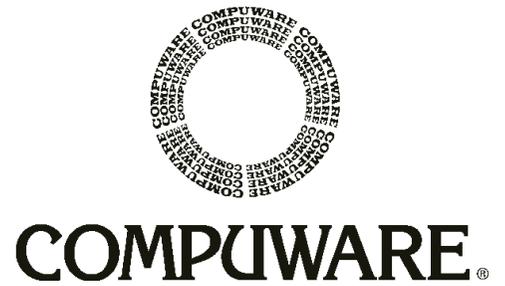


File-AID/MVS

Summary of Changes

Release 8.9



Please direct questions about File-AID
or comments on this document to:

File-AID/MVS 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.

This document and the product referenced in it are subject to the following legends:

Copyright 1982-2004 Compuware Corporation. All rights reserved. Unpublished rights reserved under the Copyright Laws of the United States.

U.S. GOVERNMENT RIGHTS-Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in Compuware Corporation license agreement and as provided in DFARS 227.7202-1(a) and 227.7202-3(a) (1995), DFARS 252.227-7013(c)(1)(ii) (OCT 1988), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 52.227-14 (ALT III), as applicable. Compuware Corporation.

This product contains confidential information and trade secrets of Compuware Corporation. Use, disclosure, or reproduction is prohibited without the prior express written permission of Compuware Corporation. Access is limited to authorized users. Use of this product is subject to the terms and conditions of the user's License Agreement with Compuware Corporation.

File-AID, FrontLine, and Compuware are registered trademarks of Compuware Corporation.

IBM, BookManager, Library Reader, and RACF are trademarks or registered trademarks of International Business Machines Corporation.

Adobe ® Acrobat ® Reader copyright © 1987-2004 Adobe Systems Incorporated. All rights reserved. Adobe and Acrobat are trademarks of Adobe Systems Incorporated.

All other company or product names are the trademarks or registered trademarks of their respective owners.

Contents

What's New in Release 8.9	v
Intelligent Source Code Compare:	v
Intelligent JCL Compare:	v
Flexible Reporting Options for Source Code and JCL Compare:	v
Edit-Helper for Source Code and JCL Compare:	v
Field Masking In Formatted Selection Criteria:	vi
Chapter 1. New Compare Functions and Features	1-1
Compare OLD Dataset Specification	1-2
Compare NEW Dataset Specification	1-5
Compare Execution Options	1-8
Compare Criteria Options	1-10
Compare Source Criteria	1-10
Compare JCL Criteria	1-12
Notes on the JCL Compare Criteria	1-13
Print Options	1-14
Compare Source Print Options Page 1	1-14
Compare Source Print Options Page 2 of 2	1-16
Compare JCL Print Options Page 1	1-18
Compare JCL Print Options Page 2 of 2	1-20
Criteria Build Complete	1-22
View Criteria	1-22
Criteria Dataset Specification	1-23
Compare Results - Member Summary	1-24
Compare - Edit-Helper	1-25
Compare - Save Modified Member	1-26
Compare Online Reports	1-27
Unformatted Report	1-27
Formatted Report	1-28
Load Library Compare Report	1-28
Source Code Standard Report Format	1-29
Source Code Across Report Format	1-30
JCL Compare Standard Report Format	1-31
JCL Compare Across Report Format	1-32
Report Summaries	1-34
Report Summaries -- Formatted Compare	1-34
Report Summaries -- Unformatted Compare	1-35
Report Summaries -- Load Library Compare	1-36
Report Summaries -- Source Code Compare	1-37
Report Summaries -- JCL Compare	1-38
Report Print	1-39
Print Parameters	1-39
JCL Specification	1-40
Chapter 2. Field Masking In Formatted Selection Criteria	2-1
Formatted Selection Criteria	2-1
Field Mask	2-3
Primary Commands	2-4

What's New in Release 8.9

The summary of changes document is meant to introduce File-AID/MVS users to the new features of Release 8.9. It provides detailed information on each feature in the following chapters:

Intelligent Source Code Compare:

- Supports COBOL and PL/1
- Accepts source code in these files formats:
PDS, PDSE , physical sequential, CA-Panvalet, and Librarian
- Provides the ability to compare source code based on **specific language parameters and rules**
- Includes these options to customize your compare:
 - Convert letters to **uppercase** before comparing
 - **Exclude** comments, blank lines and/or compiler directives
 - Disregard multiple **blanks** from lines to get accurate compares
 - Set **Selection Criteria** as part of the compare process
 - Compare **members of the same library** (PANVALET or LIBRARIAN)
 - Display **relative line numbers**

Intelligent JCL Compare:

- Compares JCL by **line** or by **keywords** at the statement level. For keyword compare, DD statements will match as long as they occur within the same step; they do not have to be in the same sequence, and keywords will be used to match within a statement.
- Features ability to **exclude** comments and in-stream data from compare
- Handles JCL of any type - standalone JCL, PROCs, JOBS in a scheduler library, etc.

Flexible Reporting Options for Source Code and JCL Compare:

- **Standard** and Across reporting view
- Printing all or only changed lines
- Optional printing of excluded lines, line numbers, and JCL in-stream data
- Flag lines can be printed whenever there is a change to identify the changed positions
- JCL header lines can be printed at the change of a job or step

Edit-Helper for Source Code and JCL Compare:

- Merges non-matching lines from old member into new as INFO lines for interactive editing of new
- Allows easy reversal of undesired changes
- Optionally saves changes to same file or member, or creates new

Field Masking In Formatted Selection Criteria:

- Adds tremendous flexibility to the data selection process
- Redefines an existing character or numeric field into subfields without modifying or creating a new layout
- Allows specific digits of packed and binary fields to be searched upon.

Chapter 1.

New Compare Functions and Features

The following list summarizes the new Compare functions and features:

- **Compare COBOL or PL/I source code files intelligently.** The selected language determines the coding convention and structure to be used during the compare. Source code is assumed to be 80 positions.
- **Compare JCL jobstreams on a keyword basis or a line basis.** When JCL is compared on a keyword basis, statements are considered equal as long as the values provided for each keyword are the same. Keyword compare also compares correctly when the statement sequence has been altered. DD statements can occur in any sequence within a step.

Compare OLD Dataset Specification

The “Compare OLD Dataset Specification” screen, shown in Figure 1-1, allows you specify Compare mode, the dataset, record layout and XREF, and selection criteria information for the OLD dataset you want to compare.

To access the Compare function, select option **10** from the File-AID Primary Option Menu or enter the appropriate jump command (for example, =10) from any File-AID screen. See “Selecting Screens” on page 2-7 of the File-AID/MVS *Online Reference Manual*. The Compare function can also be accessed with the **F10** recursive command. See “Recursive Commands” on page 2-5 of the File-AID/MVS *Online Reference Manual*.

Figure 1-1. Compare OLD Dataset Specification

```

File-AID ----- Compare - OLD Dataset Specification -----
COMMAND ==>

Compare Mode                ==> F  (F = Formatted; U = Unformatted
                                L = Load Library; S = Source code; J = JCL)

Specify OLD Dataset Information:
Dataset name or HFS path    ==> 'USERID9.FASAMP.EMPLOYEE'
Member name                 ==>          (Blank or pattern for member list)
Volume serial               ==>          (If dataset is not catalogued)
I/O exit name               ==>          (User written I/O program)

Specify Record Layout and XREF Information:
Record layout usage         ==> S      (S = Single; X = XREF; N = None)
Record layout dataset      ==> 'USERID9.FASAMP.LAYOUTS'
Member name                 ==> EMPLOYEE (Blank or pattern for member list)
XREF dataset name          ==> 'USERID9.FASAMP.XREF'
Member name                 ==> ORDRFILE (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 dataset name      ==>
Member name                 ==>          (Blank or pattern for member list)

```

Field Descriptions

Compare Mode : Specify one of the following valid compare modes:

F (Formatted) : Formatted criteria uses record formats

L (Load Library) : Compare load libraries

U (Unformatted) : Unformatted criteria uses record position

S (Source Code) : Compare source code libraries;

J (JCL) : Compare JCL.

Source and JCL require Panvalet/Librarian datasets or PDS/PDSE/sequential (RECFM=FB / LRECL=80) datasets.

Specify OLD Dataset Information:

Dataset name or HFS path : Enter the name of the OLD dataset that you want to compare. The dataset must be in a valid format for the chosen compare mode, for example, you must specify a load library when you specified a load library compare.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see “Specifying a Dataset Name” on page 2-13 of the File-AID/MVS *Online Reference Manual*.

Specify the HFS path. If the entered path is a complete path, then the file is processed directly for the Edit, Browse, Compare or Copy function. When a partial path is entered, File-AID displays the HFS Directory List enabling you to continue the drill down process at the last directory level entered. For more information on specifying an HFS path, see "Specifying an HFS Pathname" on page 2-20 of the File-AID/MVS *Online Reference Manual*.

Member name : If the file is a partitioned dataset, enter the member name of the OLD dataset you want to compare.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can select one or more members. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See "Pattern Dataset Names" on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time. If you enter a pattern member name or mask and do not display a list of members (selection list=no), all qualifying members are compared. A mask of "*" compares all members.

Volume serial : If the dataset is not cataloged, enter the volume serial number of the disk or tape containing the dataset.

I/O exit name (Optional) : If the I/O exit option has been installed, this input area is provided. See the File-AID *Installation Guide* or your system programmer for more information.

Enter the name of a site-written I/O exit program to be used only with the OLD dataset. **Blank** the field when no I/O exit program is to be used with the OLD dataset.

I/O exit installation options are:

NO : I/O exit name field is not presented.

YES : I/O exit name field is presented blank for entry of a site-written I/O exit program name.

exitname : I/O exit name field is presented prefilled with the name of a site-written I/O exit program.

Specify Record Layout and XREF Information:

The record layout and XREF information is only required for formatted compare mode.

Record layout usage : Specify one of the following usage values to define the compare files for formatted compare:

S : Single layout member

X : XREF (multiple layouts)

N : None (required for an unformatted, load library, source or JCL compare).

Record layout dataset : Specify the dataset name for the record layout.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see "Pattern Dataset Names" on page 2-14 of the File-AID/MVS *Online Reference Manual*.

Member name : Specify the member name for the record layout.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See "Pattern Dataset Names" on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

If the specified layout member contains multiple record layouts, enter the “USE” primary command on this screen without parameters to display a list of available record layouts. From that list you will be able to select the desired layout. If you don’t enter the “USE” command, Compare will default to the first layout in the specified member (see also “USE” on page 21-82 of the File-AID/MVS *Online Reference Manual*).

When using an XREF, this field is ignored.

XREF dataset name : Specify the dataset name for the layout XREF.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual*.

Member name : Specify the member name for the XREF.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

Specify Selection Criteria Information:

Refer to Chapter 16, “Selection Criteria (6)” for a complete description of selection criteria.

Note: Compare always processes records in a forward direction. Compare ignores SEQ/VSAM Backward Processing Direction if specified in the Selection Criteria.

Selection criteria usage : Specify one of the following valid entries:

- E :** Use existing selection criteria. Enter a dataset name in the Selection criteria dataset field.
- T :** Create temporary selection criteria. File-AID displays the Temporary Selection Criteria Menu. Temporary selection criteria is not automatically saved. Use the SAVE primary command to retain temporary selection criteria.
- M :** Modify existing selection criteria. Enter a dataset name in the Selection criteria dataset field.
- Q :** Quick selection criteria. File-AID displays the Unformatted Selection Criteria screen for you to enter temporary selection criteria.
- N :** (Default) None -- Do not use selection criteria.

Selection dataset name : Specify the name of the dataset containing existing selection criteria for options E and M.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. See the section entitled “Pattern Dataset Names” in Chapter 2 of the File-AID/MVS *Online Reference Manual* for a complete description.

Member name : Specify the member name. You can leave this field blank or enter a pattern member name to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See the section entitled “Pattern Member Names” in Chapter 2 of the File-AID/MVS *Online Reference Manual* for a complete description. Pattern names cannot be entered in both the Dataset name and Member name fields at the same time.

After you have completed the fields on the Compare OLD Dataset Specification screen, press Enter to continue.
Use the END (PF3) or RETURN (PF4) command to return to the File-AID Primary Option Menu.

Compare NEW Dataset Specification

The “Compare NEW Dataset Specification” screen, shown in Figure 1-2, allows you specify the dataset, record layout and XREF, and selection criteria information for the NEW dataset you want to compare to the OLD.

Figure 1-2. Compare NEW Dataset Specification

```

File-AID ----- Compare - NEW Dataset Specification -----
COMMAND ==>

Compare Mode: FORMATTED

OLD Dataset Name: USERID9.FASAMP.EMPLOYEE
Specify NEW Dataset Information:
  Dataset name or HFS path  ==> 'USERID9.FASAMP.EMPMAST'
  Member name              ==>                (Blank or pattern for member list)
  Volume serial            ==>                (If dataset is not catalogued)
  I/O exit name            ==>                (Exit name; blank=OLD exit; NONE)

OLD Record Layout Usage: SINGLE
Specify Record Layout and XREF Information:
  Record layout dataset    ==> 'USERID9.FASAMP.LAYOUTS'
  Member name              ==> EMPLOYEE      (Blank or pattern for member list)
  XREF dataset name        ==> 'USERID9.FASAMP.XREF'
  Member name              ==> ORDRFILE     (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   ==>
  Member name              ==>                (Blank or pattern for member list)

```

Field Descriptions

Compare Mode : This informational field indicates the Compare Mode selected on the Compare OLD Dataset Specification screen: FORMATTED, UNFORMATTED, LOAD LIBRARY, SOURCE, or JCL. Formatted criteria uses record formats; unformatted criteria uses record position.

OLD Dataset Name : This informational field indicates the OLD dataset name or HFS path.

Specify NEW Dataset Information:

Dataset name or HFS path : Enter the name of the NEW dataset that you want to compare. The dataset must be in a valid format for the chosen compare mode, for example, you must specify a load library when you specified a load library compare.

You can enter a pattern dataset name in this field to display a list of datasets from which you can select one member. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual*.

Specify the HFS path. If the entered path is a complete path, then the file is processed directly for the Edit, Browse, Compare or Copy function. When a partial path is entered, File-AID displays the HFS Directory List enabling you to continue the drill down process at the last directory level entered. For more information on specifying

an HFS path, see “Specifying an HFS Pathname” on page 2-20 of the File-AID/MVS *Online Reference Manual*.

Member name : If the file is a partitioned dataset, enter the member name of the NEW dataset you want to compare.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

If multiple members were selected for the OLD dataset, leave this field blank.

Volume serial : If the dataset is not cataloged, enter the volume serial number of the disk or tape containing the dataset.

I/O exit name (Optional) : If the I/O exit option has been installed at your site, this input area is provided. See the File-AID *Installation Guide* or your system programmer for more information.

Enter the name of a site-written I/O exit program to be used only with the NEW dataset. Leave **blank** to use the same site-written I/O exit program you specified for the OLD dataset. Specify **NONE** when no I/O exit program to be used with the NEW dataset.

I/O exit installation options are:

NO : I/O exit name field is not presented.

YES : I/O exit name field is presented blank for entry of a site-written I/O exit program name.

exitname : I/O exit name field is presented prefilled with the name of a site-written I/O exit program.

OLD Record Layout Usage : This informational field indicates the record layout usage specified on the Compare OLD Dataset Specification Screen: Single, XREF, or NONE.

Specify Record Layout and XREF Information:

Record layout dataset : Specify the dataset name for the record layout.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual*.

Member name : Specify the member name for the record layout.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See “Pattern Dataset Names” on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

If the specified layout member contains multiple record layouts, enter the “USE” primary command on this screen without parameters to display a list of available record layouts. From that list you will be able to select the desired layout. If you don’t enter the “USE” command, Compare will default to the first layout in the specified member (see also “USE” on page 21-82 of the File-AID/MVS *Online Reference Manual*).

When using an XREF, leave this field blank.

XREF dataset : Specify the dataset name for the layout XREF.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see "Pattern Dataset Names" on page 2-14 of the File-AID/MVS *Online Reference Manual*.

Member name : Specify the member name for the XREF.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See "Pattern Dataset Names" on page 2-14 of the File-AID/MVS *Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

Specify Selection Criteria Information:

Refer to Chapter 16, "Selection Criteria (6)" of the File-AID/MVS *Online Reference Manual* for a complete description of selection criteria.

Note: Compare always processes records in a forward direction. Compare ignores SEQ/VSAM Backward Processing Direction if specified in the Selection Criteria.

Selection criteria usage : Specify one of the following valid entries:

E : Use existing selection criteria. Enter a dataset name in the Selection criteria dataset field.

T : Create temporary selection criteria. File-AID displays the Temporary Selection Criteria Menu. Temporary selection criteria is not automatically saved. Use the SAVE primary command to retain temporary selection criteria.

M : Modify existing selection criteria. Enter a dataset name in the Selection criteria dataset field.

Q : Quick selection criteria. File-AID displays the Unformatted Selection Criteria screen for you to enter temporary selection criteria.

N : (Default) None -- Do not use selection criteria.

Selection dataset name : Specify the name of the dataset containing existing selection criteria for options E and M.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. See the section entitled "Pattern Dataset Names" in Chapter 2 of the File-AID/MVS *Online Reference Manual* for a complete description.

Member name : Specify the member name. You can leave this field blank or enter a pattern member name to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See the section entitled "Pattern Member Names" in Chapter 2 of the File-AID/MVS *Online Reference Manual* for a complete description. Pattern names cannot be entered in both the Dataset name and Member name fields at the same time.

After you have completed the fields on the Compare New Dataset Specification screen, press Enter to continue.

Compare Execution Options

The “Compare - Execution Options” screen, shown in Figure 1-3, allows you to specify whether you want to process the compare online or batch; and if you want to use existing compare criteria to compare the datasets, and the compare criteria dataset information.

For a Formatted Compare, you may also specify and use File-AID/Data Solutions change criteria to modify OLD file data prior to comparing the data to the NEW file.

For a pre-release 8.7 compare criteria dataset, specify Compare Criteria Usage of M (Modify) and the dataset information. On the Compare - Criteria Build Complete screen, you may save the new-style criteria to the same or a different dataset. These steps convert the old-style criteria to the new-style criteria.

Figure 1-3. Compare - Execution Options

```

File-AID ----- Compare - Execution Options -----
COMMAND ==>

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

Specify Compare Criteria Information:      (E = Existing; T = Temporary/New;
  Compare criteria usage ==> N          M = Modify; Q = Quick; N = None)
  Compare criteria dataset ==>
  Member name ==>                      (Blank or pattern for member list)

Specify optional File-AID/Data Solutions Change Criteria
to age dates, convert currencies, translate, generate, encrypt or
otherwise modify data from OLD file userid0.FASAMP.EMPLOYEE
  Use change criteria ==> N            (Y = Yes; N = No; M = Modify)
  Change criteria file ==>
  Member name ==>                      (Blank or pattern for member list)
  Maximum invalid fields ==> ALL      (ALL or number of invalid fields)

```

Field Descriptions

Specify Execution Information:

Process online or batch : Specify how you want to run the Compare utility:

- O** : Online (default). Specify O (Online) to perform the comparison online and view results at your terminal.
- B** : Batch. Specify B (Batch) to generate JCL and a compare criteria file for batch submission of your compare.

Specify Compare Criteria Information:

Compare Criteria Usage : Specify one of the following valid entries:

- E** : Use existing compare criteria. Enter a dataset name in the Compare criteria dataset field.
- T** : Create temporary compare criteria. Temporary compare criteria is not automatically saved. Use the SAVE primary command to retain temporary compare criteria.
- M** : Modify existing compare criteria. Enter a dataset name in the Compare criteria dataset field. This also allows you to modify old style criteria and save the new style criteria to a file.
- Q** : Quick. File-AID performs an unformatted full-record compare using all the defaults.
- N** : (Default) None -- is the same as T (Temporary).

Compare criteria dataset : Specify the name of the dataset containing existing criteria for options E and M. This dataset is created online with option 10 (Compare) or you may code yourself per the specifications in the *File-AID/MVS Batch Reference Manual*.

You can enter a pattern dataset name in this field to display a list of datasets from which you can make a selection. A pattern dataset name or mask consists of explicit characters or a combination of explicit and pattern characters. You can also specify a member name, in parentheses, along with the dataset name in this field. For more information on specifying a dataset name, see "Pattern Dataset Names" on page 2-14 of the *File-AID/MVS Online Reference Manual*.

Member name : If the file is a partitioned dataset (PDS or PDS/E), enter the member name.

You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See "Pattern Dataset Names" on page 2-14 of the *File-AID/MVS Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time.

Specify Optional File-AID/Data Solutions Change Criteria:

You may specify optional Data Solutions changes criteria to age dates, convert currencies, translate, generate, encrypt/decrypt, or otherwise modify data from the Compare "OLD" file. The Compare mode must be Formatted to use this feature.

Use change criteria : Specify one of the following valid entries for File-AID/Data Solutions change criteria usage:

Y : Use existing or create new File-AID/Data Solutions Change criteria. Enter a file name in the File-AID/Data Solutions Change file name field.

M : Modify existing File-AID/Data Solutions Change criteria. Enter a file name in the File-AID/Data Solutions Change file name field.

N : (Default) None.

Change criteria file : Specify the name of the File-AID/Data Solutions Change Criteria file containing existing criteria for options Y and M. You may specify a pattern to display a list.

Member name : You can leave this field blank or enter a pattern member name in this field to display a list of members from which you can make a selection. A pattern member name or mask consists of explicit characters or a combination of explicit and pattern characters. See "Pattern Dataset Names" on page 2-14 of the *File-AID/MVS Online Reference Manual* for a complete description. You cannot enter a pattern name in both the Dataset name and Member fields at the same time. If you enter a new member name or indicate Modify, File-AID displays the File-AID/Data Solutions Criteria Menu for you to specify your new criteria.

Maximum invalid fields : Specify ALL to have the Compare continue regardless of the number of fields that Data Solutions finds to be invalid, or specify a number of invalid fields at which Compare should stop.

After you have completed the fields on the this screen, press Enter to continue.

Compare Criteria Options

The Compare Criteria options allow you to specify processing and output options for your compare. The available criteria options are dependent on your selected Compare Mode.

For a source code compare, see “Compare Source Criteria” on page 1-10 and for a JCL compare, see “Compare JCL Criteria” on page 1-12.

Compare Source Criteria

The “Compare Source Criteria” screen, as shown in Figure 1-4, allows you to specify processing and output options for a source code compare.

Figure 1-4. Compare Source Criteria

```

File-AID ----- Compare - Source Criteria -----
COMMAND ==>

Compare criteria:
  Source code language           ==> 1  (1 = COBOL; 2 = PLI)

  Line compare synchronization   ==> L  (L = Line content;
                                         C = COBOL sequence number;
                                         S = Standard sequence number)

  Case sensitive                 ==> A  (A = As is; C = Convert to uppercase)
  Columns to compare -----> from ==> (1 - 80 column range;
                                         to ==> blank = use language default)

Exclude Options:
  Exclude comments              ==> Y  (Y = Yes; N = No)
  Exclude blank lines           ==> Y  (Y = Yes; N = No)
  Exclude compiler directives   ==> Y  (Y = Yes; N = No)
  Selection criteria action     ==> I  (I = Include; E = Exclude)

Print Options:
  Modify print defaults         ==> N  (Y = Yes; N = No)

```

Field Descriptions

Compare Criteria:

Use the following fields to specify the source code criteria that you want File-AID to use in the comparison.

Source Code Language : Specify the language of the source code.

- 1 : Specifies COBOL.
- 2 : Specifies PL/1.

Line compare Synchronization : Specify how to synchronize the compare. Line synchronization is the process of determining which lines of the OLD source member correspond to which lines of the NEW source member. The source members can be synchronized based on sequence number or line content.

- L :** Line content. The OLD source and the NEW source will be considered synchronized when a certain number of consecutive lines match. Sequence numbers are not compared when using line content synchronization.
- C :** Cobol sequence number. COBOL sequence numbers are expected to be located in positions 1-6.
- S :** Standard sequence number. Standard sequence numbers are expected to be located in positions 73-80.

When sequence number synchronization (C or S) is selected, a line of the OLD source file corresponds to a line of the NEW source file only if the sequence number is the same. A sequence number field must exist within each line of the source code member for that line to be compared. Once the lines are selected for comparison, the individual positions of the line are then compared to determine if the line is matched or changed. If any line is out of sequence or lines are found without a sequence number, the compare for that member will not be performed. When sequence number compare is used, sequence numbers must be present on every line and they must be in ascending sequence.

When a match occurs between a sequence number on the OLD file and a sequence number on the NEW file it is considered a synchronization point; any un-paired lines on the OLD file prior to the synchronization point are considered deleted. Any un-paired lines on the NEW file prior to the synchronization point are considered inserted.

Case Sensitive : Specify if case sensitivity is relevant to the compare.

A : Case must remain as is.

C : Convert to uppercase. File-AID treats all alphabetical characters as uppercase for the compare process only.

Note: The line displayed within the reports will always be the real content of the line, not the converted data.

Columns to compare : Enter the column range (1-80) for the compare. Blank columns to compare will use the language default which is 7-72 for Cobol and 2-72 for PL/1.

The source code language specified normally determines the columns to compare and entry in this field is not necessary. This option is included primarily for PL/1 where coding can start in column one or column two. This combination of from and to fields allows you to override the default positions to compare.

Exclude Options

Use the following fields to specify what you want File-AID to exclude during the comparison.

Exclude comments : Enter Y (Yes, default) to exclude comments or N (No) to include the comments in the compare. When imbedded comments are excluded, File-AID blanks out the comment but compares the rest of the line.

Cobol comments start with an '*' in column 7 OR a '/' in column 7 followed by the comment.

PL/1 comments start with a '/*' and end with an '*/'.

Exclude blank lines : Enter Y (Yes, default) to exclude blank lines or N (No) to include blank lines in the compare.

Exclude compiler directives : Enter Y (Yes, default) to exclude compiler directives or N (No) to include compiler directives in the compare.

Cobol directives include but are not limited to:

- 'D' in column 7
- '/' in column 7 (the rest of the line is blank)
- EJECT
- SKIP1/2/3
- READY TRACE
- *CONTROL

PL/1 directives include but are not limited to:

- %noprint
- %note
- %option

- %page
- %pop
- %print
- %skip
- decl
- declare

Compiler directives are a predefined set of commands that are language specific that do not impact the logic of the program. Only the directives that format the listing or set compiler actions will be affected by the compiler directives option.

Selection criteria action : Specify whether to **I** (Include) or **E** (Exclude) lines meeting the selection criteria in the compare. The default is to include lines that meet the criteria.

Modify print defaults : Specify whether you want to modify the print options for the Compare Report. Print option values are saved in your user profile. Valid entries are Y (Yes) and N (No). All default print option values are the last print option values that you entered for the last source compare.

Y : Modify the print defaults. File-AID displays the “Compare - Source Print Option (Page 1)” on page 1-14.

N : (Default) Do not modify the print defaults.

Compare JCL Criteria

The “Compare JCL Criteria” screen, as shown in Figure 1-5, allows you to specify processing and output options for a JCL compare. See also “Notes on the JCL Compare Criteria” on page 1-13 before selecting a compare type.

Figure 1-5. Compare JCL Criteria

```

File-AID ----- Compare - JCL Criteria -----
COMMAND ==>

Compare criteria:
  Compare type                ==> K   (K = Keyword; L = Line

Exclude Options:
  Exclude comments           ==> Y   (Y = Yes; N = No
  Exclude in-stream data     ==> Y   (Y = Yes; N = No

Print Options:
  Modify print defaults      ==> N   (Y = Yes; N = No

```

Field Descriptions

Compare Criteria:

Use the following fields to specify the JCL criteria that you want File-AID to use in the comparison.

Compare type : Specify the compare type for JCL. File-AID compares jobstreams on a keyword or a line basis. When comparing on a keyword basis, statements are considered equal as long as the values provided for each keyword are the same. Keyword compare also compares correctly when the statement sequence has been

altered, which File-AID marks with status ORDER. DD statements can occur in any sequence within a step; as long as they are within the same step of the same job, they are compared correctly.

K : Specifies Keyword compare.

Note: When DDs are concatenated, keyword compare syncs up on DSN, resulting in status DELETED and INSERTED when there are differences. Without concatenation, keyword compare syncs up on the keyword and compares the line, resulting in status CHANGED when there are differences.

L : Specifies Line compare.

Exclude Options

Use the following fields to specify what you want File-AID to exclude during the comparison.

Exclude comments : Enter Y (Yes--default) to exclude comments or N (No) to include the comments in the JCL compare. When imbedded comments are excluded, File-AID blanks out the comment but compares the rest of the line.

Exclude in-stream data : Enter Y (Yes--default) to exclude instream data in the JCL compare or N (No) to include instream data in the JCL compare.

Modify print defaults : Specify whether you want to modify the print options for the Compare Report. Print option values are saved in your user profile. Valid entries are Y (Yes) and N (No). All default print option values are the last print option values that you entered for the last JCL compare.

Y : Modify the print defaults. File-AID displays the "Compare - JCL Print Option (Page 1)" on page 1-18.

N : (Default) Do not modify the print defaults.

Notes on the JCL Compare Criteria

JCL compare criteria will include a compare type option to allow either keyword or line compare. Compare type will control how the actual compare process functions. With either compare type the compare always operates by statement.

Synchronization is the process of determining which statements are to be compared. First jobs are synchronized, then steps and then DDs. If there is only one JOB statement within each of the jobstreams, the jobs are compared. If there are multiple JOB statements, the jobs are compared in the order they occur.

Steps are synchronized first by the executable name and then by the step name. Step name is only used if there are multiple steps with the same executable name.

Job and step synchronization will be the same for either compare type. DD statement synchronization will differ. For keyword compare, DD statements can occur in any sequence within the step. For line compare the DD statements must occur within the same sequence to be compared. For line compare, any difference in sequence of the DD statements results in statements being reported as deleted or inserted rather than changed or matched.

Once synchronization has occurred, the actual compare is different for keyword and line compare. Line compare simply compares line one of the old statement to line one of the new statement and reports them as changed if there is any difference. Next, line two of the old is compared to line two of the new statement, etc. If there are differences in the number of lines for a given statement, they are considered deleted if there are more lines on the old file and inserted if there are more on the new file.

Keyword compare is more intelligent. Keywords are matched within the statement and the values compared for matching keywords. The keywords can be in a different sequence and can be on different lines of the statement, but they still compare correctly. Any unmatched keywords will be identified as changes.

Print Options

The Compare Print options provide flexible reporting capabilities for the Compare Report. These screens are displayed if you specified Y in the Modify print defaults field on the Compare Criteria Options screen. The available print options are dependent on your selected Compare Mode.

For a source code compare, see “Compare Source Print Options Page 1” on page 1-14, and for a JCL compare, see “Compare JCL Print Options Page 1” on page 1-18.

Compare Source Print Options Page 1

The “Compare - Source Print Option (Page 1)” screen, shown in Figure 1-6, enables you to specify the online report viewing options, detail report print options, and the member name report print options. This screen is displayed when you specify a Y in the Modify print defaults field on the “Compare Source Criteria” screen for a Source compare.

Figure 1-6. Compare - Source Print Option (Page 1)

```
File-AID ----- Compare - Source Print Options (Page 1) -----
COMMAND ==>

Online Report Viewing Options:
  Display interactive member summary screen ==> N (Y = Yes; N = No)

Detail Report Print Options:
  Print detail report                      ==> Y (Y = Yes; N = No)
  Print member summary report              ==> Y (Y = Yes; N = No)
  Detail report style                       ==> S (S = Standard; A = Across)
  Modify detail report content              ==> Y (Y = Yes; N = No)

  Print CHANGED members                    ==> Y (Y = Yes; N = No)
  Print INSERTED members                   ==> N (Y = Yes; N = No)
  Print DELETED members                    ==> N (Y = Yes; N = No)
  Print MATCHED members                    ==> N (Y = Yes; N = No)
  (a Summary Report is ALWAYS generated)

Member Name Report Print Options:
  Print member name report                 ==> N (Y = Yes; N = No)
  Member name report columns                ==> 8 (1 - 8 print columns)
```

Field Descriptions

The values specified for the options on this screen are saved in your user profile. Subsequent compare reports use the last values that were entered even if you do **not** return to this screen.

Online Report Viewing Options:

Display interactive member summary screen : Specify whether to display the interactive member summary screen or not.

Y : Specify Y (Yes) to display the interactive screen where you view the member list and select member(s) to B (Browse), E (Edit), or X (Exclude) the compare results.

Note: The separate member name report (if requested) cannot be viewed from this summary screen. However, the interactive member summary screen displays a similar one-line summary of statistics for each member compared.

N : Specify N (No) to skip the member summary screen and directly browse the compare report(s).

Detail Report Print Options:

Print detail report : Specify Y (Yes) to print the detail report or N (No) to not print the detail report.

Print member summary report : Specify Y (Yes) to print the member summary report or N (No) to not print the member summary report. This report prints a one-line summary of statistics for each member compared.

Detail report style : Specify S (Standard) for standard report style or A (Across) for across (side-by-side) report style. Standard is required to access the "Compare - Edit-Helper" function.

Modify detail report content : Specify Y (Yes) if you want to modify the detail report content or N (No) to skip modification.

Print CHANGED members : Specify Y (Yes) to print or N (No) to suppress printing the changed members. The default is Y (Yes).

Print INSERTED members : Specify Y (Yes) to print or N (No) to suppress printing the inserted members. The default is Y (Yes). If "Print member summary report" = Y (Yes) the Inserted member name (with the status) is printed on the Member Summary Report. If "Print member summary report" = N (No) the Inserted member name (with the status) is printed on the Detail Report. Member content is never printed.

Print DELETED members : Specify Y (Yes) to print or N (No) to suppress printing the deleted members. The default is Y (Yes). If "Print member summary report" = Y (Yes) the Deleted member name (with the status) is printed on the Member Summary Report. If "Print member summary report" = N (No) the Deleted member name (with the status) is printed on the Detail Report. Member content is never printed.

Print MATCHED members : Specify Y (Yes) to print or N (No) to suppress printing the matched members. The default is N (No).

Note: Even if you specify No for the above four print member options, a Summary Report is always generated.

Member Name Report Print Options

For a PDS Compare only, the following Print Options are applied:

Print member name report : Enter Y (Yes) to print a list of the members processed and their status (changed, inserted, deleted, or matched). Use N (No) to suppress the Member Name Report.

Member name report columns : Specify the number of print columns to use for the format of the Member Name report. The member names with their status are listed horizontally based on the number entered. Valid entries are 1 to 8. The default is 8. Valid only if Print Member Name Report is set to YES.

After you have completed the fields on the Compare Source Print Options screen, press Enter to continue.

Compare Source Print Options Page 2 of 2

The “Compare Source Print Option (Page 2 of 2)” screen, shown in (Figure 1-7), enables you to specify the format of the report. This screen is displayed when you press Enter on the “Compare - Source Print Option (Page 1)” screen.

Figure 1-7. Compare Source Print Option (Page 2 of 2)

```

File-AID ----- Compare - Source Print Options (Page 2 of 2) -----
COMMAND ==>

Data Print Options:
  Lines to print           ==> A   (A = All; C = Changes only)
  Shifted data reporting  ==> C   (M = Matched; C = Changed)
  Print new file excluded lines ==> Y   (Y = Yes; N = No)
  Print source context ID lines ==> Y   (Y = Yes; N = No)
  Number of context lines to print ==> 0   (0 - 9 context lines)

Report Format Options:
  Status value for matched lines ==> M   (B = blank; M = MATCH or <MAT>)
  Print old and new line numbers ==> Y   (Y = Yes; N = No)

Across Report Style Options:
  Print old file matched lines ==> N   (Y = Yes; N = No)
  Print old file excluded lines ==> N   (Y = Yes; N = No)
  Data width to report       ==> W   (N = Normal; W = Wide)

Flag Line Options:
  Underline changes           ==> B   (O = Old; N = New;
  CHANGED data underline character ==> ~   B = Both; blank = neither)

```

Field Descriptions

Data Print Options:

Lines to print : Specify A (All) for all lines to print or C (Changed) for changed lines only to print. Changed lines include changed, inserted, and deleted lines.

Shifted data reporting : Specify M (Matched) to report shifted data as matched or C (Changed) to report shifted data as changed data.

Print new file excluded lines : Specify Y (Yes) if you want the excluded lines of the New file to print or N (No) to suppress printing of the excluded lines. This option is ignored when Lines To Print is set to C to print changed lines only.

Print source context ID lines : Specify whether you want the source context ID lines to be printed or to suppress printing of source context ID lines. This option is ignored if Lines To Print is set to ALL. Excluded context ID lines will not print on the detail report.

COBOL context ID lines are DIVISION lines, Section lines, 01 layout levels, and Paragraph names. PL/I context ID lines are DCL, DECLARE, and statement prefix labels.

Number of context lines to print : Specify the number (0-9) of context lines you want to be printed on the detail report. This option is ignored if Lines To Print is set to ALL. Context lines are the lines immediately preceding and following the change. Context Lines that are matched and non-excluded will print on the report based on the number entered. These lines will print before and after every change block. Context lines can include context ID lines.

Report Format Options:

Status value for matched lines : Specify the status to be printed for matched lines:

M : (Matched) Prints the status <MAT> for each matched line.

B : (Blank) The status remains blank for each matched line.

Print old and new line numbers : Specify Y (Yes) to print both old and new line numbers or N (No) to suppress printing of both line numbers.

Across Report Style Options:

Print old file matched lines : Specify Y (Yes) if you want old file matched lines to be printed or N (No) to suppress print of old file matched lines.

Print old file excluded lines : Specify Y (Yes) if you want the excluded lines of the old file to print or N (No) to suppress printing of the excluded lines.

Data width to report : Specify one of the following width options to print source compare data for the across report style:

N : (Normal) for a 133 character report. Normal prints 61 characters of data for old and new each. If "Print old and new line numbers" is set to Yes, then 55 characters of data are printed. Source data is truncated equally on the right for both old and new file which means that changed data past position 61 or 55 is not visible, but the line is still marked as changed.

W : (Wide) for a 183 character report. Wide prints 80 characters of data for old and new each.

Flag Line Options:

Underline changes : Specify one of the following:

O : (Old) Underline changes in OLD record.

N : (New) Underline changes in NEW record.

B : (Both) Underline changes in both OLD and NEW record.

blank : (Neither) Do not underline changes in either the OLD or NEW file.

CHANGED data underline character : Specify the character to be used as the one to underline the changed data.

After you have completed the fields on the Compare Source Print Options screen, press Enter to continue with "Compare - Criteria Build Complete" on page 1-22.

Compare JCL Print Options Page 1

The “Compare - JCL Print Option (Page 1)” screen, shown in Figure 1-8, enables you to specify the online report viewing options, detail report print options, and the member name report print options. This screen is displayed when you specify a Y in the Modify print defaults field on the “Compare JCL Criteria” screen for a JCL compare.

Figure 1-8. Compare - JCL Print Option (Page 1)

```

File-AID ----- Compare - JCL Print Options (Page 1) -----
COMMAND ==>

Online Report Viewing Options:
  Display interactive member summary screen ==> N (Y = Yes; N = No)

Detail Report Print Options:
  Print detail report                      ==> Y (Y = Yes; N = No)
  Print member summary report              ==> Y (Y = Yes; N = No)
  Detail report style                       ==> S (S = Standard; A = Across)
  Modify detail report content              ==> Y (Y = Yes; N = No)

  Print CHANGED members                    ==> Y (Y = Yes; N = No)
  Print INSERTED members                   ==> N (Y = Yes; N = No)
  Print DELETED members                    ==> N (Y = Yes; N = No)
  Print MATCHED members                    ==> N (Y = Yes; N = No)
  (a Summary Report is ALWAYS generated)

Member Name Report Print Options:
  Print member name report                  ==> N (Y = Yes; N = No)
  Member name report columns                ==> 8 (1 - 8 print columns)

```

Field Descriptions

The values specified for the options on this screen are saved in your user profile. Subsequent compare reports use the last values that were entered even if you do **not** return to this screen.

Online Report Viewing Options:

Display interactive member summary screen : Specify whether to display the interactive member summary screen or not.

Y : Specify Y (Yes) to display the interactive screen where you view the member list and select member(s) to B (Browse), E (Edit), or X (Exclude) the compare results.

Note: The separate member name report (if requested) cannot be viewed from this summary screen. However, the interactive member summary screen displays a similar one-line summary of statistics for each member compared.

N : Specify N (No) to skip the member summary screen and directly browse the compare report(s).

Detail Report Print Options:

Print detail report : Specify Y (Yes) to print the detail report or N (No) to not print the detail report.

Print member summary report : Specify Y (Yes) to print the member summary report or N (No) to not print the member summary report. This report prints a one-line summary of statistics for each member compared.

Detail report style : Specify S (Standard) for standard report style or A (Across) for across (side-by-side) report style. Standard is required to access the “Compare - Edit-Helper” function.

Modify detail report content : Specify Y (Yes) if you want to modify the detail report content or N (No) to skip modification.

Print CHANGED members : Specify Y (Yes) to print or N (No) to suppress printing the changed members. The default is Y (Yes).

Print INSERTED members : Specify Y (Yes) to print or N (No) to suppress printing the inserted members. The default is Y (Yes). If “Print member summary report” = Y (Yes) the Inserted member name (with the status) is printed on the Member Summary Report. If “Print member summary report” = N (No) the Inserted member name (with the status) is printed on the Detail Report. Member content is never printed.

Print DELETED members : Specify Y (Yes) to print or N (No) to suppress printing the deleted members. The default is Y (Yes). If “Print member summary report” = Y (Yes) the Deleted member name (with the status) is printed on the Member Summary Report. If “Print member summary report” = N (No) the Deleted member name (with the status) is printed on the Detail Report. Member content is never printed.

Print MATCHED members : Specify Y (Yes) to print or N (No) to suppress printing the matched members. The default is N (No).

Note: Even if you specify No for the above four print member options, a Summary Report is always generated.

Member Name Report Print Options

For a PDS Compare only, the following Print Options are applied:

Print member name report : Enter Y (Yes) to print a list of the members processed and their status (changed, inserted, deleted, or matched). Use N (No) to suppress the Member Name Report.

Member name report columns : Specify the number of print columns to use for the format of the Member Name report. The member names with their status are listed horizontally based on the number entered. Valid entries are 1 to 8. The default is 8. Valid only if Print Member Name Report is set to YES.

After you have completed the fields on the Compare JCL Print Options screen, press Enter to continue.

Compare JCL Print Options Page 2 of 2

The “Compare JCL Print Option (Page 2 of 2)” screen, shown in (Figure 1-9), enables you to specify the format of the report. This screen is displayed when you press Enter on the “Compare - Source Print Option (Page 1)” screen.

Figure 1-9. Compare JCL Print Option (Page 2 of 2)

```

File-AID ----- Compare - JCL Print Options (Page 2 of 2) -----
COMMAND ==>

Data Print Options:
  Statements to print           ==> A   (A = All; C = Changes only)
  Print new file excluded lines ==> N   (Y = Yes; N = No)
  Print matched in-stream data ==> N   (Y = Yes; N = No)

Report Format Options:
  Status value for matched lines ==> B   (B = blank; M = MATCH or <MAT>)
  Print old and new line numbers ==> Y   (Y = Yes; N = No)
  Print job/step header lines   ==> N   (Y = Yes; N = No)

Across Report Style Options:
  Print old file matched lines ==> Y   (Y = Yes; N = No)
  Print old file excluded lines ==> N   (Y = Yes; N = No)
  Data width to report         ==> N   (N = Normal; W = Wide)

Flag Line Options:
  Underline changes           ==>      (O = Old; N = New;
  CHANGED data underline character ==>      B = Both; blank = neither)
  Keyword underline character ==>

```

Field Descriptions

Data Print Options:

Statements to print : Specify A (All) for all statements to print or C (Changed) for changed statements only to print.

Print new file excluded lines : Specify Y (Yes) if you want the excluded lines of the New file to print or N (No) to suppress printing of the excluded lines. If set to YES, Statements to Print must be set to ALL to see the New File Excluded lines.

Print matched in-stream data : Specify Y (Yes) if you want matched instream data to be printed or N (No) to suppress printing of matched instream data. If set to YES, Statements to Print must be set to ALL to see the Matched In-Stream Data lines.

Report Format Options:

Status value for matched lines : Specify the status to be printed for matched lines:

M : (Matched) Prints the status <MAT> for each matched line.

B : (Blank) The status remains blank for each matched line.

Print old and new line numbers : Specify Y (Yes) to print both old and new line numbers or N (No) to suppress printing of both line numbers.

Print job/step header lines : Specify Y (Yes) to print the job/step header lines or N (No) to suppress printing of job/step header lines.

Across Report Style Options:

Print old file matched lines : Specify Y (Yes) if you want old file matched lines to be printed or N (No) to suppress print of old file matched lines.

Print old file excluded lines : Specify Y (Yes) if you want the excluded lines of the old file to print or N (No) to suppress printing of the excluded lines.

Data width to report : Specify one of the following width options to print JCL compare data for the across report style:

N : (Normal) for a 133 character report. Normal prints 61 characters of data for old and new each. If "Print old and new line numbers" is set to Yes, then only 55 characters of data are printed. Data is truncated equally on the right for both old and new file which means that changed data past position 61 or 55 is not visible, but the line is still marked as changed.

W : (Wide) for a 183 character report. Prints 80 characters of data for old and new each.

Flag Line Options:

Underline changes : Specify one of the following:

O : (Old) Underline changes in OLD record.

N : (New) Underline changes in NEW record.

B : (Both) Underline changes in both OLD and NEW record.

blank : (Neither) Do not underline changes in either the OLD or NEW file.

CHANGED data underline character : Specify the character to be used as the one to underline the changed data. This character is used in JCL keyword and line compare to indicate the changed data. It is also printed under the word CHANGE as an eye catcher on the line compare report.

Keyword underline character : Specify the character to be used as the one to underline the keyword for the changed data. This character is used in JCL keyword compare to indicate the keyword that has changes associated with it. It is also printed under the word CHANGE as an eye catcher on the keyword compare report. The actual changes have the Changed Data Underline Character as described above.

Note: For Keyword compares only: Character **I** is used to underline inserted keywords and data, Character **D** is used to underline deleted keywords and data.

After you have completed the fields on the Compare JCL Print Options screen, press Enter to continue with "Compare - Criteria Build Complete" on page 1-22.

Criteria Build Complete

The “Compare - Criteria Build Complete” screen (Figure 1-10) is displayed when File-AID has all the information it needs to proceed with the comparison.

Figure 1-10. Compare - Criteria Build Complete

```
File-AID ----- Compare - Criteria Build Complete -----  
COMMAND ==>  
  
Your COMPARE Criteria are complete. You may:  
  
Use ENTER to execute COMPARE.  
Use END to return to previous panel.  
Use SAVE to save your criteria.  
Use VIEW to inspect your criteria.  
Use CANCEL to exit COMPARE (SAVE will not be issued).
```

- Press Enter to execute an online Compare or view the Batch JCL.
- Press PF3 (END) to return to the previous screen.
- Enter the SAVE primary command to save your Compare criteria before proceeding with the comparison. Criteria is saved in the new style control cards even when existing criteria in the old style is used.
- Enter the VIEW primary command to display and inspect your new style Compare Criteria before proceeding with the comparison.
- Enter the CANCEL primary command to exit the Compare function without saving your Compare Criteria.

View Criteria

The “Compare - View Criteria” screen (Figure 1-11 on page 1-23) displays the current compare criteria in a scrollable display.

Use the VIEW primary command on the Compare - Build Criteria Complete screen to display this screen. Use the END command (PF3) to exit the View Criteria screen.

Figure 1-11. Compare - View Criteria

```

Menu Utilities Compilers Help
-----
BROWSE      USERID9.FILEAID.CC.D00159.T171508          Line 00000000 Col 001 080
Command ==>                                         Scroll ==> CSR
***** Top of Data *****
*
*  COMPARE OPTIONS
0000 COMPARE_MODE=UNFORMATTED
0000 COMPARE_TYPE=READ_AHEAD
0000 READ_AHEAD_COUNT=100
0000 READ_AHEAD_SEQUENCE=ENFORCE
0000 RECORDS_TO_COMPARE=ALL
0000 DIFFERENCES_TO_COMPARE=ALL
*
*  PRINT OPTIONS
0000 PRINT_FORMAT=CHAR
0000 MAX_DIFFERENCES_TO_REPORT=ALL
0000 RECORD_TYPES_TO_PRINT=CHANGED,DELETED,INSERTED,MATCHED
0000 UNFORMATTED_REPORT_STYLE=STANDARD
0000 UNFORMATTED_PRINT_SEQUENCE=GROUP
*
*  OUTPUT OPTIONS
*  NOT SPECIFIED
*

```

Criteria Dataset Specification

The “Compare - Criteria Dataset Specification” screen (Figure 1-12) enables you to specify a Compare Criteria dataset in which to save your compare criteria. File-AID displays this screen when the SAVE primary command is entered on the Criteria Build Complete screen. The compare criteria file is FB 80 and can be a Sequential file or a member of a PDS/PDSE.

For a pre-release 8.7 compare criteria dataset, specify Compare Criteria usage of M (Modify) and the dataset information on the Compare - Criteria Build Complete screen. You may save the new-style criteria to the same or a different dataset. These steps convert the the old-style criteria to the new-style criteria.

Figure 1-12. Compare - Criteria Dataset Specification

```

File-AID ----- Compare - Criteria Dataset Specification -----
COMMAND ==>

Specify Compare Criteria Information:
  Criteria dataset name  ==>
  Member name           ==>          (Blank or pattern for member list)

Use ENTER to save into the specified dataset
Use END to stop save and return to Criteria Build Complete Screen

```

Field Descriptions**Specify Compare Criteria Information:**

Criteria dataset name : Specify the name of a Compare Criteria dataset.

Member name : If the file is a partitioned dataset, enter the member name or blank for member selection list.

Press Enter to save into the specified dataset. Press End (PF3) to stop the save and return to the Criteria Build Complete screen. If the dataset does not currently exist, File-AID prompts you, online, to allocate the file.

Compare Results - Member Summary

The “Compare Results - Member Summary” screen, shown in Figure 1-13, displays the Member Summary report when you set “Display interactive member summary screen” and “Print member summary report” to Y on the “Compare - Source Print Option (Page 1)” or “Compare - JCL Print Option (Page 1)” screen. Enter the appropriate line command to view the compare results.

Note that for a JCL Compare the headings O-Read and N-Read replace the headings O-Line and N-Line shown in Figure 1-13 for a Source Compare.

Figure 1-13. Compare Results - Member Summary

```

File-AID ----- Compare Results - Member Summary----- Row 1 to 4 of 4
COMMAND ==>                                         SCROLL ==> CSR

Old dataset: USERID9.FASAMP.COBSRC.OLD
New dataset: USERID9.FASAMP.COBSRC.NEW
Line commands: B = Browse report; X = eXclude detail print; E = Edit-helper
----- (Shifted) -----
S Name      Result  0-Line N-Line  Match Change Delete Insert 0-excl N-excl
- CBLPGM1   CHANGED   99   99   68   30     1     .     .     1
- CBLPGM2   MATCHED   56   56   56     .     .     .     .     .
- CBLPGM3   DELETED    .     .     .     .     .     .     .     .
- CBLPGM4   INSERTED  .     .     .     .     .     .     .     .
***** END OF MEMBER SUMMARY *****

```

After you have completed the desired line commands for each member, use END to continue with the “Compare - Report Print” screen on page 1-39.

Field Descriptions

The member summary lists the compared members and identifies the old and new datasets.

S : Enter one of the following line commands in this field:

B : Browse the compare online report for the selected member. Displays the detail report for either a source code or JCL compare. See Figure 1-19 on page 1-29 through Figure 1-23 on page 1-33 for examples.

X : eXclude detail print. File-AID will not print the detail compare report for the excluded member.

E : Edit-helper. Edit the NEW member. If the member contains editable data, the “Compare - Edit-Helper” screen (Figure 1-14 on page 1-26) displays.

Name : Displays the compared member name.

Result : Displays compare result for each compared member:

MATCHED : Both old and new member are the same.

CHANGED : There are differences between the old and new member.

DELETED : This member has been deleted in the new dataset.

INSERTED : This member has been inserted into the new dataset.

ERROR : The compare failed to execute, possibly due to incompatible compare criteria, for example you specified COBOL sequence number for Line compare synchronization when comparing PLI source files.

O-Line : Displays number of compared lines in the OLD member (Source Compare only).

O-Read : Displays number of compared statements in the OLD member (JCL Compare only).

N-Line : Displays number of compared lines in the NEW member (Source Compare only).

N-Read : Displays number of compared statements in the NEW member (JCL Compare only).

Match : Displays number of matching lines.

Change : Displays number of changed lines.

Delete : Displays number of deleted lines.

Insert : Displays number of inserted lines.

O-excl : Displays number of excluded lines in the old member.

N-excl : Displays number of excluded lines in the new member.

Line Commands

To view or edit a specific compared member use the following line commands

B : Browse the report for a specific member. A member that has the status of Deleted or Inserted cannot be browsed because there is no data to view. See “Compare Online Reports” on page 1-27 for more details.

X : Exclude a specific member from the printed detail report. A member that has the status of Deleted or Inserted has no detail data to exclude.

E : Edit a specific member. A member that has the status of Deleted or Inserted cannot be edited because there is no data to edit.

To use EDIT the following print options must be set:

- Detail report style (S) Standard
- Lines to print (A) All
- Print new file excluded lines (Y) Yes

Compare - Edit-Helper

The “Compare - Edit-Helper” screen, shown in Figure 1-14 on page 1-26, displays after you entered the E line command for a member on the “Compare Results - Member Summary” screen. This edit session displays the content of the NEW member with the non-matching lines of the OLD inserted as INFO lines. This allows you to interactively edit the NEW while simultaneously seeing the OLD in one session.

Figure 1-14. Compare - Edit-Helper

```

File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
EDIT          USERID9.FILEAID.CT.D03328.T114352          Columns 00001 00088
Command ==>                                         Scroll ==> CSR
***** ***** Top of Data *****
=NOTE= OLD DSN: USERID9.FASAMP.COBSRC.OLD(CBLPGM1)
=NOTE= NEW DSN: USERID9.DASAMP.COBSRC.NEW(CBLPGM1)
=NOTE= STATUS  ---+---1---+---2---+---3---+---4---+---5---+---6---+
000001 MATCH  000100 IDENTIFICATION DIVISION.
000002 MATCH  000200 PROGRAM-ID.      CBLPGM1.
000003 X      000300*-----
000004 X      000400* Program CBLPGM1
000005 X      000500* TRIANGLE Type DETERMINATION
000006 X      000600*-----
000007 X      000700
=NOTE= ===== BEGINNING OF CHANGE BLOCK =====
===== DELETE 000700 ENVIRONMENT DIVISION.
===== CHANGE 000800 INPUT-OUTPUT SECTION.
=NOTE= ~~~~~~ ~~~~~~
===== CHANGE 000900 FILE-CONTROL.
=NOTE= ~~~~~~ ~~~~~~
===== CHANGE 001000      SELECT INFILE      ASSIGN TO INFILE.
=NOTE= ~~~~~~ ~~~~~~
===== CHANGE 001100      SELECT SORT-FILE ASSIGN TO SORTFILE.

```

Editing Tips

Use standard ISPF editing commands, for example you could use the MD (Make Data) line command to convert an OLD INFO line to a data line in the NEW.

Compare - Save Modified Member

The “Compare - Save Modified Member” screen, shown in Figure 1-15, displays after editing a member in the “Compare - Edit-Helper” screen. Enter a dataset name when you decide to save the edited member. Press END to return without saving the member.

Figure 1-15. Compare - Save Modified Member

```

File-AID ----- Compare - Save Modified Member -----
COMMAND ==>

Destination Dataset Information:
  Dataset name   ==>
  Member name    ==>          (Blank or pattern for member list)

```

Use ENTER to save the modified member into the specified dataset
 Use END to not save the modified member
 and return to the Compare Results Member Summary

Field Descriptions

Specify a dataset into which to save your edited member. The file can be a sequential file or a member of a PDS/PDSE.

Dataset name : Specify the name of a dataset.

Member name : If the file is a partitioned dataset, enter the member name or blank for member selection list.

Compare Online Reports

The compare online reports show the compare results in the specified format on your screen after you have executed an online compare. Press End (PF3) to exit the display.

Unformatted Report

Figure 1-16 shows a sample report of an unformatted compare. The report displays the OLD compare lines/block ahead of the NEW compare lines/block.

Figure 1-16. Compare Online Report - Unformatted

```

Menu Utilities Compilers Help
-----
BROWSE  USERID9.FILEAID.CR.D03328.T170305          Line 00000000 Col 001 080
Command ==>                                         Scroll ==> CSR
***** Top of Data *****
File-AID 8.9  COMPARE DETAIL REPORT                USERID=USERID9    DATE 20
"OLD" DSN: USERID9.FASAMP.EMPLOYEE                "NEW" DSN: USE
=====
MATCHED OLD REC          1
MATCHED NEW REC          1  ----+----1-----+----2-----+----3-----+----4-----+----5--
  POS.      1- 100  00090MARTIN          EDWARD  M  AIRPLANE MANUFACTUR
          POS.  101- 198  .859 0'FARREL ST.          SAN FRANCISCO CA 12121B
=====
MATCHED OLD REC          2
MATCHED NEW REC          2
  POS.      1- 100  00100MULSTROM          ROBERTA  A  HOLLYWOOD SEAMSTRES
          POS.  101- 198  .4701 N. BASCOM AVE. #430 ANAHEIM          CA 95126G
=====
MATCHED OLD REC          3
MATCHED NEW REC          3

```

Formatted Report

Figure 1-17 shows a sample report of a formatted compare. The report displays the OLD compare lines/block ahead of the NEW compare lines/block.

Figure 1-17. Compare Online Report - Formatted

```

Menu Utilities Compilers Help
-----
BROWSE      USERID9.FILEAID.CR.D03328.T171616          Line 00000000 Col 001 080
Command ==>                               Scroll ==> CSR
***** Top of Data *****
File-AID 8.9  COMPARE DETAIL REPORT          USERID-USERID9    DATE 20
"OLD" DSN: USERID9.FASAMP.EMPLOYEE         "NEW" DSN: USE
=====
MATCHED RECORD      "OLD" FILE RECORD:          1
NUM DATA-FIELD-NAME  FORMAT    FIELD VALUES          NUM DATA-FIEL
-----
1 EMPLOYEE-MASTER-FILE                                1 EMPLOYEE-
>>> COMPARED FIELDS - - - - -
2 EMP-NUMBER          C          5 00090
3 EMP-LAST-NAME       C          15 MARTIN
4 EMP-FIRST-NAME      C          10 EDWARD
5 EMP-MID-INIT        C           1 M
6 FILLER              C           2
7 EMP-TITLE           C          30 AIRPLANE MANUFACTURE
   (POS 21-30)                R
9 EMP-NATL-ID-NUMBER  Z          9 427890125
10 FILLER             C           1
  
```

Load Library Compare Report

Figure 1-18 shows a sample report of a formatted compare. The report displays the OLD compare lines/block ahead of the NEW compare lines/block.

Figure 1-18. Compare Online Report - Load Library

```

Menu Utilities Compilers Help
-----
BROWSE      USERID9.FILEAID.CR.D03335.T121441          Compare completed
Command ==>                               Scroll ==> CSR
***** Top of Data *****
File-AID 8.9  COMPARE LOAD LIBRARY DETAIL REPORT  USERID-USERID9    DATE
"OLD" DSN: USERID9.FASAMP.LOADLIB1            "NEW" DSN: USE
=====
MEMBER  FILE      STATUS  SIZE(HEX)  SIZE(DEC)  EPA/ADDR  LINK/CSECT  RMODE  A
-----
AGER0100  OLD      CHANGED  CB8      3,256      0  1997/09/09  ANY
          NEW      CHANGED  D7E8     55,272     0  1998/07/22  24

CSECT = AGER0100
          OLD      CHANGED  848      2,120      0  1997/08/24  ANY
          NEW      CHANGED  B11      2,833      0  1998/07/14  24

          OFFSET  OLD 47F0F070 23C1C7C5 D9F0F1F0 F040C3F2  40F14BF3 4BF140F0 F
          0      NEW

          OFFSET  OLD F1F74BF5 F74BF3F1 00000054 60E8640C  00000000 00000109 0
          20      NEW  F3  F2  F5F7  04  80

          OFFSET  OLD 00000400 0000003E 00000036 00000000  40404040 00000000 0
  
```

The Load Library Compare Report identifies the OLD and NEW load library datasets and lists the compared members. The report displays the following columns:

MEMBER : Displays the member name of the old and new file. It also displays the CSET names indented by one position under the Member name.

FILE : Displays OLD or NEW to identify which file the following compare information belongs.

STATUS : Displays the compare results status of the old and new file. It also displays the CSET names indented by one position under the Member name.

MATCHED : Both old and new member are the same.

CHANGED : There are differences between the old and new member.

DELETED : This member has been deleted in the new dataset.

INSERTED : This member has been inserted into the new dataset.

SIZE(HEX) : Displays the size as a hexadecimal value.

SIZE(DEC) : Displays the size as a decimal value.

EPA/ADDR : Displays the entry point address or the CSECT hex-offset value.

LINK/CSECT : Displays the link date or CSECT assembly or compile date.

RMODE : Displays the residency mode value.

AMODE : Displays the addressing mode value.

ATTRIBUTES OR LANGUAGE : Displays the load module attribute or CSECT language identifier value.

Source Code Standard Report Format

All source code compare reports can be viewed in the Standard report format. Figure 1-19 shows a sample source code compare report in standard format. This sample report also has the underline changes with the ~ character turned on. Standard displays the OLD compare lines/block ahead of the NEW compare lines/block.

Figure 1-19. Standard Source Code Compare Online Report

```

Menu Utilities Compilers Help
-----
BROWSE  USERID9.FILEAID.CT.D03335.T165101          Line 00000000 Col 001 080
Command ==>                                         Scroll ==> CSR
***** Top of Data *****
File-AID 8.9  COMPARE SOURCE DETAIL REPORT          USERID=USERID9  DATE
OLD DSN: USERID9.FASAMP.COBSRC.OLD(CBLPGM1)       NEW DSN: USERI

  OLD-# NEW-# STATUS  ----+----1-----2-----3-----4-----5-----+
  00001 00001 MATCH  000100 IDENTIFICATION DIVISION.
  00002 00002 MATCH  000200 PROGRAM-ID.    CBLPGM1.
  00003 X      000300*-----
  00004 X      000400* Program CBLPGM1
  00005 X      000500* TRIANGLE Type DETERMINATION
  00006 X      000600*-----
  00007 X      000700
=====
OLD | 00007      DELETE 000700 ENVIRONMENT DIVISION.
    | 00008 00008 CHANGE 000800 INPUT-OUTPUT SECTION.
    | ~~~~~
    | 00009 00009 CHANGE 000900 FILE-CONTROL.
    | ~~~~~
    | 00010 00010 CHANGE 001000  SELECT INFILE  ASSIGN TO INFILE.

```

The Source Code Compare Report identifies the OLD and NEW datasets and lists the compared members.

Change Block

Source code compare also introduces the concept of a change block. All of the lines between synchronization points are considered part of a change block. Within the change block there can be inserted, deleted and changed lines. A line is considered a changed line if there is a high degree of similarity between the lines on the old and new file.

The concept of a change block allows more lines to be considered changed lines instead of inserted or deleted lines. This logic is different from the normal compare logic where a record can only be considered a change if there is a matching sync-key.

The report displays the following columns:

OLD-# : Displays the line number of the OLD file.

NEW-# : Displays the line number of the NEW file.

STATUS : Displays the compare results status for the compared line.

MATCH : Both old and new line are the same.

CHANGE : There are differences between the old and new lines.

DELETE : This line has been deleted.

INSERT : This line has been inserted.

SHIFT : This line has been shifted. A line is considered a shifted line if the only difference between the lines is the number of blanks.

X : This line has been excluded from the comparison.

Source Code Across Report Format

For Source Code compares, you can also view the report in an across format. Figure 1-20 shows a sample source code compare report in across format and normal data width. This sample report also has the underline changes with the ~ character turned on. Across displays the OLD compare lines/block to the left of the NEW compare lines/block. In addition, the Data width can be normal or wide.

Figure 1-20. Source Code Compare Online Report - Across, Normal

```

Menu Utilities Compilers Help
-----
BROWSE      USERID9.FILEAID.CT.D03338.T150016                               Line 00000000 Col 001 132
Command ==>                                         Scroll ==> CSR
-----
File-AID 8.9  COMPARE SOURCE DETAIL REPORT      USERID-USERID9      DATE 2003/12/04      TIME 15:00:09      PAGE      1
OLD DSN: USERID9.FASAMP.COBSRC.OLD(CBLPGM1)    NEW DSN: USERID9.FASAMP.COBSRC.NEW(CBLPGM1)
-----
-----+-----1-----2-----3-----4-----5-----+ OLD-# STATUS NEW-# -----1-----2-----3-----4-----5-----+
000100 IDENTIFICATION DIVISION.                00001 <MAT> 00001 000100 IDENTIFICATION DIVISION.
000200 PROGRAM-ID. CBLPGM1.                    00002 <MAT> 00002 000200 PROGRAM-ID. CBLPGM1.
000300*-----1-----2-----3-----4-----5-----+ 00003 X 00003 000300*-----1-----2-----3-----4-----5-----+
000400* Program CBLPGM1                        00004 X 00004 000400* Program CBLPGM1
000500* TRIANGLE TYPE                          00005 X 00005 000500* TRIANGLE Type DETERMINATION
000600*-----1-----2-----3-----4-----5-----+ 00006 X 00006 000600*-----1-----2-----3-----4-----5-----+
                                           X 00007 000700
-----
000700 ENVIRONMENT DIVISION.                    00007 <DEL
000800 INPUT-OUTPUT SECTION.                   00008 <CHG> 00008 000800 ENVIRONMENT DIVISION.
-----
000900 FILE-CONTROL.                            00009 <CHG> 00009 000900 INPUT-OUTPUT SECTION.
-----
001000 SELECT INFILE ASSIGN TO INFILE.          00010 <CHG> 00010 001000 FILE-CONTROL.
-----
001100 SELECT SORT-FILE ASSIGN TO SORTFILE.      00011 <CHG> 00011 001100 SELECT INFILE ASSIGN TO INFILE.
-----

```

The Compare Report identifies the OLD and NEW datasets and lists the compared members. The report displays the following columns:

OLD-# : Displays the line number of the OLD file.

STATUS : Displays the compare results status for the compared line. The left (<) and right (>) arrows point to the applicable OLD (<) and/or NEW (>)

<MAT> : Both old and new line are the same.

<CHG> : There are differences between the old and new lines.

<DEL : This line has been deleted.

INS> : This line has been inserted.

<SHF> : This line has been shifted. A line is considered a shifted line if the only difference between the lines is the number of blanks.

X : This line has been excluded from the comparison.

NEW-# : Displays the line number of the NEW file.

JCL Compare Standard Report Format

All JCL compare reports can be viewed in the Standard report format. Figure 1-21 shows a sample source code compare report in standard format. Standard displays the old compare lines/block ahead of the new compare lines/block.

Figure 1-21. JCL Compare Online Report - Standard

```

Menu Utilities Compilers Help
-----
BROWSE      USERID9.FILEAID.CT.D03343.T103439      Line 00000000 Col 001 080
Command ==>                               Scroll ==> CSR
***** Top of Data *****
File-AID 8.9  COMPARE JCL DETAIL REPORT            USERID-USERID9      DATE
OLD DSN: USERID9.FASAMP.JCL.OLD(JCL2)           NEW DSN: USERI

      OLD-# NEW-# STATUS  ----+----1-----+----2-----+----3-----+----4-----+----5-----+
JOB      NAME = MYJOB      FILE = OLD/NEW      STATUS = CHANGED

00001 00001 MATCH  //MYJOB      JOB (ACCOUNTING),
00002 00002      //*          NOTIFY=TSOUSER,
00003 00003      //          CLASS=A,MSGCLASS=A,      *** TSO USE
00004 00004      //          MSGLEVEL=(1,1),TIME=(,10)      *** CHANGE
          00005 X      //*
          00006 X      //*

PROC      NAME = TESTPROC  FILE = OLD/NEW      STATUS = CHANGED

00007 00007 MATCH  //TESTPROC  PROC PROG=TRIMAIN,
00008      //          INPUT=NULLFILE

```

The JCL Compare Report identifies the OLD and NEW datasets and lists the compared members. The standard detail report displays the following columns:

OLD-# : Displays the line number of the OLD file.

NEW-# : Displays the line number of the NEW file.

STATUS : Displays the compare results status for the compared line.

MATCH : Both old and new line are the same.

CHANGE : There are differences between the old and new lines.

DELETE : This line has been deleted.

INSERT : This line has been inserted.

ORDER : Keyword compare only. The line or statement compares, only the ORDER is different.

X : This line has been excluded from the comparison.

JCL Compare Across Report Format

For JCL compares, you can also view the report in an across format. Across displays the old compare lines/block to the left of the new compare lines/block

Figure 1-22 shows a sample JCL compare report in across format and normal data width..

Figure 1-22. JCL Compare Online Report - Across Normal

```

Menu Utilities Compilers Help
-----
BROWSE  USERID9.FILEAID.CT.D03338.T150016                               Line 0000000 Col 001 001 132
Command ==>                                                                Scroll ==> CSR
***** Top of Data *****
FFFile-AID 8.9 COMPARE JCL DETAIL REPORT          USERID=USERID9    DATE 2003/12/09    TIME 10:54:53    PAGE 1
OLD DSN: USERID9.FASAMP.JCL.OLD(JCL2)          NEW DSN: USERID9.FASAMP.JCL.NEW(JCL2)
-----
-----1-----2-----3-----4-----5-----+ OLD-# STATUS NEW-# -----1-----2-----3-----4-----5-----+
JOB      NAME = MYJOB      FILE = OLD/NEW      STATUS = CHANGED
          <MAT> 00001 //MYJOB      JOB (ACCOUNTING).
          00002 //              NOTIFY=TSUSER.          *** TSO USE
          00003 //              CLASS=A,MSGCLASS=A.          *** CHANGE
          00004 //              MSGLEVEL=(1,1),TIME=(,10)      ST
          X 00005 //
          X 00006 //
PROC     NAME = TESTPROC   FILE = OLD/NEW   STATUS = CHANGED
          <MAT> 00007 //TESTPROC PROC PROG=TRIMAIN.
          00008 //              INPUT=NULLFILE
PSTEP   NAME = RUNPROG    FILE = OLD/NEW    STATUS = CHANGED
          <MAT> 00009 //RUNPROG EXEC PGM=&PROG
  
```

The Compare Report identifies the OLD and NEW datasets and lists the compared members. The report displays the following columns:

- OLD-# :** Displays the line number of the OLD file.
- STATUS :** Displays the compare results status for the compared line. The left (<) and right (>) arrows point to the applicable OLD (<) and/or NEW (>)
 - <MAT> :** Both OLD and NEW line are the same. File-AID only prints the NEW line.
 - <CHG> :** There are differences between the old and new lines.
 - <DEL :** This line has been deleted.
 - INS> :** This line has been inserted.
 - <ORD> :** Keyword compare only. The line or statement compares, only the ORDER is different.
 - X :** This line has been excluded from the comparison.
- NEW-# :** Displays the line number of the NEW file.

Figure 1-23 on page 1-33 shows a sample JCL compare report in across format and WIDE data width. Across displays the old compare lines/block to the left of the new compare lines/block.

Report Summaries

All compare reports include a report summary at the end of the report. The summary includes your specified Compare Criteria and Format Parameters.

Report Summaries -- Formatted Compare

Figure 1-24 shows a sample compare summary report for a formatted compare.

Figure 1-24. Summary Report -- Formatted Compare

```

File-AID 8.9      COMPARE SUMMARY REPORT      USERID=USERID9      DATE 20
"OLD" DSN: USERID9.FASAMP.EMPLOYEE          "NEW" DSN: USE
-----
COMPARE CRITERIA:
  COMPARE MODE:                               FORMATTED
  COBOL LAYOUT USAGE:                          SINGLE
  COBOL DATASET NAME:                          USERID9.FASAMP.LAYOUTS

REPORT FORMAT PARAMETERS:
  PRINT FORMAT:                                FORMATTED
  MAX NUMBER OF DIFFERENCES TO REPORT:        0 (0 = NO LIMIT)
  PRINT RECORDS SELECTED:                     CHANGED, INSERTED, DELET
  FORMATTED REPORT OPTION:                    ALL ASSOCIATED FIELDS
  COMPARED FIELDS OPTION:                     CHANGED ONLY
  FIELD STATISTICS REPORT:                    YES

COMPARE STATISTICS:
  "OLD" DATASET RECORDS READ:                  50
  "NEW" DATASET RECORDS READ:                  50
  "OLD" DATASET RECORDS COMPARED:              50
  "NEW" DATASET RECORDS COMPARED:              50
  NUMBER OF RECORDS MATCHED:                   49
  NUMBER OF RECORDS CHANGED:                   1
  NUMBER OF RECORDS INSERTED:                  0
  NUMBER OF RECORDS DELETED:                   0

          **** E N D   O F   R E P O R T   ****

```

The Compare Statistics summarize the compare results.

"OLD" DATASET RECORDS READ : Displays the number of records read for the old file.

"NEW" DATASET RECORDS READ : Displays the number of records read for the new file.

"OLD" DATASET RECORDS COMPARED : Displays the number of records compared for the old file.

"NEW" DATASET RECORDS COMPARED : Displays the number of records compared for the new file.

NUMBER OF RECORDS MATCHED : Displays number of matching records for the old and new file.

NUMBER OF RECORDS CHANGED : Displays number of changed records.

NUMBER OF RECORDS INSERTED : Displays the number of inserted records for the old and new file.

NUMBER OF RECORDS DELETED : Displays the number of deleted records for the old and new file.

Report Summaries -- Unformatted Compare

Figure 1-25 shows a sample report summary for a source code compare.

Figure 1-25. Summary Report -- Unformatted Compare

```

File-AID 8.9      COMPARE SUMMARY REPORT      USERID-USERID9      DATE 20
"OLD" DSN: USERID9.FASAMP.EMPLOYEE          "NEW" DSN: USE
-----
COMPARE CRITERIA:
COMPARE MODE:                                UNFORMATTED

REPORT FORMAT PARAMETERS:
PRINT FORMAT:                                CHARACTER
MAX NUMBER OF DIFFERENCES TO REPORT:        0 (0 = NO LIMIT)
PRINT RECORDS SELECTED:                      CHANGED, INSERTED, DELET
UNFORMATTED REPORT STYLE:                   CONDENSED
OLD/NEW PRINT SEQUENCE:                     GROUPED

CONDENSED REPORT OPTIONS IN EFFECT:
PRINT CHANGED RECORD CONTENT:                RECORD
PRINT INSERTED RECORD CONTENT:               RECORD
PRINT DELETED RECORD CONTENT:               RECORD
PRINT MATCHED RECORD CONTENT:               RECORD
PRINT "RULER" (T)OP OF PAGE, (A)LWAYS, OR (N)EVER: TOP
SUPPRESS PRINT LINES THAT DO NOT CONTAIN CHANGES: YES
PRINT ONLY CHANGED DATA FOR THE NEW RECORD: NO
UNDERLINE CHANGES:                          BOTH
UNDERLINE KEY OR SYNC                        BOTH
CHANGED DATA UNDERLINE CHARACTER:          -
KEY OR SYNC FIELD UNDERLINE CHARACTER:

COMPARE STATISTICS:
"OLD" DATASET RECORDS READ:                  50
"NEW" DATASET RECORDS READ:                  50
"OLD" DATASET RECORDS COMPARED:              50
"NEW" DATASET RECORDS COMPARED:              50
NUMBER OF RECORDS MATCHED:                   49
NUMBER OF RECORDS CHANGED:                   1
NUMBER OF RECORDS INSERTED:                  0
NUMBER OF RECORDS DELETED:                   0

***** END OF REPORT *****

```

The Compare Statistics summarize the compare results.

"OLD" DATASET RECORDS READ : Displays the number of records read for the old file.

"NEW" DATASET RECORDS READ : Displays the number of records read for the new file.

"OLD" DATASET RECORDS COMPARED : Displays the number of records compared for the old file.

"NEW" DATASET RECORDS COMPARED : Displays the number of records compared for the new file.

NUMBER OF RECORDS MATCHED : Displays number of matching records for the old and new file.

NUMBER OF RECORDS CHANGED : Displays number of changed records.

NUMBER OF RECORDS INSERTED : Displays the number of inserted records for the old and new file.

NUMBER OF RECORDS DELETED : Displays the number of deleted records for the old and new file.

Report Summaries -- Load Library Compare

In addition to the Compare Criteria and Format Parameters, the summary for a Load Library Compare includes dataset characteristics and the CSECT selection criteria you specified. Figure 1-26 shows a sample report summary for a Load Library compare.

Figure 1-26. Summary Report -- Load Library Compare

```

File-AID 8.9    COMPARE LOAD LIBRARY SUMMARY REPORT    USERID-USERID9    DATE
"OLD" DSN: USERID9.FASAMP.LOADLIB1                    "NEW" DSN: USE
=====
DATASET CHARACTERISTICS:                                OLD DATASET    NEW DATAS
DATASET TYPE:                                          PDS              PDS
BLOCKSIZE:                                             6144             6144

COMPARE CRITERIA
COMPARE MODE:                                          LOAD LIBRARY
MEMBER CRITERIA:                                     NAME, SIZE, EPA, ATTRIBU
CSECT CRITERIA:                                       NAME, SIZE, LANGUAGE, CS
TEXT COMPARE THRESHOLD:                               200

CSECT SELECTION CRITERIA:
CSECT SELECTION LIST:                                NONE

REPORT FORMAT PARAMETERS:
PRINT DETAIL REPORT:                                  YES
PRINT MEMBER SUMMARY REPORT:                         YES
PRINT MEMBERS SELECTED:                              CHANGED, DELETED, INSERT
PRINT MEMBER NAME REPORT:                            YES
PDS NAME REPORT COLUMNS:                             8

COMPARE STATISTICS:
NUMBER OF MATCHED MEMBERS:                             0
NUMBER OF CHANGED MEMBERS:                             18
NUMBER OF INSERTED MEMBERS:                             0
NUMBER OF DELETED MEMBERS:                              3
NUMBER OF MEMBERS NOT FOUND:                           0

          ****  E N D  O F  R E P O R T  ****

```

The Compare Statistics summarize the compare results.

NUMBER OF MATCHED MEMBERS : Displays number of matching members for the old and new datasets.

NUMBER OF CHANGED MEMBERS : Displays number of changed members.

NUMBER OF INSERTED MEMBERS : Displays the number of inserted members for the old and new file.

NUMBER OF DELETED MEMBERS : Displays the number of members records for the old and new file.

NUMBER OF MEMBERS NOT FOUND : Displays the number of members that couldn't be located.

Report Summaries -- Source Code Compare

The displayed compare statistics are similar to the “Compare Results - Member Summary” on page 1-24. Figure 1-27 shows a sample report summary for a source code compare.

Figure 1-27. Summary Report -- Source Code Compare

```

=====
COMPARE STATISTICS:          OLD FILE  NEW FILE
  LINES READ:                99          99
  LINES EXCLUDED:            0           1
  LINES COMPARED:            99          98

  NUMBER OF MATCHED LINES:    68          68
  NUMBER OF CHANGED LINES:    30          30
  NUMBER OF SHIFTED LINES:    1           1 (INCLUDED IN CHANGED)
  NUMBER OF DELETED LINES:    1
  NUMBER OF INSERTED LINES:   0

          ****  E N D  O F  R E P O R T  ****

```

The Compare Statistics summarize the compare results.

LINES READ : Displays the number of lines read for the old and new file.

LINES EXCLUDED : Displays the number of lines excluded from the compare for the old and new file.

LINES COMPARED : Displays the number of lines compared for the old and new file.

NUMBER OF MATCHED LINES : Displays number of matching lines for the old and new file.

NUMBER OF CHANGED LINES : Displays number of changed lines.

NUMBER OF SHIFTED LINES : Displays the number of shifted lines for the old and new file.

NUMBER OF DELETED LINES : Displays the number of deleted lines for the old and new file.

NUMBER OF INSERTED LINES : Displays the number of inserted lines for the old and new file.

Report Summaries -- JCL Compare

Figure 1-28 shows a sample report summary for a JCL compare.

Figure 1-28. Summary Report -- JCL Compare

```

-----
COMPARE STATISTICS:                OLD FILE  NEW FILE
  LINES READ:                      26         26
  LINES EXCLUDED:                   11         11
  LINES COMPARED:                   15         15

  STATEMENTS COMPARED:              14         14
  NUMBER OF MATCHED STATEMENTS:      1
  NUMBER OF CHANGED STATEMENTS:      1
  NUMBER OF DELETED STATEMENTS:     12
  NUMBER OF INSERTED STATEMENTS:     12

  STEPS COMPARED:                   1          1
  NUMBER OF MATCHED STEPS:           0
  NUMBER OF CHANGED STEPS:           0
  NUMBER OF DELETED STEPS:           1
  NUMBER OF INSERTED STEPS:          1

          ****  E N D  O F  R E P O R T  ****

```

The Compare Statistics summarize the compare results.

LINES READ : Displays the number of lines read for the old and new file.

LINES EXCLUDED : Displays the number of lines excluded from the compare for the old and new file.

LINES COMPARED : Displays the number of lines compared for the old and new file.

NUMBER OF MATCHED STATEMENTS : Displays number of matching statements for the old and new file.

NUMBER OF CHANGED STATEMENTS : Displays number of changed statements.

NUMBER OF DELETED STATEMENTS : Displays the number of deleted statements for the old and new file.

NUMBER OF INSERTED STATEMENTS : Displays the number of inserted statements for the old and new file.

NUMBER OF MATCHED STEPS : Displays number of matching steps for the old and new file.

NUMBER OF CHANGED STEPS : Displays number of changed steps.

NUMBER OF DELETED STEPS : Displays the number of deleted steps for the old and new file.

NUMBER OF INSERTED STEPS : Displays the number of inserted steps for the old and new file.

Report Print

After you have browsed the Compare report, File-AID displays the “Compare - Report Print” screen (Figure 1-29), allowing you to print the report.

- Press Enter to exit without printing the Compare report.
- Change the Print Compare Report field to Y (Yes) and press Enter to exit and print the Compare report.
- If Y (yes) is selected to print the compare report, any change to number of lines/page will NOT reformat the compare report. The report format is determined by the values in effect during report generation.
- Press PF3 (or use the End primary command) to exit without printing the report.

Figure 1-29. Compare - Report Print

```

File-AID ----- Compare - Report Print ----- INVALID COMMAND
COMMAND ==>

Print Compare Report    ==> N      (Y = Yes; N = No)

Instructions:

Use ENTER to perform above action and return to the initial Compare screen
Use END to exit without PRINT

```

Field Descriptions

Print Compare Report : Specify whether you want to print the Compare report.

Y : Print the Compare report.

N : (Default) Do not print the Compare report.

Print Parameters

For information on Print parameters, refer to “Print Parameters” on page 3-8 of the File-AID/MVS *Online Reference Manual*.

JCL Specification

The “Compare - JCL Specification” screen, shown in Figure 1-30, enables you to enter JCL information for batch processing of the compare function. Enter the Sysout class for the Compare Report, the JOB statement, and other related JCL related statements. Use the JCL command to edit the generated JCL.

File-AID can be used to create compare JCL and incorporate it into test or production job streams that run it independently of the online screens and environment.

Figure 1-30. Compare - JCL Specification

```
File-AID ----- COMPARE - JCL Specification -----
COMMAND ==>

JCL Information for Batch Processing:

  Sysout class   ==> *

JOB Statement Information:
==> //USERID9 JOB ('OFAQC8.6.0',81), 'AUDIT',
==> //   CLASS=P, NOTIFY=USERID9, MSGCLASS=R
==>
==>

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

Field Descriptions

JCL Information for Batch Processing:

Sysout class : Specify the output category or output device.

JOB Statement Information : Specify job card information for batch jobs.

After you complete the fields on the Compare - JCL Specification screen, enter one of the following commands:

JCL : File-AID generates the JCL to process the job and displays the Generated JCL Edit screen, where you can edit the generated JCL before you submit it.

SUBMIT : Generates the JCL and submits the job for execution. File-AID then displays the Compare Datasets Specification screen.

END : Returns to the Compare Datasets Specification screen without submitting the job.

Chapter 2.

Field Masking In Formatted Selection Criteria

The Field Mask (FM) relational operator has been added to the Formatted Selection Criteria screen.

Formatted Selection Criteria

The Formatted Selection Criteria screen, shown in Figure 2-1, allows you to specify selection of records based on field values displayed with a record layout. This screen is similar to the Edit formatted mode screen except that the Formatted Selection Criteria screen has an additional column, RO (Relational Operator), located to the right of the FORMAT column which does not display record data.

Select option 2 on the Selection Criteria Menu to display the Formatted Selection Criteria screen. If you did not specify a record layout or XREF dataset prior to selecting option 2, File-AID displays the Record Layout Specification screen for entry of the required information.

Figure 2-1. Formatted Selection Criteria Screen

```

File-AID --- Formatted Selection Criteria -----
COMMAND ==>                                     SCROLL ==> CSR
CRITERIA NUMBER: 1 OF 1 EMPLOYEE-MASTER-FILE      LAYOUT LENGTH: 198
---- FIELD LEVEL/NAME ----- -FORMAT- RO -----1-----2-----3-----+
***** TOP OF DATA *****
5 EMP-NUMBER                                     5/AN
5 EMP-LAST-NAME                                 15/AN
5 EMP-FIRST-NAME                                10/AN
5 EMP-MID-INIT                                  1/AN
5 FILLER                                         2/AN
5 EMP-TITLE                                     30/AN
5 EMP-PERSONAL-INFO SYNC                        23/GRP
10 EMP-NATL-ID-NUMBER                           9/NUM
10 FILLER                                         1/AN
10 EMP-DATE-OF-BIRTH                             6/AN
10 EMP-DOB-REDEF REDEFINES EMP-DATE-OF-BIRTH
10 EMP-DOB-REDEF SYNC                            6/GRP
   15 EMP-DOB-MM                                  2/NUM
   15 EMP-DOB-DD                                  2/NUM
   15 EMP-DOB-YY                                  2/NUM
10 EMP-HIRE-DATE                                 6/AN
10 EMP-MARITAL-STATUS                            1/AN
5 EMP-WITHOLD-INFO SYNC                          15/GRP
10 EMP-LIFE-INS-WITHOLD-AMT                       6/SNUM

```

Field Descriptions

RO : Specify a relational operator. See Table 2-1 for possible values.

Table 2-1. Relational Operators

Relational Operator	Description
EQ, =	Equal to
NE, ≠, !=	Not equal to
GT, >	Greater than

Table 2-1. Relational Operators (Continued)

Relational Operator	Description
GE, > =	Greater than or equal to
LT, <	Less than
LE, < =	Less than or equal to
CO	Contains; scans the specified field for the presence of a data value. CO works on an equal condition.
NC	Not contains; scans the specified field for the absence of a data value. NC works on a not equal condition.
BT	Between; within a range of two values (endpoints inclusive). The value is greater than or equal to the first endpoint and less than or equal to the last endpoint.
NB	Not between; outside a range of two values (endpoints exclusive). The value is less than the first endpoint or greater than the last endpoint.
VA	Valid numeric or packed data based on the field format.
NV	Not valid numeric or packed data based on the field format.
FM	Field mask. See "Field Mask" on page 2-3 for more information.

File-AID is distributed with a default value of EQ (equal) for relational operator. The default value can be modified with File-AID option 0.2 Selection Criteria Parameters screen.

Notes:

1. The CO and NC relational operators can be specified only for alphanumeric fields (PIC X for COBOL; CHAR or PIC X for PL/I).
2. File-AID does not currently support selection criteria that use bit or numeric fields that specify a leading and/or separate sign.

data value : For fields with relational operators other than BT and NB, you specify the field value to use in the comparison exactly as in Edit formatted mode. For relational operators BT and NB, specify your Data Value as two values separated by a colon (:). The values may be hex strings, character strings, or numeric tests.

To compare an alphanumeric field to blanks (hexadecimal 40s), leave the data value column blank.

Field Mask

The “Field Mask Criteria” screen, shown in Figure 2-2 on page 2-3, is displayed when you enter the Field Mask (FM) relational operator in the relational operator (RO) column on any of the File-AID Selection Criteria screens.

Figure 2-2. Field Mask Criteria

```

File-AID --- Formatted Selection Criteria -----
C
S
-
*
1
  Command ==>
  Field Name  : ORD-TYPE
  Data Type   : CHARACTER
  Field Length: 00008
  Mask Length : 008

  A field mask allows selected positions of a field to be processed.
  It always operates on the character representation of the field.

  Identify field positions to process: (Y = include; N = exclude)
  Field Mask: ----+---

  END to continue
*

```

Note: To ensure accurate Field Mask processing, the Field Mask (FM) relational operator must be entered prior to entering any other relational operators.

Field Descriptions

Field Name : Name of the selected field as defined by the record layout.

Data Type : Data type of selected field as defined by the record layout.

Field Length : Length of data in selected field as defined by the record layout. This field cannot be overtyped, when you are on the Field Mask Criteria screen.

Mask Length : Length of the mask. This field may be overtyped to shorten or lengthen the length of the data to be masked. This is particularly useful when you want to mask all the elements of a group item.

Note: You cannot override Mask Length for binary or packed/comp-3 fields.

Identify field positions to process: (Y = include; N = exclude)

Field Mask

A Field Mask enables processing of selected positions or part of a field. It always operates on character representation of the field. Specify Y or N to include or exclude field positions to be processed for masking.

Field Mask can be applied to both numeric and character fields.

Each mask position corresponds to a digit in the decimal value of the original field, when masking numeric fields. The selected digits are passed as a single unsigned numeric display field for the specified product function.

Note: Signs (+,-) are excluded when masking numeric fields.

When masking character fields, each mask position corresponds to the identical position in the original field. The selected positions are passed as a single contiguous character field.

The original format will be replaced by MASK on the Formatted Criteria and Selection criteria screens, when Field Mask is in effect.

Note: Field masking is not currently supported for bit, floating point, DBCS, or numeric fields that specify a leading and/or separate sign.

Primary Commands

The following primary commands are valid:

END : Saves the entered field mask parameters.

CANCEL : Discards the entries.