

Microsoft® Word

**Word Processing Program
Version 1.1**

for IBM® Personal Computers

Microsoft Corporation

Information in this document is subject to change without notice and does not represent a commitment on the part of Microsoft Corporation. The software described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of the agreement. It is against the law to copy Microsoft Word on magnetic tape, disk, or any other medium for any purpose other than the purchaser's personal use.

©Copyright Microsoft Corporation, 1984

If you have comments about this documentation or the enclosed software, complete the Software Problem Report at the back of this manual and return it to Microsoft.

Microsoft and the Microsoft logo are registered trademarks, and MS is a trademark of Microsoft Corporation.

WordStar is a registered trademark of MicroPro International Corporation.

IBM is a registered trademark of International Business Machines Corporation.

Epson and Grafrax are registered trademarks of Epson America, Inc.

API is a trademark of Diablo Systems, division of XEROX Corporation.

NEC Spinwriter is a trademark of NEC Information Systems.

Qume Sprint 11 Plus is a trademark of Qume Corporation.

Hercules is a trademark of Hercules Computer Technology.

Part Number: 034-099-065

Document Number: 8910-110-00p

Microsoft Word 1.1 Update

The Microsoft® Word 1.1 update consists of additions and changes to the Word 1.0 manual. Remove the following pages from your Microsoft Word 1.0 binder and replace them with the new pages provided in this update package:

Getting Started

Operating Information

Appendix A: Printing Documents With Word

Also, you should replace the pages for the following commands in Chapter 10, “Command Directory”:

Format Running-head

Jump Running-head

Print Options

Quit

Replace

Search

Transfer Clear

Transfer Load

Transfer Save

Add the following new sections to the Microsoft Word manual:

Enhancements to Microsoft Word

Appendix C: Using Merge

Print Merge command in the “Command Directory”

Microsoft Word 1.1 Update

If you have used Word 1.0, read “Enhancements to Microsoft Word” carefully for a summary of features that have been added or changed in this new release.

Enhancements to Microsoft Word

This section provides an overview of additions and changes to Microsoft® Word. Word 1.1 contains several enhancements, including:

A powerful Merge feature for preparing and printing form letters and other multiple-version documents simply and efficiently.

Direct support for additional dot matrix printers and an expanded printer driver file format that can support all standard printers.

Support for the Hercules™ Graphics Card, providing either high-resolution graphics on a monochrome display or an extended display mode.

In addition, some changes have been made that affect existing features of the Microsoft Word program. If you have been using Word 1.0, be sure to note these changes:

Running heads are now easier to create.

Modifications to some commands make it easier to confirm or discard editing changes.

A count of the total number of characters in a document is displayed on the message line when the document is loaded with the Transfer Load command or saved with the Transfer Save command.

Current page and division numbers are displayed on the status line to show you where you are in any document that has been paginated.

The Transfer Save and Print Repaginate commands are now significantly faster.

Read this summary carefully, then remove the indicated pages from the Word 1.0 manual and replace them with the pages supplied in this package.

Merge

Merge makes it easy to produce multiple versions of any document. With Merge, you can produce form letters and other documents by combining a file containing the text for each letter with the text of a standard document.

With Merge, you can do the following:

Run Merge directly from the Microsoft Word program, without switching disks.

Enter text directly from the keyboard when the document is printed.

Insert the text of one document into another at print time, making it easy to include standard “boilerplate” paragraphs.

Insert text in some copies of the document but not others.

Merge any ASCII file with your document, including the output of other programs, such as dBaseII™ or other database programs.

For more details, see Appendix C, “Using Merge.”

Printer Support

Microsoft Word 1.1 supports these additional printers:

Okidata Microline 92

Okidata Pacemark 2350, 2410

Toshiba P1350

Epson RX-80 with Graftrax-80

Texas Instruments 850

Word 1.1 has an expanded printer driver format to simplify the development of customized printing programs for other printers not directly supported, including laser printers and phototype-setters. See Appendix A, "Printing Documents With Word" for more detailed information.

You can now use the Print Options command to set paper feed for printers with twin-sheet bins. If you have a printer with twin-sheet bins, you can choose whether you want documents to be printed on paper from bin 1 or bin 2. You can also print the first page of a document on paper from bin 1, and print the other pages on paper from bin 2. For example, if you wish to print letters using letterhead for the first page, and ordinary bond paper for the rest of the pages, you can choose the "mixed" option.

Also, Word now records the Print Options "draft" field at the end of a session. As a result, if you choose the "draft" field in the Print Options command, it will remain in effect the next time you use Word, unless you change it with the Print Options command. See the new page for the Print Options command in Chapter 10, "Command Directory."

Hercules Graphics Card Support

Microsoft Word now supports the Hercules Graphics Card in two modes:

1. If your computer has a Hercules Graphics Card installed, Word will automatically use high-resolution mode (80 x 25 lines).
2. If you wish to use the Hercules Graphics Card to create a 90-character by 43-line display, you can start Word by typing:

WORD /H

each time you begin a session with Word.

For more information on using Word with the Hercules Graphics Card, see "Different Ways of Starting Word" in "Operating Information."

Copies of Microsoft Word

Microsoft Word 1.1 is distributed on double-sided disks. An extra copy of Word is included in the package. Microsoft Word can be copied to a hard disk with a capacity of at least 2.5 megabytes. See "Getting Started" for details.

Help

The Microsoft Word help information has been updated to make it easier to get information about how to use Word.

Commands

Some Word commands have changed slightly. The Transfer Clear and Quit commands no longer ask for confirmation if there are no unsaved editing or formatting changes to the document or style sheet. As a result, you can carry out these commands more easily.

The Transfer Save command has been changed to display the following message when you change the proposed filename to the name of a file which already exists:

Enter Y to overwrite file

The Quit command has been changed to make it easier to save documents and leave the Word program quickly. If there are any documents or style sheets with unsaved changes, these documents will be highlighted when you use the Quit command.

The Quit confirmation message now reads:

Enter Y to save, N to lose edits, or Cancel

By simply typing *Q* for Quit and *Y* to confirm, you can save all active documents and style sheets and quit with only two keystrokes. If you are using the mouse, you can carry out the Quit command and save your documents, glossaries, and style sheets at the same time by clicking the right mouse button. If any of the documents you have been editing are unnamed, you will see the message:

Not a valid file

You will not be able to quit Word with the right mouse button.

If you use the left mouse button to confirm that you want to quit Word, Word will ask you to confirm whether you want to save the edits in each window which contains a document with unsaved edits.

There is no longer a Quit command on the Gallery menu. To quit Word after working on a style sheet, return to the Edit menu and use the Quit command.

Both the Transfer Load and Transfer Save commands now display the total number of characters in a document. For example, when you carry out the Transfer Save command, you will see a message like this:

1850 characters

The Replace command now displays the total number of replacements made in a document on the message line, as in the following:

12 replacements made

You can now use the Search command to extend a selection. First, select the text that begins the extended selection. Then press the EXTEND (F6) key. Choose the Search command and type the search text that you want to become the end of the selection. The selection will be extended from the current selection to the end of the search text. You can also extend a selection by searching “up” from the current selection, specifying the text which will become the beginning of the extended selection.

For more information on using any of the commands described above, check the new pages for Chapter 10, “Command Directory.”

Running Heads

You can now apply the Format Running-head command to any paragraph in your document. Select the paragraph of text that you wish to make a running head, then use the Format Running-head command fields to specify the type and position of the running head.

Once you use the Format Running-head command to format a paragraph, this paragraph will not print in sequence with the text above and below it. Paragraphs defined as running heads appear with carets (^) in the left margin. The running head paragraph will appear at the specified position, and will replace any other running head you have previously defined in that position. If you have used the Format Running-head command to format consecutive paragraphs with exactly the same position properties, these paragraphs will be treated as a single running head.

If you want to change a running head back to a normal paragraph, you can use the Format Running-head command, and choose "No" in all the command fields.

The Jump Running-head command is no longer available, although documents already created with Jump Running-head will still format properly. For more information about creating running heads, see the new page for the Format Running-head command in Chapter 10, "Command Directory."

Page Status

Microsoft Word 1.1 helps you find your place in a document by displaying the current page number and division number in the status line at the bottom of the screen. These numbers reflect the pagination of the document when it was last printed with the Print Printer command or repaginated with the Print Repaginate command. If the document has never been printed or repaginated, *Page 1* will appear on the status line no matter where you are in the document.

If the document has only one division, the status line shows the word *Page*, followed by the number. For example:

Page 347

If the document has more than one division or page numbers above 999, the status line will display the page number, followed by the division number; the page number will be preceded by the letter "P," and the division number by the letter "D." For example, if you were viewing page 47 in division 3 of a document, the page and division numbers would be indicated as follows:

P47 D3

If you want to go to the end of a document, use the Jump Page command, specifying a very large page number. Word will go to the beginning of the last page of the document. To go to the beginning of a document, you can use the Jump Page command, specifying page 1.

Getting Started

Read this section before you begin using Microsoft Word. The following topics are discussed:

What You Need

How to Set Up the Microsoft Word Program Disk to Start DOS

How to Copy Microsoft Word to a Hard Disk

How to Start Microsoft Word

This section describes how to use Word on an IBM® Personal Computer equipped with double-sided disk drives. If you plan to use Word on an IBM PC with single-sided drives, read the “Product Replacement Plan” in the back of this manual for information about exchanging your disks for a copy of Word on single-sided disks.

What You Need

To use Microsoft Word, you need:

An IBM Personal Computer, an IBM Personal Computer XT, or an IBM PCjr with at least 128K of memory

At least one disk drive

A 80-column monochrome monitor, or a Hercules Graphics Card™ with an IBM monochrome monitor, or a color/graphics monitor adapter with a graphics monitor (monochrome or color)

An IBM Personal Computer DOS disk

The Microsoft Word Program and Utilities disks

Several blank disks

The Microsoft Mouse (optional)

A printer and printer adapter (optional)

How to Set Up the Word Program Disk to Start DOS

To make it easier to start Word, you can turn your Microsoft Word Program disk into a system disk. Then you will be able to start IBM Personal Computer DOS with your copy of Microsoft Word.

Follow these steps:

1. Start the operating system as you would normally, with the DOS disk in drive A.
2. Insert the Word Program disk in drive B.
3. Type the DOS command:

SYS B:

4. Copy DOS to the disk in drive B with the following command:

COPY COMMAND.COM B:

Now you can use the Word disk to start both DOS and Microsoft Word on your computer.

Note

If you have only one floppy disk drive, do not insert the Word Program disk into drive A until DOS prompts you to do so. DOS will display messages asking you to insert the DOS disk and Word disk into drive A at appropriate times.

How to Copy Microsoft Word to a Hard Disk

You may copy Microsoft Word onto any hard disk compatible with DOS version 2.0. The hard disk must have a capacity of at least 2.5 megabytes.

1. Insert the Word Program disk in drive A.
2. Type *MWCOPY* and press the RETURN key.
3. Follow the instructions on the screen to complete the copy procedure.

MWCOPY will not allow you to make a copy if you have already copied Microsoft Word to another hard disk.

See the *IBM Personal Computer DOS 2.0* manual for details about specifying directories and pathnames.

How to Start Microsoft Word

To use Word, you need the Microsoft Word disk and several formatted disks for storing documents. See the *IBM Personal Computer DOS* manual for information on how to format disks.

In addition, if you are planning to print documents with one or more of the printers directly supported by Word, you need to copy the corresponding printer description (.PRD) files from the Word Utilities disk to the Word Program disk. To do this:

1. Insert the Word Program disk in drive A and the Word Utilities disk in drive B.
2. Use the DOS COPY command to copy the .PRD file(s) you need.

For example, if you have the NEC7710 Spinwriter printer, use the following command:

```
COPY B:NEC7710.PRD A:
```

Make sure you have the correct .PRD files copied to the Word Program disk before you start Word.

To start Word on the IBM PC:

1. Put your copy of the Microsoft Word disk in drive A and turn the computer on. If it is already on, press the Del key while holding down the Ctrl and Alt keys.
2. Respond to the DOS date and time prompts.
3. Use the DOS COPY command to copy EXAMPLE.DOC from the Word Program disk to a second, formatted disk:

```
COPY EXAMPLE.DOC B:
```

You need to have this file on a separate data disk to follow the lessons in Chapter 1.

4. When you see the A> prompt, type *WORD* and press the RETURN key.

Turn to Chapter 1 and begin learning about Word. The following section explains the keyboard—refer to it as you work with Word. You don't need to read the "Operating Information" section yet; you'll find it useful after you've gone through the examples in Part 1.

Operating Information

You will find the information in this section useful once you are familiar with Microsoft Word. The following topics are discussed:

Files and Filenames

Disks and Drives

Disk Space

Using DOS Version 2.0

Different Ways to Start Word

Variations in What You See on the Screen

Using Word With RAMDrive

Using Serial and Parallel Printers

Files and Filenames

The Microsoft Word programs and the documents you produce with Word are files stored on either hard or floppy disks. This section describes the types of files that come with Microsoft Word and discusses how to name the files you create.

If you have double-sided disk drives, the Microsoft Word files come on two double-sided disks: the Word Program disk and the Word Utilities disk. The following files are supplied on the Microsoft Word Program disk:

WORD.COM	Word startup program
MWCOPY.BAT	Startup for hard disk copy
MWCOPY2.BAT	Hard disk copy

Operating Information

MWCOPY1.COM	Hard disk copy
HARDCOPY.COM	Hercules Card startup
AUTOEXEC.BAT	DOS file
MW.PGM	Word program file
MW.HLP	Word help file
MOUSE.SYS	Mouse program
MOUSE.COM	Mouse program
TTY.PRД	TTY Printer description file
*.STY	Style sheets, with .STY extension
EXAMPLE.DOC	Sample document used in "Learning Word"

The following files are supplied on the Word Utilities disk:

*.PRD	Printer description files, each with .PRD extension
CONVPRD.COM	.PRD file editor
CONVPRD.DOC	Description of prd editor
MOUSE.LIB	Mouse applications
README.DOC	Notes and supplementary documentation

As you work, Microsoft Word creates some other files on the Program disk. Backup copies of the documents you edit are automatically added to the Program disk. These files have the name of the document with the extension .BAK added. Word creates files ending with .TMP to record editing changes to the documents on the disk. Also, a file named MW.INI is created to record the options you set with the Options, Print Options, and Window Options commands.

The following rules apply to naming files:

1. Filenames can be up to eight characters long.
2. Filenames can use any combination of uppercase and lowercase letters.
3. Filenames can have an extension, consisting of a period (.), followed by up to three characters.
4. Filenames should begin with a letter, followed by any combination of letters (A-Z), numbers (0-9), or the following characters:

\$ & % ' () - @ ^ { } , ' ! _

If you do not supply extensions to filenames, Microsoft Word adds them when you use the Transfer Save command, to identify the kind of information contained in the file. These extensions are:

.DOC	Document
.STY	Style sheet
.GLY	Glossary
.BAK	Backup copy of a document, style sheet, or glossary

When you enter a filename, you do not need to type its extension if it has one of these standard extensions. However, when you are using the Transfer Delete command to delete a file, you must enter the entire filename, including the extension.

Whenever Word asks you to enter a filename, you can enter the filename alone; the name of the disk drive followed by the name of the file; or the name of the drive followed by the full filename, including the extension.

For example, if you load a document into Word with the Transfer Load command, you could use any of the following:

FEB15MEM
 B:FEB15MEM
 B:FEB15MEM.DOC

Operating Information

If you are using IBM Personal Computer DOS version 2.0, you can give the full pathname of the file:

C:\FRED\MEMOS\FEB15MEM.DOC

Disks and Drives

Unless you are using a hard disk to store both the Word program and all your documents, you need to keep track of which files are on which disks, and which disks go in which drives.

In addition to your Microsoft Word Program disk, which contains all the files necessary to use Microsoft Word, you will need one or more data disks for storing the documents you create with Word.

Disk Drives

If you have two floppy disk drives, you will ordinarily start Word from drive A. The Word Program disk remains in drive A at all times. If you are using DOS version 2.0 and the PATH command, the "program" drive is the drive where MW.PGM is located.

If you do not specify a drive with a filename, Word will save or look for the document in the default data drive. If you have two floppy disk drives, the default data drive is always drive B.

If you want to change the default data drive, you can use the Transfer Options command in the following situations:

1. As the first Transfer command after a Transfer Clear All command.
2. As the first Transfer command after starting Word.

Changing Disks

When you are working with the IBM Personal Computer DOS, you can change disks whenever you see the operating system prompt (for example, A>). Of course, you can also change disks whenever the operating system displays a message on the screen asking you to do so. In this case, follow the directions on the screen exactly.

You may remove your Word Program disk or data disks only when Word displays the message beginning with

Enter *filename* . . .

or when Word displays the message:

Enter Y to retry access to *filename* . . .

This second message means Word cannot find the file you have named on the data disk. Replace the disk with the correct disk.

Before starting an editing session, make sure that the data disk(s) you will be using have space for new or edited documents.

Disk Space

As you work, Microsoft Word creates temporary files (with the extension .TMP) on the program disk. These files contain information that Word saves during an editing session. The longer the editing session and the greater the number of .TMP files, the greater the chance that you will eventually run out of space. This is especially critical if you are working with one or two single-sided floppy disk drives.

The file MW.INI, and any files with the extension .TMP, will be stored on the program disk. If the .TMP files on the disk get too large, Word will not allow any more editing. You will see the message:

Disk full

Save your documents immediately with the Transfer Save command. Then use Transfer Clear All to restart your editing session. If you do not use Transfer Save before Transfer Clear All, you will lose any edits to the documents you were working on when the "Disk full" message appeared.

There are several things you can do to avoid running out of space on the Word Program disk:

1. Use the Transfer Save command at least once an hour to minimize the size of the .TMP files on the program disk. This also prevents loss in case of power failure or hardware problems.
2. You can move your copy of the help file (MW.HLP) from the Word disk and place it on another disk. Whenever you request help, Word will display the message:

Enter Y to retry access to MW.HLP

At this point you can remove the Word Program disk, replace it with the disk that contains MW.HLP, and press Y. When you leave help, Word will display the message:

Enter Y to retry access to Word Program Disk

Remove the disk that contains MW.HLP, replace it with the Word Program disk, and type Y.

3. If you have copied any .PRD files from the Word Utilities disk to the Word Program disk, make sure you have only those .PRD files on the Program disk which correspond to the printers you are using. Delete any .PRD files which are unnecessary.

Note

Never delete any files from your extra copy of the Microsoft Word disk. Then, if you accidentally delete the help file or any of the printer description files, you can copy them again from the extra disk. You may copy these files as often as you wish.

The message "Disk full" also appears if you try to save a document that is larger than the available space on the current data disk. There are a number of ways you can free space on the data disk. First, try to create space by deleting unnecessary files with the Transfer Delete command. You can also remove files with the .BAK extension. Then, save the document again with the Transfer Save command. If you still do not have enough space, use the Transfer Save command to save the document onto a new data disk. Keep several extra formatted disks handy to use as data disks.

If you replace the current data disk with another disk, Word will ask you to switch data disks repeatedly. Word requires access to both the original copy of the document and the new copy of the document on the new data disk. To avoid this situation, leave plenty of space on your current data disk. Keep all the original copies of documents for performing "cut and paste" or merge operations on a single data disk. Then you won't have to switch disks. Use the DOS COPY command to move the documents you plan to work with to the data disk before starting Word.

If you must save a document on a new data disk, Word creates a file called NEWFILE.TMP. When the document has been saved, Word renames the file to the filename you specified in the Transfer Save command. Whenever you see the message

Enter Y to retry access to NEWFILE.TMP

insert the new data disk. Whenever you see either of the messages

Enter Y to retry access to *filename*.DOC

or

Enter Y to retry access to *filename*.BAK

insert the disk containing the original document.

Using DOS Version 2.0

IBM Personal Computer DOS version 2.0 gives you these extended capabilities:

1. You can specify a directory instead of a drive. For example, to save the document MEMO in the B:\USR\MARY directory, type

B:\USR\MARY\MEMO

when you use the Transfer Save command.

2. You have a startup directory instead of a startup drive. The startup directory is the directory that contains the Word file WORD.COM. The startup directory can be any directory on a floppy or hard disk.
3. You have a program directory instead of a program drive. The program directory is the directory that contains the Word files MW.PGM, MW.HLP, and *.PRD (printer description files). The program directory can be any directory on any drive, including a RAMDrive, or other electronic disk.
4. If you are using the DOS 2.0 PATH command, you can place the startup and program directories on the search path specified in the PATH command. The startup directory need not be the same as the directory you were in when you started Word. Also, the program drive need not be the same as the startup drive.
5. Word saves documents onto a data directory, instead of a data drive. The data directory can be any directory on any drive. The rules for the default data directory still apply. If you have two floppy disk drives, the default data directory is always on drive B. Otherwise, the default data directory is whichever directory you were in when you started Word. This need not be the same as the startup directory.

Different Ways to Start Word

There are several ways to start the Word program on the IBM PC.

WORD	Starts Word with no document loaded.
WORD <i>filename</i>	Starts Word and loads the specified document.
WORD /L	Starts Word with the document last loaded in window #1.
WORD /C	Starts Word in text mode and color instead of high-resolution graphics.
WORD /H	Starts Word with a 90-character by 43-line display, if a Hercules Graphics Card is installed.

When you start Microsoft Word by typing *WORD* and pressing the RETURN key, the program does not load a document. You can tell Word to load a specific document by typing

WORD *filename*

and pressing the RETURN key. For example, if you type

WORD LETTER

Word will look on the disk for the document LETTER. If the document LETTER is found, it will be loaded. If Word does not find LETTER, no document will be loaded, and you will be asked to type *Y* to create a new document named LETTER.

If the document is located in a drive other than the current default drive, you must precede the document name with the appropriate drive letter and a colon.

Microsoft Word remembers the name of the last document you edited in window #1 the last time you ran the program. If you want this document loaded when you start Word, you can type:

WORD /L

Word will look for the document in the last drive or directory in which it was located. If the document is there, it will be loaded. Otherwise, no document will be loaded, just as if you had simply typed *WORD* to start. The name of the document is recorded in the file MW.INI on the program drive when you quit Word. If you delete the file MW.INI, the /L will be ignored.

You cannot type both /L and the filename when starting Word, since both of these options ask for specific files to be loaded. For example, you cannot start Word with:

WORD LETTER /L

If you have a color monitor and a color/graphics monitor adapter installed, and wish to use color rather than high-resolution graphics, type:

WORD /C

You may combine the /C with automatic document loading. For example, you may type:

WORD /L /C

or

WORD LETTER /C

If you have a Hercules Graphics Card installed in your computer, you can start Word with the /H option to obtain a 90-character by 43-line display. If you have the Hercules Graphics Card installed, the /C option will start Word in non-graphics monochrome mode, as if the Hercules card was not installed. You cannot combine the /C and /H options when starting Word.

Variations in What You See on the Screen

If you have a color/graphics monitor adapter installed, Word uses high-resolution graphics to display character formats similar to how they will appear when printed. Italics, bold, small capitals, underline, double-underline, superscript, subscript, and strikethrough will be shown.

If you wish, you can use color instead of high-resolution graphics. In this case, normal characters appear in white, bold appears intensified, and all other formats (except fonts) appear in a color other than the background color. Use *WORD /C* to start Word with color rather than graphics.

If you have a monochrome display and parallel printer adapter, normal characters appear in the display's normal color, bold appears intensified, and all other character formats (except fonts) appear underlined.

If you have a Hercules Graphics Card installed in your computer, you will be able to use it with Word in three different modes:

1. You can use the Hercules Graphics Card in high-resolution mode to provide high-resolution graphics on a monochrome display (9 by 14, instead of 8 by 8 font). Word automatically uses high-resolution graphics if the Hercules card is installed.
2. You can use the Hercules Graphics Card to create a 90-character by 43-line display instead of high-resolution mode by starting Word with the */H* option, as described in "Different Ways to Start Word."
3. You can use the Hercules Graphics Card with the */C* flag to start Word in monochrome text mode.

If you have a Microsoft Mouse and a color/graphics monitor and are using high-resolution graphics, the mouse pointer will change shape as it moves over sensitive areas on the screen. If you are using color, or a monochrome display and parallel printer adapter, the pointer will be a blinking square which changes in height as it moves through different areas of the screen.

Using Word With RAMDrive

If you are going to use Microsoft Word with Microsoft RAMDrive, or another electronic disk, your IBM PC should be equipped with at least 192K of memory for RAMDrive and 192K of memory available for Word. Otherwise, the RAMDrive will not improve Word's performance. Make sure that the RAMDrive is correctly installed, as described in the manual for the RAMDrive or other electronic disk.

To use Word with the RAMDrive, you need to:

1. Copy the following files from the Word Program disk in drive A to the RAMDrive: MW.PGM, MW.HLP, MW.INI, WORD.COM, and the .PRD file(s) for the printer(s) you will be using.
2. Change your default drive (or directory, if you are using DOS 2.0) to the RAMDrive.
3. Type *WORD* to start Word.

Since you would ordinarily have to repeat this process every time you start Word with RAMDrive, you can add the DOS commands which accomplish steps 1 and 2 to your AUTOEXEC.BAT file, so that these commands will be executed automatically when you start DOS. If you are using drive C for the RAMDrive, for example, add the following to the AUTOEXEC.BAT file:

```
COPY A:WORD.COM C:  
COPY A:MW.HLP C:  
COPY A:MW.PGM C:  
COPY A:MW.INI C:  
COPY A:EPSONFX.PRD C:  
C:\
```

Now, you need only type

```
WORD
```

to start Word from the RAMDrive. You can start Word with any options, such as /C or /L. Once you have started Word, you do not need to keep the Word disk in the drive, but if you want Word

to have a record of which options you chose with the Options, Printer Options, and Window Options commands during the editing session, you will have to copy the MW.INI file from the RAMDrive to the Word disk before turning off the computer.

If you prefer, you can place these commands in a different batch file (for example, WORDRAM.BAT), and use this batch file only when you want to use Word with the RAMDrive.

Using Serial and Parallel Printers

The capabilities of specific printers are described in detail in Appendix A, "Printing Documents With Word." This section describes procedures for connecting serial and parallel printers. For a complete list of the dot matrix and impact printers supported by Word, see Appendix A, "Printing Documents With Word."

Parallel Printers

Parallel printers must be connected through one of the parallel printer adapters LPT1:, LPT2:, or LPT3:.

Before starting Microsoft Word, connect your printer and test the connection by using the DOS PRINT command to print a sample text file (for example, AUTOEXEC.BAT). Once you have started Word, use the Print Options command to specify:

1. The name of the printer in the "printer" field (the .PRD filename, as given in the table above).
2. The name of the printer adapter in the "setup" field (LPT1:, LPT2:, or LPT3:). If no adapter is specified, Word will assume you are using LPT1:.

These fields remain in effect until you change them with the Print Options command, even if you quit Word and later restart the program.

Serial Printers

Serial printers must be connected through one of the asynchronous communications adapters. You can specify the appropriate adapter (COM1: or COM2:) in the Print Options “setup” field. Otherwise, you can redirect parallel output to the serial port, with the DOS MODE command:

```
MODE LPT1:=COM1:
```

Some printers are available in both parallel and serial models. If you are using a serial printer with the IBM Personal Computer, you need to use the MODE command to establish communications protocol. Serial protocol is needed to regulate the rate at which the computer sends characters to the printer.

The MODE command specifies the baud rate, the parity, the number of data bits, and the number of stop bits for serial data communication with the printer. You must also set the switches on the printer’s operator control panel for the baud rate, parity, and for ETX/ACK protocol that is used by Word.

Note

Word also supports the XON/XOFF protocol. See Appendix A, “Printing Documents With Word.”

Here are some sample MODE command settings:

Printer	MODE and Switch Settings
NEC7710 Spinwriter™	MODE COM1:30,N,8,1,P Switches: DIP6=Off;Speed=Off On,On(300 baud);Parity=Off,Off
Diablo 630 API™	MODE COM1:12,N,8,1,P Switches: Right DIPs2=Off; 3=Off,5=On(1200)
Qume Sprint 11 Plus™	MODE COM1:96,N,8,1,P Switches: DIPs3=On,4=On, 5=On(9600 baud);6=Off,7=Off, 9=On,10=On

If you use a serial printer, it is easier to include the MODE command in the AUTOEXEC.BAT file so that it will be executed automatically every time you start IBM Personal Computer DOS. If you have made your Word Program disk into a DOS System disk, as described in "Getting Started," you will be able to use the following procedure:

1. With DOS running, type the appropriate MODE command. Use the DOS PRINT command to print a file.
2. Start Word.
3. Load A:AUTOEXEC.BAT with the Transfer Load command.
4. Insert the text of the MODE command as the first line of the file. Do not disturb the text of the other commands in this file (for example, the setup for the Microsoft Mouse).
5. Transfer Save A:AUTOEXEC.BAT with the "formatted" field set to "No."
6. Quit Word, then restart DOS and Word.

Format Running-head

Edit, Gallery menus

FORMAT RUNNING-HEAD position: Top Bottom
 odd pages: Yes No even pages: Yes No first page: Yes No

Purpose

To indicate the page and positions where running heads will appear.

Remarks

The position of a running head is set with the Format Running-head command. Running heads may appear on the top or bottom of even- and odd-numbered pages, or first pages. Any or all of these may appear together on the document page. For example, one running head could be set to appear on the top of even- and odd-numbered pages; a second running head could appear on the top of the first page.

Word treats running heads as paragraphs. To create a running head, select the paragraph which contains the running head text, and use the Format Running-head command. A caret (^) will appear in the margin to the left of the paragraph, indicating that it is now a running head.

Once a paragraph is formatted with Format Running-head, it appears in the position you defined (e.g. top-odd), not where it appears in the text of the document. If two or more consecutive paragraphs are formatted as running heads with the same position and format, they will be treated as a single running head. Running heads remain in effect from the point in the document where they occur to the end of the division.

To turn a running head back into a normal paragraph, use the Format Running-head command and choose "No" in the "Odd," "Even," and "First" command fields. If, later in the text, you define a new running head which has the same position as an existing running head, it will supercede the old running head.

Note that a running head in the “top” position will be applied at the top of the next page after its occurrence in the text, unless it is the first text after a page break or a division break. It is a good idea to insert the text of running head paragraphs at the top of the page where they are to appear in the printed document. Also, since running heads are in effect only for the division in which they occur, the running head for a new division should be inserted immediately after the division mark.

Command Fields

position:

Choose an option. “Top” means that the first line of the paragraph starts at the top position, as specified in the “running head pos from top” command field of the Format Division command.

“Bottom” means that the first line of the paragraph starts in the bottom position (given in the “running head pos from bottom” command field).

odd pages:

Choose an option. “Yes” specifies that the paragraph is to appear on odd-numbered (recto) pages.

even pages:

“Yes” specifies that the paragraph is to appear on even-numbered (verso) pages.

first page:

“Yes” specifies that the paragraph is to appear on the first page of a division.

Jump Running-head

Edit menu

There is no Jump Running-head command in Microsoft Word version 1.1. See Format Running-head for information on creating running heads.

Running heads in documents created with Word 1.0 will format successfully with Word 1.1.

Library

Edit, Gallery menus

Purpose

To go to the Library menu, where you will be able to request additional tools to help you with your work on documents.

Remarks

The Library menu is reserved for future additions to the Microsoft Word program. For now, Microsoft Word simply returns to the main command menu when you carry out the Library command.

Print Merge

Edit Menu

PRINT MERGE:

Purpose

To print multiple versions of a document, such as a form letter, by combining the text of a main document with variable text for each copy of the document. The variable text may be taken from a datafile or entered from the keyboard at the time of printing. Print Merge also lets you print several files as a single document.

Remarks

See Appendix C, "Using Merge," for a detailed explanation of Merge features.

Merge Instructions

The following instructions may be inserted into a main document to be read by Word when a Print Merge command is carried out. Each instruction must be surrounded with « and » characters, which can be entered into the document with Ctrl- [and Ctrl-] respectively.

«ASK *field*=?[prompt]»

Prompts for the contents of *field* in each copy of a document when file is merged.

You may also specify a prompt. The prompt may contain a field name enclosed in « and », so that the contents of the field will be displayed on the screen as part of the prompt.

«DATA [*headerfile*,] *datafile*»

Inserts text from *datafile*. Header information for the data records is taken from *headerfile*, if specified; otherwise, the first data record in *datafile* is read as the header information.

«IF *field*='string'»text...«ELSE»text...«ENDIF»

Text between «IF» and «ENDIF» is inserted in the document, if the contents of the *field* are the same as the *string*. Otherwise, the text after «ELSE» is inserted if an «ELSE» is present.

«IF *field operator value*»text...«ELSE»text...«ENDIF»

Text between «IF» and «ELSE» is inserted if the contents of the *field* have the relationship to the *value* which is expressed by the *operator*. The *operator* may be >, <, or =. Otherwise, the text after «ELSE» is inserted.

«INCLUDE *filename*»

Inserts text of *filename* in primary document. There may be instructions in files that have been included.

«NEXT»

Reads next data record from *datafile* instead of waiting until the next copy of the document.

«SET *field*=value»

Sets the contents of *field* so that *value* does not need to be assigned for each copy of the document.

«SET *field*=?[prompt]»

Defines the contents of *field* when the file is merged, with an optionally specified prompt.

Print Options

Edit menu

PRINT OPTIONS printer:
 draft: Yes No queued: Yes No copies:
 range: All Selection Pages page numbers:
 feed: Manual Continuous Bin1 Bin2 Mixed setup:

Purpose

To review or to set options that control printing.

Remarks

Microsoft Word records the responses you enter in the following command fields during editing sessions:

printer
 draft
 feed
 setup

Note that if you have deleted the MW.INI file which records the name of the .PRD file you have chosen with Printer Options, Word attempts to load TTY.PRD. If the .PRD file you have named with Printer Options or the TTY.PRD file are not on the Word disk, you will see the following message:

Enter a printer name in Print Options

You must choose the .PRD filename corresponding to your printer before using the Print Printer, Print File, or Print Repaginate commands.

Command Fields

printer:

Enter a name, or use direction keys or the right mouse button to see the list of printer names. The response in this command field will be used by the Print Printer command and the “display” command field of the Options command.

See Appendix A, “Printing Documents With Word,” for a list of the printers Microsoft Word recognizes.

draft:

Choose an option. “Yes” prints the document without special character formats. On dot matrix printers, microspace justification will not be used. On impact printers, font changes will have no effect. The draft option provides a way to print a preliminary copy of your document at top speed, accurately printing line and page breaks, but not other formatting. The draft option is recorded between work sessions.

queued:

Choose an option. “Yes” allows you to continue editing while Microsoft Word prints the document. However, for “queued” printing to work, space on the disk must be available for a temporary file large enough to hold the queued printout.

copies:

Enter a number. Microsoft Word prints an entire copy first, then repeats the printing for each copy requested.

range:

Choose an option. You may use the range option to print only part of a document. The options are:

All	Prints all of the document
Selection	Prints only the selected text
Pages	Prints only the page numbers entered in the “page numbers” command field.

page numbers:

Enter a number or list of numbers. Separate consecutive pages by a colon (:) or hyphen (-). For example, 3:5 would print pages 3, 4, and 5. Separate nonconsecutive pages by commas (,). For example, 3,5,12 would print pages 3, 5, and 12. You may enter both consecutive and nonconsecutive pages. For example, 3:5,11 prints pages 3, 4, 5, and 11).

feed:

The feed options allow you to choose whether paper will be fed through the printer continuously or whether it will be loaded in sheets. If the printer has twin-sheet feed, you must choose among the options "Bin1," "Bin2," or "Mixed" to indicate from which bin paper will be fed.

Choose an option.

Manual	The printer will stop at the end of every page. Word waits for you to insert another sheet of paper and type <i>Y</i> to continue.
Continuous	The printer will print continuously to the end of the document.
Bin1	The printer will feed paper from bin 1 for all pages printed.
Bin2	The printer will feed paper from bin 2 for all pages printed.
Mixed	The printer will feed the first page from bin 1 and all other pages from bin 2.

setup:

Enter one of the following output port designations:

LPT1: LPT2: LPT3: COM1: COM2:

You must include the colon. Word will accept no other entries in this command field. To use COM1 or COM2, you must also set up an AUTOEXEC.BAT file with the correct DOS MODE command. See "Operating Information" for details. When you use the commands Print Printer, Print File, or Print Repaginate, Word looks for the .PRD file you have named with the Print Options command.

Print Printer

Edit menu

PRINT PRINTER:

Purpose

To print the active document.

Remarks

The Print Printer command uses all the responses in the Print Options command to print the document.

To cancel printing, press the CANCEL (Esc) key. Microsoft Word advances the paper to the top of the next sheet and returns to the Edit menu. Choose the Alpha command to reenter type-in mode.

To stop queued printing, use the Print Queue command.

If a printer error occurs during printing, Microsoft Word displays the "Printer not ready" message.

Quit

Edit menu

QUIT:

Purpose

To end an editing session and exit from the Word program.

Remarks

If you have no unsaved changes to any of the documents, style-sheets, or glossaries you are working with, the Quit command will end the Word work session. If you are working with a document that has unsaved editing or formatting changes, Microsoft Word will ask you whether you wish to save the current version of the document. The document in the first window will be highlighted and the following message will be displayed:

Enter Y to save, N to lose edits, or Cancel

If you type *Y*, the document will be saved before Word is terminated. If you type *N*, any unsaved changes to the document are discarded. If you press the Esc key, the Quit command is cancelled. If you wish to save the document without quitting Word, use the Transfer Save command.

You can also use the mouse to carry out the Quit command. If the Quit command is selected and carried out by clicking the right mouse button, all previously unsaved edits are automatically saved before the work session is ended. Quit will also check to see if there is an edited but unsaved glossary.

You will get separate confirmation messages for each document, glossary, and style sheet. If you use the right mouse button to confirm saving a document or glossary with no name, Word does not quit. The following message appears:

Not a valid file

Microsoft Word records some options that you have chosen with the Options, Print Options, and Window Options commands during the editing session. These options remain in effect during subsequent editing sessions, until you change them again. (See the Options, Print Options, and Window Options commands for details on selecting options.) The options recorded at the end of a session are:

Options

- mute
- measure
- overtyp
- display mode
- visible

Print Options

- draft
- printer
- setup
- feed

Window Options

- background color (of window #1 only)
- style bar (of window #1 only)
- ruler (of window #1 only)

Quit also saves the name of the document in window #1, the document's position in the window, and the document's read-only status. The document is loaded automatically when you start Word with the /L switch. (See the "Operating Information" section.) These options are recorded in the file MW.INI.

When you have confirmed that you wish to quit, the work session is ended and you will be returned to the operating system.

Replace

Edit menu

REPLACE text: _____ with text: _____
 confirm: Yes No case: Yes No whole word: Yes No

Purpose

To search for and replace the specified text.

Remarks

This command searches the document for the text in the “text” field and replaces it with the text in the “with text” field. You can also search for unspecified and special characters. You can use the question mark (?) to match any single character. For example, *Wo?d* as search text can find *Word*, *Wood*, or *Wold*.

You cannot use the question mark in this way in the “with text” command field. If you enter a question mark there, Word inserts a question mark during replacement.

You can also search for and replace text with special characters, which are not letters, numbers, or punctuation. To enter special characters, you precede one of the following characters with the ^ symbol.

Character	Meaning
^w	White space. Searches for any number and combination of spaces, tab characters, non-breaking spaces, newline characters, paragraph marks, division marks, and hard page break characters. The ^w special character cannot be used in the “with text” command field.
^s	Nonbreaking space.
^t	Tab character.
^p	Paragraph mark.
^n	Newline character.
^- (hyphen)	Nonrequired hyphen (see below for additional details).
^d	Division mark or page break.

If you precede any other character with the ^ symbol, Word takes that character at face value. For example, for ^? Word searches for a question mark. For ^^ Word searches for a ^ symbol.

If the search text contains only normal or nonbreaking hyphens, then Word will find all matching text, including text containing nonrequired hyphens. If the search text includes nonrequired hyphens, their positions must match the document exactly.

For example, if your search text is *type–writer*, Word will only find *type–writer* (that is, *type* followed by a nonrequired hyphen followed by *writer*). It will not find *typewrit–er* or *type-writer* when the hyphen is a normal or nonbreaking hyphen.

The direction of the search is always toward the end of the document. If the selection is a single character, then the search starts at the selection and goes to the end of the document. If the selection is more than one character, then the search goes from the first to the last character of the selection; only the text within the selection is searched.

If the “confirm” option is chosen, Microsoft Word will ask you to confirm the replacement. Type *Y* (for Yes) to replace. Type *N* (for No) to prevent replacement and to search for the next occurrence. Press the CANCEL (Esc) key at any time to cancel the command.

When the replacements have been made, Microsoft Word returns to the selection that was in effect before the Replace command was carried out. The total number of replacements made will appear on the message line. For example:

12 replacements made

Command Fields

text:

Enter text. The text may be up to 40 characters long. You can also replace with special characters, except *^w* and *^?*. See “Remarks” above for details. The text for the most recent replacement will be the proposed response.

with text:

Enter text. The text may be up to 40 characters long. You can also substitute unspecified and special characters. See “Remarks” above for details. The text for the most recent search or replace will be the proposed response.

confirm:

Choose an option. “Yes” asks you to confirm before replacing the text.

“No” replaces text without asking for confirmation.

case:

Choose an option. “Yes” searches for text that has exactly the same uppercase and lowercase letters as the specified “text” and replaces this text with exactly what you type in the “with text” command field.

“No” ignores “case” during the search. If the initial letter or all letters in the text to be replaced are uppercase, Microsoft Word will keep the same uppercase and lowercase configuration. For example, if *the* and *one* are the search and replacement text, then Microsoft Word will replace *the* with *one*, *The* with *One*, and *THE* with *ONE*.

whole word:

Choose an option. “Yes” searches for text that has leading and trailing word breaks (spaces, punctuation, etc.).

“No” searches for text anywhere, even embedded in other text.

Search

Edit Menu

SEARCH text:

direction: Up Down case: Yes No whole word: Yes No

Purpose

To search a document for the first occurrence of the specified text.

Remarks

This command searches the document for the text in the “text” field and selects the text. The search begins after the selection for a “Down” search or before the selection for an “Up” search.

The direction of the search and other options are defined by the other command fields.

You may also use the Search command to extend a selection by pressing the F6 (EXTEND) key, then entering the last part of the text you wish to include in the selection in the “text” field. If you are searching “up” in the document, enter the beginning of the text you wish to include in the “text” field.

Command Fields

text:

Enter text. The text may be up to 40 characters long. You can also search for special characters. See “Remarks” under the Replace command for details. The text for the most recent search or replace will be the proposed response.

direction:

Choose an option. “Down” searches toward the end of the document from the selection.

“Up” searches toward the beginning of the document from the selection.

case:

Choose an option. “Yes” searches for text that has exactly the same uppercase and lowercase letters as the specified “text.”

“No” ignores “case” while it searches.

whole word:

Choose an option. “Yes” searches for text that has leading and trailing word breaks (spaces, punctuation, etc.).

“No” searches for text anywhere, even embedded in other text.

Transfer Clear

Edit menu

TRANSFER CLEAR: All Window

Purpose

To start a new document.

Remarks

The Transfer Clear command clears only the active window. If there is only one window open, only this window will be cleared.

If there are unsaved changes to the documents you have loaded, the message

Enter Y to confirm loss of edits

appears when you carry out either the Transfer Clear All or Transfer Clear Window commands. Otherwise, Word will not ask for confirmation. If you type Y, any unsaved changes to the document in the active window will be lost. To save your changes, press the Esc key to cancel the Transfer Clear command, then use the Transfer Save command to save the document.

TRANSFER CLEAR ALL:

Clears the entire text area of all windows and text and reloads NORMAL.STY. Using Transfer Clear All is like starting up Microsoft Word again. The "% Free" in the status line is restored to 100%.

If you want to delete a document which was active during the editing session, use Transfer Clear All. You cannot use Transfer Delete to delete these documents.

Note

If you change data disks after using Transfer Clear All, use Transfer Clear All again to read NORMAL.STY from the current data disk.

TRANSFER CLEAR WINDOW:

Clears the contents of the named window.

Transfer Clear

Gallery menu

TRANSFER CLEAR:

Purpose

To start a new style sheet.

Remarks

Transfer Clear on the Gallery menu clears the contents of the style sheet currently loaded from the gallery. If the style sheet contains unsaved changes, the message

Enter Y to confirm loss of edits to style sheet

will appear. If there are no unsaved changes to the current style sheet, Word will not ask for confirmation. If you type Y, any unsaved changes to the style sheet will be lost. Pressing the Esc key cancels the Transfer Clear command. You can either continue editing the style sheet or save your changes with the Transfer Save command.

Transfer Glossary Save

Edit menu

TRANSFER GLOSSARY SAVE filename:

Purpose

To save the contents of the glossary buffers in a disk file.

Remarks

When you quit Microsoft Word, the contents of the glossary buffers are not saved automatically. To save the contents for use in a later session, use the Transfer Glossary Save command.

Command Field

filename:

Enter filename or select from list. The extension .GLY will be supplied automatically.

Transfer Load

Edit, Gallery menu

TRANSFER LOAD filename: read only: Yes No

Purpose

To load a document or a style sheet into the active window.

Remarks

Microsoft Word loads the document or style sheet you name from a file on disk. When the document is loaded, the total number of ASCII (alphanumeric, TAB, and RETURN) characters in the document will be displayed on the message line. For example, the following message and status lines indicate that there are 4895 characters in SAMPLE.DOC:

```
4895 characters  
Page 249 {}                      99% ? Microsoft Word: SAMPLE.DOC
```

If Word cannot find the file containing the document or style sheet on the disk, it assumes you wish to create a new document or style sheet. You will see the message:

Enter Y to create file

or

Enter Y to create style sheet

If you type *Y*, Word creates a new document or style sheet with the name you specified. If you did not intend to create a new document or style sheet, you may cancel the command by pressing the Esc key. You can use the direction keys to view the documents or style sheets available on the disk.

Use the “read only” field if you wish to view the document without fear of accidentally changing it.

Unformatted ASCII text files created by other programs can be loaded into Word. (See the Transfer Save command.)

Command Fields

filename: (style sheet name: *Gallery menu*)

Enter a filename, or use direction keys to view the directory. The list of filenames will show only those filenames that have the extensions .DOC (in the Edit menu) and .STY (in the Gallery menu). To enter filenames that end differently, type the filename. If you omit a filename extension, Word assumes you mean a filename that ends with .DOC or .STY. If the file you want to load has no filename extension, type the filename, followed by a period. See the Transfer command (Edit menu) for more information on entering a filename.

read only:

Choose an option. “Yes” means that the document is treated as a “read only” file. You may display the document but cannot make changes to it.

“No” means that you can edit the document.

Transfer Merge

Edit menu

TRANSFER MERGE filename:

Purpose

To merge the active document with another document.

Remarks

File contents are inserted into the active document in front of the selection.

Command Field

filename:

Enter filename. See the Transfer command (Edit menu) for further information.

Transfer Rename

Edit, Gallery menus

TRANSFER RENAME filename:

Purpose

To rename the active document or style sheet.

Remarks

This command changes the name of the active document or style sheet shown and printed in the status line to the specified name. If the active document name is also the name of a file on the current disk, the command changes the name of the file as well.

Command Field

filename:

Enter filename or select from list. See the Transfer command (Edit menu) for more information on entering a filename. If the new name is the name of a file that already exists on the current disk, Microsoft Word cancels the command and displays the message:

Cannot rename file

Transfer Save

Edit, Gallery menus

TRANSFER SAVE filename: formatted: Yes No

Purpose

To save a document or a style sheet in a file on disk.

Remarks

Microsoft Word saves the document or style sheet in the file you name. When the document has been saved, Word displays the total number of ASCII (alphanumeric, TAB, and RETURN) characters in the document on the message line.

After the document or style sheet is saved, you can continue to edit. If a document is saved on the same disk the document was loaded from, the old version of the file will be retained as a backup with the file extension .BAK. To save the space used by the backup file, you can delete this file during a later session with the Transfer Delete command.

If you type a filename for the document that is different than the proposed response, Word will display one of two messages. If you give the name of another document on the disk, you will be asked whether you want to "overwrite" the existing file. You must confirm that you want to replace the previous contents of this file with the document you are saving. If you give a new name to the document, you will see "Enter Y to create." You must confirm that you want a new file created.

Clicking the right button of the mouse on the command word of the Transfer Save menu will automatically save the document under the current filename.

Command Fields

filename: (style sheet name: *Gallery menu*)

Enter filename. See the Transfer command description for more information on entering a filename. The appropriate extension (.DOC in Edit menu, or .STY in Gallery menu) will be supplied automatically.

formatted: (*Edit menu only*)

Choose an option. “Yes” (the proposed response) means that the document and its formatting are saved.

“No” means that the document text is saved as a standard ASCII file without any formatting information. Unformatted Word files contain only alphanumeric, TAB, RETURN and LINEFEED characters. You may wish to use unformatted files as input to another program that expects ASCII text only.

Appendix A

Printing Documents With Word

This appendix has two major sections:

A general description of the generic fonts available with Microsoft Word, and a list of fonts available for the popular dot matrix and impact printers that are currently supported.

A technical description of how to create .PRD specification files for printers not directly supported by Microsoft Word at this time, including laser printers and phototypesetters.

For information about using the Print commands, see Chapter 10, "Command Directory." For information about how to use Microsoft Word with parallel and serial printers, read the "Operating Information" section at the beginning of this manual. If you do not know how to connect or operate your printer, read your printer manual before attempting to print documents produced by Microsoft Word.

Direct Support for Printers

The table below lists the currently supported dot matrix and impact printers, with the names of the corresponding .PRD files on your Microsoft Word disk:

Dot Matrix Printer	.PRD File
Epson MX-80	EPSONMX
Epson MX-80 with Graftrax-80	GRAFTRAX
Epson MX-80 with Graftrax Plus	EPSONMXG
Epson RX-80	EPSONRX
Epson FX-80	EPSONFX
IBM Personal Computer Graphics Printer	IBMGRAPH
Okidata Microline 92	OKI92
Okidata Pacemark 2350, 2410	OKI2410
Texas Instruments Model 850	TI850
Toshiba P1350	TOSH1350

Impact Printer	.PRD File
C. Itoh Starwriter FP-1500-45P	ITOHSTAR
Diablo Model 630 API	D630A
NEC Model 3550 Spinwriter	NEC3550
NEC Model 7710 Spinwriter	NEC7710
Qume Sprint 11 Plus	QUME11

Teletypes

Teletype	TTY
Teletype (with backspace)	TTYBS

Before printing a document, use the Print Options command to choose the .PRD file which corresponds to your printer. To print a document on any device not listed above, follow the steps described in the "Other Printers" section of this appendix.

Fonts

The attributes that control the appearance of printed characters in a document are the font, the font size, and whether the character is boldface or italic. Word gives you the flexibility to print a document on different printers with different capabilities. You can specify font information for some commonly used printers, or you can use the generic, printer-independent specification described at the end of this appendix.

There are 64 generic fonts divided into several classes, with names reflecting how they are intended to be used. Each of these classes contains a number of variants, designated by a single letter (e.g., “Roman a”). The classes are:

Modern a-Modern p

Modern fonts. Composed of lines of uniform width, either without serifs (“sans-serif”) or with serifs of the same line quality. Most typewriter fonts are in this class.

Roman a-Roman p

Roman fonts. Classical design with serifs and strokes of varying width.

Script a-Script h

Script fonts. Slanted characters formed from nearly continuous curved lines.

Decor a-Decor h

Decorative fonts; used for titles.

Foreign a-Foreign h

Foreign fonts. Greek, Kana, and other foreign character sets. Fonts that expand the English alphabet by only a few characters or diacritical marks are not included in this group.

Symbol a-Symbol h

Symbol fonts. The character sets in these fonts do not correspond to any alphabet, but are composed entirely of special symbols.

The printer description file (.PRD) specifies which fonts are available for the printer. The generic fonts, font size, and bold and italic attributes are described. If a printer has already been specified with the Print Options command, printer-specific font names will automatically be supplied in style sheets and in any appropriate command fields, followed by the generic name in parentheses. For example:

Pica (Modern a)

If the specified printer is changed with the Print Options command, the font displayed on the screen will change according to the definition of Modern a for that printer. If the font is not defined at all for the specified printer, only the generic name will be displayed:

Modern a

For any font not defined for a printer, Word will automatically substitute a font in the same class. If no fonts of the same class are defined, then Word will substitute a font in the first classification available. If a font size is unavailable, the next smallest size will automatically replace it. If bold or italic attributes are unavailable, they will be ignored in printing.

The following sections describe the fonts available for each of the supported printers. In general, some characters appear in all character sets, such as the letters of the English alphabet, the digits, and punctuation marks, as defined in the ASCII standard. Other characters differ for different character sets. (See your printer documentation for the list of characters.)

Dot Matrix Printers

Dot matrix printers have built-in fonts. The names of the fonts used by Word are listed below, followed by samples of each font.

Epson MX-80 Series, Texas Instruments 850, and IBM Personal Computer Graphics Printer

The Epson MX-80 series, IBM Personal Computer Graphics, and Texas Instruments 850 printers have the following fonts available:

Fonts	Sizes	Bold	Italic
Pica (Modern a)	8, 12, 14, 16	12, 16	Yes (Epson MXG only)
PicaD (Modern b)	8, 12, 14, 16	12, 16	Yes (Epson MXG only)

A table of each font and its possible attributes is given below:

Pica	B	ABCDabcd1234		ABCDabcd1234
Pica	12	ABCDabcd1234	ABCDabcd1234	ABCDabcd1234
Pica	14	ABCDabcd1234		ABCDabcd1234
Pica	16	ABCabc123	ABCabc123	ABCabc123
Picad	B	ABCDabcd1234		ABCDabcd1234
Picad	12	ABCDabcd1234	ABCDabcd1234	ABCDabcd1234
Picad	14	ABCDabcd1234		ABCDabcd1234
Picad	16	ABCabc123	ABCabc123	ABCabc123

Note that the font PicaD is printed in the printer's double-strike mode. The emphasized mode is used for bold characters. The 8-point size is compressed, 12 is normal, 14 is double-width compressed, and 16 is double-width mode.

Neither the Epson MX-80 (without Grafrax Plus) nor the Texas Instruments 850 support italics. The compressed fonts cannot be made bold. Word does not support microspace justification on any of these models.

If you have an IBM Personal Computer Graphics Printer, characters that do not appear on the keyboard (character codes up to 255) will be printed. Hold down the Alt key while typing a character code on the keypad. For example, to enter character code 128, hold down the Alt key and type *128* on the keypad.

Word will try to approximate characters 128-167 for printers other than the IBM Personal Computer Graphics Printer. (Most of these are characters in foreign character sets.) For a complete list of character codes 128-167, use the Word Help command.

Epson FX-80 and Epson RX-80

The following fonts are available for the Epson FX-80 and Epson RX-80 printers:

Fonts	Sizes	Bold	Italic
Pica (Modern a)	8, 12, 14, 16	12, 16	Yes
PicaD (Modern b)	8, 12, 14, 16	12, 16	Yes
Elite (Modern c)	10, 15	No	Yes
EliteD (Modern d)	10, 15	No	Yes
PS (Roman a)	12, 16	Always bold	Yes

A table of each font and its possible attributes is given below:

PS	12	ABCDabcd1234		<i>ABCDabcd1234</i>
PS	16	ABCabc123		<i>ABCabc123</i>
Pica	8	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Pica	12	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Pica	14	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Pica	16	ABCabc123	ABCabc123	<i>ABCabc123</i>
Picad	8	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Picad	12	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Picad	14	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Picad	16	ABCabc123	ABCabc123	<i>ABCabc123</i>
Elite	10	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Elite	15	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Elited	10	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>
Elited	15	ABCDabcd1234	ABCDabcd1234	<i>ABCDabcd1234</i>

The fonts PicaD and EliteD are printed in the printer's double-strike mode. The emphasized mode is used for bold characters. The 8-point size is condensed, 10 and 12 are normal, 14 is double-width compressed, 15 and 16 are double-width. There is no superscript or subscript available with the PS font, but a fixed-pitch font will be automatically substituted.

Note that there is no microspace justification for the Epson RX-80. Only the Epson FX-80 has the PS (proportional space) font.

The Epson FX-80 will not support page widths wider than 8 inches. Change the page width specification in the NORMAL.STY style sheet to reset the default page width to 8 inches.

Okidata Microline 92

The following fonts are available for the Okidata 92 printer:

Font	Sizes	Bold	Italic
Pica (Modern a)	8, 12, 14, 16	12, 16	No
PicaD (Modern b)	8, 12, 14, 16	12, 16	No
Elite (Modern c)	10, 15	No	No
EliteD (Modern d)	10, 15	No	Yes
PicaC (Modern e)	12, 16	No	No

PicaC uses the Okidata “correspondence quality” mode.

Okidata Pacemark 2410

The following fonts are available on the Okidata Pacemark 2410:

Font	Sizes	Bold	Italic
Pica (Modern a)	8, 12, 14, 16	12, 16	No
Elite (Modern c)	10, 15	No	No
PicaC (Modern e)	12, 16	No	No

PicaC uses the Okidata “correspondence quality” mode. Note that the 2410 does not have a double-strike mode.

Okidata Pacemark 2350

The following fonts are available on the Okidata Pacemark 2350:

Font	Sizes	Bold	Italic
Pica (Modern a)	12, 14, 16	12, 16	No
Elite (Modern c)	10, 15	No	No

Toshiba P1350

The Toshiba P1350 has the following fonts available:

Font	Sizes	Bold	Italic
Pica	12, 16	Yes	No
Courier	12, 16	Yes	No
Prestige Elite	10, 12, 15, 16	Yes	No

The Toshiba P1350 does not support italics. Bold is implemented by double-striking.

Impact Printers

On an impact printer, Word character attributes specify a printing element which must be mounted manually on the printer. Printing elements are measured by “pitch,” the number of characters per inch. The common pitches are: 10, 12, 15, and PS or “proportional space.” In Word, fonts are measured by their size in points. (One point equals 1/72 inch.)

The correspondence between pitch and font size is as follows:

10-pitch	12 points
12-pitch	10 points
15-pitch	8 points
PS	12 points (by convention)

The 10-, 12-, and 15-pitch fonts are called “fixed pitch” because the widths of all characters in the font are the same. In PS (proportional space), some characters are wider than others.

Before printing starts, and every time the italic or font-related character attributes in the printed text change, the following message appears:

Enter Y after mounting *font name*

The message will provide the name of the correct font to mount, but Word does not check whether you have actually mounted the correct printing element. Thus, you can substitute a printing element not listed in the printer description file for the printer. The substituted element must be of the same pitch as the font listed in the printer description.

Normally, font changes in documents prepared for impact printers will be rare. Typically, the printing element prompt will appear only once at the beginning of the printing. In documents queued for printing, you will not be able to change printing formats while printing documents.

Boldface is implemented on impact printers using the printers' own emphasized mode, if any, or by double-striking the bold characters. Underline, double-underline, and strikethrough are implemented by the printer hardware or by Word automatically.

The available fonts and font sizes for specific printers are listed in the next table. The printer description file for these printers includes the names of the most popular printing elements. Other elements which have bold and italic variants are available from catalogs. Fonts not listed here may be substituted for listed fonts of the same pitch.

If you are using PS elements, you will need to set switches on the operator's panel of the printer manually. The correct switch settings depend on the PS wheel used. (See your printer manual for instructions.)

NEC Spinwriter Model 3550 and 7710

The following fonts are available for the NEC Spinwriter Models 3550 and 7710:

Fonts	Sizes
Pica (Modern a)	12
Courier (Modern b)	12
Elite (Modern c)	10
Prestige (Modern d)	8, 10
Gothic (Modern e)	10
OCR-A (Modern o)	10
OCR-B (Modern p)	10
BoldPS (Roman a)	12
EmperorPS (Roman b)	12
TimesRoman (Roman i)	10, 12
Script (Script a)	10
Focus (Decor a)	12
Greek (Foreign a)	10
Kana (Foreign b)	10, 12
Russian (Foreign e)	12
Symbol (Symbol a)	10, 12

Daisywheel (Qume Sprint 11, C. Itoh Starwriter, Diablo 630 API)

The printer descriptions include the most popular daisywheels. Unlisted fonts may be substituted for listed fonts of the same size, as described above. The use of PS fonts requires that the switches on the operator's panel of the printer be set manually. (See your printer manual for instructions.)

Fonts	Sizes
Pica (Modern a)	12
Courier (Modern b)	12
Elite (Modern c)	10
Prestige (Modern d)	10, 12
LetterGothic (Modern e)	8, 10
GothicPS (Modern f)	12
CubicPS (Modern g)	12
Titan (Modern h)	10, 12
OCR-A (Modern o)	12
OCR-B (Modern p)	12
BoldPS (Roman a)	12
TrendPS (Roman b)	12
RomanPS (Roman i)	12
Script (Script a)	10
ScriptPS (Script b)	12
Narrator (Decor a)	12
Emphasis (Decor b)	12
Kana (Foreign b)	10, 12
Hebrew (Foreign c)	10

TTY and TTYBS printers

The printer description file TTY can be used for any TTY printer without backspace; the printer description file TTYBS can be used for any printer with backspace.

The only available font is:

Font	Size
Pica (Modern a)	12

Note that TTY and TTYBS implement only the bold, underline, and strikethrough character attributes. Underline is substituted for double underline and italics. Microspace justification and fractional line spacing are rounded to integral spacing.

Other Printers

To print documents on printing devices other than those described in the previous section, including laser printers and phototypesetters, a number of components must be available. An imaging device driver must be written to convert the MSPrint file format generated by Word into the control sequences of the particular device. Then, a printer description file can be created for each printer.

The name of this file will be displayed along with the other printer description filenames in the Print Options command. The file lists the available fonts on the device and the dimensions of the characters in each font. The file also specifies that the Print command produce output on a Microsoft Print file which provides all the information necessary for the production of page images.

With the information specified by the .PRD file, Word can:

1. List the available fonts in the Format Character command or on the style sheet.
2. Lay out the lines and pages of documents according to the precise character dimensions.

Microsoft Print File

If you select "MSPRINT" instead of one of the printers in the Print Options command, the document will be printed to a printer control file which can serve as a demonstration of the method of connecting Word to an external imaging device, such as a phototypesetter or laser printer.

The Microsoft Print printer description lists the following demonstration font names:

Fonts	Sizes
Roman (Roman a)	12 (fixed pitch)
Modern (Modern a)	12 " "
Script (Script a)	12 " "
Decor (Decor a)	16 " "
Foreign (Foreign a)	12 " "
Symbol (Symbol a)	12 " "

The Microsoft Print (MSPRINT) File Format

A Microsoft Print file contains all the information necessary to produce page images, including the precise position of every character on every page of the document. The Microsoft Print file does not, however, contain the source attributes (e.g., justification) that determine the format of the document; MSPRINT is a communication format from the Word program to the imaging printer.

The Microsoft Print file is written in printable ASCII codes. The file contains a list of commands separated either by blanks or by a CR/LF (carriage return followed by linefeed) combination. Each command contains a list of operands, which are either numbers or text, as defined below. The last item in each command is the operation.

Text operands appear in the format:

(body)

Apostrophes and parentheses in the body must be preceded by an extra apostrophe (').

The operations and their operands are as follows:

- | | |
|-------|---|
| x y P | Position; x and y are integer coordinates in 1/20-point units. Coordinates start at the upper left corner of the sheet and increase down and to the right. Position baseline pointer for text to follow to coordinates x and y. |
| t S | Show; t is text. Show text in current font and face at current position. Advance the appropriate number of positions. |
| n C | Character. Show character with character code n (a decimal integer). |
| x J | Set the width of blanks (ASCII 0X20) to x 1/20-point units to simplify justification. |
| LU | Draw underline relative to current baseline and with weight appropriate to current font from current position to the next LE. |
| LE | End of underline (or double underline, strike-through, leader dots). |
| LD | Draw double underline. |
| LS | Draw strikethrough. |
| n LL | Leader dots. Draw leader dots, with pattern n where n is a number. Patterns are: 0 for dots, 1 for hyphens, and 2 for underline. |

- n s F Font; n, s are numbers. s may have the decimal fraction .5. Set current font to the font known as font n in the .PRD file and font size s. The font size is given in points. Half-point specifications are permitted.
- B Boldface. Changes current font to boldface.
- I Italic. Changes current font to italic.
- BI Bold Italic. Changes current font to bold and italic.
- E Changes current font to not bold, not italic.
- PE Page ends.
- x SFL The page length is x (1/20-point units). This information may be checked by the printer driver against its model of the paper stock.

For example, the following text

This is an example of a
Microsoft Print (MSPRINT) file.

will result in the following Microsoft Print file:

```
15840 SFL
1800 1680 P (This) S 345 J (is an example of a) S
1800 1920 P B (Microsoft) S 144 J (Print) S E ('(MSPRINT) file.) S
PE
```

Assignment of Font Numbers

For compatibility between independently produced imaging device drivers, font number assignments should be made as close as possible to the following:

Font No.	Generic font name	Reserved for
0	Modern a	Printer's Standard Modern
8	Modern i	Helvetica*
9	Modern j	Avant Garde*
10	Modern k	Spartan*
11	Modern l	Metro*
14	Modern o	OCR-A
15	Modern p	OCR-B
16	Roman a	Printer's Standard Roman
24	Roman i	Times Roman*
25	Roman j	Century*
26	Roman k	Palatino*
27	Roman l	Souvenir*
28	Roman m	Garamond*
29	Roman n	Caledonia*
30	Roman o	Bodoni*
36	Script e	Commercial Script*
37	Script f	Park Avenue*
40	Foreign a	Greek
41	Foreign b	Kana
42	Foreign c	Hebrew
52	Decor e	Old English

* Use of the font(s) may be conditional upon a license grant from the owner(s) of the font(s). Microsoft makes no representation as to the quality or performance of the font(s), and reference to the font(s) does not grant any license or right to use the font(s).

Specification for a Printer Description (.PRD)

This description is given for the benefit of programmers or manufacturers who wish to adapt new printers or new fonts to Microsoft Word. If your printer is listed in Appendix A, you do not have to read the following technical information.

Files with the extension .PRD are printer description files. The name of a .PRD file is the name of that printer. Word will show the printer names in the Print Options command.

.PRD files have a specific binary format that is composed of the following sections.

1. Header
2. Font directory
3. Font descriptions
4. Character width table
5. Character translation tables
6. Printer control sequence descriptions
7. Printer control sequences

Unless otherwise specified, all measurements are expressed in units of 1/1440th of an inch (1/20th of a printer's point).

Header Section

This section identifies the file as a .PRD file, contains general information about the printer, and contains pointers to the other sections.

Byte	Name	Information
0-1		The number 0XBE31 (low byte first, as in all words)
2-3		The number 3
4-5		The number 0XAB00
6-13		Zeros
14-15		Low order 16 bits of length of file in bytes
16-17		High order 16 bits of length of file
18-19		Length of file in bytes/128 (rounded up)
20-21		" " " " "
22-23		" " " " "
24-25		" " " " "
26-27		" " " " "
28-29		" " " " "
30-127		Zeros
128-191		Reserved for future use (zeros)
192-193	CF	Count of fonts in file
194-195	XM	Smallest horizontal printer head movement
196-197	YM	Smallest vertical printer head movement
198-199		Unused
200-201		Printer type: 0 MSPrint, 1 dot matrix, 2 print wheel, 3 other
202-203		Microspace justification flag bit 0X1: don't do microspace justification. If bit is set, spaces will be used for justification and XM will be used only as units in WTPS below. If bit is not set, the width of spaces may be varied by XM.

Byte	Name	Information
		bit 0X4: apply half-width correction for PS fonts. This means that before printing a character the carriage must be advanced by 1/2 the width of the previous character plus 1/2 the width of the current character.
204-205		Flag reserved for future use
206-207		Serial interface word bit 0X8000: indicates serial printer bit 0X4000: use ETX/ACK bit 0X2000: use XON/XOFF
208-209	FCDB	Absolute byte address of start of FCDs
210-211	CTTB	" " " " " CTTs
212-213	PCDB	" " " " " PCDs
214-215	PCSB	" " " " " PCSs
216-217	PCSBMAX	" " " " end of PCSs + 1
218-255		Reserved for future use (zeros)

Font Directory

Maps the font numbers to font descriptions. (For font numbers, see the section, "Assignment of Font Numbers.")

Byte	Information
256-511	A table with CF entries. Each entry consists of two words (four bytes): 0-1: font number n 2-3: byte offset from FCDB to FCD describing font
512-??	Extension area for future use. Size of area may be adjusted by changing FCDB.

Font Descriptions

Includes pointers to character substitution table, descriptions of available font sizes and faces (bold, italic, etc.), printer control sequences, and the font name. These quantities are collected into variable size data structures called FCD. The FCDs are stored consecutively, starting at FCDB.

The fields in an FCD are as follows:

Byte	Name	Information
0-1:	CTP	Character substitution table pointer. The table is at byte $CTP * 16 + FCDB$. Zero indicates no associated table.
2-3:	CPSD	Count of PSDs. There is one PSD for each size of font.
4-??:	PSDs	Each PSD is 18 bytes long, as described next.
??-??:		Font name is zero-terminated ASCII string immediately following PSDs for this font.

A PSD describes a particular size of the font using the following structure:

Byte	Information
0-1:	Font size in 1/2-point units.
2-3:	WTP for normal face (see below for definition of WTP.)
4-5:	WTP for italic face.
6-7:	WTP for bold face.
8-9:	WTP for bold italic face.
10-13:	Begin font (printer control sequence descriptor. See the section, "Printer Control Sequence Descriptions.") mod=1: Can not make this font bold. mod=2: Use set char spacing command when changing to this font. mod=4: Set char spacing parameter is doubled by printer. mod=5: Ignore control sequence in draft mode.
14-17:	End font.

A WTP describes the width of the characters in the font either directly (for fixed pitch fonts) or by reference to a width table:

$WTP < 0xFF00$ means that $WTP * 16 + FCDB$ is actual position of width table.

$WTP = 0xFF00$ means font is not available.

$WTP > 0xFF00$ means that font is fixed pitch. The width of characters is given in second byte in units of XM.

Character Width Tables

Fonts with variable pitch must define the widths for each character in the font. Width tables always start on a 16-byte boundary relative to FCDB. The first width table will follow the last FCD as close as possible.

Width tables contain:

Byte	Information
0-1:	Font size in 1/2-point (1/144th of an inch) units. This need not be the same as the corresponding word in a PSD that points to this table. The data for any width may be obtained by scaling the amount in the table by the ratio of the two sizes. In this way, multiple PSDs may point to the same width table. (However, this field is currently unused.)
2:	First character code defined in table.
3:	Reserved for future use.
4:	Last character code defined in table.
5:	Reserved for future use.
6-??:	Table of character widths, 2 bytes for each character in the defined range.

Character Translation Tables

Before printing, a character code may be replaced by up to two codes for characters that, when overstruck, can represent the original character code. The purpose of the character translation table is to implement printing of special characters that may have different internal and printer codes. A second substitution character provides diacritical marks, for example.

Character translation tables are addressed relative to FCDB and must start on a 16-byte boundary relative to FCDB.

The format of the CTT is as follows:

Byte	Information
0-1:	Number of CSDs in table.
2-??:	CSDs.

A CSD contains:

Byte	Information
0:	First character code in block of codes that have substitutes.
1:	Last character code in block.
2-??:	Table of two character codes to be substituted (struck over each other, unless the second one is 0) for each character in block. Length of table is: $(\text{last} - \text{first} + 1) * 2$ bytes.

Printer Control Sequence Descriptions

Printer control sequences are control character sequences that are to be sent to the printer to create specific effects. The table of PCDs starting at PCDB contains an entry for each desired effect. The PCD then describes what needs to be done to create the proper control sequence.

Every PCD has the following 2 words (4 bytes):

Byte	Information
0-1:	PCSB relative byte pointer to start of control sequence.
2: mod	Modification byte that distinguishes different uses of the sequence. Mod=0, the default value, is not listed separately.
3:	Length of control sequence in bytes. Zero indicates that printer has no control sequence for this function.

Certain control sequences that require a parameter are described in two PCDs: the “first part” and the “second part”. The parameter character will be output between the first and the second part. To help with calculating the parameter character, the first part PCD has two additional bytes:

Byte	Information
4:	Magic number to be added to parameter.
5:	Maximum value of parameter. If the desired effect is larger than this value, the control sequence will be repeated with the maximum parameter sufficient times and then with the remainder.

By using the “mod” bytes, Word can be commanded to simulate a desired effect by alternative means. In particular, a BS (backspace) pass, or a CR (carriage return without linefeed) pass is available to reposition the carriage to earlier text output. If mod =0, the control sequence is simply output at the beginning (or end) of the place of the desired effect.

The PCDs are arranged as follows:

Byte	Information
0-3:	Reset printer, beginning of document.
4-7:	Reset printer, end of document.
8-13:	Set form length, first part. mod=1: use form length set by printer switch. mod=2: Qume hex format. mod=3: count of newlines (NEC7710). mod=4: MSPrint.
14-17	Set form length, second part.
18-23	Set line spacing, first part. The parameter is expressed in YM units with the magic number added. mod=1: temporary line space (EpsonMXG). mod=2: suppress newline after carriage return.
24-27	Set line spacing, second part.
28-33	Set char spacing, first part. The parameter is expressed in XM units with the magic number added. Extra spaces are used if desired spacing is greater than maximum value. mod=3: (Epson) graphics mode is used to effect char spacing.
34-37	Set char spacing, second part.
38-41	Bin1 begin (e.g. for sheet feeder control).
42-45	Bin1 end.
46-49	Bin2 begin.
50-53	Bin2 end.
54-57	Line begin.
58-61	Line end.
62-65	Text (other than control information) begin (MSPrint only).
66-69	Text end.
70-127	Reserved.
128-131	Begin bold. mod=1: BS pass (double strike). mod=2: CR pass. mod=3: print wheel change.
132-135	End bold.

Byte	Information
136-139	Begin italic. mod=3: print wheel change. mod=4: use underline instead.
140-143	End italic.
144-149	Begin underline. mod=1: BS pass (uses underscore characters). mod=2: CR pass. mod=3: graphics mode.
150-153	End underline.
154-159	Begin strikeout. mod=1: BS pass (uses hyphens). mod=2: CR pass. mod=3: graphics mode.
160-163	End strikeout.
164-169	Begin double underline. mod=1: BS pass (uses underscore characters, unless control sequence also specified). mod=2: CR pass. mod=3: graphics mode. mod=4: use underline.
170-173	End double underline.
174-179	Begin superscript. mod=2: CR pass (uses line spacing).
180-183	End superscript.
184-189	Begin subscript. mod=2: CR pass (uses line spacing).
190-193	End subscript.
194-255	Reserved.

Printer Control Sequences

The control sequences start at PCSB. The starting points relative to PCSB and the length of the sequences are both encoded in the PCDs above.

Appendix C

Using Merge

This appendix describes how to use Merge any time you need to produce multiple versions of documents, such as form letters. Merge combines the text of a main document with a datafile containing the text that varies in each copy of the document. These datafiles can be prepared with Microsoft Word, or may be ASCII files from other application programs, such as dBaseII.

You can also combine two or more documents, use different text in different versions of a document, and enter text at the keyboard while you are printing the documents. At the end of this appendix is a summary of Merge instructions and a list of the messages you see when you use the Print Merge command.

To prepare a form letter or other document to use with Merge:

1. Enter and format the text of the document, just as you would any document created with Word. This document contains special fields that specify where the variable text for each copy of the document will be inserted when it is printed.
2. Prepare a datafile containing the text to be inserted in each copy of the document. Once the main document and the datafile are ready, use the Transfer Load command to load the main document.
3. Use the Print Merge command to print all the versions of the document.

Field Names and Instructions in Documents

The main document prepared for Merge is much like any other document you create with Microsoft Word: it can contain any text and formatting you wish. The document also contains special fields and instructions for Merge to read when a Print Merge command is carried out.

Each field contains the name of the data item to be inserted in the document. These fields must be surrounded with the symbols « and ». To input these symbols, press Ctrl-[to get « and Ctrl-] to get ». (You can also hold down the Alt key and type 174 on the number pad of the keyboard to input the «, and hold down the Alt key and type 175 to input the ».) The field name must correspond to a field in the datafile. For example, you could prepare a form letter which begins like this:

Dear «name»,
Spencer Ceramics has received your order for
«quantity» «item»...

In this example, there are three fields: “name,” “quantity,” and “item.” When the document is printed with the Print Merge command, each of these three fields is replaced by a real name, quantity, and item supplied from a datafile. At the time of printing, you can create any number of copies of this letter, each with a different name, quantity, and item filled in automatically. The first copy of your letter might read:

Dear Mr. Smith,
Spencer Ceramics has received your order for
three lawn fawns . . .

The second copy of your letter might read:

Dear Joe,
Spencer Ceramics has received your order for
two dozen gold-speckled boomerang ashtrays . . .

The third copy of your letter might read:

Dear Miss Mannerly,

Spencer Ceramics has received your order for
38 Presidential Commemorative "Bread-and-Butter" Plates . . .

Keep the following in mind when preparing a main document:

The text inserted into the main document will have the same formatting characteristics as the first character of the field name.

Extra spaces outside fields will appear in the printed document.

Extra spaces inside fields will be ignored.

In addition to fields, the document can also contain "instructions," which provide other information to Merge at print time. Like fields, instructions are separated from the surrounding text with the characters « and » (input with Ctrl-[and Ctrl-]). A paragraph marker may be used instead of » to end an instruction, if you want to specify the end a paragraph as part of the instruction. These instructions are described in the following sections.

Telling Merge Where to Find Variable Text

To tell Merge which datafile contains the text you want to insert in the main document, use the DATA instruction. If the datafile containing your customer orders is named ORDER.TXT, for example, type the following data instruction at the beginning of your form letter:

```
«DATA ORDER.TXT»
```

If the datafile has an extension in its name, give the full name in the DATA instruction.

What's in the Datafile?

The datafile can be an ordinary document prepared with Microsoft Word, any ASCII file, or the ASCII output of a database program, such as dBaseII. In each datafile, there are one or more data records. Data records have the following format:

Each data record may have up to 256 fields.

Fields in the data record must be separated by either a comma (,) or a TAB character.

Each data record must end with a paragraph marker (RETURN character).

The first data record of a datafile is normally a special header record, which names the fields for the data records which follow. These field names correspond to the fields in the main document. Note the following about fields:

Field names must be less than 65 characters long.

Fields in the data records must be in the same order as the field names in the header record. Field names do not need to appear in any special order in the main document.

Fields which contain commas or quotation marks must be surrounded with quotation marks. Quotation marks within field values must be doubled.

For example, the datafile for the letter in the previous example would look like this:

name, quantity, item

Mr. Smith, three, lawn fawns

Joe, two dozen, gold-speckled boomerang ashtrays

Miss Mannerly, 38, "Presidential Commemorative ""Bread-and-Butter"" Plates "

The first line of this datafile is the header record, containing the three field names "name," "quantity," and "item." The next three lines are data records, containing the information to be supplied for each copy of the merged document. Notice the use of quotation marks in the last data record above.

To use quotation marks in a field, you must type two sets of quotes. For example, to print the following text in the form letter:

Presidential Commemorative "Bread-and-Butter" Plates

type this in the datafile:

"Presidential Commemorative ""Bread-and-Butter"" Plates"

To prevent Merge from reading a comma as a field separator, you must put a field containing a comma in quotation marks. For example, your data record might read:

"Jones, Inc.", five, coffee mugs

Otherwise Merge will read "Jones" and "Inc." as two fields. The quotation marks will not appear in the printed document.

Using Header Files

You can also place the header record in a separate header file. Separate header files are useful if your datafile is the output of another program, such as a database program. You can change datafiles and still use the same header file to provide the field names.

If you choose to prepare a header file, it should look like the header record of a datafile. For example, if you put the header record in the example above in a header file, the header file would look like this:

name, quantity, item

Header files must be named along with the datafile in the DATA instruction. For example, if the header information for the datafile ORDER.DOC is in a file called ORDERHF.DOC, then insert the following DATA instruction in the main document:

«DATA ORDERHF.DOC, ORDER.DOC»

Using Merge With dBaseII

If you are working with a database management program like dBaseII, you can use these data records as a datafile for a document prepared with Merge. To prepare a datafile with dBaseII, follow these steps:

1. Prepare a header file for the datafile. This header file should contain the names of the fields in the data records in the same order they appear in the datafile. Once you have created the header file, you won't have to change it each time you use different data records.

You might have a header file called CUSTOMHF.DOC, for example, containing the fields:

name, address, city, state, zip

2. Select the data records from the database.

For example, you might have a dBaseII database called "CUSTOMER." Suppose you want to send a special catalog supplement to only those customers of Spencer Ceramics who live in Seattle. Use the following dBase II commands to select the data records:

```
^USE CUSTOMER
^LOCATE FOR city='Seattle'
^COPY TO SEATTLE.DOC DELIMITED WITH ''
^QUIT
```

Now you have a datafile named SEATTLE.DOC, containing the names and addresses of customers living in Seattle.

3. Insert a DATA instruction in the main document telling Merge the names of the header file and datafile:

```
«DATA CUSTOMHF.DOC, SEATTLE.DOC»
```

If you later decide you want to send the letter to customers living in New York City, use the the same dBaseII commands to produce a NYC.DOC datafile:

```
^USE CUSTOMER
^LOCATE FOR city='New York'
^COPY TO NYC.DOC DELIMITED WITH ''
^QUIT
```

You can use the same header file and the same form letter. Just replace the name of the datafile in the DATA instruction:

```
«DATA CUSTOMHF.DOC, NYC.DOC»
```

Inserting Text Conditionally

You may also want to use different text in different copies of the document. You can use the instructions IF, ELSE, and ENDIF to do this.

For example, suppose you want to tell some of your customers:

Your order will be shipped within thirty days.

To others you want to say:

Due to unexpected demand, we are currently out of stock.

Prepare the text of the paragraph in the document like this:

```
«IF out-of-stock="yes"» Due to unexpected demand, we are
currently out of stock. «ELSE» Your order will be shipped within
thirty days.«ENDIF»
```

Merge will look in the ORDER.DOC datafile for the contents of the out-of-stock field. If “yes” appears in this field, the text after IF will be printed. If the field is empty, or contains something else, whatever follows ELSE before the ENDIF instruction will be printed in that copy of the document.

The ORDER.DOC file might look like this:

name, out-of-stock, quantity, item

Mr. Smith, yes, three, lawn fawns

Joe, no, one dozen, gold-speckled boomerang ashtrays

Merge will print the text after the IF instruction, if text in the out-of-stock field is "yes." If the field is empty or contains other text (for example, "no"), the text after the ELSE will be printed. Mr. Smith will get a letter saying:

Due to unexpected demand, we are currently out of stock.

Joe will get a letter saying:

Your order will be shipped in thirty days.

You can also use the IF instruction without an ELSE instruction. For example, if you want to send Christmas catalogs to only those customers who have placed large orders in the preceding year, you could prepare the following text:

«IF preferred="yes"» We are sending you our 1984 Christmas catalog under separate cover. «ENDIF»

Then, create a "preferred" field in your datafile:

name, preferred, out-of-stock, quantity, item

Mr. Smith, yes, yes, three, lawn fawns

Joe, no, no, one dozen, gold-speckled boomerang ashtrays

Mr. Smith's letter will contain the announcement of the Christmas catalog, but Joe's will not.

You can also use IF instructions to insert text if the contents of a field in a datafile have a certain numeric value. Merge recognizes three operators: greater than (>), less than (<), or equal to (=). The numeric values must be integers. Merge compares the value in the field to the value in the IF instruction.

For example, instead of sending a Christmas catalog to customers with a “yes” in the “preferred” field, you could use an instruction like this in the main document:

```
«IF purchase>50» We are sending you our 1984 Christmas
catalog . . .
```

Then, put a “purchase” field in your datafile:

```
name, purchase, item
Mr. Smith, 99, lawn fawns
Joe, 29, ashtrays
```

Merge will print the announcement of the Christmas catalog in Mr. Smith’s letter because the value of his purchase (99) is greater than 50. Joe will not receive a Christmas catalog because the value of his purchase (29) is less than 50.

Entering Text When You Print

Merge has two instructions that allow you to enter text when you print the document: SET and ASK. If you put either of these instructions in your document, you will be prompted to type the text when you print the copies of the document.

The SET instruction prompts you to enter the text for a field once, for all copies of the document. The ASK instruction prompts you to enter new text for each copy of the document printed.

For example, you can add a SET instruction to the text of the letter in the example above:

```
«DATA ORDER.DOC»
«SET date=?»
                «date»
Dear «name»,
    Spencer Ceramics has received your order for...
```

At print time, you will see the message:

Enter text:

Type the date as you wish it to appear on all copies of the letter.

You can also use the SET instruction to set the contents of a field for all copies of a document in the main document itself. For example, you could use the instruction:

```
«SET date=1/15/84»
```

You will not be prompted to enter text when the document is printed. Instead, *1/15/84* will be printed on all copies of the document. You can use the SET instruction in this way for documents that require periodic updates.

Use the ASK instruction to enter new text for each copy of the document. Like the SET instruction, the message is:

Enter text:

For example, instead of supplying the name of the item from a datafile, you can enter it when you are ready to print the document:

```
«DATA ORDER.DOC»
```

```
«SET date=?»
```

```
«ASK item=?»
```

```
«date»
```

```
Dear «name»,
```

```
    Spencer Ceramics has received your order  
for «item». . .
```

When you print this letter, you will be prompted once to enter the date for all copies of the letter. You will also be prompted to enter the item for each copy of the document to be printed.

If you prefer, you can replace the message “Enter text” with your own optional prompt for either SET or ASK instructions. To do this, you might type:

```
Spencer Ceramics has received your order for «ASK item=?  
item ordered:»
```

At print time, the following message will appear on the screen:

```
item ordered:
```

The prompt you use in an ASK instruction may contain a field, surrounded by « and ». When the document is merged, the contents of this field will be displayed on the screen with the prompt text to help you identify which record in the datafile is current.

Inserting Text From Several Data Records

You will normally use one data record for each copy of a form letter, as in the examples above. However, you may want to insert text from more than one data record in a single copy of the document. To do this, use the NEXT instruction. The NEXT instruction tells Merge to go to the next data record in the datafile for the contents of the fields.

For example, you might have a large datafile named EMPLOY beginning with the following records:

```
employee, job, wage
```

```
Charles Jones, casting, $5.25
```

```
Myrtle Peterson, glazing, $6.50
```

```
Libby LaChapelle, ceramic designer, $14.00
```

```
Josiah Carberry, consultant, $50.00
```

You could quickly produce a summary by creating a main document that begins like this:

```
«DATA EMPLOY.DOC»
Personnel Summary

Employee           Position      Wage ($Hr.)
«employee»        «job»        «wage»
«NEXT»
«employee»        «job»        «wage»
«NEXT»
«employee»        «job»        «wage»
«NEXT»
«employee»        «job»        «wage»
...
```

When you use the Print Merge command, you will get a single copy of the Personnel Summary which begins as follows:

```
Personnel Summary

Employee           Position      Wage
Charles Jones     casting       $5.25
Myrtle Peterson  glazing      $6.50
Libby LaChapelle ceramic designer $14.00
Josiah Carberry  consultant   $50.00
```

Later, you can update the Personnel Summary from the information in the EMPLOY.DOC datafile.

Inserting One Document Into Another

You can insert the text of another document into the main document. This text can be a simple “boilerplate” paragraph you’d like to include in every version of your document or the ASCII output of another program, such as a spreadsheet. You can merge the contents of any ASCII file into a document. This is like using the Transfer Merge command to combine two or more files at print time.

To insert one document into another, put an INCLUDE instruction containing the name of the document to be inserted. This instruction should be placed at exactly the place in the main document where you want the second document to be inserted.

For example, you might want to incorporate a worksheet into a report:

```
The sales projections for the second quarter are summarized
in the following table:
«INCLUDE SHEET1»
```

You can insert any number of documents into a main document. For example, you can create a file to print all the chapters of a report sequentially. Your main document might look like this:

```
«INCLUDE CHAP1.DOC»
«INCLUDE CHAP2.DOC»
«INCLUDE CHAP3.DOC»
```

If you have made any changes to the chapters of the document, Word will repaginate the chapters as it prints them.

You can even insert documents within other inserted documents. For example, in CHAP1.DOC in the example above, you can add other INCLUDE instructions:

```
«INCLUDE BOILER.DOC»
This report summarizes sales for the quarter.
«INCLUDE TABLE4.DOC»
```

These inserted documents can contain Merge fields, if the text is to be inserted from the same datafile named in the main document. Documents inserted with INCLUDE instructions cannot contain DATA instructions naming new datafiles. You may find INCLUDE instructions useful for organizing long projects consisting of many document files. However, it is somewhat slower to merge multiple documents than it is to print a single long document.

Using the Print Merge Command

After you finish preparing your documents and datafile, use the Transfer Load command to load the main document. Use the keyboard or the mouse to carry out the Print Merge command. You will see the message:

Merging...

The copies of the document will be printed as the document is merged with the data.

If the main document contains ASK or SET instructions, you will be prompted to type the data as each copy of the document is printed. You will either see the message "Enter text" or your own prompt, if you have supplied one. All text for SET and ASK instructions must be entered before the printing of a copy of a document begins.

Summary of Merge Instructions

The following is a summary of Merge instructions. Brackets ([]) indicate optional entries.

«ASK *field*=?[prompt]»

You will be prompted for the contents of the field when the document is printed. If you prefer, you can specify the prompt message.

«DATA [*header file*,] *datafile*»

The contents of the fields are supplied from the records in the *datafile*. The names of the fields are taken from the *header file*, if one is named. Otherwise, the first record in the datafile is read as the header.

«IF *field*="string"»text...«ENDIF»

The text between «IF» and «ENDIF» is inserted if the contents of the *field* are the same as the “string”.

«IF *field*="string"»text...«ELSE»text...«ENDIF»

The text between «IF» and «ENDIF» is inserted if the contents of the *field* are the same as the “string”. Otherwise, the text after «ELSE» is inserted.

«IF *field operator value*»text...«ENDIF»

The text between «IF» and «ENDIF» is inserted in the document if the contents of the *field* have the relationship to the *value* expressed by the operator. Otherwise, the text is not inserted. The operators greater than (>), less than (<), and equal to (=) may be used in «IF» instructions. The value must be an integer.

«IF *field operator value*»text...«ELSE»text...«ENDIF»

The text between «IF» and «ELSE» is inserted if the contents of the *field* have the relationship to the *value* expressed by the operator. The value must be an integer. Otherwise, the text after «ELSE» is inserted.

«INCLUDE *filename*»

Inserts the text of *filename* in the document.

«NEXT»

Merge goes onto the next data record in the datafile, instead of waiting for the next copy of the document to be printed.

«SET *field=value*»

Sets the contents of the *field* to *value* for every copy of the document.

«SET *field*=?[prompt]»

You will be prompted to set the contents of the *field* when the file is merged. The contents of the *field* are set for every copy of the document. If you prefer, you can specify the prompt message.

Messages

Messages tell you what action you should take next, or describes an error in either your document or your datafile. To stop printing the document at any time, press the Esc key.

DATA after SET or ASK

Cause. Merge does not allow you to name a datafile with a DATA instruction after a SET or ASK statement.

Action. Press the Esc key to cancel the Print Merge command, then edit the document so that the DATA instruction precedes any SET or ASK instructions.

Too many fields in data record

Cause. One of the data records in the datafile named in the DATA instruction in the document has more fields than the header record or header file. Either there is an extra field in the data record, or the field contains a comma which has not been surrounded with quotation marks.

Action. Press the Esc key to cancel and correct the data record in the datafile. Either remove the extra field in the data record, or check the fields for commas which are not surrounded by quotation marks.

Too few fields in data record

Cause. One of the data records in the datafile named in the DATA instruction of the document has fewer fields than are named in the header record or header file. Either a field has been omitted from the data record or a comma has been omitted.

Action. Press the Esc key to cancel and correct the data record in the datafile. Either add the missing field to the data record, or add the comma separating two fields.

ENDIF or ELSE without IF

Cause. The document contains an ENDF or ELSE instruction without an IF instruction.

Action. Press the Esc key to cancel the Print Merge command, then add the IF instruction before the text to be conditionally inserted.

Enter text

Cause. You are being prompted to enter the text for a SET or ASK instruction.

Action. Type the text and press the RETURN key.

Field name redefined

Cause. The document contains a SET or ASK instruction for a field which has already been defined in the header file or datafile names in the DATA instruction.

Action. Press the Esc key to cancel the Print Merge command. Either change the name of the field in the SET or ASK instruction in the main document, or change the name of the field in the header file or header record of the datafile.

IF without comparison

Cause. There is no operator (<, >, or =) in an instruction containing IF.

Action. Press the Esc key to cancel the Print Merge command, then correct the IF instruction so that an operator expresses the relationship between the field and the value.

Merging . . .

Cause. The documents are being merged and printed.

Action. Wait for printing to complete, or press the Esc key to cancel the Print Merge command.

Missing comma in data record

Cause. One of the data records in the datafile ends with quotation marks, but there are no commas after the quotation marks.

Action. Press the Esc key to cancel the Print Merge command, then insert the missing comma between fields.

Missing ENDIF

Cause. The document contains an IF or IF...ELSE instruction without an ENDIF.

Action. Press the Esc key to cancel the Print Merge command, then add the ENDIF instruction at the end of the text to be conditionally inserted.

Unknown field name

Cause. The document contains a field which is not defined in the header record of the datafile, or in the header file.

Action. Press the Esc key to cancel the Print Merge command. You can either change the field name in the document or change the field name in the header file or header record of the datafile.

Microsoft® Word

Addendum for version 1.15

Microsoft Word version 1.15 contains changes that broaden Word's usefulness. Word now:

- comes with a Learning Word disk. Use this disk to learn Word initially instead of the lessons in the manual. See the enclosed Learning Word card for instructions.
- can be used on the IBM PC AT computer.
- can print documents on the Hewlett-Packard LaserJet (HP-2686A) printer.
- contains changes that make Word consistent internally and with DOS and that improve ease of use of the INCLUDE instruction.
- contains six new messages.

Note Word version 1.15 requires 192K of memory and DOS version 2.0 or later.

Note Any changes to this version not covered in this addendum are described in a file named README.DOC. If you find a README.DOC file on the Word Utilities disk, you should read it for additional information. You can view and print the file from within Word.

IBM PC AT**Adjustments for IBM PC AT**

Word has been adjusted to run on the IBM PC AT computer. Note, however:

- The adjustments do not change the way you work with Word.
- Version 1.15 also runs on all other IBM personal computers.
- Be sure to use the MOUSE.SYS or MOUSE.COM file included on the Word Program disk.

Printer files**Additional Printer Files Supplied**

The following printer description files have been added to those supplied with version 1.1:

PRD File	Printer Name
ANDX60LT	Anadex DP-6000 (letter quality mode)
ANDX60CS	Anadex DP-6000 (correspondence mode)
ANDX6500	Anadex DP-6500
ANDX9625	Anadex 9625
ANDX9725	Anadex 9725
AUX2	Reserved for future use
BROTHER	Brother HR 15, 25, and 35
D620	Diablo 620
D630	Diablo 630
D630ECS	Diablo 630 ECS
DELTA	Mannesmann-Tally Delta
EPSONFX	EPSON FX-80 (uses full width spaces for justifying and centering; faster than EPSONFXQ)
EPSONFXQ	EPSON FX-80 (uses graphics mode to make all spaces equal width during justifying and centering of text)
EPSONLQ	EPSON LQ-1500
HPLASCR	Hewlett-Packard LaserJet with monospace font cartridge and with no cartridge at all
HPLASPS	Hewlett-Packard LaserJet with proportional space font cartridge

PRD File	Printer Name
HPTHINK	Hewlett-Packard ThinkJet Use the printer in pseudo-EPSON mode only. Because of the narrow construction of the ThinkJet, documents will print at 5/6 the line length you specify. You do not need to change any settings.
MT1X	Mannesmann-Tally 1X
MT80	Mannesmann-Tally 80
RADIX	Mannesmann-Tally Radix
TI855D	Texas Instruments model 855 (draft mode)
TI855Q	Texas Instruments model 855 (letter quality mode)
TTYFF	For printers that require a form feed character at the end of a page instead of a series of carriage returns
TTYWHEEL	For print wheel printers that do not have a specific printer description file supplied with Word

Important All of the printer description files on the Word 1.15 Utilities disk, including those that accompanied version 1.1, should only be used with version 1.15 of Word. Documents created with earlier versions of Word can be printed with the new version of Word and the new printer description files.

Three of these new printer description files deserve additional comment because they broaden Word's printing capabilities in new ways: HPLASCR.PRD, HPLASPS.PRD, and PLAIN.PRD.

HPLASCR.PRD and HPLASPS.PRD

These printer description files add laser printer support for the Hewlett-Packard LaserJet printer. These files take advantage of Word's ability to support printing devices that print 300 dots per inch.

HPLASCR.PRD This printer description file supports monospace font cartridges available for the HP LaserJet. Also use this printer description file when you are using no cartridge at all. If you are using no cartridge at all, the HP LaserJet will not print italics or boldface.

For laser printers

HP monospace fonts

HP proportional space fonts

HPLASPS.PRD This printer description file supports proportional space font cartridges available for the HP LaserJet.

Note Because the LaserJet cannot print to the edge of the paper, you need to leave at least .5" for the right margin, .25" for top margins, and .75" for bottom margins and for running heads positioned at the bottom of a page. To deal with this easily, set the page width to 8", set the page length to 10.5", and set the running head positions to at least .25" in the Format Division command.

For document exchange

PLAIN.PRD

For efficiency, Word stores documents in unique ways. Also, Word's main purpose is formatting and printing. These two features create files that are not universally usable. The PLAIN.PRD printer description file was created to help you convert documents to ASCII files.

To prepare documents for exchange between Word and other programs, you must convert the document files to a universal format, called ASCII (American Standard Code for Information Interchange) format.

When you choose "No" in the "formatted" command field of the Transfer Save command, Word removes formatting from a document and stores it in an ASCII file. However, this ASCII file contains only one carriage return for each paragraph instead of one at the end of each line. Also, the document file will still contain the text of footnotes and running heads at the places you entered them in the document. PLAIN.PRD provides a means to convert your documents to an ASCII file with a carriage return at the end of every line.

The following method saves the document as an ASCII file. This file has carriage returns, margins, page breaks, running heads, and footnotes, but no character formatting.

- 1 Choose Print Options.
- 2 Enter "PLAIN" in the "printer" field and carry out the command.
- 3 Choose Print File.
- 4 Enter a filename and carry out the command.

Instead of printing the document on a printer, Word stores the document on disk. You can then use this disk file with other programs or send it via telecommunications.

Preventing Page Breaks To prevent page breaks and running heads from being saved in the ASCII file you create with PLAIN.PRD, make the following adjustments to your document before choosing Print File:

- 1 Choose Format Division.
- 2 Set top, bottom, left, and right margins to 0 (zero).
When the top and bottom margins are too small to include the running heads, Word does not print them. In addition, when you set the top and bottom margins to 0 (zero), PLAIN.PRD suppresses page breaks and turns off widow and orphan control.
- 3 Set page width to the maximum line length you want. For example, 80 characters = 8".
- 4 Set the "footnotes" command field to "End."
- 5 Carry out the command.

Using PLAIN.PRD

To prevent page breaks

Filenames

Changes for Filenames

Two changes have been made for filenames; one is a general change, the other a change specific for the INCLUDE instruction of the Print Merge command.

For all files

Change for All Filenames

The Word manual states that a comma may be used in filenames. Commas are no longer allowed in Word. This change makes Word consistent with DOS, which does not permit commas in filenames.

For INCLUDE files

Change for INCLUDE Filenames

Previously, you had to type the .DOC filename extension when you gave the name of the file you wanted to include with the INCLUDE instruction of the Print Merge command. Now, you can omit .DOC. If you omit the extension, Print Merge assumes that the filename extension is .DOC.

If the file has no extension, add only a period (.) at the end of the filename. For example, if the filename is CHAPT2, type

INCLUDE CHAPT2.

The period by itself tells Print Merge that the filename has no extension. This change makes the INCLUDE instruction consistent with the Transfer commands.

Glossary names

Changes to Glossary Names

The underscore character (_) is now permitted in glossary names (the names you store text under with the Copy and Delete commands). For example, you could copy or delete a list of birthdates to the glossary name BIRTHDAY_LIST. You could similarly copy or delete part of a contract to the glossary name ARTICLE_2.

Messages

New messages

Six new messages have been added. The first three listed below replace the "Disk full" message with separate messages that describe the problems more specifically. The next two cover the INCLUDE instruction used with the Print Merge command. The last message appears when you start Word on a system that has only one floppy disk drive.

Document disk full

- You have chosen Transfer Save or Print File, or you have asked Word to save the document as you quit Word, but the disk you are using to store documents does not have enough space left to hold the whole document.
Replace the document disk with another formatted disk that has enough space left to hold the whole document. Word will ask you to exchange disks as it stores the document. When Word asks for the disk with MWxxxx.TMP on it, insert the new disk in the drive. (xxxx represents a number.) When Word asks for the disk with the named document on it, insert the full disk in the drive.

Program disk full

- You have been editing a document, and the Word Program disk has been filled up with information Word records about your editing or with temporary files used to hold text for queued (background) printing.

Perform the following steps in the order listed:

- 1 Choose Transfer Save to store the changes you've made to the document.
- 2 Choose Gallery Transfer Save to store changes you've made to the style sheet. Choose Edit to return to the document.
- 3 Choose Transfer Glossary Save to store changes you've made to the glossary.
- 4 If the "Program disk full" message reappears as you begin editing again, repeat these first three steps, then choose Transfer Clear All. You may find it helpful to delete or move to another disk some of the files from the Word Program disk to increase the amount of space available. Transfer Load the document to continue editing.

Scratch file full

- You have been editing a document, and the amount of space Word allows for the scratch file has been used up. The scratch file is a record of all the changes you've made to the document during a session.

Perform the following steps in the order listed:

- 1 Copy a single character to the scrap (Copy command).
- 2 Choose Transfer Save to store the changes you've made to each of the documents you're editing.
- 3 Choose Gallery Transfer Save to store changes you've made to the style sheet. Choose Edit to return to the document.
- 4 Choose Transfer Glossary Save to store changes you've made to the glossary.
- 5 If the "Scratch file full" message reappears as you begin editing again, repeat these first four steps, then choose Transfer Clear All. Transfer Load the document to continue editing.

Recursive include file not allowed

- INCLUDE instructions form a circular string of references in the files you are combining with Print Merge. For example, suppose you have three documents, named A.DOC, B.DOC, and C.DOC. A.DOC has an INCLUDE instruction that merges in B.DOC. B.DOC has an INCLUDE instruction that merges in C.DOC. And, C.DOC has an INCLUDE instruction that merges in A.DOC or B.DOC. Word would print in circles without stopping if it weren't designed to forbid circular references. Inspect and revise the INCLUDE instructions to break the circular reference.

Too many nested include files

- You have created a chain of more than 64 files with INCLUDE statements.
Reduce the chain to 64 or fewer files with INCLUDE statements.

**To use a different document disk, insert it now,
then press Enter****To use this disk, just press Enter**

- You started Word from a floppy disk on a system with only one floppy disk drive. This message appears also for systems with one floppy disk drive and a hard disk drive when you start Word from a floppy disk.

If the document you want to edit is on the Word Program disk, just press ENTER.

If the document you want to edit is on another floppy disk, remove the Word Program disk and insert the other disk.

A document disk must contain the file MW.PGM, which you can copy from the Word Program disk. If you plan to print, the document disk must also contain the printer description file for your printer.

Part Number: 034-099-097
Document Number: 8910-115-00p