPRT.
- **R** specifies the Print and Reset option. This option should be used in UNITMRST.

For simplicity, the following defaults are included as parameters for UNITMPRT and UNITMRST in the shipping PROCLIB, respectively:

ALL P
ALL R

> **Note:** There should be one space after **ALL**.

Generating the TM Report

1. Generate the Transaction Management report by executing one of the JCL members included in the PROCLIB when the product was installed. The Infogix representative who requested the report will let you know which of the following options to use:

   ■ UNITMPRT (**Print Only** option). This option prints the report without resetting the aggregate counters for each TM type included.

   OR

   ■ UNITMRST (**Print and Reset** option). This option prints the report and resets the aggregate counters for each TM type included.

   Regardless of the JCL member you use, the results will be written to DDName UNITMRPT.

   If you examine the report file, the contents will be encrypted as in the following example:

```
01R99UC47.UNI.UNICF                               INFOGIX, INCORPORATED
02CFLNFGHIJABCDEFGHIJABDDEFGHIJABCDEFGHIJBBCDEFGHIJABCDEFGHMJABCDEFGHIJABCDEFHH
02FKMEFGHIJABCDEFGHIJABCDEFGHIJABCDEFGHIJABCDEFGHIJABCDEFGHIJABCDEFGHIJABCDEFGH
```

2. Fax or e-mail the report to the person from Infogix who requested it.

4

Establishing the Online Environment

This chapter discusses the tasks necessary to establish your ISPF user interface. After you complete the required tasks, you will be able to use the installed products.

This chapter contains the following sections:

- ■ "Creating an Online Environment" on page 27
- ■ "Modifying JCL Skeletons" on page 30
- ■ "Testing the Online Environment" on page 32
- ■ "Adding ACR/Summary and ACR/Detail to an ISPF Menu" on page 33

Creating an Online Environment

The Online Environment is initiated from TSO OPTION 6 or the ISPF command line. LIBDEFSE is contained in the UNI.DATALIB data set. To invoke this member as a menu item, read the section "Adding ACR/Summary and ACR/Detail to an ISPF Menu" on page 33.

Important: If you use "wordwrap" with your emulator, you will need to turn it off. For example, the procedure for a Rumba emulator is:

- ■ Select Options from the main menu.
- ■ Select Edit from the Options menu.
- ■ Clear (uncheck) the Wordwrap box.

The wordwrap option will result in unwanted spaces in descriptions that are more than 39 characters long.

---

1. Implement only ONE of the following methods which will allocate the UNI.LOADLIB and UNI.TSO.LOADLIB prior to entering ISPF. Choose the CLIST or the LOGON PROC method:

CLIST

Add this line to your site's automatic logon CLIST or type this TSO command **prior** to entering ISPF:

```
TSOLIB ACTIVATE DATASET
('XXXXXXX.UNI.TSO.LOADLIB'
'XXXXXXX.UNI.LOADLIB')
```

where *XXXXXXX* is your high-level qualifier.

Note: You must add this line to CLIST or type the TSO command prior to entering ISPF because the TSOLIB ACTIVATE command will not function once you are in ISPF. The online environment is already in place at that point.

Here is an example CLIST containing the required TSO command:

```
PROC 0
/*
/*   VERY SIMPLE SAMPLE OF A LOGON CLIST, DO *NOT* REPLACE YOUR
/*   LOGON CLIST WITH THIS SAMPLE - YOU WILL NEED TO CUSTOMIZE
/*   THIS MATERIAL TO YOUR SITE STANDARDS
/*
CONTROL NOMSG NOFLUSH
FREE FILE(ISPPROF ISPTABL)
SET &DSNAME = &STR(&SYSUID..ISPF.ISPPROF)
ALLOC DA('&DSNAME') OLD FILE(ISPPROF)
ALLOC DA('&DSNAME') OLD FILE(ISPTABL)
TSOLIB ACTIVATE DATASET( -
                   'XXXXXXX.UNI.TSO.LOADLIB' -
                   'XXXXXXX.UNI.LOADLIB')
ISPF
```

—OR—

Update your TSO LOGON procedure to add the TSO and batch loadlibs as STEPLIB data sets.

A System Programmer is usually required to make this change.

Note:

Installing these loadlibs as STEPLIBs, may interfere with APF authorized tools that may already be in the STEPLIB.

If you currently do not have data sets in the STEPLIB, you may find this logon procedure the easier of the two methods.

2. Set up the LE online environment.

In UNI.DATALIB, use the LIBDEFSE member as shown in the sample below.

> **Warning:** The TSO loadlib must *not* be placed in the system linklist. It will cause a malfunction in either batch or TSO processing depending on which library is processed first.

```
PROC 0
/*
/* **********************************************************************
/* *                                                                    *
/* *                          LIBDEFSE                                  *
/* *                                                                    *
/* *  USE THIS MEMBER IF YOU WANT TO GET ACCESS TO INFOGIX PRODUCTS *
/* *  VIA TSO OPTION 6 AND YOU HAVE TSO/E INSTALLED.                    *
/* *  TO USE THIS MEMBER, AN ISPF ENVIRONMENT MUST HAVE ALREADY        *
/* *  BEEN ESTABLISHED.                                                 *
/* *                                                                    *
/* *  1.  XXXXXXX   TO THE DATA SET NAME PREFIX SPECIFIED FOR YOUR  *
/* *                      LIBRARIES.                                    *
/* *                                                                    *
/* **********************************************************************
/*
CONTROL FLUSH NOLIST NOCONLIST NOSYMLIST NOMSG NOPROMPT
/*
/*  THE COMMANDS THAT FOLLOW ALLOCATE THE INFOGIX COMMAND LIBRARY
/*  AND CONCATENATE IT WITH YOUR SYSPROC CMDLIBS.
/*
/*  PLEASE NOTE THAT THE 'ALTLIB' COMMAND IS A COMMAND ONLY AVAILABLE
/*  UNDER TSO/E.
/*
ALTLIB ACTIVATE APPLICATION(CLIST)    +
       DSNAME('XXXXXXX.UNI.CMDLIB')
/*
ALLOC FI(ISPTABL) DA('XXXXXXX.UNI.KEYS')          SHR REUSE
/*
/*  THE COMMANDS THAT FOLLOW ALLOCATE THE INFOGIX PANEL, HELP,
/*  MESSAGE, AND SKELETON LIBRARIES.  THE USER INTERFACE LOAD
/*  LIBRARY IS ALSO ALLOCATED.
/*
ISPEXEC LIBDEF ISPPLIB DATASET ID('XXXXXXX.UNI.PNLLIB'     +
                                  'XXXXXXX.UNI.HLPLIB')
ISPEXEC LIBDEF ISPMLIB DATASET ID('XXXXXXX.UNI.MSGLIB')
ISPEXEC LIBDEF ISPSLIB DATASET ID('XXXXXXX.UNI.SKLLIB')
ISPEXEC LIBDEF ISPLLIB DATASET ID('XXXXXXX.UNI.TSO.LOADLIB' +
                                  'XXXXXXX.UNI.LOADLIB')
ISPEXEC LIBDEF ISPTLIB DATASET ID('XXXXXXX.UNI.KEYS')
/*
ISPEXEC CONTROL ERRORS RETURN
/*
/*  THE COMMAND THAT FOLLOWS STARTS THE PROCESS THAT WILL ALLOW
/*  ACCESS TO THE INFOGIX PRODUCTS THRU THE INFOGIX PRODUCT MENU.
/*
ISPEXEC SELECT PGM(UNI0000C) NEWAPPL(UNI) PASSLIB
/*
/*  THE COMMANDS THAT FOLLOW FREE THE INFOGIX PANEL, HELP,
/*  MESSAGE, AND SKELETON LIBRARIES.  THE USER INTERFACE LOAD
/*  LIBRARY IS ALSO FREED.
/*
ISPEXEC LIBDEF ISPPLIB
ISPEXEC LIBDEF ISPMLIB
ISPEXEC LIBDEF ISPSLIB
ISPEXEC LIBDEF ISPLLIB
ISPEXEC LIBDEF ISPTLIB
FREE FI(ISPTABL)
/*
/*  THE COMMANDS THAT FOLLOW FREE THE INFOGIX COMMAND LIBRARY.
/*
ALTLIB DEACTIVATE APPLICATION(CLIST)
FREE DA('XXXXXXX.UNI.CMDLIB')
/*
ISPEXEC CONTROL DISPLAY REFRESH
END
****************************** Bottom of Data ******************************
```

3. Modify the data set names to match the names you created during the tape unload process.

   This means changing XXXXXXX to the system prefix you have chosen. Other modifications may be needed depending on your ISPF version and standards.

4. Proceed to "Modifying JCL Skeletons."

Modifying JCL Skeletons

A major feature of the user interface is the ability to automatically generate all JCL required by the system. This allows non-technical users to easily utilize the products. In order to ensure that JCL and the online environment follow your site's standards, the following members must be modified to include site-dependent information in the JCL statement generated by the ISPF User Interface.

Modify the UNICNTL Member Located in UNI.SKLLIB

DB2PLAN. If you intend to access DB2 using ACR/Summary, enter the name of the DB2 plan that will be set up. Refer to Chapter 6, "Preparing the DB2 Environment" for this information. When a user attempts to create DB2 JCL, the appropriate DB2 plan will automatically be inserted into the JCL stream.

DDB2PLAN. If you intend to access DB2 using ACR/Detail, enter the name of the DB2 plan here. Refer to Chapter 6, "Preparing the DB2 Environment" for more information. When a user attempts to create DB2 JCL, the appropriate DB2 plan will automatically be inserted into the JCL stream.

CNTLDSN. This is a required field. Enter the name of the control file that was created in Chapter 3, "Updating Your License."

STEPLIB0. Enter the name you used for UNI.LOADLIB when you unloaded the tape. This data set name will be inserted into every JCL stream to ensure proper system functioning.

STEPDCF0. If you are licensed for ACR/File, put the LOADLIB name here too. This is typically the same data set name used in STEPLIB0.

STEPLIB1–STEPLIB5. (Optional) These lines are not typically modified when installing ACR/Summary or ACR/Detail because you are working with one installation data set. However, they are available so you can create additional STEPLIBs for your own purposes, such as for testing patches. Refer to the sample UNICNTL in SKLLIB on page 32.

DB2LIB0–DB2LIB5. If you intend to access DB2 using ACR/Detail or ACR/Summary, enter the name of the library where the DB2 system is found. Two sample library names have been placed in the UNICNTL member: DB2 DSNLOAD.TEMP and DB2 DSNLOAD.PERM. You must change these names to reflect your own site specific libraries. Refer to the sample UNICNTL in SKLLIB on page 32. Four additional libraries are available for DB2 jobs so you can add data sets, as needed.

SYSOUT. When generating JCL, the sysout class defaults to *. Enter your default class.

UNIT. The default unit is SYSALLDA. Enter your default disk unit, up to eight characters.

BLKSIZE. Enter the default blocksize for temporary partitioned data sets with 80-byte records.

TRACKS. Enter the default number of tracks for the user's ISPF allocation of data sets that is required for setting up the product.

GNDB2JCL. If you intend to access DB2 using ACR/Detail or ACR/Summary, and would like to have the DB2 panels appear each time you generate JCL for balancing/reconciliation, then change this field to a "Y". You can also manually change this flag as needed in the JCL panel. The default is set to "N".

COMPRESS. Enter Y (Yes) to automatically compress your definition library or enter N (No). Yes is recommended.

Note: If you will be using DB2, see <cross reference in table>Chapter 6, "Preparing the DB2 Environment" for more information.

Below is the sample:

```
DB2PLAN  UNIDB231
DDB2PLAN UDXDB231
CNTLDSN  XXXXXXX.UNI.UNICF
STEPLIB0 XXXXXXX.UNI.LOADLIB
STEPDCF0
STEPLIB1
STEPLIB2
STEPLIB3
STEPLIB4
STEPLIB5
DB2LIB0  DB2.DSNLOAD.TEMP
DB2LIB1  DB2.DSNLOAD.PERM
DB2LIB2
DB2LIB3
DB2LIB4
DB2LIB5
SYSOUT   *
UNIT     SYSALLDA
BLKSIZE  27920
TRACKS   0030
GNDB2JCL N
COMPRESS Y
```

Modify the UDS3L00S member located in UNI.SKLLIB

By default, this member uses your default LE libraries. Update as needed.

Note:	You should only modify this member if you are using or intend to use **ACR/Detail** with Extraction Program Interface (EPI). The EPI turns definitions into a COBOL program for processing data files that contain millions of records. For more information on EPI, see the chapter on the Extraction Program Interface in the ACR/Detail User Guide and work with your Systems Programmer.
	DB2 environments do not use EPI, so no update is needed.

Testing the Online Environment

This procedure invokes LIBDEFSE as a menu item so you can test your online environment.

Note:	This test is required. You must have executed your revised logon PROC CLIST first.

1. Go to TSO OPTION 6.

2. Execute the LIBDEFSE. A sample command looks like this:

   ```
   EX 'userid.UNI.DATALIB(LIBDEFSE)'
   ```

   where *userid* is your user ID.

The Infogix logo screen should display.

3. Use the F4 key to place the cursor at the top of the screen.

4. With the cursor at Product, press Enter to display a drop-down list of products.

5. Type the number for the product you want to access, and press Enter.

6. When prompts to initialize the product display, the test is successful. Press PF3, then PF5 to exit.

Adding ACR/Summary and ACR/Detail to an ISPF Menu

After you complete the test of the LIBDEFSE CLIST, you may want to add ACR/Summary and ACR/Detail to your ISPF menu.

Note: This is a *optional* procedure.

Copy the LIBDEFSE CLIST to a library already in your SYSPROC data set list.

This is a sample of the line you may add to your ISR@PRIM panel as the menu option for ACR/Summary and/or ACR/Detail:

```
U Infogix Invoke ACR/Summary or ACR/Detail
```

where the body section may contain:

```
U,'CMD(%LIBDEFSE)'
```

Note: You can change the LIBDEFSE name to something more descriptive if you prefer. To do so, you must copy the LIBDEFSE CLIST to an existing SYSPROC library and rename it there. If you change the member name, invoke that name instead.

5

Testing the Installation

This chapter provides the procedures necessary to verify that the installation is successful.

This chapter contains the following sections:

- "Preparing the Installation Test for ACR/Summary" on page 35
- "Executing the Installation Test for ACR/Summary" on page 36
- "Preparing the Installation Test for ACR/Detail" on page 38
- "Executing the Installation Test for ACR/Detail" on page 39
- "Initial Setup of ACR/Summary and ACR/Detail" on page 41

Preparing the Installation Test for ACR/Summary

Modify the UNIUOPT member located in UNI.DATALIB

The data set names of the UNIDF and UNIHF files must be valid VSAM data set names within your environment. **Make sure the names you specify are unique for testing.** The table below shows the data set names to modify for UNI.DATALIB(UNIUOPT).

UNIXOPT	NY		
UNIDSN	UNIDF	VVVVVVV.FFF.UNIDF	**VVVVVVV represents a unique VSAM data set name for testing.**
UNIDSN	UNIHF	VVVVVVV.FFF.UNIHF	
UNIOUT	UNIIR	*X	
UNIOUT	UNITR	*X	**FFF is the product name code. For example, SUM for ACR/Summary.**
UNIOUT	UNIACR	*X	
UNIOUT	UNIRCR	*X	
UNIOUT	UNIUSR	*X	

SYSOUT. Classes for the ACR/Summary reports are set to X. You may also modify these to reflect your environment. To change the SYSOUT class, change the "X" in column 22 of each UNIOUT card to a valid SYSOUT class at your site.

Note: You must retain the leading *. Therefore, to direct SYSOUT to a printer, use **.

Modify the UDFCAMS member located in UNI.DATALIB

The data set name of the UNIDF file must match what you specified in the UNI.DATALIB(UNIUOPT) member. Also, modify the VOLUME information so that it reflects your environment.

Modify the UHFCAMS member located in UNI.DATALIB

The data set name of the UNIHF file must match what you specified in the UNI.DATALIB(UNIUOPT) member. Also, modify the VOLUME information so that it reflects your environment.

Executing the Installation Test for ACR/Summary

Modify the ACRSTEST member

The JOB card must reflect your environment. Execute the UNI.PROCLIB(ACRSTEST) procedure, with the symbolic parameters given the following assignments:

SYSOUT	=	Output class for SYSOUT
LOADLIB	=	XXXXXXX.UNI.LOADLIB
UNICF	=	VVVVVVV.UNI.UNICF
UNIDF	=	VVVVVVV.FFF.UNIDF
UNIHF	=	VVVVVVV.FFF.UNIHF
DATALIB	=	XXXXXXX.UNI.DATALIB
TSTUNIT	=	WWWW

where:

XXXXXXX	=	LOADLIB data set name prefix
VVVVVVV	=	VSAM test data set name prefix
WWWW	=	Test DASD unit name
FFF	=	Product code. This should match the code in the UNI.DATALIB(UNIUOPT) member. For example, FFF can be **SUM** for ACR/Summary.

Submit the JCL

Submit the ACRSTEST JCL to execute the installation test. Successful execution should yield the following reports:

UNIIR. Database Initialization Report

UNITR. Database Update Report

UNIACR. Balancing Control Report from Edit Step

UNIACR. Balancing Control Report from Update Step

UNIRCR. Balancing Recap Report from Update Step

UNIUSR. Balancing User Report

UNISSR2. Summary Spreadsheet Repor*t*

Note: You should receive a return code of 0000, which is valid based on the applied rules.

Note: For samples of these reports, refer to your XXXXXXX.UNI.TRNGRPT data set, where XXXXXXX is the prefix you used when installing the software in "Creating the Installation Data Sets" on page 11.

Locate the sample reports in the following UNI.TRNGRPT members:

UNIIR = UNIINIT - Database Initialization Report

UNITR = UNIUPDT - Database Update Report

UNIACR = UNITEST1 - Balancing Control Report from Edit Step

UNIACR = UNITEST2 - Balancing Control Report from Update Step

UNIRCR = UNITEST3 - Balancing Recap Report from Update Step

UNIUSR = UNITEST4 - Balancing User Report

UNISSR2 = UNITEST5 - Summary Spreadsheet Report

Preparing the Installation Test for ACR/Detail

Modify the UDSUOPT member located in UNI.DATALIB

The data set names of the UNIDF and UNIHF files must be valid VSAM data set names within your environment. **Make sure the names you specify are unique for testing.**

UNIDSN	UNIDF	VVVVVVV.FFF.UNIDF
UNIDSN	UNIHF	VVVVVVV.FFF.UNIHF
UNIOUT	UNIIR	*X
UNIOUT	UNITR	*X
UNIOUT	UNIACR	*X
UNIOUT	UNIRCR	*X
UNIOUT	UNIDER	*X
UNIOUT	UNIEXR	*X

> **VVVVVVV represents a unique VSAM data set name for testing.**
>
> **FFF is the product name code. For example, DET for ACR/Detail.**

SYSOUT. Classes for the ACR/Detail reports are set to X. You may also modify these to reflect your environment. To change the SYSOUT class, change the "X" in column 22 of each UNIOUT card to a valid SYSOUT class at your site.

> **Note:** You must retain the leading *. Therefore, to direct SYSOUT to a printer, use **.

Modify the DDFCAMS member located in UNI.DATALIB

The data set name of the UNIDF file must match what you specified in the UNI.DATALIB(UDSUOPT) member. Also, modify the VOLUME information so that it reflects your environment.

Modify the DHFCAMS member located in UNI.DATALIB

The data set name of the UNIHF file must match what you specified in the UNI.DATALIB(UDSUOPT) member. Also, modify the VOLUME information so that it reflects your environment.

Modify the UDSINIT member located in UNI.DATALIB

The data set name of the UNIHF and UNIDF files must match what you specified in the UNI.DATALIB(UDSUOPT) member.

Executing the Installation Test for ACR/Detail

Modify the ACRDTEST member

The JOB card must reflect your environment. Execute the UNI.PROCLIB(ACRDTEST) procedure, with the symbolic parameters given the following assignments:

SYSOUT	=	Output class for SYSOUT
LOADLIB	=	XXXXXXX.UNI.LOADLIB
UNICF	=	VVVVVVV.UNI.UNICF
UNIDF	=	VVVVVVV.FFF.UNIDF
UNIHF	=	VVVVVVV.FFF.UNIHF
DATALIB	=	XXXXXXX.UNI.DATALIB
TSTUNIT	=	WWWW

where:

XXXXXXX	=	LOADLIB data set name prefix
VVVVVVV	=	VSAM test data set name prefix
WWWW	=	Test DASD unit name
FFF	=	Product code. This should match the code in the UNI.DATALIB(UDSUOPT) member. For example, FFF can be **DET** for ACR/Detail.

Executing the Installation Test for ACR/Detail

Submit the ACRDTEST JCL

Submit the ACRDTEST JCL to execute the installation test. Successful execution should yield the following reports:

UNIIR. Database Initialization Report

UNITR. Database Update Report

UNIACR. Reconciliation Control Report

UNIDER. Extracted Data Detail Report

UNIACR. Reconciliation Control Report

UNIRCR. Reconciliation Recap Report

UNIDUR. Reconciliation User Report

UNIEXR. Detail Spreadsheet Report (Data Values)

Note:	You should receive a return code of 2002, which is valid based on the applied rules.

Note:	For samples of these reports, refer to your XXXXXXX.UNI.TRNGRPT data set, where XXXXXXX is the prefix information you used when installing the software in "Creating the Installation Data Sets" on page 11.
	Locate the sample reports in the following UNI.TRNGRPT members:
	UNIIR = UDSINIT - Database Initialization Report
	UNITR = UDSUPDT - Database Update Report
	UNIACR = UDSTEST1 - Reconciliation Control Report
	UNIDER = UDSTEST2 - Extracted Data Detail Report
	UNIACR = UDSTEST3 - Reconciliation Control Report
	UNIRCR = UDSTEST4 - Reconciliation Recap Report
	UNIDUR = UDSTEST5 - Reconciliation User Report
	UNIEXR = UDSTEST6 - Detail Spreadsheet Report (Data Values)

Initial Setup of ACR/Summary and ACR/Detail

The first time you install ACR/Summary or ACR/Detail, you must perform initial setup tasks once installation testing is complete. Initial setup includes initializing the history and definition databases and allocating work, user, and report files. These procedures are described in the user guides for z/OS.

■ *ACR/Summary User Guide for z/OS*

■ *ACR/Detail User Guide for z/OS*

When initializing VSAM files, note the following:

Note:	The definition database is defined with SHARE options (1,3) which means it can only be allocated to one place at a time. You will see contention messages if you submit updates, multiple jobs, or any other processes that also read or update the definition database. Please contact Customer Support for any inquiries on SHARE options.

6

Preparing the DB2 Environment

This chapter describes how to establish your DB2 plan in order to use the DB2 interfaces provided with ACR/Summary and ACR/Detail. This is an optional procedure that can be performed at any time.

This chapter contains the following sections:

- "Establishing the DB2 Plan" on page 43
- "Copying the Sample BIND JCL" on page 44
- "Submitting the BIND JCL" on page 45

Establishing the DB2 Plan

If you intend to access DB2 using ACR/Summary or ACR/Detail, then the DB2 plan must be created. The DBRM to be bound is found in the UNI.DATALIB contained on the distribution tape (see table below). The plan name will need to be provided to all ACR/Summary and ACR/Detail users who wish to use this facility. The DB2 plan information can be entered into the UNICNTL member in the SKLLIB for use in Online JCL generation. See "Modifying JCL Skeletons" on page 30 for more information.

Product	Member (in DATALIB)	Load Library
ACR/Detail	UDXDB231	UNI.LOADLIB
ACR/Summary	UNIDB231	UNI.LOADLIB

During an initial installation, you must bind the DB2 plan(s) as part of the process. During an upgrade, you must re-bind the DB2 plan(s). The next sections provide a sample of BIND JCL and instructions for submitting it.

Copying the Sample BIND JCL

> **Note:** This is **required** when you are using DB2 with ACR/Summary or ACR/Detail.

If you do not already have a BIND JCL setup, copy the following BIND JCL from the tape PROCLIB:

```
//JOBCARD
//*
//*********************************************************************
//*   SAMPLE BIND JCL FOR ACR/SUMMARY AND ACR/DETAIL
//*
//*  STEP          DESCRIPTION
//*  -------       ----------------------------------
//* BINDSUM        BIND JCL FOR SUMMARY
//* BINDDET        BIND JCL FOR DETAIL
//*
//*
//*  NOTE : CHANGE DB2.DSNLOAD TO YOUR DB2 LOADLIB NAME
//*         CHANGE UNI.DATALIB TO YOUR DBRMLIB NAME
//*         CHANGE DSN1        TO YOUR DB2 SUBSYSTEM NAME
//*
//*********************************************************************
//BINDSUM  EXEC PGM=IKJEFT01,DYNAMNBR=20
//STEPLIB  DD DSN=DB2.DSNLOAD,DISP=SHR          DB2 DSN LOADLIBS
//DBRMLIB  DD DSN=UNI.DATALIB,DISP=SHR
//SYSTSPRT DD SYSOUT=*                          DSN OUTPUT LISTING
//SYSTSIN  DD *
   DSN SYSTEM(DSN1)
   BIND PLAN(UNIDB231) MEMBER(UNIDB231) ACT(REP) RETAIN ISOLATION(CS)
   END
//*********************************************************************
//BINDDET  EXEC PGM=IKJEFT01,DYNAMNBR=20
//STEPLIB  DD DSN=DB2.DSNLOAD,DISP=SHR          DB2 DSN LOADLIBS
//DBRMLIB  DD DSN=UNI.DATALIB,DISP=SHR
//SYSTSPRT DD SYSOUT=*                          DSN OUTPUT LISTING
//SYSTSIN  DD *
   DSN SYSTEM(DSN1)
   BIND PLAN(UDXDB231) MEMBER(UDXDB231) ACT(REP) RETAIN ISOLATION(CS)
   END
//*
```

Submitting the BIND JCL

Use the standard BIND JCL in your environment. We recommend the following DB2 BIND parameters:

ACT(REP)

RETAIN

ISOLATION(CS)

Note:	See your DBA for the authority necessary to submit (execute) the BIND.

Submit the modified JCL, which will create two plans. The ACR/Summary plan is called UNIDB231 and the ACR/Detail plan is called UDXDB231. These plans are required when running an ACR/Summary or ACR/Detail JCL that uses DB2.

7

Installing an Upgrade

This chapter provides instructions for upgrading to this release of ACR/Summary and ACR/Detail for z/OS from an earlier release. It contains the following sections:

- "Upgrading From a Pre-R3.0 Release" on page 48
- "Install the Software for This Release" on page 49
- "Update Your Control File" on page 49
- "Change the Batch Load Libraries" on page 49
- "Upgrading from a Pre-R3.2 Release: Free-Form Output File Option" on page 49
- "Review Your Online Environment" on page 50
- "Perform Initial Setup (Optional)" on page 50
- "Update Job Definitions from a Pre-R3.0 Release" on page 51
- "Compare Output Reports" on page 51
- "Re-bind DB2 Plans" on page 52
- "Upgrading to Release 4.0" on page 52

> **Note:** After you complete the relevant steps in this chapter, you must follow the instructions in Chapter 8, "Upgrading to Release 4.0" on page 53.

Before you begin, review the "System Requirements" on page 6 to verify that your environment meets them.

Upgrading From a Pre-R3.0 Release

If you are upgrading from a release earlier than Release 3.0, follow the recommendation and required step described below:

Warning:	ISPF profiles are not backward compatible.
	If you are upgrading to this release from a release prior to Release 3.0, and you use an existing ISPF profile, that profile will change and will no longer be able to support earlier releases of the software.
	To retain access to the earlier release during testing, we recommend that you set up a separate ISPF profile for access to this release.

■ An additional step is required to establish the online environment. Beginning with ACR/Summary and ACR/Detail Release 3.0, in addition to the LIBDEFSE allocation for your online environment, the UNI.TSO.LOADLIB and UNI.LOADLIB must be allocated prior to entering ISPF. You can allocate these members through one of two methods outlined in "Establishing the Online Environment" on page 27.

Note:	This additional step is required because Release 3.0 and above are all dynamic and offer smaller load modules, smaller region sizes, and better overall performance.

If you are upgrading from a release earlier than Release 3.0, note the following requirements for recompiling (exception: No changes in these programs are required if you are upgrading to this release from Release 2.6 LE.):

The recommendation is to use the DYNAM option when you recompile to ensure that you always link in with the most current UAC1000 module.

■ Modified user exits will need to be recompiled.

■ Application programs which call the ACR/Summary Program Interface module (UAC1000) will need to be recompiled and linked/edited with an LE-compatible COBOL compiler.

■ ACR/Detail jobs which use the Extraction Program Interface (EPI) and were compiled in the Release 2.6 non-LE and earlier environments will need to be recompiled in this release.

On the following pages, the steps for upgrading apply to both ACR/Summary and ACR/Detail.

Install the Software for This Release

Install ACR/Summary and ACR/Detail using the instructions in "Creating the Installation Data Sets" on page 11.

Update Your Control File

If you are updating from a release earlier than Release 3.0, follow the instructions on page 20 in Chapter 3, "Updating Your License" to update your control file.

Change the Batch Load Libraries

Use one of the following methods to specify the new batch load libraries:

■ Change your existing JCL, manually, to point to the new load libraries for this release in your STEPLIB.

or

■ Generate new JCL through the product.

Upgrading from a Pre-R3.2 Release: Free-Form Output File Option

A free-form output file format for ACR/Detail was introduced in Release 3.2. If you are moving to this release from a release previous to Release 3.2 and you want to use this feature, you need to upgrade your reconciliation JCL from the prior release or generate new JCL.

■ If you retain your JCL from the prior release, you must manually upgrade your JCL, by adding UNIDAT2 statements in step 1 below.

■ If you generated new JCL as part of changing your batch load libraries on page 49, the UNIDAT2 statements already exist. To use the new format, skip to step 2 and edit the statements.

Upgrading Your JCL

1. Edit your existing UDS2000 reconciliation JCL by adding the new UNIDAT2 line statements shown below. Add these statements after the existing UNIDATA statements.

```
000034 //UNIDAT2   DD   DSN=&&UNIDAT2,
000035 //                DCB=(RECFM=VB,LRECL=24032,BLKSIZE=0),
000036 //                DISP=(NEW,DELETE),
000037 //                UNIT=SYSALLDA,
000038 //                SPACE=(TRK,(10,10),RLSE)
```

2. Edit the UNIDAT2 lines by changing the disposition parameter (DISP) from DELETE to CATLG, as shown below.

```
000034 //UNIDAT2   DD   DSN=&&UNIDAT2,
000035 //                DCB=(RECFM=VB,LRECL=24032,BLKSIZE=0),
000036 //                DISP=(NEW,CATLG),
000037 //                UNIT=SYSALLDA,
000038 //                SPACE=(TRK,(10,10),RLSE)
```

3. Choose the new "Freeform output file" from the Write Output File panel and specify the data to output. Instructions are in the *ACR/Detail User Guide for z/OS*.

Review Your Online Environment

Review Chapter 4, "Establishing the Online Environment" on page 27 and make any desired modifications.

Perform Initial Setup (Optional)

Initial setup was already performed with the first-time installation of the product(s), as introduced on page 41. Initial setup included initializing the history and definition databases and allocating work, user, and report files. These procedures are described in the user guides for z/OS. It is not necessary to perform these steps again. However, you have the option to create new databases and allocate files. If you choose to perform the initial setup, note the following:

> **Warning:** To avoid overwriting existing data, use new names for the databases or files you create.
>
> If you initialize history or definition databases using existing names, or if you allocate work files, user files, or report files using existing names, your existing data will be overwritten.

Update Job Definitions from a Pre-R3.0 Release

If you use jobs created prior to ACR/Summary or ACR/Detail Release 3.0, you may receive the following warnings regarding two-digit cycle numbers:

Warning:1 `#UPD448W REL CYCLE IS IN OLD 2-DIGIT FORMAT`

To eliminate the warning, do the following:

1. Restore the definitions to the online work area as documented in the user guides.
2. Open the older jobs in the online work area and save them. The jobs will then use three-digit relative cycle values.

Restore Definitions to the Online Work Area

Skip this step if:

■ You are upgrading from Release 3.1 or later.

■ You are upgrading from Release 3.0 and you have already installed ACR/Plus Patch R30V0M0A.

If you are upgrading from a release prior to Release 3.0, complete the following steps:

1. Logon to this release.
2. Back up the online Definition Library via **Run > Online-Options > Backup Definition Library > All definitions > Copy Option 3**.
3. Allocate a new online Definition Library via **Setup > Files > Allocate user files**.
4. As needed, restore definitions from your database, allocated in "Perform Initial Setup (Optional)" on page 50, to your online Definition Library. Refer to instructions for the Restore Definition Library utility in the user guides for z/OS.

Compare Output Reports

Compare output reports from the previous release with output reports from this release to verify that the results are the same. If the results do not match, contact Customer Support for assistance, as described on page 10.

Re-bind DB2 Plans

When installing an upgrade, you must re-bind the DB2 plan(s) as part of the process. For instructions, refer to "Submitting the BIND JCL" on page 45.

Upgrading to Release 4.0

If you are upgrading to Release 4.0, after you complete the relevant steps in this chapter, you must follow the instructions in Chapter 8, "Upgrading to Release 4.0" on page 53.

8

Upgrading to Release 4.0

This chapter provides instructions for upgrading ACR/Summary and ACR/Detail for z/OS to Release 4.0. This release provides extended internal items, which increase the maximum extractible length for numeric data from 15 to 30 digits, and for text data from 8 to 80 characters. This upgrade expands your definition and history databases to make room for these new items. These procedures are required for moving to Release 4.0.

This document contains the following sections:

- "Upgrading ACR/Summary" on page 53
- "Upgrading ACR/Detail" on page 60

Upgrading ACR/Summary

Before you begin, you should know the following:

- Batch transaction cards created in earlier releases are supported in Release 4.0. Newly generated batch cards will be in the new format.

- The definition and history databases must be expanded. Expansion JCL is provided.

- No changes are required to the database names in your existing JCL or online environment.

- JCL for some output and interim work files generated in previous releases will need to be modified. Automated modification JCL is provided.

- Customer application programs using the Program Interface Mode will need to be recompiled.

Task 1: Plan and Schedule your Migration

Plan your migration for when your ACR/Summary files are not in use. Read through the remaining tasks to determine the most convenient time.

If your ACR/Summary implementation generates output files that will be used as inputs to ACR/Summary jobs after the upgrade, you will need to manually increase the size of those files before running jobs in Release 4.0. An example of this type of file is a History Unload file that you will reload after the upgrade..

Task 2: Run the Expansion JCL for the Databases

JCL is provided to expand the history and definition databases. This JCL renames the original database with the suffix OLD and names the converted database to the original name.

If dual history databases are used in ACR/Summary, both history databases should be expanded.

1. Edit and submit member SUMEXPDF located in the *userid*.UNI.PROCLIB. Verify that the return code is 0 before continuing. This job expands your definition database.

2. Edit and submit member SUMEXPHF located in the *userid*.UNI.PROCLIB. Verify that the return code is 0 before continuing. This job expands your history database.

3. Review the before and after list history reports generated by the history expansion job to verify that the expanded history database contains the same number of records as the original database.

4. Optional: Browse your history file to verify that the release/version in the control record has changed to 0400.

   Release 4.0 includes an internal change to the control record. If you have the ability to browse a VSAM record, you can verify that the expansion JCL performed the expansion successfully by checking this control record.

   The number in position 25 is 0400, as shown below.

```
RBA       Len     1...5...10....5...20....5...30....5...40....5...50....5...60
0         9020    .......................0400KLA1.SUM.HIST
```

> **Note:** The expansion JCL has renamed your original databases to have a .OLD at the end of the name. If you need to rerun the expansion JCL for any reason, you should modify the names in the JCL or rename the original database before proceeding.

Task 3: Make the JCL Changes

JCL Conversion Member ACRJCL40

Note: This JCL modification job only needs to be run once for ACR/Summary and ACR/Detail. You need to run it once for every JCL library you have. You do not need to run it once for each product you license.

The JCL edits required for support of extended internal items are shown in "ACR/Summary JCL Conversion Parameter Tables" on page 56. This section is made of the following:

■ The "Automatic Changes Table" on page 56. The ACR/Summary and ACR/Detail JCL Conversion Job for Release 4.0 (member ACRJCL40 in your *userid*.UNI.PROCLIB) described here will automatically make the changes in this table.

■ The "Manual Changes Table" on page 59. If needed, these changes must be made manually.

If you prefer not to run ACRJCL40, you can make both the automatic and manual changes manually. In that case, you can skip this section and go to "ACR/Summary JCL Conversion Parameter Tables" on page 56. Be sure to make the necessary changes from both the automatic and manual tables.

ACRJCL40 Step

This step executes the module of the same name, ACRJCL40. The job creates a backup of your JCL, then it takes your original JCL or PROCLIB dataset and modifies the RECFM, LRECL, and BLKSIZE statements for ACR/Summary and ACR/Detail jobs to the sizes appropriate for the new release.

To use this JCL conversion module:

1. Edit the JCL to specify your existing JCL or PROCLIB database as SYSUT1, which is the YOUR.JCLFILE.

2. Edit the JCL to specify a file name for the backup of your JCL or PROCLIB and verify that the space parameter on the backup is sufficient for your JCL file that is being revised.

3. Revise the load library names and work file prefixes as requested in the JCL and submit the JCL.

    The job produces a report in the ACRSUMM DD for each member of your JCL library. The report shows the following:

    ■ The name of the member.

    ■ The number of input statements processed.

    ■ The number of modifications made.

    ■ The report shows the following totals:

    ■ Total number of input statements processed.

    ■ Total number of modifications made.

    ■ Total number of members processed.

    ■ Total number of members modified.

    You can use the report to verify the JCL updates by comparing your old JCL with the new.

ACR/Summary JCL Conversion Parameter Tables

This section contains two tables:

■ "Automatic Changes Table" below

■ "Manual Changes Table" on page 59

The JCL changes shown in both of the tables below are required for support of extended internal items.

Automatic Changes Table

This table shows the changes that can be made automatically by running the ACR/Summary and ACR/Detail JCL Modification Program ACRJCL40. If you prefer, you can make these changes manually.

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
File Interface (UAC2000)	UNIUSR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
	UNIEXTR (Balancing Extract File)	DCB=(RECFM=FB,LRECL=132,BLKSIZE=1320) DCB=(RECFM=FB,LRECL=**200**,BLKSIZE=**0**)
Direct Input (UAC3000)	UNIEXTR (Balancing Extract File)	DCB=(RECFM=FB,LRECL=132,BLKSIZE=1320) DCB=(RECFM=FB,LRECL=**200**,BLKSIZE=**0**)
	UNISRT (Temporary Sort Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**
	UNIUSR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
List Definition Database (SUMDFL)	UNIWRK (Temporary Work Space)	DCB=(RECFM=FB,LRECL=200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**350**,BLKSIZE=**0**)
Cross Reference Internal Items (SUMDFX)	UNIWRK (Temporary Work Space)	DCB=(RECFM=FB,LRECL=200,BLKSIZE=2000) DCB=(RECFM=FB,LRECL=**350**,BLKSIZE=**0**)
List History Database (SUMHFL)	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200, BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
Reorganize History (SUMHFR)	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
Copy History – Unload Option (SUMHFC)	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=0)
	UNITHFW (Temporary History Transfer Output File)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=0)

Upgrading ACR/Summary

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
Create Comma Delimited Text File (SUMHCSV)	UNICSV (Comma Delimited Text File)	DCB=(RECFM=VB,LRECL=1898,BLKSIZE=4096) DCB=(RECFM=VB,LRECL=**10202**,BLKSIZE=**0**)
History Extract (SUMHFX)	UNIHFW (History Extract Utility - Packed Format)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
	UNIHFW (History Extract Utility, Alternate Format)	DCB=(RECFM=FB,LRECL=2000,BLKSIZE=0) DCB=(RECFM=FB,LRECL=**10000**,BLKSIZE=**0**)
Archive History (SUMFHCA)	UNIARF (Archive History File)	DCB=(RECFM=FB,LRECL=1020,BLKSIZE=10200) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
	UNISRT (Archive History File)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
Restore History (SUMFHCA)	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
	UNISRT (Restore History)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=12000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)
Print Management Report (SUMHFMR)	UNIHFW (Temporary Work Space)	DCB=(RECFM=FB,LRECL=1200,BLKSIZE=6000) DCB=(RECFM=FB,LRECL=**9200**,BLKSIZE=**0**)

Manual Changes Table

The remaining JCL changes are for program interface or IDCAMS steps. We did not automatically make these changes to avoid any accidental changes to items that are not for the ACR Products. You will need to make these changes manually if you have IDCAMS items or Program Interface DDs that use these files.

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
Program Interface (UAC1000)	UNIEXTR (Balancing Extract File)	DCB=(RECFM=FB,LRECL=132,BLKSIZE=1320) DCB=(RECFM=FB,LRECL=**200**,BLKSIZE=**0**)
	UNIUSR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
SUMINIT (IDCAMS)	Definition File Initialization	RECORDSIZE(128 128) RECORDSIZE(**255 255**)
	History File Initialization	RECORDSIZE(1020 1020) RECORDSIZE(**9020 9020**)
SUMHFR (IDCAMS)	Reorganize History	RECORDSIZE(1020 1020) RECORDSIZE(**9020 9020**)
SUMHFCA (IDCAMS)	Restore History	RECORDSIZE(1020 1020) RECORDSIZE(**9020 9020**)

Task 4: Recompile User Exit Programs and Programs that Use Program Interface Mode as Necessary

For programs that use Program Interface Mode, modify the compile step as follows:

■ The step should point to the new Release 4.0 COPY library which contains a modified version of the ACRAREA member. This is usually the SRCELIB DD statement in the compile step.

■ The step should use the ARITH(EXTEND) compile option to support the new 30-digit numbers.

Recompile any user exit programs or application programs that you have modified using the newly revised copybooks in COPYLIB.

Task 5: Review Impact of File Size Change

After Release 4.0 is fully implemented, the following output files will use the new file sizes. If your site uses these files for non-ACR processing, you will need to assess the impact and make changes as necessary.

■ History extract output file (SUMHFX)

■ Balancing extract file (UNIEXTR)

Task 6: Regenerate Direct Input Files If Necessary

Direct input data files for the Direct Input Program(UAC3000) generated in prior releases are not compatible with Release 4.0. If you will be using these files, regenerate them in the user interface. Select Window > Direct Input Data. For more details, see the *ACR/Summary User Guide for z/OS*.

Task 7: Regenerate Update History Utility Control Cards If Necessary

Utility control cards from the Update History utility (SUMHFU) generated in prior releases are not compatible with Release 4.0.

If you will be using these cards, regenerate them through the user interface. Select **Setup > Database utilities > Database update utilities > Update History**. For more details, see the *ACR/Summary User Guide for z/OS*.

Task 8: Test Your Changes

Use your site's standard procedure for testing new releases.

Upgrading ACR/Detail

Before you begin, you should know the following:

■ Batch transaction cards created in prior releases are supported in Release 4.0. Newly generated batch cards will be in the new format.

■ The definition and history databases must be expanded. Expansion JCL is provided.

■ No changes are required to the database names in your existing JCL or online environment.

- JCL for some output and interim work files generated in previous releases will need to be modified.

- If you currently use the Extraction Program Interface, you will need to recompile these programs.

- Any file definition that references the control record in the history database needs to be edited.

Task 1: Plan and Schedule your Migration

Plan your migration for when your ACR/Detail files are not in use. Read through the remaining tasks to find out what is required and when would be the most convenient time.

If your ACR/Detail implementation generates output files that will be used as input files to ACR/Detail jobs after the migration, you will need to manually increase the size of those files before your new Release 4.0 jobs begin. For example, if you use multiple days of UNIDATA file as input to another job, the length of this file is changing and you will want to adjust your existing files to match.

Task 2: Run the Expansion JCL for the Databases

JCL is provided to expand the history and definition databases. This JCL renames the original database with the suffix OLD and renames the converted database to the original name.

1. Edit and submit DETEXPHF and DETEXPDF members located in the PROCLIB. Verify that the return code is 0 before continuing. The DETEXPHF member expands your ACR/Detail history file. The DETEXPDF member expands your ACR/Detail definition file.

2. Review the before and after List History reports to verify that the expanded history database contains the same number of records as the original database.

3. Optional: Browse your history file to verify that the release/version in the control record has changed to 0400.

Release 4.0 includes an internal change to the control record. If you have the ability to browse a VSAM record, you can verify that the expansion JCL performed the expansion successfully by checking this control record.

Verify that the number in position 55 is 0400, as shown below.

```
RBA        Len     1...5...<0====5===20====5===30====5===40====5===50===>5...
0          263     .......*............................................0400
```

> **Note:** The expansion JCL has renamed your original database to have a .OLD at the end of the name. If you need to rerun the expansion JCL for any reason, you should modify the names in the JCL or rename the original database before proceeding.

Task 3: Make the JCL Changes

JCL Conversion Member ACRJCL40

> **Note:** if you have already run this step with ACR/Summary, you do not need to rerun it for ACR/Detail.

The JCL edits required for support of extended internal items are shown in "ACR/Detail JCL Conversion Parameter Tables" on page 63. This section is made of the following:

■ The "Automatic Changes Table" on page 63. The ACR/Summary and ACR/Detail JCL Conversion Job for Release 4.0 (member ACRJCL40 in your PROCLIB) described here will automatically make the changes in this table.

■ The "Manual Changes Table" on page 66. These changes must be made manually.

If you prefer not to run ACRJCL40, you can make both the automatic and manual changes manually. In that case, you can skip this section and go to "ACR/Detail JCL Conversion Parameter Tables" on page 63. Be sure to make the changes in both the automatic and manual tables.

ACRJCL40 Step

This step executes the module of the same name, ACRJCL40. The job creates a backup of your JCL, then it takes your original JCL or PROCLIB dataset and modifies the RECFM, LRECL, and BLKSIZE statements for ACR/Summary and ACR/Detail jobs to the sizes appropriate for the new release.

To use this JCL conversion module:

1. Allocate your existing JCL or PROCLIB database as SYSUT1, which is the YOUR.JCLFILE.

2. Edit the JCL to specify a file name for the backup of your JCL or PROCLIB and verify that the space parameter on the backup is sufficient for your JCL file that is being revised.

3. Revise the load library names and work file prefixes as requested in the JCL and submit the JCL.

   The job produces a report in the ACRSUMM DD for each member of your JCL library. The report shows the following:

   ■ The name of the member.

   ■ The number of input statements processed.

   ■ The number of modifications made.

   ■ The report shows the following totals:

   ■ Total number of input statements processed.

   ■ Total number of modifications made.

   ■ Total number of members processed.

   ■ Total number of members modified.

   You can use the report to verify the JCL updates by comparing your old JCL with the new.

ACR/Detail JCL Conversion Parameter Tables

This section contains two tables:

■ "Automatic Changes Table" below

■ "Manual Changes Table" on page 66

The JCL changes shown in the both of the tables below are required for support of extended internal items.

Automatic Changes Table

This table shows the changes that can be made automatically by running ACR/Summary and ACR/Detail JCL Modification Program ACRJCL40. If you prefer, you can make these changes manually

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
History Extract (DETDHFE)	UNIDHFE (History Extract, Standard Forma)	DCB=(RECFM=VB,LRECL=8243,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16243**,BLKSIZE=**0**)
	UNIDHFE (History Extract, Alternate Format)	DCB=(RECFM=VB,LRECL=18103,BLKSIZE=0) DCB=(RECFM=VB,LRECL=**26206**,BLKSIZE=**0**)
Execution EPI test facility (UDPTEST)	UNIDUR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
	UNIDATA (Reconciliation Output File)	DCB=(RECFM=VB,LRECL=8243,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16243**,BLKSIZE=**0**)
	UNIDAT2 (Reconciliation Freeform Output File)	DCB=(RECFM=VB,LRECL=14929,BLKSIZE=0) DCB=(RECFM=VB,LRECL=**24032**,BLKSIZE=**0**)
	UNIWRK (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK1 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK2 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK3 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0**)
List Definition Database (DETDDFL)	UNIWRK (Temporary Work Space)	DCB=(RECFM=FB,LRECL=200,BLKSIZE=2000) DCB=(RECFM=FB,LRECL=**350**,BLKSIZE=**0**)
History Update (DETDHFU)	UNIWRK1 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0**)

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
Reorganize History (DETDHFR)	UNIWRK3 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0**)
Copy history – Unload Option (DETDHFC)	UNIHFW (History Transfer Output File)	DCB=(RECFM=VB,LRECL=8459,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16459**,BLKSIZE=**0**)
Reconciliation (UDS2000 and UDPTEST)	UNIDUR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
	UNIDATA (Reconciliation Output File)	DCB=(RECFM=VB,LRECL=8243,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16243**,BLKSIZE=**0**)
	UNIDAT2 (Reconciliation Freeform Output File)	DCB=(RECFM=VB,LRECL=14929,BLKSIZE=0) DCB=(RECFM=VB,LRECL=**24032**,BLKSIZE=**0**)
	UNIWRK (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK1 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK2 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0**)
	UNIWRK3 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0**)

Manual Changes Table

The remaining JCL changes are for Extraction Program Interface or
IDCAMS steps. We did not automatically make these changes to avoid any
accidental changes to items that are not for the ACR Products. You will
need to make these changes manually if you have IDCAMS items or
Extraction Program Interface DDs that use these files.

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
Expand History (DETEXPD)		RECORDSIZE(AHFAHS 8255) RECORDSIZE(AHFAHS **16255**)
		BUFFERSPACE(8255) **Optimize bufferspace for your implementation with your VSAM file admin or eliminate the parameter and let the system select the optimal blocksize.**
	DD02	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0**)
DETINIT (IDCAMS)	Definition File Initialization	RECORDSIZE(128 128) RECORDSIZE(**255 255**)
	History File Initialization	RECORDSIZE(AHFAHS 8255) RECORDSIZE(AHFAHS **16255**)
		BUFFERSPACE(8255) **Optimize bufferspace for your implementation with your VSAM file admin or eliminate the parameter and let the system select the optimal blocksize.**
Extraction Program Interface[1]	UNIDUR (User Report)	DCB=(RECFM=FBA,LRECL=133,BLKSIZE=133) DCB=(RECFM=**VBA**,LRECL=**255**,BLKSIZE=**0**)
	UNIDATA (Reconciliation Output File)	DCB=(RECFM=VB,LRECL=8243,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16243**,BLKSIZE=**0)**
	UNIDAT2 (Reconciliation Freeform Output File)	DCB=(RECFM=VB,LRECL=14929,BLKSIZE=0) DCB=(RECFM=VB,LRECL=**24032**,BLKSIZE=**0)**
	UNIWRK (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0)**

Utility or Job (Job Name)	DDName (Description)	To modify manually, locate the first line... ...and make the changes shown in bold in the second line
	UNIWRK1 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0)**
	UNIWRK2 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8216,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16218**,BLKSIZE=**0)**
	UNIWRK3 (Temporary Work Space)	DCB=(RECFM=VB,LRECL=8259,BLKSIZE=23476) DCB=(RECFM=VB,LRECL=**16259**,BLKSIZE=**0)**

1 - Make these changes to any Extraction Program Interface jobs that do not use UDPTEST

Task 4: Recompile Programs as Necessary

1. Through the Release 4.0 user interface, recompile all Extraction Program Interface programs. For instructions, see the *ACR/Detail User Guide for z/OS.*.

> **Note:** Your compiler options must support 31-digit numbers, which is the ARITH(EXTEND) compiler option.

2. Recompile any customer application program or user exit program that uses the copybooks in COPYLIB.

Task 5: Edit File Definitions That Reference the Control Record

The control record in the ACR/Detail History Database (*yourusername*.DET.HIST) has been modified to accommodate the expanded internal items. The control record is the first record of the database and does not contain any key information, job information, or historical values. This record contains initialization information only.

Any file definitions that reference this record must be modified because of the following changes to the control record:

■ The history update date has been relocated from position 103 through 106 to position 190 through 193.

■ The history update time has been relocated from position 107 through 110 to position 194 to 197.

Task 6: Review Impact of File Size Change

After Release 4.0 is fully implemented, the output files will use the new format. If your site uses these files for non-ACR processing, you will need to assess the impact and make changes as necessary.

■ History extract output file (UNIDHFE)

■ Reconciliation output file (UNIDATA)

■ Reconciliation freeform output file (UNIDAT2)

Task 7: Regenerate History Update Control Cards, If Necessary

Utility control cards from the Update History utility (UDSHFU) generated in prior releases are not compatible with Release 4.0.

If you will be using these cards, regenerate them through the user interface. Select **Setup > Database utilities > Database update utilities > Update History**. For more details, see the *ACR/Detail User Guide for z/OS*.

Task 8: Test Your Changes

Use your site's standard procedure for testing new releases.

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