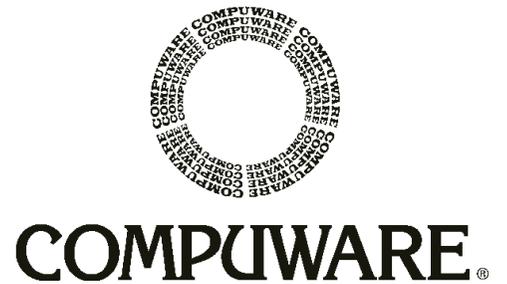


File-AID/MVS Installation Guide

Release 8.9



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Contents

Introduction	vii
What's In This Guide?	vii
System Environment	viii
Related Publications	viii
FrontLine Support Web Site	ix
Online Documentation	ix
World Wide Web	ix
File-AID/MVS Frequently Asked Questions	ix
Getting Help	x
Chapter 1. Installation Overview	1-1
License Management System	1-1
Upgrading From Prior File-AID Releases	1-2
IAM Support	1-2
Batch Options	1-2
Selection Table, XREF, and Saved Selection Criteria Conversion	1-2
Security Exit	1-2
Audit Exit	1-2
I/O Exits	1-3
Primary Dialog	1-3
Batch Differences	1-3
Obsolete Data-XPRT Modules	1-5
Installation Considerations	1-6
Installation Time	1-6
Installation Notes	1-6
Information Center Users	1-6
Installing File-AID in a ROSCOE Environment	1-6
Maintenance Considerations	1-6
ISPF Changes	1-6
Operating System Changes	1-6
New File-AID Releases	1-6
CPU Changes	1-7
SMF Record Mapping	1-7
Chapter 2. Installation Procedures	2-1
Install Manager Overview	2-2
1. Dataset Names	2-2
2. Install Options	2-3
3. Product Options	2-4
4. Training Options	2-4
5. Install	2-4
6. Start	2-5
Step 1. Unload the Install Manager Datasets	2-6
Dataset Information	2-6
Step 2. Edit the SETUP CLIST	2-7
Step 3. Execute Install Manager	2-8
Using Install Manager Help	2-8
Option 1 — Dataset Names	2-9
File-AID Datasets	2-10
File-AID/MVS System and COBOL Datasets	2-11
File-AID/Data Solutions Datasets (Optional)	2-12

Option 2 — Install Options	2-13
Option 3 — Product Options	2-14
Option 4 — Training Options	2-15
Option 5 — Install	2-16
Task 1, Allocate and Populate Datasets	2-17
Task 2, Link Edit Object Modules	2-17
Task 3, Create CSECT FBOPTBAT Based on Batch Options	2-18
Task 4, Create Panel, Message, Command, CLIST & Skeleton Libraries	2-18
Task 5, Customize FAJSTEPL member in the Skeleton JCL Library	2-18
Task 6, Create File-AID/MVS Training Files	2-18
Task 7, Update CLISTS for Use by ISPF LIBDEF	2-18
Task 8, Customize the Training File CLIST - FACOPY.	2-18
Task 9, Create the Primary Option Menu	2-18
Task 10, Create Zaps for Environment Product Options	2-18
Task 11, Link Edit the File-AID SVC (Optional)	2-18
Task 12, Copy ISRCLIB to ISRCLIBV (Optional)	2-20
Task 13, Generate ISPF/PDF Primary Panel	2-20
Task 14, Generate ISPF/PDF Primary Tutorial Panel	2-21
Task 15, Enable File-AID/Data Solutions Interface (Optional)	2-22
Option 6 — Start	2-22
Chapter 3. Installation Customization	3-1
Step 1 — Add the File-AID/MVS Load Library to Your System	3-1
Step 2 — Perform Optional IPL.	3-1
Step 3 — Make File-AID/MVS CLISTS Available	3-2
Step 4 — Make Remaining File-AID/MVS Libraries Available	3-2
Modifications for VSAM Space Manager Pool Names or Volume Allocation	3-4
Chapter 4. Installation Option Variables	4-1
Modify Batch Options at Execution	4-9
Example	4-9
Chapter 5. Verifying File-AID Installation	5-1
Step 1 — Make Available and Access File-AID	5-1
Step 2 — Verify Primary Options	5-1
Step 3 — Verify FACOPY CLIST	5-2
Step 4 — Verify Option 2 -- Edit Data File	5-2
Step 5 — Verify Option 3.3 -- Copy Utility	5-3
Step 6 — Verify Keyed File Support	5-4
Step 7 — Verify CA-Panvalet And CA-Librarian Support	5-5
Step 8 — Verify Batch Job Submission from Online Print	5-5
Chapter 6. Troubleshooting	6-1
Potential Install Problems	6-1
Incorrect Screen Display	6-1
Batch Job Error Message	6-1
106-C or 0C4 ABEND	6-1
Creating a Dump	6-1
Batch	6-1
Online	6-2
Chapter 7. File-AID Exits	7-1
File-AID Security Exit	7-1
Security Exits From Prior File-AID Releases	7-1
Allocation Function Call	7-2
Open Function Call	7-2
Installing The File-AID Security Exit	7-2

Debugging Your Security Exit	7-2
Security Exit Parameter Layouts	7-3
Input Params	7-3
Audit Trail Exit	7-6
Installing the Audit Exit	7-7
Audit Exit Parameter Layouts	7-7
Input Params	7-7
INPUT/OUTPUT PARMS - EXIT TYPE R	7-8
I/O Exit	7-9
I/O Exits From Prior File-AID Releases	7-10
What's Different About Release 8 I/O Exits	7-10
I/O Exit Sequence	7-10
I/O Exit Function Calls	7-11
Installation of the User I/O Exit	7-13
Type 2 COBOL I/O Exits	7-13
I/O Exit Communications Area	7-14
Chapter 8. SMF Recording Function	8-1
Install or Modify SMF Recording	8-1
Remove SMF Recording	8-2
SMF Record Contents	8-2
Common Header for all SMF Record Types	8-2
Dataset Access Record Format	8-3
Field Update Record Format	8-4
Comprehensive Update Record Format	8-5
Dataset Update Summary Record Format	8-5
Writing a Dynamic SMF User Exit Program	8-6
Writing an SMF Exit	8-6
Appendix A. File-AID Conversion Utility	A-1
Convert Selection Tables to XREF Members	A-1
Convert Selection Criteria Members to Release 8.x Format.	A-2
Convert XREF Members to Release 8.x Format	A-3
Convert File-AID <i>for IMS</i> XREF Members to File-AID/MVS Release 8.x Format.	A-4
Convert One File-AID <i>for IMS</i> XREF to One File-AID/MVS XREF	A-4
Convert Multiple File-AID <i>for IMS</i> XREFs to One File-AID/MVS XREF	A-5
Convert Multiple File-AID <i>for IMS</i> XREFs to File-AID/MVS XREFs (One for One)	A-6
Appendix B. File-AID Activity Logging and Reporting	B-1
Intended Audience	B-1
FLOG Installation Requirements	B-1
Installation Procedure.	B-1
Reporting Procedure	B-2
Removal Procedure	B-2
Access Logging Only Installation Procedure (Optional)	B-2
Appendix C. File-AID Compatibility Tables	C-1
Index	I-1

Introduction

This guide is intended for use by system programmers and data base administrators in the installation of the File-AID system. It describes how to install File-AID, including customization, verification, and problem determination.

Compuware recommends reading the entire *File-AID Installation Guide* before starting the installation process. Detailed knowledge of your environment is required to complete the installation.

What's In This Guide?

The *File-AID Installation Guide* contains the following chapters and appendixes:

- **Chapter 1, “Installation Overview”**: Brief overview of the File-AID/MVS product, important information on upgrading File-AID from a prior release, installation notes, maintenance considerations that should be read before installing the File-AID product.
- **Chapter 2, “Installation Procedures”**: Detailed step-by-step process for installing the product using Install Manager.
- **Chapter 3, “Installation Customization”**: Instructions for making File-AID/MVS available on your system when the LIBDEF method was not chosen under Install Manager and information on making modifications for VSAM Space Manager Pool Names or Volume Allocation.
- **Chapter 4, “Installation Option Variables”**: Descriptions of each Product Option Variable that you may modify with Install Manager option 3.
- **Chapter 5, “Verifying File-AID Installation”**: Steps to verify installation (short product walk through).
- **Chapter 6, “Troubleshooting”**: Information on possible installation problems and on creating a dump for diagnosis information if your site experiences any problems with File-AID.
- **Chapter 7, “File-AID Exits”**: Descriptions of and procedures for installing the security, audit trail, and I/O exits.
- **Chapter 8, “SMF Recording Function”**: Description of the SMF recording function and procedures for installing, modifying, and removing it.
- **Appendix A, “File-AID Conversion Utility”**: Instructions for using the File-AID conversion utility to convert Release 6 selection tables to Release 8 XREFs, Release 7 XREFs and saved selection criteria members to their Release 8 format, and File-AID *for IMS* XREFs to the File-AID/MVS Release 8 format.
- **Appendix B, “File-AID Activity Logging and Reporting”**: Installation instructions for the FLOG (File-AID Activity Log) which captures and reports detail and summary activity information on File-AID usage. It is intended for Compuware clients evaluating File-AID for purchase.
- **Appendix C, “File-AID Compatibility Tables”**: Information on File-AID compatibility with system and language compiler software, and hardware/miscellaneous environments.

System Environment

File-AID/SPF and File-AID/XE operate in the IBM Time Sharing Option (TSO) environment under Version 3 Release 5 or above of the Interactive System Productivity Facility/Program Development Facility (ISPF/PDF).

Compuware recommends running File-AID in a minimum region size of 4 MB. If File-AID is installed in the LPA, it requires a minimum region size of approximately 2 MB.

Note: Increase the region size to 6MB when running File-AID/Batch or when using the File-AID/Data Solutions call with the File-AID Compare function.

File-AID/Batch requires any version of OS/390 or Z/OS operating system.

Running File-AID under ROSCOE requires the installation of Release 5.4 or above of the ROSCOE product with the ETSO option. See the File-AID/MVS ROSCOE Users Installation Addendum on the File-AID documentation CD for instructions on installing File-AID under ROSCOE/ETSO.

If a previous release of File-AID is installed, you must reinstall the entire File-AID product.

Related Publications

- *File-AID/MVS Online Reference Manual (SPF and XE)*: Detailed reference document for users of File-AID. This manual describes the online product features, screens, options, fields, and commands.
- *File-AID/MVS Batch Reference Manual*: Detailed reference document for users of File-AID/Batch. This manual provides information necessary to fully use the batch features of File-AID.
- *File-AID/MVS Reference Summary*: Summary of File-AID options and commands. This reference is intended for any user of File-AID/MVS.
- *File-AID/MVS User's Guide*: Step-by-step procedures on how to use File-AID functions.
- *File-AID/MVS SMF Record Mapping Reference JES V4*: Instructions and reference information for installing and using the File-AID/MVS Record Mapping facility.
- *File-AID/MVS ROSCOE Users Installation Addendum*: Procedures that are specific to installing File-AID/MVS for ROSCOE users.
- *IBM OS/VS Virtual Storage Access Method (VSAM) Programmer's Guide*: Provides a complete discussion of feedback codes for VSAM datasets.
- *IBM MVS/ESA JCL Reference*: Provides a complete discussion of JCL coding.
- **IBM Documentation**: File-AID documentation does not document ISPF functions. It is assumed that the File-AID user is familiar with the ISPF environment. For more information on ISPF functions, refer to the current version and release of the following documents:
 - *ISPF Getting Started*
 - *ISPF User's Guide*
 - *ISPF Dialog Developer's Guide and Reference*
 - *ISPF Services Guide*
 - *MVS/ESA JCL Reference*.

- **Innovative Data Processing, Inc. Documentation:** File-AID reference manuals assume that Innovation Access Method (IAM) users are familiar with the IAM environment. Refer to the Innovation Access Method User Manual for more information.

FrontLine Support Web Site

You can access online technical support for Compuware products via our FrontLine support web site. You can read or download documentation, frequently asked questions, and product fixes, or directly e-mail Compuware with questions or comments. To access FrontLine, you must first register and obtain a password at <http://frontline.compuware.com>. FrontLine is currently available for customers in the United States and Canada. FrontLine services for other countries will be available in the future.

Online Documentation

Documentation for File-AID/MVS is provided on CD-ROM in three electronic formats: PDF, HTML, and IBM BookManager. PDF files can be viewed with the free Adobe Acrobat Reader, available at <http://www.adobe.com>. HTML files can be viewed with any standard web browser. BookManager softcopy files can be viewed with any version of IBM BookManager READ or the IBM Library Reader. To learn more about BookManager or download the free Library Reader, go to <http://booksrv2.raleigh.ibm.com>.

World Wide Web

Compuware's site on the World Wide Web provides information about Compuware and its products. The address is <http://www.compuware.com>.

File-AID/MVS Frequently Asked Questions

Check out File-AID/MVS's Frequently Asked Questions now located on Compuware's FrontLine support web site. They provide answers to a wide range of questions including topics related to product functions, installation, compatibility, and transition from prior releases. To access Frontline, you must first register and obtain a password at <http://frontline.compuware.com>.

Getting Help

At Compuware, we strive to make our products and documentation the best in the industry. Feedback from our customers helps us to maintain our quality standards.

If problems arise, consult your manual or the File-AID technical support representative at your site. If problems persist, please obtain the following information before calling Compuware. This information helps us to efficiently determine the cause of the problem.

1. Determine the characteristics and space allocations of the installation libraries.
2. Determine the versions of current operating system components that may have an impact on the problem.
3. Record any ISPF error messages or operating system messages. If an abend occurs, record or screen print the abend information.
4. Determine the characteristics and space allocations of your ISPF profile dataset.

Questions about File-AID or comments on this document should be directed to:

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Outside the USA and Canada, please contact your local Compuware office or agent.

Chapter 1.

Installation Overview

File-AID/MVS consists of three components: File-AID/XE, File-AID/SPF, and File-AID/Batch. Any combination of these three components can be on the File-AID installation tape.

File-AID/XE is an interactive full-screen product designed for use by applications and systems programmers. It provides the ability to easily access and manipulate VSAM, ISAM, BDAM, PDS, IAM, CA-Panvalet, CA-Librarian, and sequential files without any programming.

File-AID/SPF is an interactive product that increases data processing productivity in both program development and daily file and record maintenance. File-AID/SPF is designed for system, application, operations, and all other data processing personnel.

File-AID/Batch consolidates the functions of most standard IBM utilities. You can use File-AID/Batch to run jobs instead of using specialized selection programs. After execution, File-AID/Batch can print a report that shows the number of records read and written and the number of records processed by the various functions within File-AID.

This chapter has sections on the following topics:

- License Management System
- Upgrading From Prior File-AID Releases
- Installation Considerations
- Maintenance Considerations
- SMF Record Mapping.

License Management System

Compuware provides the *License Management System* (LMS) to help manage access to Compuware's products at your site. The LMS includes several components that together allow you to establish, maintain, diagnose, and upgrade access to the Compuware products licensed by your enterprise.

You install LMS from the Enterprise Common Components (ECC) installation tape provided in the File-AID shipping package. Separately, via e-mail you receive a *License Certificate* for File-AID.

IMPORTANT

File-AID operation requires these steps:

1. Ensure that the Compuware License Management System has been installed from the ECC tape. Refer to the Compuware *Enterprise Common Components Installation Guide* for installation procedures. This step is only necessary for a first-time install of LMS or when upgrading the License Management System itself.
2. Import the **License Certificate** into your License File.
3. Establish and update the **Runtime License Management System** by running the program LMSINIT.

Follow the *License Certificate Import Procedure* of the Compuware *License Management User Reference Manual* for detailed instructions.

Upgrading From Prior File-AID Releases

The following topics describe installation considerations related to upgrading from a prior release of File-AID. Compuware recommends reviewing these topics before starting the File-AID installation process. Product changes are described when you select Option C - Changes on the File-AID/MVS Primary Option Menu.

IAM Support

Beginning with Release 8, IAM is automatically linked with File-AID.

Batch Options

Batch options with a displacement of 30 or greater may be moved from their displacement in a previous release. Check the displacement on these batch installation options before reapplying any batch option settings from a previous release.

Selection Table, XREF, and Saved Selection Criteria Conversion

Previous releases of File-AID use selection tables (Release 6) or XREFs (Release 7) for formatting files with multiple record layouts. You must use the File-AID conversion utility to convert pre-existing selection tables or XREFs to the Release 8 format. File-AID's Release 7 saved selection criteria members also must be converted to the new format for use with File-AID Release 8. See Appendix A, "File-AID Conversion Utility".

Security Exit

Previous releases of the File-AID security exit are supported for Release 8 only. With Release 8, the security exit has to be linked as a separate load module, as follows:

Exit Release	Load Module Name
8	FASCRXIT
6	FASPX02
7	DXPSCXT

Release 6 users with separate inclusion/exclusion CSECTs need to modify their security exit to handle any inclusion or exclusion. Calls to Release 7 and Release 6 security exits are handled the same in Release 8, with the exception of audit function calls. Type R audit function calls are no longer handled by the security exit, they are handled by the audit exit. See "Audit Trail Exit" on page 7-6. Installations that use RACF or ACF2 to protect audit files need to check the new Release 8 naming conventions.

After Release 8, users will be required to upgrade their File-AID security exits to Release 8 standards. See "File-AID Security Exit" on page 7-1.

Audit Exit

Release 7 users of the File-AID audit trail feature: Audit function calls (Type R) are no longer handled by the Security Exit. This function is now provided by the Audit Exit. You need to extract the audit invocation code from the Release 7 Security Exit and move it to the Release 8 Audit Exit.

Installations that use RACF or ACF2 to protect audit files need to check the new Release 8 naming conventions.

See "Audit Trail Exit" on page 7-6.

I/O Exits

Existing I/O exits are supported under Release 8. Release 6 I/O exits require one change to function under Release 8. In Release 8 when your program receives control, register one contains the address of a fullword which contains the address of the I/O communications area. In Release 6, register one pointed directly to the communications area.

I/O exits written for Release 7 do not require a change. See “I/O Exit” on page 7-9.

Primary Dialog

File-AID is shipped as a non-primary dialog application. In Release 8, File-AID has a default parameter of Jump Enable on the System Parameters screen which determines the action of the = (jump) command for each user.

In Release 6, sites modified the jump command action by changing File-AID into a primary dialog application through modification of the primary option panel. With the Release 8 Jump Enable default parameter, modifying the primary option panel is not necessary.

Batch Differences

Extensive changes have been made to File-AID to produce Release 8. Although comprehensive testing was done to assure consistency with prior File-AID/Batch releases, Compuware recommends that you test and verify any production job streams executing File-AID/Batch before moving File-AID Release 8 to a production environment.

The following list summarizes changes made to File-AID/Batch for Release 8:

- New batch functions include:
 - VTOCINFO, VTOCMAP, and VTOCDSN for printing VTOCs. The associated parameters for these functions include VOLSER, UNIT, VOLSTAT, and DSN.
 - COMPARE for executing the Compare utility.
 - CONVERT for performing the conversion of File-AID datasets from prior releases to the Release 8 format. For example, converting selection tables to XREFs. With Release 8.0.2 CONVERT was enhanced to allow you to convert File-AID *for IMS* XREFs to the File-AID/MVS Release 8 format.
 - For Release 8.5, the VPRINT function was added for printing data files in a vertical formatted mode using a record layout.
- The following new batch parameters were added for Release 8.5:
 - COPTNS allows you to specify additional options for condensed compare reports.
 - EXPAND specifies whether to expand the nested CA-Librarian or CA-Panvalet INCLUDE statements.
 - FIELDS defines the fields to include from each record in the VPRINT vertical formatted report.
 - LANGTYPE selects members based on the CA-Panvalet language type.
 - PANSTAT selects members based on the CA-Panvalet status type.
 - PRTRECS specifies whether to include changed, inserted, deleted, and matched records in the compare report.
 - VPRINT prints data vertically formatted according to a PL/I or COBOL record layout.
- New data type of T (Text, non-case specific).

- New JCL statements including:
 - DDxxSC - Selection criteria member to apply
 - DDxxXR - XREF member to use (FPRINT)
 - DDxxRL - Record layout dataset (s) for FPRINT, formerly DDxxM
 - DDxxRF - Reformat definition member for REFORMAT, formerly DDxxR
- New control parameter of PDSSTAT for controlling the update of PDS statistics.
- New parameters for PDS member selection use the members' PDS statistics. The new parameters are CREATED (creation date), CHANGED (change date), MBRNAME (member name), and USERID (user ID).
- In report headings, spaces are removed from the time and the VOLSER is deleted from the heading.
- Slight changes to SYSPRINT reports of execution status. The OPEN message now uses two lines and includes the DSN and VOLSER.
- The new DD statement, DDxxSC, provides access to formatted saved selection criteria.
- The Release 8 *File-AID Batch Reference Manual* is available in a softcopy format via BookManager READ.
- New RRN (Relative Record Number) parameter for PRINT function to use with VSAM RRDS and BDAM files. The DUMP function now provides RRN not the RBA for VSAM RRDS and BDAM files.
- New REFOUT parameter for REFORMAT function includes the records not selected for reformatting in the output file.
- New functions that support online print requests include: RLPRINT, XRPRINT, APRINT, SCPRINT, and VPRINT.
- The MAXENT parameter now defaults to 1,024 and allows a maximum value of 999,999.
- New IOEXIT parameter is provided to support input and/or output exits.
- The MAP parameter was changed to LAYOUT, but MAP is still supported.
- New CEM parameter for copy empty members was added for COPY function.
- New CHARSET parameter supports using alternate character set tables.
- The MEMBER parameter was enhanced to support a list of members in the format: M=(A,B,C).
- New diagnostic display for internal errors.
- Improved member counts when using a member mask; Release 8 counts only the members that match the mask. Also for a PDS, the member count is always reported in the statistics (even when a single member is processed).

Figure 1-1. Member Counts in Release 6 or 7

```
MEMBERS/READ-9,SELECTED-1,RECORDS/READ-19,ENDING on PAGE-1
```

Figure 1-2. Member Counts in Release 8

```
MEMBERS-READ=9,SELECTED=1,RECORDS-READ=19,ENDING on PAGE 1
```

- The ORIF parameter also accepted an improper "OR IF" in Releases 6 and 7, File-AID now issues a return code of 4 for an "OR IF".

- In Releases 6 and 7, if records were truncated, File-AID erroneously issued a return code of 0. File-AID now issues a return code of 4.
 - A COPY VB now accommodates record length.
 - A USER VB used to truncate records, now it acts like a COPY VB.
 - File-AID added the return codes to SYSPRINT messages.
 - The following ddnames were valid when performing a USER WRITE in File-AID Release 6 or 7. They are reserve words in File-AID Release 8:
 - DDnnM
 - DDnnRL
 - DDnnXR
 - DDnnSC
 - DDnnCP
 - DDnnC
- nn = 00 through 99.
- For keyed BDAM files (COPY TO) when the input RKP *is not* zero, File-AID creates the key and copies the entire input record to the output data area. If the input RKP *is* zero, File-AID creates the key and copies the input record starting at one byte past the key.

For keyed ISAM files (COPY TO) when the input RKP *is not* one, File-AID creates the key and copies the entire input record to the output data area. If the input RKP *is* one, File-AID creates the key and copies the input record starting at one byte past the key.

Obsolete Data-XPRT Modules

The Data-XPRT batch modules described in Table 1-1 are not included with File-AID/MVS Release 8. Their functions are supported by the File-AID/MVS PGM=FILEAID. If you have batch jobs that execute any of these modules, you need to update the job to use the appropriate File-AID/MVS Release 8.0 Batch function and any necessary parameters *or* retain your copy of the old Data-XPRT batch modules.

Table 1-1. Data-XPRT Batch Modules Replaced by File-AID/MVS Release 8 Functions

Data-XPRT Module	File-AID/MVS Batch Function	Description
DXPATRPT	APRINT	Print audit trail (option 5.5)
DXPCLRPT	RLPRINT	Print layout (option 5.4)
DXPCPDV	COMPARE	Batch Compare (option 10)
DXPDSRPT	PRINT (Character); FPRINT (Formatted)	Print dataset module (option 5.1)
DXPEXDRV	COPY	Batch Extract (option 3.3)
DXPFDRPT	XRPRINT	Print XREF (option 5.2)
DXPMPDRV	REFORMAT	Batch Reformat (option 9)
DXPPDSDV	LIST UPDATEALL	Batch PDS function
DXPSCRPT	SCPRINT	Print selection criteria (option 5.3)

Installation Considerations

Review all installation and maintenance considerations before starting the File-AID installation process.

Installation Time

Installation takes from 1 to 3 hours depending on the File-AID components being installed.

Installation Notes

When installing a new release of a File-AID product, even if a previous release of File-AID is currently installed, the entire product must be reinstalled.

Compuware product tapes can be installed for one year after they are created. Before installing this release of File-AID, check the date on the tape label. If the tape's date is more than one year old, call File-AID Technical Support to have a new tape sent to you.

Information Center Users

If your site is using IBM's Information Center, you need to update the appropriate tables. Refer to the *TSO/E Information Center Installation* manual for more information.

Installing File-AID in a ROSCOE Environment

The steps required to install File-AID and make it operational in a ROSCOE/ETSO environment are now in their own install document, *File-AID/MVS ROSCOE Users Installation Addendum*. This document is included on your File-AID/MVS documentation CD-ROM in a printable Adobe Acrobat PDF format.

Maintenance Considerations

Any changes to the installed product can be made manually or by using Install Manager. Refer to the appropriate chapter on tailoring File-AID.

ISPF Changes

No changes are required. File-AID requires ISPF/PDF 3.5 or later.

Operating System Changes

- IBM OS/390 or z/OS operating system

No changes are required.

Note: When upgrading to IBM z/OS Release 1.5, File-AID/MVS Release 8.9 or higher is required.

New File-AID Releases

As part of your maintenance agreement with Compuware, periodic upgrades with additional capabilities will be made available.

When installing a new release of File-AID, Compuware recommends that you create new libraries to verify the installation.

CPU Changes

Contact a Compuware Customer Service Representative when moving File-AID to a different CPU. A new license certificate will be issued to make this change.

SMF Record Mapping

The File-AID SMF Record Mapping facility is shipped with the File-AID product tape as members of the installation library. The mapping facility consists of PL/I record layouts for most of the common IBM SMF record types and a File-AID XREF library, containing XREF and selection criteria member that automate the process of layout selection when browsing SMF data records. A complete File-AID system, (Batch, SPF, and XE) is required to use the files on the SMF record mapping tape.

File-AID users may employ the SMF Record Mapping facility to browse raw SMF data intelligently using the Compuware-supplied PL/I source layouts, automatic layout cross reference (XREF) members, and File-AID's selection logic.

The *File-AID SMF Record Mapping Reference JES 4* provides instructions for installing and using Compuware's File-AID Release 8 SMF Record Mapping facility to map IBM MVS JES Version 4 or 5 SMF records.

Chapter 2.

Installation Procedures

This chapter provides the information and procedures to install File-AID/MVS or upgrade to a new release. File-AID is primarily installed using Install Manager, an automated ISPF-like procedure designed to reduce the complexity of the installation and to decrease the installation time.

Once invoked, Install Manager prompts you for information and provides help for screens and input fields to guide you through the installation process. A complete tutorial is also provided.

Reminder

You must install and set up the Compuware License Management System before installing the product. See “License Management System” on page 1-1.

The installation procedure consists of the following steps:

- “Step 1. Unload the Install Manager Datasets” on page 2-6
- “Step 2. Edit the SETUP CLIST” on page 2-7
- “Step 3. Execute Install Manager” on page 2-8.

Install Manager Overview

Compuware provides default values for most of the variables stored in the tables that Install Manager creates. However, they may not be appropriate for your site. You may want to collect the information for the variables before beginning the installation. Use Table 2-1 through Table 4-5 to record your values.

Install Manager consists of the following options:

1. Dataset Names

When you select option 1, you are required to provide values for variables. The variables are used by Install Manager to install File-AID and by File-AID to execute the product. They are stored in the following tables:

File-AID Datasets Table : contains File-AID dataset names. Table 2-1 lists the variables.

Table 2-1. File-AID Datasets (Option 1.1)

Description	Default Value	Your Value	Comments
Clists	???????.FA.V8R9M0.CLIST		File-AID Clist library.
Clists in Variable Blocked DSN	???????.FA.V8R9M0.CLISTV		Optional. Enter only if you use VB Clist libraries.
Install Library	???????.FA.V8R9M0.INSTALL		File-AID install library.
Load Library	???????.FA.V8R9M0.LOAD		File-AID load library.
Messages	???????.FA.V8R9M0.ISPMLIB		File-AID message library.
Object Library	???????.FA.V8R9M0.OBJECT		File-AID object library.
Panels	???????.FA.V8R9M0.ISPPLIB		File-AID panel library.
Skeletons	???????.FA.V8R9M0.ISPSLIB		File-AID skeleton library.
Tables	???????.FA.V8R9M0.ISPTLIB		File-AID table library.

File-AID System and COBOL Datasets Table : these datasets identify the system and language environment at your site for File-AID/MVS. The COBOL datasets are only required when you plan to implement the audit report. Table 2-2 lists the variables. You only need to provide the dataset name on one version of COBOL. Use the corresponding install options variables as listed in Table 2-4 on page 2-3 to complete the required system information for your File-AID installation.

Table 2-2. File-AID System and COBOL Datasets (Option 1.2)

Description	Default Value	Your Value	Comments
VS COBOL2 LINKLIB	SYS4.COBOL2.V1R3M1.COB2LIB		If applicable.
Language Environment Linklib	CEE.V1R4M0.SCEELKED		Language Environment Linklib, required .
OS COBOL LINKLIB	SYS4.VS.COBOL.COBLIBV8R9M0		If applicable.
Librarian Load	SYS2.LIBR.V4R2M0.CAILIB		Librarian load, If applicable.
Panvalet Lib	SYS2.PANVALET.V143.CAILIB		Panvalet library, If applicable.
System Macro Library	SYS1.MACLIB		Macro library, If applicable.

File-AID/Data Solutions Datasets Table (Optional) : Contains the names of the File-AID/Data Solutions datasets at your site. File-AID uses these dataset names to enable the call to Data Solutions function. A minimum release of File-AID/Data Solutions V3R3M0 is required to support this function.

Table 2-3. File-AID/Data Solutions Datasets (Option 1.3) (Optional)

Description	Default Value	Your Value	Comments
Load Library	???????.DA.V3R3M0.LOAD		Data Solutions load library.
Messages	???????.DA.V3R3M0.ISPMLIB		Data Solutions message library.
Panels	???????.DA.V3R3M0.ISPPLIB		Data Solutions panel library.
Skeletons	???????.DA.V3R3M0.ISPSLIB		Data Solutions skeleton library.
Tables	???????.DA.V3R3M0.ISPTLIB		Data Solutions table library.

2. Install Options

When you select Install Manager option 2, you are required to provide values for the Install Options table variables. Table 2-4 lists the variables. The variables in the Install Options table are only used by Install Manager to install File-AID and are not used to execute the product. A value is required for all variables, unless stated otherwise in the comments column.

Table 2-4. Install Options Variables

Variable	Default Value	Your Value	Comments
ASMOPT	1		Specify the version of Assembler at your site. Valid values are: 1 IEV90 2 ASMA90.
CALIB	2		Specify whether you want to use Librarian files. Valid values are: 1 Librarian <= 4.1 2 Librarian >= 4.2 3 None.
CAPAN	3		Specify the appropriate setting for Panvalet version. Valid values are: 1 Panvalet <= 12A 2 Panvalet >= 12B 3 None.
CAPS	NO		Specify whether to translate your panel and message libraries to uppercase.
CA1	2		Specify the tape standard your site uses. Valid values are: 1 CA1 2 Standard labels 3 Bypass labels.
COBVER	1		Specify the COBOL version your site uses. Valid values are: 1 VS COBOL II 2 OS COBOL 3 LE 370.
DACHECK	YES		Specify whether your site is licensed for File-AID/Data Solutions Release 3.2 or above.
DUNIT	SYSDA		Specify your site's disk unit name.
DVOLUME			Specify your site's storage unit. Valid values are: Disk or VOLSER.
JOBCARD1	/**		Specify job card information.

Table 2-4. Install Options Variables (Continued)

Variable	Default Value	Your Value	Comments
JOBCARD2	//*		Specify job card information.
JOBCARD3	//*		Specify job card information.
JOBCARD4	//*		Specify job card information.
MSGSPAN	NO		Install Japanese panels and messages. If you are installing a Japanese supported release of File-AID/MVS specify YES only when you want to install the Japanese translated panels and messages, and to ignore the CAPS parameter. For non-Japanese supported releases, you must specify NO and panels and messages appear in English.
OUTCLASS	*		Specify your SYSOUT class.
PDSMAN	NO		Indicate if your site runs PDSMAN.
TBLKSIZE	3200		Specify the blocksize of the installation tape for BLP processing.
TUNIT	CART		Specify your site's tape unit name.
TVOLUME			Specify the volser of the installation tape.

3. Product Options

Values are specified for these variables when you execute option 3: Product Options from the Install Manager main menu. The variables in the Product Option table are used to execute File-AID/MVS. A complete listing of the Product Options variables is provided in Chapter 4, "Installation Option Variables".

The product variables are provided to allow you to customize File-AID. These variables may remain unchanged if you want to install the product as shipped. They are stored in the following tables:

- **CRITICAL Product Option table:** Activate/deactivate LIBDEF dataset allocation method for File-AID. See Table 4-1 on page 4-1.
- **BATCH Product Option table:** Modify batch options of File-AID. See Table 4-2 on page 4-1.
- **ENVIRON1 Product Option table:** Modify File-AID Primary Option Menu. See Table 4-3 on page 4-9.
- **ENVIRON2 Product Option table:** Modify File-AID online environment variables. See Table 4-5 on page 4-12.
- **SVC Product Option table:** Modify File-AID SVC install variables. See Table 4-6 on page 4-18.

4. Training Options

When you select option 4, you are required to provide values for variables. They are stored in the following table:

- **Training Options table:** contains variables used to create training files. See Table 2-8 on page 2-16.

5. Install

Option 5 performs the actual installation of File-AID/MVS. When selected, a list of tasks required to install File-AID is displayed. When you select a task, Install Manager uses the

values provided in the tables listed above to generate and display JCL, panels, skeletons, and CLISTS. If the object is JCL, you must submit the job.

6. Start

When you select option 6, File-AID is executed. You can then verify that the product is functioning properly.

Step 1. Unload the Install Manager Datasets

The Install Manager files are contained in file CW.FA.FILE1. Create the JCL in Figure 2-1 to unload CW.FA.FILE1 into the File-AID Install Manager dataset.

Execute the JCL after making any necessary changes to conform to your site's standards. When the installation of File-AID is complete, the File-AID install dataset should not be deleted. It is required if you need to make future modifications.

Figure 2-1. Allocate and Populate JCL

```

/* ==> INSERT JOB CARD HERE                                <== JOB CARD
/* -----
/*   LOAD INSTALL PDS FROM TAPE FILE 1
/* -----
//UPDTE1   EXEC PGM=IEBUPDTE,PARM=NEW
//SYSUT2   DD DISP=(,CATLG,DELETE),
//          DSN=????????.FA.V8R9M0.INSTALL.MGR           <--- SPECIFY INSTALL-LIB DSN
//          UNIT=?????,                                  <--- SPECIFY DASD UNIT TYPE
//          VOL=SER=???????,                             <--- SPECIFY DASD VOLUME
//          SPACE=(CYL,(2,1,50)),                        <--- 3390 SPACE
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)        <--- REQUIRED
/*
//SYSIN    DD DSN=CW.FA.FILE1,DISP=OLD,                  <--- TAPE FILE 1
//          UNIT=?????,                                  <--- SPECIFY TAPE UNIT TYPE
//          VOL=(,RETAIN,SER=C?????),                    <--- SPECIFY TAPE VOLUME
//          LABEL=(1,SL)                                 <--- NON CA-1 USERS
/*          LABEL=(1,SL,EXPDT=98000)                    <--- CA-1 USERS
/*          LABEL=(2,BLP,EXPDT=98000),                  <-- / USE THESE LINES
/*          DCB=BLKSIZE=3200                            <-- \ TO BYPASS LABELS
//SYSPRINT DD DUMMY                                     <--- PDS LISTING
//SYSUDUMP DD SYSOUT=*                                 <--- ABEND OUTPUT

```

Note: The RETAIN parameter can be removed from this JCL if you are not planning to complete the installation process at this time.

Dataset Information

All File-AID/MVS options are distributed on a single cartridge with the following characteristics:

Volume Serial Number *Cnnmmn*, where *nnmmn* is shown on the external tape label.

Format DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200).

Everything required to install all File-AID/MVS options is contained in the datasets on the File-AID/MVS tape. See Table 2-5.

Table 2-5. File-AID Tape Datasets

Tape Datasets	DASD Datasets	Contents
CW.FA.FILE1	<i>hilevel</i> .INSTALL.MGR	Install Manager.
CW.FA.FILE2	<i>hilevel</i> .INSTALL	Installation JCL, screens, messages, etc.
CW.FA.FILE3	<i>hilevel</i> .OBJECT	Object code for all of the File-AID/MVS modules.

Space and DCB requirements for File-AID may be updated for each new release. Always use the JCL distributed with this release and shown in this manual. Table 2-6 on page 2-7 approximates File-AID/MVS space requirements (3390 DASD) for each library. The Production Library names are variables that you can change when you execute Install Manager. See “Option 1 — Dataset Names” on page 2-9 for more information.

Note: When you set the Install Option variable PDSMAN to YES, Install Manager doubles all PDS directory block allocations.

Table 2-6. File-AID Space Requirements

Library	3390 DASD Space Information
<i>hilevel.FA.V8R9M0.LOAD</i>	110 tracks
<i>hilevel.FA.V8R9M0.ISPPLIB</i>	160 tracks
<i>hilevel.FA.V8R9M0.ISPMLIB</i>	20 tracks
<i>hilevel.FA.V8R9M0.ISPTLIB</i>	1 track
<i>hilevel.FA.V8R9M0.ISPSLIB</i>	5 tracks
<i>hilevel.FA.V8R9M0.CLIST</i>	10 tracks

Important Reminder

This tape must also be mounted during Task 1 of Install, see “Task 1, Allocate and Populate Datasets” on page 2-17.

Step 2. Edit the SETUP CLIST

Edit member SETUP from the INSTALL.MGR dataset, created in “Step 1. Unload the Install Manager Datasets” on page 2-6. Enter the name of the OLD and NEW datasets.

OLD If File-AID/MVS was previously installed at your site with Install Manager, then you may maintain the previously specified variable values. This is accomplished by replacing OLD.INSTMGR.DSN with the name of the Install Manager dataset that was previously used to install File-AID/MVS.

If this is the first time File-AID/MVS has been installed at your site, you do not have an OLD dataset and do not need to enter one. If this dataset is not provided, a warning message is displayed when you invoke Install Manager.

NEW Specify the new File-AID/MVS install dataset you created in “Step 1. Unload the Install Manager Datasets” on page 2-6.

Note: Install Manager uses the ALTLIB facility of TSO/E Version 2 (and above) to allocate the SETUP CLIST. If you are running a TSO/E version less than 2, you must do the following:

1. Change the ALTLIB variable in SETUP to NO.
2. Allocate the File-AID/MVS INSTALL dataset to SYSPROC according to your site’s standards (e.g., using a logon CLIST or a TSO logon procedure as described in “Step 4 — Make Remaining File-AID/MVS Libraries Available” on page 3-2, just substitute INSTALL for ISRCLIB).

Step 3. Execute Install Manager

Execute the CLIST SETUP from the File-AID/MVS install dataset created in “Step 1. Unload the Install Manager Datasets” on page 2-6 by entering the following in an ISPF/PDF COMMAND field:

```
TSO EX 'hlvlname.FA.V8R9M0.INSTALL.MGR(SETUP)'
```

The Install Manager main menu shown in Figure 2-2 is displayed when Install Manager is invoked.

Figure 2-2. Install Manager Main Menu

```

Install Manager ----- SET UP ----- VER: 02.02.00
OPTION ==>

Product.... File-AID/MVS
Version.... 08.09.00
OLD Table Dataset ==> Not Available
NEW Install Dataset ==> 'USERID0.FA.INSTALL.MGR'

Select option:
 1 DATASET NAMES - Specify required datasets
 2 INSTALL OPTIONS - Specify installation parameters
 3 PRODUCT OPTIONS - Specify product options
 4 TRAINING OPTIONS - Specify training file options
 5 INSTALL - Execute installation steps
 6 START - Start File-AID/MVS to verify installation
 X EXIT - Terminate Install Manager

```

Options 1, 2, 3, 4, 5, and 6 must be completed to access File-AID/MVS. Options 1 through 4 must be completed before Options 5 and 6.

Using Install Manager Help

Install Manager provides a comprehensive online tutorial. We recommend you review the tutorial before beginning the install process. After you complete Steps 1 through 3, you can access the tutorial by entering HELP (PF1) on the Install Manager main menu.

Additionally, Install Manager provides help for all input fields. When a question mark (?) is listed as a valid line command, enter a question mark in the CMD field to display a help window. See Figure 2-3 and Figure 2-4 on page 2-9.

Figure 2-3. Using the ? Line Command for Help

```

Install Manager ----- Install Options Table ----- Row 1 to 3 of 19
COMMAND ==>                                     SCROLL==> PAGE

Auto-Install for:
Product.... File-AID/MVS
Version.... 08.09.00
Table..... FA$PRE

Primary cmds: CANCEL/END/UP/DOWN/LOCATE/FIND
Line cmds:   ?

  Cmd Variable  Value                                     Required
-----
?  ASMOPT      1                                     Y
      1) IEV90   2) ASMA90
-----
  CALIB       3                                     Y
      1) Librarian 4.1 or earlier  2) Librarian 4.2 or later  3) None
-----
  CAPAN       3                                     Y
      1) Panvalet 12A or earlier  2) Panvalet 12B or later  3) None
-----
    
```

Figure 2-4. Help for Variable ASMOPT

```

Install Manager ----- Install Options Table----- Row 1 to 3 of 19

Install Manager ----- Help -----
COMMAND ==>
Variable ==> ASMOPT
Verify type ==> LIST
Verify list ==> 1/2
      Assembler Options:
      1) IEV90
      2) ASMA90

  ASMOPT      1                                     Y
      1) IEV90   2) ASMA90
-----
  CALIB       3                                     Y
      1) Librarian 4.1 or earlier  2) Librarian 4.2 or later  3) None
-----
  CAPAN       3                                     Y
      1) Panvalet 12A or earlier  2) Panvalet 12B or later  3) None
-----
    
```

Option 1 — Dataset Names

Dataset Names allows you to specify all the dataset names that are required to execute Install Manager and File-AID/MVS. You must select option 1 and provide the appropriate dataset names.

All dataset names should be entered fully qualified with no quotes. A value is required for all variables, unless stated otherwise in the comments column. All of these datasets will be created at your site during the execution of Install Manager.

For more information on using this screen, enter HELP (PF1).

Figure 2-5. Dataset Names Menu

```

Install Manager ----- Dataset Names ----- VER: 02.02.00
OPTION  ===>

Select Option:

  1  File-AID/MVS Datasets
  2  File-AID/MVS System and COBOL Datasets
  3  File-AID/Data Solutions Datasets (Optional)
    
```

File-AID Datasets

Select option 1 from the Dataset Names menu to display Figure 2-6. Enter the appropriate values in the Dataset Name field. Scroll down to view all the variables.

After entering the desired dataset names, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes. For more information on using this screen, enter HELP (PF1).

Figure 2-6. File-AID/MVS Datasets Table Screen

```

Install Manager ----- File-AID/MVS Datasets Table ----- Row 1 to 9 of 9
OPTION  ===>                                     SCROLL===> CSR

Auto-Install for:
  Product.... File-AID/MVS
  Version.... 08.09.00
  Table..... FA$DSN

Primary cmds: CANCEL/END/UP/DOWN/CHANGE

-----
Description                               Dataset Name
-----
Clists                                     ???????.FA.V8R9M0.CLIST
Clists in Variable Blocked DS             ???????.FA.V8R9M0.CLISTV
Install Library                           ???????.FA.V8R9M0.INSTALL
Load Library                              ???????.FA.V8R9M0.LOAD
Messages                                  ???????.FA.V8R9M0.ISPMLIB
Object Library                            ???????.FA.V8R9M0.OBJECT
Panels                                    ???????.FA.V8R9M0.ISPPLIB
Skeletons                                 ???????.FA.V8R9M0.ISPSLIB
Tables                                    ???????.FA.V8R9M0.ISPTLIB
***** Bottom of data *****
    
```

Change any of the dataset names that are required at your site. The inclusion of these variables is based on install options you set within Install Manager.

Using the Change Command

The CHANGE primary command is available on this screen. You can use this command to expedite dataset name changes. When you enter the command, Figure 2-7 is displayed.

Enter a FROM string and a TO string. All occurrences of the string in the table will be changed.

Figure 2-7. Using the Change Command

```

Install Manager ----- File-AID/MVS Datasets Table ----- Row 1 to 9 of 9
O
A  Install Manager ----- Change ALL -----
  COMMAND ==>

  The entire table will be searched for the FROM string specified.
  ALL occurrences will be changed to the TO string specified.

P  FROM string ==>
   TO string  ==>

D  Press ENTER to continue, END to cancel CHANGE or PF1 for Help.
C
Clists in Variable Blocked DS  ???????.FA.V8R9M0.CLISTV
Install Library                ???????.FA.V8R9M0.INSTALL
Load Library                   ???????.FA.V8R9M0.LOAD
Messages                       ???????.FA.V8R9M0.ISPMLIB
Object Library                 ???????.FA.V8R9M0.OBJECT
Panels                         ???????.FA.V8R9M0.ISPPLIB
Skeletons                     ???????.FA.V8R9M0.ISPPLIB
Tables                         ???????.FA.V8R9M0.ISPTLIB
***** Bottom of data *****
  
```

File-AID/MVS System and COBOL Datasets

Select option 2 from the Dataset Names menu to display Figure 2-8. This option enables you to identify the system and language environment at your site for File-AID/MVS. The COBOL datasets are required only when you plan to implement the audit report. See "Audit Trail Exit" on page 7-6. All dataset names should be entered fully qualified with no quotes.

After entering the desired dataset names, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes.

For more information on using this screen, enter HELP (PF1).

Figure 2-8. File-AID/MVS System and COBOL Datasets Table Screen

```

Install Manager --- FA/MVS System and COBOL Datasets Table --- Row 1 to 6 of 6
OPTION ==>                                SCROLL==> CSR

Auto-Install for:
  Product.... File-AID/MVS
  Version.... 08.09.00
  Table..... FA$COB

Primary cmds: CANCEL/END/UP/DOWN/CHANGE

Description                                Dataset Name
-----
VS COBOL2 Loadlib (if applic.)             SYS4.COBOL2.V1R3M1.COB2LIB
Language Environment Linklib               CEE.V1R4M0.SCEELKED
OS COBOL Loadlib (if applic.)             SYS4.VS.COBOL.COBLIB
Language Environment Linklib               CEE.V1R4M0.SCEELKED
Panvalet Lib (if applic.)                  SYS2.PANVALET.V143.CAILIB
System Macro Library                       SYS1.MACLIB
***** Bottom of data *****
  
```

Notes:

1. If you update OS COBOL Loadlib and/or Language Environment Linklib dataset name variables after you have completed the install process, you must reexecute Option 5, "Task 2, Link Edit Object Modules". See "Task 2, Link Edit Object Modules" on page 2-17.
2. If you update Librarian Load or Panvalet Lib dataset name variables after you have completed the install process, you must reexecute Option 5, "Task 5, Customize FAJSTEPL member in the Skeleton JCL Library". See "Task 5, Customize FAJSTEPL member in the Skeleton JCL Library" on page 2-18.

Using the Change Command

The CHANGE primary command is available on this screen. It enables you to quickly modify dataset names. See "Using the Change Command" on page 2-10 for more information.

File-AID/Data Solutions Datasets (Optional)

Select option 3 from the Dataset Names menu to display Figure 2-9. This option enables you to identify the File-AID/Data Solutions datasets at your site. These datasets are required to activate the Call to Data Solutions feature that is available only when you have File-AID/Data Solutions V3R3M0 or above installed at your site.

The Call to Data Solutions feature is available from the File-AID/MVS Compare function. It enables you to call Data Solutions from the Compare function to create and process Change Criteria and compare your before and after data files. Change Criteria enables you to encrypt/decrypt data, convert currencies, age dates, translate, generate, or otherwise modify data.

All dataset names should be entered fully qualified with no quotes.

After entering the desired dataset names, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes.

For more information on using this screen, enter HELP (PF1).

Figure 2-9. File-AID/Data Solutions Datasets Table Screen

```

Install Manager ----- File-AID/Data Solutions Datasets Table -----
Row 1 to 3 of 3
                                Datasets Table
OPTION  ===>                                SCROLL===> PAGE

Auto-Install for:
  Product.... File-AID/MVS
  Version.... 08.09.00
  Table..... FA$DS

Primary cmds: CANCEL/END/UP/DOWN/CHANGE

Description                                Dataset Name
-----
Load Library                                ???????.DA.V3R3M0.LOAD
Messages Library                            ???????.DA.V3R3M0.ISPMLIB
Panel Library                               ???????.DA.V3R3M0.ISPPLIB
Skeleton Library                             ???????.DA.V3R3M0.ISPSLIB
Table Library                               ???????.DA.V3R3M0.ISPTLIB
V***** Bottom of data *****

```

Note: If you update the File-AID/Data Solutions datasets after you have completed the install process, you must complete the following steps to enable the Call to Data Solutions:

1. Change the DACHECK variable in “Option 2 — Install Options” to “YES”. See Table 2-4 on page 2-3 for more information on the DACHECK variable.
2. Re-execute “Option 5 — Install” “Task 7, Update CLISTs for Use by ISPF LIBDEF” and “Task 15, Enable File-AID/Data Solutions Interface (Optional)”.

Using the Change Command

The CHANGE primary command is available on this screen. It enables you to quickly modify dataset names. See “Using the Change Command” on page 2-10 for more information.

Option 2 — Install Options

Install Options allows you to specify values for variables that Install Manager uses to install File-AID. For example, you must provide values for variables that determine whether your site uses program IEV90, or that contain the job card information Install Manager uses to submit batch jobs. The values that you provide are saved in the Install Options table. A listing of all the Install Options table variables is provided in “Install Options Variables” on page 2-3.

The first time you select Option 2, Install Manager creates the Install Option table and populates it according to the datasets you specified in “Step 2. Edit the SETUP CLIST” on page 2-7. If an OLD dataset was specified, Install Manager populates the table by merging previously specified values with the default values delivered with the product. If an OLD dataset was not specified, the Install Options table is populated with the default values delivered with the product. After the Install Option table is created, selecting Option 2 allows you to edit the table.

Enter 2 to display the screen shown in Figure 2-10. Scroll through this table to review and update all the variables.

Use the HELP command (PF1) to receive information on using this screen. Enter a question mark (?) in the CMD field to receive information on a specific variable.

After entering the desired values, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes.

Figure 2-10. Install Options Table

```

Install Manager ----- Install Options Table ----- Row 1 to 3 of 20
COMMAND ==>                                     SCROLL==> PAGE

Auto-Install for:
Product.... File-AID/MVS
Version.... 08.09.00
Table..... FA$PRE

Primary cmds: CANCEL/END/UP/DOWN/LOCATE/FIND
Line cmds:   ?

Cmd Variable  Value                                     Required
-----
ASMOPT        1                                     Y
              1) IEV90   2) ASMA90
-----
CALIB         3                                     Y
              1) Librarian 4.1 or earlier  2) Librarian 4.2 or later  3) None
-----
CAPAN         3                                     Y
              1) Panvalet 12A or earlier  2) Panvalet 12B or later  3) None
-----

```

Note: Just a reminder: Whenever you are scrolling through a list of options, make sure that SCROLL is NOT set to MAX. Specify either CSR, HALF, or PAGE to ensure that you don't skip over list items.

Option 3 — Product Options

Product Options enables you to specify values for File-AID default options. You must verify or provide values for FALIBDEF variable, as shown in Table 4-1 on page 4-1. If you do not change any other product options, File-AID runs with its default values.

The values that you provide are saved in the Product Options table. Default values are provided for all of the variables. A complete listing of the Product Options variables is provided in Chapter 4, "Installation Option Variables" (Table 4-1 on page 4-1 through Table 4-5 on page 4-12).

The first time you select Option 3, Install Manager creates the Product Options table and populates it according to the datasets you specified in "Step 2. Edit the SETUP CLIST" on page 2-7. If an OLD dataset was specified, Install Manager populates the table by merging previously specified values with the new values delivered with the product. If an OLD dataset was not specified, the Product Options table is populated with the default values delivered with the product. After the Product Options table is created, selecting Option 3 allows you to edit the table.

Enter 3 to display the screen shown in Figure 2-11 on page 2-15. Scroll through this table to review and update all the variables.

The variables are divided into four groups. Issue the LOCATE *group* command to find a specific group. For example: LOCATE ENVIRON1. Issue the FIND *value* command to find a specific value. For example: FIND SYSDA. The valid groups are:

- #CRITICAL:** Critical option that must be set to the correct value for File-AID to activate use of the LIBDEF facility to allocate datasets. Table 4-1 on page 4-1 lists this variable.
- BATCH:** Default values used to submit batch jobs and create datasets. Table 4-2 on page 4-1 provides a listing of these variables.
- ENVIRON1:** Default values used to modify the File-AID Primary Option Menu. Table 4-3 on page 4-9 provides a listing of these variables.
- ENVIRON2:** Default values used to modify the File-AID online environment variables. Table 4-5 on page 4-12 provides a listing of these variables.

SVC: Variables you set if you want to install the File-AID SVC. Table 4-6 on page 4-18 describes these variables.

MVS requires that certain functions, such as creating SMF records and allocating ISAM datasets, be executed in an authorized state to prevent unauthorized users from gaining access to these services. File-AID provides a type 3 or 4 user SVC that does these functions in an authorized state. The File-AID/SPF/XE and File-AID for IMS products share the same user SVC.

After entering the desired values, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes.

Figure 2-11. Product Option Table

```

Install Manager ----- Product Option Table ----- Row 1 to 3 of 83
OPTION ==>                                           SCROLL==> PAGE

Auto-Install for:
Product.... File-AID/MVS
Version.... 08.09.00
Table..... FA$OPT
Primary cmds: CANCEL/END/UP/DOWN/LOCATE/FIND
Line cmds:   ?

Cmd  Group      Variable  Value                                     Required
-----
#CRITICAL  FALIBDEF  YES      YES                                       Y
Acceptable values: YES/NO
Comments:   Can the datasets for use by the product be LIBDEF'd
-----
BATCH     BTOPT01   250      0 thru 9999                               Y
Acceptable values: 0 thru 9999
Comments:   Record Print Default
-----
BATCH     BTOPT02   1        0/1                                         Y
Acceptable values: 0/1
Comments:   Form Print Default - 0) Short 1) Long
-----

```

Note: If you update a product option variable after you have completed the install process, see Table 2-7 to determine which install steps you must reexecute.

Table 2-7. Modifying Variables After Installation

Variable Type	Steps to Rerun
#CRITICAL	07 - Update clist FADYNALC for use by ISPF LIBDEF.
BATCH	03 - Create CSECT FBOPTBAT based on batch options.
ENVIRON1	09 - Create the Primary Option Menu.
ENVIRON2	10 - Create zaps for environment product options.
SVC	If changes made include changes to SVCNUM or SVCSW: 09 - Create the Primary Option Menu. 11 - Link Edit the File-AID SVC. If changes made do NOT include changes to SVCNUM or SVCSW: 11 - Link Edit the File-AID SVC.

Option 4 — Training Options

Training Options allows you to specify the training file names which you want to install for File-AID. Enter 4 to display the Training Option Table screen listing the training variables described in Table 2-8. The variables in the Training Option Table are used by Install Manager to set up your sample training files.

Note: After entering the desired values, enter END (PF3) to save your changes and exit the screen, or CANCEL to exit the screen without saving your changes.

Table 2-8 lists the variables in the training Option table.

Table 2-8. Training Option Variables

Variable Name	Your Value	Description
TRCLUST		Specify the VOLSER of a volume to catalog VSAM clusters.
TRHILEV		Specify the high-level qualifier for File-AID/MVS to use to create the training files.
TRUSER		Specify the user ID for File-AID/MVS to use to allocate training files. The default is &SYSUID.
TRVSAMHI		Specify the high-level qualifiers use for File-AID/MVS to use for VSAM cluster naming.

Note: If you update a training option variable after you have completed the install process, you must reexecute the following two install steps:

06 - Create File-AID Training Files.

08 - Customize the Training File CLIST - FACOPY.

Option 5 — Install

The Installation Task table contains a list of tasks that must be selected and processed sequentially to install File-AID. When you enter Option 5, the system variables are initialized. Upon completion, Install Manager displays the screen shown in Figure 2-12 on page 2-17.

Some of the tasks generate a batch job and then invoke an ISPF/PDF Edit session for the job. Review the JCL and submit the job. Review the job output before moving on to the next task.

Other tasks generate a member in the install dataset containing a panel, skeleton JCL, or CLIST. They then invoke an Edit session for the member so you can review it. The member is copied to the appropriate dataset in a later task.

The JCL, panels, skeletons, and CLISTs are built using the values you supplied for the variables in Options 1 through 4. If a generated member contains an incorrect value, you may want to know what variable is in error.

Use the S line command to select a task. Most of the JCL or objects should not require any manual modifications. However, if you must make a modification, use the E line command to later edit the JCL or object with your changes.

Important

You must use the E line command to maintain any manual changes. If you use the S line command, the object is rebuilt and your changes are overwritten.

You must use the S line command if you modified a variable in Options 1 through 5 and are reexecuting a task to pick up the new value.

When you use the S or E line command, a standard ISPF/PDF Edit screen is displayed with notes and comments that explain what to do next.

Note: It is imperative that you read the internal notes and comments for each task.

After submitting the job or reviewing a generated member, enter END (PF3) to return to the Installation Task table and proceed to the next task.

Figure 2-12. Installation Task Table -- Page One

```

Install Manager ----- Installation Task Table ----- Row 1 to 10 of 15
COMMAND ==>                                           SCROLL==> PAGE

Select a task to install:
Product.... File-AID/MVS
Version.... 08.09.00
Table..... FA#EXE

Primary cmds: END/UP/DOWN
Line cmds:   S/E/?

Task
Cmd Number  Description
-----
01          Allocate and populate datasets.
02          Link Edit Object Modules.
03          Create CSECT FBOPBAT based on batch options.
04          Create Panel, Message, Command, CLIST & Skel Libs.
05          Customize FAJSTEPL member in the skeleton JCL Lib.
06          Create File-AID/MVS Training Files.
07          Update clists for use by ISPF LIBDEF.
08          Customize the Training File CLIST - FACOPY.
09          Create the Primary Option Menu.
10          Create zaps for environment product options.
    
```

Figure 2-13. Installation Task Table -- Page Two

```

Install Manager ----- Installation Task Table ----- Row 11 to 15 of 15
COMMAND ==>                                           SCROLL==> PAGE

Select a task to install:
Product.... File-AID/MVS
Version.... 08.09.00
Table..... FA#EXE

Primary cmds: END/UP/DOWN
Line cmds:   S/E/?

Task
Cmd Number  Description
-----
11          Link Edit the File-AID SVC. (Optional)
12          Copy ISRCLIB to ISRCLIBV. (Optional)
13          Generate ISPF/PDF primary panel. (FYI)
14          Generate ISPF/PDF primary tutorial panel. (FYI)
15          Enable FA/Data Solutions interface (Optional)
***** Bottom of data *****
    
```

Task 1, Allocate and Populate Datasets

This task submits a batch job to copy all applicable data sets from the installation tape to disk, based on the variables established in Option 1, Dataset Names, and Option 2, Install Options. Review the JCL and submit the job.

Task 2, Link Edit Object Modules

This task generates JCL to allocate the File-AID/MVS load library. It also link edits the object modules based on the variables established in Option 1, Dataset Names, and Option 2, Install Options. Review the JCL and submit the job.

Task 3, Create CSECT FBOPTBAT Based on Batch Options

This task creates CSECT FBOPTBAT based on batch options. Review the JCL and submit the job.

Task 4, Create Panel, Message, Command, CLIST & Skeleton Libraries

This task generates JCL to allocate and copy the File-AID panels, messages, command, CLIST, and skeleton libraries based on the variables established in Option 1, Dataset Names, and Option 2, Install Options. Review the JCL and submit the job.

Task 5, Customize FAJSTEPL member in the Skeleton JCL Library

This task generates JCL to customize the FAJSTEPL member in the skeleton JCL library based on variables established in Option 1, Dataset Names, and Option 2, Install Options. Additional link editing is generated for sites with either CA-Librarian or CA-Panvalet. Review and submit the JCL.

Task 6, Create File-AID/MVS Training Files

This task generates the JCL that creates the File-AID/MVS sample data training files based on variables established in Option 1, Dataset Names, and Option 2, Install Options. Review and submit the JCL.

Task 7, Update CLISTs for Use by ISPF LIBDEF

This task updates the FADYNALC CLIST in the user-defined File-AID CLIST library to take advantage of ISPF LIBDEF services. It also creates three new CLISTs for the Call to Data Solutions feature (FADALIB1, FADALIB2, and FADALIB3) that take advantage of ISPF LIBDEF services.

Task 8, Customize the Training File CLIST - FACOPY.

This task updates the FACOPY CLIST in the user-defined File-AID CLIST library. The FACOPY CLIST copies the File-AID/MVS sample files created in Task 6. See “Task 6, Create File-AID/MVS Training Files”.

Task 9, Create the Primary Option Menu

This task generates the IFAMU01 panel based on the environment variables established in Option 3, Product Options. Review the JCL and submit the job.

Task 10, Create Zaps for Environment Product Options

This task submits a batch job that copies objects generated by prior tasks to appropriate File-AID/MVS datasets.

Task 11, Link Edit the File-AID SVC (Optional)

This task creates the JCL to link edit the File-AID SVC. This is an optional procedure. You must define the SVC variables in Install Manager Option 3 — Product Options. See Table 4-6 on page 4-18.

MVS requires that certain functions, such as creating SMF records and allocating ISAM datasets, be executed in an authorized state to prevent unauthorized users from gaining access to these services. File-AID provides a type 3 or 4 user SVC that does these functions in an authorized state. The File-AID/SPF/XE and File-AID *for IMS* products share the same user SVC.

With Release 8.0 and greater, the File-AID SVC contains upgrades that ensure only File-AID can access its SVC functions. **Compuware recommends that you upgrade any previous File-AID SVCs to the current version.** However, you can skip this step if you have installed the SVC from File-AID 6.5.1 or 7.0.1 or File-AID *for IMS* 2.1.1. The newer versions of the SVC are downward compatible with File-AID Release 6.3 and above, and File-AID *for IMS* Release 1.1.2 and above.

Effective with File-AID Release 6.5.1 / 7.0.1 (and File-AID *for IMS* Release 2.1.1), the SVC was upgraded to ensure that only File-AID can invoke it. The File-AID SVC validates the program name and makes sure that it is loaded from an APF-authorized library. The SVC runs AMODE(31) and supports File-AID modules that are RMODE(24) or RMODE(31).

If you do not want this level of control, change the include in the link JCL for object module SPFSVC to include SPFSVCNA. SPFSVC checks the caller for authorization by testing to see that the caller is loaded into protected storage. This means that the File-AID main modules FASPF, FACOMMON, and FAUTILTY must be placed in an APF-authorized library in order to access the functions available with the SVC. SPFSVCNA does not perform this check.

There are “Include” statements for each SVC function that File-AID must execute in supervisor state. Any SVC function that will never be used at your site can be omitted from the Includes. Each SVC function has a weak external reference (WXTRN) so that a missing entry can never be called but generates a zero return code on the link-edit.

The File-AID SVC functions are described in Table 2-7 on page 2-15.

The name card must be changed in the link-edit JCL to reflect the SVC number that you assign. The SVC can be either a user SVC or an ESR (Extended Service Router SVC, invoked by SVC 109). Ensure that you do not use any existing or future IBM ESR numbers. MVS 2.3 and above allow use of ESR numbers in the range of 200-255.

User SVCs are named IGC00nnn where nnn is a number between 200 and 255 with the last digit signed numeric (0 = {, 1 = A, 2 = B, etc.). ESR modules are named IGX00nnn where nnn is a number between 200 and 255.

Review and submit the JCL (JCLLKSVCS).

If the File-AID SVC is installed as a user SVC (IGC00nnn), the MVS SVC table (IEASVC00 in SYS1.PARMLIB) must be updated to include the new SVC number. For example:

```
SVC Parm 253,REPLACE,TYPE(3)          /* FILEAID SVC */
```

After link-editing the SVC module by executing “Task 11, Link Edit the File-AID SVC (Optional)” on page 2-18, copy the module into SYS1.LPALIB. Then perform an IPL (with a CLPA) or use a program product such as RESOLVE to make the SVC available.

This version of the SVC contains the logic to verify that the caller of the SVC came from a File-AID program loaded from an APF-authorized library. It checks the caller for APF authorization by testing to see that the caller is loaded into protected storage. This means that the File-AID main modules FASPF, FACOMMON, and FAUTILTY must be placed in an APF-authorized library to access the functions available with the SVC.

Note: If an authorized library is concatenated to an unauthorized library, then the library becomes unauthorized.

For the user SVC implementation, change the product option variable SVCNUM in Option 3 of Install Manager. The variable SVCNUM must be set to the number (not-signed) of your SVC. If you are not using this implementation, leave the variable set to blanks. See SVCNUM in Table 4-6 on page 4-18.

For the ESROUTE SVC implementation, change the product option variable ESROUTE in Option 3 of Install Manager. The variable ESROUTE must be changed to the ESR number selected. If you are not using this implementation, leave the variable set to blanks. See ESROUTE in Table 4-6 on page 4-18.

Task 12, Copy ISRCLIB to ISRCLIBV (Optional)

This task makes a variable-blocked copy (RECFM=VB) of the ISRCLIB CLIST dataset which is fixed block (RECFM=FB). You must complete this task if your site uses RECFM=VB for CLIST datasets. The last qualifier of the new dataset is ISRCLIBV.

Task 13, Generate ISPF/PDF Primary Panel

This task generates a sample ISR@PRIM panel as an example of how to connect File-AID/MVS to your existing ISPF applications. You can modify this member as needed for your site. Alternatively, you may copy the ADDED lines to another member or make similar modifications to another panel at your site to gain access to the product.

The ISR@PRIM sample is customized to include File-AID/MVS as a primary panel option. It is the standard IBM ISR@PRIM panel, with additions made to it. Figure 2-14 on page 2-21 shows the sample panel. The additions are marked with '<== ADDED' in the right margin.

This panel is NOT automatically copied to your ISPF panel during the installation process. You must decide how this connection is made and perform the necessary updates or copies.

Note: If you have specified Japanese panels and messages by setting the MSGSPAN Install Option to YES, then sample ISR@PRIM panel is provided in Japanese. See MSGSPAN in Table 2-4 on page 2-3.

Figure 2-14. ISR@PRIM Panel

```

%----- ISPF/PDF PRIMARY OPTION MENU -----
%OPTION ==>_ZCMD
%
% 0 +ISPF PARMS - Specify terminal and user parameters +USERID - &ZUSER
% 1 +BROWSE - Display source data or output listings +TIME - &ZTIME
% 2 +EDIT - Create or change source data +TERMINAL - &ZTERM
% 3 +UTILITIES - Perform utility functions +PF KEYS - &ZKEYS
% 4 +FOREGROUND - Invoke language processors in foreground
% 5 +BATCH - Submit job for language processing
% 6 +COMMAND - Enter tso command or CLIST
% 7 +DIALOG TEST - Perform dialog testing
% 8 +LM UTILITIES- Perform library administrator utility functions
% 9 +IBM PRODUCTS- Additional IBM program development products
% C +CHANGES - Display summary of changes for this release
% F +FILE-AID - File-AID MVS data management system /* <== ADDED */
% T +TUTORIAL - Display information about ISPF/PDF
% X +EXIT - Terminate ISPF using log and list defaults
%
+ENTER%END+command to terminate ISPF.
)INIT
 .HELP = ISR00003
 &ZPRIM = YES /* ALWAYS A PRIMARY OPTION MENU */
 &ZHTOP = ISR00003 /* TUTORIAL TABLE OF CONTENTS */
 &ZHINDEX = ISR91000 /* TUTORIAL INDEX - 1ST PAGE */
 VPUT (ZHTOP,ZHINDEX) PROFILE
)PROC
&ZQ = &Z
IF (&ZCMD "=" ' ')
 &ZQ = TRUNC(&ZCMD, '.')
IF (&ZQ = ' ')
 .MSG = ISRU000
&ZSEL = TRANS( &ZQ
 0, 'PANEL(ISPOPTA)'
 1, 'PGM(ISRBRO) PARM(ISRBRO01)'
 2, 'PGM(ISREDIT) PARM(P,ISREDM01)'
 3, 'PANEL(ISRUTIL)'
 4, 'PANEL(ISRFPA)'
 5, 'PGM(ISRJB1) PARM(ISRJPA) NOCHECK'
 6, 'PGM(ISRPTC)'
 7, 'PGM(ISRYXDR) NOCHECK'
 8, 'PANEL(ISRLPRIM)'
 9, 'PANEL(ISRDIIS)'
 C, 'PGM(ISPTUTOR) PARM(ISR00005)'
 F, 'CMD(%FAMENU) NOCHECK' /*<== ADDED */
 T, 'PGM(ISPTUTOR) PARM(ISR00000)'
 , , ,
 X, 'EXIT' /
 *, '?' )
&ZTRAIL = .TRAIL
)END
***** Bottom of Data *****

```

Task 14, Generate ISPF/PDF Primary Tutorial Panel

This task generates a sample ISR00003 panel (Figure 2-15 on page 2-22) as an example of how to connect File-AID tutorials to your existing ISPF tutorials. You can modify this member as needed for your site. Alternatively, you may copy the ADDED lines to another member or make similar modifications to another panel at your site to gain access to the tutorials.

Notes:

1. In order to use the File-AID tutorial from your primary ISPF panel, the File-AID panel must already be allocated when the primary ISPF panel is displayed.
2. If you have specified Japanese panels and messages by setting the MSGSPAN Install Option to YES, then sample ISR00003 panel is provided in Japanese. See MSGSPAN in Table 2-4 on page 2-3.

Figure 2-15. Sample ISR0003 Panel

```

TUTORIAL ----- TABLE OF CONTENTS -----
OPTION ==>_ZCMD

-----
Z ISPF PROGRAM DEVELOPMENT FACILITY TUTORIAL Z
-----

+
The following topics are presented in sequence, or may be selected by
entering a one-character selection code in the option field:
  %G+ GENERAL      - General information about ISPF
  %0+ ISPF PARMS   - Specify terminal and user parameters
  %1+ BROWSE       - Display source data or output listings
  %2+ EDIT         - Create or change source data
  %3+ UTILITIES    - Perform utility functions
  %4+ FOREGROUND   - Invoke language processors in foreground
  %5+ BATCH        - Submit job for language processing
  %6+ COMMAND      - Enter TSO command or CLIST
  %7+ DIALOG TEST  - Perform dialog testing
  %8+ LM UTILITY   - Perform library administrator utility functions
  %9+ IBM PRODUCTS - Use additional IBM program development products
  %F+ FILE-AID     - File-AID MVS data management system < == ADDED
  %X+ EXIT         - Terminate ISPF using log and list defaults
The following topics will be presented only if selected by number:
  %A+ APPENDICES  - Dynamic allocation errors and ISPF listing formats
  %I+ INDEX        - Alphabetical index of tutorial topics

)INIT
&TUTOR = 'TFB'
)PROC
  &ZSEL = TRANS(&ZCMD
                G,ISR01000
                0,ISPO5000
                1,ISR10000
                2,ISR20000
                3,ISR30000
                4,ISR40000
                5,ISR50000
                6,ISR60010
                7,ISR70000
                8,ISR80000
                9,ISR00000
                F,TFB          <=== ADDED UPPERCASE
                X,ISP90100
                A,*ISR00004
                I,*ISR91000
                )
)END

```

Task 15, Enable File-AID/Data Solutions Interface (Optional)

This task modifies the FAJF10SP and FAJSTPL members in your File-AID skeleton Library, which makes the File-AID/Data Solutions load and message libraries available to File-AID when you run Data Solutions from Compare. This task should be run to enable the File-AID/Data Solutions interface.

Option 6 — Start

Option 6 invokes File-AID, enabling you to verify the installation. See Chapter 5, “Verifying File-AID Installation”. If you are not familiar with File-AID/MVS, enter HELP (PF1) to review the tutorial.

When you enter END (PF3) from File-AID, you are returned to the Install Manager main menu.

If all the Install Manager options and tasks have been successfully completed, exit Install Manager.

Chapter 3.

Installation Customization

If you did not select LIBDEF services during the install process, you must choose and complete the install procedure for one of four methods described in this chapter. In addition, this chapter provides information on making modifications for VSAM Space Manager Pool Names or Volume Allocation.

Step 1 — Add the File-AID/MVS Load Library to Your System

The load library, ??????.FA.V8R9M0.LOAD, must be made available to your system when any component of File-AID is installed. Choose one of the following four methods to add File-AID to your system.

1. **Link Pack Area Method:** Compuware recommends placing programs FASPF, FASPFXE, FACOMMON, FACATLG, FAUTILTY, and FAIDCAMS in the Link Pack Area (LPA). This method saves the system from loading a copy of these modules into each user's address space which reduces region size required to run File-AID by approximately one-half. The rest of the File-AID modules must be made available to your system as described in this section.

Note: The Link Pack Area method requires an IPL.

2. **Link List Method:** The File-AID load library, FA.V8R9M0.LOAD, can be added to your Link List concatenation.

Note: The Link List Method requires either an IPL, REFRESH, or equivalent.

3. **Logon Proc or Allocation CLIST method:** The File-AID/MVS load library, FA.V8R7M1.LOAD, can be concatenated to a DD statement in your logon PROC or Allocation CLIST.

Place the File-AID/MVS load library and the COBOL run-time library in the concatenation of either of the following DD statements:

- ISPLLIB
- STEPLIB.

4. **LIBDEF Method:** The File-AID libraries can be dynamically assigned when File-AID/MVS is accessed by using ISPF LIBDEF services.

This is achieved by using Install Manager option 3 to set the Product Option FALIBDEF variable to YES.

See the examples of LOGON PROC, allocation CLIST, and the discussion of CLIST FADYNALC in "Step 4 — Make Remaining File-AID/MVS Libraries Available" on page 3-2.

Step 2 — Perform Optional IPL

An IPL with CLPA is required only if you are implementing optional "Step 1 — Add the File-AID/MVS Load Library to Your System" on page 3-1 step 1 or step 2.

Step 3 — Make File-AID/MVS CLISTs Available

The File-AID CLIST library, ??????.FA.V8R9M0.CLIST, should be added to the SYSPROC concatenation of your logon proc or allocation CLIST, or you may copy the File-AID/MVS CLIST library members to an active CLIST library in your SYSPROC concatenation.

Note: If you choose to concatenate the File-AID CLIST library to other libraries in your SYSPROC concatenation, be sure the record formats (RECFM) are identical. File-AID creates its CLIST library with RECFM=FB, LRECL=80. Install Manager creates an additional CLIST library with RECFM=VB and LRECL=255 and populates it with the appropriate members. This is achieved by using Install Manager option 5 Install TASK 12, Copy ISRCLIB to ISRCLIBV.

Step 4 — Make Remaining File-AID/MVS Libraries Available

Choose one of the following methods to make the File-AID libraries available:

Note: You must concatenate your COBOL run-time library to ISPLLIB or STEPLIB if it's not already accessible to File-AID through the link pack area or link list method.

1. **Change the LOGON PROC:** In addition to the load library (ISPLLIB or STEPLIB) and the CLIST library (SYSPROC), all other File-AID libraries must be made available to ISPF. When running File-AID under TSO, concatenate the new File-AID libraries to the ISPF libraries in the ISPF logon PROC as follows:

```
FA.V8R9M0.LOAD      to  STEPLIB DD
FA.V8R9M0.CLIST    to  SYSPROC DD
FA.V8R9M0.ISPMLIB  to  ISPMLIB DD
FA.V8R9M0.ISPPLIB  to  ISPPLIB DD
FA.V8R9M0.ISPSLIB  to  ISPSLIB DD
FA.V8R9M0.ISPTLIB  to  ISPTLIB DD
```

Figure 3-1. TSO LOGON PROC Example

```
//TSOUSER EXEC PGM=IKJEFT01,DYNAMNBR=25,PARM='EX (LOGON)',
// TIME=10
//STEPLIB DD DSN=ISP.VnRnM0.LOAD,DISP=SHR
// DD DSN=???????.FA.V8R9M0.LOAD,DISP=SHR
//SYSPROC DD DSN=???????.FA.V8R9M0.CLIST,DISP=SHR
//ISPMLIB DD DSN=ISP.VnRnM0.MLIB,DISP=SHR
// DD DSN=???????.FA.V8R9M0.ISPMLIB,DISP=SHR
//ISPPLIB DD DSN=ISP.VnRnM0.PLIB,DISP=SHR
// DD DSN=???????.FA.V8R9M0.ISPPLIB,DISP=SHR
//ISPSLIB DD DSN=ISP.VnRnM0.SLIB,DISP=SHR
// DD DSN=???????.FA.V8R9M0.ISPSLIB,DISP=SHR
//ISPTLIB DD DSN=ISP.VnRnM0.TLIB,DISP=SHR
// DD DSN=???????.FA.V8R9M0.ISPTLIB,DISP=SHR
//SYSHELP DD DSN=SYS1.HELP,DISP=SHR
//SYSLBC DD DSN=SYS1.BROADCAST,DISP=SHR
//SYSPRINT DD TERM=TS,SYSOUT=*
//SYSTEM DD TERM=TS,SYSOUT=*
//SYSIN DD TERM=TS
```

2. **Set up Allocation CLIST Method:** In addition to the load library (ISPLLIB or STEPLIB) and the CLIST library (SYSPROC), all other File-AID/MVS libraries must be made available to ISPF.

You can create a CLIST to be executed from the TSO "READY" prompt, or as an initial logon command. This CLIST must be placed in a CLIST library allocated to SYSPROC in your logon proc. You may call the CLIST anything you like - for example: FILEAID or ALLOCFA.

This technique requires that individuals wishing to use File-AID/MVS must know the name of your allocation CLIST and how to execute it (READY prompt or initial command).

Concatenate the new File-AID/MVS libraries to the ISPF libraries in the allocation CLIST as follows:

```
FA.V8R9M0.LOAD      to  ISPLLIB or STEPLIB DD
FA.V8R9M0.CLIST    to  SYSPROC DD
FA.V8R9M0.ISPMLIB  to  ISPMLIB DD
FA.V8R9M0.ISPPLIB  to  ISPPLIB DD
FA.V8R9M0.ISPSLIB  to  ISPSLIB DD
FA.V8R9M0.ISPTLIB  to  ISPTLIB DD
```

Figure 3-2 and Figure 3-3 are examples of CLISTs you can create to allocate File-AID/MVS.

Figure 3-2. Allocation CLIST Example 1. When TSO STEPLIB command is available

```
PROC 0
FREE FI(ISPMLIB ISPPLIB ISPSLIB ISPTLIB SYSPROC)
STEPLIB ('ISP.VnRnM0.LOAD' '????????'.FA.V8R9M0.LOAD')
ALLOC FI(SYSPROC) FA('????????'.FA.V8R9M0.CLIST') SHR
ALLOC FI(ISPMLIB) FA('ISP.VnRnM0.MLIB' '????????'.FA.V8R9M0.ISPMLIB') SHR
ALLOC FI(ISPPLIB) FA('ISP.VnRnM0.PLIB' '????????'.FA.V8R9M0.ISPPLIB') SHR
ALLOC FI(ISPSLIB) FA('ISP.VnRnM0.SLIB' '????????'.FA.V8R9M0.ISPSLIB') SHR
ALLOC FI(ISPTLIB) FA('ISP.VnRnM0.TLIB' '????????'.FA.V8R9M0.ISPTLIB') SHR
```

Figure 3-3. Allocation CLIST Example 2. When TSO STEPLIB command is not available

```
PROC 0
FREE FI(ISPLLIB ISPPLIB ISPMLIB ISPSLIB ISPTLIB SYSPROC)
ALLOC FI(ISPLLIB) FA('ISP.VnRnM0.LOAD' '????????'.FA.V8R9M0.LOAD') SHR
ALLOC FI(ISPPLIB) FA('ISP.VnRnM0.PLIB' '????????'.FA.V8R9M0.ISPPLIB') SHR
ALLOC FI(ISPMLIB) FA('ISP.VnRnM0.MLIB' '????????'.FA.V8R9M0.ISPMLIB') SHR
ALLOC FI(ISPSLIB) FA('ISP.VnRnM0.SLIB' '????????'.FA.V8R9M0.ISPSLIB') SHR
ALLOC FI(ISPTLIB) FA('ISP.VnRnM0.TLIB' '????????'.FA.V8R9M0.ISPTLIB') SHR
ALLOC FI(SYSPROC) FA('????????'.FA.V8R9M0.CLIST') SHR
```

3. **LIBDEF method:** File-AID CLISTs FAEXEC, FADYNALC, and FAMENU are required if LIBDEF services are used to allocate the File-AID libraries.

This is achieved by using Install Manager option 3 to set the Product Option FALIBDEF variable to YES.

Modifications for VSAM Space Manager Pool Names or Volume Allocation

If your installation has VSAM Space Manager or Sterling Software's Volume Allocation Manager (VAM) and wants to allow allocation of VSAM clusters by pool name, modify panel IFAMU35A

by following the instructions in the PROC section of the panel. Uncomment the necessary statements and add the specified pool names.

Chapter 4.

Installation Option Variables

Table 4-1 through Table 4-6 list the variables in the Product Option table. You may change the values of these variables.

Values are specified for these variables when you execute option 3: Product Options from the Install Manager main menu. The variables in the Product Option table are used to execute File-AID.

Table 4-1. #CRITICAL Product Option Variable

Variable Name	Default Value	Your Value	Comments
FALIBDEF	Yes		Specify whether File-AID/MVS can use the LIBDEF facility to allocate the necessary datasets. Valid values are YES and NO.

Table 4-2. BATCH Product Option Variables

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT01	00	0250 (F0F2F5F0)		RECORD PRINT DEFAULT. The number of records that File-AID/MVS prints if no form of output control is placed on functions that cause printing on SYSLIST. The value can be any number from 0 through 9999. When all zeros (F0F0F0F0) are entered, all records in the file are printed.
BTOPT02	04	1 (F1)		FORM PRINT DEFAULT. Controls the kind of form that is printed. 0 (F0) Short. Prints a count field only at the top and bottom of the page. 1 (F1) Long. Prints a count field under each line.
BTOPT03	05	0 (F0)		KEY PRINT. Determines whether File-AID/MVS prints keys. 0 (F0) Do not print keys. 1 (F1) Print keys. For datasets where the key is an integral part of the record (keyed BDAM or unblocked ISAM), the key is always printed regardless of this setting. Printing the keys can be changed dynamically with the KEY parameter.

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT04	06	06 (F0F6)		<p>BATCH BUFFER SPACE. Controls the amount of memory assigned for buffer space. The number of buffers assigned is calculated by multiplying this option number by 10 kB, then dividing the total by the block size of the dataset.</p> <p>The minimum allowed entry is 05 (50 kB) and the maximum is 99 (990 kB). The default for this option is 6 which is multiplied by 10 kB = 60 kB. Accordingly, the default for File-AID/MVS/ Batch buffers is 60kB divided by the block size of the dataset.</p> <p>This space is assigned to each open dataset. This option can be overridden by coding the BUFNO parameter in the DCB entry on DD statements.</p> <p>For VSAM datasets, this option times 10 kB becomes the buffer space option. It is then used to dynamically compute the number of buffers to assign for VSAM processing. In the case of the USER function where more than two datasets are open at the same time, memory may be a problem if a region parameter is not entered on the EXEC or JOB card.</p> <p>The minimum number of buffers File-AID/MVS allows is five for MVS and three for non-MVS to allow support for chained scheduling.</p>
BTOPT05	08	06 (F0F6)		<p>TSO BUFFER SPACE. Controls the amount of storage used for buffers by each open dataset when File-AID/MVS is executed in a TSO environment. The description for Batch Buffer Space (displacement 06) also applies to this option.</p>
BTOPT06	0A	6 (F6)		<p>PRINTER SPACING. Controls the lines per inch (LPI) on printed output.</p> <p>6 (F6) This number converts to 8 LPI for page printers.</p> <p>8 (F8) This number converts to 12 LPI for page printers.</p> <p>This option can be changed at run time with the LPI parameter.</p>
BTOPT07	0B	1 (F1)		<p>CHARACTER SET</p> <p>0 (F0) Upper case only.</p> <p>1 (F1) Upper case and lower case.</p> <p>To change or add special characters, see the Character Translation Table option at the end of this table.</p>
BTOPT08	0C	1 (F1)		<p>TSO PROMPTING. When executing File-AID/MVS under TSO, users can be prompted for input or not prompted.</p> <p>0 (F0) Do not prompt.</p> <p>1 (F1) Prompt.</p>

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT09	0D	1 (F1)		<p>ABEND CONTROL. Specifies whether File-AID/MVS is to abend if any I/O errors occur.</p> <p>0 (F0) No abends.</p> <p>1 (F1) Abend if any I/O errors occur.</p> <p>2 (F2) Abend for any I/O errors or any non-zero return codes.</p> <p>3 (F3) Abend when the first I/O error is encountered.</p> <p>4 (F4) Abend when the number of data checks specified in the ERRS parameter is reached.</p> <p>Values 1 and 2 do not produce a dump and continue processing additional DDxx datasets. Values 3 and 4 produce a dump and terminate all processing. This option can be overridden with the ABEND parameter.</p>
BTOPT10	0E	2 (F2)		<p>DATE FORMATTING. Allows multiple formats for dates.</p> <p>0 (F0) MM-DD-CCYY</p> <p>1 (F1) CCYY-MM-DD</p> <p>2 (F2) DD-MM-CCYY</p>
BTOPT11	0F	1 (F1)		<p>MONTH FORMATTING. Allows month to be a numeric or alpha value.</p> <p>0 (F0) Numeric.</p> <p>1 (F1) Three-character alphabetic.</p>
BTOPT12	10	025 (F0F2F5)		<p>I/O ERROR. Indicates the number of data checks File-AID/MVS is to allow per volume on tape datasets before considering the dataset unusable. Any number from 0 (F0F0F0, which signifies unlimited errors) through 999 (F9F9F9) can be specified. This option can be changed with the ERRS parameter.</p>
BTOPT13	13	0 (F0)		<p>UPDATE OPTION. Controls updating of datasets that are not protected by your site security for the COPY, DROP, REFORMAT, UPDATE, and USER functions. Four settings may be entered:</p> <p>0 (F0) Update any dataset.</p> <p>1 (F1) Disallow updating of PDSs.</p> <p>2 (F2) Disallow updating of any dataset.</p> <p>3 (F3) N/A (Not applicable to File-AID/MVS batch processing.)</p> <p>4 (F4) Disallows destructive access to RECFM=U PDSs (load libraries).</p>

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT14	14	0000 (F0F0F0F0)		<p>UPDATE ACCESS CODE. Limits updates to specific groups of users. Any number from 0 (F0F0F0F0) through 4095 (F4F0F9F5) is valid. This option is only valid if the Update option is set to a value other than zero. File-AID/MVS is shipped with zeros in this field, which specifies NO access code. When a value is entered, it is converted from the specified decimal value to its hexadecimal equivalent. For example, if the number 2748 (F2F7F4F8) is entered, the access code to be entered at run time is ABC because hex 'ABC' is decimal 2748.</p> <p>The access code is always a three-character field. Even if the number 0001 is entered for the option field, the access code that must be entered is still 001. This code need only be entered once and is used to override the Update option. The CTL parameter is available to enter the access code and is coded as follows:</p> <p style="text-align: center;">\$\$DDxx CTL=yyy</p> <p>where yyy is the three-character access code to be entered.</p> <p>CAUTION: This is the only place where this parameter is referenced. When File-AID/MVS reads this control card, it is not listed on SYSPRINT even if the access code is wrong.</p>
BTOPT15	18	58 (F5F8)		<p>PRINT LINES AT 8LPI. Specifies the number of lines that are printed before overflow on SYSLIST when PRINTER SPACING is F6 (see displacement 0A).</p> <p>Note: File-AID prints in sets of lines (DUMP is 4, PRINT is 2, LIST is 1) and only recognizes overflow at the end of a set.</p>
BTOPT16	1A	82 (F8F2)		<p>PRINT LINES AT 12LPI. Specifies the number of lines that are printed before overflow on SYSLIST when displacement 0A is F8.</p> <p>Note: File-AID prints in sets of lines (DUMP is 4, PRINT is 2, LIST is 1) and only recognizes overflow at the end of a set.</p>
BTOPT17	1C	1 (F1)		<p>USER FUNCTION. Specifies whether the USER function will be allowed. The value 0 (F0) indicates NO; F1 indicates YES.</p>
BTOPT18	1D	08 (F0F8)		<p>NO RECORDS COPIED RETURN CODE. Specifies the return code that File-AID is to issue when records are not selected for copying to any output dataset in a copy operation. The value 08 reflects the current return code issued. Any number from 00 (issue no return code) through 99 is valid. File-AID always reflects the highest return code issued during an execution.</p>
BTOPT19	1F	0 (F0)		<p>MULTIPLE FILE PASS. Indicates if more than one pass through a dataset is to be made.</p> <p>0 (F0) Single pass. 1 (F1) Multiple passes.</p> <p>Normal processing does not reposition at the beginning of a dataset for multiple functions. This option allows those multiple passes to be made. This option can also be changed with the FORM parameter.</p>

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT20	20	(00)		PAD CHARACTER. Sets a default For File-AID/MVS to use to pad when the record length changes during COPY processing.
BTOPT21	21	* (5C)		DYNAMIC ALLOCATION SYSOUT CLASS. Specifies the class that File-AID/MVS assigns to the dynamically allocated SYSPRINT or SYSLIST dataset. Any valid SYSOUT class characters are allowed.
BTOPT22	22	M (D4)		PRINT CONTROL CHARACTERS. Allows File-AID/MVS to support either machine control characters M (D4) or ASA control characters A (C1) on all printer datasets (SYSPRINT, SYSLIST, SYSTOTAL).
BTOPT23	23	N (D5)		FORCE OUTPUT END OF VOLUME. Allows File-AID/MVS to force end-of-volume (EOV) processing for the output tape dataset when the input dataset reaches EOV. This option is only applicable for multi-volume tape datasets. Values are: N (D5) and Y (E8). This option can be overridden at execution time with the FEOV parameter.
BTOPT24	24	0 (F0)		RDW PARAMETER EXPLANATION. Parameters can be set to the following values: 0 (F0) Include and print RDW. 1 (F1) Include and do not print the RDW. 2 (F2) Do not include and print RDW. 3 (F3) Do not include and do not print the RDW. This option can be overridden with the RDW parameter.
BTOPT25	25	08 (F0F8)		OPEN ERROR RETURN CODE. Specifies the return code that File-AID/MVS is to issue when any type of open error occurs. Any number from 00 (F0F0) through 99 (F9F9) is valid. Note: File-AID/MVS always reflects the highest return code issued during an execution.
BTOPT26	27	N (D5)		COPY EMPTY MEMBERS. Allows the user to copy members without records. the default is N, do not copy empty members. Change to Y (E8) to copy empty members.

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT27	28	Y (E8)		<p>CLOSE OUTPUT DATASETS AFTER USER FUNCTION. Controls the closing of output datasets after <i>consecutive</i> USER functions.</p> <p>E8 (Y) Close output file(s) when the \$\$DD changes (for example, \$\$DD01, \$\$DD02). If a USER function uses \$\$DD numbers that are identical to the previous USER function, the output files are not closed. This is the default setting.</p> <p>D5 (N) Do not close output files after each USER function. Close them only after the end of all consecutive USER functions.</p> <p>C1 (A) Always close output files after each USER function.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. PDS output will always be closed regardless of the specified setting. 2. For related information, see Appendix A of the <i>File-AID/Batch Reference Manual</i>. It has 2 examples (35 and 36) which illustrate why you might choose one option over another: Example 35 illustrates splitting a single input dataset into multiple outputs. Example 36 illustrates splitting multiple input datasets into multiple outputs.
BTOPT28	29	N (D5)		<p>SYSTEM-DETERMINED BLOCKSIZE (BLKSIZE=0). If your operating system supports this installation option, it allows you to have your system determine the blocksize of new output PS and PO datasets allocated for File-AID/MVS/Batch if the RECFM is not undefined (=U). The following settings are valid:</p> <p>Y (E8) Enables your system to determine the blocksize when the blocksize is not coded or BLKSIZE=0 is coded.</p> <p>I (C9) Uses the IBM process for determining blocksize. File-AID allows the system to determine the blocksize when BLKSIZE=0 is coded. File-AID uses the blocksize of the input dataset when a blocksize is not coded.</p> <p>N (D5) Disables this support. File-AID uses the blocksize of the input dataset when a blocksize is not coded or BLKSIZE=0 is coded.</p> <p>Note for option I and N: If the output blocksize is not coded, then the output LRECL must be equal to the input LRECL in order for File-AID to use the blocksize of the input dataset. If the LRECLs are not equal, then File-AID assigns the output LRECL as the output blocksize.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. File-AID ignores the setting of this install option unless you have IBM's Data Facility Product (DFP) Version 3 Release 1 or greater (for DASD), DFP Version 3 Release 2 (for tape) or IBM's DFSMS installed. 2. Modifying this option may change default allocations of existing batch jobs.

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
BTOPT29	2A	blank (40)		FORMATTED PRINT COPYBOOK ALTERNATE LIBRARY. Allows the user to specify Librarian or Panvalet datasets for your formatted print copybook library. blank (40) PDSs and PDSEs only. L (D3) Librarian datasets. P (D7) Panvalet datasets.
BTOPT30	2B	4 (04)		RETURN CODE FOR RECORD TRUNCATION. Specifies the return code that File-AID is to issue when records are truncated in a copy operation. The value X'04' is default to issue RC=4. X'0C' would issue RC=12, X'10' would issue RC=16. Any HEX value X'00' through X'FF' is valid.
BTOPT31	2C	N (D5)		FORMATTED PRINT SUPPORT. Enables IBM double byte character set (DBCS) support for formatted print. N (D5) Standard print characters. Y (E8) IBM supported DBCS print characters.
BTOPT32	2D	N (D5)		PRINT RECORD INFORMATION. The default is N (D5), do not include record disk addresses when printing user data files. Change to Y (E8) to include record disk addresses when printing user data files.
BTOPT33	2E	F (C6)		PROCESSING DIRECTION. Allows you to switch the processing direction. The default is F (C6) forward. Change to B (C2) for backwards.
BTOPT34	2F	N (D5)		PROCESS IN JCL FORMAT. The default is N (D5), do not process in JCL format. Change to Y (E8) to process records in JCL format. This option can be overridden at execution time with the FORM=JCL parameter.
BTOPT35	30	Y (E8)		PDS REPLACE LIKE MEMBERS. The default is Y (E8), replaces like-named members in a PDS. Change to N (D5), do not replace like-named members. This option can be overridden at execution time with the RLM parameter.
BTOPT36	31	N (D5)		COPY ENTIRE MEMBER. The default is N (D5), do not copy the entire member; copy only the selected records. Change to Y (E8) to copy the entire member when any of the records in the member match the selection criteria. This option can be overridden at execution time with the MEM parameter.
BTOPT37	32	N (D5)		MAINTAIN PDS STATISTICS. N (D5) Do not maintain PDS statistics. Y (E8) Maintain PDS statistics. A (C1) Maintain PDS statistics, and add when they previously did not exist. This option can be overridden at execution time with the PDSSTAT parameter.
BTOPT38	33	blank (40)		Reserved for future use.
BTOPT39	34	0 (00)		UNEQUAL COMPARE RETURN CODE. Specify the return code to display when the Compare function (option 10) finds any differences in the data that you specify to compare from the old to the new dataset. Valid entries are hexadecimal values 00 through FF.

Table 4-2. BATCH Product Option Variables (Continued)

Variable Name	Displacement	Default Value	Your Value	Comments
				<i>The options preceding this message can be modified at execution time. See "Modify Batch Options at Execution" on page 4-9. The options following this message cannot be modified at execution time.</i>
BTOPT40 BTOPT41 BTOPT42 BTOPT43 BTOPT44 BTOPT45 BTOPT46 BTOPT47 BTOPT48	36	nine blanks (40)		CHARACTER TRANSLATION TABLE EXTENSION. Used for SYSLIST character translation. All 9 positions are set to blanks, (4040404040404040). You may enter up to nine additional special characters.
BTOPT49	58	DFLT (C4C6D3E3)		<p>CHARACTER SET TABLE. When the value of this option is appended to "FAXT" it becomes the name of a character set translation table in the File-AID/MVS load library. This table is used to determine if a character is displayable or printable. The default is DFLT (American English). Values that are currently valid are:</p> <p>BELG (C2C5D3C7) Belgian. CNBL (C3D5C2D3) Canadian Bilingual. CNFR (C3D5C6D9) Canadian French. CYRL (C3E8D9D3) Cyrillic. DFLT (C4C6D3E3) American English. FREN (C6D9C5D5) French. GREK (C7D9C5D2) Greek. HEB (C8C5C240) Hebrew. HEBN (C8C5C2D5) Hebrew new, post Aleph. HEBO (C8C5C2D6) Hebrew old, post Aleph. ICLN (C9C3D3D5) Icelandic. KANA (D2C1D5C1) Japanese. K930 (D2F9F3F0) Katakana 0930. K939 (D2F9F3F9) Katakana 0939. LATN (D3C1E3D5) Roece Latin. PGSE (D7C7E2C5) Portuguese. SPAN (E2D7C1D5) Spanish. SWED (E2E6C5C4) Swedish. SWFG (E2E6C6C7) Swiss-French and Swiss-German. THAI (E3C8C1C9) Thai. TURK (E3E4D9D2) Turkish. YUGO (E8E4C7D6) Yugoslav. 3277 (F3F2F7F7) Model 3277 display terminals.</p> <p>For information on code pages, refer to the IBM manual, <i>3270 Information Display Systems Character Set Reference</i>.</p>

Modify Batch Options at Execution

The OPT parameter in the PARM field is used to override or change batch options with displacements of 00 through 35. File-AID processes the option fields as one contiguous data field, so all options to the left of the option being changed must be specified as well. The data entered in the OPT parameter overlays the installation option area from left to right.

Example

Change the Batch buffer space option from the default value 06 to 12.

```
// EXEC PGM=FILEAID,PARM='OPT=02501012'
```

Table 4-3. ENVIRON1 Product Option Variable

Variable Name	Default Value	Your Value	Comments
ARCHVOLN	MIGRAT		<p>Specifies the “false” volume names that your installation uses for archived datasets. File-AID/MVS treats any dataset that is cataloged to one of these volumes as archived. File-AID/MVS presents the Archived/Migrated Dataset screen before processing unless it is disabled with the Archived/Migrated Dataset screen install option. The presentation of this panel gives the user the opportunity to cancel processing of the archived dataset.</p> <p>Entries must be a legal volume serial name and six alphanumeric characters in length. Entries may end with blanks or asterisks. If trailing asterisks are entered, File-AID/MVS matches any volume name with the same beginning characters.</p> <p>Note: If you have no archive volume, set ARCHVOLN='*' and ARCHVOL2='*'. Table 4-4 on page 4-12 shows sample valid entries for the ARCHVOLN and ARCHVOL2 variables. When setting this variable with Install Manager, do not enter the quotes (' ').</p>
ARCHVOL2	ARCIVE		See ARCHVOLN description above.
FILEAID	FILEAID		This variable reflects the program name of the Interactive Execution mode of File-AID/MVS. If this name conflicts with the site's installation, rename the module in the load library using ISPF option 3.1, and change this variable to reflect the new name.
IOXDEF	NO		<p>This option is used in conjunction with user-written I/O exits. Valid entries include:</p> <p>NO Do not display I/O exit fields on the File-AID/MVS panels.</p> <p>YES Display fields on the panels enabling the user to enter the name of an I/O exit program module.</p> <p>NAME Display fields on the panels with a prefilled name of an I/O exit program module.</p>
ISAMUNIT	blank		<p>This option allows you to control volume assignments for ISAM allocations. Valid entries include:</p> <p>blank You can allocate ISAM datasets on a SYSDA volume.</p> <p>UNIT NAME With an esoteric unit name (SYSDA, 3380, etc.) allocations are restricted to volumes within that group.</p> <p>DEFAULT With the word DEFAULT, ISAM allocation has the same volume restrictions as the user's LOGON ID.</p>

Table 4-3. ENVIRON1 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
RETNDAYS	000		This variable is overridden if an expiration date is specified for datasets allocated through the File-AID/MVS COPY (option 1) Dataset Allocation screen.
TDSNFMT	ULIDTS		<p>The variables TDSNFMT, TDSNLIT, and TDSNSFX allow you to customize the temporary dataset name used by File-AID.</p> <p>TDSNFMT is a six-character string defining the node sequence of the temporary dataset name. Each character represents the contents of a node as follows:</p> <p>U Your TSO prefix, or user ID when a prefix is not set.</p> <p>L Literal, up to eight characters, defined by the TDSNLIT variable. The default is FILEAID.</p> <p>I Two-character identifier that is assigned by File-AID to identify the type of temporary dataset. This character is required.</p> <p>D Date in Dyyddd (Julian) format.</p> <p>T Time in Thhmss format.</p> <p>S Suffix, up to eight characters, defined by the TDSNSFX variable. The defaults is blanks.</p> <p>X TSO user ID.</p>
			<p>You may rearrange the order of the nodes. A maximum of eight characters may be specified. See TDSNLIT and TDSNSFX.</p> <p>Note: It is possible to specify these variables so that the temporary dataset name exceeds 44 characters. If this happens, File-AID detects it on startup, stops, and issues the message: MAX dataset name exceeds 44 characters.</p> <p>Example:</p> <p>File-AID names a compare criteria dataset created according to the TDSNFMT variable default, ULIDTS, as follows: userid.FILEAID.CC.Dyyddd.Thhmss.</p> <p>If you change the TDSNFMT variable to USILTD, TDSNLIT to FA, and TDSNSFX to TEMP, File-AID/MVS names the same compare criteria dataset: userid.TEMP.CC.FA.Thhmss.Dyyddd.</p>
TDSNLIT	FILEAID		TDSNLIT specifies a string, up to eight characters, for the LITERAL node of the temporary dataset name. See TDSNFMT.
TDSNSFX	blank		TDSNSFX specifies a string, up to eight characters, for the SUFFIX node of the temporary dataset name. See TDSNFMT.
VSAMDATA	blank		This option enables you to specify a name other than DATA for File-AID to use as the VSAM low level data name.
VSAMDAYS	000		This option allows specifying retention days for VSAM clusters or alternate indexes allocated through the File-AID COPY (option 1) Dataset Allocation screen. It is added to the current date to create an expiration date.

Table 4-3. ENVIRON1 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
VSAMHILV	blank		<p>This option enables the use of unqualified VSAM dataset names. With VSAM catalogs, a single high-level node belongs to a single catalog. This option allows the site to specify a VSAM high-level node that points to a specific VSAM catalog. File-AID/MVS uses the VSAMHILV variable and the VSAM intermediate name to construct VSAM names for dataset searches. You can specify the VSAM intermediate name on the 0.1 System Parameters screen; the default is your userid.</p> <p>As in normal ISPF, whenever an unqualified name is entered on a panel, File-AID/MVS searches for that name prefaced with the TSO prefix (normally your userid). If the name is not found, File-AID repeats the search using the <i>VSAMHILV-variable.VSAM-intermediate-name-unqualified-name-you-entered</i> as the search criteria. If a match is not found, File-AID/MVS considers the name in error. For more information on the VSAM intermediate name, see the online tutorial for the 0.1 System Parameters screen.</p>
VSAMINDEX	blank		<p>This option enables you to specify a name other than INDEX for File-AID to use as the VSAM low level index name.</p>
VSAMUNIT	blank		<p>This option allows you to control volume assignments for VSAM allocations. Valid entries include:</p> <p>blank You can allocate VSAM datasets on a SYSDA volume.</p> <p>UNIT NAME With an esoteric unit name (SYSDA, 3380, etc.) allocations are restricted to volumes within that group.</p> <p>DEFAULT With the word DEFAULT, ISAM or VSAM allocation has the same volume restrictions as the user's LOGON ID.</p>
VSAMXALL	No		<p>This option allows you to customize the default value for the VSAM Extended Allocation Screen option displayed on the VSAM Allocate New VSAM Cluster screen. Valid entries are:</p> <p>No (Default) Sets the VSAM Extended Allocation Screen option default to NO.</p> <p>Yes Sets the VSAM Extended Allocation Screen option default to YES.</p>
WRKUNIT	blank		<p>This option allows you to specify a generic unit name for File-AID/MVS temporary dataset allocations. If left blank, it defaults to either:</p> <ul style="list-style-type: none"> • UADS name for TSO session (if available) • SYSDA <p>VIO can be specified for WRKUNIT.</p>
ZPRIM	FA		<p>This variable defines whether File-AID functions as a primary ISPF application. The default value, FA, enables each user to determine its settings with the Specify Jump Command Default Enable field on the System Parameters screen (0.1). Valid entries are:</p> <p>Y File-AID functions as a primary application for all users.</p> <p>N File-AID does not function as a primary application for any user.</p> <p>FA File-AID checks the setting of the Specify Jump Command Default Enable field on the System Parameters screen (0.1) for each user to determine whether to function as a primary ISPF application.</p>

Table 4-4. ARCHVOLN and ARCHVOL2 Variable™ Valid Entry Examples

Entry	Volume	Result
MIGRAT	MIGRAT	Match
ARC	ARC	Match
ARCIVE	ARCIVE	Match
ARCH**	ARCHIV	Match
ARCH*	ARCH01...99	Match
ARCH**	ARCH01...99	Match
ARCH	ARCH01...99	No Match

Table 4-5. ENVIRON2 Product Option Variable

Variable Name	Default Value	Your Value	Comments
ABRALLOC	0		<p>ABR ALLOCATION. If your installation uses Innovation Data Processing, Inc.'s Automatic Backup and Recovery (ABR) for archival and retrieval, the following zap forces allocation of datasets when an attempt to find them on a volume fails.</p> <pre> NAME FASPF FSOPTSPF VER 8A F0 REP 8A F1 </pre>
ARCMIG	0		<p>SUPPRESS MIGRATE SCREEN. If a dataset archive or migration package, such as DFHSM, DMS/OS, or FDR/ABR, is installed and the dataset requested for processing has been migrated, File-AID/MVS normally displays a migrate screen asking if the user wishes to restore the dataset. Apply the following zap to bypass this screen and automatically restore these datasets:</p> <pre> NAME FASPF FSOPTSPF VER 87 F0 REP 87 F1 </pre>
DATEFMT	1		<p>DATE DISPLAY FORMAT. To select the format of the date display within File-AID/MVS, use the following zap:</p> <pre> NAME FASPF FSOPTSPF VER 83 F1 REP 83 Fx </pre> <p>Valid entries are:</p> <p>0 (F0) Replace the x with the value 0 to display dates in the MM/DD/YYYY format.</p> <p>1 (F1) (Default) File-AID date format is initialized to 1, YYYY/MM/DD format. If you need to reset the date format to its default, replace the x with the value 1 to display dates in the YYYY/MM/DD format.</p> <p>2 (F2) Replace the x with the value 2 to display dates in the DD/MM/YYYY format.</p> <p>For link edit dates, the year portion of the date is displayed as YY.</p> <p>Note: This zap does not affect the File-AID release date display. It is always displayed in the MM/DD/YYYY format.</p>

Table 4-5. ENVIRON2 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
DSNMSG	0		<p>UNEXPIRED DATASET MESSAGE. File-AID rejects any attempt to delete an unexpired dataset. Apply the following zap to display a warning message when a dataset is not past its retention period:</p> <pre> NAME FASPF FSOPTSPF VER 86 F0 REP 86 F1 </pre> <p>The warning message is displayed on the Confirm Dataset Delete screen.</p>
DSNRESV	0		<p>DATASET RESERVE/ENQUEUE. The use of File-AID/MVS Copy (output dataset only) function cause File-AID/MVS to issue RESERVE macros at the appropriate time to ensure dataset integrity. The major name used is SPFDSN for ISPF and SPFEDIT for ISPF/PDF. The minor name is the dataset's 44-byte name (which is compatible with regular ISPF).</p> <p>In the case where RECFM=U PDSs are encountered, as in regular ISPF, File-AID/MVS considers these to be load libraries. It issues an additional RESERVE with the major name SYSIEWLP followed by the 44-byte dataset name to ensure integrity with the linkage editor.</p> <p>If these major names (SPFDSN, SPFEDIT, SYSIEWLP) conflict with internal standards, they may be changed by zapping the eight bytes beginning at locations 98 for SPFDSN and A0 for SYSIEWLP. In multiple-CPU environments with shared DASD, datasets may not be updated or copied to in the File-AID Interactive Execution function, option 3.8, unless control card input is contained in a dataset. This is done to eliminate excessive UCB lockout caused by issuing a reserve on the shared DASD device to ensure integrity and then relying on a user to enter control information directly into the system. This control dataset may be sequential or a member of an existing PDS.</p> <p>If the system does not have shared DASD and the user wants dataset enqueues issued instead of reserves, change location 81 to F2. Valid entries are:</p> <p>0 Always do reserves.</p> <p>2 Always do enqueues. F2 is intended for sites that do not have shared DASD or have software packages such as MIM (Multi-Image Manager) or GRS.</p> <p>To set the Always Enqueue Shared DASD option, zap location 81 with the following:</p> <pre> NAME FASPF FSOPTSPF VER 81 F0 REP 81 F2 </pre>

Table 4-5. ENVIRON2 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
EDITOPEN	0		<p>EDIT 1ST OPEN. File-AID Edit (by default) opens datasets for UPDATE processing when loading the dataset into storage. This allows File-AID to inform the user of any edit limitations at the beginning of the session. It also may cause your installation's security package to issue security violation messages when you attempt to edit read-only data. To disable this feature by having File-AID open the dataset for input when loading the data into storage, apply the following zap:</p> <pre> NAME FASPF FSOPTSPF VER 8C F0 REP 8C F1 </pre> <p>Note: The Edit 1st Open product option does not apply to VSAM datasets.</p>
ISPFACC	0		<p>ISPF LOG DATASET ACCESS. All File-AID functions may be logged to the ISPF log dataset. When this option is enabled, all functions are logged including dataset destructs. In addition, interactive functions are logged. The system is shipped with this option disabled. To enable this option, zap location 7F to F1 (1).</p> <p>To enable the Automatic Logging option, zap location 7F with the following:</p> <pre> NAME FASPF FSOPTSPF VER 7F F0 REP 7F F1 </pre>
PCFACC	0		<p>PCF DATASET ACCESS. Gives instructions to set a flag in the Environment Control Table (ECT) to be compatible with Program Control Facility (PCF) considerations.</p> <p>Whenever datasets are allocated as SHR (Share) when using File-AID/MVS to copy (output dataset only), File-AID/MVS sets the Program Control Facility (PCF) authorization flag to X'01'. This is in the first byte of the ECTSCMD field of the Environment Control Table (ECT). This ISPF flag in PCF checks authorization as though the dataset were allocated as OLD.</p> <p>The Allocate for Uncatalogs option, at location 80, forces uncatalogs to first allocate the dataset. This allocation maintains compatibility with PCF and allows PCF to verify that the dataset is valid for the user to access. This option has two settings:</p> <ul style="list-style-type: none"> 0 Do not allocate on uncatalogs 1 Allocate before uncatalogs. <p>To set the Allocate for Uncatalogs option, zap location 80 with the following:</p> <pre> NAME FASPF FSOPTSPF VER 80 F0 REP 80 F1 </pre>

Table 4-5. ENVIRON2 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
STORAGE 'Limiting Above-the-Line Storage'	F9F9F9		<p>ABOVE-THE 16MB-LINE STORAGE</p> <p>File-AID/MVS's default setting (F9F9F9) uses your site's system-defined limit for above-the-line storage. This option allows you to adjust the amount of storage that File-AID can use. As a result, it can limit the amount of storage that File-AID/MVS can use. To implement this option, specify the storage limit and apply the zap.</p> <p>If you use F0F0F0, File-AID doesn't use any above-the-line storage.</p> <p>For example, to change the above-the-line storage limit to 12 megabytes, apply the following zap:</p> <pre> NAME FASPF FSOPTSPF VER 8F F9F9F9 REP 8F F0F1F2 </pre>
'Dataset Update'			<p>File-AID's Dataset Update option (UPDTEOP) allows you to protect datasets from destructive access (updating and deleting) that are not already protected by your site security. The Update Access Code option (UPDTEAC) can be used to limit destructive access to a specific group of users who know the code. These update options are initialized by setting the following variables or applying their zaps to the File-AID FSOPTSPF CSECT in module FASPF.</p>
UPDTEAC	F0F0F0F0		<p>UPDATE ACCESS CODE OPTION. The Update Access Code limits updating to specific groups of users who know the code. Any number from 0 (F0F0F0F0) through 4095 (F4F0F9F5) is valid. This option is only valid if the Update option is set to a value other than zero. File-AID is shipped with the update access code at location 7A set to four zeros. Zeros specify no access code.</p> <p>When a number is entered, it is converted to its hexadecimal equivalent. This equivalent becomes the access code which must be entered on the Access Code Confirmation screen. To set the update access code, zap the four positions beginning at 7A.</p> <pre> NAME FASPF FSOPTSPF VER 7A F0F0F0F0 REP 7A Fx Fx Fx Fx </pre> <p>For example, entering the decimal number 2748 changes the access code to its hex equivalent, ABC.</p> <pre> NAME FASPF FSOPTSPF VER 7A F0F0F0F0 REP 7A F2F7F4F8 </pre> <p>The access code is always a three-character field. Even if the number 0001 is entered in this option field, the access code that must be entered is still 001.</p>
			<p>If destructive access protection is active for a dataset and an access code was <i>not</i> established, File-AID denies access to the dataset. If an access code was established, the Access Code Confirmation screen is displayed. The user must then enter an access code. If an incorrect code is entered, access is denied. If the correct code is entered, all further access to datasets in that function is allowed.</p> <p>These options conform to the Update and Update Access Code options described in Table 4-2 on page 4-1.</p>

Table 4-5. ENVIRON2 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
UPDTEOP	0		<p>UPDATE OPTION. The Update option at location 79 is set to zero. Five settings may be entered:</p> <ul style="list-style-type: none"> 0 Allows destructive access to any dataset format. 1 Disallows destructive access to only PDSs. 2 Disallows destructive access to any datasets. 3 Allows destructive access to only those files having the logon USERID as a high-level qualifier. 4 Disallows destructive access to RECFM=U PDSs (load libraries). <p>To change the Update option, zap location 79 with the following:</p> <pre> NAME FASPF FSOPTSPF VER 79 F0 REP 79 Fx </pre> <p>Set x to 1, 2, 3 or 4 (F1, F2, F3, or F4).</p>
USEMINUS	0		<p>USE MINUS OPTION. The USE Minus Option allows negative relative offsets in the USE primary command that causes the layout to precede the actual data. Valid entries are:</p> <ul style="list-style-type: none"> 0 Do not allow access. 1 Allow access in Browse and Edit mode. <p>To enable this feature apply the following zap:</p> <pre> NAME FASPF FSOPTSPF VER 8D F0 REP 8D F1 </pre>
VSAMEXIT 'VSAM Allocation Exit'	0		<p>VSAM ALLOCATION EXIT. The VSAM allocation exit is used to review VSAM allocations before the actual allocations occur. The exit can be invoked at two different points during the allocation process. The following configurations are valid:</p> <ul style="list-style-type: none"> 0 Do not invoke. 1 The exit is called after the first allocation screen to resolve the following VOLSER information: VOLSER/UNIT, SPACE REQUIREMENTS - CYLINDERS/TRACKS REQUESTED, RECORD SIZE, KEY INFORMATION, etc. The exit must return with a valid VOLSER or error. 2 The exit is called just before the actual allocation with all values resolved. Only an error message is possible at this point. 3 Exit called twice at both points as described. <p>Use the following zap to specify when the VSAM allocation exit is called:</p> <pre> NAME FASPF FSOPTSPF VER 8B F0 REP 8B Fx </pre> <p>Set x to 1, 2, or 3 (F1, F2, or F3).</p> <p>The source for the exit is in install member FAVSMAXT. Install member JCLASM contains sample assemble JCL. Install member JCLKAXT contains the JCL to link the module.</p>

Table 4-5. ENVIRON2 Product Option Variable (Continued)

Variable Name	Default Value	Your Value	Comments
WINBROW	01F4		<p>WINDOWED BROWSE THRESHOLD. Specify the dataset size limit in number of tracks used for File-AID/MVS to determine when to display the windowed browse mode option. The default is 500 tracks, which is entered as hexadecimal 01F4. Valid entries are hexadecimal values 0000 - 7FFF. When a file exceeds this threshold, File-AID displays the Browse Method Specification screen. Apply the following zap to modify the windowed browse threshold:</p> <pre> NAME FASPF FSOPTSPF VER A8 01F4 REP A8 xxxx </pre>
WINEDIT	015E		<p>WINDOWED EDIT THRESHOLD. Specify the dataset size limit in number of tracks used for File-AID/MVS to determine when to display the windowed edit mode option. The default is 350 tracks, which is entered as hexadecimal 015E. Valid entries are hexadecimal values 0000 - 7FFF. When a file exceeds this threshold, File-AID displays the Edit Method Specification screen. Apply the following zap to modify the windowed edit threshold:</p> <pre> NAME FASPF FSOPTSPF VER AA 015E REP AA xxxx </pre>
WRKALLC	0		<p>WORKFILE ALLOCATION: Preallocating Intermediate Workfiles</p> <p>Up to two File-AID/MVS intermediate workfiles can be preallocated. This is done either with a logon PROC or allocation CLIST. The name is user-specified and the space can be a minimal amount. Allocate the files as:</p> <pre> //FILEAID0 DD DSN=anyname //FILEAID1 DD DSN=anyname </pre> <p>These files can be allocated to VIO.</p> <p>Note: Allocate files with no DCB information, only specify space initially when allocating NEW.</p> <p>Intermediate Workfile Naming</p> <p>When a non-VIO intermediate work file is allocated, a dataset name is built that consists of USERID.FILEAID.id.Dyyddd.Thhmmss. See page 4-10 for a description of the TDSNFMT variable which defines the work file name. If this naming convention conflicts with the site's installation standard, location 7E in CSECT FSOPTSPF can be zapped to allow the system to allocate the temporary dataset name of &FILEAID. The two settings allowed are: 0 (F0), which causes a name to be constructed as stated, and 1 (F1), which allows the operating system to assign a temporary dataset name.</p> <p>To allow the system to allocate the dataset name &FILEAID, zap location 7E with the following:</p> <pre> NAME FASPF FSOPTSPF VER 7E F0 REP 7E F1 </pre>

Table 4-6. SVC Product Option Variable

Variable Name	Default Value	Your Value	Comments
FAFUNC00	NO		Specify YES to allow File-AID to delete or rename SMS datasets (for releases prior to 8.0). Valid values are YES and NO. FAFUNC00 issues SVC 26 which allows FA releases prior to 8.0 to delete or rename VSAM SMS datasets. This module is required only when you intend to run a release prior to File-AID 8.0 in conjunction with the current release.
FAFUNC04	NO		Specify YES to allow File-AID to allocate ISAM datasets dynamically. Valid values are YES and NO. FAFUNC04 issues SVC 32 to allocate ISAM datasets.
FAFUNC16	NO		Specify YES to allow File-AID or File-AID for IMS to write File-AID SMF records to the system log. Valid values are YES and NO. FAFUNC16 issues SVC 83 to write File-AID SMF records to the system log.
FAFUNC28	NO		Valid values are YES and NO. FAFUNC28 attaches module FAICTLOP in supervisor state. Note: This function is not supported if running DFP release 2.4 or above.
FAFUNC32	NO		Specify YES to allow File-AID for IMS to access the terminal name for FA/IMS SMF audit access records. Valid values are YES and NO. FAFUNC32 allows the terminal name to be accessed in protected storage for recording in the FA/IMS SMF Audit Access Record. It is also used for BMP or IRC access. This module is for FA/IMS release 2.1 and above.
SVCNUM	000		Specify a number 200 to 255 for the File-AID SVC. User SVC's and ESRoute SVC's are normally in the range of 200 and 255. If File-AID/MVS is already installed, please refer to member IFAMU01 in the File-AID/MVS panel library (do a FIND on either ESRROUTE or SVCNUM for a non- zero value) to reference the assigned value.
SVCSW	NONE		Specify whether the SVC is a user SVC or an ESR. Valid values are NONE, SVC, and ESR. MVS requires that certain functions be executed in an authorized state to prevent unauthorized users from gaining access to these services. File-AID provides a type 3 or 4 user SVC for this purpose. The selection of user SVC or ESR is mutually exclusive.

Chapter 5.

Verifying File-AID Installation

Perform the following steps to verify the correct installation of File-AID/MVS:

- “Step 1 — Make Available and Access File-AID” on page 5-1
- “Step 2 — Verify Primary Options” on page 5-1
- “Step 3 — Verify FACOPY CLIST” on page 5-2
- “Step 4 — Verify Option 2 -- Edit Data File” on page 5-2
- “Step 5 — Verify Option 3.3 -- Copy Utility” on page 5-3
- “Step 6 — Verify Keyed File Support” on page 5-4
- “Step 7 — Verify CA-Panvalet And CA-Librarian Support” on page 5-5
- “Step 8 — Verify Batch Job Submission from Online Print” on page 5-5.

If your installation uses CA-PANVALET or CA-LIBRARIAN, you need to know the name of a COBOL or PL/I record layout that is stored on the library management system. If you encounter any problems during the check-out procedure, refer to “Potential Install Problems” on page 6-1 for assistance. Call a Compuware customer support representative for assistance if you are unable to solve your problem.

The sample screens in this chapter use COBOL record layouts rather than PL/I record layouts.

Notes:

1. The installation, customization, and tailoring of File-AID should be completed before you perform the verification steps.
2. To create the files referenced in this chapter, see “Task 6, Create File-AID/MVS Training Files” on page 2-18 and “Task 8, Customize the Training File CLIST - FACOPY.” on page 2-18.

Step 1 — Make Available and Access File-AID

This step is necessary only if you did *not* use the PDF LIBDEF services. Select the appropriate method to make File-AID available for use.

- Ensure the LLA (Load Library Lookaside) has been refreshed.
- Log off from the current ISPF session and log on using the newly modified logon PROC.
- Execute the Allocation CLIST from native TSO.
- Log off and log on.
- For ROSCOE/ETSO installations, execute the modified ISPF RPF.

Step 2 — Verify Primary Options

Note: The installation, customization, and tailoring of File-AID should be completed before you perform the following verification steps.

1. Select File-AID from your ISPF Primary Option Menu (or other menu containing the File-AID access code).
2. To verify that you can invoke each of the primary options from the File-AID Primary Option Menu, enter the option number or letter and press Enter.
3. Once you have confirmed that an option can be invoked, verify the next option. Enter the END command (PF3) to return to the primary option menu, then select the next option.

Step 3 — Verify FACOPY CLIST

The FACOPY CLIST must be available to you in order to continue the verification process. Type **TSO FACOPY** on the **COMMAND** line to execute the FACOPY CLIST. File-AID displays progress messages as the sample files are created. Answer the question **OK TO DELETE?** with **Y** (Yes).

Step 4 — Verify Option 2 -- Edit Data File

Invoke option 2 -- Edit Data File. The Edit - Dataset Specification screen, shown in Figure 5-1, is displayed. Fill in the screen information as shown and press Enter.

Figure 5-1. Edit - Dataset Specification Screen

```

File-AID ----- Edit - Dataset Specification -----
COMMAND ==>

Edit Mode                ==> F          (F=Fmt; C=Char; V=Vfmt; U=Unfmt)

Specify Edit Information:
Dataset name or HFS Path ==> FASAMP.INVFILE
Member name              ==>           (Blank or pattern for member list)
Volume serial            ==>           (If dataset is not cataloged)
Disposition               ==> OLD      (SHR; OLD)
Create audit trail       ==> Y         (Y = Yes; N = No)

Specify Record Layout and XREF Information:
Record layout usage      ==> S          (S = Single; X = XREF; N = None)
Record layout dataset    ==> FASAMP.LAYOUTS
Member name              ==> INVFILE  (Blank or pattern for member list)
XREF dataset name       ==> FASAMP.XREF
Member name              ==>           (Blank or pattern for member list)

Specify Selection Criteria Information: (E = Existing; T = Temporary;
Selection criteria usage ==> N          M = Modify; Q = Quick; N = None)
Selection dataset name   ==> FASAMP.SELCRIT
Member name              ==>           (Blank or pattern member list)

```

File-AID displays the Edit Formatted screen shown in Figure 5-2 on page 5-3. File-AID uses the COBOL record layout FASAMP.LAYOUTS (INVFILE) to present a formatted display of each record in the data file FASAMP.INVFILE.

Figure 5-2. Edit Formatted Mode Screen

```

File-AID - Edit - DFHLLMO.FASAMP.INVFILE ----- COLUMNS 00001 00103
COMMAND ==>                                     SCROLL ==> PAG
E
RECORD:      1                                INVENTORY-RECORD                                LENGTH:   513
---- FIELD LEVEL/NAME ----- -FORMAT- -----1-----2-----3-----4
5 INV-PART-NO          15/AN  COAX-12222
5 INV-DESCRIPTION      40/AN  COAXIAL CABLE
5 INV-UNIT-OF-MEASURE  2/AN  FT
5 INV-UNIT-PRICE       4/PS  2.50
5 INV-STOCK-INFO(1) OCCURS 2 TIMES SYNC
                                18/GRP
  10 INV-WAREHOUSE(1)  3/AN  NYC
  10 INV-STATUS(1)     6/AN  B/O
  10 INV-QTY-DATE(1) SYNC 9/GRP
    15 INV-QTY-ON-HAND(1) 3/PS 3000
    15 INV-LAST-ORDER-DATE(1) 6/AN 121593
5 INV-STOCK-INFO(2)     18/GRP
  10 INV-WAREHOUSE(2)  3/AN  CAL
  10 INV-STATUS(2)     6/AN  AVAIL
  10 INV-QTY-DATE(2)   9/GRP
    15 INV-QTY-ON-HAND(2) 3/PS 10000
    15 INV-LAST-ORDER-DATE(2) 6/AN 100493
5 INV-REORDER-INFO SYNC 10/GRP
  10 INV-REORDER-LEVEL 3/PS 300
  10 INV-REORDER-QUANTITY 3/PS 1000

```

Step 5 — Verify Option 3.3 -- Copy Utility

Invoke option 3.3 -- Copy Utility. The Copy Utility screen, shown in Figure 5-3, is displayed. Fill in the "FROM" and "TO" dataset information as shown.

Figure 5-3. Copy Utility Screen

```

File-AID ----- Copy Utility -----
COMMAND ==>

Specify "FROM" Dataset or HFS Path Information:
  Dataset name ==> FASAMP.INVFILE
  Volume serial ==> (If not cataloged)

Specify "TO" Dataset or HFS Path Information:
  Dataset name ==> FASAMP.INVFILE2
  Volume serial ==> (If not cataloged)
  Disposition ==> OLD (OLD; MOD; NEW)

Specify Execution Information:
  Process online or batch ==> 0 (0 = Online; B = Batch)

Specify Selection Criteria Information: (E = Existing; T = Temporary;
  Selection criteria usage ==> N M = Modify; Q = Quick; N = None)
  Selection criteria dataset ==> FASAMP.SELCRIT
  Member ==> INVFILEC (Blank or pattern for member list)

```

Press Enter. File-AID redisplay the Copy Utility screen with the message:
n RECORDS COPIED in the upper-right corner of the screen.

This example extracts records from the input file FASAMP.INVFILE and writes them to FASAMP.INVFILE2.

Step 6 — Verify Keyed File Support

Invoke option 1 -- Browse Data File. The Browse - Dataset Specification screen, shown in Figure 5-4, is displayed. Specify the edit mode and dataset information as shown. Use the EMPLOYEE file created by the FACOPY training CLIST.

Figure 5-4. Browse - Dataset Specification Screen

```

File-AID ----- Browse - Dataset Specification -----
COMMAND ==>

Browse Mode                ==> C          (F=Fmt; C=Char; V=Vfmt; U=Unfmt)

Specify Browse Information:
Dataset name or HFS path ==> FASAMP.EMPLOYEE
Member                    ==>           (Blank or pattern for member list)
Volume serial             ==>           (If dataset is not cataloged)

Specify Record Layout and XREF Information:
Record layout usage       ==> N          (S = Single; X = XREF; N = None)
Record layout dataset     ==> FASAMP.LAYOUTS
Member                    ==> INVFILE  (Blank or pattern for member list)
XREF dataset              ==> FASAMP.XREF
Member                    ==>           (Blank or pattern for member list)

Specify Selection Criteria Information:
Selection criteria usage ==> N          (E = Existing; T = Temporary;
M = Modify; Q = Quick; N = None)
Selection criteria DSN    ==> FASAMP.SELCRIT
Member                    ==> INVFILE  (Blank or pattern for member list)

```

Press Enter. File-AID creates a full-screen display of your keyed file that is similar to the ISPF Browse screen, as shown in Figure 5-5. Press the DOWN PF key (PF8) to scroll through the file.

Figure 5-5. Browse Keyed Data in Character Mode Screen

```

File-AID - Browse - USERID0.FASAMP.EMPLOYEE ----- COL 1 79
COMMAND ==>                                     SCROLL ==> CSR
-----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----+-----
*****TOP OF DATA *****-CAPS OFF-*
00090 MARTIN          EDWARD   M AIRPLANE MANUFACTURER      427890125 101954
00100 MULSTROM       ROBERTA  A HOLLYWOOD SEAMSTRESS      346573656 090859
00200 JACKSON        JOSEPH   C ORATOR                     275587177 020462
10000 ANDREWS        GEORGE   ACTOR                        576312032 042248
15000 MURPHY         RONALD   L PAINTER                    987654321 120255
18034 SCHNEIDER      ELLEN    C NURSE                      341559549 032960
21035 JONES          GEORGE   B COUNTRY SINGER            463813456 090944
25100 ROBERTS        WILLIAM  R POLITICIAN                 879563325 050865
27007 ALLEN          JOYCE    M AUTHOR                     783458334 012132
30001 RICHARDS       REX      W RODEO CLOWN                632764534 040140
31000 SAVAGE         JONATHON C ELECTRICIAN                 348567992 062250
34010 SMITH          JANET    AIRLINE ATTENDANT          557782984 112359
34011 JACOBS         DIANA    DOCTOR                      225368395 021757
36010 SIMPSON        ALEX     CARTOONIST                  123456789 070864
39310 BARNETT        EDWARD   E SALESMAN                   543789142 080954
39500 WILLIAMS       EDITH    A DESIGNER                  987654321 091860
41000 RICHARDSON     MARJORIE M PROGRAMMER ANALYST       346583656 021355
41400 MOORE          THOMAS  M SYSTEMS ADMINISTRATOR    226373646 111139
42017 BENNETT       WILLIAM  D SALES SUPPORT             146573556 123048
44018 WILHELM        HEINRICH L DIPLOMAT                   466573356 091360

```

Step 7 — Verify CA-Panvalet And CA-Librarian Support

If your installation uses CA-PANVALET or CA-LIBRARIAN, perform this step. Otherwise, proceed directly to “Step 8 — Verify Batch Job Submission from Online Print”.

To perform this step, you need to know the name of a COBOL or PL/I record layout member and the name of the CA-PANVALET or CA-LIBRARIAN dataset in which it is stored. Select option 8 -- View Record Layout. File-AID displays the View Record Layout - Dataset Specification screen as shown in Figure 5-6. Enter the dataset and member names.

Figure 5-6. View Record Layout - Dataset Specification Screen

```

File-AID ----- View Record Layout - Dataset Specification -----
COMMAND ==>

Specify Record Layout Dataset to View:
Dataset name ==> 'your.ca-panvalet.file'
Member name  ==> member      (blank or pattern for member list)

```

Press Enter. File-AID displays the fields in the layout along with their offsets, lengths, and end positions. Use the DOWN PF key (PF8) and the UP PF key (PF7) to scroll through the layout.

Step 8 — Verify Batch Job Submission from Online Print

Invoke option 5 -- Print, then select suboption 1 -- Print Data File. File-AID displays the Print Data File screen shown in Figure 5-7. This screen is similar to the Edit - Dataset Specification screen used in “Step 4 — Verify Option 2 -- Edit Data File”. Enter the options and dataset information as shown.

Figure 5-7. Print Data File Screen

```

File-AID ----- Print Data File -----
COMMAND ==>

Specify Print Information:
  Print format  ==> F          (F = Fmt;V = Vfmt;C = Char;H = Hex)
  Show         ==> F          (Format, Number, Offset or Picture)

Specify Print Dataset:
  Print dataset ==> FASAMP.INVFILE
  Member       ==>           (Blank or pattern for member list)
  Volume serial ==>

Specify Record Layout and XREF Information:
  Record layout usage ==> S    (S = Single; X = XREF; N = None)
  Record layout dataset ==> FASAMP.LAYOUTS
  Member             ==> INVFILE (Blank or pattern for member list)
  XREF dataset       ==> FASAMP.XREF
  Member             ==>           (Blank or pattern for member list)

Specify Selection Criteria Information: (E = Existing; T = Temporary;
  Selection criteria usage ==> N    M = Modify; Q = Quick; N = None)
  Selection dataset       ==> FASAMP.SELCRIT
  Member                 ==>           (Blank or pattern member list)

```

Press Enter. File-AID displays the Print - JCL Specification screen, shown in Figure 5-8. This screen allows you to enter or overtype the job statement information for the batch submission.

Figure 5-8. Print - JCL Specification Screen

```

File-AID ----- PRINT - JCL Specification -----
COMMAND ==>

JCL Information for Batch Processing:

  Sysout class  ==> *

JOB Statement Information:
==> //USERID0 JOB ('OFAQC8.9.0',xxxx),'AUDIT',
==> // CLASS=P,NOTIFY=DFHLLMO
==>
==>

Use JCL command to edit generated JCL
Use SUBMIT command to submit batch job
Use END to return to main PRINT panel without submitting job

```

Enter a valid JOB statement and Sysout class. Then type SUBMIT in the COMMAND field and press Enter. When the job has executed, view the output. The output should show a formatted print of each record similar to the screen produced by in “Step 4 — Verify Option 2 -- Edit Data File”.

Chapter 6. Troubleshooting

Potential Install Problems

Incorrect Screen Display

Either sample dataset names were not prefilled on the various panels or the DOWN IS NOT ACTIVE message appeared when the DOWN command was entered in step 5. If this occurs, do the following:

- Verify that NEWAPPL(FAXE) is specified on the ISPF Primary Option Menu (ISR@PRIM) or submenu.
- Verify that XXXXXXXX.FA.V8R9M0.ISPTLIB is allocated to the ISPTLIB DD.

Batch Job Error Message

After submitting the batch job in step 6, a JCL error with message DATASET NOT FOUND appeared. If this occurs, do the following:

- Verify that the dataset names in all SLIB members were updated and are valid.
- Verify that member FAJSTEPL in the File-AID skeleton library (ISPSLIB) points to the proper File-AID load library.

106-C or 0C4 ABEND

After invoking option F.2 (File-AID Edit), a 106-C or 0C4 ABEND occurred. If this happens, check the following:

- A larger region size might be required. This condition is more likely to occur if CA-PANVALET is used or when split screen is used and a large dataset is being edited on the other logical screen.

Creating a Dump

File-AID processing normally traps abends and summarizes the abend information. In most cases, this provides the information necessary to analyze the problem. When it is not sufficient, a File-AID Product Support Representative may ask you to shut off the File-AID abend-trapping and create a full (regular) dump.

Batch

To get a full dump from a File-AID batch function:

1. Add the following JCL to the job step in question:

```
//SYSUDUMP DD SYSOUT=*                                DUMP OUTPUT
//ABNLDUMP DD DUMMY                                  UNDER ABEND-AID, GET FULL DUMP, TOO
```

The system forces the DCB parameters that it needs. You can point SYSUDUMP to a dataset instead of a SYSOUT class.

2. Change the EXEC statement from PGM=FILEAID to PGM=FILEAID,PARM='DEBUG' in the JCL of the job step in question. This sets up File-AID to get a dump.
3. Recreate the problem, print the dump or copy it to a tape, and ship it and other supporting materials to Compuware for analysis.

File-AID Technical Support
 Compuware Corporation
 One Campus Martius
 Detroit, MI 48226-5099
 1-800-538-7822

Outside the USA and Canada, please contact your local Compuware office or agent.

Online

To get a full dump from a File-AID online function:

1. Exit ISPF to native TSO.
2. To set up TSO allocation to get a dump, enter the TSO commands:

```
ALLOC F(SYSUDUMP) DA(SYSUDUMP) MOD CYL SPACE(5 5) REUSE /*DUMP OUTPUT*/
ALLOC F(ABNLDUMP) DUMMY REUSE /*UNDER ABEND-AID, GET FULL DUMP, TOO*/
```

The system forces the DCB parameters that it needs. You can point SYSUDUMP to a SYSOUT class instead of a dataset.

3. To put ISPF in TEST mode and set up to get a dump, enter the TSO command: **ISPF TEST**.
4. To put File-AID in TEST mode and set up to get a dump, select File-AID option Z.5 (File-AID Primary Option Menu, hidden Diagnostics option Z, Variables option 5). Set the TEST mode to Y.
5. Without backing out of File-AID (which would remove File-AID from TEST mode), recreate the problem. When needed for problem diagnosis, create screen prints. When the abend occurs, normally the screen blanks out and displays the message:

```
* ISPF SUBTASK ABEND *
IKJ56641I SPF ENDED DUE TO ERROR+
READY
```

Immediately, press Enter. This creates the ISPF application dump.

Now you wait for the system to write the dump. Be prepared to wait, this normally takes a while. There may be several cascading dumps to process.

6. When the system comes back, reenter ISPF. Print the dump or copy it to a tape, and ship it and other supporting materials to Compuware for analysis.

Outside the USA and Canada, please contact your local Compuware office or agent.

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Chapter 7.

File-AID Exits

This chapter describes the following File-AID exits:

- Security
- Audit trail
- I/O.

File-AID is shipped with sample exits. The sample exits are functionally inert unless you modify them. The default audit exit is automatically linked when you install File-AID. If you modify it after installation, you need to compile and relink it using the appropriate JCL (see Table 7-3 on page 7-7).

Security and I/O exits are not automatically linked at installation time. Use the appropriate JCL listed in Table 7-1 on page 7-2 or Table 7-6 on page 7-13 to install these File-AID user exits.

Note: If exit routines are maintained by a person other than the systems programmer, the File-AID Load Library should remain in the Link List.

File-AID Security Exit

The File-AID security exit enables you to control access to datasets, including dataset inclusion and exclusion, and processing features. The File-AID security exit is not intended to replace any security package that is presently installed at your site.

The File-AID security exit, FASCRXIT, is called from the following points within File-AID:

- Prior to allocating each dataset for use
- Prior to opening each dataset
- Prior to processing a member.

The security exit returns an indicator and a message to File-AID. The indicator tells File-AID to do one of the following:

- Permit the request
- Permit the request but with altered parameters
- Refuse the request.

The message is a standard default message or the message indicated by your user exit parameters.

Security Exits From Prior File-AID Releases

Previous releases of the File-AID security exit are supported for Release 8 only. With Release 8, the security exit has to be linked as a separate load module, as follows:

Exit Release	Load Module Name
8.x	FASCRXIT
6.x	FASPX02
7.x	DXPSCXT

Release 6 users with separate inclusion/exclusion CSECTs need to modify their security exit to handle any inclusion or exclusion. Calls to Release 7 and 6 security exits are handled the same in Release 8 with the exception of audit function calls. Type R audit function calls are no longer handled by the security exit, they are handled by the audit exit. See “Audit Trail Exit” on page 7-6. Installations that use RACF or ACF2 to protect audit files need to check the new Release 8 naming conventions.

After Release 8, users will be required to upgrade their File-AID security exits to Release 8 standards.

Allocation Function Call

The dataset allocation call is designated by an A request type to the security exit. You may want to use the A exit type for the following purposes:

- Limit File-AID function access by user ID

To limit access to a certain dataset.

Open Function Call

The dataset open call is designated by an O request type to the security exit. You may want to use the O exit call for the following purposes:

- To prevent a certain dataset from being updated

To prevent a certain member of a PDS from being accessed, updated, renamed, or deleted.

Installing The File-AID Security Exit

File-AID allows security exits written in COBOL, VS COBOL II, PL/I, and assembler. Compuware recommends the security exit be reentrant.

Notes:

1. Unless you are using VS COBOL II, a COBOL security exit will not be reentrant.
2. When compiling a COBOL or COBOL II security exit, you cannot use any run-time compiler debugging options.

The File-AID install dataset provides sample security exits in assembler, COBOL, VS COBOL II, and PL/I, and the JCL to compile and link-edit the exit, as shown in Table 7-1.

Table 7-1. Sample Security Exits and JCL

Exit Source Name	Compile/Link JCL Name	Description
SECRASM	JLLKSXA	Assembler security exit
SERCOB	JLLKSXC	COBOL security exit
SERCOB2	JLLKSXC	COBOL II security exit
SECRPLI	JLLKSXP	PL/I security exit

Additional instructions on modifying the File-AID security exit are included in the exit source members (SECRASM, SERCOB, SERCOB2, SECRPLI) for the FASCRXIT security exit.

Note: The security exit must be named FASCRXIT.

Debugging Your Security Exit

A tool is provided with File-AID to help you test and debug your security exit. To activate the Exit Debugger, allocate the FAEXITDD DDNAME to your ISPF session or batch job.

You can allocate this DDNAME to return information to an external file you create with the dataset requirements of RECFM=FB and one of the following LRECLs:

Release 8.x exits LRECL=384
Release 6.x exits LRECL=389
Release 7.x exits LRECL=256

When the Exit Debugger is activated, all parameters being passed to and from the security exit for each call type are reported to the allocated DD.

To de-activate the Exit Debugger, simply FREE the FAEXITDD DDNAME.

Security Exit Parameter Layouts

The security exit is passed two addresses. The first address points to the security exit parameters list which is described in Table 7-2. The second address points to the job accounting information.

Input Params

Table 7-2. Security Exit Input Params Layout

Description	Position	Len	Format	Values
EXIT CALL TYPE	1	1	CHAR	A Allocation O Open
FUNCTION NUMBER	2	1	CHAR	For Online: 1 Browse 2 Edit 3 Utilities 5 Print 6 Edit selection criteria 7 Edit XREF 8 View record layout 9 Reformat P Compare For Batch: 1 LIST, PRINT, DUMP, COMPARE, etc. (Browse functions) 2 UPDATE, UPDATEALL, etc. (Edit functions) 3 COPY, DROP, USER, etc. (Utilities functions) 5 XMLGEN 9 Reformat
SUB-FUNCTION NUMBER	3	1	CHAR	For Utilities: 1 Library 2 Dataset 3 Copy 4 Catalog 5 VSAM 6 Search/Update 7 VTOC 8 Interactive 9 Batch submit G XMLGEN For Print: D Dataset X XREF S Selection criteria L Record layout A Audit trail

Table 7-2. Security Exit Input Params Layout (Continued)

Description	Position	Len	Format	Values
PANEL OPTION/LINE COMMAND	4	1	CHAR	
LOGON IDENTIFIER	5	8	CHAR	
EXECUTION TYPE	13	1	CHAR	B Batch O Online
FILE TYPE	14	1	CHAR	D Data file F XREF S Selection criteria C Record layout O Output PDS A Audit file
FILE ORGANIZATION	15	2	CHAR	AM VSAM DA BDAM IS ISAM LB Librarian PN Panvalet PO Partitioned PS Sequential
RECORD FORMAT OF FILE	17	2	CHAR	F Fixed FB Fixed blocked V Variable VB Variable blocked U Undefined
ACCESS INTENT	19	1	CHAR	Y Open for read only. N Open for update.
FILE-AID VERSION	20	5	CHAR	Version number of File-AID in use (i.e. 8.0.1).
ALLOCATION TYPE	25	1	CHAR	Y Dataset has been allocated within a batch job via a DD statement. N Dataset will be allocated online dynamically.
USER	29	4	ADDR	User exit can store any address here and it is saved for the following calls.
ACCOUNT	33	4	ADDR	Pointer to user accounting information.
*** VARIABLE PORTION OF THE INTERFACE *** See the Parameter List Description in the sample security exit for more information on the variables.				
NAME 1 SET	37	1	CHAR	Y Set N Not set
NAME 1 MODIFIED	38	1	CHAR	Y Modifiable N Not modifiable
NAME 1 VALUE	39	56	CHAR	
NAME 2 SET	95	1	CHAR	Y Set N Not set
NAME 2 MODIFIED	96	1	CHAR	Y Modifiable N Not modifiable
NAME 2 VALUE	97	56	CHAR	
NAME 3 SET	153	1	CHAR	Y Set N Not set
NAME 3 MODIFIED	154	1	CHAR	Y Modifiable N Not modifiable

Table 7-2. Security Exit Input Params Layout (Continued)

Description	Position	Len	Format	Values
NAME 3 VALUE	155	56	CHAR	
NAME 4 SET	211	1	CHAR	Y Set N Not set
NAME 4 MODIFIED	212	1	CHAR	Y Modifiable N Not modifiable
NAME 4 VALUE	213	56	CHAR	
NAME 5 SET	269	1	CHAR	Y Set N Not set
NAME 5 MODIFIED	270	1	CHAR	Y Modifiable N Not modifiable
NAME 5 VALUE	271	56	CHAR	
VOLSER 1 SET	327	1	CHAR	Y Set N Not set
VOLSER 1 MODIFIED	328	1	CHAR	Y Modifiable N Not modifiable
VOLSER 1 VALUE	329	6	CHAR	
VOLSER 2 SET	335	1	CHAR	Y Set N Not set
VOLSER 2 MODIFIED	336	1	CHAR	Y Modifiable N Not modifiable
VOLSER 2 VALUE	337	6	CHAR	
PASSWORD 1 SET	343	1	CHAR	Y Set N Not set
PASSWORD 1 MODIFIED	344	1	CHAR	Y Modifiable N Not modifiable
PASSWORD 1 VALUE	345	8	CHAR	
PASSWORD 2 SET	353	1	CHAR	Y Set N Not set
PASSWORD 2 MODIFIED	354	1	CHAR	Y Modifiable N Not modifiable
PASSWORD 2 VALUE	355	8	CHAR	
OPTION 1 SET	363	1	CHAR	Y Set N Not set
OPTION 1 MODIFIED	364	1	CHAR	Y Modifiable N Not modifiable
OPTION 1 VALUE	365	1	CHAR	
OPTION 2 SET	366	1	CHAR	Y Set N Not set
OPTION 2 MODIFIED	367	1	CHAR	Y Modifiable N Not modifiable
OPTION 2 VALUE	368	3	CHAR	
OPTION 3 SET	371	1	CHAR	Y Set N Not set
OPTION 3 MODIFIED	372	1	CHAR	Y Modifiable N Not modifiable
OPTION 3 VALUE	373	2	CHAR	
END OF VARIABLES	375	2	CHAR	END DELIMITER

Table 7-2. Security Exit Input Params Layout (Continued)

Description	Position	Len	Format	Values
FEEDBACK OF USER EXIT	376	1	CHAR	Y Allow request with no changes. M Allow request with changes. N Request rejected.
MESSAGE ID	377	8	CHAR	Message identifier.

Audit Trail Exit

The File-AID audit trail exit, FAAUAXE, is loaded and called dynamically after allocating the input dataset for Browse, Edit, and the Search/Update utility. The default audit trail exit, shipped with File-AID, immediately returns control to the calling function.

The audit trail exit can be used for the following purposes:

- To force the creation of an audit trail for a specific dataset, group of datasets, and/or group of users.
- To force automatic printing of the audit trail report and specify whether to retain the audit trail dataset after printing.
- To override the audit trail dataset name that is constructed by File-AID.

Note: The audit trail dataset name must be unique. Each time the audit trail is used File-AID generates a new dataset name. Compuware recommends employing the date and time stamp as part of this dataset name.

When auditing is requested, File-AID allocates the audit trail dataset at the beginning of the edit session. If your TSO prefix matches your user ID, the audit trail dataset name is:

```
TSO-ID.FILEAID.AUDT.Dyymmdd.Thhmss
```

TSO-ID TSO user ID, up to seven characters.

yymmdd Gregorian date on which the audit trail is created.

hhmss Hour, Minute, and second the audit trial is created.

If your TSO prefix **does not** match your user ID, the audit trail dataset name is:
TSO-prefix.TSO-ID.FILEAID.AUDT.Dyymmdd.Thhmss

TSO-prefix TSO user prefix, up to seven characters.

- To override the default SLIB member, FAJCAUDR. The new SLIB member can specify a different destination, create multiple copies, etc.
- To implement the optional File-AID SMF recording function.

The audit trail exit is called from browse for the purpose of checking the optional SMF recording function (file access recording). File-AID does not currently support audit reporting from SMF.

The audit trail exit parameter list is described in “Audit Exit Parameter Layouts” on page 7-7. All fields in the parameter list are prefilled with a necessary process value or default value. Any field in the audit trail exit can be modified. Security parameters and fields unrelated to the audit trail process are ignored by File-AID when processing the audit trail.

Notes:

- Execution from an authorized library is not possible if you make any changes to the audit trail exit that disable reentrancy. The OS/VS COBOL compiler does not create reentrant code.
- Do not use any run-time compiler debugging options when compiling a COBOL or COBOL II audit exit.

Installing the Audit Exit

The File-AID install dataset provides sample audit trail exits in Assembler, COBOL, PL/I, and provides JCL to compile and link-edit the exit, as shown in Table 7-3. In addition, the install dataset contains a sample SMF user exit in Assembler and the corresponding JCL. See Chapter 8, "SMF Recording Function" for more information.

Table 7-3. Sample Audit Exits and JCL

Exit Source Name	Compile/Link JCL Name	Description
FAAUAXFA	JCLLKAUA	Assembler audit exit
FAAUAXFC	JCLLKAUC	COBOL audit exit
FAAUAXFP	JCLLKAUP	PL/I audit exit
FASMFUEX	JCLSMFEX	Assembler SMF exit

Audit Exit Parameter Layouts

Input Params

Table 7-4. Audit Exit Input Params Layout

Description	Position	Len	Format	Values
EXIT TYPE	1	1	CHAR	R : Audit Trail Allocation
USER ID	2	7	CHAR	TSO Userid
FUNCTION NUMBER	9	1	CHAR	1 : Browse 2 : Edit 3 : Search/Update utility
ONLINE INDICATOR	10	1	CHAR	O : Online operation
FILE-AID VERSION	11	5	CHAR	Version number of File-AID in use (i.e. 800).
FILE TYPE	16	1	CHAR	D : Data file dataset
FULLY QUALIFIED DSN	17	44	CHAR	Edit DSN without quotes and including TSO prefix if appropriate.
DATASET ORGANIZATION	61	2	CHAR	AM : VSAM dataset DA : BDAM dataset IS : ISAM dataset LB : LIBRARIAN dataset PN : PANVALET dataset PO : Partitioned dataset PS : Sequential dataset. (PN and LB apply only to FILE-TYPE C.)
VOLUME SERIAL	63	6	CHAR	The volume serial number of the disk or tape that contains the dataset.

Table 7-4. Audit Exit Input Parms Layout

Description	Position	Len	Format	Values
PASSWORD	69	8	CHAR	The password for OS password protected datasets.
READ ONLY INDICATOR	77	1	CHAR	Y : Read-only N : Update.

INPUT/OUTPUT PARMS - EXIT TYPE R

Table 7-5. Audit Exit Input/Output Parms Exit Type R Layout

Description	Position	Len	Format	Values
AUDIT TRAIL DSN	87	46	CHAR	Audit Trail DSN to be allocated, with quotes and including TSO prefix if appropriate.
SLIB MEMBER NAME	133	8	CHAR	Default is FAJCAUDR. You can override with a different SLIB member.
CREATE AUDIT TRAIL INDICATOR	141	1	CHAR	Input value is the value from the Edit - Dataset Specification or Search/Update screen. You can override with one of the following: Y -- Create an audit trail. N -- Do not create an audit trail.
FORCE PRINT INDICATOR	142	1	CHAR	N -- Default; does not force printing of the audit trail dataset. K -- Forces printing and keeps the audit trail report. D -- Forces printing and deletes the audit trail dataset. Any other value in this position keeps the audit trail without printing.
SMF USER EXIT NAME	143	8	CHAR	Default is spaces for dynamic SMF user exit program name.
SMF RECORD CODE	151	3	CHAR	Default is 170 for SMF record code.
CREATE SMF RECORDS FOR BROWSE	154	1	CHAR	N -- Default; does not create SMF records for browse. Y -- Creates SMF records for browse.
CREATE SMF RECORDS FOR EDIT	155	1	CHAR	N -- Default; does not create SMF records for edit. Y -- Creates SMF records for edit.
CREATE SMF ACCESS RECORDS	156	1	CHAR	The access record is always created when a file is edited and the CREATE SMF RECORDS FOR EDIT flag is Y, even if this flag is set to N. N -- Default; does not create SMF access record. Y -- Creates SMF access record.

Table 7-5. Audit Exit Input/Output Params Exit Type R Layout (Continued)

Description	Position	Len	Format	Values
CREATE SMF FIELD UPDATE RECORDS	157	1	CHAR	Note: If all three of the FIELD UPDATE record indicators fields are Y (at positions 157, 158, and 159), comprehensive update records are created for any added or deleted records even when comprehensive records are not being created. N -- Default; do not create SMF record. Y -- Create SMF record.
CREATE BEFORE UPDATE FIELD IMAGES	158	1	CHAR	N -- Default; do not create SMF record before update field images. Y -- Create SMF record before update field images.
CREATE AFTER UPDATE FIELD IMAGES	159	1	CHAR	N -- Default; do not create SMF record after update field images. Y -- Create SMF record after update field images.
CREATE COMPREHENSIVE RECORDS	160	1	CHAR	Note: If all three of the COMPREHENSIVE RECORD fields are N (at positions 160, 161, and 162), comprehensive update records are created for any added or deleted records when SMF FIELD UPDATE records are being created. N -- Default; do not create SMF record. Y -- Create SMF record.
CREATE COMPREHENSIVE BEFORE UPDATE RECORD IMAGES	161	1	CHAR	N -- Default; do not create SMF record before updating comprehensive record images. Y -- Create SMF record before updating comprehensive record images.
CREATE COMPREHENSIVE AFTER UPDATE RECORD IMAGES	162	1	CHAR	N -- Default; do not create SMF record after updating comprehensive record images. Y -- Create SMF record after updating comprehensive record images.
CREATE SMF UPDATE SUMMARY RECORD	163	1	CHAR	N -- Default; do not create SMF update summary record. Y -- Create SMF update summary record.

I/O Exit

The File-AID I/O exit enables you to write a callable routine to perform functions not supported by File-AID such as: encryption, decryption, compression, and decompression. In addition, an I/O exit routine can be written to handle all the I/O for specified files -- including Open and Close.

The two types of I/O exits are type 1 and type 2. A type 1 exit allows record access after File-AID reads from a dataset and before File-AID writes to a dataset. A type 2 exit allows nonstandard dataset access; it performs all I/O processing against the dataset. The exit supplies File-AID with a logical record upon request.

Compuware provides three sample exits. The sample exit names are USXTYP1 and USXTYP2 (for Assembler) and USXCOB1 (for COBOLII). The communications macro for Assembler only is called FAIOUSX. USXTYP1 and USXCOB1 are sample compression and decompression exits. USXTYP2 is a sample exit for handling all I/O requests.

I/O exit processing can be initiated by entering a module name in the I/O EXIT field on the Browse, Edit, Copy, Search/Update, Print, or Reformat screen or by coding the IOEXIT parameter for File-AID/Batch. File-AID calls the I/O exit at least five times during a File-AID function. "I/O Exit Sequence" on page 7-10 lists the calls in the sequence in which they occur. "I/O Exit Function Calls" on page 7-11 describes the tasks performed by File-AID and the I/O exit for each call.

I/O Exits From Prior File-AID Releases

Existing I/O exits are supported under Release 8. Release 6 I/O exits require one change to function under Release 8. In Release 8 when your program receives control, register one contains the address of a fullword which contains the address of the I/O communications area. In Release 6, register one pointed directly to the communications area.

I/O exits written for Release 7 do not require a change.

What's Different About Release 8 I/O Exits

For new Release 8 I/O exits, use the revised communications area illustrated by installation library macro FAIOUSX. For COBOL, see the linkage section of the USXCOB1. The sample assembler program USXTYP1 now uses macro FAIOUSX to describe the changed area. Previous versions of the sample used macro FASYUSX.

Compuware recommends reviewing the changes in FAIOUSX. During the verify call, a value should be placed in field USXMREC to indicate the maximum record size that can be returned from your exit. During subsequent calls, any returned records must be moved to the address found in field USXREC@R. The length of returned records must be placed in the field, USXRECLR.

Install library member JCLKIOX (JCLKIOC or REPLKIOC for COBOL) illustrates the special load module requirements for macro FAIOUSX. Use of the revised area requires that the load module contain two CSECTs. The module must begin with CSECT FSPFIXID and is followed by your routine whose CSECT name must be FAIOXUSR. The load module can have any name except DXPCPXT. All Release 7 exits must be called DXPCPXT.

I/O Exit Sequence

Note: Only one Verify and one Term call occurs per dataset per function. Several Open, Record Access, and Close sequences may occur per function. In an Edit function, for example, the dataset is opened, read to load memory, and closed. Then when the user types **SAVE** or **END**, the dataset is opened, written, and closed again.

1. **Verify call:** Occurs when the user presses Enter on a primary function panel, but after File-AID identifies and allocates the user-entered dataset.
2. **Open call:** Occurs at dataset open.
3. **Record Access call:** Occurs multiple times as each record is required for read or write. The following five record access calls may occur:

Add Insert a record

Delete	Delete a record
Update	Update a record
Read	Read a record
Write	Write a record.

4. **Close call:** Occurs at the end of a record access cycle.
5. **Term call:** Occurs at the end of a function just before a redisplay of the primary function panel.

I/O Exit Function Calls

1. Verify Call.

File-AID does the following:

- Sets the dataset name, member name, volume serial, password, and DD name fields in the I/O exit communications area.
- Calls the I/O exit.

The I/O exit does the following:

- Verifies whether or not it should process this dataset.
- Sets the processing type flag indicating that it will process the dataset as a type (2) exit, or as a type (1) exit, or that it will ignore (I) this dataset (that is, File-AID does not call the exit again for this function).
- Sets R15 = 0 for a successful call and R15 = nonzero to abort.

When R15 is nonzero, a message should be set in the communications area. If R15 is nonzero, the File-AID function is terminated, and the user exit is not called again.

- Indicates the maximum record size that can be returned from the exit to File-AID.

2. Open Call - Type 1 and Type 2 Exits.

File-AID does the following:

- Sets the processing mode as random or sequential.
- Updates the member name in the common area. With PDS processing, an open, record access, and close cycle may occur for each member.
- Sets key length and relative key position.
- Sets open type access mode to input, output, or update.
- Sets the record format, dataset organization, and organization type.

The I/O exit does the following:

The I/O exit sets R15 = 0 for a successful call and R15 = nonzero to abort. When R15 is nonzero and File-AID aborts the open, the I/O exit still receives close and terminate calls.

The type 1 I/O exit is called for open processing. After File-AID opens the file, the exit verifies again that it can handle this dataset. The exit may set the ignore (I) flag. When the ignore flag is set, File-AID continues to process the dataset without calling the I/O exit. If the I/O exit wants to abort the function, then R15 should be nonzero and a message should be set in the communications area.

The type 1 I/O exit may set the following:

- Key position relative to zero
- Key length if applicable

- Member name if applicable.

The type 2 I/O exit opens the file and sets the following:

- Record type to varying or fixed
- Key length if applicable
- Member name if applicable
- Key position relative to zero
- Dataset organization and type.

3. Record Access Call.

Type 1 exits have all I/O performed by File-AID. Type 2 exits must perform all I/O, as required by type of access call.

Read Record Access Calls:

File-AID sets the following for a type 1 exit:

- Address of the record read by File-AID (USXREC@)
- Record length in the communications area (USXRECL).

The type 2 I/O exit must perform the I/O to read the record. Type 1 and type 2 I/O exits do the following:

- Move the record to the address provided by File-AID (USXREC@R).
- Set the record length in the communications area (USXRECLR).
- Set R15 = 0 to continue processing.
- Set R15 = 4 for no record found (type 2 only). Random processing return code. File-AID continues normal processing.
- Set R15 = 8 for end of data (type 2 only). File-AID terminates record access and continues normal processing.
- Set R15 = 12 for File-AID to abort function processing. The I/O exit is still called for close and termination. A message should be set in the communications area.

Write Record Access Calls (Add, Delete, Update, and Write):

File-AID sets the following for a type 1 exit:

- Record to be written in the common area (USXREC@)
- Length of the record in the common area (USXRECL).

The type 2 I/O exit must perform the requested I/O to write the record to the file.

The type 1 I/O exit is only called for the write and must:

- Move the record to be written to the address provided by File-AID (USXREC@R).
- Set the length of the record to be written (USXRECLR).

Type 1 and 2 I/O exits set the following:

- R15 = 0 to continue processing.
- R15 = nonzero for File-AID to abort record access processing. The I/O exit still is called for close and termination. A message should be set in the communications area.

4. Close Call - Type 2 Exit Only.

The exit should close the dataset being processed. No message processing is done, and File-AID proceeds to the termination call.

5. Term Call.

Exits should free (FREEMAIN) any temporary storage acquired.

If R15 is nonzero, File-AID uses the message (if any) in the communications area for the next panel display. The primary function panel is then redisplayed.

Installation of the User I/O Exit

The File-AID install dataset provides sample I/O exits in Assembler and COBOL, and provides JCL to compile and link-edit the exit, as shown in Table 7-6. USXTYP1 and USXCOB1 are sample compression and decompression exits. USXTYP2 is a sample exit for handling all I/O requests.

The user I/O exit must be assembled or compiled and then link-edited to a library in the system search order (that is, a library searched when the load macro is issued). This library may be the File-AID load library or another library concatenated either to ISPLLIB, STEPLIB, the system linklist, or LPA. If using LIBDEF, the I/O exit must be in the LIBDEF concatenation.

Table 7-6. Sample I/O Exits and JCL

Exit Source Name	Compile/Link JCL Name	Description
USXTYP2	JCLKIOX	Assembler I/O exit, communications macro FAIOUSX
USXTYP1	JCLKIOX	Assembler I/O exit, communications macro FAIOUSX
USXCOB1	JCLKIOC	COBOL II I/O exit
USXCOB1	REPLKIOC	COBOL II I/O exit with RTEREUS
USXCOB1	JCLKIOE	COBOL II I/O exit, JCL to link for COBOL LE370
USXCOB1	REPLKIOE	COBOL II I/O exit, JCL to link for COBOL LE370 with RTEREUS

Once you have compiled and linked your I/O exit, the exit can be invoked for a File-AID function. Make sure the IOXDEF variable is set to YES on File-AID panel IFAMU01. See Table 4-3 on page 4-9. Then, enter the member name of the I/O exit program load module in the I/O exit field provided on browse, edit, copy, search/update, or reformat screens (or the IOEXIT parameter in batch) and the exit is invoked for that function.

Type 2 COBOL I/O Exits

The type 2 COBOL I/O exits normally require RTEREUS. If your COBOL I/O exit must retain information outside the communication area from one call to the next, you must link with RTEREUS to keep the module in last used state. Linking with RTEREUS also increases performance, but disallows using split screen.

I/O Exit Communications Area

Table 7-7. I/O Exit Communications Area

Description	Position	Len	Format	Values
Exit Processing Type	1	1	CHAR	I Ignore 1 Set TYPE=1 2 Set TYPE=2
Service Request	2	1	CHAR	A Add C Close D Delete I Initialize/verify O Open R Read T Terminate U Update W Write.
Reserved	3	1	CHAR	
Processing Mode	4	1	CHAR	R Random S Sequential.
Access Mode	5	1	CHAR	I Input O Output U Update.
DDname	6	8	CHAR	DDname allocated by File-AID.
Dataset Name	14	44	CHAR	DSN without quotes and including TSO prefix if appropriate.
Member Name	58	8	CHAR	Member Name
Volume Serial	66	6	CHAR	The volume serial number of the disk or tape that contains the dataset.
Password	72	8	CHAR	The password for OS password protected datasets.
Dataset Organization	80	1	CHAR	B BDAM dataset I ISAM dataset P Partitioned dataset S Sequential dataset V VSAM dataset.
Organization Type	81	1	CHAR	E ESDS K Keyed R RRDS.
Record Format	82	2	CHAR	F Fixed FB Fixed blocked V Variable VB Variable blocked VBS Variable blocked spanned.
Reserved	84	1	CHAR	
USXREC@ - Record Pointer Passed to Exit	85	4	POINTER	Address of area containing record passed from File-AID to exit.
USXRECL - Record Length	89	4	BINARY	Length of record passed from File-AID to exit.

Table 7-7. I/O Exit Communications Area (Continued)

Description	Position	Len	Format	Values
USXREC@R - Record Pointer Returned from Exit	93	4	POINTER	Destination address of area for exit to move returned record.
USXRECLR - Record Length	97	4	BINARY	Length of record returned from exit.
Block size	101	4	BINARY	Block size.
Maximum Record Length	105	4	BINARY	Exit sets this value to the maximum size record returned from the exit.
Key Length	109	4	BINARY	Length of key.
Key Position	113	4	BINARY	Location of key relative to zero (0).
Key Address	117	4	POINTER	Address that points to key.
Key Length Read	121	4	BINARY	Length key read.
Message Number	125	5	CHAR	Message number xxxxx, where the File-AID MLIB message is FAMxxxxx.
Message Text	130	80	CHAR	Exit-supplied error text for batch processing. Or can also use when message number is blank; File-AID displays only the first 60 characters.
Process Option	210	1	CHAR	O Online B Batch
Reserved	211	2	CHAR	
Work Area Pointer	213	4	POINTER	The I/O exit may use this area to save the pointer to a GETMAINed work area.

Chapter 8.

SMF Recording Function

File-AID can create SMF records for all datasets that are accessed by Browse, Edit, or the Search/Update utility. The File-AID SMF records provide information on who accessed a dataset and which records were modified. This chapter describes the following optional procedures for the SMF recording facility of File-AID:

- “Install or Modify SMF Recording” on page 8-1
- “Remove SMF Recording” on page 8-2
- “SMF Record Contents” on page 8-2
- “Writing a Dynamic SMF User Exit Program” on page 8-6.

The SMF recording facility of File-AID can be activated during the installation of File-AID or any time after the installation. Each site controls the types of SMF records created. The site can also specify whether File-AID records full before and after images of modified records or only before and after images of modified fields.

A user exit is also available to permit you to accept, reject, or modify any File-AID SMF record before it is written to the SMF dataset. Within this user exit, you can route the SMF record to a specific log file, or let File-AID place it in the SMF dataset. See “Writing a Dynamic SMF User Exit Program” on page 8-6 for details.

Install or Modify SMF Recording

Complete the following steps to install or modify the File-AID SMF recording function:

CAUTION:

File-AID writes its SMF records directly to the installation’s SMF dataset. Therefore, before installing SMF recording, make sure that creating these SMF records will not cause problems in the installation.

1. Check that the File-AID SVC is installed. (see “Task 11, Link Edit the File-AID SVC (Optional)” on page 2-18).
2. Select a code from 128 to 255 to identify the File-AID SMF records. Check that the selected code is not currently used for any other user-written SMF record in the installation. The default is 170.
3. To install the SMF recording function, you need to follow the instructional comments in one of the sample audit exit programs. See Table 8-1. Make the modifications, assemble/compile, and then link the audit exit program.

Table 8-1. Sample Audit Exits and JCL

Exit Source Name	Compile/Link JCL Name	Description
FAAUAXFA	JCLLKAUA	Assembler audit exit
FAAUAXFC	JCLLKAUC	COBOL audit exit
FAAUAXFP	JCLLKAUP	PL/I audit exit
FASMFUEX	JCLSMFEX	Assembler SMF exit

The SMF recording facility is now installed. When File-AID is used, SMF records are created as defined by the options you specified in the audit exit.

Remove SMF Recording

To remove the SMF recording facility from File-AID, relink the audit exit program, FAAUAXF, using the original object code shipped with the product.

SMF Record Contents

The tables in this section describe the contents of the different File-AID SMF records. File-AID can build any or all of the following SMF records:

- Dataset access
- Field update
- Comprehensive update
- Dataset update summary.

Use member SMFRHDR (located in the File-AID install library in the site's Assembler program) to map the different File-AID SMF records. To access all the SMF records created by File-AID, scan the SMF records for the SMF code specified in the audit exit program.

To access all the SMF records for a dataset using File-AID, complete the following:

1. Scan SMF records for the File-AID records that have field RRECTYPE equal to a X'10' and field RDSN equal to the requested dataset name.
2. Rescan the File-AID records, and select all records that contain the same values found in fields RCTLTIME and RCTLDATE.

Common Header for all SMF Record Types

Table 8-2 maps the common header that is created for each SMF record created by File-AID. Fields RCTLTIME and RCTLDATE are the same for all SMF records created by File-AID for a given dataset for each separate edit or search/update session.

Table 8-2. SMF Common Header Format

Offsets	Name	Len	Format	Description	
0	0	RRECLN	2	binary	Record length.
2	2	RRCLN2	2	binary	Segment decriptor.
4	4	RSYSCODE	1	binary	System indicator. Bit Meaning when set 0-4 Reserved 5 MVS/XA
5	5	RRECCODE	1	binary	Record code from SPFSMF member.
6	6	RTIME	4	binary	Time, in hundredths of a second, when the record was moved to the SMF buffer.
10	A	RDATE	4	packed	Date when the record was moved to the buffer in the form 00YYDDDF, where F is sign.
14	E	RSMCASID	4	EBCDIC	System ID. Taken from SID parameter.

Table 8-2. SMF Common Header Format (Continued)

Offsets		Name	Len	Format	Description
18	12	RRECTYPE	1	binary	File-AID record type: Byte Meaning X'10' Dataset access record. X'20' Dataset summary record. X'30' Field update record before and after image. X'31' Field update record before image. X'32' Field update record after image. X'41' Comprehensive update record before image. X'42' Comprehensive update record after image.
19	13	RCTLTIME	4	binary	Time, in timer units, when the dataset access record was moved to the SMF buffer.
23	17	RCTLDATE	4	packed	Date when the dataset access record was moved to the SMF buffer. The form is 00YYDDDF, where F is sign.

Dataset Access Record Format

Dataset access records are created when a dataset is accessed in option 1 Browse, 2 Edit, and 3.6 Search/Update. Table 8-3 maps the dataset access SMF record. If this record type is present, it contains a Hexadecimal X'10' in the RRECTYPE field.

Table 8-3. SMF Data Access Record Format

Offsets		Name	Len	Format	Description
Common SMF Header. See Table 8-2 on page 8-2.					
27	1B	RUSERID	8	EBCDIC	TSO user ID.
35	23	RDSN	44	EBCDIC	Name of dataset accessed.
79	4F	RMEMBER	8	EBCDIC	Member name accessed.
87	57	RDFUNC	1	EBCDIC	File-AID/MVS function code: B Browse; Search/Update. E Edit; Search/Update.
88	58	RDSELECT	1	EBCDIC	File-AID/MVS select option (U, B). B Search/Update find, browse, preview. F Browse, Edit. S Browse, Edit with selection criteria. U Search/Update change, update.
89	59	RDKFLAG	1	EBCDIC	Keyed (K) or Unkeyed (U).
90	5A	RDKEYLEN	1	binary	If keyed file, length of record key.
90	5A	RDRPOSID	1	binary	If unkeyed file, flag that indicates the format of the record position field: Byte Meaning X'80' TTR format X'40' Record number X'20' RBA X'10' Slot number for RRDS.
91	5B	RAUDTDSN	44	EBCDIC	Audit trail dataset name.
135	87	RLAYODSN	44	EBCDIC	Record layout dataset name.
179	B3	RLAYOMEM	22	EBCDIC	Record layout member name.
201	C9	RLAYOTYP	1	EBCDIC	Record layout dataset type.

Table 8-3. SMF Data Access Record Format (Continued)

Offsets	Name	Len	Format	Description	
202	CA	RLAYOUSE	1	EBCDIC	Record layout dataset usage. S Single X XREF N None.
203	CB	RXREFDSN	44	EBCDIC	XREF dataset name.
247	F7	RXREFMEM	22	EBCDIC	XREF member name.
269	10D	RSELCUSE	1	EBCDIC	Selection criteria usage. E Use existing M Modify existing T Create temporary Q Quick N None.
270	10E	RSELCDSN	44	EBCDIC	Selection criteria dataset name.
314	13A	RSELCMEM	22	EBCDIC	Selection criteria member name.
336	150	RDAFLTYP	1	EBCDIC	Input file type.
337	151	RDAKEYPO	4	binary	Relative key position if keyed.

Field Update Record Format

Field update records are created by the edit and Search/Update functions when a record is modified, and if field update recording was selected in the audit trail exit program. The SMF record contains the before and after images of each field in the modified record. Table 8-4 maps the field update SMF record. This record type is optional. If this record is created, it contains a hexadecimal X'30', X'31', or X'32' in the RRECTYPE field, depending upon the options selected in the audit trail exit program.

Table 8-4. SMF Field Update Record Format

Offsets	Name	Len	Format	Description	
Common SMF Header. See Table 8-2 on page 8-2.					
27	1B	RFKEYDTA		EBCDIC	If the file is keyed, the record key is stored starting here. The length of the record key is in field RDKEYLEN.
27	1B	RFPOSREC	8	binary	Record position information for unkeyed file. See Note 1.
For each undated field, File-AID/MVS makes the following entry starting after the record key or the record position information.					
+0	+0	RFLEN	4	binary	Length of updated field.
+4	+4	RFLOC	4	binary	Relative (to zero) start location of the field within the record.
+8	+8	RFBAIMAG		EBCDIC	The before image of the updated field is stored immediately, followed by the after image of the field. See Note 2.

Notes:

1. If RDRPOSID (see "Dataset Access Record Format" on page 8-3) is X'80', bytes 5 through 8 contain the relative (to zero) byte offset of the record in the block. Otherwise, these bytes are zero.
2. A RRECTYPE value of X'31' means that only before images are stored. A value of X'32' means only after images are stored.

Comprehensive Update Record Format

Comprehensive update records are created when a dataset is modified by the edit function and option U of the Search/Update utility. Two SMF records can be created, one for the before image and one for the after image. If an existing record is modified, both a before and after image SMF record are created.

Table 8-5 maps the comprehensive update SMF record. This record type is optional. If this record is created, it contains a hexadecimal X'41' or X'42' in the RRECTYPE field (see "Common Header for all SMF Record Types" on page 8-2), depending upon the options selected in the audit trail exit program.

Table 8-5. SMF Comprehensive Update Record Format

Offsets	Name	Len	Format	Description	
Common SMF Header. See Table 8-2 on page 8-2.					
27	1B	RCUDTYP	1	EBCDIC	Type of update flag (U = update).
The following fields occur when the file is keyed:					
28	1C	RCKEYDTA		EBCDIC	Record key is stored starting here. The record key length is in field RDKEYLEN.
+0	+0	RCKEYDTA		EBCDIC	The before or after record image start position.
The following fields occur when the file is unkeyed:					
28	1C	RCPOSREC	8	EBCDIC	Record position information. See Note below.
36	24	RCPOSDTA		EBCDIC	The before or after record image start position.

Note: If RDRPOSID (see "Dataset Access Record Format" on page 8-3) is X'80', bytes 5 through 8 contain the relative (to zero) byte offset of the record in the block. Otherwise, these bytes are zero.

Dataset Update Summary Record Format

Dataset update summary records are created by the edit function and option U of the Search/Update utility to record the number of dataset records added, deleted, or updated. Table 8-6 maps the Dataset Summary Update SMF record. This record type is optional. If present, it contains a hexadecimal X'20' in the RRECTYPE field.

Table 8-6. Dataset Update Summary Record Format

Offsets	Name	Len	Format	Description	
Common SMF Header. See Table 8-2 on page 8-2.					
27	1B	RSUMADD	4	binary	Total number of records added.
31	1F	RSUMDEL	4	binary	Total number of records deleted.
35	23	RSUMUPDT	4	binary	Total number of records updated.

Writing a Dynamic SMF User Exit Program

You can create a user exit program that File-AID calls before writing the SMF record to the SMF dataset. Compuware provides a sample program in the File-AID install library member FASMFUEX. Assembler DSECTS of the SMF record formats are provided in member SMFRHDR of the install library. Assemble the modified FASMFUEX exit and place the object code in the File-AID object library using install library member JCLSMFEX.

A user exit program must be dynamic. The exit program is loaded at File-AID startup. Complete the following steps to activate a dynamic user exit program:

1. Link-edit the FASMFEX object and place the user exit load module in the load library of File-AID.
2. Modify the SMF exit name field in the audit exit program to reflect the name of the dynamic user exit program. See “Audit Exit Parameter Layouts” on page 7-7.
3. Assemble and link-edit the audit exit program.

Writing an SMF Exit

When the exit program receives control from File-AID, register 1 points to a two-word parameter list that contains the following information:

- Word 1** The dynamic working storage area of the exit.
Word 2 The SMF record about to be written.

On the final call to the exit program, word 2 contains zeros.

The exit program may execute any of the following tasks:

- Write the SMF record to another file.
- Modify the SMF record.
- Request that File-AID not write the record to the SMF file.

When the exit program returns to File-AID, register 15 must contain one of the following codes:

- 0** File-AID writes the SMF record to the SMF dataset.
4 File-AID does not write the SMF record to the SMF dataset.

If a return code 0 or 4 is used, File-AID takes the indicated action and continues to return to the user exit each time a new SMF record is created.

- 8** File-AID writes the dataset access SMF record plus all other SMF records.
12 File-AID does not write the dataset access SMF record, and it does not create any other SMF records for this dataset.

Return codes 8 and 12 are only valid from the initial call to the user exit for a new dataset. Return codes 8 and 12 cause File-AID to take the indicated action, then process the dataset without returning to the exit program until another dataset is accessed.

Appendix A.

File-AID Conversion Utility

This chapter describes how you can use the File-AID conversion utility to convert the following:

- *File-AID Release 6.x selection tables to Release 8.x XREFs*
- *File-AID Release 7.x XREFs to their Release 8.x format*
- *File-AID Release 7.x saved selection criteria members to their Release 8.x format*
- *File-AID for IMS XREFs to the File-AID/MVS Release 8.x format.*

Convert Selection Tables to XREF Members

Complete the following procedure to convert Release 6 selection tables to the Release 8 XREF format:

1. Copy the JCL located in FASAMP.JCL(CVT6XMAP).
2. Tailor JOBLIB to point to your Release 8.x load library.
3. Tailor DD01 to point to your Release 6.x map library.
4. Tailor DD01O to a new name for your new Release 8.x XREF dataset.
5. Submit the job.

The XREF dataset you create must be a new, empty PDS dataset with the DCB attributes shown in the sample JCL in Figure A-1 and Figure A-2. Verify that the SPACE and UNIT parameters contain accurate values.

Figure A-1. FASAMP.JCL Member CVT6XMAP. Convert Selection Tables to XREFs

```

//?????A JOB (###,CCCC), 'YOUR USERNAME',
//          CLASS=A, TIME=2, MSGCLASS=A, NOTIFY=?????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID RELEASE 6
//* SELECTION TABLES IN A MAP LIBRARY
//* TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT
//*
//* NOTE:  ONLY SELECTION TABLES WILL BE CONVERTED TO XREF MEMBERS.
//*        MAP MEMBERS ARE NOT CONVERTED, BUT THE MAP LIBRARY IS
//*        A VALID RECORD LAYOUT DATASET.
//*
//* EXAMPLE: SELECTION TABLE = SELORDR REFERENCES MAPS ORDERPO,
//*          ORDERWO AND ORDERSC.  AFTER RUNNING THE CONVERT,
//*          SELORDR IS NOW CONVERTED TO AN XREF.  TO USE THE
//*          NEW XREF YOU WOULD ENTER THE FOLLOWING ON THE BROWSE/EDIT
//*          SCREEN:
//*          LAYOUT USAGE           => X
//*          RECORD LAYOUT DATASET => OLD-R6-MAPLIB   (DD01 BELOW)
//*          MEMBER                  =>
//*          XREF DATASET            => NEW-R8-XREF     (DD01O BELOW)
//*          MEMBER                  => SELORDR        (CONVERTED SEL TBL)
//*

```

Figure A-2. FASAMP.JCL Member CVT6XMAP. Convert Selection Tables to XREFs

```

//JOB LIB DD DSN=?????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1 EXEC PGM=FILEAID,REGION=6M
//SYS PRINT DD SYSOUT=*
//SYS LIST DD SYSOUT=*
//SYS TOTAL DD SYSOUT=*
//SYS DUMP DD SYSOUT=*
//ABNDUMP DD DUMMY
//DD01 DD DSN=YOUR-FILEAID-V6R?M0-MAPLIB,DISP=SHR
//DD010 DD DSN=YOUR-FILEAID-V8R0-XREF,DISP=(,CATLG),
// DCB=(DSORG=PO,RECFM=VB,LRECL=300,BLKSIZE=0),
// UNIT=SYSDA,
// SPACE=(CYL,(1,1,30))
//SYS IN DD *
$$$DD01 CONVERT TYPE=MAPSEL
/*
//

```

Convert Selection Criteria Members to Release 8.x Format

Complete the following procedure to convert Release 7.x selection criteria members to the Release 8.x format:

1. Copy the JCL located in FASAMP.JCL(CVT70SEL).
2. Tailor JOBLIB to point to your Release 8.x load library.
3. Tailor DD01 to point to your Release 7.x selection criteria library.
4. Tailor DD010 to a new name for your new Release 8.x selection criteria dataset.
5. Submit the job.

The Selection Criteria dataset you create must be a new, empty PDS dataset with the DCB attributes shown in the sample JCL in Figure A-3. Verify that the SPACE and UNIT parameters contain accurate values.

Figure A-3. FASAMP.JCL Member CVT70SEL. Convert Selection Criteria

```

//???????A JOB (###,CCCC),'YOUR USERNAME',
// CLASS=A,TIME=2,MSGCLASS=A,NOTIFY=??????
/*
/** THIS IS A SAMPLE JOB TO CONVERT FILE-AID RELEASE 7.0
/** SELECTION CRITERIA LIBRARY
/** TO THE NEW FILE-AID RELEASE 8 SELECTION CRITERIA LIBRARY FORMAT
/**
//JOB LIB DD DSN=?????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1 EXEC PGM=FILEAID,REGION=6M
//SYS PRINT DD SYSOUT=*
//SYS LIST DD SYSOUT=*
//SYS TOTAL DD SYSOUT=*
//SYS DUMP DD SYSOUT=*
//ABNDUMP DD DUMMY
//DD01 DD DSN=YOUR-FILEAID-V7R0-SELCRIT,DISP=SHR
//DD010 DD DSN=YOUR-FILEAID-V8R0-SELCRIT,DISP=(,CATLG),
// DCB=(DSORG=PO,RECFM=VB,LRECL=300,BLKSIZE=0),
// UNIT=SYSDA,
// SPACE=(CYL,(1,1,30))
//SYS IN DD *
$$$DD01 CONVERT TYPE=SELCRIT
/*
//

```

Convert XREF Members to Release 8.x Format

Complete the following procedure to convert Release 7.x XREF members to the Release 8.x format:

1. Copy the JCL located in FASAMP.JCL(CVT70XRF).
2. Tailor JOBLIB to point to your Release 8.x “load” library.
3. Tailor DD01 to point to your Release 7.x XREF library.
4. Tailor DD01O to a new name for your new Release 8.x XREF dataset.
5. Submit the job.

The XREF dataset you create must be a new, empty PDS dataset with the DCB attributes shown in the sample JCL in Figure A-4. Verify that the SPACE and UNIT parameters contain accurate values.

Figure A-4. FASAMP.JCL Member CVT70XRF. Convert XREFs

```

//?????A JOB (###,CCCC), 'YOUR USERNAME',
//          CLASS=A, TIME=2, MSGCLASS=A, NOTIFY=?????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID RELEASE 7.0 XREF LIBRARY
//* TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT
//*
//JOBLIB DD DSN=??????? .FA.VVRRM.LOAD, DISP=SHR
//STEP1 EXEC PGM=FILEAID, REGION=4096K
//SYSPRINT DD SYSOUT=*
//SYSLIST DD SYSOUT=*
//SYSTOTAL DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ABNLDUMP DD DUMMY
//DD01 DD DSN=YOUR-FILEAID-V7R0-XREF, DISP=SHR
//DD01O DD DSN=YOUR-FILEAID-V8R0-XREF, DISP=(,CATLG),
//          DCB=(DSORG=PO, RECFM=VB, LRECL=300, BLKSIZE=0),
//          UNIT=SYSDA,
//          SPACE=(CYL,(1,1,30))
//SYSIN DD *
$$$DD01 CONVERT TYPE=XREF
//
//

```

Release 8.x does not support the Release 7.x XREF convention of manual specification of the Prefix Member Length. If an unsupported construct is found, File-AID displays a message that directs you to manually complete the conversion.

When you use a pre-8.0 XREF with a Prefix Member Length, you must use the XREF function (option 7) EX (Extract Source) line command to specify beginning and ending field names *or* modify your Prefix Member (now identified as a BASE) by deleting unused or unnecessary fields at the end so that the actual length matches the Prefix Member Length specified. If this alternative is not sufficient, File-AID provides the USE command which enables you to manually locate and select layouts for segmented records.

Release 8 XREF members can contain the dataset name of its associated layouts. Release 6 selection tables and Release 7.x XREFs do not contain the associated layouts' dataset names. CONVERT does not compensate for this discrepancy. Instead, File-AID Release 8.x prompts you on an as needed basis for a layout dataset name.

Convert File-AID for IMS XREF Members to File-AID/MVS Release 8.x Format

File-AID/MVS has three sample JCL members that you can use as models to convert your File-AID for IMS XREF members to the File-AID/MVS Release 8.x format. You can use Release 8.x format XREFs in File-AID/MVS functions and in File-AID/Data Solutions to create change criteria to modify (age, encrypt, or otherwise process) File-AID for IMS extract file data.

The following JCL members are provided in the FASAMP.JCL PDS:

CVTIMSXR	Convert one File-AID for IMS XREF to one File-AID/MVS XREF
CVTIMSX2	Convert multiple File-AID for IMS XREFs to one File-AID/MVS XREF
CVTIMSX3	Convert multiple File-AID for IMS XREFs to multiple File-AID/MVS XREFs.

Note: File-AID for IMS extract files contain data from that IMS data base and all associated data bases. However, the File-AID for IMS XREF may not contain references to those associated data bases. If you are processing data from IMS data bases with other associated data bases, to describe all the data in the extract file, you must have references to the associated data bases in the File-AID for IMS XREF or then run each of the XREFs through the second option, "Convert multiple File-AID for IMS XREFs to one File-AID/MVS XREF".

Convert One File-AID for IMS XREF to One File-AID/MVS XREF

Complete the following procedure to convert one File-AID for IMS XREF member to the Release 8 format. CONVERT processes one XREF member per DD statement. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You *must* specify the matching extract for each XREF DD (DDnn) using DDnnXT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSXR).
2. Tailor JOBLIB to point to your Release 8.x load library.
3. Tailor DDnn to point to your File-AID for IMS XREF library member.
4. Tailor DDnnXT to point to the extract file that matches the XREF member.
5. Preallocate a PDS for your new Release 8 XREF library (DDnnO). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.
6. Tailor DDnnO to the name of your new Release 8.x XREF library. The output XREF member is named the same as the input XREF member unless you specify a new member name on DDnnO.
7. Submit the job.

Figure A-5. FASAMP.JCL Member CVTIMSX2R

```

//??????A JOB (####,CCCC), 'YOUR USERNAME',
//          CLASS=A,MSGCLASS=A,NOTIFY=??????
//*
/* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY
/* MEMBER(S) TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.
/* DDnnO MUST BE A PREALLOCATED PDS WITH RECFM=VB AND LRECL=300.
/*
//JOBLIB DD DSN=?????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1 EXEC PGM=FILEAID,REGION=6M
//SYSPRINT DD SYSOUT=*
//SYSLIST DD SYSOUT=*
//SYSTOTAL DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ABNLDDUMP DD SYSOUT=*
//DD01 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF(MEMBER1)
//DD01XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1
//DD01O DD DISP=SHR,DSN=YOUR.FILEAID.XREF
/* //DD02 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF(MEMBER2)
/* //DD02XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2
/* //DD02O DD DISP=SHR,DSN=YOUR.FILEAID.XREF
//SYSIN DD *
$$$DD01 CONVERT TYPE=IMSXREF,KEYINFO=ON
* $$$DD02 CONVERT TYPE=IMSXREF,KEYINFO=ON
/*

```

Convert Multiple File-AID for IMS XREFs to One File-AID/MVS XREF

Note: File-AID *for IMS* extract files contain data from that IMS data base and all associated data bases. However, the File-AID *for IMS* XREF may not contain references to those associated data bases. If you are processing data from IMS data bases with other associated data bases, to describe all the data in the extract file, you must have references to the associated data bases in the File-AID *for IMS* XREF or then run each of the XREFs through the second option, "Convert multiple File-AID *for IMS* XREFs to one File-AID/MVS XREF".

Complete the following procedure to convert multiple File-AID *for IMS* XREF members to one Release 8 File-AID/MVS XREF. This jobstream allows you to create a "super" XREF for mapping all records from the specified File-AID *for IMS* extract file. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You **must** specify the matching extract for each XREF DD (DDnn) using DDnnXT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSX2).
2. Tailor JOBLIB to point to your Release 8 load library.
3. Tailor DDnn to point to your File-AID *for IMS* XREF library. Do not specify a member name for DDnn.
4. Tailor DDnnXT to point to the extract file that matches the XREF file.
5. Preallocate a PDS for your new Release 8 XREF library (DDnnO). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.
6. Tailor DDnnO to the name of your new Release 8.x XREF library. You **must** specify a member name for DDnnO.
7. Submit the job.

Figure A-6. FASAMP.JCL Member CVTIMSX2

```

//?????A JOB (####,CCCC), 'YOUR USERNAME',
//          CLASS=A,MSGCLASS=A,NOTIFY=?????
//*
//* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY
//* MEMBER(S) TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.
//* DDnnO MUST BE A PREALLOCATED PDS WITH RECFM=VB AND LRECL=300.
//*
//JOB LIB DD DSN=?????????.FA.VVRRMM.LOAD,DISP=SHR
//STEP1 EXEC PGM=FILEAID,REGION=6M
//SYS PRINT DD SYSOUT=*
//SYS LIST DD SYSOUT=*
//SYS TOTAL DD SYSOUT=*
//SYS DUMP DD SYSOUT=*
//ABNDUMP DD SYSOUT=*
//DD01 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF1
//DD01XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1
//DD010 DD DISP=SHR,DSN=YOUR.FILEAID.XREF(REL8MEM1)
//* //DD02 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF2
//* //DD02XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2
//* //DD020 DD DISP=SHR,DSN=YOUR.FILEAID.XREF(REL8MEM2)
//SYS IN DD *
$$$$DD01 CONVERT TYPE=IMSXREF,KEYINFO=ON
* $$$$DD02 CONVERT TYPE=IMSXREF,KEYINFO=ON
/*

```

Convert Multiple File-AID for IMS XREFs to File-AID/MVS XREFs (One for One)

Complete the following procedure to convert one for one multiple File-AID *for* IMS XREF members to the Release 8.x format. You may specify up to 100 (00 - 99) DD statements per Job Step execution. You **must** specify the matching extract for each XREF DD (DDnn) using DDnnXT:

1. Copy the JCL located in FASAMP.JCL(CVTIMSX3).
2. Tailor JOBLIB to point to your Release 8.x load library.
3. Tailor DDnn to point to your File-AID *for* IMS XREF library.
4. Tailor DDnnXT to point to the extract file that matches the XREF members.
5. Preallocate a PDS for your new Release 8.x XREF library (DDnnO). It must be RECFM=VB and LRECL=300. Allocate enough space and directory blocks to hold all of your XREF members.
6. Tailor DDnnO to the name of your new Release 8.x XREF library.
7. Submit the job.

Figure A-7. FASAMP.JCL Member CVTIMSX3

```
/?/?/?/?/?A JOB (###,CCCC), 'YOUR USERNAME',  
// CLASS=A,MSGCLASS=A,NOTIFY=?/?/?/?/?  
/*  
/* THIS IS A SAMPLE JOB TO CONVERT FILE-AID/IMS XREF LIBRARY  
/* MEMBERS TO THE NEW FILE-AID RELEASE 8 XREF LIBRARY FORMAT.  
/* DDnn0 MUST BE A PREALLOCATED PDS WITH RECFM=VB AND LRECL=300.  
/*  
//JOB LIB DD DSN=?/?/?/?/??.FA.VVRRMM.LOAD,DISP=SHR  
//STEP1 EXEC PGM=FILEAID,REGION=6M  
//SYS PRINT DD SYSOUT=*  
//SYS LIST DD SYSOUT=*  
//SYS TOTAL DD SYSOUT=*  
//SYS DUMP DD SYSOUT=*  
//ABNDUMP DD SYSOUT=*  
//DD01 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF1  
//DD01XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT1  
//DD010 DD DISP=SHR,DSN=YOUR.FILEAID.XREF1  
/* //DD02 DD DISP=SHR,DSN=YOUR.FA.IMS.XREF2  
/* //DD02XT DD DISP=SHR,DSN=YOUR.FA.IMS.EXTRACT2  
/* //DD020 DD DISP=SHR,DSN=YOUR.FILEAID.XREF2  
//SYS IN DD *  
$$DD01 CONVERT TYPE=IMSXREF,KEYINFO=ON  
* $$DD02 CONVERT TYPE=IMSXREF,KEYINFO=ON  
/*
```


Appendix B.

File-AID Activity Logging and Reporting

File-AID's Activity Logging and Reporting facility (FLOG) consists of:

- Pop-up window displayed at the conclusion of a File-AID session to log the action(s) performed, time saved, and any user comments. See Figure B-1 and Figure B-2.
- Report providing detail and summary activity information on File-AID's usage. See Figure B-3 and Figure B-4.

Captured information is written to a common activity log dataset. File-AID provides a COBOL record layout that formats the activity log records for online browsing. See Figure B-5.

Intended Audience

The Activity Logging and Reporting facility is intended for Compuware clients evaluating File-AID for purchase. Information recorded by the FLOG can be useful as cost justification data.

FLOG Installation Requirements

The following requirements must be true before the File-AID activity log (FLOG) can be installed at your site:

- Completed installation of File-AID Release 8.
- Use of the FAEXEC CLIST to invoke File-AID. Note the name of the CLIST library that contains FAEXEC because you update this library during the FLOG installation process.

The standard installation procedure employed by Install Manager implements the FAEXEC CLIST. In addition, FAEXEC is being used if you are using LIBDEF to allocate File-AID libraries or have installed File-AID's optional execution CLISTS.

- Update access to the File-AID installation library and read-only access to File-AID load library.
- Support for REXX procedures (TSO/E V2R4 and up) and ISPF/PDF Release 3.1 (and up).

Installation Procedure

To install File-AID Activity Logging (FLOG), you must customize and submit the JCL in the File-AID installation PDS member, FAEVINTR, as directed in the following steps:

1. Use PDF Edit CHANGE commands and the instructions at the top of FAEVINTR to change the strings ????.FA to identify the names of the File-AID installation, CLIST, and load libraries. The names as distributed are XXXXXXXX.FA.V8R9M0.INSTALL, ...CLIST, and ...LOAD.

2. Change all strings ?????.UPDATE.FLOG to reflect the name of your test log file. Your test log file should have a dataset name to which all users can write. This dataset is created and cataloged when you submit FAEVINTR.
3. Make sure the JOB card is valid and SUBMIT.
4. Verify completion code 0.

The installation is now complete. To test, access File-AID and issue the primary command FLOG (abbrev. FL) on any screen.

Note: You can use File-AID to browse the activity log. The COBOL layout for the activity log record is in member FAEVCOB of the File-AID installation library. See Figure B-5.

Reporting Procedure

1. Copy the report generation JCL from File-AID installation library member, FAEVRJCL, to your JCL dataset (80-byte PDS).
2. Make sure the JOB card is valid and then submit the JCL.

The report is placed in the last step's REPORT DD. You can direct the report to a dataset or to SYSOUT.

Removal Procedure

Update the CLIST library containing FAEXEC and the evaluation CLIST members: FAEVAL, FAEVALOG, FAEVALXS.

Rename FAEVAL to FAEVALTR (for possible reactivation in the future).

Access Logging Only Installation Procedure (Optional)

Some sites may elect to log File-AID ACCESS attempts without displaying the File-AID pop-up window. Complete the following steps to activate access-only logging:

1. Update the CLIST library containing FAEXEC and the evaluation CLIST members: FAEVAL, FAEVALOG, FAEVALXS.
2. Deactivate FAEVAL by renaming it to FAEVALTR.
3. Rename FAEVALXS (access-only logging version) to FAEVAL.

Note: The FLOG primary command is still active so that users can still elect to log notes and comments on File-AID to the activity log.

Figure B-1. FLOG Pop-Up Screen

```

File-AID 8.9.0 ----- Primary Option Menu -----
File-AID ----- Please Record Your Usage ----- Compuware
COMMAND ==>

Estimated time saved ==>      (Minutes - required)

Facilities used:  (Enter Y if used - check at least one)

Other - miscellaneous      ==>
Edit a file (LRECL > 255 bytes) ==>   Browse a file      ==>
Edit/Browse with record layouts ==>   Selective copy    ==>
File Conversion/Reformat   ==>   Compare 2 files   ==>
JCL/PDS/File scan and/or update ==>   Edit VSAM file    ==>
Use VTOC to find files     ==>   Print file        ==>
Use File-AID/Batch Interactive ==>

Please key in your evaluation remarks below:  (optional)
Line 1. ==>                                     <==
Line 2. ==>                                     <==
Line 3. ==>                                     <==

When done, press Enter.      THANK YOU!      Use END (PF3) to cancel.

```

Figure B-2. FLOG Pop-Up Screen Filled In

```

File-AID 8.9.0 ----- Primary Option Menu -----
File-AID ----- Please Record Your Usage ----- Compuware
COMMAND ==>

Estimated time saved ==> 15  (Minutes - required)

Facilities used:  (Enter Y if used - check at least one)

Other - miscellaneous      ==> Y
Edit a file (LRECL > 255 bytes) ==> Y   Browse a file      ==>
Edit/Browse with record layouts ==>   Selective copy    ==>
File Conversion/Reformat   ==> Y   Compare 2 files   ==>
JCL/PDS/File scan and/or update ==>   Edit VSAM file    ==>
Use VTOC to find files     ==>   Print file        ==>
Use File-AID/Batch Interactive ==>

Please key in your evaluation remarks below:  (optional)
Line 1. ==> I USED FILE-AID TO SET UP          <==
Line 2. ==> TEST CONDITIONS FOR MY PROGRAM    <==
Line 3. ==> USING COBOL LAYOUTS              <==

When done, press Enter.      THANK YOU!      Use END (PF3) to cancel.

```

Figure B-3. File-AID Evaluation Results Report - Detail

```

----- FILE-AID EVALUATION RESULTS -----
LOGON      DATE      TIME  DUR.  MINS.
ID         USED      USED  MINS  SAVED * * * FILE-AID FACILITIES USED * * * * *
FAUSER1  11/22/2000  12:16    2    15  EDIT      USE LAYOUTS
                                COMMENTS: I USED FILE-AID TO SET UP
                                COMMENTS: TEST CONDITIONS FOR MY
                                COMMENTS: PROGRAM USING COBOL LAYOUTS
FAUSER2  11/22/2000  12:17    1     2  USE LAYOUTS  GLOBAL UPDATE
                                COMMENTS: SECOND RECORD
                                COMMENTS: MULTIPLE USAGE TEST
FAUSER3  11/22/2000  14:35    6    15  EDIT      REFORMAT
                                COMMENTS: I USED FILE-AID TO SET UP
                                COMMENTS: TEST CONDITIONS FOR MY PGM
                                COMMENTS: USING COBOL RECORD LAYOUTS
    
```

Figure B-4. File-AID Evaluation Results Report - Summary

```

----- FILE-AID EVALUATION RESULTS -----

** ACTIVITY SUMMARY TOTALS **

TOTAL FILE-AID ACCESSES          3
TOTAL HOURS SAVED                 0.53
TOTAL TIME IN FILE-AID (HOURS)   0.11

** USAGE TYPE TOTALS **

EDIT                               2
BROWSE
USE LAYOUTS                         2
SELECTIVE COPY
REFORMAT                            1
COMPARE FILES
GLOBAL UPDATE                       1
EDIT VSAM                           1
USE VTOC
PRINT FILE
FILE-AID/BATCH
OTHER USAGE                         2
    
```

Figure B-5. Formatted View of Activity Log

```

File-AID - Edit - USERID0.FASAMP.COMMON.V890.FLOG ----- COLUMNS 00001 00034
COMMAND ==>
RECORD:      1          FILEAID-EVALUATION-LOG-REC          LENGTH: 176
----- FIELD LEVEL/NAME ----- FORMAT- -----1-----2-----3-----4
***** TOP OF DATA *****
5 DATE-USED SYNC          8/GRP
 10 DATE-YEAR            4/AN 1995
 10 DATE-MONTH           2/AN 03
 10 DATE-DAY             2/AN 12
5 LOGONID                8/AN FAUSER1
5 TIME-OF-DAY-USED SYNC  4/GRP
 10 TIME-HOUR            2/AN 11
 10 TIME-MINUTE          2/AN 17
5 TIME-SAVED-IN-MINS     3/NUM 15
5 TIME-SPENT-IN-FILE-AID SYNC 6/GRP
 10 HOURS                2/NUM 0
 10 MINUTES              2/NUM 1   2   01
 10 SECONDS              2/NUM 30  2   30
5 FACILITIES-USED SYNC  12/GRP
 10 EDIT                 1/AN Y   1   Y
 10 BROWSE               1/AN 1
 10 WITH-LAYOUTS         1/AN Y   1   Y
 10 SELECTIVE-COPY       1/AN 1
 10 REFORMAT             1/AN 1
 10 COMPARE-FILES        1/AN
 10 GLOBAL-UPDATE        1/AN
 10 EDIT-VSAM            1/AN
 10 USE-VTOC             1/AN
 10 PRINT-FILE           1/AN
 10 FILE-AID-BATCH       1/AN
 10 OTHER                1/AN Y
5 COMMENTS SYNC          135/GRP
 10 COMMENTS-LINE1      45/AN I used File-AID to set up          UP
      (POS 41-45)
 10 COMMENTS-LINE2      45/AN test conditions for my
      (POS 41-45)
 10 COMMENTS-LINE3      45/AN programs using COBOL layouts.      OUTS
      (POS 41-45)
***** BOTTOM OF DATA *****

```


Appendix C.

File-AID Compatibility Tables

This appendix provides the following compatibility tables:

- System software
- Language compiler software
- Hardware/Miscellaneous.

Table C-1. File-AID System Software Compatibility

System Software	Minimum Release	Comments
IBM OS 390 All versions	File-AID Release 8.8.0	No known problems. HFS file types are supported in the Browse, Edit, Copy, and Compare functions.
IBM OS 390 All versions	File-AID Release 8.0.1	No known problems. HFS files types are not supported.
IBM MVS/ESA 5.2.2	File-AID Release 8.0.1	No compatibility issues.
IBM MVS/XA	File-AID Release 8.0.1	No compatibility issues.
IBM DFSMS 1.3, 1.4, and 1.5	File-AID Release 8.0.1	HFS file types are not supported.
IBM DFSMS 1.2	File-AID 6.5.1 and 7.0.1	No compatibility issues.
IBM DFSMS 1.1	File-AID 6.5.1 and 7.0.1	No compatibility issues.
IBM DFP 3.3	File-AID 6.4.1	If you are using dynamic UCBs, File-AID 6.5.0 or 7.0.J or above is required.
IBM DFP 3.2	File-AID 6.4	No compatibility issues.
IBM DFP 3.1.1	File-AID 6.3	No compatibility issues.
IBM DFP 3.1	File-AID 6.3	No compatibility issues.
IBM DFP 3.0	File-AID 6.3	No compatibility issues.
IBM DFP 2.3	File-AID 6.2.2	No compatibility issues.
IBM ISPF/PDF 4.1	File-AID	No compatibility issues.
IBM ISPF/PDF 3.5	File-AID	No compatibility issues.
IBM JES2 Releases	File-AID	No compatibility issues.
Fujitsu MSP/AE	File-AID 6.6.0	No compatibility issues.
Fujitsu MSP/EX	File-AID 6.6.0	No compatibility issues.
Fujitsu FSP	File-AID 6.6.0	No compatibility issues.
Fujitsu XSP	File-AID 6.6.0	No compatibility issues.
Hitachi VOS3/ES	File-AID 6.6.0	No compatibility issues.
Hitachi VOS3/AS	File-AID 6.6.0	No compatibility issues.
VTAM Releases	File-AID	No compatibility issues.
CICS Releases	File-AID	No compatibility issues.
CA-ROSCOE 6.0	File-AID 8.0.1	No compatibility issues.
CA-ROSCOE 5.7	File-AID 8.0.1	No compatibility issues.
CA-ROSCOE 5.6	File-AID 8.0.1	No compatibility issues.

Table C-2. File-AID Language Compiler Software Compatibility

Language Compiler	Minimum Release	Comments
COBOL LE370	File-AID/XE 8.0.1	Record layouts supported.
VS COBOL II	File-AID/XE (all)	Record layouts supported.
COBOL 85	File-AID/XE (all)	Record layouts supported.
OS VS COBOL 2.4	File-AID/XE (all)	Record layouts supported.
OS VS COBOL 2.1	File-AID/XE 8.0.1	Record layouts supported.
PL/I Releases	File-AID/XE 8.0.1	Record layouts supported.
PL/I LE370	File-AID/XE 8.0.1	Record layouts supported. No known problems.
Assembler	File-AID/XE	Record layouts (DSECTS) are not currently supported.

Table C-3. File-AID Hardware/Miscellaneous Compatibility

Hardware/Miscellaneous	Minimum Release	Comments
3490 TAPE DEVICE	File-AID (all)	No compatibility issues.
3390	File-AID 8.0.1	No compatibility issues.
3390-3	File-AID 8.0.1	No compatibility issues.
3390-9	File-AID 8.0.1	No compatibility issues.
IBM 9345	File-AID 8.0.1	No compatibility issues.
RACK MOUNTED DASD (RAMAC)	File-AID 8.0.1	No compatibility issues
RACK MOUNTED DASD (RAMAC)	File-AID 8.0.1	No compatibility issues.
STORAGE TECH TIMBERLAND	File-AID (all)	No compatibility issues.
PARALLEL SYSPLEX	File-AID (all)	No compatibility issues.
CMOS TECHNOLOGY	File-AID (all)	No compatibility issues.
ESCON CHANNELS	File-AID (all)	No compatibility issues.
HCD (UCBs)	File-AID (all)	No compatibility issues.
PDSE	File-AID 8.0.1	No compatibility issues.
SMS	File-AID 8.0.1	No compatibility issues.
IAM	File-AID 8.0.1	No compatibility issues.
SMP/E 1.70	File-AID	File-AID does not support an SMP/E install.

Index

A

abend control default, 4-3
 above-the-16MB-line storage, 4-15
 access requirements, 2-7
 Acrobat online documentation for CICS Abend-AID/FX, ix
 Acrobat online documentation for DBA-XPert for DB2, ix
 Acrobat online documentation for File-AID, ix
 action logging File-AID to ISPF log dataset, 4-14
 activity logging and reporting (FLOG), B-1
 adjusting above-the-line storage, 4-15
 allocate and populate datasets, task 1, 2-17
 allocation CLIST, 3-3
 allocation exit, 7-2
 ALTLIB facility, 2-7
 ARCHVOL2 variable, 4-9
 ARCHVOLN variable, 4-9
 audit exit input parms, 7-7
 audit exit, when upgrading, 1-2
 audit trail exit, 7-6
 Automatic Backup and Recovery (ABR) allocation option, 4-12

B

batch buffer space default, 4-2
 batch changes for release 8, 1-3
 batch ddnames, when upgrading, 1-5
 batch options, when upgrading, 1-2
 before record area, USEMINUS access option, 4-16
 BookManager softcopy documentation for CICS Abend-AID/FX, ix
 BookManager softcopy documentation for DBA-XPert for DB2, ix
 BookManager softcopy documentation for File-AID, ix, 2-3, 2-11-2-12

C

CA-Librarian, 2-18
 CA-Panvalet, 2-18
 certificate, license, 1-1
 change command, 2-10
 character set default, 4-2
 close output datasets after USER function default, 4-6
 COBOL LE370 I/O exit link JCL, 7-13
 compatibility
 previous release, 1-2
 software/hardware, C-1
 compatibility tables, File-AID, C-1

compression/decompression I/O exit, 7-10, 7-13
 conversion utility, File-AID, A-1
 copy empty members default, 4-5
 copy entire member default, 4-7
 copy ISRCLIB to ISRCLIBV, task 13, 2-20, 2-22
 copy value, 2-15
 CPU changes, 1-7
 create a dump, 6-1
 create CSECT FBOPTBAT based on batch options (task 2), 2-18
 create File-AID training files, 2-18
 create the primary option menu, task 9, 2-18
 create zaps for environment product options, task 9, 2-18
 customer support web site, ix
 customize FAJSTEPL member, task 5, 2-18
 customize the training file CLIST - FACOPY, task 8, 2-18

D

dataset integrity reserve/enqueue, 4-13
 dataset update, destructive access, 4-15
 date display format, 4-12
 date formatting default, 4-3
 DCB requirements, 2-7
 debug your security exit, 7-2
 deleting unexpired datasets, 4-13
 destructive access protection, 4-15
 update access code, 4-15
 update option, 4-16
 DFHSM archive/migrate, 4-12
 differences in release 8, 1-3
 DMS/OS archive/migrate, 4-12
 dump, create, 6-1

E

edit 1st open, 4-14
 edit data file, 5-2-5-3
 editing Product Options table values
 See ?
 enabling the VSAM allocation exit, 4-16
 enterprise common components (ECC), 1-1
 error messages, 6-1
 down is not active, 6-1
 ESR, extended service router, 2-19
 exits, 7-1-7-14
 audit exit parameter layouts, 7-7
 audit trail, 7-6
 I/O exit function calls, 7-11
 I/O exit module, 7-9
 I/O exit sequence, 7-10
 installing the audit exit, 7-7
 installtion of user I/O exit, 7-13
 security, 7-1
 security exit allocation function call, 7-2
 security exit debugging, 7-2
 security exit installation, 7-2
 security exit open function call, 7-2

F

FACOPY CLIST verification, 5-2
 FAFUNC modules, 2-19
 FDR/ABR archive/migrate, 4-12
 File-AID
 activity logging and reporting (FLOG), B-1
 compatibility tables, C-1
 conversion utility, A-1
 description, 1-1
 exits, 7-1
 installation considerations, 1-6
 installation time, 1-6
 installing under ROSCOE, 1-6
 load library, make available to use, 5-1
 maintenance considerations, 1-6
 new release recommendation, 1-6
 SMF record mapping, 1-7
 SMF recording function, 8-1
 SVC, 2-15
 system requirements, viii
 troubleshooting, 6-1
 upgrading, 1-2
 verify installation, 5-1
 File-AID/Data Solutions
 enabling call to, 2-3, 2-12, 2-18, 2-22
 FILEAID variable, 4-9
 force output end of volume default, 4-5
 form print default, 4-1
 formatted print copybook default, 4-7
 FrontLine support web site, ix
 function Calls of I/O exit, 7-11

G

generate ISPF/PDF primary panel, task 14, 2-20
 generate ISPF/PDF primary tutorial panel, task 15,
 2-21-2-22
 getting help, x

H

help, Install Manager, 2-8

I

I/O error default, 4-3
 I/O exit communications area, 7-14
 I/O exit module, 7-9
 Function calls, 7-11
 Installation of user, 7-13
 I/O exits, when upgrading, 1-3
 IAM support, 1-2
 Install Manager, 2-1
 dataset names, 2-9
 File-AID dataset names, 2-10
 Install, 2-16
 install options, 2-13
 installation task table, 2-16
 allocate and populate datasets, 2-17

copy ISRCLIB to ISRCLIBV, 2-20, 2-22
 create CSECT FBOPTBAT based on batch op-
 tions, 2-18
 create File-AID training files, 2-18
 create JCL for panel, message, command, CLIST,
 and skeleton libraries, 2-18
 create the primary option menu, 2-18
 create zaps for environment product options,
 2-18
 customize FAJSTEPL member in the skeleton JCL
 library, 2-18
 customize the training file CLIST - FACOPY, 2-18
 generate ISPF/PDF primary panel, 2-20
 generate ISPF/PDF primary tutorial panel, 2-21-
 2-22
 link edit object modules, 2-17
 link edit the SVC, 2-18
 update CLIST FADYNALC, 2-18
 invoking, 2-8
 main menu, 2-8
 overview, 2-2
 product options, 2-14
 start and verify, 2-22
 training options, 2-15
 install options, 2-3
 specifying and editing values, 2-13
 variables, table of, 2-3
 installation considerations, 1-6
 Information Center users, 1-6
 installation time, 1-6
 notes, 1-6
 installation notes, 1-6
 installation of user I/O exit, 7-13
 installation overview, 1-1, 1-7
 Installation Procedures, 2-1
 edit the SETUP CLIST, 2-7
 execute Install Manager, 2-8
 unload the Install Manager datasets, 2-6
 installation time, 1-6
 installing File-AID in a ROSCOE environment, 1-6
 installing the audit trail exit, 7-7
 integrity, dataset reserve/enqueue, 4-13
 intermediate workfile naming, 4-17
 intermediate workfiles, 4-17
 naming, 4-17
 preallocating, 4-17
 Internet, Compuware WWW address, ix
 IOXDEF variable, 4-9
 ISAMUNIT variable, 4-9
 ISPF log recording, 4-14
 ISPLLIB DD statement, 3-1

J

JCL for panel, message, command, CLIST, and skelton
 libraries, task 4, 2-18

K

key print default, 4-1
 keyed file support, 5-4

L

LIBDEF method, 3-1
 license
 certificate, 1-1
 file, 1-1
 management system (LMS), 1-1
 limiting above-the-line storage, 4-15
 link edit object modules, task 3, 2-17
 link edit the SVC, task 11, 2-18
 link list, 3-1
 Link Pack Area (LPA), 3-1
 load library methods, 3-2–3-3
 CLIST, allocation, 3-3
 LOGON proc, 3-2
 log (ISPF) dataset access, 4-14
 logging File-AID to ISPF log dataset, 4-14
 LOGON proc, 3-2

M

maintain PDS statistics default, 4-7
 maintenance considerations, 1-6–1-7
 CPU changes, 1-7
 ISPF changes, 1-6
 new File-AID releases, 1-6
 operating system changes, 1-6
 migrate screen suppression, 4-12
 modifications for VSAM space manager pool names, 3-4
 modify batch options at execution, 4-9
 month formatting default, 4-3
 multiple file pass default, 4-4

N

new release recommendation, 1-6
 no records copied return code default, 4-4

O

online documentation for CICS Abend-AID/FX, ix
 online documentation for DBA-XPert for DB2, ix
 online documentation for File-AID, ix, 2-3
 open error return code default, 4-5
 open exit, 7-2
 operating environment, viii
 operating system changes, 1-6
 OPT parameter, 4-9

P

pad character default, 4-5
 parms layout
 audit exit input parms, 7-7
 audit exit input/output-exit type R, 7-8
 security exit input parms, 7-3
 PCF dataset access compatibility, 4-14

PDSMAN allocations, 2-7
 preallocating intermediate workfiles, 4-17
 primary dialog, when upgrading, 1-3
 print control characters default, 4-5
 print lines at 12LPI default, 4-4
 print lines at 8LPI default, 4-4
 print record information default, 4-7
 printer spacing default, 4-2
 problems, installation, 6-1
 OC4 and 106-C abend, 6-1
 batch job submission, 6-1
 screen display, 6-1
 process in JCL format, 4-7
 processing direction default, 4-7
 product license certificate, 1-1

Q

questions, File-AID/MVS frequently asked, ix

R

RDW parameter explanation default, 4-5
 record print default, 4-1
 related publications, viii
 replace like members default, 4-7
 RETNDAYS variable, 4-10
 ROSCOE environment, installation, 1-6

S

sample CLISTs, 3-3
 saved selection criteria members, when upgrading, 1-2
 screen display incorrect, 6-1
 security exit, 7-1
 allocation, 7-2
 audit trail, 7-6
 open, 7-2
 security exit input parms, 7-3
 security exit, when upgrading, 1-2
 selection tables, when upgrading, 1-2
 SETUP CLIST, editing, 2-7
 SMF record mapping, 1-7
 SMF recording facility, ??–8-6
 SMF recording function, 8-1
 add or modify, 8-1
 record contents, 8-1–8-2
 common header for all SMF record types, 8-2
 comprehensive update record, 8-5
 data access, 8-3
 dataset update summary record, 8-5
 field update record, 8-4
 record format, 8-2
 remove, 8-2
 SMF exit program, 8-6
 writing a dynamic user exit program, 8-6
 softcopy CICS Abend-AID/FX documentation, ix
 softcopy DBA-XPert for DB2 documentation, ix
 softcopy File-AID documentation, ix, 2-11–2-12
 space requirements, 2-7
 specifying Product Options table values
 See ?

- STEPLIB DD statement, 3-1
- suppress migrate screen, 4-12
- SVC functions, 2-19
- SVC, File-AID, 2-15
- system environment, viii
- system-determined blocksize default, 4-6

T

- tables
 - created during installation, 2-2
 - install options variables, 2-3
 - product option variables, 4-1
 - training option variables, 2-16
- tape characteristics, 2-6
- TDSNFMT variable, 4-10
- TDSNLIT variable, 4-10
- TDSNSFX variable, 4-10
- technical support, x
- troubleshooting, 6-1
- TSO logon proc, 3-2

U

- unequal Compare return codes default, 4-7
- unexpired dataset message, 4-13
- unloading the tape, 2-6
- update access code default, 4-4
- update access code for destructive access protection, 4-15
- update CLIST FADYNALC, task 7, 2-18
- update option default, 4-3
- upgrading from previous File-AID releases, 1-2
 - audit exit, 1-2
 - batch options, 1-2
 - I/O exits, 1-3
 - IAM support, 1-2
 - primary dialog, 1-3
 - saved selection criteria members, 1-2
 - security exit, 1-2
 - selection tables, 1-2
 - XREFs, 1-2
- USEMINUS, 4-16
- user function default, 4-4

V

- variables, table of, 4-1
- verifying File-AID installation, 2-22, 5-1, 5-6
 - batch job submission, 5-5
 - CA-PANVALET and CA-LIBRARIAN support, 5-5
 - create dump, 6-1
 - edit data file, 5-2–5-3
 - FACOPY CLIST, 5-2
 - keyed file support, 5-4
 - potential problems, 6-1
 - primary options, 5-1
- verifying File-AID installation, 6-2
- Volume Allocation Manager (VAM) modifications, 3-4
- VSAM allocation exit, 4-16
- VSAM space manager pool names modifications, 3-4
- VSAMDATA variable, 4-10

- VSAMDAYS variable, 4-10
- VSAMHILV variable, 4-11
- VSAMINDX variable, 4-11
- VSAMUNIT variable, 4-11

W

- website, File-AID/MVS frequently asked questions, ix
- windowed browse threshold, 4-17
- windowed edit threshold, 4-17
- workfile allocation, 4-17
- World Wide Web, Compuware address, ix
- WRKUNIT variable, 4-11
- WXTRN, weak external reference, 2-19

X

- XREFs, when upgrading, 1-2

Z

- ZPRIM variable, 4-11