Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page v.

First Edition (September 1994)

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About This Book

This book contains examples and information to help you learn how to use the file compare and merge utility (FCMU) to compare physical file members and merge updates to file members. This book contains information on:

- Comparing physical file members
- Entering process statements to customize comparisons
- Merging different sets of updates to a file member

The file compare and merge utility is referred to as *the utility* throughout this book.

You may need to refer to other IBM* publications for more specific information about a topic. The *Publications Reference*, SC41-3003, provides information on all the publications in the Application System/400* (AS/400*) library. To see a list of related publications, refer to the “Bibliography” on page 51.

Who Should Use This Book

This book is intended for application programmers, testers, program library administrators, editors, managers, and any others who keep track of changes between versions of files or who regenerate files from backups.

To use this book effectively, you need:

- General knowledge of the AS/400 system
- General knowledge of object management concepts
- Working knowledge of how to enter and prompt Control Language (CL) commands
- Working knowledge of the source entry utility (SEU)

If you do not know how to enter CL commands, use the *CL Programming*, SC41-3721. For more information on SEU, refer to the *ADTS/400: Source Entry Utility*, SC09-1774.

If you are using the utility for the first time, use the instructions and syntax information in:

- “Starting a Comparison Using Command Prompts” on page 6
- “CMPPFM Command Syntax” on page 8
- “Starting a Merge Using Command Prompts” on page 32
- “MRGSRC Command Syntax” on page 34

When you are familiar with the utility, use the online help information to remind you of the parameters to use for a particular task.

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Chapter 1. File Compare and Merge Utility Introduction

The file compare and merge utility allows users of the AS/400 system to compare source physical file members. With it, you can obtain statistics to analyze differences between file members, and integrate changes from one file member into another.

The utility is composed of the following commands:

Compare Physical File Member (CMPPFM) Command

Use this command to compare the contents of:

- Two physical file members
- Physical file members that have similar names but which exist in separate files
- Physical file members with related names
- A list of members from different files

Merge Source Physical File (MRGSRC) Command

Use this command to:

- Evaluate two sets of updates made to a source physical file member
- Merge maintenance updates into a target member
- Print a report listing merge summary information

You can also use the file compare and merge utility for Application Development* Manager/400 parts, with the Application Development Manager/400 commands CMPPART and MRGPART. For more information on these commands, refer to the *ADTS/400: Application Development Manager/400 User's Guide*, SC09-1808.

Uses of the CMPPFM Command

You can use the CMPPFM command to track changes, prepare customized statistical reports, and manage processes. With the CMPPFM command, you can do the following:

Maintain Libraries

The CMPPFM command generates delta listings and provides specialized update files for maintaining library control.

Record Changes

Some data processing centers must verify a hard copy before promoting source code and accepting changes to vital programs. The output listings provide an accurate record of any change.

Perform Regression Testing

You can test successive levels of a program by monitoring the program output. You can trace differences in the output to areas in the program that have been changed, and check the differences for the expected results.

The CMPPFM command easily handles a large number of records. Its processing speed makes it ideal for regression testing, which requires processing a large number of test cases that produce a great deal of output.

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Report Program Statistics

You can use the following features of the CMPPFM command for your reports:

- Count Lines of Code

  When projecting productivity, lines of code are important if productivity is classified by a combination of the number of lines of code, program complexity, and program language.

- List Number of Changes

  Maintenance costs are directly related to the number of changes to established programs and modules.

- Count Comments

  Comments are usually subtracted from lines of program code. The CMPPFM command can filter comments out of the comparison set or count them independently.

Produce Reports for Quality Assurance

You can use the CMPPFM command to quantify the change activity of any new software product release. The number of program changes can help you manage the future expected error rate.

Inspect Programs

You can display changes between the current source code and the previous level for code walkthroughs. Side-by-side listings highlight changes, and long listings show complete module changes.

Verify That Only Designated Areas Have Changed

The file compare and merge utility's comparison results show all areas affected. Changes made to restricted areas may be invalid. With the CMPPFM command, you can detect unintended changes without checking an entire document for errors.

Uses of the MRGSRC Command

With the MRGSRC command, you can do the following:

Merge Different Versions of the Same File Member

Many development shops purchase software and then modify it so that it better suits their needs. When the supplier of the software issues a subsequent release, you can use the MRGSRC command to merge updates that you have made to the previous release into the new release.

Merge Different Sets of Updates to a File Member

When two developers copy a member into their work areas to make separate sets of changes, you can use the MRGSRC command to combine the two sets of updates.

File Compare and Merge Utility Messages

Messages are either sent to the job log or printed in the output results. For more information on a specific message, place the cursor on the message line, and then press F1 (Help).

The messages for the Compare Physical File Member (CMPPFM) command are in the form of SPC*nnnn*. They are contained in message file QSPCMSG in library QPDA. To obtain full information on the job log, use message logging for level 4, severity 00, text *SECLVL.

The Merge Source Physical File (MRGSRC) command issues SEU messages for any SEU commands or functions that you use in the Split Merge display. All messages specific to the MRGSRC command are in message file QEDTMSG.

Chapter 2. Comparing File Members

To compare members or groups of members in file libraries, use the Compare Physical File Member (CMPPFM) command.

With the CMPPFM command, you can compare the contents of:

- Two physical file members
- Physical file members that have similar names but which exist in separate files
- Physical file members with related names
- A list of members from different files

You can start a comparison in any of the following ways:

- Using command prompts
- Using the programming development manager utility
- Using the command line

You can also compare Application Development Manager/400 parts with the Application Development Manager/400 CMPPART command. For more information on this command, refer to the *ADTS/400: Application Development Manager/400 User's Guide*.

CMPPFM Command Overview

The CMPPFM command provides you with many features for tailoring your comparisons to your requirements, such as the following:

- You can compare members for differences in varying levels of detail, such as, by line, file, or word, using the CMPTYPE parameter.
- You have a choice of output formats. Using the RPTTYPE parameter, you can see:
  - Differences only
  - Differences within the entire file
  - Differences within the context of the surrounding lines
  - Final statistics of the comparison only
- You can specify whether to display the results of the comparison, print them to a spooled file, or store them in a physical file, using the OUTPUT parameter. You can also display the results after issuing the command in interactive mode.
- You can filter the input files before you compare them, using the OPTION parameter, which allows you to alter the data as it is used in the comparison set. This can temporarily eliminate changes that are already known (such as code comments, page headers, or acknowledged global changes).

Note: In addition to comparing source physical files, you can also compare data physical files with the CMPPFM command. To run a file comparison, use the CMPTYPE(*FILE) parameter, because support for data physical files is limited to file comparisons.

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Process Statements Overview

You can also use process statements with the CMPPFM command to customize your comparison. With process statements, you can:

- Compare specified columns
- Compare specified sections of file members
- Omit specified lines from the comparison
- Specify the number of lines per page in the listing output file
- List a specified range of columns in the output
- Change the file members for the comparison
- Select the file members to compare
- List the process statements in the output

Starting a Comparison Using Command Prompts

You can use command prompts to enter the parameters for the CMPPFM command. To compare file members using command prompts:

1. Type `CMPPFM` on any command line and press F4 (Prompt). The Compare Physical File Member (CMPPFM) display appears as follows. The display lists the parameters and supplies the default values.

```
                    Compare Physical File Member (CMPPFM)

Type choices, press Enter.

New file . . . . . .           __________     Name
  Library  . . . . . .           *LIBL        *LIBL, name, *CURLIB
New member . . . . . .         *FIRST         *FIRST, name, generic*, *ALL
               + for more values __________
Old file . . . . . .           *NEWFILE       *NEWFILE, name
  Library  . . . . . .           *LIBL        *LIBL, name, *CURLIB
Old member . . . . . .         *NEWMBR        *NEWMBR, name, *FIRST
               + for more values __________
Compare type . . . . . .       *LINE          *LINE, *FILE, *WORD
Report type  . . . . . .       *DIFF          *DIFF, *SUMMARY...
Output . . . . . .             *              *, *PRINT, *OUTFILE



                                                                  Bottom
F3=Exit     F4=Prompt   F5=Refresh   F10=Additional parameters  F12=Cancel
F13=How to use this display  F24=More keys
```

2. Type the new file name in the *New file* prompt, the library name in the *Library* prompt, and the member name in the *New member* prompt.

   To specify more than one member name, type + in the *+ for more values* prompt, and press the Enter key.

3. Type the old file name in the *Old file* prompt, the library name in the *Library* prompt, and the member name in the *Old member* prompt.

   To specify more than one member name, type + in the *+ for more values* prompt, and press the Enter key.

4. Type `*LINE`, `*FILE`, or `*WORD` in the *Compare type* prompt.

5. Type `*DIFF`, `*SUMMARY`, `*CHANGE`, or `*DETAIL` in the *Report type* prompt.
6. Type `*`, `*PRINT`, or `*OUTFILE` in the *Output* prompt.
7. To specify additional parameters with the command, press F10 (Additional parameters). A second Compare Physical File Member (CMPPFM) display appears. Use this display to customize your comparison as follows:
   - To focus the comparison to a specific type of source member, type a value in the *Select source type* prompt.
   - To use process options, type them in the *Process option* prompt.

     To specify more than one process option, type + in the *+ for more values* prompt, and press the Enter key.
   - To use process statements from a statement file member, type the file name in the *Statement file* prompt, the library name in the *Library* prompt, and the member name in the *Statement member* prompt.
8. To accept the values you have specified and start the comparison, press the Enter key. The output listing for the comparison is displayed, printed, or stored to a physical file, depending on the value you specified in the *Output* prompt.

Starting a Comparison Using Programming Development Manager

To compare file members using the programming development manager utility:

1. Select option 3 (Work with members) from the AS/400 Programming Development Manager (PDM) menu, and press Enter. The Specify Members to Work With display appears.
2. Type the file name in the *File* prompt, the library name in the *Library* prompt, the member name in the *Member name* prompt, and the member type in the *Member type* prompt, and press Enter. The Work with Members Using PDM display appears.
3. Type `54` (Compare file member) beside the member you want to compare, and press Enter. The Compare Physical File Member (CMPPFM) display appears.

Starting a Comparison Using the Command Line

You can compare file members by typing the CMPPFM command and its parameters on the AS/400 command line. For example, to compare the first member in file QRPGSRC in library RPG1 to the first member in file QRPGSRC in library RPG2, type the following:

```
CMPPFM NEWFILE(RPG1/QRPGSRC) OLDFILE(RPG2/*NEWFILE)
```

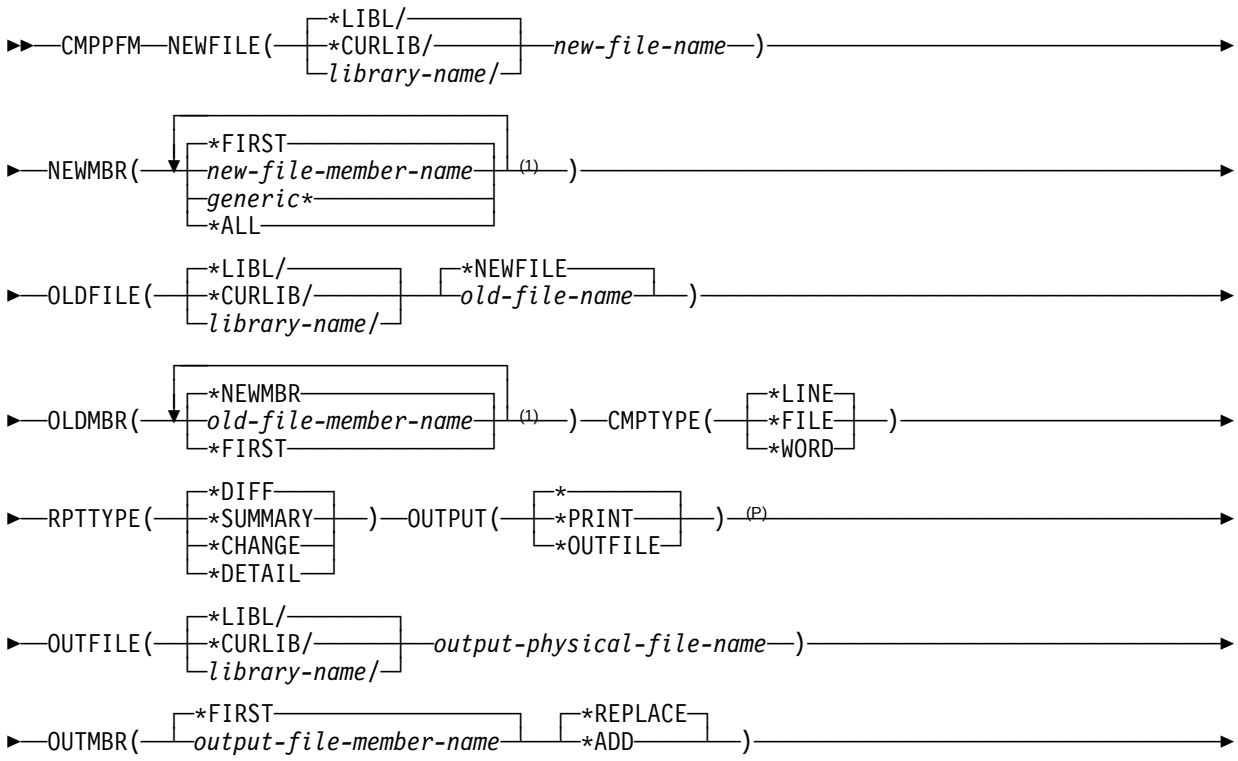
To compare member MBR1 to member MBR2 in file QTXTSRC in the library list, type the following:

```
CMPPFM NEWFILE(QTXTSRC) NEWMBR(MBR1) OLDFILE(QTXTSRC) OLDMBR(MBR2)
```

To compare member LOG1 and member LOG2 in file MONDAY and file TUESDAY in the library list, and produce a summary of the comparison statistics, type the following:

```
CMPPFM NEWFILE(MONDAY) NEWMBR(LOG1 LOG2) OLDFILE(TUESDAY)
RPTTYPE(*SUMMARY)
```

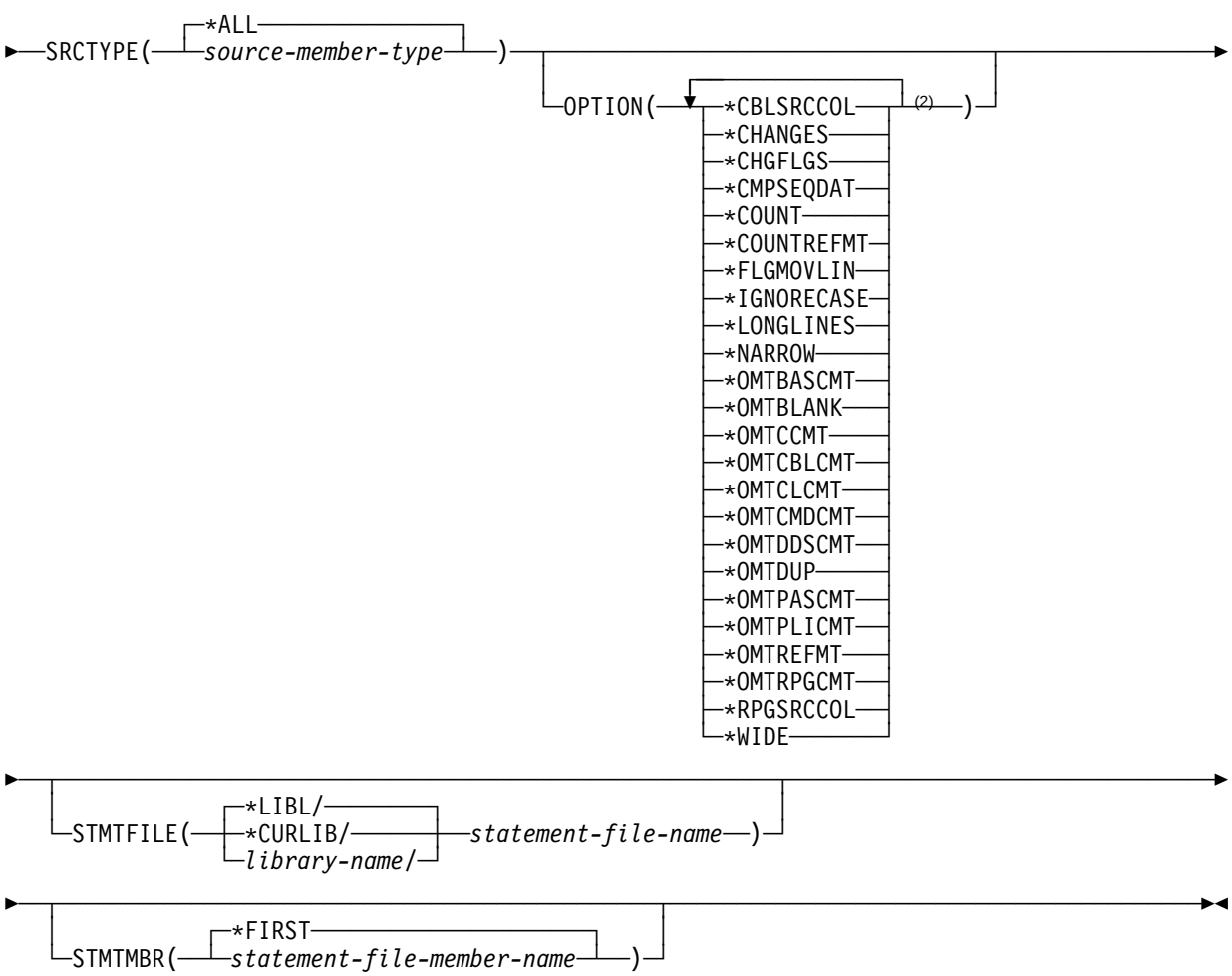
CMPPFM Command Syntax



Notes:

1 You can specify up to 25 member names.

P All parameters preceding this point can be specified positionally.



Note:
[2] You can specify up to 12 options.

NEWFILE (New file): Identifies the new physical file containing the members to be compared.

***LIBL**
Use the library list of the job.

***CURLIB**
Use the current library of the job.

library-name
Use the specified library.

new-file-name
Use the specified new file.

NEWMBR (New member): Identifies the members to be compared in the new file.

***FIRST**
Use the first member of the file.

new-file-member-name
Use the specified member or list of members.

To enter multiple values for this parameter, type a plus sign (+) in the *+ for more* prompt, and press the Enter key.

*generic**
Use the members that match the specified pattern.

***ALL**
Use all members in the file.

OLDFILE (Old file): Identifies the old physical file containing the members to be compared.

***LIBL**
Use the library list of the job.

***CURLIB**
Use the current library of the job.

library-name
Use the specified library.

***NEWFILE**
Use the old file with the same name as is specified for the NEWFILE keyword.

old-file-name
Use the specified old file.

OLDMBR (Old member): Identifies the members to be compared in the old file.

***NEWMBR**
Use the same member or member list as is specified for the NEWMBR keyword.

old-file-member-name
Use the specified member or list of members.

To enter multiple values for this parameter, type a plus sign (+) in the *+ for more* prompt, and press the Enter key.

***FIRST**
Use the first member of the file.

CMPTYPE (Compare type): Specifies the type of comparison to be performed.

***LINE**
Compare for differences on a line level, identifying inserted and deleted lines.

***FILE**
Compare for differences on a file level, without reporting where the differences are. The results of this type of comparison indicate whether the members compared are different or the same, and provide the names of any nonpaired members. This method produces only summary information, but is the fastest type of comparison.

***WORD**
Compare for differences on a word level. This comparison is similar to the *LINE comparison, except words on adjacent lines can be matched. Words are delimited by blanks or the end of a line. The members are processed as long sequences of words without line boundaries or record lengths. The output of this comparison does not necessarily maintain the original spacing between words. Blanks may be added in the output listing so that you can clearly see the differences.

RPTTYPE (Report type): Specifies the listing type for the result report.

***DIFF**
List only the differences between the members being compared, followed by a summary. The differences are flagged in the listing.

***SUMMARY**
List a summary of the results of the comparison, without showing the detailed differences. A group comparison generates an individual summary line for each member in the group, as well as the list of processing options.

***CHANGE**
Provide the same information as the *DIFF report type, with 10 lines before and after the differences. The extra lines allow you to see the differences within the context of the surrounding data.

***DETAIL**
List the entire new file member (and deletions from the old file member), indicate the differences, and provide a summary of the results.

OUTPUT (Output): Specifies whether the result of the comparison is displayed, printed, or stored to a physical file.

***** Display the result.

***PRINT**
Print the result to the spooled file.

***OUTFILE**
Store the result to a physical file.

OUTFILE (Output file): Specifies the file to which the output results are directed.

***LIBL**
Use the library list of the job.

***CURLIB**
Use the current library of the job.

library-name
Use the specified library.

output-physical-file-name
Use the specified physical file.

OUTMBR (Output member): Specifies the member to which the output is directed. Do not specify a value for this parameter if the OUTFILE keyword specifies a printer file.

***FIRST**
Use the first member of the file.

output-file-member-name
Use the specified member.

***REPLACE**
If the member exists, replace it.

***ADD**
Add this member to the file.

SRCTYPE (Select source type): Specifies the source member type to be compared. One type or all types can be selected.

***ALL**
Compare all source members.

source-member-type
Compare only the members with the specified source type.

OPTION (Process option): Specifies a list of process options to customize the comparison. You can specify up to 10 process options in the list.

To enter multiple values for this parameter, type a plus sign (+) in the *+ for more* prompt, and press the Enter key.

Note: When you use the OMTxxx options to omit comments, the utility may recognize some non-comment strings as comments.

For example, if the string `/*...*/` is imbedded within a program's executable code, the string may or may not be ignored during processing if you have used the *OMTCCMT process option.

***CBLSRCCOL**
Compare only COBOL source columns (7-72 inclusive). This option limits the scope of the comparison to the source code column area. This option is valid for line and word comparisons.

***CHANGES**
List only changed entries in the summary. Normally, all paired members are listed in a group comparison. When you specify *CHANGES in a group comparison, only the member pairs with changes are listed in the summary section. This option is valid for line, file, and word comparisons.

***CHGFLGS**
Generate listings denoting changes in the new file by placing a change flag (>) in column one of the appropriate line in the new file. Deleted lines are indicated by flagging the line following the deletion. This option is valid for line and word comparisons.

***CMPSEQDAT**
Set the origin of the source sequence to 1. Compares the sequence and date fields of the source physical file member. This option is valid for line and word comparisons.

***COUNT**
Count the lines from nonpaired members in a group (line) comparison, and include the results in the summary. If this option is not used, you only obtain statistics on lines from paired members.

***COUNTREFMT**
Reformatted lines are not flagged, but they are counted for the overall summary statistics. This option is valid for line and word comparisons.

***FLGMOVLIN**
Flag moved lines. Identify inserted lines in the new file that match deleted lines in the old file. This option is valid only for line comparisons.

***IGNORECASE**
Ignore differences due to case (upper, lower, mixed). This option is valid for line and word comparisons.

***LONGLINES**
Create a listing with 198 columns, reflecting up to 176 columns from the files. This option is valid for line comparisons.

***NARROW**
Create a 132 listing file with 55 columns for each side. Inserted and deleted lines are flagged and appear side-by-side in the listing output. This option is valid for line comparisons.

***OMTBASCMT**
Omit BASIC comments. BASIC comments are blanked out and excluded.

***OMTBLANK**
Omit lines in which the columns being compared are blank. This option is valid for line and word comparisons.

***OMTCBLCMT**
Omit COBOL comments. COBOL comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTCCMT**
Omit C comments. C comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTCLCMT**
Omit CL comments. CL program comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTCMDCMT**
Omit CMD comments. CL command comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTDDSCMT**
Omit DDS comments. DDS comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTDUP**
Omit duplicate lines. Old file source lines that match new file source lines are omitted from the side-by-side listing. This option is valid for line comparisons.

***OMTPASCMT**
Omit Pascal comments. Pascal comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTPLICMT**
Omit PLI comments. PLI comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***OMTREFMT**
Omit reformatted lines. Reformatted lines in the old file member are omitted from the listing. Reformatted lines in the new file member are included in the listing. Normally both are listed. This option is valid for line comparisons.

***OMTRPGCMT**
Omit RPG comments. RPG comments and blank lines are excluded from the compare set, to yield a listing with all comments removed or blanked out. This option is valid for line and word comparisons.

***RPGSRCCOL**
Compare only RPG source columns (6-74 inclusive). This limits the comparison scope to the source code column area. This option is valid for line and word comparisons.

***WIDE**
Create a wide 198 side-by-side (80 columns per side) listing. This option is valid for line and word comparisons.

STMTFILE (Statement file): Specifies a user-defined source physical file that holds process statements. Records in this file can be of any length, but only the first 80 bytes are read.

***LIBL**
Use the library list of the job.

***CURLIB**
Use the current library of the job.

library-name
Use the specified library.

statement-file-name
Use the specified file as the statement file.

STMTMBR (Statement member): Specifies the file member containing the process statements to use in the comparison.

***FIRST**
Use the first member of the file.

statement-file-member-name
Use the specified member.

Entering Process Statements

In addition to the options you specify with the CMPPFM command, you can also use process statements to customize your comparison. You enter the process statements in a statement file, and specify the name of the statement file and member, when you issue the CMPPFM command.

To use process statements:

1. Enter the process statements in a statement file:
   - Use blanks to separate statement names from statement operands.
   - Specify only one process statement on each line of your statement file as follows:

     ```
     statement1 operand1
     statement2 operand2
          .         .
          .         .
          .         .
     ```

   - Do not include quotation marks in your process statement unless they are required by the syntax of the operand. For example, to select member FILE1(MEM1) in library LIB1, and compare section S1 with the top line of the section that is identified by the character string START in column 10, include the following two lines in your process statement file:

     ```
     SELECTF LIB1/FILE1(MEM1)
     CMPSECT S1 TOP 'START',10
     ```

     The single quotation marks are required only to enclose the section identifier for the CMPSECT process statement.

   - If the operand requires a string to be enclosed in quotation marks, enter quotation marks within the string as two contiguous single quotation marks. For example, to change text starting between columns 10 and 20 inclusive from Dog's to Cat's, include the following line in your statement file:

     ```
     NCHGT 'Dog''s','Cat''s',10:20
     ```

- The maximum length for process statement operands is usually 69 characters. If you specify a process statement operand that is too long, the following message appears in your output listing:

  ```
  **COMPARE WARN21
  ```

  Reissue the process statement with a shorter operand length.

2. To use the process statements in a comparison, specify the statement file name and statement member name when you issue the CMPPFM command.
   - If you are using command prompts:
     a. In the Compare Physical File Member (CMPPFM) display, press F10 (Additional parameters).
     b. Type the statement file name, the library name, and the statement member name in the *Statement file*, *Library*, and *Statement member* prompts.
   - If you are using the command line, specify the library name, the statement file name, and the statement member name using the STMTFILE and STMTMBR parameters. For example, to use member MEM1 of the statement file STMT1 in the QTXTSRC library, type the following:

     ```
     CMPPFM NEWFILE(*LIBL/FILE1) NEWMBR(*FIRST) OLDFILE(*LIBL/FILE2)
     OLDMBR(*FIRST) STMTFILE(QTXTSRC/STMT1) STMTMBR(MEM1)
     ```

Comparing Specified Columns of File Members

To compare specified columns or ranges of columns, include one or more of the following process statements in your statement file:

- CMPCOLM
- CMPCOLMN
- CMPCOLMO

The CMPCOLM process statement compares the specified columns in both the new and old file members. Use the CMPCOLMN process statement and the CMPCOLMO process statement if you want to compare one set of columns in the new file member with a different set of columns in the old file member.

For example, to compare columns 22 through 70 in both the new and old file members, type the following:

```
CMPCOLM 22:70
```

To compare columns 5 through 44 and column 75 in the new file member with columns 2 through 41 and column 52 in the old file member, type the following:

```
CMPCOLMN 5:44,75
CMPCOLMO 2:41,52
```

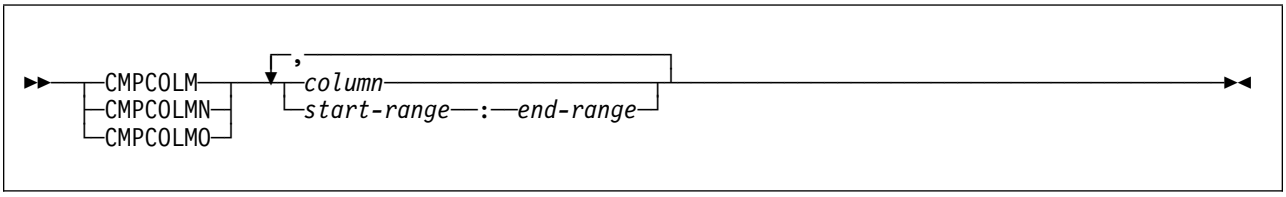
To compare columns 22 through 70, and columns 75 through 85, in both the new and old file members, type the following:

```
CMPCOLM 22:70,75:85
```

Notes:

1. Specify the column ranges in ascending order.
2. Use the CMPCOLMN process statement and the CMPCOLMO process statement together. If you specify only one of these values, the column specification is used for both file members, and only a single column is compared.
3. Use the CMPCOLM process statement alone.

CMPCOLMx Process Statements Syntax



column
Specifies a single column to be compared

start-range
Specifies the beginning of the range of columns to be compared

end-range
Specifies the end of the range of columns to be compared

Comparing Specified Sections of File Members

To restrict the comparison to specified sections of the members being compared, include the CMPSECT process statement in your statement file. The sections are identified by a character string. The boundaries for each section are set by line numbers or strings.

Note: If a group of members is specified, this process statement is ignored.

For example, to begin comparing the new file member at the first occurrence of THING between columns 5 through 66, type the following:

```
CMPSECT ONE NTOP 'THING',5:66
```

To begin comparing the new file member at line 50, type the following:

```
CMPSECT OTHER NTOP 50
```

To begin comparing the old file member at the first occurrence of THING, type the following:

```
CMPSECT ONE OTOP 'THING'
```

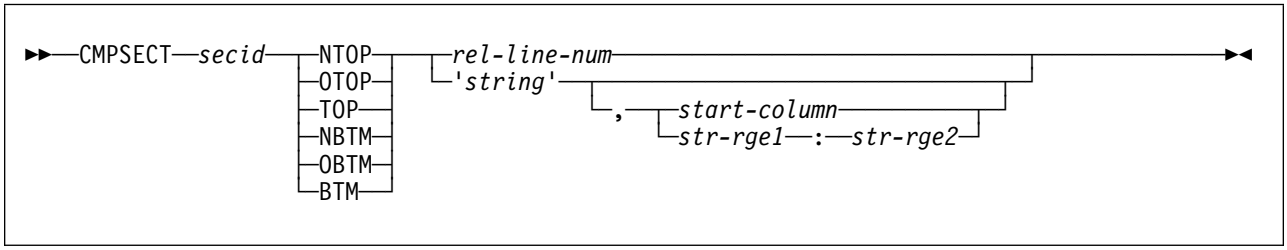
To begin comparing the old file member at line 82, type the following:

```
CMPSECT OTHER OTOP 82
```

Notes:

1. You can issue many CMPSECT process statements at once, but they are grouped according to their section identifiers.
2. You can specify tops and bottoms for several sections in any order.
3. In the previous examples, since the first and third CMPSECT process statements have identical section identifiers (ONE), they are grouped together. The same argument applies to the pair with the section identifier OTHER.

CMPSECT Process Statement Syntax



secid
Is a character string identifying the section to be compared. This string must be 1 to 8 characters long, and cannot contain blanks.

NTOP
Defines the beginning point in the new section.

OTOP
Defines the beginning point in the old section.

TOP
Defines the beginning point in both the new and old sections.

Note: If the specified NTOP, OTOP, or TOP is not found, no data is compared.

NBTM
Defines the end point in the new section.

OBTM
Defines the end point in the old section.

BTM
Defines the end point in both the new and old sections.

Note: If the specified NBTM, OBTM, or BTM is not found, the default value is the end of the member.

rel-line-num
Specifies the relative line number in the member.

'*string***'**
Is a character string enclosed by single quotation marks. The comparison begins at the line where the first '*string*' is found for TOP, OTOP, or NTOP. It ends at the line where the first '*string*' is found for BTM, OBTM, or NBTM.

start-column
Specifies the column in which the string must start.

str-rge1
Specifies the leftmost boundary of the range of columns where the string must start.

str-rge2
Specifies the rightmost boundary of the range of columns where the string must start.

Omitting Specified Lines from the Comparison

To omit specified lines from the comparison, include one or more of the following process statements in your statement file:

- OMTLINE
- OMTLINEC

These process statements omit lines that can be recognized by either a unique character string or a combination of related strings all appearing on the same line. The lines are ignored during processing but are not physically removed from the file members.

The OMTLINEC process statement is the continuation of the immediately preceding OMTLINE process statement or the OMTLINEC process statement.

For example, to omit lines containing the string FRED, type the following:

```
OMTLINE 'FRED'
```

To omit lines containing the string FRED starting anywhere between columns 1 and 45, type the following:

```
OMTLINE 'FRED',1:45
```

To omit lines containing the string FRED starting in column 2 and also containing the string PEONY, type the following:

```
OMTLINE 'FRED',2
OMTLINEC 'PEONY'
```

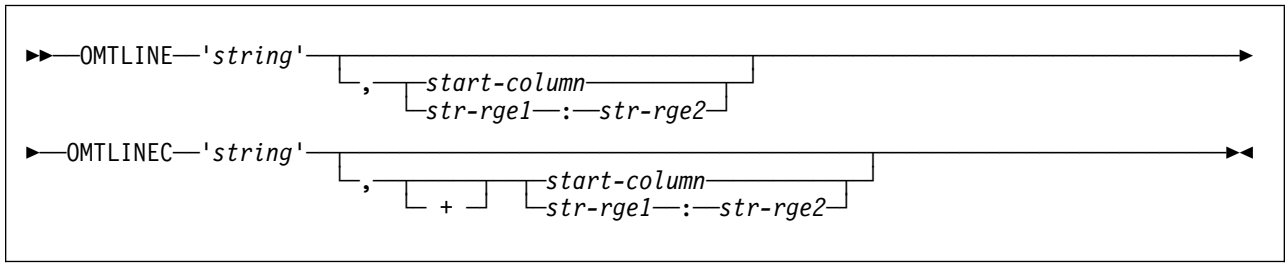
To omit lines containing the string PEONY starting 9 columns after the string FRED, type the following:

```
OMTLINE 'FRED'
OMTLINEC 'PEONY',+9
```

To omit lines containing the hex code F0, type the following:

```
OMTLINE X'F0'
```

OMTLINE and OMTLINEC Process Statements Syntax



'*string***'**
Specifies the string that a line must contain to be excluded from the comparison. If only OMTLINE is specified, all lines containing '*string*' are ignored. If '*string*' is part of the OMTLINEC condition, the lines ignored are those containing both the OMTLINE '*string*' and the OMTLINEC '*string*' within them.

start-column
Specifies the column in which the string must start.

str-rge1
Specifies the leftmost boundary of the range of columns where the string must start.

str-rge2
Specifies the rightmost boundary of the range of columns where the string must start.

+ Indicates that the column or range values that follow are relative to the previous values indicated. The values that follow are not relative to the beginning of the file.

Specifying the Number of Lines in the Output

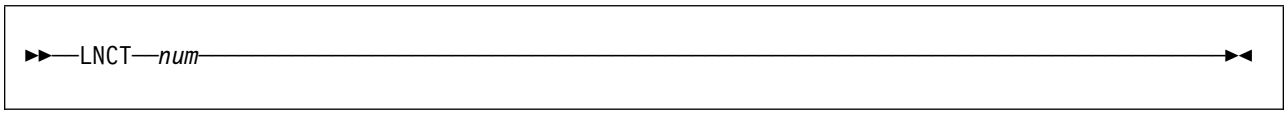
To specify the number of lines per page in the listing output file, include the LNCT process statement in your statement file.

For example, to list up to 51 lines per page, type the following:

```
LNCT 51
```

Note: This process statement is valid only when the output file is a physical data file. It does not apply to printer files, because they always use the overflow line number.

LNCT Process Statement Syntax



num
Specifies the number of lines per page. This value must be an integer between 15 and 999 999, inclusive.

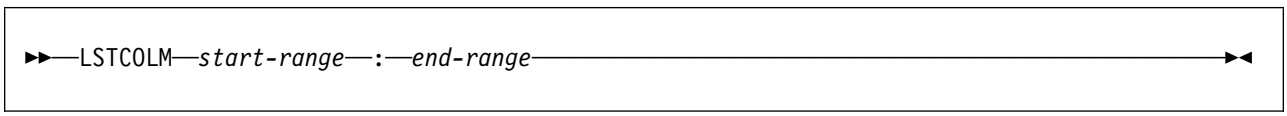
Listing a Specified Range of Columns in the Output

To select a range of columns to be listed in the output, include the LSTCOLM process statement in your statement file.

For example, to list columns 270 through 301 inclusive, type the following:

```
LSTCOLM 270:301
```

LSTCOLM Process Statement Syntax



start-range
Specifies the start of the range of columns

end-range
Specifies the end of the range of columns

Changing the File Members for the Comparison

To change the text images before starting a comparison, include one or more of the following process statements in your statement file:

- NCHGT
- OCHGT

The files are changed virtually, not physically. You can use a question mark as a wildcard placeholder within the string. The placeholder allows you to manipulate characters by their location in a string, without knowing what they are.

For example, to change ADRIAN to FRED in the new file for the comparison, type the following:

```
NCHGT 'ADRIAN','FRED'
```

To change ADRIAN to FRED in the new file if ADRIAN starts between columns 1 and 50, type the following:

```
NCHGT 'ADRIAN','FRED',1:50
```

To change the first character following a forward slash to @ in the old file, if the slash is found between columns 1 and 80, type the following:

```
OCHGT '/?','/@',1:80
```

The ? is a recognized wildcard placeholder.

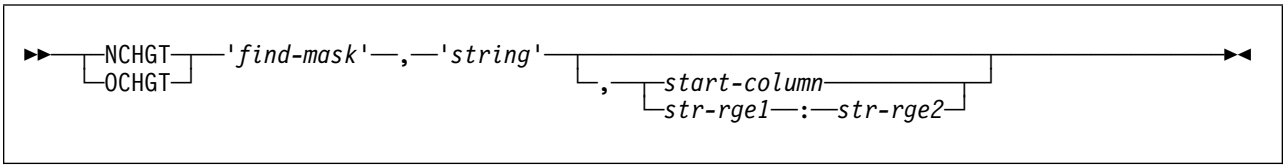
To change the hex value A0 to hex value F0, in column 5, type the following:

```
OCHGT X'A0',X'F0',5
```

Notes:

1. The parameters of the NCHGT and OCHGT process statements must be separated by commas. Blanks are not supported as delimiters in these two process statements.
2. The find-mask and the string that replaces it can be either character or hex strings.
3. To change the ? character to something else, specify the question mark by its proper value in a hex string (X'6f'). The utility interprets the hex string as an ordinary character rather than a placeholder.

NCHGT and OCHGT Process Statements Syntax



NCHGT
Changes the input text string in the new file.

OCHGT
Changes the input text string in the old file.

'*find-mask***'**
Specifies the string to be replaced for the comparison. This string must be enclosed in single quotation marks. If the string itself contains quotation marks, represent them with

two contiguous single quotation marks. In general, '*find-mask*' should be at least the same length as '*string*'. If '*string*' is longer than '*find-mask*', and this would cause the line to be longer than the record length of the file, the line is truncated.

'*string***'**
Specifies the replacement string.

start-column
Specifies the column where the '*find-mask*' string must start for the change to occur.

str-rge1
Specifies the leftmost boundary of the range of columns where the string must start.

str-rge2
Specifies the rightmost boundary of the range of columns where the string must start.

Selecting the File Members to Compare

To select the pair of file members to be compared, include the SELECTF process statement in your statement file.

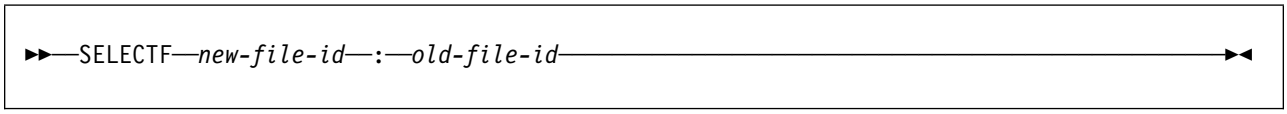
This process statement takes precedence over members previously specified on the command line.

For example, to select PGM1 as the new file member, and M2 as the old file member from file SOURCE in library QLIB, type the following:

```
SELECTF QLIB/SOURCE(PGM1):QLIB/SOURCE(M2)
```

Note: If you use more than one SELECTF process statement, they must all refer to files of the same type.

SELECTF Process Statement Syntax



new-file-id
Specifies the new file member to compare. The library and file must be fully qualified.

old-file-id
Specifies the old file member to compare. The library and file must be fully qualified.

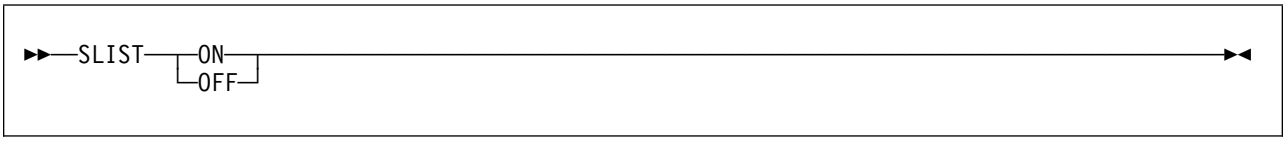
Listing Process Statements in the Output

To specify whether to print process statements in the output listing, include the SLIST process statement in your statement file.

For example, if the LSTCOLM process statement is the only one you want to include in your output listing, type the following:

```
SLIST ON
LSTCOLM 270:301
SLIST OFF
```

SLIST Process Statement Syntax



ON
Lists the process statements following SLIST

OFF
Omits the process statements following SLIST

Output Listing Format

The CMPPFM command produces an output listing that is displayed, printed, or stored to a physical file.

Listings generally have the following basic parts:

- Page Heading
- Prolog
- Listing Output Section
- Member Summary Listing
- Summary Section
- Abbreviation Description

These parts are not all present in each type of listing. Some report types generate only some parts. For example, the RPTTYPE(*SUMMARY) parameter does not generate a listing output section.

Page Heading

The utility generates a heading at the top of each page of the output listing. A typical page heading of the CMPPFM command listing appears as follows:

```
      IBM COMPARE V3R1M0  940909      09/09/94    10:25      PAGE   1
```

Note: The heading has been compressed to fit on this page.

The page heading contains the following information:

- Program title (`IBM COMPARE`)
- Program version (`V3R1M0`)
- Version date (`940909`)
- Date and time of the comparison (`09/09/94 10:25`)
- Page number (`PAGE 1`)

Prolog

When you select OUTPUT(*PRINT), the utility generates a prolog listing. The prolog listing presents the names of the old and new file members, the type of comparison, the process options, and all other parameters that you specified when you issued the command. A typical prolog appears as follows:

```
New file.....................................:  NEWFIL
  Library....................................:    RESULTS
New member...................................:  MEM*
Old file.....................................:  OLDFIL
  Library....................................:    RESULTS
Old member...................................:  *NEWMBR
Compare type.................................:    *FILE
Report type..................................:  *DIFF
Output.......................................:  *PRINT
File to receive output.......................:  QSYSPRT
  Library....................................:    *LIBL
Select source type...........................:  *ALL
Process option...............................:
Statement file...............................:
  Library....................................:
Statement member.............................:
```

Listing Output Section

This section, immediately below the page header, shows the location of the changes when two or more file members are compared. An example of the listing output section for a line comparison with a report type of *DIFF follows:

```
              LISTING OUTPUT SECTION (LINE COMPARE)
                                                        N-LN  O-LN
    ID       SOURCE LINES       |..|          TYPE  LEN  NUM   NUM
        ----+----1----+----2----|..|---+----8
    I  -#INClude <stdio.h>      |..|          RPL=    2 00001 00001
    D  -#include <stdio.h>      |..|
    I  -Main() {                |..|                    00002 00002
    D  -main() {                |..|
```

Note: The section has been compressed to fit on this page.

The listing output section contains:

- Section title line, which indicates that this is a line comparison.
- Column header line. The headings are:

Heading	Meaning
ID	The two-column prefix codes that identify the status of each line. The prefix codes are explained in “Prefix Codes” and in the abbreviation description section of the output listing.
SOURCE LINES	The actual data from the files.
TYPE	A code that identifies the type of change that occurred on each line. The TYPE codes are explained in “Types of Difference Codes” on page 24 and in the abbreviation description section of the output listing. The type codes do not appear in all of the output listings.
LEN	A value for the length or number of consecutive TYPE lines.
N-LN NUM	The relative record number of this line (or where it is inserted) in the new source file. Numbers are specified in decimal format. This value appears in line and word comparisons.
O-LN NUM	The relative record number of this line (or where it was deleted from) in the old source file. Numbers are specified in decimal format. This value appears in line and word comparisons.

- Scale of the column positions of the input source lines.
- Text of the changed, deleted, or inserted lines. A prefix code precedes each output line, and some listings provide additional information about the differences in the right-hand columns of this section.

Prefix Codes

Output lines are flagged with the following prefix codes listed under the ID column of the output listing:

Prefix Code	Meaning
blank	Indicates a match. No prefix code means the data is the same in both files.
I	Indicates an insertion. This code precedes data that is in the new file but is missing from the sequence in the old file.
D	Indicates a deletion. This code precedes data that is in the old file, but is missing from the sequence in the new file.
RN	Indicates a reformatted line in the new file. This line contains the same data as the old file line, but with different spacing. This code appears only for line comparisons.

Prefix Code	Meaning
RO	Indicates a reformatted line in the old file. This line contains the same data as the new file line, but with different spacing. This code appears only for line comparisons, and is not shown if the OMTREFMT process option is used.
MC	Indicates a line containing words that match. The line may also contain spaces to show the relationship between the matching words and any inserted or deleted words. Inserted and deleted words are shown following insert compose (IC) and delete compose (DC) lines. This code applies to word comparisons only.
IC	Indicates a line containing words from the new file that are not in the old file. This line usually follows a match compose (MC) line. This code applies to word comparisons only.
DC	Indicates a line containing words from the old file that are not in the new file. This line usually follows a match compose (MC) or insert compose (IC) line. This code applies to word comparisons only.
IM	Indicates a line in the new file that also appears in the old file, but has been moved. If the line was reformatted, this is indicated by a flag to the right of the listing. Applies to line comparisons using the FLGMOVLIN process option.
DM	Indicates a line in the old file that also appears in the new file, but has been moved. If the line was reformatted, this is indicated by a flag to the right of the listing. Applies to line comparisons using the FLGMOVLIN process option.
>	Indicates that words or lines were either inserted or deleted. This code applies to listings created using the CHGFLGS process option only.

Types of Difference Codes

At the far right of some listings are codes that provide additional information about the types of differences the utility has found. These codes are:

Difference Code	Meaning
MAT=	Indicates matched lines.
RFM=	Indicates reformatted lines.
RPL=	Indicates replaced lines.
INS=	Indicates lines that are in the new file, but missing in the old file.
DEL=	Indicates lines that are in the old file, but missing in the new file.
IMR=	Indicates lines in the new file that have been moved from where they were in the old file and reformatted. The listing shows a matching DMR= flag for a line in the old file.
DMR=	Indicates lines in the old file that have been moved and reformatted in the new file. The listing shows a matching IMR= flag for a line in the new file.
IMV=	Indicates lines in the new file that have been moved from where they were in the old file. The listing shows a matching DMV= flag for a line in the old file.
DMV=	Indicates lines in the old file that have been moved in the new file. The listing shows a matching IMV= flag for a line in the new file.

Note: Most of these headings are not shown when side-by-side listings are specified.

Member Summary Listing

The utility generates a member summary listing when you use the CMPTYPE(*FILE) parameter to specify a group comparison through the CMPPFM command. The member summary listing consists of two sections with a page separator between them.

A typical file comparison listing follows. Members MEM* in file RESULTS/NEWFIL were compared to members MEM* in file RESULTS/OLDFIL. The utility found differences for both MEM1 and MEM2. Member MEM3 could not be found in the new file.

```
                    MEMBER SUMMARY LISTING (FILE COMPARE)
          NON                               NEW     OLD     NEW     OLD
DIFF SAME PAIRED MEMBER NAMES             LINES   LINES   BYTES   BYTES

 **              MEM1                        18      21     1234    3456
 **              MEM2                        14      12     2345    5678
          *OLD*  MEM3
                 ------------           ------- ------- ------- -------
                 GROUP TOTALS               32      33     3579    9134

TOTAL MEMBERS PROCESSED AS A GROUP.............................:  2
TOTAL MEMBERS PROCESSED AND CHANGED............................:  2
TOTAL MEMBERS PROCESSED HAD NO CHANGES.........................:  0
TOTAL NEW MEMBERS NOT PAIRED...................................:  0
TOTAL OLD MEMBERS NOT PAIRED...................................:  1
PROCESSING OPTIONS SPECIFIED : NONE
```

The first part of the member summary listing indicates the members that were compared and whether they are different or the same. Different types of comparisons produce slightly different results in this section.

The second part of the member summary section shows all of the members from both the new and old file groups which were not paired (and therefore were not compared).

The member summary listing contains:

- Section header, which indicates the type of comparison
- Header line, which contains the following headers:

Header	Meaning
DIFF	Contains ** when the new and old file members are different
SAME	Contains ** when the new and old file members are the same
MEMBER NAMES	Lists the names of the paired members
NEW LINES	Specifies the number of lines processed in the new member
OLD LINES	Specifies the number of lines processed in the old member
NEW BYTES	Specifies the number of bytes processed in the new member
OLD BYTES	Specifies the number of bytes processed in the old member

- Statistics for each member
- Overall statistics for the group of members that were processed, and the processing options specified

Summary Section

The summary section provides you with the detailed statistics of the comparison. A typical summary section for a line comparison appears as follows:

```
          LINE COMPARE SUMMARY AND STATISTICS

    NUMBER OF LINE MATCHES.....................................:  2
    TOTAL CHANGES (PAIRED+NONPAIRED CHNG).....................:  1
    REFORMATTED LINES..........................................:  0
    PAIRED CHANGES (REFM+PAIRED INS/DEL).......................:  1
    NEW FILE LINE INSERTIONS...................................:  1
    NON-PAIRED INSERTS.........................................:  0
    OLD FILE LINE DELETIONS....................................:  1
    NON-PAIRED DELETIONS.......................................:  0
    NEW FILE LINES PROCESSED...................................:  3
    OLD FILE LINES PROCESSED...................................:  3
```

This summary gives you the following information:

- The section header shows the type of comparison performed. The summary is provided for all compare types.
- Each remaining line in this section provides you with detailed statistics of the results of the comparison.

Notes:

1. The number of reformatted lines represents a sum of items that many users represent as a single change. That is, some changes are made in pairs and should only be counted as a single instance of a change.
2. Nonpaired insertions are changes to the new file that have no relationship to the old file. In other words, no deletions from the old file occurred in the same area.
3. Nonpaired deletions are changes to the old file that have no relationship to the new file. In other words, no insertions to the new file occurred in the same area.

Abbreviation Description

This section is a detailed description of the abbreviations shown in the output listing. It appears as follows:

```
                      ABBREVIATIONS DESCRIPTION
   ID SECTION
I    - Line inserted in the new file
D    - Line deleted in the new file
RN   - Reformatted line in the new file
RO   - Line from the old file reformatted in the new file
IM   - Line moved in the new file that also appears in the old file
DM   - Line moved in the old file that also appears in the new file
   TYPE OF DIFFERENCES
MAT= Matched lines
RFM= Reformatted lines
RPL= Replaced lines
INS= Lines that are in the new file, but missing in the old file
DEL= Lines that are in the old file, but missing in the new file
IMR= Lines reformatted in the new file
DMR= Lines reformatted in the old file
IMV= Lines moved in the new file from the old file
DMV= Lines moved in the old file from the new file
   COLUMN HEADINGS
N-LN - Lines in the new file
O-LN - Lines in the old file
NUM  - Line number
INS  - Inserted
DEL  - Deleted
PROC - Processed
CHNG - Changed
REFM - Reformatted
```

Summary of Tasks and Corresponding Keyword Values

The tasks that you can perform using the CMPPFM command are:

Task	Keywords	
Choose the file members to compare	**NEWFILE, NEWMBR**	Fully qualifies the new file member
	OLDFILE, OLDMBR	Fully qualifies the old file member
	SRCTYPE	Selects the source type of the members to be compared
Choose the type of comparison	**CMPTYPE(*LINE)**	Compares lines
	CMPTYPE(*WORD)	Compares words
	CMPTYPE(*FILE)	Compares members
Choose where to direct the output listing	**OUTPUT(*)**	Displays the result
	OUTPUT(*PRINT)	Prints the result
	OUTPUT(*OUTFILE), OUTFILE, OUTMBR	Stores the results in a file
Choose the format of your output	**OPTION(*NARROW)**	Produces narrow side-by-side listings (55 columns/side)
	OPTION(*WIDE)	Produces wide side-by-side listings (80 columns/side)
	OPTION(*LONGLINES)	Produces long columns (198/199)
Choose the components of the output listing	**RPTTYPE(*DIFF)**	Shows all changes only
	RPTTYPE(*SUMMARY)	Shows the overall summary statistics only
	RPTTYPE(*CHANGE)	Shows all changes plus some matching lines before and after the changes
	RPTTYPE(*DETAIL)	Shows all changed and unchanged lines
	OPTION(*CHANGES)	Lists only changed entries in the summary
	OPTION(*OMTREFMT)	Omits reformatted lines
	OPTION(*OMTDUP)	Omits matching duplicate lines
	OPTION(*COUNTREFMT)	Omits reformatted lines, but counts them
	OPTION(*FLGMOVLIN)	Flags moved lines
	OPTION(*CHGFLGS)	Generates a change flag listing
Focus the comparison to ranges or sections	**OPTION(*CBLSRCCOL)**	Compares within COBOL source column area only
	OPTION(*RPGSRCCOL)	Compares within RPG source column area only
	OPTION(*CMPSEQDAT)	Includes line sequence and date fields in the comparison
Preprocess the input data	**OPTION(*IGNORECASE)**	Ignores case differences while comparing
Omit specific lines or comments	**OPTION(*OMTlanguageCMT)**	Omits comments typical of the specified language (BASIC, C, PLI, COBOL, Pascal, RPG, CL, CMD, DDS)
	OPTION(*OMTBLANK)	Omits blank lines
Customize the comparison with process statements	**STMTFILE, STMTMBR**	Fully qualifies the file and members containing the process statements

Summary of Tasks and Corresponding Process Statement Values

The tasks that you can perform using process statements are:

Task	Process Statements	
Choose the file members to compare	**SELECTF**	Overrides the values specified for the NEWFILE, NEWMBR, OLDFILE, and OLDMBR parameters
Choose the format of your output	**LSTCOLM**	Lists the specified range of columns in the output
	LNCT	Specifies the number of lines per page in the listing
Focus the comparison to ranges or sections	**CMPCOLM, CMPCOLMN, CMPCOLMO**	Compares the specified range of columns
	CMPSECT	Compares specified sections of the members
Preprocess the input data	**NCHGT, OCHGT**	Masks specified strings for processing purposes only
Omit specific lines or comments from the comparison	**OMTLINE**	Omits lines matching the specified characteristics

Chapter 3. Merging Updates to File Members

To merge two sets of updates of one or more file members, use the Merge Source Physical File (MRGSRC) command.

You can use the MRGSRC command to:

- Merge different versions of the same file member
- Merge different sets of updates to a file member
- Print a report listing merge summary information

You can start a merge in any of the following ways:

- Using command prompts
- Using the programming development manager utility
- Using the command line

You can also merge Application Development Manager/400 parts with the Application Development Manager/400 MRGPART command. For more information on this command, refer to the *ADTS/400: Application Development Manager/400 User's Guide*.

MRGSRC Command Overview

With the MRGSRC command, you can:

- Merge selected maintenance updates into the target file member
- Merge all maintenance updates into the target file member
- Print a report without merging the updates

The MRGSRC command compares each target member and maintenance member with its corresponding root member. The results of these comparisons are used to determine the updates that have occurred.

Note: To ensure that the correct merge decision is made in every case, use the SELECT(*YES) parameter with the MRGSRC command. The Split Merge display appears, on which you can select or reject specific maintenance updates.

You provide the MRGSRC command with the names of the following source files:

Root The original version of the source file, on which both sets of updates are based

Maintenance The source file containing the updates to be merged into the target file

Target The source file into which the updates from the maintenance file are merged

Note: You must have update access to the target member and read access to the maintenance and root members.

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Starting a Merge Using Command Prompts

You can use command prompts to enter the parameters for the MRGSRC command. To start a merge:

1. Type `MRGSRC` on any command line and press F4 (Prompt). The Merge Source (MRGSRC) display appears as follows. The display lists the parameters and supplies the default values.

```
                          Merge Source (MRGSRC)

Type choices, press Enter.

Target file  . . . . . .   __________    Name
  Library  . . . . . . .     *LIBL       *LIBL, name, *CURLIB
Target member  . . . . .   __________    Name, *ALL

Maintenance file . . . . .  *TARGET___    *TARGET, name
  Library  . . . . . . .     *LIBL       *LIBL, name, *CURLIB
Maintenance member . . . .  *TARGET___    *TARGET, name

Root file  . . . . . . .   *MAINT____    *MAINT, name
  Library  . . . . . . .     *LIBL       *LIBL, name, *CURLIB
Root member  . . . . . .   *MAINT____    *MAINT, name

Select changes . . . . . .  *YES         *YES, *NO

                                                                  Bottom
F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel   F13=How to use this display
F24=More keys
```

2. Type the target file name in the *Target file* prompt, the library name in the *Library* prompt, and the target member name in the *Target member* prompt. The target file is the file into which the maintenance updates are merged.
3. Type the maintenance file name in the *Maintenance file* prompt, the library name in the *Library* prompt, and the maintenance member name in the *Maintenance member* prompt. The maintenance file is the file containing the updates to merge into the target file.
4. Type the root file name in the *Root file* prompt, the library name in the *Library* prompt, and the root member name in the *Root member* prompt. The target file and maintenance file are compared to the root file to locate updates.

5. Type *YES or *NO in the *Select changes* prompt to specify whether you want to select specific maintenance updates using the Split Merge display, and press Enter.

   - If you specify *YES in the *Select changes* prompt, the Split Merge display appears, allowing you to select specific maintenance updates.
   - If you specify *NO in the *Select changes* prompt, the MRGSRC command merges all the maintenance updates. The *Report only* prompt is displayed, enabling you to see the Merge Summary report without altering the file members.

     Type *YES or *NO in the *Report only* prompt to specify whether to print a Merge Summary report without actually performing the merge, and press Enter.

     Note: You cannot specify *YES for the *Select changes* prompt and for the *Report only* prompt at the same time.

Starting a Merge Using Programming Development Manager

To merge file members using the programming development manager utility:

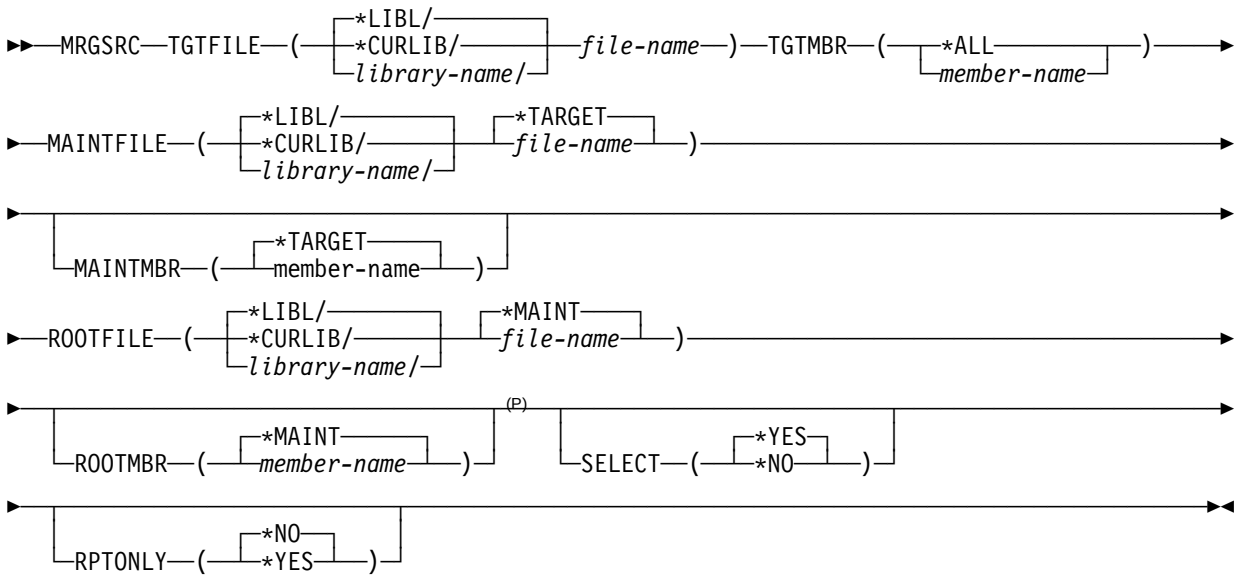
1. Select option 3 (Work with members) from the AS/400 Programming Development Manager (PDM) menu, and press Enter. The Specify Members to Work With display appears.
2. Type the file name in the *File* prompt, the library name in the *Library* prompt, the member name in the *Member name* prompt, and *FILE in the *Member type* prompt, and press Enter. The Work with Members Using PDM display appears.
3. Type 55 (Merge file member) beside the member you want to use as the target member, and press Enter. The Merge Source (MRGSRC) display appears, listing the parameters and supplying the default values for the MRGSRC command.
4. Type the parameter values for the MRGSRC command, and press Enter. Depending on the parameter values you specify in the Merge Source (MRGSRC) display, either the Split Merge display appears, or the Merge Summary report is printed.

Starting a Merge Using the Command Line

You can start a merge by typing the MRGSRC command and its parameters on the AS/400 command line. For example, to merge the updates in FILE2 into FILE1, comparing them both against FILE3 to identify updates, type the following:

```
MRGSRC TGTFILE(*LIBL/FILE1) TGTMBR(*ALL) MAINTFILE(*LIBL/FILE2)
MAINTMBR(*TARGET) ROOTFILE(*LIBL/FILE3) ROOTMBR(*MAINT)
```

MRGSRC Command Syntax



Note:
P All parameters preceding this point can be specified positionally.

TGTFILE (Target file): Specifies the source physical file into which the maintenance updates are merged.

***LIBL**
Use the library list.

***CURLIB**
Use the current library.

library-name
Use the specified library.

file-name
Use the specified file.

TGTMBR (Target member): Specifies the member into which the maintenance updates are merged.

***ALL**
Select all members.

member-name
Select the specified member.

MAINTFILE (Maintenance file): Specifies the source physical file containing the updates to merge.

***LIBL**
Use the library list.

***CURLIB**
Use the current library.

library-name
Use the specified library.

***TARGET**
Use the file specified for the target file.

file-name
Use the specified file.

MAINTMBR (Maintenance member):
Specifies the member containing the updates to merge.

***TARGET**
Select the same member as is specified for the TGTMBR keyword.

member-name
Select the specified member.

ROOTFILE (Root file): Specifies the source file on which the merge process is based.

***LIBL**
Use the library list.

***CURLIB**
Use the current library.

library-name
Use the specified library.

***MAINT**
Use the file specified for the maintenance file.

file-name
Use the specified file.

ROOTMBR (Root member): Specifies the source file member on which the merge process is based.

***MAINT**
Select the same member as is specified for the MAINTMBR parameter. This parameter is required if TGTMBR(*ALL) is specified.

member-name
Select the specified member.

SELECT (Select): Specifies whether to show the Split Merge display for selecting the maintenance updates.

***YES**
Show the Split Merge display so that you can select the maintenance updates to merge into the target member. No report is generated.

***NO**
Do not show the Split Merge display, and print a Merge Summary report.

RPTONLY (Report only): Indicates whether to merge the maintenance updates into the target member or just print a Merge Summary report to show the scope of the updates.

***NO**
Perform the merge and print a Merge Summary report.

***YES**
Print the Merge Summary report without performing the merge.

Merging Selected Maintenance Updates

To merge specific maintenance updates, use the SELECT(*YES) parameter with the MRGSRC command. For example, if you want to merge three versions of the same member (MEM1) located in three different files (FILE1, FILE2, and FILE3), type the following:

```
MRGSRC TGTFILE(*LIBL/FILE1) TGTMBR(MEM1) MAINTFILE(*LIBL/FILE2)
MAINTMBR(*TARGET) ROOTFILE(*LIBL/FILE3) ROOTMBR(*MAINT) SELECT(*YES)
```

Note: When you run the MRGSRC command in batch, you cannot select specific updates. The SELECT parameter is ignored.

The Split Merge display appears, with the target member in the top half of the display and the maintenance member in the bottom half of the display. If you specify more than one set of members with the MRGSRC command, the display appears for each set of members. If the MRGSRC command detects no maintenance updates, an informational message is issued and the Split Merge display does not appear. An example of the Split Merge display follows:

```
Columns  . . . :   1  71      Target                                QGPL/FILE1
MRG==> ____________________________________________________________      MEM1
BASE    ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
       *************** Beginning of data ************************************
0000.10      C                     Z-ADDPAGRRN    RCDNBR
0000.20      C           KEY       IFEQ F03
0000.30      C           KEY       IFEQ F05
>>>>>>>      C           KEY       OREQ F12
0000.50      C                     LEAVE
0000.60      C                     ENDIF

_____________________________________________________________________________
Columns  . . . :   1  71      Maintenance                           QGPL/FILE2
MRG==> ____________________________________________________________      MEM1
       *************** Beginning of data ************************************
0000.10      C                     Z-ADDPAGRRN    RCDNBR
0000.20      C           KEY       IFEQ F03
0000.30      C           KEY       OREQ F05
>>>>>>>      C       NEW KEY       OREQ F12
0000.50      C                     LEAVE

F2=Reject      F14=Accept all         F15=Accept     F16=Next
F17=Previous   F22=Alternative keys   F24=More keys
```

The target member is locked for update in the same way any member being edited in an SEU session is, and the maintenance and root members are locked for read, in the same way any members being browsed in an SEU session are.

How MRGSRC Locates and Marks Maintenance Updates

The MRGSRC command compares each record in the maintenance member to its corresponding record in the root member, and classifies each maintenance update as an insertion, a deletion, or a replacement.

The sequence number is shown as >>>>>>> for each inserted, replaced, or deleted record in the maintenance member. In addition, each record that is deleted in the maintenance member is shown as a dashed line.

Every maintenance update has a corresponding record or group of records in the target member. The MRGSRC command compares the target member to the root member to determine the records in the target member that correspond to the updated records in the maintenance member.

The sequence number is shown as >>>>>>> for each corresponding record in the target member. If a record has been inserted in the maintenance member, its corresponding position is shown as a dashed line in the target member.

A conflicting maintenance update occurs when the corresponding records in the target member have also been updated. Examples of possible conflict situations are:

- A line was replaced in the maintenance member and the corresponding line in the target member was also replaced or was deleted.
- A line was deleted in the maintenance member and the corresponding record in the target member was replaced.
- A line was inserted in the maintenance member and a line was inserted into the corresponding place in the target member.

The MRGSRC command marks conflicting updates by showing the sequence number as ******* in the maintenance and target members.

Duplicated updates are a special case of conflicting maintenance updates. An update is duplicated when an identical change is found in both the maintenance and target members. For example, if a line is deleted in the maintenance member and the corresponding line in the target member is also deleted, the maintenance update is duplicated in the target member. The MRGSRC command detects duplicate updates but does not mark them or count them in the totals displayed in the Merge Summary report.

Selecting Maintenance Updates

When the Split Merge display appears, the first update is shown in both the maintenance and target members. The word BASE appears in the upper left corner of the display, indicating that the base set of function keys is active. To accept or reject maintenance updates, use the base function keys as follows:

To do the following:	Press:
Apply the current maintenance update to the target member.	F15 (Accept)
Reject the current maintenance update.	F2 (Reject)
Apply all remaining maintenance updates to the target member. An update is remaining if you have not already accepted or rejected it.	F14 (Accept all)

When you accept a maintenance update, the update lines in the target member are replaced with the corresponding lines in the target member, and the update marking is removed from the sequence-number area of the target and maintenance members. When you reject a maintenance update, the lines in the target member remain unchanged, and the update marking is removed from the sequence-number area of the target and maintenance members.

Scrolling the Split Merge Display

When you accept or reject a maintenance update, the Split Merge display does not automatically scroll to the next update. To scroll to the next update, press F16 (Next). A message appears indicating the update number. If you have reached the last update, a message is displayed.

To scroll to the previous update, press F17 (Previous). A message appears indicating the update number. If you have reached the first update, a message is displayed.

Note: If you press F16 (Next) or F17 (Previous) when the current maintenance update is not visible in either member, the result is the same as if the current update is visible in both members when the function key is pressed. These function keys position the display based on the current update and not on the positioning of the members in the display.

You can also scroll the maintenance and target members by using the roll keys. Using the roll keys may cause the current update to be scrolled off the display.

Note: If the current maintenance update is not visible in either the target or maintenance member and you press F15 (Accept), the maintenance update is applied to the target member and it is repositioned to show the updated lines.

Editing the Target Member

While viewing the Split Merge display, you can access most of the SEU functions for editing the target member. You cannot access the Browse/Copy options display from the Split Merge display, however.

To edit the records in the target member, do any of the following:

- Type over the existing records
- Enter SEU commands on the `MRG==>` command lines
- Enter SEU line commands in the sequence-number area of the target records

If you change a record that is marked as an update, you reject the maintenance update. The sequence number no longer marks the update in the maintenance and target members.

If you want to accept the maintenance update and edit the corresponding records in the target member, press F15 (Accept) before you make any other changes to the records.

Note: You cannot edit the maintenance member or any dashed insert lines shown in the target member.

For more information on the function of the SEU commands in the Split Merge display, position the cursor on the command line and press F1 (Help). For more information on the function of the SEU line commands in the Split Merge display, position the cursor in the sequence-number area and press F1 (Help).

Checking the Syntax of the Target Member

The SEU syntax checking and prompting features are fully supported in the Split Merge display, and function just as they do in SEU.

One thing to note, however, is that the dashed insert line is treated as a regular line by these functions. Dashed insert lines are flagged as syntax errors if you change a line that appears in the same statement as the dashed insert line.

The best approach for using syntax checking within a merge session is to either accept or reject the maintenance update associated with the dashed insert line and then make the change to the other lines in the same statement. This approach prevents the syntax checker from flagging the dashed insert line as an error.

If you want to prompt a line found in the same statement as a dashed insert line, either accept or reject the update associated with that dashed insert line and then prompt the statement. This approach prevents the prompter from including the dashed insert line in the data displayed in the prompt.

Exiting from the Split Merge Display

To exit from the Split Merge display and save the updates to the target member:

1. Press F3 (Exit). The MRGSRC Exit display appears as follows:

```
                                MRGSRC Exit

Type choice, press Enter.

  Change/create member  . . . . . .   Y            Y=Yes, N=No
    Member  . . . . . . . . . . . .   TARGET       name
    File  . . . . . . . . . . . . .   QRPGSRC      name
      Library . . . . . . . . . . .     QGPL       name
    Text  . . . . . . . . . . . . .   ____________________________
________

    Resequence member . . . . . .   N            Y=Yes, N=No
      Start . . . . . . . . . . .   0001.00      0000.01 - 9999.99
      Increment . . . . . . . . .   01.00        00.01 - 99.99

  Print member  . . . . . . . . .   N            Y=Yes, N=No

  Return to editing . . . . . .   N              Y=Yes, N=No


F3=Exit   F4=Prompt   F5=Refresh   F12=Cancel
```

2. Type Y (Yes) in the *Change/create member* prompt. The *Change/create member* prompt defaults to Y (Yes) if you have made changes to the target member and N (No) if you have made no changes to the target member. The member name, library name, and file name already appear in the *Member*, *File*, and *Library* prompts respectively.
   - To save the updates to the member specified with the command, do not change the values in these prompts. If you specify Y (Yes) for the *Change/create member* prompt and you do not specify another member name, the updates are stored in the target member.
   - To create a new member, type the new member name, library name, and file name in these prompts. Also, type descriptive text about your member in the *Text* prompt.
3. If you want to resequence the member, type Y (Yes) in the *Resequence member* prompt, and specify the starting sequence number and increment value in the *Start* and *Increment* prompts.
4. If you want to print the member, type Y (Yes) in the *Print member* prompt.
5. If you want to return to the Split Merge display to edit the target member, type Y (Yes) in the *Return to editing* prompt.

Note: If you specify another member name and return to editing, the updates are not saved to the target member being edited in the Split Merge display.

6. Press Enter.
   - If you have specified Y (Yes) in the *Return to editing* prompt, the Split Merge display reappears. The target member is also resequenced if you have specified Y (Yes) in the *Resequence member* prompt.
   - If you have specified N (No) in the *Return to editing* prompt, the display where you entered the MRGSRC command reappears, and the updates are saved to the specified member.
   - If you specified TGTMBR(*ALL) when you issued the MRGSRC command and not all members have been processed, the Split Merge display reappears for the next member.

Notes:

1. If you are halfway through a merge session and have to stop, you can continue where you left off by reissuing the same MRGSRC command. The first update displayed in the maintenance and target members will be the first update that you did not accept in your first merge session.
2. The F3 (Exit) key returns you to the display from which you issued the MRGSRC command. If you have specified TGTMBR(*ALL), the next member is not processed.

Merging Selected Maintenance Updates — Example

In this example, the MRGSRC command is used to merge three different versions of the member EMPLOYEE in file QRPGSRC. Each version is in a different library, as follows:

- Root member and file are in the library V1
- Maintenance member and file are in the library V1C
- Target member and file are in the library V2

The contents of each of the above members are as follows. The numbers on the left column of each member are the sequence numbers for each line.

EMPLOYEE in V1/QRPGSRC

```
1  C           CENTR     IFEQ 'Y'
2  C           CENTR     OREQ 'N'
3  C                     MOVE '0'       *IN52
4  C                     ELSE
5  C                     MOVE '1'       *IN52
6  C                     END
7  C*  The preceding END denotes the end of the If Else End operation.
8  C           *IN32     DOWEQ'0'
9  C                     MOVE *BLANKS   STATUS
10 C                     MOVE *BLANKS   RSCDEX
11 C                     Z-ADD0         EHWRKX
12 C                     Z-ADD0         ACDATX
13 C                     Z-ADD0         TFRRN
14 C                     ADD  1         RECNO
15 C                     WRITEEMPFIL                  32
16 C                     END
```

EMPLOYEE in V1C/QRPGSRC

```
1  C*  If CENTR equals Y or if CENTR equals N, then indicator 52 is
2  C*  set off by moving '0' to *IN52.
3  C           CENTR     IFEQ 'Y'
4  C           CENTR     OREQ 'N'
5  C                     MOVE '0'       *IN52
6  C                     END
7  C           *IN32     DOWEQ'0'
8  C                     MOVE *BLANKS   PRCDEX
9  C                     MOVE *BLANKS   RSCDEX
10 C                     Z-ADD0         EHWRKX
11 C                     Z-ADD0         XXXXXX
12 C                     Z-ADD0         ZZZZZZ
13 C                     ADD  1         RECNO
14 C                     WRITEEMPFIL                  32
15 C                     END
16 C*  The preceding end denotes the end of the DO WHILE loop.
```

EMPLOYEE in V2/QRPGSRC

```
1  C           CENTR     IFEQ 'Y'
2  C           CENTR     OREQ 'N'
3  C                     MOVE '0'       *IN52
4  C                     ELSE
5  C                     MOVE '1'       *IN52
6  C                     END
7  C           *IN32     DOWEQ'0'
8  C                     MOVE *BLANKS   PRCDEX
9  C                     MOVE *BLANKS   RSCDEX
10 C                     Z-ADD0         EHWRKX
11 C                     Z-ADD0         ACDATX
12 C                     Z-ADD0         TFRRN
13 C                     ADD  1         RECNO
14 C                     WRITEEMPFIL                  32
15 C                     END
16 C*  End of do while loop.
```

Suppose you issue the MRGSRC command as follows:

```
MRGSRC TGTFILE(V2/QRPGSRC) TGTMBR(EMPLOYEE) MAINTFILE(V1C/QRPGSRC)
MAINTMBR(EMPLOYEE) ROOTFILE(V1/QRPGSRC) ROOTMBR(EMPLOYEE) SELECT(*YES)
```

When the MRGSRC command is issued for the above members, four maintenance updates are found, one of which is a conflicting update. The Split Merge display appears as follows:

```
Columns  . . . :   1  71            Target                          V2/QRPGSRC
MRG==> ____________________________________________________________   EMPLOYEE
BASE    ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
       *************** Beginning of data ************************************
>>>>>>> ---------------------------------------------------------------------
0001.00     C           CENTR     IFEQ 'Y'
0002.00     C           CENTR     OREQ 'N'
0003.00     C                     MOVE '0'       *IN52
>>>>>>>     C                     ELSE
>>>>>>>     C                     MOVE '1'       *IN52


Columns  . . . :   1  71            Maintenance                     V1C/QRPGSRC
MRG==> ____________________________________________________________   EMPLOYEE
       *************** Beginning of data ************************************
>>>>>>>     C*  If CENTR equals Y or if CENTR equals N, then indicator 52 is
>>>>>>>     C*  set off by moving '0' to *IN52.
0003.00     C           CENTR     IFEQ 'Y'
0004.00     C           CENTR     OREQ 'N'
0005.00     C                     MOVE '0'       *IN52
>>>>>>> ---------------------------------------------------------------------

 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys             F24=More keys
Showing maintenance update 1 of 4.
```

The top and bottom halves of the Split Merge display are both positioned to show the first maintenance update. The first maintenance update consists of two inserted lines in the maintenance member. The dashed insert line in the target member indicates the corresponding position to which the maintenance lines will be copied if the maintenance update is accepted.

Note: The current update is highlighted in white.

If you accept the first maintenance update by pressing F15 (Accept), the two update records from the maintenance member are copied into the target member, and the Split Merge display appears as follows:

```
Columns  . . . :   1  71            Target                          V2/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
BASE    ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
       ********** Beginning of data ************************************
0000.01     C*  If CENTR equals Y or if CENTR equals N, then indicator 52 is
0000.02     C*  set off by moving '0' to *IN52.
0001.00     C           CENTR     IFEQ 'Y'
0002.00     C           CENTR     OREQ 'N'
0003.00     C                     MOVE '0'       *IN52
>>>>>>>     C                     ELSE


Columns  . . . :   1  71            Maintenance                    V1C/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
       ********** Beginning of data ************************************
0001.00     C*  If CENTR equals Y or if CENTR equals N, then indicator 52 is
0002.00     C*  set off by moving '0' to *IN52.
0003.00     C           CENTR     IFEQ 'Y'
0004.00     C           CENTR     OREQ 'N'
0005.00     C                     MOVE '0'       *IN52
>>>>>>> ----------------------------------------------------------------------

 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys             F24=More keys
Maintenance update 1 has been accepted.
```

If you press F16 (Next), the top and bottom halves of the display scroll to the next maintenance update, and the Split Merge display appears as follows:

```
Columns  . . . :   1  71            Target                          V2/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
0003.00     C                     MOVE '0'       *IN52
>>>>>>>     C                     ELSE
>>>>>>>     C                     MOVE '1'       *IN52
0006.00     C                     END
0007.00     C           *IN32     DOWEQ'0'
0008.00     C                     MOVE *BLANKS   PRCDEX
0009.00     C                     MOVE *BLANKS   RSCDEX


Columns  . . . :   1  71            Maintenance                    V1C/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
0005.00     C                     MOVE '0'       *IN52
>>>>>>> ----------------------------------------------------------------------
0006.00     C                     END
0007.00     C           *IN32     DOWEQ'0'
0008.00     C                     MOVE *BLANKS   PRCDEX
0009.00     C                     MOVE *BLANKS   RSCDEX
0010.00     C                     Z-ADD0         EHWRKX

 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys             F24=More keys
Showing maintenance update 2 of 4.
```

This maintenance update consists of two deleted lines in the maintenance member. The location of the lines is indicated by the dashed insert line in the bottom half of the display.

Note: Line 8 in the target member and line 8 in the maintenance member differ from their corresponding line in the root member. However, because the lines in the target member and the maintenance member are duplicate updates, they are not marked in the Split Merge display.

If you reject the maintenance update by pressing F2 (Reject), the Split Merge display appears as follows:

```
Columns  . . . :   1  71            Target                          V2/QRPGSRC
MRG==> ____________________________________________________________   EMPLOYEE
BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
0003.00     C                     MOVE '0'       *IN52
0004.00     C                     ELSE
0005.00     C                     MOVE '1'       *IN52
0006.00     C                     END
0007.00     C           *IN32     DOWEQ'0'
0008.00     C                     MOVE *BLANKS   PRCDEX
0009.00     C                     MOVE *BLANKS   RSCDEX


_____________________________________________________________________________
Columns  . . . :   1  71            Maintenance                     V1C/QRPGSRC
MRG==> ____________________________________________________________   EMPLOYEE
0005.00     C                     MOVE '0'       *IN52
0006.00     C                     END
0007.00     C           *IN32     DOWEQ'0'
0008.00     C                     MOVE *BLANKS   PRCDEX
0009.00     C                     MOVE *BLANKS   RSCDEX
0010.00     C                     Z-ADD0         EHWRKX
>>>>>>>     C                     Z-ADD0         XXXXXX

F2=Reject      F14=Accept all     F15=Accept    F16=Next
F17=Previous   F22=Alternative keys             F24=More keys
Maintenance update 2 has been rejected.
```

Because you rejected the maintenance update, no lines are copied. The update markings are removed in the top and bottom halves of the display.

If you press F16 (Next) to scroll to the next maintenance update, the Split Merge display appears as follows.

```
 Columns  . . . :   1  71            Target                          V2/QRPGSRC
 MRG==> ____________________________________________________________  EMPLOYEE
 BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
 0010.00     C                     Z-ADD0         EHWRKX
 >>>>>>>     C                     Z-ADD0         ACDATX
 >>>>>>>     C                     Z-ADD0         TFRRN
 0013.00     C                     ADD  1         RECNO
 0014.00     C                     WRITEEMPFIL                  32
 0015.00     C                     END
 *******     C*  End of do while loop.


 Columns  . . . :   1  71            Maintenance                    V1C/QRPGSRC
 MRG==> ____________________________________________________________  EMPLOYEE
 0010.00     C                     Z-ADD0         EHWRKX
 >>>>>>>     C                     Z-ADD0         XXXXXX
 >>>>>>>     C                     Z-ADD0         ZZZZZZ
 0013.00     C                     ADD  1         RECNO
 0014.00     C                     WRITEEMPFIL                  32
 0015.00     C                     END
 *******     C*  The preceding end denotes the end of the DO WHILE loop.

 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys             F24=More keys
Showing maintenance update 3 of 4.
```

If you accept the maintenance update by pressing F15 (Accept), the Split Merge display appears as follows:

```
 Columns  . . . :   1  71            Target                          V2/QRPGSRC
 MRG==> ____________________________________________________________  EMPLOYEE
 BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
 0010.00     C                     Z-ADD0         EHWRKX
 0010.01     C                     Z-ADD0         XXXXXX
 0010.02     C                     Z-ADD0         ZZZZZZ
 0013.00     C                     ADD  1         RECNO
 0014.00     C                     WRITEEMPFIL                  32
 0015.00     C                     END
 *******     C*  End of do while loop.


 Columns  . . . :   1  71            Maintenance                    V1C/QRPGSRC
 MRG==> ____________________________________________________________  EMPLOYEE
 0010.00     C                     Z-ADD0         EHWRKX
 0011.00     C                     Z-ADD0         XXXXXX
 0012.00     C                     Z-ADD0         ZZZZZZ
 0013.00     C                     ADD  1         RECNO
 0014.00     C                     WRITEEMPFIL                  32
 0015.00     C                     END
 *******     C*  The preceding end denotes the end of the DO WHILE loop.

 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys             F24=More keys
Maintenance update 3 has been accepted.
```

If you press F16 (Next) to scroll to the next maintenance update, the Split Merge display appears as follows:

```
Columns  . . . :   1  71           Target                          V2/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
0015.00     C                     END
*******     C*  End of do while loop.
       ****************** End of data ****************************************




_______________________________________________________________________________
Columns  . . . :   1  71           Maintenance                    V1C/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
0015.00     C                     END
*******     C*  The preceding end denotes the end of the DO WHILE loop.
       ****************** End of data ****************************************



 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys            F24=More keys
Showing maintenance update 4 of 4.
```

This last maintenance update is marked as a conflicting update, because the lines in the target member and the maintenance member both differ from the corresponding line in the root member.

If you decide to edit the update record in the target member by typing over it and pressing Enter, you reject the maintenance update. After you press Enter, the Split Merge display appears as follows:

```
Columns  . . . :   1  71           Target                          V2/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
BASE   .....CL0N01N02N03Factor1+++OpcdeFactor2+++ResultLenDHHiLoEqComments++++
0015.00     C                     END
0016.00     C*  The subfile is now filled with blank records.
       ****************** End of data ****************************************




_______________________________________________________________________________
Columns  . . . :   1  71           Maintenance                    V1C/QRPGSRC
MRG==> ____________________________________________________________  EMPLOYEE
0015.00     C                     END
0016.00     C*  The preceding end denotes the end of the DO WHILE loop.
       ****************** End of data ****************************************



 F2=Reject      F14=Accept all     F15=Accept    F16=Next
 F17=Previous   F22=Alternative keys            F24=More keys
Maintenance update 4 has been rejected.
```

Merging All Maintenance Updates

You do not have to select specific maintenance updates using the Split Merge display. To merge all of the maintenance updates into the target file without viewing them, use the SELECT(*NO) parameter with the MRGSRC command. For example, if you have three versions of member MEM1, and you want to merge all of the updates from the FILE2 version into the FILE1 version, using the FILE3 version as the root member, type the following:

```
MRGSRC TGTFILE(*LIBL/FILE1) TGTMBR(MEM1) MAINTFILE(*LIBL/FILE2)
MAINTMBR(*TARGET) ROOTFILE(*LIBL/FILE3) ROOTMBR(*MAINT) SELECT(*NO)
```

Note: You cannot save the updated target member under a different name when you use the SELECT(*NO) parameter. If you want the result of the merge to be stored in a different member than the target member, copy the target member and then use the copy as your target member when you issue the MRGSRC command.

Each maintenance update is copied into the target member, and the Merge Summary report is printed. An example of the Merge Summary report follows:

```
5763PW1 V3R1M0 940909      MERGE SUMMARY REPORT       09/09/94 10:25:00  PAGE 1


 Target file . . . . . .  V2/QRPGSRC
 Member  . . . . . .  EMPLOYEE

 Maintenance file  . . . . . .  V1C/QRPGSRC
 Member  . . . . . .  EMPLOYEE

 Root file . . . . . .  V1/QRPGSRC
 Member  . . . . . .  EMPLOYEE


 Number of target member lines . .    16
 Number of updates . . . . . .     4
 Number of conflicting updates . .     1

                * * * *  E N D  O F  L I S T I N G  * * * *
```

If you specify the TGTMBR(*ALL) parameter, the report consists of one page for each member that is processed. When you specify a specific TGTMBR value, the report is one page long. The printer file for the report is QPYMSRPRT.

The report provides you with the names of the members that were processed, and the number of maintenance updates that were moved into the target member. If you want more information about the actual maintenance updates that were moved into a particular member, use the CMPPFM command to compare the maintenance member with the root member. Using the CMPPFM command, you can produce a report listing of the maintenance updates, all of which were copied to the target member.

Merging All Members with the Same Name

To perform a merge on all members with the same names, use the TGTMBR(*ALL) parameter with the MRGSRC command.

For each member in the target file:

- If the member is also in both the maintenance and the root files, the MRGSRC command performs the merge for that member.
- If the member is also in the maintenance file but is not in the root file, the MRGSRC command assumes that the target file and member were specified for the root, and performs the merge for that member.
- If the member is not in the maintenance file, no merge is necessary.

For example, suppose the members are distributed as follows:

- The target file contains members A, B, C
- The maintenance file contains members A, B, D
- The root file contains members A, C, D

When the MRGSRC command is issued with the TGTMBR(*ALL) parameter, the members are processed as follows:

- A is processed because it is in all three files.
- B is processed because it is in the maintenance file. Member B in the target file is also used for the root file.
- C is not processed because it is not in the maintenance file.
- D is not processed because it is not in the target file.

Note: If any error occurs while processing a member when TGTMBR(*ALL) is specified, a message is issued and processing continues for the next member.

Printing a Report without Merging

To print a Merge Summary report without copying the maintenance updates into the target member, use the RPTONLY(*YES) parameter with the MRGSRC command. With the RPTONLY(*YES) option, you can see the magnitude of the updates without committing to them. This feature is useful for identifying the members that contain conflicting maintenance updates. You can then issue the MRGSRC command with the SELECT(*YES) parameter, and use the Split Merge display to view the conflicting updates before you decide whether to accept them.

The Merge Summary report is printed to the file QPYMSRPRT, indicating the number of maintenance updates and the number of conflicting maintenance updates. Use the report to determine whether you want to issue the MRGSRC command without selecting specific maintenance updates.

Note: The RPTONLY(*YES) parameter is valid only when SELECT(*NO) is specified.

Recovering from Errors

If you specify a target member that requires SEU or RLU recovery, the MRGSRC command is not processed. A message is displayed informing you of the product you should use to access the member.

If your MRGSRC session ends abnormally, all changes made to the target member are saved using the SEU recovery mechanism. You can invoke SEU against the target member to restore all of the changes that you made to the member.

If you choose to recover your changes, do the following:

1. Search for the dashed lines that were inserted by the MRGSRC command. You can use the SEU FIND command to search for the following string:

   ----

2. Delete each dashed line that has a sequence number of 0000.00.

Using the MRGSRC Command — Tips

To use the MRGSRC command effectively, consider the following tips:

- To merge a small number of members, specify the SELECT(*YES) parameter and perform the merge interactively. With the Split Merge display, you can select the maintenance updates you want to apply to the target member. While you are merging, you can also perform editing tasks in the Split Merge display.
- To merge a large number of members, do the following:
  1. Make a copy of the file you want to use as the target.
  2. Enter the MRGSRC command with the SELECT(*NO) parameter, using the copy of the target file as the target.
  3. Use the Merge Summary Report to locate members that had conflicting updates.
  4. For each member that has conflicting updates, issue the MRGSRC command with the SELECT(*YES) parameter, using the copy of the target file as the target.

  When you finish selecting the updates, the original target file remains untouched, and the copy of the target file is the merged version.

Summary of Tasks and Corresponding Keyword Values

The tasks that you can perform using the MRGSRC command are:

Task	Keywords	
Choose the file members for the merge	**TGTFILE, TGTMBR**	Fully qualifies the target member
	MAINTFILE, MAINTMBR	Fully qualifies the maintenance member
	ROOTFILE, ROOTMBR	Fully qualifies the root member
Merge all of the members with the same names	**TGTMBR(*ALL), MAINTMBR(*TARGET), ROOTMBR(*MAINT)**	Performs a merge on all of the members with the same names in the root, target, and maintenance files

Task	Keywords	
Select specific maintenance updates	**SELECT(*YES)**	Displays the Split Merge display, from which you can select and reject specific maintenance updates, and edit the target member
Accept all maintenance updates without viewing	**SELECT(*NO)**	Copies all maintenance updates into the target member, and produces a Merge Summary Report
Print a report without merging the updates	**RPTONLY(*YES)**	Produces the Merge Summary Report without copying the maintenance updates into the target member, so you can see the number of updates before you select any of them

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