

WORD PROCESSING REFERENCE MANUAL

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GUIDE TO TECHNICAL DOCUMENTATION

This manual is one of a set that documents the Convergent™ Family of Information Processing Systems. The set can be grouped as follows:

Introductory

- Installation Guide
- Operator's Guide
- Executive Manual
- Context Manager Manual
- Status Codes Manual
- Installation Guide (NGEN)
- Operator's Guide (NGEN)
- MagTape: Half-Inch Magnetic Tape for IWS

Hardware

NGFN

- Processor Manual: Model CP-001
- Dual Floppy Disk Manual
- Floppy/Hard Disk Manual
- Diagnostics Manual
- Keyboard Manual
- Power System Manual
- Monochrome Monitor Manual: Model VM-001
- Color Monitor Manual
- Graphics Controller Manual: Model GC-001

IWS

- Workstation Hardware Manual
- Peripherals Hardware Manual
- IWS Peripherals Hardware Manual (SMD Version)

AWS

- AWS-210 Hardware Manual
- AWS-220, -230, -240 Hardware Manual
- AWS Color Workstation Hardware Manual

Operating System

- CTOS™ Operating System Manual
- System Programmer's Guide

Guest Operating Systems

- CP/M-86™
- MS™-DOS (and GW™-BASIC)
- XENIX™

Programming Languages

- COBOL Manual
- FORTTRAN Manual
- FORTTRAN-86 Manual
- BASIC Manual
- BASIC Compiler Manual
- Pascal Manual
- Assembly Language Manual

Program Development Tools

- COBOL Animator
- Editor Manual
- Debugger Manual
- Linker/Librarian Manual

Data Management Facilities

- CT-DBMS™ Manual
- ISAM Manual
- Forms Manual
- Sort/Merge Manual
- Query Manual

Text Management Facilities

- Word Processing User's Guide
- Word Processing Reference Manual
- Word Processing Quick Reference

Applications Facilities

- Project Planner Manual
- CT-MAIL™ User's Reference Manual
- CT-MAIL™ Administrator's Reference Manual
- Multiplan
- Business Graphics User's Guide
- Business Graphics Reference Manual
- Graphics Programmer's Guide
- Font Designer Manual

Communications

- Asynchronous Terminal Emulator Manual
- 3270 Terminal Emulator Manual
- Enhanced BSC 3270 Emulator Manual
- 2780/3780 RJE Terminal Emulator Manual
- SNA Network Gateway Manual
- SNA 3270 Emulator Manual
- SNA RJE Manual
- X.25 Network Gateway Manual
- Multimode Terminal Emulator User's Guide
- Multimode Terminal Emulator Reference Manual

This section outlines the contents of these manuals.

INTRODUCTORY

The Installation Guide describes the procedure for unpacking, cabling, and powering up a system.

The Operator's Guide addresses the needs of the average user for operating instructions. It describes the workstation switches and controls, keyboard function, and floppy disk handling.

The Executive Manual describes the command interpreter, the program that first interacts with the user when the system is turned on. It describes available commands and discusses command execution, file management, program invocation, and system management. It also addresses status inquiry, volume management, the printer spooler, and execution of batch jobs. This manual now incorporates the System Utilities and Batch Manuals.

The Context Manager Manual describes and teaches the use of the Context Manager, which allows the user to run applications concurrently and interchange them on the screen almost instantly.

The Status Codes Manual contains complete listings of all status codes, bootstrap ROM error codes, and CTOS initialization codes. The codes are listed numerically along with any message and an explanation.

The NGEN Installation Guide describes the procedure for unpacking, assembling, cabling, and powering up an NGEN workstation.

The NGEN Operator's Guide is a link between the operator, the NGEN workstation, and the workstation's documentation. The Operator's Guide describes the operator controls and the use of the floppy disk drives, as well as how to verify that the workstation is operational and how to use software release notices.

The MagTape Manual: Half-Inch Magnetic Tape for IWS explains the use of two MagTape utilities, Tape Backup and Tape Copy. It describes the Tape Bytestreams and Tape Server software, as well as the MagTape diagnostics.

HARDWARE

NGEN

The Processor Manual: Model CP-001 describes the Processor Module, which houses the Processor board, Memory board, I/O board, Video/Keyboard board, and Motherboard. It details the architecture and theory of operation of the printed circuit boards, external interfaces, and the Memory Expansion Cartridge, as well as the X-Bus specifications.

The Dual Floppy Disk Manual and the Floppy/Hard Disk Manual describe the architecture and theory of operation for the NGEN modules. They discuss the applicable disk drives and controllers, and contain the applicable OEM disk drive manuals.

The Diagnostics Manual describes the diagnostics available for the NGEN workstation. It discusses the Processor Module's bootstrap ROM program and error codes, and individual software diagnostics for modules in the workstation.

The Keyboard Manual describes the architecture, theory of operation, and external interfaces for the NGEN keyboard.

The Power System Manual describes the operation and connections for the 36-Volt Power Supply and the dc/dc converters used with the NGEN workstation.

The Monochrome Monitor Manual: Model VM-001 describes the operation and connections of the 12-inch Monochrome Monitor used with the NGEN workstation.

The Color Monitor Manual describes the operation and connections of the 15-inch Color Monitor used with the NGEN workstation.

The Graphics Controller Manual: Model GC-001 describes the architecture, theory of operation, and external interfaces for the Graphics Controller Module, which accommodates either a monochrome or color monitor.

IWS

The Workstation Hardware Manual describes the mainframe, keyboard, and video display for the IWS family of workstations. It specifies system architecture, printed circuit boards (Motherboard, Processor, I/O Memory, Multiline Communications Processor, Video Control, Graphics Control Board, ROM and RAM Expansions), keyboard, video monitor, Multibus interface, communications interfaces, power supply, and environmental characteristics of the workstation.

The Peripherals Hardware Manual describes the non-SMD single-board Mass Storage Subsystem (MSS) and Mass Storage Expansion (MSX) disk subsystems for the IWS family of workstations. It contains descriptions of the disk controller Motherboard, the two controller boards for floppy and Winchester disks, power supplies, disk drives, and environmental characteristics.

The IWS Peripherals Hardware Manual (SMD Version) describes the SMD MSS and MSX disk subsystems having one controller board.

AWS

The AWS-210 Hardware Manual describes the mainframe, keyboard, and video display of the AWS-210 workstation. It specifies architecture, theory of operation of the printed circuit boards (Motherboard, Deflection, and CPU), keyboard, video monitor, expansion interface, cluster communications interface, power supply, and environmental characteristics of the workstation.

The AWS-220, -230, -240 Hardware Manual describes the mainframe, keyboard, disk controllers, and video display of the AWS-220, -230, and -240 workstations. It specifies architecture, theory of operation of the printed circuit boards (Motherboard, Deflection, 8088 CPU, 8086 CPU, Floppy Disk Controller, and Hard Disk Controller), keyboard, video monitor, cluster communications interface, external interfaces, power supply, and environmental characteristics of the workstation.

The AWS Color Workstation Hardware Manual describes the mainframe, keyboard, and color video display of the AWS Color Workstation. This manual reports the architecture and theory of operation of the printed circuit boards (Motherboard, Graphics Control Board, Hard Disk Controller, Color Video, Color Deflection, and CPU), keyboard, color monitor, peripheral interfaces, cluster communications interface, power supply, and environmental characteristics of the workstation. This manual also contains four OEM disk drive manuals and a summary of adjustments for the color monitor.

OPERATING SYSTEM

The CTOS™ Operating System Manual describes the operating system. It specifies services for managing processes, messages, memory, exchanges, tasks, video, disk, keyboard, printer, timer, communications, and files. In particular, it specifies the standard file access methods: SAM, the sequential access method; RSAM, the record sequential access method; and DAM, the direct access method.

The System Programmer's Guide addresses the needs of the system programmer or system manager for detailed information on operating system structure and system operation. It describes (1) cluster architecture and operation, (2) procedures for building a customized operating system, and (3) diagnostics.

GUEST OPERATING SYSTEMS

The CP/M-86™ and MS™-DOS Manuals describe the single-user operating systems originally designed for the 8086-based personal computer systems.

The GW™-BASIC Manuals describe the version of BASIC that runs on the MS™-DOS operating system.

The XENIX™ Manuals describe the 16-bit adaptation of the UNIX system, including the XENIX environment for software development and text processing.

PROGRAMMING LANGUAGES

The COBOL, FORTRAN, FORTRAN-86, BASIC (Interpreter), BASIC Compiler, PASCAL, and Assembly Language Manuals describe the system's programming languages. Each manual specifies both the language itself and also operating instructions for that language.

The Pascal Manual is supplemented by a popular text, Pascal User Manual and Report.

The Assembly Language Manual is supplemented by a text, the Central Processing Unit, which describes the main processor, the 8086. It specifies the machine architecture, instruction set, and programming at the symbolic instruction level.

PROGRAM DEVELOPMENT TOOLS

The COBOL Animator describes the COBOL Animator, a debugger that allows the user to interact directly with the COBOL source code during program execution.

The Editor Manual describes the text editor.

The Debugger Manual describes the Debugger, which is designed for use at the symbolic instruction level. It can be used in debugging FORTRAN, Pascal, and assembly-language programs. (COBOL and BASIC, in contrast, are more conveniently debugged using special facilities described in their respective manuals.)

The Linker/Librarian Manual describes the Linker, which links together separately compiled object files, and the Librarian, which builds and manages libraries of object modules.

DATA MANAGEMENT FACILITIES

The CT-DBMS™ Manual describes Convergent's data base management system (CT-DBMS), which consists of (1) a data manipulation language for accessing and manipulating the data base and (2) utilities for administering the data base activities such as maintenance, backup and recovery, and status reporting.

The ISAM Manual describes both the single- and the multiuser indexed sequential access method. It specifies the procedural interfaces (and how to call them from various languages) and the utilities.

The Forms Manual describes the Forms facility that includes (1) the Forms Editor, which is used to interactively design and edit forms, and (2) the Forms run time, which is called from an application program to display forms and accept user input.

The Sort/Merge Manual describes (1) the Sort and Merge utilities that run as a subsystem invoked at the Executive command level, and (2) the Sort/Merge object modules that can be called from an application program.

The Query Manual describes the Query application, which is used to interactively query and update a CT-DBMS data base from a workstation. The manual explains Query's screen layouts, forms, menus, and point-and-type user interface, and provides information for data base administrators and programmers who use CT-DBMS.

TEXT MANAGEMENT FACILITIES

The Word Processing User's Guide introduces the Word Processor to the first-time user. It provides step-by-step lessons that describe basic word processing operations. The lessons show how to execute operations and apply them to sample text.

The Word Processing Reference Manual is a reference tool for users already familiar with the Word Processor. Efficient use of the various facilities of the Word Processor is discussed and each Word Processing command is described in detail. Information is included on list processing, programmer specific operations, and printer and print wheel configurations.

The Word Processing Quick Reference provides a concise summary of all word processing operations and briefly describes the keyboard and commands.

APPLICATIONS FACILITIES

The Project Planner schedules and analyzes tasks, milestones, and the allocation of resources in a project. By means of diagrams and several kinds of bar charts, Project Planner presents time and resource allocation results and shows the occurrence of project milestones. The Project Planner Manual explains the use of the program and also serves as a reference once the user is familiar with it.

The CT-MAIL™ User's Reference Manual introduces the first-time user to the CT-MAIL electronic mail system. It provides step-by-step instructions for using the basic CT-MAIL operations to create, send, and receive mail.

The CT-MAIL™ Administrator's Reference Manual provides the System Administrator with instructions for installing, configuring, and maintaining the CT-MAIL electronic mail system; setting up communication lines; creating and maintaining mail centers; adding mail users; creating distribution lists; and troubleshooting.

Multiplan is a financial modeling package designed for business planning, analysis, budgeting, and forecasting.

The Business Graphics User's Guide introduces Business Graphics to the first-time user. It provides step-by-step lessons that describe basic Business Graphics operations. The lessons show how to execute operations and apply them to sample charts.

The Business Graphics Reference Manual is a reference tool for users already familiar with Business Graphics. It describes the Business Graphics keyboard and screen; box and arrow cursor movement; obtaining information from Multiplan; operations; and plotter configurations.

The Graphics Programmer's Guide is a reference for applications and systems programmers. It describes the graphics library procedures that can be called from application systems to generate graphic representations of data, and it includes a section on accessing Business Graphics from an application system.

The Font Designer Manual describes the interactive utility for designing new fonts (character sets) for the video display.

COMMUNICATIONS

The Asynchronous Terminal Emulator Manual describes the asynchronous terminal emulator.

The 3270 Terminal Emulator Manual describes the 3270 emulator package.

The Enhanced BSC 3270 Emulator Manual describes the installation and operation of the CRT and Printer subsystems and the Control Unit Emulator that are provided by this emulator package.

The 2780/3780 RJE Terminal Emulator Manual describes the 2780/3780 emulator package.

The SNA Network Gateway Manual describes the SNA Network Gateway, which supports data communications over an SNA network. The SNA Network Gateway comprises the Transport Service and Status Monitor. The SNA Network Gateway emulates an IBM SNA cluster controller and forms the foundation for Convergent SNA products.

The SNA 3270 Emulator Manual describes the SNA 3270 emulator package. The SNA 3270 emulator provides CRT and printer subsystems in addition to a Virtual Terminal Interface for use in interactive application programs.

The SNA RJE Manual describes the SNA RJE subsystem. Built on the SNA Network Gateway, SNA RJE allows multiple, concurrent Logical Unit sessions with remote IBM-compatible hosts. The manual describes user interface features, installation, and a procedural interface for user-defined RJE application systems.

The X.25 Network Gateway Manual describes the X.25 Network Gateway, which supports CCITT Recommendation X.25 communications over a public data network. There are three levels of access to the network: packet, X.25 sequential access method, and the Multimode Terminal Emulator X.25 communications option.

The Multimode Terminal Emulator User's Guide introduces the Multimode Terminal Emulator to the first-time user. It describes the MTE video display, keyboard, display memory, and advanced operations for the X.25 communications option.

The Multimode Terminal Emulator Reference Manual is a reference tool for sophisticated users of the Multimode Terminal Emulator. It describes the MTE escape sequences and field verification program.

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MS, GW and XENIX are trademarks of Microsoft Corp.

UNIX is a trademark of Bell Laboratories.

NEW SPELLING DICTIONARY

The Check Spelling command has been changed.

Check Spelling uses a new dictionary. The new spelling dictionary suggests corrections based on a phonetic analysis of the misspelled word. You can accept a suggested correction, correct the word yourself, or enter it in your personal dictionary. Since this suggested correction gives you less need to view the dictionary, there is no longer a View Dictionary command.

The new dictionary has a different series of default names for the dictionary files. See Section 19, "System Administration," for more information.

Personal dictionaries have been enlarged so that their size is limited only by disk space. They also have the capability to recognize that a word should always appear with the first letter capitalized, with all letters capitalized, as an abbreviation with a period after it, or with a period within (for example, i.e.) This has replaced the old ability to store correction for typos.

Old personal dictionaries must be unloaded under your old release and edited to remove any entries for automatic correction (entries containing a right arrow character). The edited dictionary can then be loaded using the new release of the Word Processor.

PHRASE FILES CAN BE SHARED

Phrase files can now be shared, so that all users on a cluster or node can access one file. Recalling or listing a phrase can be done by more than one person at a time. However, all operations that change the phrase file require exclusive access to the file. Therefore, others who have accessed the file must Save before you use Store Phrase or Remove Phrase. After you have used Store Phrase or Remove Phrase you must also Save before anyone else can use the file to Recall a Phrase or use List Phrases.

MERGE TO A DOCUMENT COMMAND

This new command works exactly like Merge except that it writes the text generated by the merge to a document.

GO TO SOURCE LINE COMMAND

This command allows programmers to enter a specified source code line number and move the cursor directly to it. Line numbers are calculated by line feed characters and paragraph marks, not by printed lines.

NEW SUPPORTED PRINTERS

Several new printers are supported for letter quality printing. They are the Envision 420 and 430, the NEC 3515, the Qume Sprint 11 Plus, the Diablo 630 API-2.

SHEET FEEDER SUPPORT

Supported sheet feeders are:

- o NEC Spinwriter 2000/3500 series Single Bin Cut Sheet Feeder and Dual Bin Adapter
- o Diablo F32 and F33
- o Ziyad 200 and Ziyad 300

You can now assign sheet feeder bin as a page format attribute, so that your printer will automatically feed from the specified bin for one or all pages of your document.

Sheet feeders require a special entry in the printer description file (Sys.Printers.)

NEW PRINT WHEEL CONFIGURATION PROCEDURE

The new release includes four new files, Template.wheels, Allspoke.doc, AllspokeNEC.doc, and AllspokeECS.doc to be used with a new print wheel configuration procedure. These files replace WheelTest.doc and TableB-2.doc provided with older releases.

The new procedure is simpler and easier to use and is described in Section 19, "System Administration."

MODIFIED COMMANDS

SEARCH

The Search command has a new field "Select?" with which you can specify that text be highlighted or not. This is a useful feature for keystroke macros, since it lets you do two successive searches, the first with a highlight, the next without, then Bound to select all the intervening text.

MARK DOCUMENT AND MARK PAGE

When formatting changes are made using Mark Document or Mark Page a new menu is displayed, the Mark Menu. It allows you to specify that header, footer and/or footnote text be affected by the formatting change.

COMMANDS MENU

Merge to a Document and the keystroke macro commands, List Macros, Remove Macro, Unload Macro, and Load Macro have been added to the Commands menu.

GO TO LAST EDIT IS NOW GO TO PREVIOUS EDIT

The function key for the Go to Last Edit command has been changed to SHIFT-f1, from CODE-f2. The name on the function key label strip is now Go to Previous Edit.

MERGE

The field "Start Numbering at" has been added to the Merge command form. This allows you to vary the page number for the first merged page printed.

PRINT

The field "Start Numbering at" has also been added to the Print command form.

PAGE DIMENSIONS AND PAGE ATTRIBUTE MENU

The page dimensions options, originally on the Page Format menu, now appear on the Page Dimensions menu when you give that command, an option of the Format command.

The Page Attribute command sets all other page attributes, such as forced page number, forced footnote number, facing page, and sheet feeder bin.

LIST DOCUMENTS

The Pattern field has been moved to the top of the List Documents command form.

OTHER MODIFICATIONS

FORCE FOREGROUND PRINT

You can now force printing to occur in the foreground by making a special entry in the user configuration file. This feature is provided for occasions where background printing is slow due to low available memory.

NEW FUNCTION KEY LABEL STRIP

A new function key label strip is available. It reflects the new commands and function key changes made for this release.

1 OVERVIEW

WHAT IS THE WORD PROCESSOR?

The Word Processor is a versatile document management system. You can use the Word Processor to create and edit documents such as memos, financial reports, newsletters, manuals, form letters, and computer programs.

The Word Processor streamlines the process of entering and editing text by

- o storing frequently used phrases so that they can be recalled later with only a few keystrokes
- o repeating any edit with one keystroke
- o searching a document for a particular phrase or character and replacing it with another
- o checking your spelling and automatically hyphenating words for you

It is easy to manipulate document format using the Word Processor. Character, paragraph, and page formats are variable. Text can be moved around, copied, or deleted.

Some easily implemented formatting options include

- o character formats such as bold and underline
- o variable ribbon color, print wheel, or text pitch
- o variable line spacing, indentations, and tab settings for each paragraph
- o automatic pagination
- o footnotes with footnote text either printed at the bottom of each page or collected in one place for the entire document
- o text printed as header and/or footer on each page or specified pages only
- o three types of columns

You can use the Word Processor for list processing to sort and select records and merge them into a form document.

If you are entering mathematical data, you can use the Word Processor to calculate for you.

The Word Processor also provides an interface to application systems such as Business Graphics, Electronic Mail, and Multiplan.

You can select just the Word Processor tools you need to efficiently produce the right document for your project. As you become familiar with the Word Processor, you will discover many ways to put it to use.

USING THIS MANUAL

This manual was written with the assumption that you have done the exercises outlined in the Word Processing User's Guide, have been introduced to the Word Processor by a friend, or have used another word processing system.

- o Sections 2 - 16 present a narrative discussion about the way the Word Processor operates and the ways you can apply its capabilities.
 - Sections 2 - 5 discuss the information you need to begin to use the Word Processor. They include discussions on creating a document, simple text entry, and giving commands.
 - Sections 6 - 16 talk about the various features the Word Processor offers. The Word Processor commands are compared and contrasted and ways that you can apply them to your needs are outlined.

At the end of each of these sections, a table of hints is provided to give specific examples of ways you can use the commands discussed.

- o Section 17, "The Unexpected," is intended as a special reference to make you familiar with some of the surprising (but normal) things that may happen while you are using the Word Processor.
- o Step-by-step instructions for each Word Processor command are included in Section 18, "Commands and Options." Commands are organized within the section alphabetically. For each command the description includes the menu or form used and details on each field or option described.
- o Section 19 provides technical information for the system administrator.

Appendix A lists the status codes and messages that may be displayed if something goes wrong while you are using the Word Processor.

Appendix B provides notes on features that can be used for programming.

Appendix C describes reformatting tabs. Documents containing tabs that were last opened on a Word Processor release numbered 6.5 or lower must be reformatted to work on a release of 8.3 or higher.

Appendix D discusses setting printer switches and cabling printers to the workstation.

A glossary is provided to define terms with which you may be unfamiliar.

CONVENTIONS

This manual uses a few conventions to help you learn to use the different Word Processor commands as quickly as possible.

To give a Word Processor command, you must press a key or combination of keys. Table 1-1 shows the shorthand that is used to refer to these keystrokes throughout the manual.

Some commands require that you give a succession of keystrokes. Such commands are usually one of a list of choices on a menu. When the keystrokes for these commands are referred to, an ellipsis is used to indicate a lapse of time between keystrokes.

For example, `f4(FORMAT)...B` is used to show the keystrokes for the Boldface command, an option on the Format menu.

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Table 1-1. Conventions.

<u>Key or Function</u>	<u>Convention Used</u>	<u>Examples</u>
Any key	Name on key	RETURN TAB
Function keys (top row)	Name on key and command name as it appears on the function key label strip	f1 (REDO) f4 (FORMAT)
Key Combinations (pressed at the same time)	Key names connected by a hyphen	SHIFT-RETURN CODE-f4 (REVIEW) CODE-B
Menu selections	Key used to indicate option plus option name as it appears on the menu	Option B (Boldface)
Sequence of keystrokes (e.g., when a command uses a series of menus)	Keystroke for first menu, plus an ellipsis(...) plus the next keystroke	f4(FORMAT)...B

2 GETTING STARTED

Creating a document with the Word Processor is similar to creating one with the typewriter; however, with the Word Processor you have greater flexibility to format and design your document. Word Processor text can be manipulated easily as you write by simple commands that make the task of writing much easier. The Word Processor also allows you to merge documents, sort through them, and create form letters. Documents are stored on hard or floppy disks when not in use.

If you are unfamiliar with word processing, it is suggested that you do the tutorial exercise provided in the Word Processing User's Guide. The tutorial gives you practical experience with the basic commands you need to know.

In a typical word processing session you

- o create a new document or open an old one
- o enter text
- o move through the document and edit text
- o save the results of your work on a disk
- o print your document
- o finish the session using the Finish command

You use the keyboard, screen, and commands provided by the Word Processor as tools to manipulate the document. The keyboard is used to enter text and to give commands to the Word Processor to tell it what to do. The screen displays the document and the changes you make to it.

As you develop your knowledge and understanding of the Word Processor commands, you will find your own creative solutions for your specific needs.

SIGNING ON TO THE SYSTEM

To sign on to the workstation, you must complete the SignOn form. Your system administrator can help you if you do not know your user name or password. The SignOn form is explained in detail in the Executive Manual.

INVOKING THE WORD PROCESSOR

Your system can be configured to invoke the Word Processor automatically after SignOn, or so that you invoke the Word Processor yourself through the Executive or Context Manager. Your User Configuration file, which is usually set up by your system administrator, contains entries that specify this configuration. (User Configuration files are described in Section 19, "System Administration." The Executive Manual also describes user configuration in detail.)

When your Word Processor is invoked automatically after SignOn, you are asked if you want to view the documents shown in your last session. You can confirm by pressing GO or, by pressing CANCEL, you can choose to open different documents instead. If your Word Processor is invoked automatically after SignOn, you can skip the following procedure.

If you have a Context Manager, see the Context Manager Manual for instructions on how to invoke the Word Processor.

The procedure below describes how to invoke the Word Processor through the Executive. The Executive screen appears as shown in Figure 2-1.

Executive x.r
Path: [sys]<sys>

User name: Allen
Mon Sep 26, 1983 8:44 AM

Command

Figure 2-1. Executive Screen.

To invoke the Word Processor through the Executive:

1. Type "Word Processor" (or the abbreviation "w p") into the highlighted command field.
2. Press GO immediately or press RETURN to display the Word Processor command form.
 - o If you press GO, the Word Processor is invoked and you can open a document using the Word Processor Open Document command, option O on the Document menu.
 - o If you press RETURN, the Word Processor command form is displayed, as shown in Figure 2-2.

Type the name of the document(s) you want to open into the "Documents" field. When you press GO, the Word Processor is invoked and the document(s) are automatically opened for you. (To open more than one document, type the additional names and separate them with commas.)

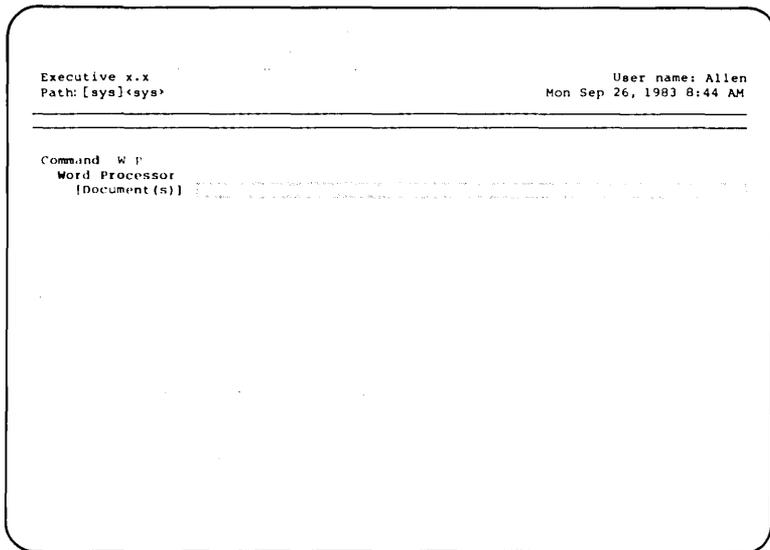


Figure 2-2. Executive Screen Showing Word Processor Command Form.

SCREEN DISPLAY

Your initial screen appears as shown in Figure 2-3, displaying the Documents menu and no open documents, if you invoked the Word Processor through the Executive without specifying a document to be opened. If your Word Processor is invoked automatically after SignOn and no documents were open when you finished your last session or if you chose to open new documents, the screen also appears as shown in Figure 2-3.

Your initial screen can also show an open document, as shown in Figure 2-4. The screen appears this way if you specified a document name when you completed the Word Processor command form in the Executive. If your Word Processor is invoked automatically after SignOn, your initial screen display frequently looks like Figure 2-4.

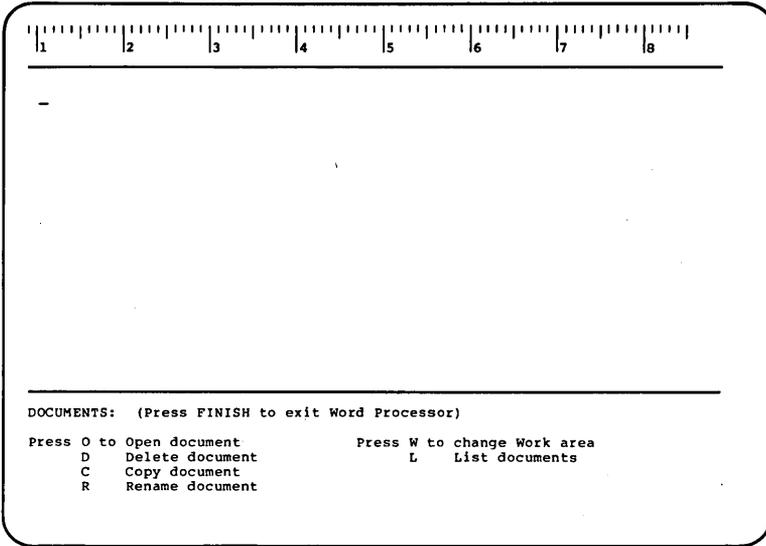


Figure 2-3. Word Processor Screen Showing Documents Menu.

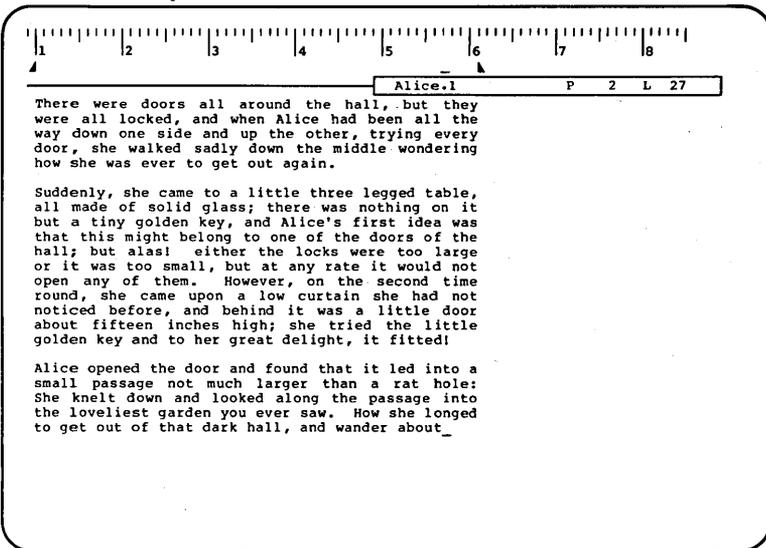


Figure 2-4. Word Processor Screen Showing a Document.

The Word Processor screen is divided into two sections:

- o the ruler display
- o the main text area

The document status line separates the two sections.

Also appearing on the screen is the cursor, a blinking underline that indicates where the next character can be entered.

If the screen displays the Documents menu and no documents, as shown in Figure 2-3, the main text area is blank except for the Documents menu. The menu is a list of command options from which you can choose. It goes away after you make a choice.

If documents are shown initially on the screen or if you open a document by making a choice from the Documents menu, the screen contains the ruler display and the document status line. The main text area contains the cursor and is blank if the document is new; or if you open an existing document, the main text area shows the first page of text.

Figure 2-4 shows how the screen appears when you are working on a document.

RULER DISPLAY

The ruler display appears at the top of the Word Processor screen. The ruler display indicates the way text will be positioned horizontally across the paper when printed. Figure 2-5 is a detailed illustration of the ruler display.

Paragraph format indicators appear in the ruler display and show the position of the paragraph indent points and tab stops for the paragraph within which you have your cursor.

Table 2-1 shows the symbols that can appear in the ruler display.

Margin indicators appear to show page or column margins whenever paragraph indents are not the same as the margin setting for the page or column where you have your cursor.

Table 2-1. Ruler Display Symbols.

<u>Symbol</u>	<u>Description</u>
¶	First line paragraph indent
▲	Other paragraph indent
▶	Right paragraph indent
	Column or page margin
L	Left-aligned tab
R	Right aligned tab
C	Centered tab
D	Decimal tab
...	Leader dots

The horizontal position of your cursor on the screen is indicated in the ruler display by a shadow cursor. The shadow cursor does not blink as the real cursor does. As you move the cursor across the page, the shadow cursor moves too.

The shadow cursor is useful when you want to position text at an exact position for setting tab stops or paragraph indents.

How to Read the Ruler Display

The ruler display is divided into inches. Long tick marks indicate inches across the printed page.

If you are working with text where character spacing (referred to as pitch) changes, you can see that the spacing of the ruler display changes according to pitch. For some pitches the ruler shows measurements in thirds and fifteenths of an inch. For others measurements are shown in halves and tenths of an inch.

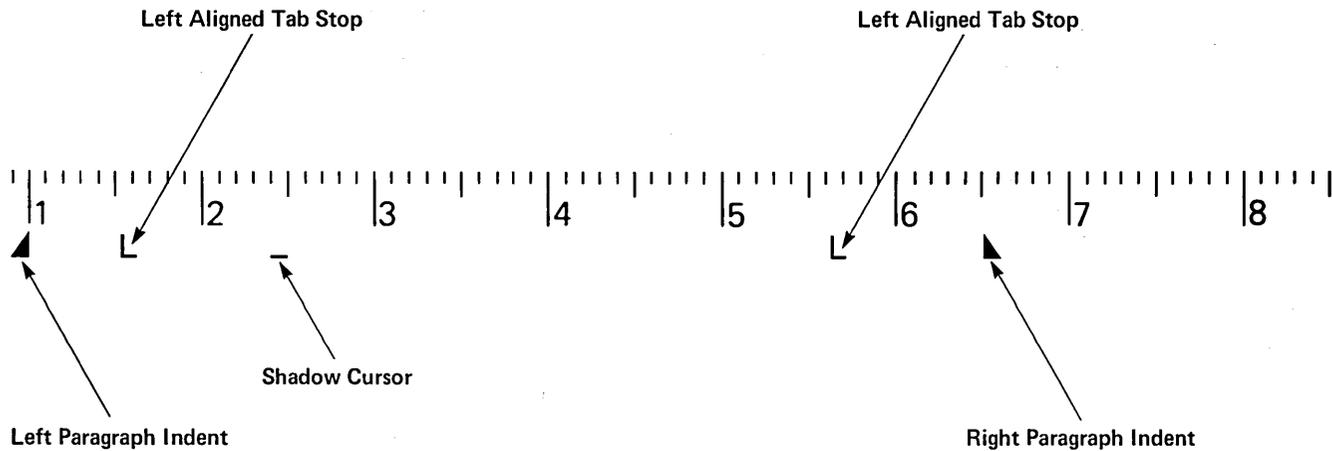


Figure 2-5. Detail of the Ruler Display.

The marks on the ruler display do not represent columns of characters. They correspond directly to a measurement of the printed page.

When you set a paragraph indent or a tab stop to a certain tick mark, the associated text is aligned under this tick mark when printed. Tab stop symbols, however, cannot be shown immediately below the tick mark, so they are shown to the right of it. The shadow cursor is also shown to the right. For paragraph indents and margins, the ruler display symbols are shown at the outside edge of the text, like bookends. The left paragraph indent symbol and margin indicator appear to the left of the position where the first character will be printed, and the right symbols appears to the right of the position where the last character will appear.

(In Figure 2-5 you can see left-aligned tab stops at 1.5 inches from the left edge of the paper and 5.6 inches from the left edge of the paper. The left paragraph indent point is shown at 1.0 inch and the right paragraph indent is shown at 6.5 inches.)

When you are setting tab stops and paragraph indents, the symbol appears exactly at the point where the shadow cursor is positioned. (See Section 9, "Using Tabs," and the subsection "Indentation Attributes" in Section 8, "Structuring Document Format," for information on how to set tab stops and paragraph indents.)

A paragraph indent symbol can cover up a tab symbol so that it does not show. For example, a right-aligned tab set at the right paragraph indent point cannot be seen. Both the indent symbol and the tab symbol can cover up a margin indicator.

DOCUMENT STATUS LINE

The document status line is the highlighted strip just above the text area. It shows the name of the current document, the number of the page on the screen, and the number of the line at which the cursor is positioned. This information is updated as the cursor is moved within the document.

MAIN TEXT AREA

Cursor

The cursor is the movable blinking underline on the screen that indicates where the next character can be entered. The cursor moves ahead automatically as text is entered.

Use the arrow keys to move the cursor to any point on the screen. When you move the document displayed, the cursor is moved for you.

For more information on moving the cursor, see Section 6, "Moving Within a Document."

Windows

The area of the screen where your document is displayed is called a window.

The text of your document is displayed in the main text area within a window. You may see only part of the document at a time through the window. The content of the window changes as text is entered or edited. The text can be scrolled up and down and sideways so that you can view the entire document through the window.

The screen normally shows only one window, bounded by the document status line and the bottom of the screen. However, you can divide the screen into more than one window if you wish. When you do so, each window is separated from the others by a highlighted strip.

You can open more than one window on the same document, and you can show different documents in different windows at the same time.

Dividing the screen into multiple windows is discussed in Section 6, "Moving Within a Document."

Formatting Shown on the Screen

Normal text is shown on the screen in characters of normal intensity.

Whenever possible the Word Processor shows formatting that you apply to text on the screen. Underlining, for instance, appears on your screen.

Half-bright characters are used to indicate that some format attribute has been applied to text that cannot be shown on the screen. For example, such characters can be footnote references or can appear in an alternate ribbon color when printed.

The subsection "Character Format Attributes" in Section 8, "Structuring Document Format," discusses format attributes and tells you how to use the Format command to check a character to find out why it appears half-bright.

Visible Command

The Word Processor inserts symbols into text to show that you use special characters such as tab or nonbreaking hyphen. These symbols are shown in Table 2-2.

The formatting symbols used with Word Processor text can be shown on the screen at three levels of visibility:

- o Normal mode shows only page and column break marks in addition to your document text. Characters that have special formatting characteristics are shown in half-bright intensity.
- o Half-visible mode shows the paragraph symbol, line break symbol, and spaces.
- o Full-visible mode, in addition to the symbols shown in half-visible, shows tab symbols, non-breaking space and hyphen symbols, and discretionary space and hyphen symbols.

To change the screen from normal mode to half-visible mode, you press CODE-V. Pressing CODE-V again changes it from half-visible to full-visible, and pressing CODE-V a third time returns you to normal mode.

Table 2-2. Special Character Symbols.

<u>Symbol</u>	<u>Description</u>
¶	Paragraph
↵	Line break
-	Line break (discretionary)
.	Space
␣	Nonbreaking space
—	Hyphen (nonbreaking)
≈	Hyphen (discretionary)
→	Tab
{ }	Keep together
_____	Synchronized column mark
-----	Page break (floating)
=====	Page break (static)
:::~::~:	Serpentine column break (static)

Figure 2-6 shows how the screen appears when you are editing a document in full-visible mode.

It is recommended that you work in half- or full-visible mode when editing, since this allows you to see formatting more easily.

Changing Screen Width

The exact width and length of your screen in characters or lines depends on the model of your workstation. Some workstations have the capability of showing you a 132-column display as well as an 80-column display. If you have this type of workstation, you can change the display

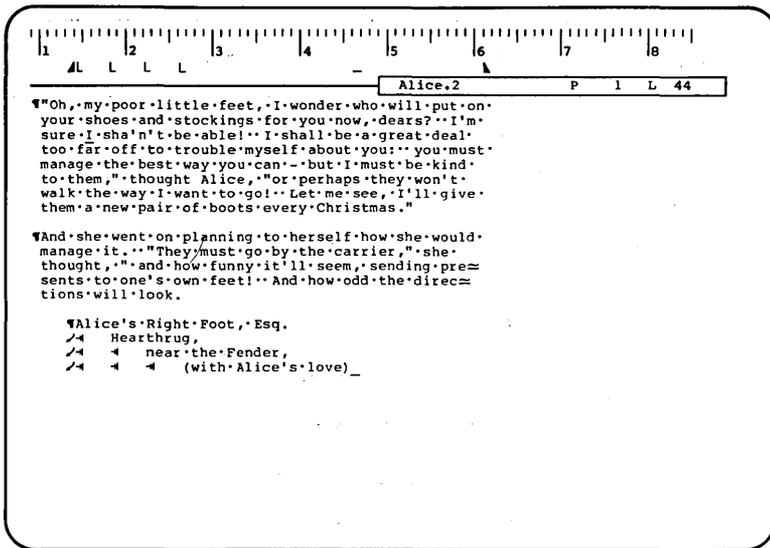


Figure 2-6. Screen Shown in Full-Visible Mode.

width from large characters to small ones and see a wider display by using the Zoom command. To give the Zoom command, type CODE and Z together (CODE-Z). To change the screen back, give the command again.

Status Messages and Prompts

The bottom line of the screen is used for status messages and prompts. A status message informs you of a particular occurrence within the system. A prompt guides you through certain procedures. For example, when you use the Finish command to finish a document, the prompt

Press GO to confirm FINISH, or CANCEL to cancel the command

is displayed to tell you to confirm the command and the message

Saving...

is displayed to tell you that the document is being saved.

KEYBOARD

The keyboard is similar to a standard typewriter keyboard, but it has additional keys. You can think of the keys as organized into six key pads, each of which performs special word processing functions. Figure 2-7 shows the keyboard and the key pads.

Keys are used to enter text and to give commands that tell the Word Processor how you want to manipulate text. You give commands using some keys alone and some in combination with others. The keystrokes required for each command can be found in the subsection for that command in Section 18, "Commands and Options."

KEY PADS

The key pads are used as follows:

- o The typewriter pad keys enter characters at the cursor position. Many of these keys are used with the SHIFT and CODE keys to give commands.
- o The cursor pad keys have two functions: the arrow keys control cursor movement and the MARK and BOUND keys select and highlight text.
- o The function pad keys perform special Word Processor commands.
- o The control pad keys perform general editing and control functions. These keys are used to exit from the Word Processor, cancel commands, display a list of available commands, etc.
- o The display pad keys move text within a window up or down by lines or pages.
- o The numeric pad keys are used as you would use calculator keys, to enter numbers conveniently. The numeric pad also includes the GO and NEXT keys.

FUNCTION KEY LABEL STRIP

Some commands are given by pressing a single function key. Others are given by holding down the SHIFT and/or CODE keys at the same time that you press a function key. The keyboard label strip shows the names of the commands you can give using the function pad keys.

Commands on the bottom line of the function key label strip are given by pressing the function key that appears below the command name. The middle level indicates commands that are given by holding down the SHIFT key while pressing the appropriate function key. Commands on the top line of the function key label strip are given using the CODE key plus the appropriate function key.

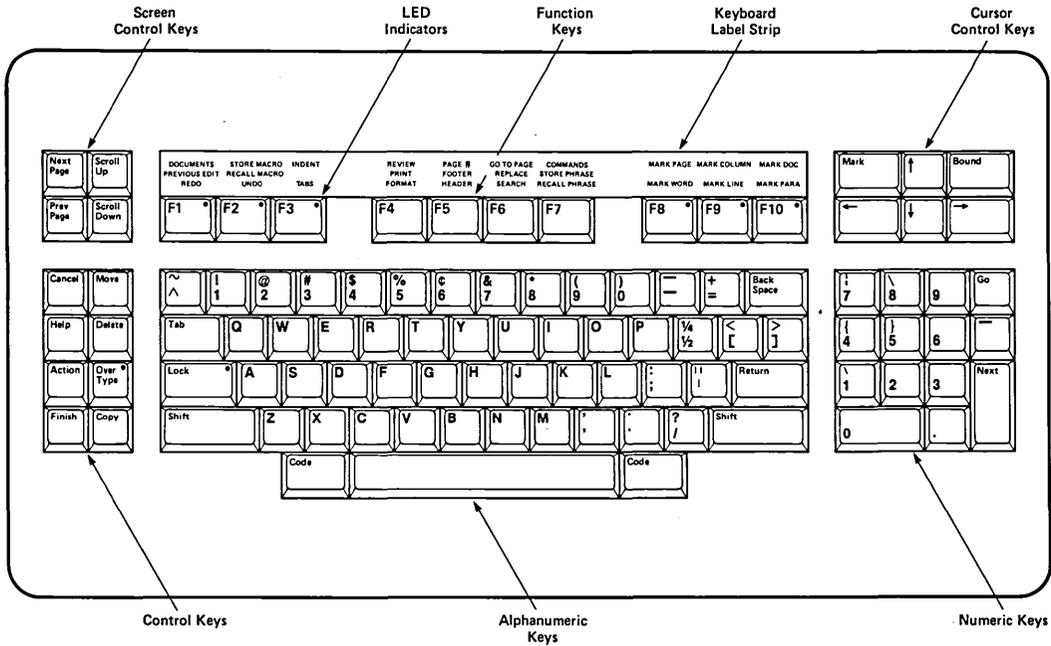


Figure 2-7. Keyboard.

3 CREATING A DOCUMENT

WHAT IS A WORD PROCESSOR DOCUMENT?

We usually think of a document as a collection of text, frequently bearing a title. Such a document can be as short as a one-page business letter or as long as several hundred pages.

In the Word Processor, a document is whatever text you store together under one document name. It is a good idea to keep documents short, around twenty or thirty pages, to allow easy manipulation. Therefore, if you are producing a document such as this manual, it is typically stored as several documents.

When you create a document, you enter text and use Word Processor commands to assign formatting to the text. Examples of formatting include such attributes as page margins, line spacing, and underlining. Formatting is applied to characters, paragraphs, and pages.

Giving commands and structuring document format are discussed in Sections 4 and 8, respectively.

DOCUMENTS ARE SAVED ON DISK

A disk is a magnetic storage unit for computer-readable information. Many workstations have a hard disk permanently installed that can store large amounts of data. Floppy disks (flexible plastic disks) can be inserted in disk drives of some workstations for storing data. Cluster workstations can also access disks on a master workstation.

Documents are usually stored on a hard disk mounted in a local workstation or on the master workstation. Floppy disks are usually used to store documents you need to access infrequently, or to transfer documents from one workstation to another.

How to use disks and store documents on a disk is discussed in detail in Section 13, "Document Management."

DISK FILES AND DOCUMENTS

All the documents you create are stored in files containing both the document text and special codes that you do not normally see that tell the Word Processor how to format the text. Other files stored on the disk may not be documents that can be accessed through the Word Processor. Examples are files that are used by the operating system and applications systems installed on your workstation.

When you display a document on the screen, you are not directly accessing the disk file. Instead, an image of the document and your work is stored in memory until you end the word processing session by pressing FINISH or giving the Save command (CODE-S). During a Save or Finish, your work is transferred to the disk file.

As you are working with a document, you should save about every 20 minutes so that none of your work is lost.

NOTE

To make your work permanent, you must Save or Finish. New documents are not written to the disk and edits are not transferred to the disk file until you Save.

USING THE DOCUMENTS MENU TO OPEN A DOCUMENT

Documents are opened, copied, renamed, and deleted using the options available through the Documents menu. Opening a document creates the document if it did not previously exist. Figure 3-1 shows the Documents menu.

You must have an open document to enter text.

When the Word Processor is first invoked through the Executive, the Documents menu is displayed for you on the screen. If your Word Processor is invoked automatically after SignOn, the Word Processor either displays the Documents menu or opens for you the document(s) you were working on the last time you finished a session.

You can display the Documents menu yourself by giving the Documents command (CODE-fl).

DOCUMENTS: (Press CANCEL to dismiss)	
Press O to Open document	Press W to change Work area
D Delete document	L List documents
C Copy document	
R Rename document	

Figure 3-1. Documents Menu.

To open a document, press O to choose the Open Document command, an option from the Documents menu. This causes the Open Document form to be displayed. Complete the form, pressing NEXT to move from field to field, and press GO. Figure 3-2 shows the Open Document form.

OPEN DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)	
Document name:	
Password:	
Allow changes?	Yes No (Press Y or N)
Copy from document:	

Figure 3-2. Open Document Command Form.

If you are creating a document, you assign it a name. You have the option of specifying whether to copy from another document or not. If you are opening an existing document, you can specify that it not be changed during this session. You can also give the password if one is required to create or access the document. Note that you cannot assign a password to a new document by completing the "Password" field of the Open Document form.

Completing the Open Document command is discussed in detail in Section 18, "Commands and Options." More information is given on naming, accessing, and managing your documents in Section 13, "Document Management."

CLOSING A DOCUMENT AND FINISHING A SESSION

You can close a document and remove it from the screen by placing your cursor within the document and giving the Close Document command (CODE-C). To open a new document, give the Open Document command again.

To complete a word processing session and exit from the Word Processor, press the FINISH key. The Finish command saves all text entered and edited during the session. You do not have to close a document first to FINISH. When you press FINISH, the following message appears:

Press GO to confirm FINISH, CANCEL to cancel command.

After you press GO, every document you worked on during the session is saved.

If you have made changes to existing documents or created new documents since the last Save, the Word Processor displays a row of small boxes at the bottom of the screen. As the Save proceeds, the boxes are filled to indicate the progress of the Save.

When Finish has been completed and the document has been saved, the word processing session ends. You are returned to the Executive or the Context Manager, if the Word Processor was invoked through either of them. Otherwise, the SignOn form returns to the screen.

SIMPLE TEXT ENTRY

ENTERING TEXT

Enter text as you would enter text on a typewriter. Simply type the characters from the typewriter pad of the keyboard.

You can format text, paragraphs, and pages as you enter them. (Formatting is discussed in Section 8, "Structuring Document Format.")

As text is entered and the end of a line is reached, the text automatically is continued on the next line. This is sometimes called wrapping around.

To start a new paragraph press RETURN. The default paragraph format leaves an extra line between paragraphs. You can adjust the number of lines skipped by making a format change with the Line Spacing command, an option of the Format menu. (Changing paragraph format is discussed in Section 8, "Structuring Document Format." and the Line Spacing command is discussed in Section 18, "Commands and Options.")

To end a line or sentence without ending a paragraph and before the text wraps around to the next line, press SHIFT-RETURN.

For example, before this paragraph was begun, RETURN was pressed to start a new paragraph. SHIFT-RETURN was pressed here to start a new line without beginning a new paragraph.

SHIFT-RETURN is useful when you want to keep a block of text, such as a table, together under one paragraph symbol.

INSERTING TEXT OR TYPING OVER IT

Text can be entered with the keyboard in either insert mode or overtyping mode. When you invoke the Word Processor, the keyboard is in insert mode.

When the keyboard is in insert mode, anything you type into existing text causes the typed text to

be inserted just before the cursor. None of the existing text is deleted. The cursor, and any characters to the right of it, move to the right.

Insert mode allows you to go back to any point in the document and add text easily.

When the keyboard is in overwrite mode, anything you type into existing text replaces that text.

To change the keyboard to overwrite mode, press the OVERTYPE key. The light on the key goes on.

To end overwrite mode and return to insert mode, press OVERTYPE again. The light on the key goes off.

CORRECTING OR DELETING TEXT

As you type, you may want to correct or delete the text that you just entered.

In insert mode, you can use the BACKSPACE key to delete the character just to the left of the cursor. The Word Backspace command (CODE-W) deletes the word to the left of the cursor. (In overwrite mode, BACKSPACE and Word Backspace only move the cursor and do not delete text.)

To delete the single character at the cursor position, press DELETE. DELETE, when held down continuously, deletes characters continuously, removing them from the right of the cursor. You also can delete words, lines, paragraphs, or pages by first selecting them and then pressing DELETE. DELETE works the same in insert or overwrite modes. (See Section 5, "Selecting Text," for information on how to make a selection.)

SIMPLE DOCUMENT STRUCTURE

When you are entering text it is helpful to keep in mind the structure that the Word Processor applies to a document. Some of the concepts introduced here are discussed in detail in Section 8, "Structuring Document Format."

If a document is created without copying any other, the Word Processor makes assumptions about the format attributes to assign to it. These are called default attributes. You can vary these with formatting. The default format attributes appear in Table 8-1.

A document is made up of characters, formatted into paragraphs and pages.

CHARACTERS

Each character you type has certain character attributes. Examples of these are underlining, boldface, and ribbon color.

PARAGRAPHS

Each time you press RETURN, you start a new paragraph. The Word Processor moves the cursor down two lines and inserts a paragraph symbol into text. (You can see this symbol when you press CODE-V.)

Each paragraph symbol contains the information about the format of the paragraph it begins. This is true whether you have assigned special formatting to the paragraph or are using the default format.

Format information includes paragraph line spacing, justification, and indentation.

To the Word Processor, your paragraphs are made up of characters that wrap around to a new line whenever the right paragraph indent point is encountered.

PAGES

The Word Processor indicates with a page break symbol where text will be broken into pages when it is printed.

The Word Processor inserts a floating page break symbol as you fill up each page. A floating page break appears as a single dashed line across the screen.

Floating page breaks are adjusted later by the Word Processor during pagination to allow for any additions or deletions to the text. (Pagination is discussed in Section 8, "Structuring Document Format.")

You can insert a static page break that makes the Word Processor start a new page whether a full page of text exists or not by pressing CODE-NEXT PAGE. A static page break appears as a double dashed line on the screen. It is not changed when the Word Processor paginates.

Either kind of page break contains the information about page formatting, for example, margins, header and footer position. Thus, if you move a page break, the format for that page goes with it.

VOID SPACE

The space between paragraphs at the end of an incomplete line or at the end of a document is referred to as void space.

If you type a character while your cursor is within any void space, the Word Processor places the character at the end of the text that precedes the void space.

If you backspace when your cursor is in the void space, you delete the last character on the line preceding the void space.

MORE COMPLICATED TEXT ENTRY

Word Processor commands are available for you to use to copy text, manipulate it, and format it. You can also enter text in columns or recall a phrase whenever you need it as you enter text.

To perform more complicated text entry, you need to understand moving around within a document and how to give a Word Processor command. This information appears in Sections 4, 5, and 6, "Giving Word Processing Commands," "Selecting Text," and "Moving Within a Document."

Table 3-1. Hints for Simple Text Entry.

<u>If you want to...</u>	<u>Then...</u>
Change any characters from uppercase to lowercase	Press OVERTYPE, then type over the characters you want to replace.
Delete the word you just typed	Use Word Backspace command (CODE-W).
Delete the last character on a line	Place cursor in void space, then press BACKSPACE.
Start a new line before the text on the line you are typing has reached the right margin	Use SHIFT-RETURN.
Change paragraph format to single spacing so that no lines are skipped between paragraphs	Press f4(FORMAT)...1 (See Section 8, "Structuring Document Format.")
Leave a blank line within a paragraph	Press SHIFT-RETURN twice.

4 GIVING WORD PROCESSOR COMMANDS

You use word processing commands to tell the Word Processor what to do. Some commands insert a special character; some assign special attributes to characters, paragraphs, or pages; and some perform editing functions for you.

This section explains how the process of giving a command works: what the Word Processor does and what you do.

A command summary at the end of this section lists all the commands available to you through the Word Processor and also lists the keystrokes used to give the command. Section 18, "Commands and Options," is a detailed reference organized alphabetically by command name. It describes the capabilities and limitations of each command and gives information on how to complete the command form or use the menu for that command.

While using the Word Processor, you can see a list of these commands with a short description of each, by pressing the HELP key.

THE COMMAND PROCESS

To give a command, you press a key or combination of keys. For instance, to give the Mark Page command, you press CODE-f8.

For many commands, the Word Processor requires you to supply information or to complete another step before it can execute the command. A menu, a form, or a prompt is displayed for this purpose. Instructions appear on the screen. You respond to these instructions and the command is executed.

If more information is needed than is supplied from the first display, a second or third menu or form is displayed.

For a few commands, such as the Footnote command (CODE-F), you must create additional text that is kept separate from the main document text. These commands create a small window at the bottom of the screen into which you type the additional text.

You can dismiss a menu, form, or prompt from the screen without completing the associated command by pressing CANCEL.

Commands are usually applied to the area where you have your cursor. If an area of text has been selected with one of the Mark keys and your cursor is within the selection, the command is applied to the selection. (See Section 5, "Selecting Text.")

USING A MENU

A menu offers a choice of several options. Choose the option you want by pressing the appropriate key.

MENU EXAMPLE

Figure 4-1 shows the Documents menu. To choose the Open Document option, press O. A form is displayed that you complete by supplying the name of the document and other requested information.

DOCUMENTS: (Press CANCEL to dismiss)	
Press O to Open document	Press W to change Work area
D Delete document	L List documents
C Copy document	
R Rename document	

Figure 4-1. Example of a Menu.

WHEN A COMMAND IS AN OPTION ON A MENU

For simplicity's sake, this manual refers to many Word Processor functions that appear as options on a menu as "commands." For example, the Check Spelling command is given by first calling up the Commands menu and then choosing the Check Spelling option.

In this manual keystrokes for such a command are indicated with an ellipsis (...) separating the keystrokes that call up the option from those that call up the menu.

For example, f7 (COMMANDS)...C indicates the keystrokes used to give the Check Spelling command, an option on the Commands menu.

USING A FORM

While a menu offers a choice among options, a form is made up of fields for which you supply the requested information. To complete a field, you enter text or choose an option.

The field your cursor is presently in is indicated by a highlighted bar. To move the cursor from field to field, press NEXT. Enter the requested information as you would type any text.

When a field requires that you choose an option, do so by moving the cursor to that field and then pressing the appropriate key. The current value for such fields is indicated by a highlight when the cursor is within the field and by characters shown in full brightness when it is not.

Press GO to execute the command after you complete the form.

DEFAULTS

For most commands that require you to complete a form, each field of the form has a value assigned, called a default value, which is used by the Word Processor if that field is left blank when the command is executed.

Defaults are indicated on a form with parentheses or a highlight.

Sometimes fields that do not have a default are completed by the Word Processor for you. An example of this occurs when you have a document open and give the Print command. For your convenience, the Word Processor inserts the name of the open document in the Document name field. You can change this entry as you would change any text.

For some commands, the entries you made in the command form the last time the command was executed are redisplayed on the form the next time you give the command. Examples of such commands

are the Search command (f6) and the Replace command (SHIFT-f6). These fields are completed for your convenience and can be easily changed as you would change any text. Entries are only retained for the current word processing session.

FORM EXAMPLE

Figure 4-2 shows the Open Document form. The first field, "Document name" is shown completed.

The current field, "Password", is indicated by the highlight bar.

In the "Allow changes?" field, "Yes" is the default value.

Note that the form also prompts you to press GO to execute the command.

If the form is executed as shown only the information in the completed fields is used. No password is used to open the document, changes are allowed, and no document is copied to create the new one.

OPEN DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)	
Document name:	MyDocument
Password:	
Allow changes?	Yes No (Press Y or N)
Copy from document:	

Figure 4-2. Example of a Command Form.

PATTERNS AND WILD CARD CHARACTERS

When a command form has a "Pattern" field, you can include special characters called wild card characters in the entry.

A wild card character tells the Word Processor to list all items it finds that match the characters given in the pattern **except** the wild card

character(s). Where a wild card character appears, all matches are considered valid.

Two wild card characters are recognized:

- o The asterisk (*), which specifies all matches of zero or more characters.
- o The question mark (?), which specifies all matches of exactly one character.

You can use up to eight wild card characters in a pattern.

Examples

The List Documents command form (CODE-fl(DOCUMENTS)...L) is one of the commands that uses a "Pattern" field.

Assume you have the following list of documents on your directory:

```
StatusReport.1-10-84
StatusReport.1-17-84
StatusReport.1-24-84
StatusReport.1-31-84
StatusReport.2-7-84
StatusReport.2-14-84
```

If the pattern entered in the "Pattern" field of the List Documents form is "status*" then all the documents on the directory match the pattern and are listed.

If the pattern entered is "*2*" then only the documents with a 2 in the name are listed. This would list both the February status reports, StatusReport.2-7-84 and StatusReport.2-14-84, but would also list StatusReport.1-24-84.

To get a list of only the February reports, you can enter the pattern "*.2*" or the pattern "*2-*".

If you enter the pattern "status*.1-2?-84" then only the document StatusReport.1-24-84 is listed. This type of pattern is useful when you have forgotten the exact name of a document, but can remember some of it.

Wild Card Characters and File Specifications

Use of the wild card characters in the Word Processor is limited to the "Pattern" field only. The wild card characters cannot be used as a part of a file specification with the Open Document, Copy Document, Delete Document, or Rename Document commands. (File specification is discussed in Section 13, "Document Management.")

COMMAND PROMPTS

A prompt is a brief message that simply tells you what further steps are needed to execute the command or warns you to be sure you know how to use this command.

When a prompt appears on the screen, the cursor remains within the text area.

EXAMPLE OF A PROMPT

Figure 4-3 shows the Move prompt. When you press MOVE without making a selection, this prompt appears.

MOVE: (Press GO to execute, CANCEL to dismiss)

Select text to be moved, then press GO to execute.

Figure 4-3. Example of a Prompt.

WINDOWS FOR SPECIAL TEXT COMMANDS

Certain commands are used to print special text on certain pages at print time. This text is kept separate from the main body of the document until print time. Examples are the Footnote command (CODE-F), Header command (f5), and Footer command (SHIFT-f5).

These commands open a small window at the bottom of the screen where you enter the special text. Figure 4-4 shows how the screen appears when you are entering the text for a footer.

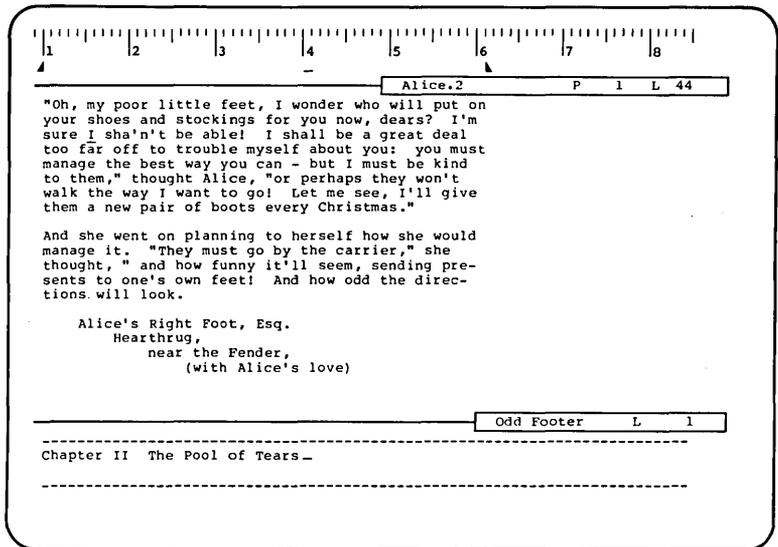


Figure 4-4. Screen Showing Footer Window.

You can enter text in this window exactly as you do for the main document. Character and paragraph formatting can be applied as usual.

When you have completed the entry, you press GO. The text disappears and is stored separately. You can view this text or edit it by giving the command again.

COMMAND SUMMARY

ADD ROW/COLUMN

CODE==

Adds the sum of a tabbed column of numbers and can be used to insert that sum into text. The value of some kinds of mathematical expressions can also be calculated.

BACKSPACE

BACKSPACE

Deletes the previous character when the screen is in insert mode.

BACKSPACE, REQUIRED

CODE-BACKSPACE

Causes the next character typed to overstrike the previous character of the text when printed.

BACKSPACE, WORD

CODE-W

Deletes the word previous to the cursor.

BOLDFACE TEXT

f4 (COMMANDS)...B

Prints characters in boldface text.

BOUND

BOUND

Extends an existing selection.

Moves the cursor and extends the highlight by one unit to the next character, word, line, column, paragraph, or page, depending on which MARK key is used to make the selection originally.

BREAK TYPE**f4 (FORMAT)...Q**

Changes the type of page break or serpentine column break from floating to static, or the reverse, from static to floating. This command also can make a page odd or even in number.

CANCEL**CANCEL**

Dismisses a menu or form from the screen and can also cancel some commands.

CENTERED TEXT**f4 (FORMAT)...C**

Centers a paragraph between indent settings.

CHECK SPELLING**CODE-f7 (COMMANDS)...C**

Checks spelling of all words in your document against the common word dictionary and your personal dictionary and highlights misspelled words. It suggests corrections that you can accept, or lets you enter corrections manually.

CLOSE WINDOW**CODE-C**

Removes any document window from the screen.

If multiple windows on one document are shown on the screen, or if multiple documents are shown, Close Window closes the window where you have the cursor.

COLLECT FOOTNOTES**CODE-SHIFT-F**

Collects all footnote text from a document and appends it to that document or another specified document.

COMMANDS**CODE-f7 (COMMANDS)**

Gives you access to the following advanced commands:

- o Document Exchange
- o Electronic Mail
- o Multiplan
- o Picture Editor
- o Executive
- o Sort/Select
- o Merge
- o Merge to a Document
- o Reformat Tabs
- o Check Spelling
- o Load Personal Dictionary
- o Unload Personal Dictionary
- o Hyphenate Word
- o Remove Phrase
- o List Phrases
- o List Macros
- o Unload Macro
- o Load Macro
- o Remove Macro

COPY**COPY**

Copies selected text from one location to a location specified by the cursor position. The text remains in its original place and is added at the cursor location.

COPY DOCUMENT **CODE-f1 (DOCUMENTS)...C**

Copies an existing document and gives the copy a new name.

DATE/TIME **CODE-T**

Displays the current date and time at the bottom of the screen.

DELETE **DELETE**

Deletes a single character or a selection at the cursor position.

DELETE DOCUMENT **CODE-f1 (DOCUMENTS)...D**

Permanently removes a document from the directory listing and the disk.

DISCARD EDITS **CODE-U**

Returns the document to its state at the time of the last Save or Finish and discards all edits made. This acts as a more powerful version of the Undo command.

DIVIDE WINDOW **CODE-D**

Divides the current screen window into two.

DOCUMENT EXCHANGE **CODE-f7 (COMMANDS)...D**

Converts a Word Processor format file to a DEF (Document Exchange Format) file.

Converts a DEF formatted file to a word processing format file that can be used with the Word Processor.

DOCUMENTS**CODE-f1 (DOCUMENTS)**

Gives you access to the following Document commands:

- o Open Document
- o Delete Document
- o Copy document
- o Rename document
- o Work Area
- o List Documents

ELECTRONIC MAIL**CODE-f7 (COMMANDS)...E**

Invokes the Electronic Mail system.

EXECUTIVE**CODE-f7 (COMMANDS)...X**

Invokes the Executive.

FINISH**FINISH**

Ends the Word Processor session. When you give the Finish command, all documents on the screen are closed and saved and you exit from the Word Processor.

FOOTER**SHIFT-f5 (FOOTER)**

Specifies text to be printed at the bottom of all pages, all odd-numbered pages, all even-numbered pages, or selected pages.

FOOTNOTE**CODE-F**

Enters a footnote reference in text and creates the corresponding footnote. Footnotes appear at the bottom of the page when the document is printed, unless you suppress printing of footnotes.

FORCED COLUMN**CODE-NEXT**

Starts a new column when entering text in serpentine or synchronized columns.

For synchronized columns, Forced Column inserts a new synchronization mark.

FORCED PAGE**CODE-NEXT PAGE**

Forces a new page at a specified point in the text.

Inserts a static page break, which appears on the screen as a double dashed line.

FORMAT**f4 (FORMAT)**

Lists currently assigned format settings and provides access to the following commands:

- o Boldface Text
- o Underlined Text
- o Struck-out Text
- o Superscript Text
- o Subscript Text
- o Alternate Ribbon Color
- o Merge Keyword
- o Left-flush Text
- o Right-flush Text
- o Centered Text
- o Justified Text
- o Paragraph Line Spacing
- o Page Attribute
- o Page Dimension
- o Pitch
- o Print Wheel
- o Break Type

GO TO BEGINNING **CODE-B**
or **CODE-^**

Moves the cursor to the beginning of the document.

GO TO END **CODE-E**

Moves the cursor to the end of a document.

GO TO PAGE **CODE-f6 (GO TO PAGE)**

Moves the cursor to a specific page number.

GO TO PREVIOUS EDIT **SHIFT-fl**

Moves the cursor back to the last point where you entered or altered text.

GO TO SOURCE CODE LINE **CODE-SHIFT-G**

Moves the cursor to a specific source code line. Source code line is based on number of line breaks and paragraph marks.

HEADER **f5 (HEADER)**

Specifies text to be printed at the top of all pages, all odd numbered pages, all even numbered pages, or selected pages.

HELP **HELP**

Displays an alphabetical listing and description of every command.

HYPHEN (BREAKING REQUIRED)**HYPHEN**

Inserts a breaking required hyphen, used when a word or phrase always includes a hyphen but can be broken after the hyphen.

HYPHEN (DISCRETIONARY)**CODE-HYPHEN**

Inserts a discretionary hyphen, used to hyphenate a word at the end of a line.

HYPHEN (NONBREAKING)**CODE-SHIFT-HYPHEN**

Inserts a nonbreaking required hyphen, used to hyphenate expressions when a line break should never be inserted after the hyphen.

HYPHENATE WORD**CODE-f7 (COMMANDS)...H**

Displays the correct placement for hyphens in a word, if the word appears in the spelling dictionary or your personal dictionary.

INSERT HEXADECIMAL**CODE-I**

Inserts a nonstandard character specified by hexadecimal code into the text.

INSERT LITERAL**CODE-'**

Inserts the literal code for any keyboard character at the point where you position your cursor.

JUSTIFIED TEXT**f4 (FORMAT)...J**

Justifies a paragraph (right and left margins both straight).

KEEP TOGETHER**CODE-K**

Specifies that areas of text not be separated during pagination by a page break.

KEYWORD (MERGE KEYWORD)**f4 (FORMAT)...K**

Marks a word in a form document as a "merge keyword," to be replaced during a Merge operation with characters from the corresponding field of a records file.

LEFT-FLUSH TEXT**f4 (FORMAT)...L**

Aligns text evenly with the left paragraph indent position. When you specify left-flush, text is not justified.

LINE BREAK**SHIFT-RETURN**

Inserts a permanent line break in text. This break is retained whether you add extra text or not, and must be deleted manually.

LINE BREAK (DISCRETIONARY)**CODE-SPACEBAR**

Allows word wrap within text that would otherwise be considered a single word.

LINE SPACING

SINGLE SPACING	f4 (FORMAT)...1
DOUBLE SPACING	f4 (FORMAT)...2
SINGLE/DOUBLE SPACING	f4 (FORMAT).../
1 1/2 LINE SPACING	f4 (FORMAT)...½
OTHER LINE SPACING	f4 (FORMAT)...0

Set line spacing before, within, and after a paragraph.

LIST DOCUMENTS **CODE-f1 (DOCUMENTS)...L**

Lists documents in a work area. The documents can be sorted alphabetically or by creation date.

LIST MACROS **CODE-f7 (COMMANDS)...T**

Displays a list of all or part of the contents of your macro file.

LIST PHRASES **CODE-f7 (COMMANDS)...I**

Displays a list of all or part of the contents of your phrase file.

LOAD MACRO **CODE-F7(COMMANDS)...A**

Loads macrocommands from a document into a specified macro in your macro file. Typically used only after using Unload Macro and making changes to the contents of a macro.

LOAD PERSONAL DICTIONARY **CODE-f7 (COMMANDS)...L**

Loads words into your personal dictionary. Typically used only after using Unload Personal Dictionary and editing dictionary contents.

LOCATE **CODE-L**

Shifts the selection or the point where you have your cursor to the center of the current window.

MARK **MARK**

Selects and highlights the character at the cursor position

MARK COLUMN**CODE-f9 (MARK COLUMN)**

Selects and highlights the tabbed column in which the cursor is positioned.

MARK DOCUMENT
MARK PAGE
CODE-f10 (MARK DOCUMENT)
CODE-f8 (MARK PAGE)

Selects and highlights the entire document or page in which the cursor is positioned. For certain changes the Mark menu is displayed so that headers, footers, and/or footnotes can be included in this selection.

MARK LINE
MARK PARAGRAPH
MARK WORD
f9 (MARK LINE)
f10 (MARK PARAGRAPH)
f8 (MARK WORD)

Select and highlight the line, page, paragraph, or word in which the cursor is positioned.

MERGE**CODE-f7 (COMMANDS)...G**

Merges text from a specially formatted document called a records file into another specially formatted document called a form document. Text from the records file can be inserted into the form document at more than one place.

MERGE TO A DOCUMENT**CODE-f7 (COMMANDS)...Q**

Works like Merge, but writes merged text to a document instead of printing it.

MOVE**MOVE**

Moves selected text to the current cursor position and deletes the text from the original location.

MULTIPLAN**CODE-f7 (COMMANDS)...M**

Invokes Multiplan.

NEXT**NEXT**

Moves the cursor to the next field of any command form. If the cursor is at the last of the command form, it is moved to the first field again.

OPEN DOCUMENT**CODE-f1 (DOCUMENTS)...O
or CODE-O**

Opens an existing document or creates a new one.

OVERTYPE**OVERTYPE**

Puts the screen in overtype mode, so that new characters typed replace existing characters on the screen.

PAGE ATTRIBUTE**f4 (FORMAT)...T**

Sets the following page format attributes:

- o forced page number
- o forced footnote number
- o facing page format
- o sheet feeder bin

PAGE DIMENSION**f4 (FORMAT)...P**

Sets the following page format attributes:

- o paper height and width
- o top, bottom, left, and right margins
- o distance of header and footer from top and bottom of the page, respectively.
- o serpentine columns

PAGE NUMBER**CODE-f5 (PAGE #)**

Inserts a page number symbol, a half-bright pound sign (#), into text. The symbol is replaced at print time with the current page number as an arabic numeral.

PAGE NUMBER (ROMAN)**CODE-SHIFT-f5**

Works like the Page Number command, but inserts a half bright letter i, which is replaced at print time with the current page number as a roman numeral.

PARAGRAPH INDENT**CODE-f3 (INDENT)**

Assigns left, right, first line, or other line indents to the paragraph where you have your cursor.

OUTLINE INDENT**CODE-TAB**

Moves the first line indent point of the paragraph where the cursor is positioned in to the next tab stop. If no next tab stop exists, it moves the paragraph over by five spaces.

MULTIPLAN**CODE-f7 (COMMANDS)...M**

Invokes Multiplan.

NEXT**NEXT**

Moves the cursor to the next field of any command form. If the cursor is at the last of the command form, it is moved to the first field again.

OPEN DOCUMENT**CODE-f1 (DOCUMENTS)...0**
or CODE-0

Opens an existing document or creates a new one.

OVERTYPE**OVERTYPE**

Puts the screen in overtyping mode, so that new characters typed replace existing characters on the screen.

PAGE ATTRIBUTE**f4 (FORMAT)...T**

Sets the following page format attributes:

- o forced page number
- o forced footnote number
- o facing page format
- o sheet feeder bin

PAGE DIMENSION

f4 (FORMAT)...P

Sets the following page format attributes:

- o paper height and width
- o top, bottom, left, and right margins
- o distance of header and footer from top and bottom of the page, respectively.
- o serpentine columns

PAGE NUMBER

CODE-f5 (PAGE #)

Inserts a page number symbol, a half-bright pound sign (#), into text. The symbol is replaced at print time with the current page number as an arabic numeral.

PAGE NUMBER (ROMAN)

CODE-SHIFT-f5

Works like the Page Number command, but inserts a half bright letter i, which is replaced at print time with the current page number as a roman numeral.

PARAGRAPH INDENT

CODE-f3 (INDENT)

Assigns left, right, first line, or other line indents to the paragraph where you have your cursor.

OUTLINE INDENT

CODE-TAB

Moves the first line indent point of the paragraph where the cursor is positioned in to the next tab stop. If no next tab stop exists, it moves the paragraph over by five spaces.

OUTLINE UNINDENT**CODE-SHIFT-TAB**

Moves the first line indent point of the paragraph back to the previous tab stop. If no previous tab stop exists, the paragraph is moved back five spaces.

OUTLINE TOTAL UNINDENT**CODE-SHIFT-RETURN**

Moves the first line indent point of the paragraph back to the left margin.

PARAGRAPH, NEW**RETURN**

Starts a new paragraph and inserts a paragraph symbol into text.

PICTURE EDITOR**CODE-f7 (COMMANDS)...P**

Invokes the Picture Editor (Business Graphics).

PITCH**f4 (FORMAT)...SPACEBAR**

Specifies character spacing (pitch) to be used for selected text or the next text typed.

PRINT**SHIFT-f4 (PRINT)**

Prints a document or a list of documents. Can also be used to print only a few pages from a document.

PRINT WHEEL**f4 (FORMAT)...W**

Specifies a certain print wheel to be used when a document or part of a document is printed.

PRINTER STATUS

CODE-P

Checks status of printing and halts, restarts, and cancels print jobs.

RECALL MACRO

SHIFT-f2 (RECALL MACRO)

Recalls a previously stored keystroke macro and executes the keystrokes that were stored.

RECALL PHRASE

f7 (RECALL PHRASE)

Inserts a previously stored phrase into text at the cursor position.

REDO

f1 (REDO)

Repeats any edits you made since you last moved the cursor or repeats the last command you gave.

REFORMAT TABS

CODE-f7 (COMMANDS)...TAB

Reformats a document last opened on a Word Processor with a release number of 6.5 or lower, for use on a release number 8.3 or higher.

REMOVE FORMAT

CODE-R

Removes all formatting from a file, leaving only the typed characters, spaces, and line breaks.

THIS COMMAND CANNOT BE UNDONE. A SAVE IS PERFORMED AT THE SAME TIME FORMATTING IS REMOVED.

REMOVE MACRO

CODE-f7 (COMMANDS)...O

Removes a macro from your macro file.

REMOVE PHRASE **CODE-f7 (COMMANDS)...R**

Removes a phrase from your phrase file.

RENAME DOCUMENT **CODE-f1 (DOCUMENTS)...R**

Changes the name of an existing document.

REPLACE **SHIFT-f6 (REPLACE)**

Searches a document for a specific character string and replaces it with another character string.

REVIEW DOCUMENT **CODE-f4 (REVIEW)**

Reviews the formatting of a document, making adjustments for new pagination, hyphenation, and the elimination of widow text.

RIBBON COLOR, ALTERNATE **f4 (FORMAT)...A**

Prints characters in a different ribbon color.

RIGHT-FLUSH TEXT **f4 (FORMAT)...R**

Aligns text evenly with the right paragraph indent position.

SAVE **CODE-S**

Transfers all changes made to the disk file for each document opened since the last Save or Finish.

SEARCH**f6 (SEARCH)**

Searches for a string of one or more characters within a document or a selection and, if specified, highlights the string when found.

The search begins at the cursor position and continues to the end of the document.

SORT/SELECT**CODE-f7 (COMMANDS)...S**

Sorts the contents of a records file and/or selects only certain records from it.

SPACE (NONBREAKING)**CODE-SHIFT-SPACEBAR**

Inserts a nonbreaking space to keep characters together as a group at the end of a line rather than splitting them at a space.

STORE MACRO**CODE-f2 (STORE MACRO)**

Stores a keystroke macro that can be recalled later to repeat all the stored keystrokes.

STORE PHRASE**SHIFT-f7 (STORE PHRASE)**

Stores a block or string of text that is in your open document, so that it can be recalled for subsequent insertions in the same or another document.

STRUCK-OUT TEXT**f4 (FORMAT)...S**

Prints characters in text with a line drawn through it (struck-out).

SUBSCRIPT TEXT **f4 (FORMAT)...period(.)**

Prints characters below the regular line of text in subscript.

SUPERSCRIPIT TEXT **f4 (FORMAT)...^**

Prints characters above the regular line of text in superscript.

SYNCHRONIZED COLUMNS **CODE-/-**

Formats text into synchronized columns the tops of which are aligned with each other across the page width.

TAB **TAB**

Inserts a tab symbol and moves the cursor to the next tab stop.

TABS **f3 (TABS)**

Sets tab stops within a paragraph. Once tabs have been set, the cursor can be moved across the page from tab stop to tab stop, using TAB.

THUMB **CODE-^**
or CODE-1 to CODE-0

Moves the cursor to a specified position within the document (on a 10-point relative scale.)

TYPETHROUGH **CODE-SHIFT-T**

Sends your keystrokes directly to the printer, as if you were using a typewriter. To use this command, you must have a printer attached directly to your workstation.

VISIBLE**CODE-V**

Successive depressions of CODE-V change the screen display from normal mode to half-visible, to full-visible, and back to normal mode. Half- and full-visible modes show special characters and symbols, such as the paragraph sign and tab symbols.

WORK AREA**CODE-fl (DOCUMENTS)...W**

Changes the node, volume, or directory within which you are working.

ZOOM**CODE-Z**

Switches the screen display from 80 characters in width to 132 characters, if you have an IWS workstation.

5 SELECTING TEXT

A selection is a block of characters that are highlighted on the screen. Figure 5-1 shows how a selection appears on the screen. You usually select text to indicate where you want to apply a command.

A selection can consist of one or more characters, spaces, words, columns, lines, paragraphs, pages, or an entire document. You can also select formatting symbols, such as the paragraph symbol.

Only one selection can exist at a time.

A selection can be used to apply a command to a wider area of text than the command applies to by default, or to limit a command to a smaller area. For instance, the Replace command (SHIFT-f6) can be limited to only one paragraph by selecting that paragraph before you give the command. Note that your cursor must be within the selection to specify that a command be applied to that selection.

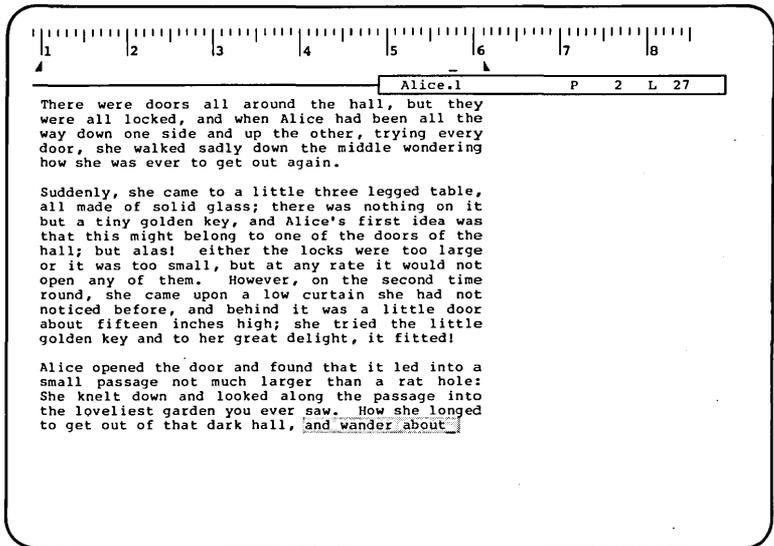


Figure 5-1. Screen Showing a Selection.

Selections are also made by the Word Processor when some commands are executed. For instance, when you use the Search command (f6), it optionally highlights the first place in text where it finds the characters for which it was searching. You can treat this type of selection the same way you would if you made it yourself.

MAKING A SELECTION

Selections are made with these Mark keys: MARK, f8 (MARK WORD), CODE-f8 (MARK PAGE), f9 (MARK LINE), CODE-f9 (MARK COLUMN), fl0 (MARK PARA), CODE-fl0 (MARK DOC).

Each Mark command selects and highlights a different unit of text. To select any such unit of text, simply place the cursor there and press the appropriate Mark key or key combination.

If you press the key again, the selection moves to the next unit of text. For example, pressing f9(MARK LINE) highlights a line, and pressing it again moves the highlight to the next line.

If the cursor is in void space, the unit of text preceding the void space is selected.

Note that Mark Page and Mark Doc have the additional feature of a Mark menu, displayed only when you use the selection to make a format change that allows you to include header, footer, or footnote text.

Table 5-1 lists the seven mark keys and shows the text they select.

EXTENDING A SELECTION

Any existing selection, except one made using the Mark Document command, can be extended by pressing BOUND.

Use BOUND to extend any selection forward by one unit of text. This command extends the highlight to include the original selection and the next character, word, line, paragraph, or page. It also moves the cursor to the beginning of the next unit of text. Press BOUND again to continue to extend the selection.

Table 5-1. Mark Keys.

<u>Mark Key</u>	<u>Selection</u>
MARK	The character or space that contains the cursor.
f8 (MARK WORD)	The word containing the cursor. Spaces between words, numerals, and punctuation marks are considered to be words.
CODE-f8 (MARK PAGE)	The text and the page break for the page containing the cursor. When some format changes are applied to a selection made with Mark Page, the Mark menu is displayed for you to specify inclusion of headers, footers, and/or footnotes.
f9 (MARK LINE)	The line containing the cursor. Also selects any formatting symbols on that line, such as the paragraph symbol.
CODE-f9 (MARK COLUMN)	The tabbed column that contains the cursor, or that is nearest to the cursor. May mark a column in more than one adjacent paragraph if the column carries over. (Does not mark serpentine or synchronized columns. See Section 10, "Entering Text in Columns.")
f10 (MARK PARA)	The text in the paragraph containing the cursor and the associated paragraph symbol.
CODE-f10 (MARK DOC)	The entire document. Only one document can be selected. Uses Mark menu as does Mark Page.

You can extend a selection to include more text at one time by moving the cursor to the unit of text you want to act as a boundary for the selection and pressing BOUND. Again, the extension is made in the unit of text that was used to make the original selection. For example, if you make a selection using Mark Word (f8), move the cursor to the beginning of the last word you want to include in the selection, and press BOUND; the entire word where you have your cursor is highlighted. The cursor stays where it was when you pressed BOUND.

Boundaries can be defined either in front of or after the original selection.

SHRINKING A SELECTION

If you want to reduce an existing selection that was extended with BOUND, just position the cursor where you want the boundary and press BOUND again.

If, however, you make a selection too large by choosing a Mark command that selects more text than you need, you must use a Mark command that selects a smaller unit of text to reduce the selection.

DESELECTING TEXT

A highlight that shows that text is selected can be returned to normal by pressing CODE-MARK. The cursor does not have to be within the selection to deselect text.

When you remove the highlight, the selection has no further effect.

HOW A SELECTION WORKS WITH A COMMAND

A selection is usually used to indicate the text to which a command is applied. However, selections are not always necessary. You only need to make a selection when you want to apply the command to text that is not the default unit.

Some commands apply format attributes to characters, some apply them to paragraphs, and some apply them to pages. For formatting applied to characters, the command defaults to the next

character you type, in effect, to the cursor. For paragraph and page formats, the command defaults to the appropriate unit of text within which you have placed your cursor.

Remember, however, that to apply a command to a selection, the cursor must be either within the selection or in the command form when the command is executed. Otherwise, the command defaults to the position where you have your cursor.

EXAMPLES

Boldface text is a character attribute. It is applied to the **next** character you type. Therefore, if you want to start typing in boldface, no selection is necessary. However, to make existing characters boldface, you make a selection to indicate which characters are to be bold.

Paragraph line spacing is a paragraph attribute. When you specify line spacing using the Format command, the spacing defaults to the paragraph within which you have your cursor, but you can select several paragraphs to apply the same spacing to them all.

Table 5-2. Selection Hints.

<u>If you want to select...</u>	<u>Then...</u>
Several paragraphs	Press f10 (MARK PARAGRAPH) and press BOUND repeatedly until all paragraphs are selected.
Several paragraphs while retaining the present horizontal cursor position	Press f10 (MARK PARAGRAPH). Then move the cursor vertically down to the last paragraph and press BOUND.
Last part of a paragraph	Press MARK at the first character, move the cursor anywhere in the void space below the paragraph, and press BOUND.
Remainder of text on line	Press MARK at the first character, Press CODE-right arrow, then press BOUND.
A column of tabbed text	Use CODE-f9 (MARK COLUMN). Note that this only works if text is entered using tabbed columns. (See Section 9, "Using Tabs.")
Remove any selection	Use CODE-MARK.

6 MOVING WITHIN A DOCUMENT

Moving through a document quickly and efficiently is one of the most useful word processing skills you can develop. The cursor and the part of the document displayed on the screen can be moved using several different procedures, each appropriate to a specific task.

Your choices include moving the cursor without changing the part of the document shown in the window or changing the text displayed. You can change the part of the document displayed by scrolling back and forth or up and down or moving to a specified place within a document. You can also open more than one window on the screen to show more than one part of a document at a time.

For more information on the commands mentioned in this section, see the alphabetical command listing in Section 18, "Commands and Options."

CURSOR MOVEMENT WITHOUT CHANGING THE DISPLAY

The cursor control keys are the up arrow key (\uparrow), down arrow key (\downarrow), right arrow key (\rightarrow), and left arrow key (\leftarrow). These keys move the cursor one space at a time in the direction indicated by the arrow.

To move the cursor quickly, use CODE or SHIFT in combination with the arrow keys:

- o SHIFT plus a horizontal arrow key moves the cursor across the page in increments of 5 characters.
- o SHIFT plus a vertical arrow key moves the cursor in increments of 3 lines.
- o CODE plus an arrow key moves the cursor to the side edge of the text (of the paragraph or column) or to the top or bottom of the window.

(If the cursor is already at the top or bottom of a window and another window is open, CODE plus the up or down arrow moves the cursor into the next window.)

Other ways to move the cursor quickly, but which combine cursor movement with an edit function are the Backspace, Word Backspace, and Tab commands.

SCROLLING THE TEXT WITHIN THE WINDOW

SCROLLING VERTICALLY

You can scroll vertically through a document in increments of one line, one window, or one page. When you scroll, the cursor stays at the same point in text, until it must move to stay within the window.

- o SCROLL UP and SCROLL DOWN move the document vertically one line at a time. If you press either key continuously, the document also scrolls continuously.
- o SHIFT plus SCROLL UP or SCROLL DOWN move the document vertically one window at a time. The last two lines on the window become the first two, or vice versa.
- o NEXT PAGE moves the top of the next page of the document to the top of the window. Since a page is typically longer than the window, this means that when you page through the document you may not see all the text on the screen.
- o PREVIOUS PAGE works the same as NEXT PAGE except that the display moves back a page.

SCROLLING HORIZONTALLY

You can also shift the text displayed sideways from right to left (called horizontal scrolling).

To scroll horizontally, move the cursor to either margin using the appropriate arrow key. Continue to press the arrow key and, when the cursor reaches the edge of the screen, the text shifts to the left or the right.

Horizontal scrolling occurs as necessary automatically when you enter text. This means that if you move your cursor to the margin and continue to move it in the same direction, or if an edit operation moves the cursor past the margin, the screen scrolls horizontally.

THUMBING THROUGH THE DOCUMENT

When you pick up a printed document, you frequently thumb through it to find the point you want. You can use the Thumb command (CODE plus one of the number keys on the typewriter pad), the Go to Beginning command (CODE-B), and the Go to End command (CODE-E) in the same way that you thumb through a printed document.

These commands move the cursor to a point a certain distance through the document. You can thumb around to find the place you want.

The Thumb command allows you to move through a document in increments of 10 percent. To give the Thumb command, use the CODE key plus one of the number keys (1=10%, 2=20%, etc.).

MOVING TO A SPECIFIC POINT IN THE DOCUMENT

The Go to Last Edit command (CODE-f2) moves the cursor to the last place you entered or deleted text or to the last point at which you gave a command. Since 10 last edit points are remembered by the Word Processor for this command, it is especially useful to use Go to Last Edit when you are moving and copying text from one place to another.

The Go to Page command (CODE-f6) allows you to specify by number an exact page to display on the screen.

The Search command (f6) is an excellent way to find a page quickly when you know some of the wording unique to that page. You enter the characters you want the Word Processor to search for into the Search command form.

USING MULTIPLE WINDOWS

A window is a part of the screen that displays a part of a document. When you invoke the Word Processor, the screen normally shows one window. However, the screen can be divided into more than one window, so that you can view another part of the same document or a different document.

Up to seven windows can be on the screen at one time.

Multiple windows are especially useful for comparing text and for edit operations involving copying or moving text from one part of a document to another.

Since you can have more than one window on the same document, you can minimize the need to scroll back and forth from one point to another by working with multiple windows on the screen.

One advantage to this procedure is that one window can be used to search for something while the other can remain at the point where you are entering or editing text.

CREATING MULTIPLE WINDOWS ON DIFFERENT DOCUMENTS

You can create a new window to display an additional document by giving the Open Document command. (The Open Document command appears as an option on the Documents menu, and you can also give it by pressing CODE-0). When you open a second document, a new document status line appears, indicating the document name, the page number shown on the display, and the line number where you have your cursor positioned. The original window shrinks to allow space for the new one.

Figure 6-1 shows the screen divided into two primary windows, each the top window for a document.

CREATING MULTIPLE WINDOWS ON THE SAME DOCUMENT

To create multiple windows on the same document, use the Divide Window command (CODE-D). Divide Window divides the window where you have your cursor positioned exactly in half, horizontally. The new window is called a secondary window.

Secondary windows are separated from the primary window and from each other, if there is more than one, by an index tab, a shortened version of the document status line. The index tab displays the page number of the window below it and the number of the line in which the cursor is positioned. You can see an index tab in Figure 6-2, where a second window has been opened on the second document.

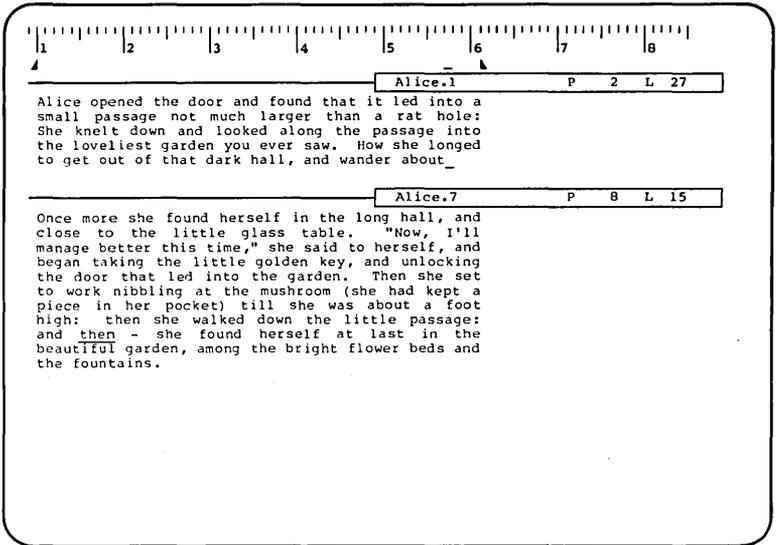


Figure 6-1. Screen Showing Multiple Windows.

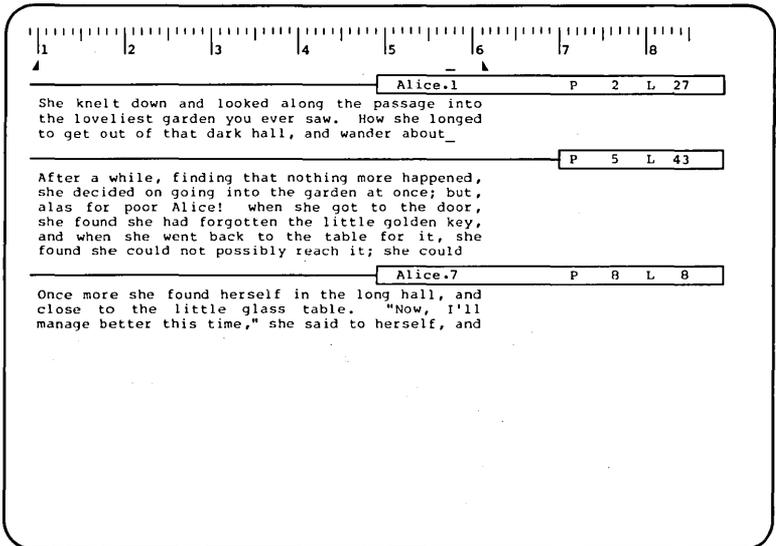


Figure 6-2. Screen Showing Two Primary Windows and One Secondary Window.

If you have multiple windows on a document and you make a change to it through one of the windows, you can see that change through any other window by displaying the changed part of the document.

CLOSING A WINDOW

All windows are closed in the same way, using the Close Window command (CODE-C).

(Remember that although you have closed the windows on a document so that it is no longer shown on the screen at all, the changes you have made are not transferred to the disk until you give the Save command (CODE-S) or the Finish command.)

MOVING THE CURSOR FROM ONE WINDOW TO ANOTHER

You can use the cursor control keys to move the cursor around a multiple-window screen in the same way as in a single-window screen.

CODE-up arrow and CODE-down arrow move the cursor to the border of the current window (the window where the cursor is positioned.)

If the cursor is already on the border (index tab or document status line), when you press CODE-up arrow or CODE-down arrow, the cursor is moved to the border of the next window.

EXPANDING A WINDOW

When the cursor is positioned on a document status line or index tab, SCROLL UP and SCROLL DOWN change the size of a window by expanding it upward or downward. The window expands by "borrowing" lines from adjoining windows. The expansion occurs only in the window containing the cursor. However, the window below or above the expanded window grows smaller, depending on whether the expansion is downward or upward.

Table 6-1. Moving Hints.

<u>If you want to...</u>	<u>Then...</u>
Move quickly to a known page	Use the Go to Page Command (CODE-f6).
Move cursor quickly to middle of line	Use SHIFT-right arrow or SHIFT-left arrow.
Move quickly to the end or beginning of a line	Use CODE-right arrow or CODE-left arrow.
Go to beginning of document	Use CODE-B.
Move cursor to delete the last character or word on a line	Place cursor in void space, then press BACKSPACE or Word Backspace (CODE-W).
Compare text	Open Multiple windows. (Divide Window (CODE-D) or Open Document (CODE-O).)
Copy frequently from one place to another	Open multiple windows on the document(s) and use Go to Last Edit (CODE-f6) to move back quickly.
Add text to the end of a paragraph	Move cursor to void space below paragraph, then start typing.
View all text	Use SHIFT-SCROLL UP.
Check page breaks	Use NEXT PAGE or PREV PAGE.
Move quickly to a known character string	Use the Search command (f6).

7 EDITING TEXT

Once you have entered some or all of your text, you will usually want to alter and edit it to improve wording and punctuation.

The Word Processor offers several sophisticated commands that make this process easier. The commands are described briefly here and in detail in Section 18, "Commands and Options." Formatting, which is often a part of editing, is discussed in Section 8, "Structuring Document Format."

Insertion of text and overtype are discussed in Section 3, "Creating a Document."

THE VISIBLE COMMAND

The Visible command (CODE-V) is used to make formatting symbols, such as those that indicate spaces, paragraphs, line breaks, and tabs, visible on the screen. Pressing CODE-V once puts the screen in half-visible mode, and pressing it again shows you full-visible mode.

Using visible mode is discussed in Section 2, "Getting Started," and in Section 18, "Commands and Options."

If you work with the screen in half- or full-visible mode when editing, you can see formatting more easily.

REARRANGING TEXT

Editing frequently involves rearranging text. The Move command (MOVE) is used for this function.

Move removes text from its original position and places it elsewhere. Examples of editing operations where you might want to use Move include

- o moving a misplaced character within a word to its proper position
- o moving larger blocks of text, such as a paragraph, from one place in a document to another
- o adding an entire document to another

To use the Move command, you must make a selection. You can select text first, then move the cursor to the place where you want the text and press MOVE; or you can press MOVE first, and then make your selection.

You can move selections from window to window, whether the windows are on the same document or different ones.

REPEATING TEXT

Several commands can help you to use the same wording again or to repeat an operation.

The Copy command (COPY) copies text from one place to another. The copied text can then be edited or changed if you desire.

Copy works in the same way as the MOVE command, except that it duplicates text, rather than relocating it.

The Store Phrase command (SHIFT-f7) and Recall Phrase command (f7) make it easy to repeat frequently used groups of characters or formatting symbols whenever you need them.

If you think that you will use a phrase frequently or want to store a particular paragraph or page format, use the Store Phrase command to store it. Any character, paragraph symbol, or combination of both can be stored as a phrase. There is no limit to phrase length. When you store a phrase it is useful to assign a short name, so that it is easy to recall the name.

Recall Phrase allows you to insert a previously stored phrase at any time with ease. When you give the Recall Phrase command, a form is displayed into which you enter the phrase name.

You can also use Recall Phrase by marking and selecting the phrase name as it appears in text, then giving the command. This is a useful technique if you want to use an acronym for in house use, but might want to expand it later if the document is distributed more widely.

Section 14, "Maintaining Store and Recall Phrase," explains how to see a list of your stored phrases and how to remove phrases from the file where they are stored.

The Redo command, described in the subsection "Repeating Edits" below can also be used to repeat a text entry.

REPEATING EDITS

The Redo command (fl) allows you to repeat edit operations. When you press fl, the Word Processor repeats any keystrokes (characters typed or deleted, or commands given) since the edit operation was begun.

For example you can make an edit, scroll through the document to find points at which you want to repeat it, press fl, and the edit is repeated.

The beginning of the edit operation is defined for Redo as when you moved to a point where you began changing text (usually since the cursor was last moved) or when you gave the last command.

Since the operation recalled is delimited by the use of the cursor keys, a long string of characters that you type in are all repeated when you use Redo. You may want to intentionally move the cursor to delimit a certain string of edits that you know you want to repeat using Redo.

Redo does not reselect text. If you perform an edit, then make a selection, the edit is repeated, not the selection.

Redo repeats only keystrokes and is not location specific. You can repeat keystrokes at any point in a document or you can move from one window to another and repeat keystrokes with Redo.

Redo is useful for

- o Repeating a command involving more than one step, such as Boldface.
- o Deleting the same number of spaces or characters from several different lines. For example, if you press DELETE 10 times, then

move your cursor to another place in text and press f1, 10 characters are deleted in the new position.

- o Entering a sequence of characters several times in a row, when you do not want to make an entry in your phrase file.

For more complicated series of repetitions, you can use a keystroke macro to repeat any series of keystrokes, including commands. Using keystroke macros is described in Section 20, "Introduction to Keystroke Macros," and Section 21, "Advanced Use of Keystroke Macros."

FINDING CHARACTERS OR BLOCKS OF CHARACTERS IN TEXT

You can use the Search command (f6) to find any string of characters (including spaces and format symbols) in your document.

To do so, give the Search command. Then complete the Search command form by entering a string of characters for which you want to search. The Word Processor scans the document from the point where you have your cursor and continues downwards to the end of the document.

Search finds the first occurrence of the string of characters, highlights it (unless you specified otherwise), and stops so that you can make edits.

To find the next occurrence you must give the Search command again. For each session, the Search form maintains the fields as you completed them last, so that you can continue the search without completing the form again. Just press f6 and GO. Alternatively, if you have not edited, you can use Redo to execute the command again.

You can search a limited area by selecting text before you give the Search command.

The Word Processor searches for the string of characters you specify wherever that string occurs, even within words. Thus, if you enter the string "move", "move" is found in "Remove". Try to make the string as unique as possible to avoid finding inapplicable occurrences. Adding a space

before move, for instance, would eliminate finding the string in Remove.

You can Search for characters that cannot be typed into the Search form, such as the paragraph symbol. The procedure you use is described in "Search" in Section 18, "Commands and Options."

REPLACING TEXT

Sometimes you want to replace several occurrences of the same text with other text. You might do this because you decide to change terminology, or because you wish to use the same form of explanation several times for different things.

The Replace command (SHIFT-f6) replaces a string of characters throughout your document or throughout a selection with another string. If you leave the "Replace with" field blank, the Word Processor removes the string you are searching for and does not replace it with anything, in effect deleting it.

You can specify that the replacement string have exactly the capitalization you type in, or the Word Processor alters the replacement to match the capitalization of the string it is replacing.

Replacement strings inherit formatting from the text they replace. That is, if you replace boldface text, the replacement text is made boldface, whether you specify boldface in the "Search for" field or not.

REMOVING EDITS

You may want to remove editing and return text to its original format.

The Undo command (f2) reverses the last set of keystrokes (those since the last use of the cursor keys). It is useful to think of Undo as a command that erases an edit performed at a specific place in the document.

For example,

- o If you move the cursor and start to type, and then change your mind; Undo will quickly delete what you typed.
- o If you begin to insert a new sentence and realize it should be placed elsewhere, you can use Undo to remove it; and then move the cursor to the new place and use Redo to insert the text there.

If you use a command and want to change it, Undo will bring the text back as it was before the command.

You can scroll or move the cursor keys after an edit or command and still Undo either; however, once you start your next edit, it is too late for Undo.

Do not think of Redo and Undo as opposites. Although you can retrieve an edit erased with Undo by using Redo, Undo removes an edit at a specific location and Redo repeats a series of keystrokes.

The Discard Edits command (CODE-U) is a more powerful way to undo your edits. Discard Edits removes all edits since your last Save. If you have not saved since you began your session, the Discard Edits undoes all edits since you invoked the Word Processor. Since this also erases all your work, Discard Edits is only an effective tool to use to undo edits if you save frequently.

The Replace command is another useful way to remove edits. You can replace text with nothing. (See "Replacing Text" above.)

You can also use delete to remove text. When you press DELETE the character at the cursor point is deleted. If you hold the key down, successive characters are deleted. You can also make a selection and press DELETE. DELETE only works with a selection if you have placed your cursor within the selection.

CHECKING YOUR SPELLING

The Check Spelling command (f7(COMMANDS)...C) checks your spelling against a common word dictionary and your own personal dictionary.

Check Spelling only works if you have a common word dictionary installed with your system.

When it finds a word it does not recognize, Check Spelling highlights it and suggests three possible corrections which it deduces from the way the misspelling would sound. You can

- o accept one of these suggestions
- o supply your own correction
- o skip the word
- o specify that the word be ignored if found again during this pass
- o enter the word in your personal dictionary so that the Word Processor will recognize it in the future

Section 15, "Maintaining the Spelling Dictionaries," explains how to load and unload your personal dictionary for editing and how to remove entries.

Using the Check Spelling command is discussed in detail in Section 18, "Commands and Options."

INHERITED FORMATTING

When you are inserting text, it is useful to know that inserted text can inherit formatting from the text that precedes it or from the text it is replacing. For example, when you move your cursor into a paragraph that is all boldface and add text to it, the new text is also bold, even though you did not specify that it be bold.

Copied or recalled text can also be affected by inherited format.

Inherited format is discussed in detail in Section 8, "Structuring Document Format."

Table 7-1. Editing Hints. (Page 1 of 2)

If you want to...

Then...

Check an edit you made recently

Use SHIFT-f1 (GO TO PREVIOUS EDIT).

Delete the last character or word on a line

Move the cursor into void space; use BACKSPACE or Word Backspace (CODE-W).

Repeat an entry or edit several times successively without any intervening edits

Move cursor, type entry, then repeat with f1 (REDO).

Repeat an entry several times with intervening edits

Use SHIFT-f7 (STORE PHRASE) and f7 (RECALL PHRASE).

Repeat an entry only once

Use COPY.

Move text from somewhere else to place where you are editing

Page through to find text, select text, use SHIFT-f1 (GO TO PREVIOUS EDIT), MOVE;

or

Use Divide Window (CODE-D), then F6 (SEARCH), select text, and MOVE.

Fix a mistake

Use f2 (UNDO).

Remove a word from text

Use SHIFT-f6 (REPLACE); replace the word with nothing; choose the confirm each option to prevent undesired deletions.

Table 7-1. Editing Hints. (Page 2 of 2)

<u>If you want to...</u>	<u>Then...</u>
Find a specified string of characters	Use f6 (SEARCH).
Correct an error in which you pressed MOVE when you meant to COPY	Press f2 (UNDO), then COPY.
Copy a document name from text or a Word Processor displayed list into a command form	Mark and select name, then move cursor to the correct field of the command form, and press COPY.
Copy text, alter slightly, repeat several times	Use SHIFT-f7 (STORE PHRASE) and f7 (RECALL PHRASE).
Replace a phrase within a small area only	Mark and select the area, then use SHIFT-F6 (REPLACE).

8 STRUCTURING DOCUMENT FORMAT

The Word Processor allows you to easily manipulate the shape and appearance of your document. This process is called formatting.

Format information is associated with each character, paragraph symbol, and page break. When you give a command to change format, the change is shown on the screen (if possible) and the formatting information is stored internally by the Word Processor with the appropriate format symbol.

Each format characteristic that you can assign is called an attribute and can be one of three types:

- o Character attributes Affect text character by character
- o Paragraph attributes Affect all text associated with a given paragraph symbol
- o Page attributes Affect everything that appears on a given page

Formatting attributes include such characteristics as boldface text; line spacing before, after, and within paragraphs; page margins; columnar text; headers; and footers.

If you do not assign any special format, default format applies. Table 8-1 at the end of this section summarizes the default formats.

ASSIGNING FORMAT ATTRIBUTES

The commands used to assign the various format attributes include the Paragraph Indent commands, the Tabs command, the Footnote command, the Header and Footer commands, and the commands that appear as options on the Format menu. Each command is discussed in detail in Section 18, "Commands and Options."

Each of these commands affects either the next character you type, or the paragraph or page where you have the cursor. If a selection is present and your cursor is within the selection, the command is applied to the selection.

To apply any format attribute to existing text, mark and select the text before giving the command. Making a selection is described in Section 5, "Selecting Text."

It is useful to work in full-visible mode when you are working with format, so that you can see the formatting symbols that are inserted. To place your screen in full-visible mode, press CODE-V twice. The symbols you can see in visible mode are shown in Table 2-2 in Section 2, "Getting Started."

QUICK METHODS FOR FORMATTING

Many format attributes are assigned by using commands that are options on the Format menu. To give these commands you call up the Format menu by pressing f4, then choose the command option by typing the indicated character. Once you are familiar with the Format menu, you can type f4 followed quickly by the character for the option you want and the Word Processor executes the command without displaying the Format menu.

Assigning format attributes frequently involves more than one step. You can use the Redo command (f1) to make repeating these steps easy. For example, you can save some operations until you can page through the document to find places to repeat a format sequence using Redo.

You can use the Store Phrase command (SHIFT-f7) to store paragraph symbols or page breaks that contain a format attribute or group of attributes that you want to use frequently. To do so, mark and select the format symbol only, then give the Store Phrase command. Use the Recall Phrase command (f7) when you want to use the format again.

For example, the headings for this manual have special line spacing to leave two blank lines above each heading. The paragraph symbol for a heading was stored, so that it could be recalled whenever a new heading was needed.

You can also store a page break symbol if you want to change to that page format in the middle of a document. For example, if you regularly change back and forth from regular pages to pages with

serpentine columns, you can store the page break associated with the serpentine column page and recall it whenever you wish to switch to that format.

FORMAT IS INHERITED

So that you do not have to continually respecify format whenever you insert text, move, copy, replace, and start a new paragraph; the Word Processor makes these assumptions about format:

- o If you type a new character, or begin a new paragraph or a new page, you want it to have the same format as the preceding one.

Exceptions occur when you have just inserted the preceding character, paragraph, or page using Move, Copy, or Recall Phrase. In those cases the Word Processor assumes that you want to continue using the format of the surrounding text. For example, if you insert normal text into boldface text, if you begin typing after the insertion the characters you type appear in boldface.

- o If you replace text, you want it to take on the format attributes of the text it replaces. This is assumed whether you use overtyping or the Replace command (SHIFT-f6) to replace text.

For example, if you are replacing a word throughout text, the Word Processor assumes that when the string of characters being replaced occurs in boldface text, you want to have the boldface retained, but you want other instances to remain as normal text.

- o If you move text and an associated format symbol, either a character, paragraph symbol, or page break symbol, you want the text to continue to maintain its current format characteristics.
- o If you move characters from one paragraph into another, without moving the paragraph symbol, you want the characters to take on the format of the new paragraph.

- o If you move text from one page to another without moving the page break, you want the text to take on page format characteristics of the new page.

CHARACTER FORMAT ATTRIBUTES

The character attributes you can assign include

- o Boldface text **example**
- o Underlined text example
- o Double-underlined text example
- o Struck-out text ~~example~~
- o Superscript example²
- o Subscript example₂
- o Alternate ribbon color This causes characters to be printed in a different ribbon color when a two-color ribbon is mounted on the printer.
- o Merge keyword Merge keyword is replaced at print time with entries for that keyword from a records file. (See Section 16, "List Processing," for an explanation of keywords and records files.)
- o Pitch example
- o Print wheel You can specify that the print wheel be changed manually during printing, for certain characters or an entire document.

All character attributes are assigned by pressing f4 (FORMAT) and choosing an option from the Format menu. Each command is discussed separately in Section 18 "Commands and Options."

Assigning a print wheel attribute to a character causes the printer to stop during printing so that you can change to that print wheel. (Changing print wheels is discussed in more detail in Section 11, "Printing.")

If you have assigned a character format attribute to a character, that character is usually shown on the screen as half-bright. Exceptions to this are the single underline, which appears on the screen as it is printed, and pitch, which is shown by different spacing between characters. Some workstations can also display boldface and struck-out text directly on the screen.

You can check the format attributes of any character by selecting it and giving the Format command. The name of the assigned attribute is displayed on the Format menu. If you do not mark a character, the Format menu displays the attributes that will be assigned to the next character you type.

On some workstations there is a limit to the number of times the screen can change from half-bright to full-bright on one line. When the Word Processor cannot show all the attributes you assigned, it shows that entire line as half-bright. For instance, if you have eight separate occurrences of boldface text on one line, the screen has to change from one characteristic to another sixteen times. The seventeenth time the entire line is changed to half-bright on the screen. When the text is printed, however, formatting is printed as you assigned it.

Note that when you have used Mark Page or Mark Document to select text and are changing a character format attribute, the Mark menu is displayed so that you can apply that change to headers, footers, and/or footnotes also.

REMOVING CHARACTER ATTRIBUTES

Any character attribute except pitch and print wheel can be removed by selecting it, giving the Format command, and pressing CODE plus the key used to set that option. For example, to remove boldface from a character that is bold and underlined, select it, press f4 (FORMAT) and then CODE-B. To return a character to normal, select it, giving the Format command, and press N. To change pitch or print wheel back to the default

setting, you must give the command again and enter the default setting.

FOOTNOTES

Footnotes are also character attributes. The Footnote command (CODE-F) inserts a footnote reference character into text and associates footnote text with that character. You can choose the default arabic numeral or any other character as a footnote reference.

Text of footnotes can be printed at the bottom of the pages where the references occur, or footnotes can be appended to the end of the document.

To make a footnote, you give the Footnote command at the point in text where you want a reference inserted. The Word Processor opens a small window into which you type the footnote text. When you complete the footnote text, you press GO. The window goes away and a small superscripted zero appears in text where your cursor was positioned when you gave the command.

When the document is printed, the footnotes are numbered, each zero is replaced by a number, and the footnote text is printed at the bottom of the page under the corresponding number. You can use the Collect Footnotes command (CODE-SHIFT-F) before printing to collect footnote text together so that footnotes appear at the end of the document. When you print a document to which you have appended footnotes, you must enter NO in the "Print footnotes?" field so that footnotes do not also appear at the bottom of each page.

Footnote numbers can be forced using the Page Attribute command (f4(FORMAT)...T), an option on the Format menu.

The footnote reference can be moved, copied, and deleted just as any other character. However, the footnote text goes with it. You can view the text by selecting the reference character and giving the Footnote command again.

Note that you can apply formatting changes to footnotes, separately or in addition to other text, using Mark Doc or Mark Page to select the text. When you apply a format change, the Mark menu is displayed and you specify the inclusion of footnotes or application to only footnotes.

PARAGRAPH ATTRIBUTES

A paragraph is a block of text, defined by a paragraph symbol. Format attributes you can assign to a paragraph include line spacing, indents, and tabs. A new paragraph is started whenever you press RETURN.

The Word Processor considers paragraphs to be made up of characters. Lines are only a temporary grouping for the Word Processor and cannot be assigned any format. Because it carries the formatting information, the paragraph symbol should not be used to start a new line, unless you also want to start a new block of text.

It is helpful when structuring your document to think about efficient ways to use the paragraph. For instance, a table constructed as one paragraph is more easily moved, and tab stops in it can be changed more easily also. If you use a paragraph for a heading, such as the ones used in this manual, you can vary spacing and move text beneath the heading more easily than if you make the heading a part of the paragraph beneath it.

LINE SPACING ATTRIBUTES

You can vary spacing before, within, and after a paragraph. All line spacing is set using one of the line spacing commands that appear as options on the Format menu (f4). These are

- o Single-spaced text Each line of text follows the next, like this does. Each line of text takes one line of space.

- o Double-spaced text Each line of text takes two lines of space, like this.

- o Single/double spacing One line is skipped between each paragraph. Within each paragraph each line of text takes one line of space. The paragraphs used for most of this manual are single/double spaced.
- o 1 1/2 line spacing One line of text takes one and one-half lines of space, like this.
- o Other line spacing You can enter variable line spacing, specifying 1 for single spacing, 2 for double spacing, 1.5 for one and one half line spacing for lines before each paragraph, lines within the paragraph, and after the paragraph.

The first four options set all three spacing values for you, and the last one allows you to set each of them separately. See the Line Spacing command in Section 18, "Commands and Options" for a discussion of how to complete the Other Line Spacing form.

Paragraph spacing is shown on the screen as it appears when printed if it is in one line increments. Partial lines cannot be shown. For example 1 1/2 line spacing is shown as double spacing on the screen, but is printed as 1 1/2 spacing. When line spacing is not in full lines, the correct line number is shown on the document status line or index tab, even though it is not displayed on the screen.

If two paragraphs occur one after the other and a different line spacing value has been chosen after the first and before the second, the Word Processor uses the largest value.

To change paragraph spacing you must reset it by giving the Format command again and choosing the appropriate option.

INDENTATION ATTRIBUTES

When setting paragraph indents, it is useful to think of a paragraph as determined by three indents, the first line indent, right indent, and other line indent. The right indent is the paragraph right margin and the other line indent is the left margin for all lines except the first one. Figure 8-1 illustrates this.

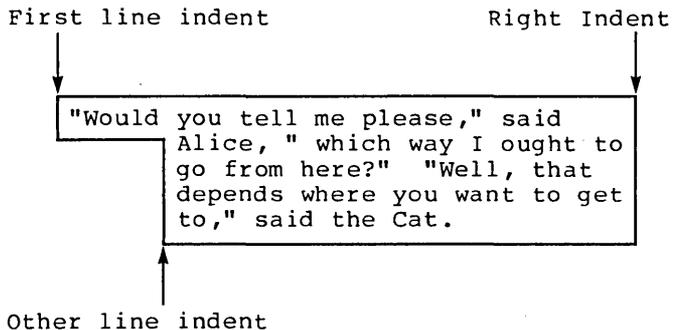


Figure 8-1. Paragraph indents.

The commands you can use to change indents are CODE-f3 (Paragraph Indent), CODE-TAB (Outline Indent), CODE-SHIFT-TAB (Outline Unindent) and CODE-SHIFT-RETURN (Outline Total Unindent). All these commands change the relationship of the first line indent, right indent, and other line indent to the page margins.

The Word Processor stores the value for a paragraph indent internally as a measurement from the margin setting, not from the edge of the paper. This means that if you move a paragraph to a page with different margins, the width of the paragraph changes.

The Paragraph Indent command (CODE-f3) offers four options that allow you to set the relationship of the first line indent, right indent, and other line indent to each other.

- o First Line Indent Sets the left indent point for the first line only
- o Left Indent Sets the left indent point for all lines in the paragraph
- o Right Indent Sets the right indent point for all lines in the paragraph
- o Other Line Indent Sets the left indent point for all lines except the first

To use the command, move the cursor to the point in the paragraph where you want the indent; then give the Paragraph Indent command and choose the indent option you want.

Note that any indent can be outside the margin and therefore is not necessarily "indented."

There are three shortcut ways to change paragraph indents when you do not want to change the relationship of first line indent, right indent, or other line indent to each other.

- o CODE-TAB (Outline Indent) moves the first line indent point of the paragraph to the next tab stop.
- o CODE-SHIFT-TAB (Outline Unindent) moves the first line indent point of the paragraph back to the previous tab stop.
- o CODE-SHIFT-RETURN (Outline Total Unindent) moves the first line indent point of the paragraph back to the left margin.

TAB STOPS

Tab stops are also paragraph attributes, which is to say that when you first set tab stops they are unique to that paragraph. When you press RETURN, the tab stops are inherited by the new paragraph just as are other paragraph attributes.

For more information on tabs and tab stops see Section 9, "Using Tabs."

PAGE FORMAT ATTRIBUTES

Page format attributes include paper size, margins, page numbering, headers and footers, and serpentine columns. When you assign these attributes to a page, they are associated internally by the Word Processor with the page break symbol for that page.

Commands that affect page format include

- o the Page Attribute command (f4(FORMAT)...T)
- o the Page Dimension command (f4(FORMAT)...P)
- o the Break Type command (f4(FORMAT)...Q)
- o the Header command (f5)
- o the Footer command (SHIFT-f5)

PAPER SIZE AND MARGINS

To set the page size, text width and height, and left and right margins use the Page Dimension command. If you give text width, specifying margins is only necessary if you do not want the text centered on the page.

You can use the Page Attribute command to specify that pages be printed as facing pages, so that the margins on the left pages are a mirror image of the margins on the right (facing) page. This is useful for documents that will be put into a binder after printing on two sides of the paper.

If you want to change a margin for a group of paragraphs only, the Paragraph Indent command (CODE-f3) can be used to simulate a change to the page margin. This does not change the margin setting, which is still used to align headers, footers, and footnote text.

PAGINATION

The Word Processor formats text into pages for you according to the default page format attributes, unless you assign other format using the Page Dimension command. The default format values are listed in Table 8-1 and can also be found in the

Page Dimension entry in Section 18, "Commands and Options."

Floating page breaks, which appear in text as a dashed line across the screen, are inserted by the Word Processor as you type at the end of a document. Floating page breaks are readjusted whenever the document is paginated to allow for text you have added or deleted during editing.

Pagination occurs when the Review Documents command (CODE-f4) or the Print command (SHIFT-f4) is executed. These commands adjust page breaks by default, but allow you the option of suppressing repagination.

You can force the Word Processor to start a new page at a specified point in text by inserting a static page break. To do so, press CODE-NEXT PAGE. Static page breaks appear on the screen as double dashed lines and are not changed or removed unless you delete them specifically.

You can use the Break Type command, option Q on the Format menu, to change the type of page break from floating to static, or to change a static page break to a floating one.

Keeping Text Together on a Page

Sometimes you want to be sure that a block of text is not separated by a page break during pagination. You can do this by selecting the block of text and giving the Keep Together command (CODE-K).

Keep Together inserts two half-bright braces at the beginning and end of the selected block of text. You can see these braces when the screen is in half-visible mode.

During pagination if the Word Processor encounters a brace, it assumes that, until it finds another brace, all the next text should be kept on the page together.

If you delete one brace, be sure to delete the other. If the Word Processor encounters only one brace, it will ignore that brace, but an "orphan" brace could possibly be paired with another orphan elsewhere.

Page Numbering

Page numbers are assigned each time a document is paginated.

You can specify that a page have an odd or even number or that pagination start at an certain page number, using the Page Format and Break Type commands, both options on the Format menu.

With Break Type you can change a page break to odd-static or even-static, which specifies that a page be assigned an odd or even number during pagination. During printing a numbered blank page is generated if necessary to make the page odd or even as specified.

With Page Format you can specify the exact page number assigned to a page during pagination. The page number you assign is associated with the page break, which must be static. This feature is useful to begin pagination at the number one in the middle of a document or to paginate two or more documents consecutively so that they can be joined together after printing.

To force a page number:

1. Change the page break type to static for the page to which you want to assign the forced number: place your cursor on that page and give the Break Type command (f4(FORMAT)...Q).
2. Keeping your cursor on the same page, give the Page Format command (f4(FORMAT)...P). The Page Format form appears.
3. Move the cursor to the "Forced page number" field and type the number that you want assigned to the page.
4. Press GO.
5. When the document is printed, the new page number is assigned to the page and subsequent pages are assigned subsequent numbers.

Printing Page Numbers on a Page

The Page Number command (CODE-f5) inserts a half-bright pound sign (#) into the text at the point where you have your cursor. When the document is printed, each pound sign is replaced with the current page number for the page on which it appears. The page number is printed as an arabic numeral (1, 2, 3,...).

The Roman Page number command (CODE-SHIFT-f5) is used to print roman numerals (viii). It inserts a half-bright lower case i into text shown on the screen.

To print separately numbered section page numbers, such as the numbers used in this manual, you can type the section number as a part of regular text followed by a dash, followed by the page number symbol. Text appears on the screen as 1-#. The pound sign is replaced at print time by the appropriate page number, so that the printed page numbers appear as 1-1, 1-2, 1-3, and so on.

The Page Number command is most frequently used to print page numbers as a part of the header or footer text. You can assign a header or footer containing the page number symbol to an entire document, and then when it is printed, the current page number for each page is printed on that page. (See the subsection "Headers and Footers" below.)

HEADERS AND FOOTERS

A header or footer is a block of text that is printed at the top or bottom of the page and is associated with the page break rather than with any specific text. The page number on this page is printed as a footer.

You set headers or footers using the Header command or the Footer command. You can assign only a header or only a footer to any page or you can assign both.

You can choose to have the header or footer printed out on even pages, odd pages, or both. They may be assigned to all pages in a document or to selected pages. The procedure for setting

headers and footers is described in the "Footer" subsection in Section 18, "Commands and Options."

If you assign an even and an odd header or footer to any one page, the Word Processor prints the odd one when the page number is odd and the even one when the page number is even. The Word Processor associates both with the same page break internally, however.

Because a header or a footer is associated with the page break, when you move, copy, or delete a page break, the header or footer for that page goes with it.

The position on a page where a header or footer is printed is controlled by the Page Dimension command.

Note that if you select text using Mark Doc or Mark Page, when you make certain formatting changes (such as pitch or print wheel) the Mark menu is displayed so that you can specify that the associated headers and footers be affected by any formatting changes you make.

PRINTING FROM SPECIFIED SHEET FEEDER BINS

If your printer has the ability to use a sheet feeder with more than one paper bin, you may want certain pages to be printed on paper from a specified bin. For instance, the first page of a letter is frequently printed on letterhead paper.

You control this by assigning sheet feeder bin as a page format attribute with the Page Attribute command (f4(FORMAT)...T).

COLUMNS

Text can be formatted into columns three ways: using tabbed columns, using synchronized columns (tops of columns are aligned regardless of pages), and using serpentine columns. Using all the types of columns is described in detail in Section 10, "Entering Text in Columns."

Of the three kinds of columns, only serpentine column format (text flows from column to column across the page, as is shown in Figure 10-2) is a page format attribute.

Set serpentine columns by specifying how many columns you want across the page. The default setting for a page is one column, so to return to normal text you give the Page Dimension command and change the entry in the "Number of Columns" field back to one.

REMOVING FORMAT ATTRIBUTES

You can remove all the formatting (paragraphs, footers, headers, margins, boldface, etc.) leaving just text and line breaks. When you do so, however, changes are transferred directly to the disk and formatting cannot be retrieved.

Figure 8-2 shows how a document appears when formatting has been removed.

There were doors all around the hall, but they were all locked, and when Alice had been all the way down one side and up the other, trying every door, she walked sadly down the middle wondering how she was ever to get out again. Suddenly, she came to a little three legged table, all made of solid glass; there was nothing on it but a tiny golden key, and Alice's first idea was that this might belong to one of the doors of the hall; but alas! either the locks were too large or it was too small, but at any rate it would not open any of them. However, on the second time round, she came upon a low curtain she had not noticed before, and behind it was a little door about fifteen inches high; she tried the little golden key and to her great delight, it fitted! Alice opened the door and found that it led into a small passage not much larger than a rat hole: She knelt down and looked along the passage into the loveliest garden you ever saw. How she longed to get out of that dark hall, and wander about

Figure 8-2. Document with Formatting Removed.

Table 8-1. Format Defaults.

<u>Attributes</u>	<u>Default</u>
Character	No applied attributes
Paragraph	
Line spacing	Single-double spaced (2 before, 2 after, 1 within)
Tabs	None
Indents	Left and right paragraph indents set at margins
Page (shown on Page Format form)	
Paper width	8 1/2- X 11-inch
All margins	1.0 inch
Header and footer position	0.5 inch
Forced page number	none
Forced footnote number	none

Table 8-2. Formatting Hints. (Page 1 of 2)

If you want to...

Then...

Give a command that is an option on the Format menu quickly

Give Format command (f4), then follow it quickly with the option keystroke. Display of the Format menu is suppressed.

Assign an attribute to several blocks of text at different points in text

Mark and select text, give the appropriate command, move cursor to next point, select new text, then use Redo (f1).

Use a set of tab stops frequently

Set the tab stops in a paragraph, then select the symbol only, store it with Store Phrase, and recall it as needed.

Indent an entire paragraph to the next tab stop

Use Outline Indent (CODE-TAB).

Return an indented paragraph to the margin

Use Outline Total Unindent (CODE-SHIFT-RETURN).

Change both margins for part of a page only

Use Paragraph Indent (CODE-f3) to change R and L indent points.

Table 8-2. Formatting Hints. (Page 2 of 2)

<u>If you want to...</u>	<u>Then...</u>
Make a page number odd, without specifying an exact number	Use Break Type, (f4(FORMAT)...Q) an option on the Format menu.
Prevent the Word Processor from inserting a page break during pagination and splitting up a block of text	Use Keep Together (CODE-K).
Change paragraph format to that of the preceding paragraph	Delete paragraph symbol, then press RETURN.
Move paragraph format but not content	Mark and select only the paragraph symbol, then use Move.
Change print wheel on an entire document including headers, footers, and/or footnotes	Mark Doc, f4(Format)...W, then complete the Mark menu to include the additional text you want.
Make only header text boldface	Mark Doc, f4(FORMAT)...B, then complete the Mark menu to exclude the regular text and specify headers.

9 USING TABS

Tab stops on a typewriter are used to make it easy to enter tabulated text. Similarly, in the Word Processor, tabs are used to position text at specific point(s) across the width of the page.

For each paragraph, you can set one or more tab stops by using the Tabs command (f3) and choosing options from the Tabs menu. Then when you are entering text, press the TAB key to insert a tab symbol into text. The cursor jumps across the line to the point under the tab stop. When you enter more text, it is held at that point on the line. This is a much faster way to enter text that must be held at a special position than entering spaces to hold the text.

The tab symbol(s) inserted when you press TAB can be seen on the screen in full-visible mode. To place the screen in full-visible mode, press CODE-V, twice.

When you want to enter more than one line of tabbed text, TAB also moves the cursor to the next line. After you enter the last character of text on a line, press TAB to move the cursor to the first tab stop on the next line.

Figure 9-1 shows text held in place by tabs.

	Jan	Feb	Mar	Apr	YTD
Salaries	35,000	35,000	45,000	45,000	160,000
Overhead	500	355	503	255	1,613
Education	0	0	600	0	600
Travel	432	15	35	250	732
Meals	250	0	52	125	427
Supplies	44	148	25	88	30
Telephone	1356	1356	1356	1356	5424

Figure 9-1. Text Held in Place by Tabs.

Tabs can be used to enter columns of data and for setting off information with special indentations.

Tab stops are a paragraph attribute. This means that the tab stops for a particular paragraph are associated with the paragraph symbol that begins it. When you press RETURN, the new paragraph created inherits the tab stops from the previous paragraph.

For more information on the Tab command, see Section 18, "Commands and Options."

TAB STOPS

Tab stops for the paragraph where you have your cursor are always shown on the ruler display. Each type of tab stop is indicated by a different letter. (See Section 2, "Getting Started," for a complete discussion of the ruler display.)

You can set four different kinds of tab stops.

- o Left-aligned Left edge of text aligned with tab stop
- o Right-aligned Right edge of text aligned with tab stop
- o Centered Text centered under tab stop
- o Decimal Decimal points aligned

You can set leader dot tabs for any of the four kinds of tab stop.

This example.....shows leader dots.

You can set a series of evenly spaced left-aligned tab stops in one operation by choosing the option E (Evenly spaced left-aligned tabs) from the Tabs menu.

TAB SYMBOLS

Tab symbols are inserted in text when you press TAB and can be seen when the screen is in full-visible mode.

The Word Processor may insert more than one tab symbol when you press TAB. Sometimes this causes text to appear displaced when you are working in full-visible mode. Returning to half-visible or

normal mode shows you how text will appear when it is printed.

WHEN TO USE TABS

An obvious use for tabs is for tabulating text in columns, but you will find that tabs are useful for much more than that. (See Section 10, "Entering Text in Columns," for information on using tabbed columns.)

Because justification, print wheel changes, and special options can affect character spacing, your text alignment is more accurate if you use tabs rather than spaces to hold text at a certain position, even when you want to position the text only once within a paragraph. It is useful to set a tab to hold text for as little as two or three spaces.

If you sometimes indent text for emphasis, as is done in this manual for bulleted lists, it is useful to have a tab stop for this.

If you need to center text, you can use centered tab stops to center text automatically under the tab stop.

REMOVING TABS

The Tabs menu has two options for removing tabs. You can remove all tab stops in a paragraph or you can remove only one. When you remove a tab stop the placement of tabbed text in the corresponding paragraph changes.

Tab symbols that appear in text can be removed in the same ways that you delete any character(s), by using the DELETE command or by using the Replace command to replace them with nothing. Removing a tab symbol from text changes the position of the text on the line accordingly.

Table 9-1. Hints for Using Tabs.

<u>If you want to...</u>	<u>Then...</u>
Use the same tab stops that you used in another paragraph	Copy the paragraph symbol.
Use the same tab stops for several paragraphs that are not adjacent to each other	Set tabs for the first paragraph, then move cursor to another paragraph and use the Redo command (F1).
Remove tab symbols from text after you change or delete a tab stop	Give the Replace command (SHIFT-F6); enter the tab symbol in the "Search for" field and leave the "Replace with" field blank.
Center a line on the page	Set a Centered tab in the center of your page, TAB over, then type your line of text.
Move a paragraph in two spaces	Set a tab two spaces in from the margin, then give the Outline Indent command (CODE-TAB).
Use proportional spacing	Use tab stops to hold any indent or for more than two skipped spaces.
Hold text against the right margin	Use a right-aligned tab setting or a right-aligned paragraph

TYPES OF COLUMNS

Three different types of columns can be used to arrange text in vertical groupings:

- o Tabbed columns are held in place with tabs. Tabbed columns can be easily cleared, moved, or copied. Tabbed columns are most often used for statistical or numeric data. Figure 10-1 shows text formatted with tabbed columns.
- o Serpentine columns keep text together on a page, so that it flows from the bottom of one column to the top of the next column across the page like a snake. Figure 10-2 shows text formatted with serpentine columns.
- o Synchronized columns keep text in two or more columns side by side. The tops of columns are aligned with each other across the page. As you enter text, it is kept in the same column, independent of page breaks. When you indicate that you want text to be in a new column, the beginning of the new column is aligned with the top of the previous one.

Synchronized columns are usually used if the text in each column is distinctly separate. Figure 10-3 shows text formatted with synchronized columns.

Synchronized and serpentine columns are mutually exclusive. Tabbed columns, however, can be used within either a synchronized or a serpentine column.

For more information on the commands and menus mentioned in this section, see Section 18, "Commands and Options."

	1	2	3	4	5	6	7	8	
		R	R	R	R	R			
	Expenses						P	2	L 35
▼	Jan	Feb	Mar	Apr	YTD				
/Salaries	35,000	35,000	45,000	45,000	160,000				
/Overhead	500	355	503	255	1,613				
/Education	0	0	600	0	600				
/Travel	432	15	35	250	732				
/Meals	250	0	52	125	427				
/Supplies	44	148	25	88	30				
/Telephone	1356	1356	1356	1356	5424				
/Total	37582	36874	47571	47074	168826				

Figure 10-1. Screen Showing Text as Tabbed Columns.

TABBED COLUMNS

Columns of text or data can be held at set positions across the page with tabs. See Section 9, "Using Tabs," for information on setting tabs and entering text using tabs.

WHEN TO USE TABBED COLUMNS

Tabs are an easy and efficient way to enter data for tables and short columns. They are recommended for use with statistical or numeric tables.

Text does not have to be numeric for you to use tabbed columns. However, it is useful to consider using serpentine or synchronized columns for non-numeric data.

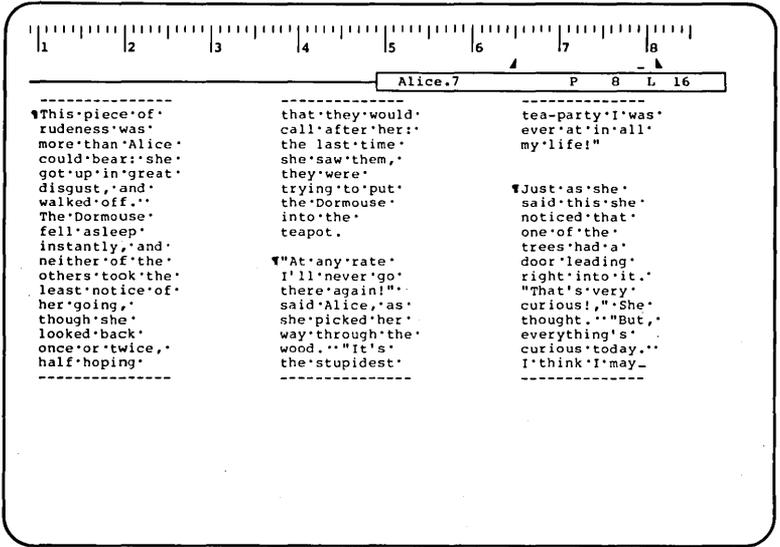


Figure 10-2. Screen Showing Text as Serpentine Columns.

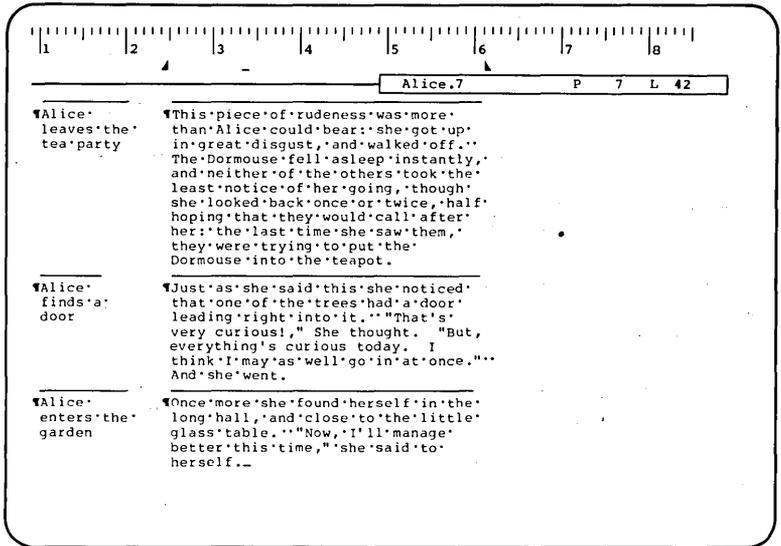


Figure 10-3. Screen Showing Text as Synchronized Columns.

SELECTING A TABBED COLUMN

CODE-f9 (MARK COLUMN) only works within a table.

A table is a paragraph containing tab stops and tab symbols. Any adjacent paragraph(s) with the same tab stops and at least one tab symbol are included in the table.

Mark Column selects the tab stop and the column of text nearest to the cursor. The Word Processor makes the selection across more than one paragraph, if the paragraphs are defined as one table.

Before selecting a column, the Word Processor checks for adjacent paragraphs with the same tab stops, then highlights the text associated with each tab stop.

The selection can be extended using BOUND in the same way that other selections are extended.

You can select lines or paragraphs as usual when using tabs.

ADDING NUMBERS IN A TABBED COLUMN

When creating a tabbed table, remember that you can use the Word Processor's calculation facilities to make mathematical calculations.

Any column of data can be added by selecting the column and pressing CODE-=. Figures in parentheses are treated as negative numbers.

You can also calculate the value of any complete mathematical expression in text by selecting it and pressing CODE-=. Expressions must include the mathematical symbols for the operations you want the Word Processor to perform. (For more information on calculation see the Add Row Column command description in Section 18, "Commands and Options.")

MOVING OR COPYING TABBED COLUMNS

You can move the column of tabbed text around and move the tab stop at the same time by using CODE-F9 (MARK COLUMN) to select the column and pressing either MOVE or COPY. The new tab stop is placed at the point where the shadow cursor appears in the ruler display when you press MOVE or COPY. MOVE and COPY work in the same way with tabbed columns as with other selections.

If you move a column too close to another, the existing column is moved over to make room.

CLEARING TABBED COLUMNS

Clearing a tabbed column removes text but does not remove the associated tab stop. To clear a column of text, select it, and press CODE-DELETE.

DELETING TABBED COLUMNS

Deleting a column removes both the text and the tab stop. To delete a column, select it, and press DELETE.

SERPENTINE COLUMNS

Text in serpentine columns flows freely across the page from the bottom of one column to the top of the next.

Serpentine columns are an attribute of page format and are applied to an entire page.

Serpentine columns can be used to format your document like a newspaper or magazine. Most indexes, dictionaries, and encyclopedias are printed in serpentine columns.

SPECIFYING SERPENTINE COLUMNS

Serpentine columns are specified using the Page Dimension command (f4(FORMAT)...P). You enter the number of columns and the margin you want left between columns in the command form.

You can specify serpentine columns before or after entering text.

To return to normal text, give the Page Dimension command again and specify one column only.

ENTERING TEXT IN SERPENTINE COLUMNS

As you enter text in serpentine columns, the text wraps around automatically at the right margin of the column. When you reach the bottom of the column, the cursor automatically jumps to the beginning of the next column. If this means starting a new page, this is also done for you.

Remember that when you set paragraph indent points the Word Processor stores this information internally as a measurement from the margin. When you use serpentine columns, the indent is figured relative to the column margin. If you are using a paragraph indent that is not equal to the margin setting at the time that you give the Serpentine Column command, when you press RETURN to start a new paragraph, you may find that the paragraph is extremely narrow. Simply reset the paragraph indent to change the width of the paragraph.

If you insert text later, or if you specify serpentine columns after you enter text, the Word Processor allows text to flow into the next column and arranges columns and pages as necessary.

Note that any floating break can be adjusted by the Word Processor during pagination if you have changed text. If you use serpentine columns on some pages and full page width on others, it is a good idea to use a static break at the point where you change from full page to columns.

The static column break can be changed to a floating one, or a floating column break can be changed to a static one with the Break Type command (f4(FORMAT)...Q), an option on the Format menu.

STARTING A NEW COLUMN

You can force a new serpentine column while you are entering text by pressing CODE-NEXT. A static column break is inserted into the text and is shown on the screen with a line of colons.

MANIPULATING TEXT

Since serpentine columns are a function of page format, the column is not treated differently than any other page characteristic. You select text by marking words, lines, and paragraphs as usual. MOVE, COPY, and DELETE work as usual.

CODE-f9 (MARK COLUMN) is not applicable to serpentine columns.

SYNCHRONIZED COLUMNS

As the name indicates, the tops of synchronized columns are aligned with each other across the page. Paragraphs are kept within the column and text in a synchronized column is kept in that column across page breaks.

Synchronized columns are most often used when you want to present the relationships between two or more blocks of different text.

They are useful for comparing and contrasting text, for double or triple column lists, tables composed of non-numeric text, and for comments or headings printed in the margins.

An example of synchronized columns might be bilingual text, with one column showing the translation for the next.

SPECIFYING SYNCHRONIZED COLUMNS

To specify synchronized columns, you give the Synchronized Columns command (CODE-/) and complete the command form displayed. You specify the number of columns and the width of the margins between the columns. Up to ten columns may be specified across the width of the page.

The Word Processor starts the first column at the point where you positioned your cursor when you pressed GO to execute the command. You can also apply the command to a selection of existing text.

You press CODE-NEXT to start the next column.

To return to normal text, give the command again and specify one column only.

SYNCHRONIZATION MARKS

When the Synchronized Columns command is executed, the Word Processor inserts a synchronization mark, a half-bright line, to indicate the top of the first column. When you begin a new column, the Word Processor inserts a new synchronization mark. You can see the synchronization mark when the screen is in half- or full-visible mode.

The synchronization mark is a formatting symbol and is similar in function to the paragraph symbol or page break symbol.

When the Word Processor encounters a synchronization mark, all text below the synchronization mark is considered to be part of the column until another synchronization mark appears. The Word Processor formats the next text into a column according to the specifications associated with that synchronization mark.

Internally the Word Processor keeps track of the place of the synchronization mark across the page. For example, if you have your page set to three synchronized columns, and then you begin a second set of synchronized columns, the Word Processor identifies the first mark as being number one, the second across the page as number two, the third across the page as number three, then the first of the second set of three as number one of the second set of synchronized columns, etc.

Text below each synchronization mark is identified as synchronized text only because it appears after the mark.

Because of this, if you want to move synchronized text around, it is best to leave the synchronization marks where they are and move only the text.

Note that page breaks that appear with synchronized text internally are assigned to a certain synchronized column. This may make text associated with that break behave strangely if you move the text and the page break. However, the page break returns to its original place after you review, and the text is left where you moved it.

SELECTING A SYNCHRONIZED COLUMN

CODE-f9 (MARK COLUMN) does not work with synchronized columns. It applies only to statistical columns set with tabs.

MOVE, COPY, and DELETE work with a character, word, line, paragraph, or page selection in the same way that they normally do.

When working with synchronized columns it is most efficient to select only the text you want to move or copy, rather than selecting the synchronization mark also. The synchronization marks define the relationships of the columns to each other, and text moved without the synchronization mark behaves more predictably than text moved with the synchronization mark.

You can select only a synchronization mark if you wish.

If you move a synchronization mark, you should give the Review Document command before you print, so that the Word Processor can redefine the positioning of the synchronization mark before you print.

ENTERING TEXT IN SYNCHRONIZED COLUMNS

After you give the Synchronized Column command, enter text as you normally do. When the text reaches the right margin of the column it automatically wraps around to the next line, just as it does when it reaches the right margin of a normal page.

The ruler display indicates the column margins and paragraph indents, just as it normally indicates the page margins and paragraph indents.

Notice that the page break appears different when you are using columns; it is broken at the column margins.

Figure 10-3 shows how the screen appears when you are entering text in synchronized columns.

Paragraph Indents and Margins

When you give the Synchronized Column command, the Word Processor assumes that the column is more important to you than the paragraph. Therefore, the column is automatically continued even when you start a new paragraph or a new page.

Text in synchronized columns is formatted into paragraphs as it would normally be, except that the paragraph is kept within the margins of the column.

Paragraph indents work with synchronized columns in the same way that they work with serpentine columns. (See the subsection "Entering Text in Serpentine Columns" above.)

Starting a New Column

Text remains in the first column until you indicate that you want to start a new column by pressing CODE-NEXT. This inserts a new synchronization mark at the next column position. The top of the new column is parallel with the top of the first column.

Note that if the first column has carried over to a new page, the window display jumps back to the previous page to start the new column.

Adding Text to a Column

If you want to go back to a column and add text to it, space is added for the text and any columns that start below that point move down.

The cursor operates a little differently in void space with synchronized columns. (Void space is discussed in Section 3, "Creating a Document.") When you are working with synchronized columns, the cursor in void space adds the next text typed to the nearest column. However, it never adds text to a column you are not currently viewing on the screen. Thus, if you have three columns but only the ends of the first and third appear in the window because the second column is short and has scrolled away and you type text in the center of the screen, the text is added to the first column, rather than to the center column.

Returning to Normal Text

If you want to go back to normal width text, give the Synchronized Column command again. To return to normal text, specify one column of text.

Changing text already formatted into synchronized columns to a different number of synchronized columns is discussed in the subsection, "Changing the Number of Synchronized Columns."

INSERTING NEW SYNCHRONIZED COLUMNS INTO EXISTING TEXT

The Word Processor applies a synchronization mark to all subsequent text until it encounters a new synchronization mark. If you try to give the synchronized column command in the middle of existing text, all the text below the cursor point suddenly shifts and appears in a narrow column.

If this happens, do not worry about the text. You can return it to normal by giving the Synchronized Column command again and specifying only one column. The text will be reformatted in one wide column when you return the page to its normal width.

The following procedure can be used to insert synchronized text without affecting subsequent text.

To insert synchronized columns into existing text:

1. Place your cursor where you want to start the first column.
2. Give the Synchronized Column command (CODE-/) and specify one column only. When the command is executed, a single synchronization mark is inserted into text. This protects subsequent text from being formatted into a narrow column while you insert the new columned text. (See Section 18, "Commands and Options" for instructions on how to complete the Synchronized Column command form.)
3. Move the cursor to just before the new synchronization mark inserted in step 2.

Give the Synchronized Column command again and specify the number of columns you want to insert. The first synchronization mark for the first of the new columns is inserted.

4. Enter your synchronized text and press CODE-NEXT when you want to start the next column.

CHANGING EXISTING TEXT TO SYNCHRONIZED COLUMNS

You cannot select text and then give the Synchronized Column command to change existing text to synchronized columns. Instead you use the following procedure to insert synchronization marks wherever you want a new synchronized column to start.

To change existing text to synchronized columns:

1. Place your cursor where you want to start the first column.
2. Give the Synchronized Column command (CODE-//). The first synchronization mark is inserted when you execute the command. (See Section 18, "Commands and Options" for instructions on how to complete the Synchronized Column command form.)
3. Move the cursor to wherever you want the next column to begin.
4. Press CODE-NEXT to insert a new synchronization mark.

Follow this procedure until all the desired text is in synchronized columns.

5. To return to normal text, give the Synchronized Column command again and specify one column. The Word Processor inserts a single synchronization mark across the entire page.

CHANGING THE NUMBER OF SYNCHRONIZED COLUMNS

You may find that, once you have set up a certain number of synchronized columns, you want to change the width of the columns or the number of columns used.

Deleting a synchronization mark does not change the number of synchronized columns.

To do this you select the text and synchronization columns, then give the Synchronized Column command and specify the number columns and the width you want.

Note, however, that the synchronization marks that exist in the text you marked retain the internal numbering they had originally. Therefore, if you had two sets of three columns and change to four, you will have three completed columns, and space left on the right-hand side of the page for the fourth column.

Similarly, if you change from four columns to three, the text that appeared under the right-most column will be shown below the third column on the right-hand side of the page, but above the first column of the second set of columns. You have to move the text and delete the extra synchronization marks that are "left over."

Table 10-1. Column Hints.

<u>If you want to...</u>	<u>Then use...</u>
Compare or contrast text	Synchronized columns
Enter text moving across the page	Tabbed columns
Use text that appears in a margin beside a block of text	Synchronized columns
Use a table again and again, clearing entries	Tabbed columns and CODE-DELETE
Add columns of data	Tabbed columns and the Add Row Column command (CODE==)
Construct a Table of Contents	Tabbed columns
Construct an index	Serpentine columns
Format two different kinds of text into columns	Synchronized columns
Make up a table in which text frequently wraps around	Synchronized columns

HOW PRINTING WORKS

Printing with the Word Processor can be direct to a printer attached to your workstation or spooled to a printer shared by one or more workstations in a clustered configuration.

With direct printing, formatted text is transferred directly to the printer during the printing process.

With spooled printing, the text of your formatted document is placed in a queue to wait for a free printer. Documents are printed according to their priority and request number.

Whether you are configured for direct or spooled printing, you use the same commands to control printing.

Configuring your workstation for direct or spooled printing is done by your system administrator. Printer configuration is discussed in Section 19, "System Administration."

For more information on the commands, menus, and forms in this section, see Section 18, "Commands and Options."

OVERVIEW OF PRINT COMMANDS

- o Several commands discussed in this section are used when you format your document, and directly affect the way it is printed. These commands are all options on the Format menu. Formatting is discussed in detail in Section 8, "Structuring Document Format." The commands are

- Print Wheel (f4(FORMAT)...W)

Nonstandard print wheels (character sets) are specified with the Print Wheel command. Print wheel, like pitch, is a character format attribute and is also assigned to text when it is entered or edited. During printing, the printer stops and informs you which print wheel to insert.

- Pitch (f4(FORMAT)...spacebar)

Nonstandard character spacing is assigned to text with the Pitch command. Since pitch is a character format attribute, the Pitch command is used to assign the attribute to characters or blocks of characters when text is entered or edited. When text is printed, the pitch is automatically varied to match this specification.

- Alternate Ribbon Color (f4(FORMAT)...A)

The Alternate Ribbon Color command can be used to specify certain text to be printed in a different color, if your printer has a two-color ribbon mounted.

- o The Review Document command (CODE-f4) is used before printing to check the appearance of your document. Review Document reviews the changes to a document, hyphenates words where necessary, and repaginates text.
- o The Print command (SHIFT-f4) prints a document or list of documents. The Print command also repaginates a document.
- o The Printer Status command (CODE-P) checks the progress of printing and communicates with the printer.

The Page Number command (CODE-f5) automatically prints the current page number on a specified page. Printing page numbers on a page is discussed in Section 8, "Structuring Document Format."

CHANGING PRINT WHEELS

Print wheels provide the type of character face or font used when printing. This is also sometimes called a character set.

You can specify that a certain print wheel be used to print all or a part of any document, using the Print Wheel command, an option on the Format menu, to assign the print wheel to text as it is entered or edited.

For instance, you might want to use a nonstandard print wheel to print just one special character in a document, or you might want to use a different character set for a whole document.

During printing, when the section of the document is reached where the print wheel change is specified, the printer stops to allow insertion of the new print wheel and a "Printer" message appears on the screen of your workstation.

If you then give the Printer Status command (see below), the status message "Change print wheel to wheel name and press R to resume printing" appears on the Printer Status menu.

You cannot specify any print wheel unless it is one of the choices from the Print Wheel menu. These choices are configurable. (See the subsection "Print Wheel Configuration" in Section 19, "System Administration.")

The first choice on the menu is the default print wheel, the one that the Word Processor assumes you want to use if you do not specify otherwise. Figure 11-1 shows a typical Print Wheel menu.

```
PRINT WHEEL: (Press GO to execute, CANCEL to
              dismiss)

Press 1 for  Courier 72
        2      Elite 12
        3      Cubic PS 96
        4      Scientific 10
        5      Courier 10

Note: Changing print wheel also changes pitch
      to the default for that wheel.

Press 0 to change print wheel Only
      (and leave pitch as is.)
```

Figure 11-1. Print Wheel Menu.

CHANGING PITCH

Pitch refers to the number of characters printed per inch. Each character set, or print wheel, has a standard pitch that is used by default when you print with that wheel.

For example, if you change a Courier 72 print wheel, which has a standard pitch of 10, to 12, more characters are printed per inch.

The Pitch command allows you to specify that nonstandard pitch be used when text is printed.

Pitch is a character format attribute and is assigned to a block of characters when you are entering or editing text. See Section 8, "Structuring Document Format" for a discussion of character format attributes.

Once you have assigned a certain pitch to text, it remains the same until you change it by executing the Pitch command again.

PRINTING WITH AN ALTERNATE RIBBON COLOR

If you have a two-color ribbon on your printer, you can print text in two colors.

Alternate Ribbon Color is a character format attribute. You use the Alternate Ribbon Color command, an option on the Format menu, to assign it to text as you enter it or edit.

When the document is printed, if the two-color ribbon is mounted, the printer changes colors automatically.

When the printer is using two-color ribbon, black is the default.

REVIEWING A DOCUMENT BEFORE PRINTING

The Review Document command arranges text as it would be arranged for printing. It paginates and moves floating breaks where necessary. Space can optionally be left for footnotes that will be printed with the document, and footnotes can be renumbered. You can also specify that words be hyphenated.

HYPHENATION

To hyphenate words for maximum use of space, you must choose the hyphenate option on the Review Document form. (The hyphenation option only works if you have the spelling dictionaries installed.)

To adjust spacing of words on a line, you specify a hot zone or maximum total amount of space to be left between words on a line. (The Word Processor uses one-half inch as a default hot zone value, if you do not specify any other value.) When the space between words can only be kept within the specified hot zone by hyphenating a word, the Word Processor either hyphenates a word for you or highlights the word that could be hyphenated and prompts you to hyphenate it yourself. The highlighted word occurs on the line after the one on which the excess space occurs.

PAGINATION

Review Document reviews the text to check the changes you made since the last time the document was reviewed or printed.

Floating page and column breaks are reassigned if you choose Yes in the "Paginate?" field. Pages are renumbered accordingly. Static page breaks are not changed during review or print, although page numbers for these pages are revised, unless they have also been assigned a forced page number.

A widow is a line of text at the end of a paragraph that cannot fit on the current page and is carried over to the next. If you choose the "Eliminate Widows" option, when the Word Processor encounters a widowed line it increases the length of a page by one line to include it. If the widow falls on the bottom of the page, the Word Processor reduces the page by one line to allow the widow to fall on the next page.

FOOTNOTES

You can specify whether or not to leave room for footnote text during pagination. If you specify "Yes", do not expect to see the footnote text when you page through the document on the screen. Room is left for the footnotes, but they do not appear on the page until the document is printed.

During pagination, footnotes can also be re-numbered. Renumbering footnotes takes formatting time, so if you have not changed any footnotes since the last time the document was paginated, you may want to choose to suppress the renumbering of footnotes.

PRINTING A DOCUMENT

You can print a document at any time during a Word Processor session.

The Print command allows you to

- o print one document or a list of documents
- o specify number of copies
- o repaginate during printing
- o print footnotes at the bottom of the page on which the reference occurs
- o renumber of footnotes
- o print certain pages of a document only
- o number pages and footnotes consecutively for two or more documents
- o print on continuous forms or single sheets
- o specify which printer to use to print the document
- o assign printing priority to a document
- o request that a message be displayed when the document has finished formatting

These options are discussed in detail under the Print command Section 18, "Commands and Options."

PAGINATION

When you use the Print command, you can choose not to repaginate. During pagination the floating page and column breaks, footnote numbers, page numbers, and other formatting previously assigned are checked and readjusted if necessary. If you

have not changed the document since the last review or print, you may want to choose to suppress repagination. In this case the document is not removed from the screen for formatting when you execute the Print command.

If you do not choose to suppress repagination, the Word Processor is unavailable to you for editing for a short while until the Word Processor has transferred the formatted document to the print queue or, if you are configured for direct printing, until it has been printed.

The message "Formatting complete" appears when the document is available again, unless you requested not to receive the message when you completed the Print form.

BACKGROUND AND FOREGROUND PRINTING

While your document is formatting or printing, you can open another document if you wish. The Print menu is removed from the screen and printing continues in the background. You are still informed that formatting has finished, unless you specified that the message not appear.

On some workstations, however, limited memory cannot accommodate editing a second document while another is printing. In this case, the document is left on the screen during formatting and no other document can be opened. When this occurs, printing is said to be in the foreground.

During foreground print, ten small squares appear at the lower right hand corner of the form. As printing proceeds, the squares are filled in to indicate progress of printing.

Your system administrator can force your workstation to always print in the foreground. See the subsection "User Configuration" in Section 19, "System Administration," for an explanation.

PRIORITY

Documents in the print queue are printed in order of priority. Priority numbers are from 0 to 9, with 0 being the first priority and 9 the last. A default priority of 5 is assigned unless you

specify otherwise. You might want to change priority to print a document quickly or to place a long document at the end of a queue so that it does not interfere with printing of short documents in the queue.

PAPER FEED

Printers can use continuous feed paper or can require that separate sheets be fed to it one at a time. If the printer you want to use does not take continuous feed paper and does not have a sheet feeder attached, you must specify manual feed when you complete the Print form.

If your printer has a sheet feeder with more than one bin attached, you can use the Page Attribute command (f4(FORMAT)...T) to assign a sheet feeder bin number to any page of your document as a page format attribute. In this case, you should specify continuous feed when you give the Print command.

USING THE PRINTER STATUS COMMAND

The Printer Status command (CODE-P) is used to check the progress of printing and to communicate with the printer.

For each printer you can use to print, the Printer Status command can

- o display the print queue
- o halt (temporarily stop) printing of a document
- o restart a document from a specific page
- o cancel printing of your own document and remove it from the print queue

Figure 11-2 shows the Printer Status menu. When you give the Printer Status command, the Printer Status menu and any printer status messages are displayed.

```

PRINTER STATUS: (Press CANCEL to dismiss)

Printer name:
Status:

Press S to Select printer    Press P to reprint from page n
      H      Halt printing      C      Cancel printing
      R      Resume printing    Q      display Print Queue

```

Figure 11-2. Printer Status Menu.

Possible messages include

- o Printing page n of x (where n is a page number and x is a document name)
- o Print queue empty
- o Printing halted
- o Change print wheel to x (where x is a print wheel name)
- o Please load single-sheet paper
- o Problem with printer

Status is automatically displayed for the printer to which you sent your last print request. You can change this using the Select Printer option on the Printer Status menu.

Certain conditions encountered by the Word Processor can cause your workstation to beep and display the message "Printer". Such conditions include need to change paper, ribbon, or print wheel. If you get this message, give the Printer Status command to find out what the specific problem is.

TYPING DIRECTLY TO THE PRINTER

If you are configured for direct printing, you can use the Typethrough command (CODE-SHIFT-T) to transfer keystrokes directly to the printer.

Typethrough works in the same way that a typewriter does. No document is created and nothing is shown on the screen except the typethrough form.

When you are using Typethrough, RETURN and SHIFT-RETURN both work like a carriage return on a typewriter. The BACKSPACE key backspaces, as on a typewriter.

You cannot set tabs or use any other Word Processor commands.

Table 11-1. Printing Hints.

<u>If you want to...</u>	<u>Then...</u>
Print a long list of documents repeatedly	Create a document containing the names of the documents you want to print, separated by commas. When you want to print the entire group of documents, Mark and select these names from the list document, give the Print command, and press COPY to copy the names directly into the Print form.
Print a character that requires overstriking, for example, a †	Type a "c", then a CODE-BACKSPACE, then the " ".
Change page numbering in the middle of the document	Use the Page Attribute command (f4(FORMAT)...T) and complete the "Forced page number" field.
Number pages 1-1, 1-2, 1-3...	Type a 1 and a dash in text, then give the Page Number command (CODE-f5).
Mark a block of text so that it is not split by page breaks	Use the Keep Together command (CODE-K).
Find out how long it will take to print a document	Use the List Documents command (f1(DOCUMENTS)...L) and choose the Everything option.

INVOKING OTHER SYSTEMS THROUGH THE WORD PROCESSOR

If they are installed on your workstation, you can invoke the Executive, Business Graphics, Multiplan, and Electronic Mail directly from the Word Processor, using the appropriate option from the Commands menu (CODE-f7).

When you give any of these commands except the Executive, your files are saved and you enter the application system. When you finish in that system, you are returned to the Word Processor.

However, with the Executive, you must invoke the Word Processor again as you always do to return to it.

MESSAGES

You can get messages from other application systems while you are in the Word Processor. For instance, if you are a user of the Electronic Mail system and new mail arrives during a Word Processor session, or there is mail that has not yet been put into your "in tray" when you start a Word Processor session, the messages "Mail" and/or "Urgent Mail," will be displayed on the left hand side of the screen just below the ruler. These messages will remain until you enter the Electronic Mail system and read the new mail into your "in tray."

You can use these commands at any time during a word processing session.

For more information on the commands, menus, and forms in this section, see Section 19, "Commands and Options."

WORK AREA

A work area is a place on a disk where your documents are stored. Each disk, whether it is a hard disk on your workstation, a floppy disk, or a disk on the master workstation, is divided into directories. Each directory is a collection of files. The Word Processor refers to each directory as a work area.

You can use the Work Area command to change your work area from one directory to another or from one disk to a directory on another disk.

Another way to access documents not in your work area is to give the full file specification with the document name when you complete a command form. (See "Naming Documents" below)

You do not have to use more than one directory. When you invoke the Word Processor, you are already within a work area. The name of this work area is specified in your User Configuration file. Documents that you create are placed within this work area unless you have changed your work area by giving the Work Area command. (User Configuration files are discussed in Section 19, "System Administration.")

Directories must be created using the Executive command, Create Directory. A directory must exist before you can create a file within it. (See the Executive Manual.)

CREATING AND REOPENING DOCUMENTS

The Open Document command creates a document with the name you specify, or, if a document already exists with that name, opens it for you.

The procedure for opening a document is discussed in Section 3, "Creating a Document." Document naming is discussed in the subsection below.

When you create a new document, a new file is not created on the disk until you give the Save or Finish command.

The document(s) you work with on the screen are copies of files stored on disk. Your changes to these documents are stored in memory. When you give the Save command (CODE-S) or the Finish command (FINISH), the contents or changes to the contents of the documents are transferred from memory to the disk file.

If the directory or volume on which you want to open the document is password protected, or if the file is, you may have to give the password before you can open the document. The "Password" field in the Open Document command form is there so that you can enter this password. Passwords must be assigned through the Executive. (See the subsection "File Protection" in Section 4, "Basic Concepts," of the Executive Manual for a complete discussion of file security.)

If you want to be sure that you do not inadvertently change a document, you can open it with the "Allow changes?" field of the Open Document form set to No. If the document is on the master workstation of a cluster, setting "Allow changes?" to No, makes it possible for other users to view the document at the same time that you do.

If you want the new document to begin as a copy of another one, you can enter the name of the document you want to copy in the "Copy from document" field.

NAMING DOCUMENTS

When you create a document, you give it a name. The name is used in command forms to specify to which document you want the command applied. An example of this is the Print command, where the field "Document name(s)" must be completed before the command can be executed. The document name is also the name for the document disk file.

You can give a document a name up to 46 characters in length. When the document is shown on the screen, the document status line shows the first 15 characters of the document name and an

ellipsis, to indicate that the complete name is not being shown.

Capitalization that you assign to the name is preserved, but it is not necessary to match capitalization exactly when giving a document name in a command form.

Embedding spaces in the name makes it more difficult to use the Executive to manipulate the file later, and is not recommended.

Full File Specification

The document name is also a file name, part of a full file specification. The full file specification is an expanded name for the file and indicates the work area where the file is located. File specifications can be given in their full form or abbreviated.

You can use a full file specification if you want to access a document in another work area without changing your work area.

A full file specification has the form

```
{Nodename}[Volname]<Dirname>filename^password
```

where:

- o {Nodename} is the name of the node where the file is located.

A node is a location in a network of workstations. It can be a master or a standalone workstation.

A cluster workstation is located at the same node as its master and other workstations in the cluster. However, because communications cannot be initiated down the line from the master to the cluster workstation, a local file on a cluster workstation cannot be accessed from a different node by including {Node} in the file specification.

- o [Volname] is the name of the volume where the file is located.

A volume is a disk drive that has been formatted and initialized to store files. It may be a hard disk or a floppy disk.

- o <Dirname> is the name of the directory to which the file is assigned.

A directory is a collection of related files on one volume. A volume is divided into one or more directories.

- o filename is the name you assign to the file. The filename is also the Word Processor document name.

A file is a set of related records treated as a unit. A file can contain a series of executable instructions, a series of data items, a document, etc.

You can abbreviate the full file specification by including only as many parts of the file specification as is needed to identify the location and name of the document. For example, if a document you want to access is in another directory on the volume in which you are presently working, you only need to specify the directory name and file name.

You can use one of the following formats when you give a file specification:

- o [volname]<dirname>filename
- o <dirname>filename
- o filename

Wild Card Characters

Wild card characters cannot be included in a file specification in the Word Processor as they can be in the Executive. The Open Document, Copy Document, Delete Document, or Rename Document commands treat wild card characters as though they are a normal character in the document name.

Use of wild card characters in the Word Processor is limited to the "Pattern" field of command forms. (Wild card characters and the "Pattern" field are discussed in Section 4, "Giving a Command.")

CLOSING DOCUMENTS

Documents are closed when you Finish a word processing session or when you give the Close Document command (CODE-C). Closing documents is discussed in Section 3, "Creating a Document."

SAVING

Because changes you have made to the document are not permanent until you Save or Finish, it is recommended that you Save as often as every 20 minutes.

(The Word Processor has a recovery feature which allows you to recover changes if you have a failure. Recovery is discussed further on in this section.)

COPYING, RENAMING, AND DELETING FILES

Copy Document creates a new document with the contents of an old one. This is useful when you want to transfer the document to floppy disks or to the master. (See the subsection "Using Floppy Disks" below.)

Rename Document changes a document name. Renaming is useful when you want to transfer a file to another work area and do not want to keep the copy in the first work area.

Delete Document removes the document from the directory listing and, at the next Save or Finish, from the disk. If, however, the document has not been opened since your last Save, when you give the Delete Document command, it is deleted from the disk immediately.

LISTING FILES

The List Document command provides three types of file listings for a work area:

- o The Names option lists document names for all documents.
- o The Dates option lists each document name with dates of creation, revision, and printing. Number of pages is also listed for each document.
- o The Everything option lists each document name with its accessibility, length in pages and characters, dates of creation, last revision, last access, and the time for printing the document.

Displayed at the end of each directory listing are the current number of files in the directory, the amount of space used in the directory (by number of pages and characters) and the amount of space left on the volume.

Giving the List Documents command is discussed in detail in the List Document subsection of Section 18, "Commands and Options."

To view a partial listing from a work area, you can enter the pattern for the group of files you want to see, using a wild card character. (Patterns and wild card characters are discussed in Section 4, "Giving a Command.")

FLOPPY DISKS

Floppy disks can be used to store your Word Processor files, application programs, or an operating system.

A floppy disk is a flexible plastic disk coated with a brown substance that allows data to be recorded on it magnetically. The disk is protected from dirt and fingerprints by a square plastic envelope. When you place a floppy disk in a disk drive, the floppy disk spins around and a read/write head in the disk drive reads or writes the data.

CARING FOR A FLOPPY DISK

Take the following precautions when using floppy disks:

- o Store them in the paper envelope that comes with them for that purpose. This keeps the disk free of dust.
- o Insert the floppy disk into the disk drive slot carefully so as not to bend it.
- o Do not touch the open slot on a floppy disk. Your fingers contain oil that can damage a recording surface.
- o Do not leave the disk where it will be exposed to extreme temperatures. Disks should be stored at temperatures between 50° and 125° F.
- o Keep the disk away from magnets or magnetized tools or devices and electric motors.

For information on how to insert and remove a floppy disk, see the Installation Guide for your workstation.

USING FLOPPY DISKS WITH THE WORD PROCESSOR

Special care must be taken if you use floppy disks with the Word Processor. Remember that documents shown on the screen and your changes to them are not transferred to the floppy disk until you Save or Finish.

If you have accessed a floppy disk for the Open Document, Rename Document, Delete Document, or Copy Document commands, you must close all windows on the screen that show documents on the floppy disk and give the Save command or Finish before you dismount the disk. Your work will not be on the disk if you dismount it before you Save or Finish.

Never dismount a floppy disk containing a document that is currently displayed on the screen.

If you used the Change Work Area option to change your work area to a directory on a floppy disk, mount the disk before calling up Documents, or call up Documents again after mounting the disk.

RECOVERY

The Recover procedure protects your documents against loss or damage caused by a sudden loss of power or a malfunction. Recovery is possible because the Word Processor maintains a special document, the typescript, of all work done during a session.

When you invoke the Word Processor after such a failure, the following message appears:

Your last session did not finish successfully.
Press GO to recover, CANCEL to start a new session.

When you press GO the Word Processor begins the recovery and you will see an "instant replay" on the screen of all you have done since the last Save. The Word Processor replays all the entering and editing performed on your document and stops at the point in the session when the failure occurred.

You can interrupt recovery by pressing CANCEL once, which causes the following message to appear:

Recovery suspended;

Press GO to continue, CANCEL to stop recovery.

You might want to stop recovery early if you know that the last step you did caused the failure.

When recovery is complete, or after you have stopped the recovery, the following message appears:

Recovery complete

You can then open your documents and proceed with the word processing session.

You also can recover using the Executive Recover command, whether or not a failure occurred. (Your system may be configured without an Executive, in which case this option is not available.) Enter "Recover" in the Executive command form. (Giving an Executive command is described in Section 4, "Basic Concepts," in the Executive Manual.) The previous word processing session is replayed on the screen.

You might want to do this after your last session, just to have the group of documents you had on the screen when you finished returned to exactly the same display that you had before.

-OLD FILES

When you open and change a document the Word Processor keeps a copy of it as it was when opened, or at the time of the last Save, whichever was most recent. This copy is kept so that you can return to the old version of the document if necessary.

The Word Processor gives these files a file name that consists of the document name plus the suffix -Old. For example, when you open and change the document Expenses, the Word Processor creates a copy of the document called Expenses-Old. We will call these files -Old files.

-Old files are overwritten as necessary by the Word Processor, so that only two generations of the document are kept. When you use the Word Processor Delete Document command, both versions of the document are deleted.

Note that -Old files are not used for recovery or for the Discard Edits command. Their purpose is to provide you with a copy of the document.

-Old files cannot be opened through the Word Processor. However, you can use the Executive to rename a -Old file, and then open the renamed file through the Word Processor. (See the Rename command in the Executive Manual.)

If your disk space is low, you may want to delete -Old files for those documents for which you know you do not need a copy of the previous version. (See the Delete command in the Executive Manual.)

FILE BACKUP AND SECURITY

See the subsection "File Protection" in Section 4, "Basic Concepts," and the subsections "System Protection" and "Volume Management" in Section 5, "Advanced Concepts," of the Executive Manual for information on file security and for a discussion on how to back up your files to protect them from accidental damage.

Table 13-1. Document Management Hints.

<u>If you want to...</u>	<u>Then...</u>
Open a document on the master workstation, but allow others to see it at the same time	Give the Open Document command and choose the No option for "Allow changes?".
View several documents from more than one work area at the same time	When you open each document, give the full file specification in the "Document name" field of the Open Document command form.
See a partial list of documents	Give the List Documents command and use the "Pattern" field.
See a document list from another work area without changing to that work area	Use List Documents and change "Volume" and/or "Directory" field(s) to the volume and/or directory you want.
Find out how long a document is or how much space a file takes	Give the List Documents command and specify the Everything option.
Check how long it takes to print a document	Give the List Documents command, enter the name in the "Pattern" field, and specify the Everything option.
Remove unnecessary files from your work area	Use List Documents, then select a document name using Mark Word(f8). Choose D for Delete Document. The command form is already completed with the name of the selected document. Repeat.

14 MAINTAINING STORE PHRASE AND RECALL PHRASE

You can use the Store Phrase command (SHIFT-f7) to store a block of text that is in your open document and the Recall Phrase command (f7) to insert the stored text in the same or another document. The stored text is called a phrase.

A phrase can consist of a few words, a sentence, or several paragraphs. It can include paragraph symbols and page breaks, and it can consist of these symbols alone without associated text.

You assign a name to each phrase with the Store Phrase command. The name is specified whenever you want to use the phrase, list it, or delete it. The name you assign to the phrase should be short and descriptive of the phrase it represents.

Phrase names and their associated phrases are stored in an internal phrase file. Each time you store a phrase, that phrase and its associated name are added to the phrase file.

You can share a phrase file with other users on your cluster or node. Note that some phrase commands alter the phrase file, and, therefore, require that you have exclusive access to the file. These are Store and Remove Phrase. When you use these commands with a shared phrase file, other users cannot recall phrases or access the file in any other way until you Save. In addition, you will not be given access to the file until others who have used the phrase file recently Save.

The name of your phrase file is specified in your User Configuration file. See Section 19, "System Administration," for more information.

Your system cannot be configured to share a phrase file and access one that is uniquely your own unless you do so under unique user names.

Storing and recalling phrases are discussed in Section 7, "Editing Text," and in Section 18, "Commands and Options," under the commands "Store Phrase" and "Recall Phrase."

LISTING PHRASES

To list one or more names and their associated phrases that are stored in your phrase file, use the List Phrases command, an option on the Commands menu (CODE-f7(COMMANDS)...I). You can display a list of all or part of the contents of your phrase file. Names of phrases only can be listed, or the expansion of the entire phrase can be shown.

The List Phrases form is shown in Figure 14-1.

You can use the "Pattern" field of the List Phrases command form to limit the phrases listed. Entering patterns is described in Section 4, "Giving Word Processor Commands."

LIST PHRASES:	(Press GO to execute, CANCEL to dismiss)
Pattern:	
Details:	Names Expansions (Press N or E)

Figure 14-1. List Phrases Form.

To display all the phrases in your phrase file you leave the "Pattern" field blank.

REMOVING PHRASES

To remove a name and its associated phrase from your phrase file, use the Remove Phrase command (CODE-f7(COMMANDS)...R), another option on the Commands menu. Figure 14-2 shows the Remove Phrase form.

REMOVE PHRASE: (Press GO to execute, CANCEL to dismiss)

Phrase name:

Figure 14-2. Remove Phrase Form.

When you give the Remove Phrase command, specify the phrase name exactly on the form.

If you have used the List Phrases command to display a list of phrases, you can also select a phrase from that list, using the Mark Word command (f8), and then give the Remove Phrase command.

You can remove an entire phrase file using the Executive Delete command. This is useful if you are really sure that you want all the stored phrases to be deleted. A new phrase file will be created automatically the next time you use the Store Phrase command.

15 MAINTAINING THE SPELLING DICTIONARIES

With the Check Spelling command (CODE-F7(COMMANDS)...C), an option on the Commands menu, you can check the spelling of each word in an open document and correct any misspelled words that are found.

Check Spelling is an optional command and does not work unless the dictionary is installed on your system.

Check Spelling offers

- o two dictionaries for checking words
 - a shared common word dictionary, which you cannot change
 - a personal dictionary that you can add entries to or edit; size of which is limited only by workstation disk space.
- o automatic suggestions for correction
- o an automatic hyphenation option

You can use Check Spelling at any time during a word processing session. Your document is checked one word at a time. When a misspelled word is found, you are given several options for correcting that word. (Using Check Spelling is discussed in Section 7, "Editing Text," and in Section 18, "Commands and Options.")

COMMON WORD DICTIONARY

The common word dictionary contains about 70,000 commonly used words, depending on which language dictionary you have installed. You cannot view any part of this dictionary or make any changes to its contents.

The common word dictionary can be shared by other users within the same cluster. See the subsection "User Configuration" in Section 19, "System Administration," for information on how to do this.

PERSONAL DICTIONARY

The personal dictionary is an optional dictionary that is keyed to the individual user. Its purpose is to provide a dictionary that contains words you use that do not appear in the common word dictionary.

For example, certain words that are used in environments, such as the computer and electronics industries, may not be in the common word dictionary. You can put these words in your personal dictionary to be used by Check Spelling in the same way the words in the common word dictionary are used.

If Check Spelling highlights a word that is not misspelled, then that word is not in the common word dictionary. You can enter this word in your personal dictionary by choosing that option from the menu that appears during the spelling check, and in subsequent passes the word will not be highlighted.

CREATING YOUR PERSONAL DICTIONARY

Your personal dictionary is created the first time you try to enter a word in it using the Check Spelling command option, "Enter in personal Dictionary." When Check Spelling finds a word that is not in the common word dictionary, you have the option of adding it to your personal dictionary.

NOTE

If you are unsure of the spelling of a word, do not put it into the dictionary until you make sure it is spelled correctly.

A default personal dictionary name, [Sys]<WP>username.words (where username is your user name) is used for the personal dictionary unless another name is specified in your User Configuration file. (See Section 19, "System Administration," for more information on User Configuration file entries.)

EDITING YOUR PERSONAL DICTIONARY

If you first unload the personal dictionary using the Unload Dictionary command (CODE-f7(COMMANDS)...U), an option on the Commands menu, you can also edit your personal dictionary, adding or deleting words as you wish. The dictionary is unloaded to an ordinary document.

Note that when you unload your personal dictionary, entries are only copied from the dictionary, not deleted.

After you have edited the document, you can load the dictionary again, using the Load Dictionary command (CODE-f7(COMMANDS)...L). At this time, all entries you deleted when you edited are removed from the dictionary file.

You may want to unload your personal dictionary for simple housekeeping or, when you are finished with a project, you might want to remove specific entries which would be misspellings outside the context of that project.

You may also want to unload a dictionary that has been used for a particular project and keep the file to be reloaded at a later date for use with similar documents. To do so, make a copy of the file to save and rename, then remove all excess entries. When you want to use the file again, rename your current dictionary file, then use the Load Dictionary command to reload the edited file.

PERSONAL DICTIONARY DOCUMENT FORMAT

You can add words to your personal dictionary after it has been unloaded if you wish. You can enter the words in any order.

Figure 15-1 shows some entries from a personal dictionary.

Note the discretionary hyphens that appear in Figure 15-1 are optional.

```
✓ASCII
✓CA
✓con~fig~ured
✓con~sec~u~tive~ly
✓DEF
✓de~lim~it~er
✓de~lim~it~ers
```

Figure 15-1. Contents of a Personal Dictionary.

AUTOMATIC HYPHENATION

When you give the Review Document command and request hyphenation during page formatting, the Word Processor checks both dictionaries for information on how to hyphenate the words.

Because of this, it is useful to put discretionary hyphens in all entries you make in your personal dictionary. You enter a discretionary hyphen by typing CODE-hyphen.

You can enter discretionary hyphens while using the Check Spelling command by including them in the Set Word Traits form that you use to enter a word in your personal dictionary. You can also add discretionary hyphens when you edit your dictionary.

AUTOMATIC HYPHENATION

When you give the Review Document command and request hyphenation during page formatting, the Word Processor checks both dictionaries for information on how to hyphenate the words.

Because of this, it is useful to put discretionary hyphens in all entries you make in your personal dictionary. You enter a discretionary hyphen by typing CODE-hyphen.

The Sort/Select command (CODE-f7(COMMANDS)...S), the Merge command (CODE-f7(COMMANDS)...G) and the Merge to a Document command (CODE-f7(COMMANDS)...Q) perform list processing operations. Sort/Select, Merge, and Merge to a Document are all options on the Commands menu.

One of the most common uses for list processing is the production of personalized form letters, where a form letter is merged with a mailing list. However, you can use list processing to select, sort, or merge into a form document any type of information that can be formulated as a list of records.

- o Sort/Select Sorts records alphabetically and/or numerically and/or selects specific records from a records file.
- o Merge Merges one or more records files with a form document and prints the results. Files may be sorted or selected before they are merged.
- o Merge to a Document Works the same as Merge except merged text is written to a document, rather than printed.

Section 18, "Commands and Options" discusses how to use the command form for each of these commands.

DOCUMENTS REQUIRED FOR LIST PROCESSING

To print a personalized form letter using list processing, a file containing records of the names and addresses to be used must be created. If the records to be processed need to be selected from the file, the file must first be processed using the Sort/Select command, then merged with the form document using the Merge command.

The List Processing commands all require a records file. Merge and Merge to Document, in addition, require a form document, into which the records from the records file are merged.

RECORDS FILES

A records file is a text document containing a list of records. Each record represents a group of related items, each of which appears as a single field. The record format for each records file is defined by a template record (see below).

An example of a records file might be a mailing list within which each record is an address. For each record the fields of the record might be name, street address, city, state, and zip code. Figure 16-1 shown in the subsection "Example of a Records file", below, shows the contents of a records file.

Records

Within the records file each record is delimited (separated) from any other record by a special character called a record start character. When the Word Processor is reading a records file during a sort, selection, or merge, the record start character tells it that until it encounters a new record start character, all the characters it reads are part of one record.

Similarly, within each record, each field is delimited by a field start character. When the Word Processor is reading a records file the field start character tells it that until it encounters a new field start character or a new record start character, all the characters it reads are part of one field.

You can use any character you want for a record start or field start character, except a paragraph symbol, page break, or a space. (Tabs, for instance, can be used as a field start character.) Within one records file there can be only one character used as a record start character and one character used as a field start character, and the two characters must be different from each other.

A record can contain zero or more fields.

For example:

```
1/Record field 1/Field 2/Field 3
1/New Record field 1/Field 2/Field 3
```

Template Record

The first record of any records file must be a template record that defines the record format for that file.

A template record begins with the record start character and the field start character you have chosen to use for this records file.

Each field of the template record contains the keyword that is to be used to represent the name for that field. This name is used to specify which fields of a record to sort by, select by, or to merge into a form document.

A records file can contain any number of keywords. (When the records file is merged with a form document, not all keywords that occur in the records file must be used. The form document can also contain keywords that are not found in the records file.)

The order in which the fields of the template record occur establishes the order in which the fields of each record in the records file appear.

An example of a template record:

```
!/FirstName/Initial/LastName  
/Address  
/City/State/Zip
```

There are certain restrictions for keyword names used in the template record. These restrictions do not apply to the information included in the actual record for the field described by the keyword.

- o Keywords can be any length up to 20 characters.
- o Embedded blank spaces (inserted when you press the spacebar) cannot be included in the keyword. For example:

"FirstName" not "First Name"

- o Commas, line break symbols, paragraph symbols, forced page symbols, and forced column symbols cannot be placed within a keyword.

If you want a field to be a numeric value only, and you want to sort on that field numerically, precede the keyword name by a pound sign (#). For example:

```
!/NormalKeyword/#NumericKeyword
```

Including Comments in a Records File

Any text between the record start character and the first field start character are treated by the Word Processor as a comment for that record. The comment text is ignored during Merge and Sort/Select.

An entire record is treated as a comment if it contains no field start character. However, since this form of comment is not associated with any specific record, the Sort operation places all such comments at the top of the resultant records file.

Formatting a Records File

Special characters such as line break symbols, paragraph symbols, page break symbols, and column break symbols, are ignored unless they are embedded within the text of a field.

This means that when you are creating a records file you can enter the records text as you would any other text.

However, you must remember not to use these special characters within a keyword in a template record.

You can assign formatting to records if you want to. Whatever formatting is assigned to each record is carried over when the records file is merged with a form document. For example, a boldface record remains boldface when it is added to a form document. If the keyword that appears in the form document also carries formatting, the text from the records file takes on that formatting in addition to the formatting it already carries. Thus, a boldface record appears as boldface and underlined if the keyword is underlined in the form document.

Note that a records file must end with a paragraph mark or line break (SHIFT-RETURN).

Example of a Records File

Figure 16-1 shows an example of a records file consisting of the template record and two text records.

The template record defines the record start character, the field start character, and the keywords.

The two subsequent records contain the actual names and addresses that can be merged into a form letter.

Two comments are also included in the example.

In this example, record start and field start characters are, respectively, the exclamation mark (!) and the slash (/). Remember that you can choose your own characters when you create your own form document.

```
!/LastName/Title/Firstname/Initial
/Address
/City/State/Zip

!/Johnson/Mr./John/A.
/210 Elm Street
/Centerville/CA/92900

!/Jones/Ms./Mary/J.
/1299 Main Street
/Springdale/NJ/11688

!This is a comment. It can include any symbols
except the field start character.

!Another comment, this time preceding a valid
record/Everbee/Mrs./Jane
/1244 Whitman Lane
/Centerville/CA/92900
```

Figure 16-1. Example of a Records File.

The first record in the file is the template record, which has eight fields. Each field represents a particular item in the record.

The first field of the template record has the keyword "Lastname". Each first field in the subsequent records contains an actual last name. The last name of each record could later be selected during sorting, selection, or merge operations by specifying the keyword "LastName".

The second field of the template record has the keyword "Title". Each second field in the subsequent records is an actual title (Mr., Ms., Mrs.).

The comments are ignored during any list processing.

Note that the last record in the example has a comment preceding it, placed between the record start character and the first field start character.

FORM DOCUMENTS

Form documents are the documents into which the data in the records file can be merged. Keywords are included in the form document, as defined in the records file template record, and they indicate where the information represented by the keyword will appear in the printed document.

Figure 16-2 shows how a typical form document appears before it has been merged with a records file. Wherever an entry from a specific field of the records file should be merged into the form document, the keyword for that field (specified by the template record in the records file) appears. Figure 16-2 shows each keyword in boldface type, so that you can see them easily.

FirstName Initial LastName
Address
City State Zip

Dear **Title LastName**:

I am pleased to inform you that you might be the lucky winner of a FREE trip to sunny Hawaii! All your neighbors in **City** will be green with envy when you and the entire **LastName** family take off this winter for two lovely weeks in the Islands.

We will be contacting you very soon, **Title LastName**, to tell you more about your exciting vacation.

Sincerely,

Vista Travel Services, Ltd.

Figure 16-2. Example of a Form Document.

Specifying Keywords in a Form Document

Every time a keyword appears in a form document, it is replaced in the printed document with the same text value. For example, in the form document in Figure 16-2, the same keyword, "LastName," appears four times. Each time, the same last name appears in the printed document.

You can use each keyword as many times as you want. When you create a form document, you enter the keyword at each place you want the entry in that field of the records file to appear. Each keyword must have the Merge Keyword format attribute applied to it. (See procedure below.)

To enter a form document:

1. Create the document as usual, using the Open Document command.
2. Enter text as you normally do until you want to insert the first keyword.
3. Give the Merge Keyword command.

The Merge Keyword command is an option on the Format menu.

To give the command press f4 (FORMAT). The Format menu appears. Then press K to choose the Merge Keyword option.

4. Enter the keyword text. It is shown in half-bright characters.
5. To indicate the end of the keyword and return to normal text, access the Format menu again by pressing f4 (FORMAT) and then pressing CODE-K. The next text you type will be normal.

Follow this procedure for each keyword you enter.

You can also apply the Merge Keyword attribute to text by typing the keyword as normal text, then selecting it and giving the Merge Keyword command.

Formatting Keywords

Character formatting attributes (underline, boldface, and so on) are applied to the text that replaces the keyword at merge time. They come from two sources: from the attributes of the keyword as it appears in the form document and from the attributes of the text within the records file. For example, if the keyword in the document is in boldface and the corresponding text in the records file is underlined, the replacement text is in boldface and is underlined.

A keyword can have more than one character attribute. Before or after you have specified a keyword in a form document, you can assign any of the formatting options. (See Section 8, "Structuring Document Format.")

Reserved Keywords

A reserved keyword is predefined by the Word Processor to be expanded to specified text whenever it is encountered in any form document. Insert them into the form document as you would any other keyword.

Reserved keywords do not have to be defined in a records file.

The reserved keywords are listed in Table 16-1.

Table 16-1. Reserved Keywords.

<u>Keyword</u>	<u>Expansion</u>
date	Current date For example, December 31, 1984
ldate	Current date in long form For example, Saturday, December 31, 1984
sdate	Current date in short form For example, 12/31/84
time	Current time For example, 8:15 am 9:05 pm
sequence	Sequence number of the current record

The keyword "sequence" shows the sequence number of the current successfully merged record. For example, you might have a records file containing 40 records. Each successfully merged record is sequentially numbered from 1. If you specify the keyword "sequence" in the form document that is merged with the records file, the sequence number of each successfully merged record appears in the printed document that corresponds to it.

SELECTING RECORDS

Records can be selected from a records file using the Sort/Select command, an option on the Commands menu.

When selected the records are written to a specified file. The new file is a valid records file and includes a copy of the template record from the original records file.

No records are ever actually deleted during the sort or selection process. The original records file is always retained unless you specify the same filename in the "Records to file" field as you do in the "Records from file" field, in which case the original file is overwritten.

The Sort/Select command form is shown in Figure 16-3, below.

You use the same command form to sort or select records. Sorting and selection can be performed at the same time or independently. For ease of understanding, they are discussed separately here. If no selection criteria are supplied, the Word Processor selects all records. If no sort criteria are supplied, records are not sorted.

Records are selected by specifying a selection test. A selection test is a procedure during which the Word Processor tests each record to see if it matches specified selection criteria.

The criteria you can specify include the field name records will be selected on, which is specified by giving the keyword for that field, and the values to be selected for that field. You can specify a range of values. Specifying ranges is discussed below.

```

SORT/SELECT:  (Press GO to execute, NEXT for next item, CANCEL
               to dismiss)

Records from file(s):
Records to file:

Selection test 1:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)
Selection test 2:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)
Selection test 3:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)

Primary sort field:
  Sort type:      Ascending Descending  (Press A or D)
Secondary sort field:
  Sort type:      Ascending Descending  (Press A or D)
Tertiary sort field:
  Sort type:      Ascending Descending  (Press A or D)

```

Figure 16-3. Sort/Select Command Form.

If a record occurs where an entry in the specified field equals the value specified or falls within the range specified, then the entire record is written to the new records file.

When you specify the selection test, you can choose that the selected records be kept or discarded. This makes it easy to think about your selection as "all the records you do want" or "all the records you don't want." If you specify that records be kept, this means that they are written to the new records file. If you specify discard, this means that the records not selected are written to the new records file.

You can select from more than one records file at one time if you wish.

To select records from a records file:

1. Give the Sort/Select command.

The Sort/Select command is an option on the Commands menu.

To give the command, press CODE-f7 (COMMANDS). The commands menu appears. Then press S to choose Sort/Select. The Sort/Select form appears. (See Figure 16-3.)

2. In the "Records from file(s)" field, enter the name of the records file from which you wish to select records. Place commas between the names of the files if you want to select from more than one file.
3. In the "Records to file" field, enter the name of the file to which you want the selected records written. The file is overwritten if it already exists.
4. For the first field you wish to use as a criteria for selection,
 - o In the field "Select on field" enter the keyword name.
 - o In the "Field value(s)" field, enter the value or range of values that you want to use as a criteria for selecting records.
 - o Choose whether you want the records that meet the selection criteria defined to be kept (written to the new records file) or discarded. If you choose discarded, the records that are not selected are written to the new records file.

5. If you want the records defined in step 4 to be further reduced by another set of selection criteria, enter those values in the fields of "Selection test 2." "Selection test 3" may be used to further reduce the set of records selected.

6. Press GO to execute the command.

Note that the selection may take a considerable amount of time, especially if your records file is several pages long.

7. If you wish to further reduce the selected records, you can follow this procedure again, using the newly created records file as the "Records from file".

USING A RANGE TO SELECT RECORDS

Ranges can be alphabetic or numeric. A range is specified by giving the values between which you want to select records, separated by a hyphen. For example, 10-202, 900-, CA-NY.

Remember that fields of any record are lexicographic, unless you precede the keyword for that field in your records file with a pound-sign (#) to indicate a numeric field.

Alphabetic Ranges

Alphabetic ranges you specify include the values you give and do not include those that would fall outside of that range alphabetically.

For example, if you were selecting from the records file shown in Figure 16-1, which contains records for the last names Johnson, Jones, and Everbee.

- o A range of A-J for the field "Lastname" would select only the record for Everbee.
- o A range of A-JOH would select the records for Everbee and Johnson.
- o A range of A-JZZZ would select all three records.
- o A range of J would not yield any records since there are no last names which consist only of the letter J, but the range J- would select the records for Johnson and Jones.

Numeric Ranges

Numeric ranges can be specified whether your field is numeric or lexicographic, but the range is given differently for the two cases.

For a numeric field, supply a numeric range that includes the numbers you want selected, for example, 94000-95999. Note that records eligible for selection with this example include the numbers 94000 and 95999. Remember that a numeric field must contain only numbers.

If the field is lexicographic, the left-most digit given in the first value of the range is compared with the left-most digit in each record, and then the next digit is compared, and so on. For example, to include the numbers 94000 and 95999 in a range for selection from a lexicographic field, you can give the range 94-96, or you can also give the range 94000-95999.

SORTING RECORDS

You can sort all or some of the records from a records file using the Sort/Select command. Sorting can be on one, two, or three fields of the records file at any one time.

Records can be sorted by numeric value alone, or they can be sorted by alphabetic and numeric value at the same time. The last type of sort is called a lexicographic sort. The default sort is lexicographic.

Sorting can be ascending (A-Z,) or descending (Z-A).

An ascending lexicographic sort places most characters and numbers before letters. (Exceptions are the square brackets ([]), caret (^), underline (_), and the tilde (~), which are sorted after letters.)

The sorted records are written to a specified file. The new file is a valid records file and includes a copy of the template record from the original records file.

The Sort/Select command form is shown in Figure 16-3 in the subsection "Selecting Records" above.

Selected records are sorted according to the values found in the field that is specified in the "Primary sort field" field of the Sort/Select command form.

You can specify a multilevel sort by entering a keyword in the "Secondary sort field" and entering one in the "Tertiary sort field." Groups of records whose primary field values are equal are sorted within the group according to the values of the secondary field.

If no sort field is specified, no sorting occurs.

You can specify a sort of more levels than are provided in the Sort/Select form by repeating the Sort/Select command on the same set of records. In this case, it is necessary to sort on the least significant level first, ending with a sort on the most significant. (See "Sorting on More Than Three Fields" below.)

The sort is stable: that is, records of equal sort value appear in the same sequence when they are output as when they were input.

To sort records:

1. Give the Sort/Select command.

The Sort/Select command is an option on the Commands menu.

To give the command, press CODE-f7 (COMMANDS). The commands menu appears. Then press S to choose Sort/Select. The Sort/Select form appears. (See Figure 16-3.)

2. If you want to select records, complete the "Selection test" fields. (See the procedure above.) Otherwise, leave these fields blank. All the records in the records file will be selected.
3. Enter the keyword for the field you wish to be the main category by which the records are arranged in the "Primary sort field." The sort is lexicographic by default.

If you are sorting on a numeric field, the keyword name should be entered without the pound sign that precedes it in the template file. (See subsection "Numeric sort," below.)

4. In the "Sort type" field choose A if you want the primary sort to be in ascending alphabetical order (A-Z) or ascending numerical order (1,2,3,...). Otherwise, choose D for descending sort.
5. If you want to arrange by two categories, in the "Secondary sort field," enter the keyword for the field you wish to be the secondary category. The records are sorted by this category within any primary category.

6. In the "Sort type" field choose A if you want the secondary sort to be in ascending alphabetical order (A-Z) or ascending numerical order (1,2,3,...). Otherwise, choose D for descending sort.
7. If you want to sort by three fields, repeat steps 5 and 6 for the "Tertiary sort" field.
8. Press GO to execute the command.

Note that the sort may take a considerable amount of time, especially if your records file is several pages long.

SORTING ON MORE THAN THREE FIELDS

To sort on more than three fields, the Sort command must be given again.

The first time the three least significant fields are sorted.

Then the records file to which the results of this sort are written is sorted for the primary, secondary, and tertiary fields by which you want the final records file to be arranged.

For example, to sort by YearsEmployed, Salary, LastName, FirstName; sort first with Salary as the primary sort field, LastName as the secondary sort field, and FirstName as the tertiary sort field. Then sort the resulting file by YearsEmployed.

NUMERIC SORT

To sort a field numerically, the keyword must appear in the template record of the records file preceded by a pound sign (#). This indicates to the Word Processor that the entries for this field in the record will contain only numbers. When you specify the keyword in the Sort/Select command form, however, the pound sign must not be included.

A numeric sort field must contain only numbers to sort properly.

Numbers such as the page numbers used in this manual (1-1, 1-2, 1-3,...) are considered to be two numbers separated by a hyphen and can only be sorted numerically by making each digit a separate field.

SORTING AND SELECTING RECORDS AT THE SAME TIME

Since the Sort/Select command can perform both operations at once, if you want to sort and select on a records file, just complete the command form as you would for the single operation, but enter criteria under both "Selection test" fields and "Sort" fields.

The selection is performed first. Then records are sorted and written to the specified new records file. If you wish, this file can then be merged with a form document.

A sort and select can be performed on the same records file in the same fields. For example, suppose you have a records file consisting of names and addresses of people living in the three Pacific Coast states: California, Oregon, and Washington. Suppose, you want to send form letters only to people living in California and you want the list of their addresses in alphabetic order by city.

In this case, under "Selection test 1", specify the keyword representing the state in "Select on field" and specify a "Field value(s)" of CA. You want to keep these records in the "Records to file", so you specify K. Next, specify the keyword representing the city in the "Primary sort field" and specify an ascending sort by pressing A. Then, press GO.

The resulting records file contains a list of only California addresses, listed in order from A through Z by city.

MERGING RECORDS FILES WITH FORM DOCUMENTS

To merge records from records file(s) with form documents, you use the Merge or Merge to a Document command, both options on the Commands menu. Figure 16-4 shows the Merge command form.

Merge and Merge to a Document work in the same way, and, therefore, this discussion does not usually differentiate them. Merge to a Document, however, does have the limitation that you might run out of memory if you try to merge very large records files with long form documents.

As each record from the specified records file is processed, a new copy of the form letter is made.

You can specify that more than one records file be merged with a single form document; however, when you do so, the Word Processor still merges only one record at a time with each copy of the form document.

The new copy starts at the top of a new page whose page number is one, unless you specified No for the "Number forms separately" field or the form contains a forced page number attribute. (See Section 8, "Structuring Document Format.")

MERGE: (Press GO to execute, NEXT for next item, CANCEL to dismiss)			
Form name:			
Records file(s):			
Number of records to skip:			
Start numbering at:			
Number forms separately:	Yes	No	(Press Y or N)
Paper feed:	Continuous	Manual	(Press C or M)
Printer name:	DIABLO		
for example: DIABLO, LPT			
Priority (0-9)			
Inform when formatting done?	Yes	No	(Press Y or N)
Print statistics?	Yes	No	(Press Y or N)

Figure 16-4. Merge Command Form.

Pagination of each complete form letter occurs automatically. You can change the first page number assigned by using the Start Numbering At field of the command form, or you can change pagination by inserting forced page breaks within the form letter when it is first created.

You can use the "Number of records to skip" option to specify that the first so many usable records in the records file be skipped. This option can be useful if a previous merge operation was not completed, and you want to start again without repeating the letters that already have been done.

For spooled printing with Merge, the form letters or documents are automatically queued for printing in batches of 50. Each batch appears in the print queue as "FormName1-50", "FormName51-100", and so on. If the disk becomes full, smaller batches are created. (FormName represents the name you have given to that particular form document.)

Any bad records found during the execution of either merge command are flagged with a message such as "Field X does not exist." These messages, together with a copy of the record that caused them, are collected in a log printed at the end of the merged output.

Note that if a record has an empty field (not a missing one), the Word Processor does not consider it a bad record. Instead it automatically adjusts any spacing that might be left in the form document because of the blank field and continues processing.

When the merge operation has been completed and the form letters have been printed, the following statistics are printed. (N represents the appropriate number.)

```
Records file(s) provided
  [vol]<dir>filename
Number of these records file(s) found to be
usable: n
```

```
Total number of records (in the usable files): n
n record(s) successfully merged
n records file(s) rejected
In the records files used n record(s) rejected
or skipped.
```

You can choose to suppress the printing of these statistics if you wish.

NOTES ON PRINTING LABELS

You may want to use your records file to print labels.

To do so you must merge to a form document set up in the format that you want the label to have. In particular, you should measure the distance between the perforations on the continuous label forms and set the page length of the form document to that measurement.

Note that this is for printing labels that are on a continuous form with each label below the next. You cannot print labels side by side, without adjusting your records file, so that each record really represents more than one address.

EXAMPLES OF LIST PROCESSING APPLICATIONS

The following pages describe three examples that show how list processing is commonly used.

The first example is a typical letter into which names, addresses, and other data are merged. The printed letter, form document, and records file are described.

The second example describes a records file that has specific fields selected. Both the "Records from file" and the resulting "Records to file" are illustrated.

The third example describes a records file that is sorted on both primary and secondary sort fields. Both the "Records from file" and the resulting "Records to file" are illustrated.

EXAMPLE 1

This example is a typical semipersonal form letter produced with list processing. Figure 16-5 shows how the printed letter appears with the personalized information inserted in specific places. The inserted text is shown in boldface text here for visibility.

The information that appears in boldface type in Figure 16-5 is contained in the first record of a records file. (See Figure 16-6.)

The information from the first record of the records file in Figure 16-6 appears in the letter shown in Figure 16-5. The other printed copies of the letter contain information from subsequent records.

Figure 16-7 is the form document that was used to produce the printed letter shown in Figure 16-5. The keywords are shown in boldface text for visibility and correspond to the keywords in the template records of the records file in Figure 16-6.

<p>Ms. Joanne R. Kramer 4025 West Laurel Street Weston, CT 06810</p> <p>Dear Ms. Kramer:</p> <p>Thank you for your check in the amount of \$75.00. We at WXYZ sincerely appreciate your generous donation.</p> <p>Friends like you, Ms. Kramer, help us to reach our goal of raising \$450.00 by September 30th, 1984, to expand our programming facilities.</p> <p>Sincerely,</p> <p>WXYZ -- YOUR PUBLIC TELEVISION STATION</p> <p>W. J. Farmer Program Director</p>
--

Figure 16-5. Typical Printed Form Letter.

!/Title/First/Initial/Last
/Address
/City/State/Zip
/Donation

!/Ms./Joanne/R./Kramer
/4025 West Laurel Street
/Weston/CT/06810
/\$75.00

!/Mr./Arthur/M./Pendragon
/98 South Cornwall Place
/West Haven/CT/06866
/\$100.00

!/Mrs./Lynette/P./Harrison
/12387 Limestone Road
/Ridgefield/CT/06434
/\$24.00

Figure 16-6. Typical Records File.

Title First Initial Last
Address
City, State Zip

Dear Title Last:

Thank you for your check in the amount of
Donation. We at WXYZ sincerely appreciate
your generous donation.

Friends like you, Title Last, help us to reach
our goal of raising \$450.00 by September 30th,
1984, to expand our programming facilities.

Sincerely,

WXYZ -- YOUR PUBLIC TELEVISION STATION

W. J. Farmer
Program Director

Figure 16-7. Form Document Used to Produce the
Form Letter Shown in Figure 16-5.

EXAMPLE 2

This example shows how to select records from a records file.

The short records file described here contains a sample mailing list of names and addresses of people living in central California. Only those names and addresses with zip codes beginning with 94 and 95 are needed for a mass mailing of form letters. The field containing the zip code will be selected to be kept in the new records file that will be used for the mailing. Figure 16-8 shows the template record and the eight records of the records file, which is named "CentralCal."

To obtain the list of names and addresses within the 94 and 95 zip code areas, give the Sort/Select command, complete the form as shown in Figure 16-9, and press GO to execute the command.

The sorted records are written to the file specified in the "Records to file" field, in this case to a file called "Zip9". The file includes only the selected records containing the 94 and 95 zip codes. Figure 16-10 shows the template records and four records in the Zip9 file.

In this example, four records in the CentralCal file were selected and placed in the Zip9 records file.

!/Title/First/Initial/Last
/Address
/City/State/Zip

!/Mr./Robert/Kelly
/34 North Park Street
/Oakdale/CA/96400

!/Ms./Anna/Stone
/120 Market Avenue
/Santa Clara/CA/95050

!/Ms./Cathy/Miller
/P.O. Box 779
/Millbrae/CA/94133

!/Mr./Arthur/Grant
/80 South 6th Street
/Hollister/CA/91008

!/Miss/Ellen/Easton
/2216 Buena Vista Lane
/Monte Sereno/CA/95123

!/Mr./Philip/Peters
/1110 Main Avenue
/Palo Alto/CA/94006

!/Ms./Tracy/Wilkins
/14 West Elm Road
/Moraga/CA/98765

Figure 16-8. Example 2 Records File.

```

SORT/SELECT:  (Press GO to execute, NEXT for next item, CANCEL
               to dismiss)

Records from file(s): CentralCal
Records to file:   Zip9

Selection test 1:
  Select on field:  Zip
  Field value(s):  94000-95999
  Keep/discard these records?  Keep Discard  (Press K or D)
Selection test 2:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard  (Press K or D)
Selection test 3:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard  (Press K or D)

Primary sort field:
  Sort type:      Ascending Descending  (Press A or D)
Secondary sort field:
  Sort type:      Ascending Descending  (Press A or D)
Tertiary sort field:
  Sort type:      Ascending Descending  (Press A or D)

```

Figure 16-9. Completed Sort/Select Form for Example 2.

```

!/Title/First/Initial/Last
/Address
/City/State/Zip

!/Ms./Anna/Stone
/120 Market Avenue
/Santa Clara/CA/95050

!/Ms./Cathy/Miller
/P.O. Box 779
/Millbrae/CA/94133

!/Miss/Ellen/Easton
/2216 Buena Vista Lane
/Monte Sereno/CA/95123

!/Mr./Philip/Peters
/1110 Main Avenue
/Palo Alto/CA/94006

```

Figure 16-10. Example 2 Records File Zip9 Containing Selected Records.

EXAMPLE 3

In this example, records in a records file are sorted to another records file.

The sorted records are listed in alphabetic order from A to Z, by state and, within each state, by last name.

The records file is another sample mailing list of names and addresses of people living in most of the 50 states and is named "StateList". The records file to which the sorted records are written is called "SortedList".

Figure 16-11 shows the template record and eight records in the StateList records file.

Figure 16-12 shows how to complete the Sort/Select command form to sort the records using the field "State" as the primary sort field and "Last" as the secondary sort field.

Figure 16-13 shows the resulting sorted file. Note that the the three records with an Alabama address are arranged alphabetically by last name.

! /Title/First/Initial/Last
/Address
/City/State/Zip

! /Mrs./Anna/Jackson
/P.O. Box 4
/Central Valley/IA/70111

! /Mr./Richard/Kelly
/99 South Market Street
/Birmingham/AL/67783

! /Mr./Robert/Greene
/456 Second Avenue
/Santa Clara/CA/95055

! /Ms./Joan/Smith
/375 Nut Tree Drive
/Cedar/GA/87765

! /Ms./Diana/Levine
/988 Riverside Drive
/new York/NY/10086

! /Mr./Peter/Stewart
/4 West Sunnoaks/
/Gridley/CA/92101

! /Ms./Mary/Wright
/1212 Main Street
/Huntsville/AL/45678

! /Mrs./Arlene/Thompson
/74-26 East 10th Street
/Berkeley/CA/95338

Figure 16-11. Example 3 Records File StateList.

SORT/SELECT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Records from file(s): StateList
Records to file: SortedList

Selection test 1:
Select on field:
Field value(s):
Keep/discard these records? **Keep** Discard (Press K or D)

Selection test 2:
Select on field:
Field value(s):
Keep/discard these records? **Keep** Discard (Press K or D)

Selection test 3:
Select on field:
Field value(s):
Keep/discard these records? **Keep** Discard (Press K or D)

Primary sort field: State
Sort type: **Ascending** Descending (Press A or D)
Secondary sort field: Last
Sort type: **Ascending** Descending (Press A or D)
Tertiary sort field:
Sort type: **Ascending** Descending (Press A or D)

Figure 16-12. How to Complete the Sort/Select Command Form to Sort on Two Fields.

! /Title/First/Initial/Last
/Address
/City/State/Zip

! /Mr./Richard/Kelly
/99 South Market Street
/Birmingham/AL/67783

! /Ms./Mary/Wright
/1212 Main Street
/Huntsville/AL/45678

! /Mr./Robert/Greene
/456 Second Avenue
/Santa Clara/CA/95055

! /Mr./Peter/Stewart
/4 West Sunnyoaks/
/Gridley/CA/92101

! /Mrs./Arlene/Thompson
/74-26 East 10th Street
/Berkeley/CA/95338

! /Ms./Joan/Smith
/375 Nut Tree Drive
/Cedar/GA/87765

! /Mrs./Anna/Jackson
/P.O. Box 4
/Central Valley/IA/70111

! /Ms./Diana/Levine
/988 Riverside Drive
/New York/NY/10086

Figure 16-13. Example 3 Sorted File SortedList.

17 THE UNEXPECTED

Sometimes as you are using the Word Processor, the unexpected happens. Then what do you do?

The first thing to do is to see if there has been any real damage. Remember that the Word Processor keeps on the disk a copy of the document as it was at the time of your last Save. It also keeps a typescript file that can be invoked automatically or intentionally through the Recover feature to recover your edits. So do not be afraid when something unexpected happens. Try to find out what caused it.

COULD IT BE NORMAL?

Most often, if the Word Processor does something you do not understand and does not display an error message, you are not taking into account some logical rule that it used for the operation. One can use a command for a long time before encountering just the right circumstances to produce such an unexpected result.

Before you do anything else, look up the situation in the index for this manual and reread the entry in Section 18, "Commands and Options," for the command that you used, or reread the section that describes that type of operation.

OOPS! WRONG COMMAND!

If you have just given a command, whether you intended to give it or not, if the results were unexpected, the first thing to try is the Undo command (f2).

Such a scenario sometimes occurs when you try to shift to type a capital letter and press CODE and the character instead. CODE-D, for instance, divides a window, CODE-O displays the Open Document form, CODE-W deletes the last word you typed.

It is also easy to forget to complete the command form as you intended, or to forget to make a selection before the command is executed. For example, you might wish to replace a punctuation character used for a special purpose with another character in a limited area, but to retain the first character elsewhere in the document. If you forget to select only the area where you want the character replaced, the results could seem disastrous. However, a simple Undo can reverse the command and return text to normal.

Remember!...Never underestimate the value of UNDO!

UNEXPECTED FORMAT CHANGES

Many times when you are using MOVE, COPY, f7 (RECALL PHRASE), and SHIFT-f6 (REPLACE), the inserted text may take on new format characteristics, or may not fit into the surrounding text as you expected it would.

Many text characteristics are character attributes. Replaced text takes on both the characteristics of the replacement string and of the replaced string. Inserted text remains as is but does not change the format of the text around it.

Paragraph characteristics such as spacing and indentation are associated with the paragraph symbol. Whether you moved the symbol or did not move the symbol, text spacing and indentation change accordingly.

Note that paragraph indents are associated with the margin, not the edge of the page, so that if you move a paragraph from a document with one margin setting to a document with new margin settings, you cannot count on paragraph indent maintaining the same paragraph width that you saw before it was moved. If you move a paragraph with indents not equal to the margin settings into a serpentine or synchronized column, you can also see unexpected changes in paragraph width. In both cases you can reset the paragraph indents to fix paragraph width.

Page characteristics, such as margins, headers and footers, page numbering, and serpentine column format, are associated with page breaks. If you move or do not move a page break, text changes accordingly.

The rules of inherited format are described in Section 8, "Structuring Document Format."

SCREEN SHIFTS

If you move the cursor to the right or left edge of the screen, or if you are moving paragraph indents and this pushes the cursor to the edge, the screen can scroll horizontally. To move it back, just move the cursor to the opposite edge of the screen.

You may inadvertently press CODE plus one of the number keys and find the document shifted a long way away from the point where you were editing. To return to the point where you were editing, use Go to Previous Edit (SHIFT-f1).

If the characters on the screen suddenly become much smaller or larger, you have pressed CODE-Z, the keystrokes used to give the Zoom command. You can reverse this by pressing CODE-Z again or by using the Undo command (f2).

UNSUCCESSFULLY TRYING TO ACCESS AN EXISTING DOCUMENT

You could have the document name wrong. Check your directory listing to be sure.

You could also be in the wrong work area. If you changed your work area during the previous session, or if you used the Executive Path command to change directories before invoking the Word Processor, you are still in that work area.

To change your work area again, give the Work Area command (CODE-f1(DOCUMENTS)...W).

ACCESS DENIED?

If you get the status message 219, "Access denied," you have tried to access a file without supplying the proper password.

You must supply the proper password by completing the password field when you complete the Open Document command form.

MARK COLUMN DOESN'T WORK

Mark Column (CODE-f9) marks tabbed columns only. If you are trying to mark a serpentine or synchronized column, use Mark Paragraph (flØ) instead.

Mark Column works on adjacent paragraphs that have the same tab stops and text held under them by tab symbols. If you have tabbed columns intermixed in the paragraph with non-tabbed text, sometimes the non-tabbed text is included by the Word Processor in a selection.

YOU CAN'T RESUME NORMAL TEXT AFTER SYNCHRONIZED OR SERPENTINE COLUMNS

Give the command again and set the number of columns back to one.

IF ALL ELSE FAILS...THERE'S RECOVERY

You can perform a recovery at any time by accessing the Executive and giving the command Recover. This procedure is described in Section 13, "Document Management."

You can stop a recovery early by pressing CANCEL before all the keystrokes from your last session are replayed. This is useful if you suspect that your last action caused the malfunction and want to stop the recovery early to avoid repeating the malfunction. Note that you can allow the recovery to complete and wait to see if the failure occurs again. If it does, you can repeat the recovery and stop it earlier.

WHAT ABOUT STATUS MESSAGES?

Most Word Processor status messages explain the problem that has been encountered to you.

You may get a message similar to this one:

```
A software error has occurred; status code
1301. Please report the error to your system
administrator before recovering. Press any
key to exit the Word Processor.
```

Status codes in the range 1300 to 1399 indicate that you have encountered an internal Word Processor error.

Follow the recovery procedures described in Section 13, "Document Management." Then give the Save command. If the Save fails, you can recover again, but cancel the recovery shortly before it is completed.

You can also call Technical Support if this happens. If you write down the steps that led to the error and copy the documents and the typescript file from the session you had to recover, the error can be investigated.

This section is designed to be a reference section that gives you detailed information on each of the Word Processor commands. It is meant to be used with reference to Sections 5-17, which give a more elaborate discussion of the ways you may want to use a command.

To use this section you need to know how to give a command, described in Section 4, "Giving a Command," and how to make a selection, discussed in Section 5, "Selecting Text."

The section is organized alphabetically by command name. Commands that are accessed through another menu, such as Boldface, an option on the Format menu, are listed directly, rather than described in detail as a part of the other command. (For example, Boldface appears as a separate entry, rather than being listed under Format. Format also has an entry).

For each command, the information given includes a description of the command, a figure showing the command form or menu when necessary, instructions for completing each field or using each option, and special characteristics, defaults, and limitations.

A summary of the commands appears at the end of Section 4, "Giving a Command."

ADD ROW/COLUMN**CODE==**

The Add Row/Column command adds the sum of a tabbed column of numbers and can be used to insert that sum into text. The value of some kinds of mathematical expressions can also be calculated.

To give the Add Row/Column command, mark and select the numbers you want to add and press CODE=|. You can also calculate the value of a mathematical expression that includes an operand by selecting the entire expression and pressing CODE=|.

You can select a tabbed column of numbers or a mathematical expression that occurs as running text.

In either case, the expression is evaluated and the result is displayed at the bottom of the screen. The Add Row/Column display is shown below.

To insert the result of the calculation into the text, position the cursor at the point where you want the result to appear and press COPY.

ADD ROW/COLUMN: (Press CANCEL to dismiss)

Sum: (Press COPY to copy the selected sum into a document)

CAPABILITIES

- o **Valid Operations.** If you select a column of numbers and the selection contains only numbers and no mathematical symbols, the numbers are added. For mathematical operations other than addition, symbols must be included in the selection.

To calculate the value of a mathematical expression that occurs in running text (for example, $1 + 2$), the mathematical operator (for example, the plus sign) must also be included.

Mathematical expressions can contain any of the items shown in Table 18-1.

If an entire expression is enclosed in parentheses, the parentheses are taken as a debit sign and the value of the expression is taken to be a negative number.

If an invalid or malformed expression is selected, a message is displayed to indicate the problem. If more than one expression has been selected, the result of the valid expressions is calculated and displayed, but a message indicates the number of invalid expressions.

- o **Degree of Precision.** The degree of precision displayed for the result is equal to that specified for the most precise of the operands.

Example: For the expression $100.000/3$ the result displayed is 33.333, but for the expression $100.0000/3$ the result displayed is 33.3333.

SEE ALSO

Section 10, "Entering Text in Columns"

Table 18-1. Valid Inclusions for Mathematical Expressions.

numbers	
+	plus sign
+	unary plus sign (+40)
+	trailing unary plus sign (40+)
-	minus sign
-	unary minus sign (-40)
-	trailing unary minus sign (40-)
*	multiply sign
x	multiply sign
X	multiply sign
/	divide sign
mod	modulus sign
\$	dollar sign
¢	cent sign
%	percent sign
1/2	one-half sign
1/4	one-fourth sign
()	parentheses
<>	debit signs
.	decimal point
,	comma
	space

BACKSPACE**BACKSPACE**

To delete the previous character when the screen is in insert mode, use BACKSPACE to move the cursor back and delete.

When the screen is in overwrite mode, BACKSPACE moves the cursor back one character, but does not delete the previous character.

CAPABILITIES

- o If the cursor is positioned in a void space, for example between two paragraphs, pressing BACKSPACE deletes the character that precedes that void space.

SEE ALSO

Overtime command

Backspace, Word command

BACKSPACE, REQUIRED**CODE-BACKSPACE**

To enter two characters so that one will be printed over another, use the Required Backspace command. This process is sometimes called overstriking.

To overstrike, type the first character, then CODE-BACKSPACE, and then the second character.

If you have the screen in normal mode or in half-visible mode, when you type the required backspace the first character disappears.

If you have the screen in full-visible mode, you see the first character you typed, a required backspace character (*) and the second character you typed.

Example: To print the not-equal sign (≠) type an equal sign, then CODE-BACKSPACE, then a slash.

CAPABILITIES

- o Characters can be overstruck more than once. For example, to overstrike a hyphen with a slash and a backslash to create this character X/, you can type the hyphen first, then CODE-BACKSPACE, then the slash, then CODE-BACKSPACE twice, and then the backslash.

SEE ALSO

Subsection "Print Wheel Configuration" in Section 19, "System Administration" for an explanation of how to configure the Print Wheel Set file for overstriking.

To delete an entire word previous to the cursor, use the Word Backspace command.

This command has the same effect as the Backspace, but works in increments of one word, rather than one character.

Word Backspace deletes the word to the left of the cursor position. To delete multiple words, you must press CODE-W for each word.

In overwrite mode CODE-W moves the cursor back one word.

CAPABILITIES

- o A word is defined as any group of letters or numbers not separated by a space or a punctuation mark, or as one or more spaces.

SEE ALSO

Backspace command

BOLDFACE TEXT**f4 (FORMAT)...B**

To print characters in boldface type, use the Boldface command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Boldface command, press f4 (FORMAT) and choose option B (Boldface).

Most workstations show boldface characters on the screen in half-bright intensity. On some, however, they appear in boldface.

CAPABILITIES

- o Boldface is a character attribute. The command is applied to the next character(s) you type, unless you mark and select existing text.
- o If you are typing boldface text, to return to normal text, press f4 (FORMAT) and then CODE-B. To remove the boldface attribute from existing text, select the text first, then follow the same procedure.

SEE ALSO

Format command

Section 8, "Structuring Document Format"

The Bound command extends the highlight of an existing selection to include more characters.

A selection is made originally with a MARK key. Depending on which MARK key you used to make the selection originally, BOUND moves the cursor and extends the highlight by one unit of text to the next character, word, line, column, paragraph, or page.

You can extend a selection by more than one unit by pressing BOUND repeatedly or by moving the cursor to the last unit you want to include in the selection and pressing BOUND.

To reduce a selection, you can place the cursor where you want the selection to end and press BOUND. You cannot reduce a selection to include less text than that selected with the Mark key with which it was originally made.

CAPABILITIES

- o Selections can be extended from the original selection in both directions using BOUND.

If you move the cursor toward preceding material and press BOUND, pressing BOUND repeatedly also extends the selection in that direction.

SEE ALSO

UnMark command

Mark command

Section 5, "Selecting Text"

Use the Break Type command to change the type of page break or serpentine column break from floating to static, or the reverse, from static to floating. This command also changes a static page break to have an odd or even page number.

The Break Type command does not insert page or column breaks; it only changes their type.

Give the Break Type command by press f4 (FORMAT) and choosing option Q, Break Type. This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

Page and column breaks are floating by default. Floating breaks can be moved when the Review Document or the Print command repaginates the document and adjusts page breaks to fit the page length. Floating page and column breaks are shown on the screen by a single dashed line.

Static page breaks can be inserted at any point in text by using the Forced Page command (CODE-NEXT PAGE) or you can use Break Type to change the floating break to a static one. They are not adjusted during pagination. Static page breaks are shown on the screen by a double dashed line.

You can make a static page break odd-static or even-static to force text to be printed on an odd or even page. If a static page break is odd or even, if necessary during printing, a blank page is inserted to make the page number odd or even, as specified. Odd or even static page breaks are shown on the screen as a half-bright double dashed line.

Column breaks for serpentine columns can be floating or static. Insert static column breaks with the Forced Column command (CODE-NEXT). Static column breaks are like static page breaks, except that they ensure that a new column is started at that point in text, but do not necessarily ensure that a new page is started.

Static column breaks are shown on the screen as a line of colons.

If you want to ensure that a column starts on a new page, you can use the Break Type command to make the column break a static page break.

BREAK TYPE: (Press CANCEL to dismiss)

Current:

Press F	for Floating break (page or column)
S	Static page break
O	Static page break (Odd)
E	Static page break (Even)
C	Static column break

HOW TO USE THE BREAK TYPE MENU

Floating break (page or column): If you choose F for floating, the page or column break for the page or column where you have your cursor is changed to a floating page or column break. Floating is the default page break.

Static page break: If you choose S for static, the page break for the page where you have your cursor is changed to a static page break.

Static page break (Odd): If you choose O for Odd-Static, the page break for the page where you have your cursor is changed to a static page break that will ensure that the page is always paginated as an odd page. A blank page is inserted if necessary.

Static page break (Even): Option E for Even-Static works just as the Odd-Static option does, but it ensures that the page has an even number.

Static column break: If you choose C for Column, then the column break for the serpentine column where you have your cursor is changed to a static column break. To change a column break to a floating one, choose F for floating.

CAPABILITIES

- o The break type you choose is assigned to the page break that belongs to the page where you have your cursor or to the column break for the column where you have your cursor. To apply the command to a larger unit of text, you can select a group of pages or a document before giving the command.
- o You can force the Word Processor to assign a specified number to a static page during pagination, by using the forced page option on the Page Format command form.

SEE ALSO

Forced Column command

Forced Page command

Page Format command

CANCEL

CANCEL

To dismiss a menu or form from the screen or cancel some commands, press CANCEL.

CAPABILITIES

- o In some cases, you can interrupt a command by pressing CANCEL. For these commands, the command form or menu shows a message "Press CANCEL to interrupt".

SEE ALSO

Undo command

Finish command

Unmark command

To center the lines of a paragraph between its indents, use the Centered Text command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Centered Text command press f4 (FORMAT) and choose option C (Centered).

CAPABILITIES

- o Centered Text is a paragraph attribute. The command is applied to the paragraph where you have your cursor, unless you make a selection.

To remove the Centered attribute from a paragraph, use any other text alignment command, such as Left-flush, Right-flush, or Justified.

SEE ALSO

Format command

Synchronized Columns command

To check spelling of all words in your document against the common word dictionary and your personal dictionary, use the Check Spelling command.

Check Spelling only works if you have the spelling dictionary (common word dictionary) installed with your system.

You give the command by pressing CODE-f7 (COMMANDS) and choosing option C (Check Spelling). The Word Processor then displays a "Verifying Spelling" message and begins checking each word in your document to see if it matches a dictionary entry.

The Check Spelling command highlights the first word it cannot find in the common word dictionary or your personal dictionary. It suggests up to three possible corrections, based on a phonetic analysis of the misspelling and displays the Word Not Found in Dictionary menu. You use the menu to tell the Word Processor whether to correct the word and how to do so. After you choose an option for the Word Not Found in Dictionary menu, the Word Processor continues checking through your document until it finds another word it does not recognize or comes to the end of the document.

Check Spelling also highlights for correction repeated words (the the) and missing capitalization at the beginning of a sentence.

One of the options on the Word Not Found in Dictionary menu is "Enter in personal dictionary". When you choose this option, the Set Word Traits form is displayed. You use this form to specify the exact capitalization or the placement of periods that should appear with the word when it is correctly spelled. You can also include discretionary hyphens. These traits are then stored with the word in your personal dictionary.

WORD NOT FOUND IN DICTIONARY: (Press CANCEL to
cancel command)

Suggested corrections:

press 1 to accept: feat
2 feet
3 fight

press P to Proceed
I Ignore for this pass
E Enter in personal dictionary
C Correct manually and enter
correction

WORD NOT FOUND IN DICTIONARY MENU OPTIONS

Press 1 to accept: If the first suggested correction is right, press 1. Press 2 or 3 to accept the second or third suggestion, respectively.

Press P to proceed. If you only want the Word Processor to skip over this occurrence of the highlighted word and proceed with the spelling check, choose P.

Ignore for this pass. If you do not want to change the highlighted word and do not want to enter it in your personal dictionary, you can press I so that the Word Processor will not highlight the word again during this spelling check.

When you choose this option an additional form, Set Word Traits, is displayed so that you can specify additional characteristics of the word for the Word Processor.

Press E to enter in personal dictionary. If the word is correctly spelled and you want the Word Processor not to highlight it in future spelling checks, press E to enter the word in your personal dictionary.

When you choose this option an additional form, Set Word Traits, is displayed so that you can specify additional characteristics of the word for the Word Processor.

Correct manually and enter correction. Press C to display the Correct and Check form, so that you can give the Word Processor the correct spelling. The Word Processor automatically copies the misspelling into the form for you to correct. Edit it and press GO to insert the correction.

COMPLETING THE SET WORD TRAITS FORM

The Set Word Traits form is used to indicate whether certain traits are necessary for the word to be correctly spelled.

SET WORD TRAITS: (Press GO to execute,
 CANCEL to dismiss)

Edit the given word to reflect required capitalization and placement of periods. If you are entering this word in your personal dictionary, then you may want to use discretionary hyphens to indicate hyphenation points.

Make corrections:

Make corrections: Type the word with placement of periods and capitalization as required for the word to be correctly spelled. For example, the name Mary should always appear with the first letter capitalized, and the abbreviation i.e. should always appear with two periods.

Note that a word that can sometimes be entered with capitals and sometimes not should be entered as all lower case. Otherwise the Word Processor highlights all occurrences of the word in lower case.

CAPABILITIES

- o The suggested corrections given when a word is not recognized are based on a phonetic analysis of the unrecognized structure. For example, feat, feet, and fight sound alike, so that they all are suggested as a correction for feit.

Because suggested corrections are phonetic, they often are not appropriate when the misspelling is just a typing error.

- o If the Word Processor highlights a word that does not normally have a period after it, and includes the period in the highlight, you can still enter it in your personal dictionary. When you complete the Set Word Traits menu, simply remove the period.

- o The size of your personal dictionary is limited only by disk space. You can unload it to remove unnecessary or unwanted entries using the Unload Personal Dictionary command. After you remove unwanted entries, reload it, using Load Personal Dictionary.

- o If you want to use your personal dictionary for hyphenation, you should add discretionary hyphens to entries when you complete the Set Word Traits menu.

SEE ALSO

Load Personal Dictionary command

Unload Personal Dictionary command

Use the Close Window command to remove any document window from the screen.

If one document is shown in multiple windows on the screen, or multiple documents are shown, Close Window closes the window where you have the cursor.

You do not have to use Close Window before you Finish a session.

CAPABILITIES

- o Close Window does not save the document. You must use the Save command separately.

SEE ALSO

Open Document command

Divide Window command

Use the Collect Footnotes command to collect all the footnote text from a document and append it to that document or another specified document. The footnote references are placed in order according to reference number.

When you use this command, the text of the footnotes is copied to the specified place. For the Word Processor internally, the footnote reference and the footnote text remain associated with the page on which the reference appears.

Collect Footnotes does not automatically suppress printing of footnotes on the bottom of the page. You must do this by completing the "Print footnotes?" field of the Print command form when the document is printed.

COLLECT FOOTNOTES: (Press GO to execute,
CANCEL to dismiss)

Append to document:

COMPLETING THE COLLECT FOOTNOTES FORM

Append to document: If you want to collect the footnotes within the document in which you have entered them, it is not necessary to enter a document name in this field. Press GO to execute the command.

If you want to append the footnote list to a different document, enter the document name. If the document does not exist, it is created for you.

CAPABILITIES

- o Footnote references are numbered by the Review Document or Print command. If you have not used either command since entering a new footnote, this should be done before giving the Collect Footnotes command.
- o You must enter No in the "Print footnotes?" field of the Print command when you print the document, if you do not want references to appear at the bottom of the page.
- o When footnote reference numbers are updated in subsequent Review Document or Print operations, the text collected from a previous execution of the Collect Footnotes command is not changed. Therefore, you must delete it and recollect footnotes to keep the footnote text in the same order as the references.

SEE ALSO

- o Footnote command

The Commands menu gives you access to several advanced commands. You can see which commands these are by looking at the Commands menu shown below.

For a discussion of each of these commands, see the individual entry in this section for that command.

<p>COMMANDS: (CANCEL to dismiss)</p>	
<p>Macro Maintenance</p> <p>Press T to List macros O Remove macro A Load macro N Unload macro</p>	<p>Spelling</p> <p>Press C to Check Spelling L Load personal dictionary U Unload personal dictionary H Hyphenate word</p>
<p>Exit</p> <p>Press E for Electronic Mail M Multiplan Y Extended Multiplan P Picture Editor X Executive</p>	<p>List Processing</p> <p>Press S to Sort/Select G Merge Q Merge to a document</p>
<p>Phrase Maintenance</p> <p>Press R to Remove phrase I List phrases</p>	<p>Press D for Document exchange Tab Reformat tabs</p>

The Copy command copies a selection from one location in a document to another location specified by the cursor position. The text remains in its original place and is added at the cursor location.

Text can be copied across all windows, whether they divide one document or multiple documents.

COPY: (Press GO to execute, CANCEL to dismiss)

Select text to be copied, then press GO to execute.

You can use the Copy command in two ways, selecting text at the beginning of the operation or at the end. The Copy prompt shown above appears only when you use the second procedure.

To copy text, marking and selecting first:

1. Select text to be copied.
2. Move the cursor to the position where you want the copied text to appear.
3. Press COPY.

To copy text, marking and selecting last:

1. Move the cursor to the position where you want the copied text to appear.
2. Press COPY. The copy prompt appears.
3. Move the cursor and select the text you want to copy.
4. Press GO.

CAPABILITIES

- o Copied text is subject to the rules of inherited format, discussed in Section 8, "Structuring Document Format."

Text from a document can be copied into a command form.

SEE ALSO

Copy Document command

Move command

Section 7, "Editing Text"

Section 8, "Structuring Document Format"

COPY DOCUMENT**CODE-f1 (DOCUMENTS)...C**

The Copy Document command copies an existing document and gives the copy a new name.

To give the Copy Document command press CODE-f1 (DOCUMENTS) and choose option C (Copy Document) from the Documents menu.

COPY DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Old document name:

New document name:

Password:

COMPLETING THE COPY DOCUMENT FORM

Old document name: Enter the name of the document you want to copy.

If you are copying from one work area to another, remember to use a full file specification.

If your cursor is within an open document when you give the Copy Document command, the name of that document appears in this field when the form is displayed.

New document name: Enter the new name for the new document.

Password: If the old document requires a password for access, or if the new document requires a password to be created, complete this field also. Otherwise, you can leave it blank.

CAPABILITIES

- o The copy operation is not transferred to disk until you Save or Finish. If you copy to a floppy disk and remove the disk from the disk drive before saving, the copied document is not there. Save before you remove a floppy disk used for copying a document.
- o This command will not append one document to another. Instead, open both documents, mark one, and copy it to the end of the other.
- o Copy Document will not write over an existing document.

SEE ALSO

Copy command

Documents command

Section 13, "Document Management"

DATE/TIME**CODE-T**

To see the date and time displayed at the bottom of the screen use the Date/Time command.

The time is continuously updated until you remove the display from the screen by pressing CANCEL.

DELETE**DELETE**

To delete a single character or a selection at the cursor position, use the Delete command.

Pressing DELETE deletes a single character.

To delete large amounts of text, mark and select text and then press DELETE.

If you accidentally delete text you can retrieve it by immediately using the Undo command (f2).

CAPABILITIES

- o Delete only deletes a selection if the cursor is within the selection.

SEE ALSO

Backspace

Backspace, Word

Subsection "Simple Text Entry" in Section 3, "Creating a Document"

DELETE DOCUMENT**CODE-f1 (DOCUMENTS)...D**

The Delete document command permanently removes a document from the directory listing and the disk.

To give the Delete Document command, press CODE-f1 (DOCUMENTS) and choose option D (Delete Document) from the Documents menu.

DELETE DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Document name(s):
Password:

COMPLETING THE DELETE DOCUMENT FORM

Document name(s): Enter the name of the document you want to delete. To delete more than one document, separate document names with commas.

If a document was present when you gave the Delete Document command, the name of that document appears in this field automatically.

Password: If the document you want to delete requires a password, enter it here. Otherwise, leave it blank.

CAPABILITIES

- o If the document is open when you give the Delete Document command, it is not deleted from the disk until you SAVE. Otherwise it is deleted immediately.
- o Both the current document and the -Old version are deleted from the disk. (See Section 13, "Document Management," for a definition of the -Old version.)

SEE ALSO

Documents command

The Discard Edits command returns the document to its state at the time of the last Save or Finish. It acts as a more powerful version of the Undo command.

Since this command discards all edits since your last Save, if you save often, you can make use of this command often to correct errors.

CAPABILITIES

- o Once you have given this command, it cannot be undone.

SEE ALSO

Save command

Section 7, "Editing Text"

The Divide Window command divides the current equally window into two.

You can use multiple windows on the same document to compare text in two different places in a document, to move or copy from one part of a document to another, or to the document in one window and maintain you editing position in the other.

CAPABILITIES

- o A maximum of seven windows can appear on the screen at one time.

SEE ALSO

Close Window command

Subsection "Using Multiple Windows" in Section 6, "Moving Within a Document"

Use the Document Exchange command to

- o convert a Word Processor file to a DEF (Document Exchange Format) file
- o convert a DEF file to a Word Processor format file that can be opened and used with the Word Processor.

This command is used as one step in the process of converting documents from an application system or a foreign word processing system for use with the Word Processor, or converting Word Processor files for use with another system. Translating files is discussed in the subsection by that name in Section 19, "System Administration."

```
DOCUMENT EXCHANGE: (Press GO to execute, NEXT for next item,  
                   CANCEL to dismiss)
```

```
Document name:
```

```
DEF file name:
```

```
Direction:      To DEF From DEF (Press T or F)
```

```
Incorrect codes: Discard Pass through as text (Press D or P)
```

COMPLETING THE DOCUMENT EXCHANGE FORM

Document name: Enter the name of the document you wish to translate to or from DEF format.

DEF file name: Enter the name of the DEF file you want to translate from DEF, or the name you want assigned to the DEF file created. If you are translating from DEF you can leave this field blank, and the Word Processor will assume that the document specified in the Document name field is in DEF format. It will replace the contents of this document with its translated form.

Direction: If you are translating a file to DEF format, choose T. If you are translating a file from DEF so that the Word Processor can use it, choose F.

Incorrect codes: Choose D for "Discard" if you do want the Word Processor to include any incorrect DEF escape codes in the translated text.

If you choose P the codes are passed through to the translated text, so that such characters as (\$WX354) can be embedded in the translated file.

The Word Processor informs you if it encounters any incorrect escape codes and tells you the number of incorrect codes, no matter which option you choose. The message appears on the Document Exchange Format form.

CAPABILITIES

- o To convert a foreign word processing file to a file compatible with your Word Processor, you must use a program to translate the foreign file to a DEF formatted file before using the Document Exchange command. It may also be necessary for you to write this program also.

SEE ALSO

Subsection "Translating Files" in Section 19, "System Administration"

DOCUMENTS**CODE-f1 (DOCUMENTS)**

The Documents menu provides access to the following Document commands:

- o Open Document Opens an existing document or creates a new one.
- o Delete Document Deletes a document from your directory.
- o Copy Document Copies an existing document and gives the copy a new name.
- o Rename Document Changes the name of an existing document.
- o Work Area Changes the work area from one volume (disk) and/or directory to another.
- o List Document Lists documents by name or by date, or, for each document, lists the following details:
 - size in pages
 - number of characters
 - creation date
 - last revision date
 - last date accessed
 - date of last printing
 - time to print

For a discussion of each of the Document commands, see the direct entry under the command name.

The Documents menu is shown below.

DOCUMENTS: (Press CANCEL to dismiss)

Press O to	Open document	Press W to	change Work area
D	Delete document	L	List documents
C	Copy document		
R	Rename document		

ELECTRONIC MAIL**CODE-f7 (COMMANDS)...E**

To invoke the Electronic Mail system, give the Electronic Mail command by pressing CODE-f7 (COMMANDS) and choosing option E (Electronic Mail).

You can then enter Mail immediately by pressing GO.

If you complete the form, the corresponding fields of your first mail message are completed for you.

Any documents that are currently open are saved, the Word Processor session finishes, and the Electronic Mail form appears on the screen.

When you Finish from the Mail system, the Word Processor is automatically invoked and you are asked if you want to redisplay the document(s) on the screen that you were working with when you entered Mail.

MAIL: (Press GO to execute, CANCEL to dismiss)

[To]:

[Attach]:

COMPLETING THE MAIL FORM

[To]: If you want to send a mail message after you access Electronic Mail, enter the Electronic Mail name of the person you want to send mail to. The corresponding field of the first message you create in Electronic Mail will contain this name.

You can leave this field blank if you wish.

[Attach]: If you want to send an attachment with the message to the person whose name you entered in the "[To]" field, enter the name of the document you want to attach. The corresponding field of the first message you create in Electronic Mail will contain the name of this document.

You can leave this field blank if you wish.

CAPABILITIES

- o You cannot access Electronic Mail unless you have it installed. In addition, your User Configuration file must include your mail user name.

EXECUTIVE**CODE-f7 (COMMANDS)...X**

To enter the Executive directly from the Word Processor, give the Executive command by pressing CODE-f7 (COMMANDS) and choosing option X (Executive).

Any documents that are currently open are saved, the Word Processor session finishes, and the Executive command prompt appears on the screen.

To return to the Word Processor, you must invoke it again as you usually do.

CAPABILITIES

- o This command is useful if your system is not configured to return immediately to the Executive when you press FINISH.

FINISH**FINISH**

The Finish command ends the Word Processor session. When you give the Finish command, all documents on the screen are closed and saved and you exit from the Word Processor.

Footers appear at the bottom of specified pages when the document is printed.

You can specify that footer text be printed throughout a document at the bottom of all pages, or all odd numbered pages, or all even numbered pages.

You can also apply a footer to only certain pages of a document by selecting those pages before the command is executed. (See "Capabilities," below.) This can be done repeatedly.

FOOTER: (Press CANCEL to dismiss)

Press O for Odd footer
E Even footer
B Both footers

The Footer command is also used to display assigned footers.

You can specify the footer position on the page using the Page Format command (f4(FORMAT)...P).

To change a footer, give the Footer command, edit the footer text, and press GO.

A simple procedure can be used that allows you to easily copy footer text from one page to another or from one open document to another. Select the page from which you want to copy the footer text, then give the Footer command. The footer text is displayed. Move the cursor to the page or document to which you want to copy the footer and mark the page or document using the appropriate mark key. Press GO to apply the footer text you see displayed in the footnote window to the new selection.

To assign footers:

1. If you want to assign the footer to a selection of pages, make the selection, using the Mark Page command.

If you make no selection, footers are assigned to the entire document by default.

2. Press SHIFT-f5 (FOOTER). If you made a selection, it goes away, but will be remembered when the command is executed.
3. Choose the footer option you want from the Footer menu. A small window is displayed at the bottom of the screen. If a footer exists for the first page of the document or the first page of the selection, the text is displayed in the footer window.
4. Enter the text for your footer in the small window or edit the text displayed. You can select the footer text, edit it, and format it exactly as you do with any other text.
5. Press GO to apply the footer text. Remember that the footer is applied to the entire document unless you selected text before you gave the Footer command.

CAPABILITIES

- o Footers are applied to an entire document unless you make a selection. Footers are an attribute of page format, and therefore if you move or copy a page break, any associated footers move with it.
- o You can set an odd footer and an even footer for the same page. Only one of these footers will print, depending on whether that page is odd or even numbered at print time.
- o Remember that the selection process operates a little differently with footers.

If you select pages before the command is given, the highlight goes away when the footer menu is displayed. The selection, however, is remembered and, when you press GO to execute the command, the footer is applied to the previously selected pages.

This allows you to apply a footer to selected text and still make selections to apply format to the footer text.

- o If you select a group of pages with existing footers, the footer shown in the footer window is the one for the first page of the selection only. If the first page of the selection has no footer, none is shown, even if the next page does have one.
- o A footer cannot be more than one page of text.
- o When you use Mark Page or Mark Doc to apply a character formatting change (and some paragraph format changes) to an entire document or page, the Mark menu is displayed so that you can specify if you want the change to be applied to headers, footers, and/or footnotes also. This is useful with changes like print wheel or pitch.

SEE ALSO

Page Dimension command

Header command

Mark Document command

Mark Page command

Page Number command

Section 8, "Structuring Document Format"

To enter a footnote reference in text and to create the corresponding footnote, use the Footnote command.

Footnote references are normally printed as arabic numerals. They are first shown on the screen as half-bright superscripted zeros. Sequential numbers for references are assigned when you give the Review Document or Print command. After review, the correct number is shown in the text of the document.

You can use a different symbol, such as an asterisk, as a reference. When you do so, this reference is shown on the screen as a half-bright character.

When you give the Footnote command, a small window appears at the bottom of the screen. Enter text for the body of the footnote here. This text disappears when you press GO but is printed later at the bottom of the page on which it is referenced.

You can bring the window back to view or edit the footnote text by marking the reference character and giving the Footnote command again.

To print the text of footnotes at the end of the document instead of at the bottom of the page on which the references appear, you must use the Collect Footnotes command (CODE-SHIFT-F).

To create a footnote with an arabic numeral for a reference:

1. Place the cursor where you want the footnote reference to appear.
2. Press CODE-F. The footnote window appears.
3. Enter text for the body of the footnote and press GO.
4. Footnote window disappears and a half-bright superscripted zero appears in the text where your cursor was positioned when you gave the command.

To create a footnote using another symbol for a reference character:

1. Enter the footnote reference character where you want it to appear.
2. Mark and select the character and apply any special format you want (such as superscript) to it.
3. Select the reference character.
4. Press CODE-F. The footnote window appears.
5. Enter text for the body of the footnote and press GO.
6. The Footnote window disappears and the reference character you entered appears half-bright.

CAPABILITIES

- o If you assign footnotes to pages with columns, the footnotes are printed across the entire page, rather than confined to the column where the reference occurs.
- o If you select a footnote reference and copy it to another place in your document or to another document, the body of footnote text is also copied. This is useful if your footnote text is frequently repetitive.
- o Numbering of footnotes occurs when you give the Review Document command or the Print command. You can force footnote numbering to start at a specified number by making the page break for the page on which the first forced footnote number appears a static break and completing the "Forced footnote number" field of the Page Attribute command (f4(FORMAT)...T).
- o During renumbering, reference numbers in the text and the body of the footnote are compared. If there is any discrepancy, the number in the body of the footnote is changed to match the number used as a reference in the text.
- o When you use Mark Page or Mark Doc to apply a character formatting change (and some paragraph format changes) to an entire document or page, the Mark menu is displayed so that you can specify if you want the change to be applied to headers, footers, and/or footnotes also. This is useful with changes like print wheel or pitch.

SEE ALSO

Collect Footnotes command

Review Document command

Print command

Mark Document and Mark Page commands

The subsection "Footnotes" in Section 8, "Structuring Document Format"

When entering text in serpentine or synchronized columns, use the Forced Column command to begin a new column.

For synchronized columns, Forced Column inserts a new synchronization mark.

For serpentine columns, the command inserts a static column mark, a line of colons.

SEE ALSO

Break Type command

Page Dimension command

Synchronized Column command

Section 10, "Entering Text in Columns"

To force the Word Processor to start a new page at a specified point in the text, place your cursor where you want to break the page and press CODE-NEXT PAGE.

A static page break, which appears on the screen as a double dashed line, is inserted in the document. The position of a static page break is not readjusted during pagination.

To remove the page break, place the cursor on the double dashed line and press DELETE.

CAPABILITIES

- o Static page breaks contain page format characteristics, just as ordinary page breaks do.
- o Static page breaks are not moved or removed with pagination by Review Document or the Print command. They must be removed manually using Delete, or they can be changed to floating page breaks using the Break Type command (f4(FORMAT)...Q), an option on the Format menu.
- o You can use the Break Type command to change a static page break to an odd-static or even-static page break, which forces the Word Processor to make the page odd or even numbered during pagination.
- o You must use a static page break when you force page numbering or footnote numbering. (See the Page Attribute command for information on how to do this.)

SEE ALSO

Page Format command

Review Document command

Break Type command

Use the Format menu to specify character attributes (such as boldface text, pitch, and print wheel), paragraph attributes (such as spacing), and page attributes. Some attributes are specified by choosing an option directly from the menu, and some display an additional menu or form.

Attributes can be assigned to existing text by marking and selecting it before you give the Format command. Otherwise, attributes are assigned to the next character you type or to the paragraph or page where you have your cursor.

To check the current format characteristics of any text, select it. The Format menu shows current format beside the heading "Current attributes of the cursor."

Options include

- o the following character attributes:
 - Boldface text
 - Underlined text
 - Double underlined text
 - Struck-out text
 - Superscript text
 - Subscript text
 - Alternate ribbon color
 - Merge keyword
 - Pitch
 - Print wheel

- o the following paragraph attributes:
 - Left-flush paragraphs
 - Right-flush paragraphs
 - Justified paragraphs
 - Centered paragraphs
 - Single-spaced text
 - Double-spaced text
 - Single spacing within paragraphs with double spacing between them
 - One and one half line spaced text
 - Other line spacing (variable spacing)

- o the following page format attributes, set by choosing the Page Dimension option and completing the form
 - paper height and width
 - margins
 - distance of header and footer from top and bottom of the page, respectively
 - serpentine columns and column margins

- o the following page format attributes, set by choosing the Page Attribute option and completing the form
 - forced numbers for pages and footnotes
 - facing pages
 - sheet feeder bin number

- o page or column break type, set by choosing the Break Type option and completing the form displayed

THE FORMAT MENU

The Format menu appears in two displays, shown below. Press f4 (FORMAT) a second time to view the second page.

You can choose any of the options without regard to which page of the menu is currently displayed. If you choose an option quickly enough, display of the menu is suppressed.

```
FORMAT: (Press CANCEL to dismiss)

Current attributes of cursor:
  o Courier 72          o 10 pitch
  o Left Flush         o Single-Spaced

Press B for Boldface text          Press ^ for Superscript
- Underlined text                  . Subscript
= Double-underlined text          A Alternate ribbon color
S Struck-out text                 K Merge keyword

or CODE and indicated key to remove attribute.

Press N for Normal text           Press FORMAT again for more choices.
```

```
FORMAT: (Press CANCEL to dismiss)

Current attributes of cursor:
  o Courier 72          o 10 pitch
  o Left Flush         o Single-Spaced

Press L for Left-flush text        Press 1 for Single-spaced text
C Centered text                   2 Double-spaced text
J Justified text                  / Single/Double spacing
R Right-flush text               1/2 1 1/2 line spacing
                                  0 Other line spacing

Press P to change Page dimensions
Press T to change Page attributes
Press space bar to change pitch
Press W to change print wheel
Press Q to change break type      Press FORMAT again for more choices.
```

CAPABILITIES

- o Display of the Format menu is suppressed if you press f4(FORMAT), then immediately press an option key. This means that once you are familiar with the menu, you can assign format very quickly as you type.

- o If a selection is present the "Current attributes of the cursor" field of the Format menu reads "Current attributes of the selection." The attributes listed are the character attributes of the first character in the selection and the paragraph and page attributes of the paragraph or page within which the first character of the selection occurs.

SEE ALSO

The command name for each option that appears. The command name is the same as the option name displayed on the Format menu.

Section 8, "Structuring Document Format"

GO TO BEGINNING CODE-B
or CODE-^

To move the cursor to the beginning of the document, press CODE-B or CODE-^.

SEE ALSO

Thumb command

Go to Page command

GO TO END CODE-E
or CODE-Ø

To move the cursor to the end of a document, press CODE-E or CODE-Ø (zero).

GO TO PAGE

f6 (GO TO PAGE)

To move the cursor to a specific page number, press f6 (GO TO PAGE), enter the page number on the form displayed, and press GO.

GO TO PAGE: (Press GO to execute, CANCEL to dismiss)

Page number:

HOW TO COMPLETE THE GO TO PAGE FORM

Page number: Enter the page number you want displayed.

CAPABILITIES

- o The page number used is that which appears in the Document Status line.

SEE ALSO

Thumb command

GO TO PREVIOUS EDIT

SHIFT-fl

To move the cursor quickly back to the last point where you entered or altered text, press SHIFT-fl.

Press SHIFT-fl again to move the cursor to the next previous edit point.

CAPABILITIES

- o Up to 10 previous edit points are stored. When the tenth is reached, the cursor moves back to the first, so that you can select which you wish to use.

SEE ALSO

Thumb command

Go to Page command

GO TO SOURCE CODE LINE

CODE-SHIFT-G

Use this command to move the cursor to a specified line in a document that is a source program. When you press CODE-SHIFT-G, the Go to Source Code Line command is displayed for you to specify the line number.

CAPABILITIES

- o Note that this command is intended for use in programming and may not work as you expect with an ordinary document. The number of the line to which the Word Processor moves the cursor is determined by counting the number of line breaks (SHIFT-RETURN) or paragraph marks (RETURN) in the document and may have no relation to the number of lines that appear when your document is printed.

HEADER**f5 (HEADER)**

The Header command works exactly like the Footer command, except that the text is printed at the top of the document rather than at the bottom.

Headers can be printed throughout the document at the top of all pages, or all odd numbered pages, or all even numbered pages. They can also be printed on selected pages only.

SEE

Footer command

HELP**HELP**

To display an alphabetical listing and description of every command, press HELP.

HYPHEN

BREAKING REQUIRED
DISCRETIONARY
NONBREAKING

HYPHEN
CODE-HYPHEN
CODE-SHIFT-HYPHEN

You can use three different types of hyphens

- o A breaking required hyphen is used when a word or phrase always includes a hyphen, and can be divided after the hyphen.

Example: Mother-in-law

The standard hyphen key (-) inserts a breaking required hyphen, shown on the screen as a hyphen.

- o A discretionary hyphen is used to hyphenate a word at the end of a line.

If at a later time text is edited and a break is no longer required at the end of this line, the discretionary hyphen does not appear.

A discretionary hyphen is shown on the screen in half- or full-visible mode as a discretionary hyphen symbol (˜).

Example: Christ˜mas is hyphenated if necessary at the end of a line but appears as "Christmas" when it is embedded within a line.

- o Use a nonbreaking required hyphen to hyphenate a word or phrase when a line break should never be inserted after the hyphen.

A nonbreaking hyphen is shown on the screen in half- or full-visible mode as a nonbreaking hyphen symbol (¬).

Example: Page 3-2
SSN: 438-68-5572

SEE ALSO

Check Spelling command

To display the correct placement for hyphens in a word or to make a quick check for correct spelling of a single word, you can use the hyphenate word command.

To give the command, place the cursor at the word you want to hyphenate, press CODE-f7 (COMMANDS) and choose option H (Hyphenate Word).

The Commands menu goes away and if the word is included in one of the spelling dictionaries, it is displayed at the bottom of the screen showing discretionary hyphens.

The Word Processor checks entries in the common word dictionary and your personal dictionary for hyphenation.

CAPABILITIES

- o If you enter discretionary hyphens when you make an entry in your personal dictionary, these words will be available for use with Hyphenate Word later.
- o This command only works if you have the common word dictionary installed.

SEE ALSO

Hyphen command

INDENT

SEE PARAGRAPH INDENT

INSERT HEXADECIMAL

CODE-I

When you want to insert a nonstandard character specified by hexadecimal code into the text, you can use the Insert Hexadecimal command to specify the hexadecimal value.

To give the command press CODE-I and complete the form displayed.

For a list of hexadecimal values for all keyboard characters and key combinations, see Appendixes B and C of the CTOS Operating System Manual. If you know the keyboard character for which you wish to insert the value, use the Insert Literal command instead.

SEE ALSO

Insert Literal command

INSERT LITERAL

CODE-'

The Insert Literal command inserts the literal character for any keyboard character at the point where you position your cursor.

A prompt is displayed at the bottom of the screen to emphasize that the character is inserted literally.

To use the command, press CODE-', then the character you want to insert, for example, GO.

JUSTIFIED TEXT**f4 (FORMAT)...J**

To justify a paragraph (right and left margins both straight), use the Justified Text command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Justified Text command, press f4 (FORMAT) and choose option J (Justified).

CAPABILITIES

- o Justification is a paragraph attribute. The command is applied to the paragraph where you have your cursor, unless you make a selection.
- o To remove justification, give another text alignment command, such as the Left-flush command.

SEE ALSO

Format command

If you want to specify that the Word Processor not insert a page or column break within certain areas of text during pagination, use the Keep Together command.

To give the command, mark and select the text and press CODE-K.

Text to which you have applied the Keep Together command is shown enclosed in half-bright braces ({}), which you can see when the screen is in half- or full-visible mode.

During the execution of a Review Document or Print command, when the document is paginated, the selected text is kept together on the same page.

CAPABILITIES

- o No more than one page of text can be kept together.
- o If you decide not to keep the text together, delete the braces.
- o Keep Together is useful with serpentine columns.

SEE ALSO

Forced Page command

The Merge Keyword command is used when you are formatting a form document. Form documents are used for list processing. See Section 16, "List Processing," for a complete discussion of how to construct a form document.

A keyword that appears in a form document is replaced during the Merge operation with characters from the corresponding field of a records file.

To specify that a word that appears in a form document be used as a keyword for a Merge operation and to give that word the Merge keyword character format attribute, use the Keyword command.

You should be familiar with the Format menu and the Merge command before you use this command.

To give the Keyword command, press f4 (FORMAT) and choose option K (Keyword).

Keywords appear half-bright on the screen.

CAPABILITIES

- o When you give the Merge Keyword command, it is applied to the next character(s) you type, unless you mark and select existing text.
- o Keywords should not include spaces.
- o To stop entering text as a keyword, press f4 (FORMAT) and then press CODE-K.
- o To remove the Keyword attribute from text, select it, press f4 (FORMAT), and press CODE-K.

SEE ALSO

Format command

Merge command

Section 16, "List Processing"

LEFT-FLUSH TEXT**f4 (FORMAT)...L**

To align text evenly with the left paragraph indent position, use the Left-flush command. When you specify left-flush, text is not justified.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Left-flush command press f4 (FORMAT) and choose option L (Left-flush).

CAPABILITIES

- o Left-flush is the default paragraph format setting.
- o Text alignment is a paragraph attribute. The command is applied to the paragraph where you have your cursor, unless you make a selection.
- o To remove the Left-flush attribute from text, select it and give another text alignment command, such as Justified.

SEE ALSO

Format command

LINE BREAK
LINE BREAK (DISCRETIONARY)

SHIFT-RETURN
CODE-SPACEBAR

A line break causes subsequent text to wrap to the next line and inserts a line break symbol (↵) in text. This break is retained whether you add extra text or not, and must be deleted manually.

The line break symbol can be seen in half- or full-visible mode (CODE-V).

Line breaks are usually not necessary since the Word Processor automatically wraps text around into new lines when the right margin is reached. Use line breaks when you want a new line to start even though the previous line did not reach the right margin.

Line breaks are part of a paragraph and do not create new paragraphs.

The line break symbol can be added by the Word Processor when you press TAB, if positioning text at the next tab stop means wrapping to the next line.

DISCRETIONARY LINE BREAKS

Word wrap will occur automatically between words. Use a discretionary line break to allow word wrap within text that would otherwise be considered a single word.

Example: If you want to type "and/or" you might want to add a discretionary line break after the slash to allow word wrap there.

The Discretionary Line Break command inserts an underline (_) into text where ordinarily there would appear a space mark. You can see this symbol when the screen is in full-visible mode.

LINE SPACING

SINGLE SPACING	f4 (FORMAT)...1
DOUBLE SPACING	f4 (FORMAT)...2
SINGLE/DOUBLE SPACING	f4 (FORMAT).../
1 1/2 LINE SPACING	f4 (FORMAT)...½
OTHER LINE SPACING	f4 (FORMAT)...0

There are five options on the Format menu that set paragraph line spacing.

Use the Other Line Spacing command to set the number of lines of space allotted to lines of text before and after a paragraph and within a paragraph.

The other options are all shortcut methods to set the number of lines allotted before, within, and after a paragraph. These other options are discussed in the subsection "Other Ways You Can Set Paragraph Line Spacing" below.

See the subsection "Format" for information on how to use the Format menu.

LINE SPACING:	(Press GO to execute, NEXT for next item, CANCEL to dismiss)
	<u>Currently</u> (Please enter measurements in inches.)
Before:	1.0 line
Within:	1.0 line
After:	1.0 line

PARAGRAPH LINE SPACING EXAMPLE

The paragraph you are reading now has two lines of space allotted "before" it, so that the first line takes two lines of space: one blank line and a line of text. It also has two lines of space allotted "after" it, causing a blank line to follow the last line. (You can think of this as

double spacing.) "Within" the paragraph, however, one line of text is allotted to one line of space only (Single spacing.)

When two adjacent paragraphs have different spacing values for the space that occurs between them ("after" for the first one and "before" for the second), the larger of these values is used to space the paragraphs.

COMPLETING THE OTHER LINE SPACING FORM

Before: If you want single spacing before the paragraph (between the paragraph and the preceding one), enter 1; enter 2 if you want double spacing; three for triple spacing, and so on.

Within: If you want single spaced text within the paragraph, enter 1. Enter 2 if you want double spacing, and so on.

After: Values are entered as you enter them for the "Before" field, except that the value is applied after the paragraph, instead of before.

OTHER WAYS YOU CAN SET PARAGRAPH LINE SPACING

There are five other options on the Format menu that affect paragraph line spacing. These are

- o 1 Single-spaced text, where no extra lines are left between lines of text, so that each line of text takes one line of space.
- o 2 Double-spaced text, where each line of text takes two lines of space.
- o / Single/Double spaced text, with double spacing between paragraphs, but with single spaced text within paragraphs
- o ½ 1 1/2 line spacing, where one line of text takes one and a half lines of space. One and one half line spacing is shown on the screen as double spacing, because only increments of one line can be displayed.

These options each set the same values that the Other Line Spacing option does. They are merely short-cut methods of applying commonly used

paragraph line spacing formats. To apply one of these formats, give the Format command and choose the option you want by typing the correct keystroke.

The second page of the Format menu, on which the Other Line Spacing command is an option, is shown below.

```
FORMAT: (Press CANCEL to dismiss)

Current attributes of cursor:
  o Courier 72          o 10 pitch
  o Left Flush         o Single-Spaced

Press L for Left-flush text      Press 1 for Single-spaced text
  C Centered text                2 Double-spaced text
  J Justified text               / Single/Double spacing
  R Right-flush text            1/2 1 1/2 line spacing
                                0 Other line spacing

Press P to change Page dimensions
Press T to change Page attributes
Press space bar to change pitch
Press W to change print wheel
Press Q to change break type      Press FORMAT again for more choices.
```

CAPABILITIES

- o Default paragraph line spacing is single spacing within and double spacing between paragraphs.
- o Use the Other Line Spacing form to check paragraph spacing and to set values not available with the other spacing options on the Format menu.
- o You can enter fractions of a line in tenths, for example, 0.8, 3.4. The screen can only display line spacing in full line increments, but the correct spacing is used when the document is printed.
- o Zero line spacing within a paragraph causes lines to be printed on top of each other.

- o When two synchronized or serpentine columns next to each other on the screen have different line spacing, the Word Processor adjusts the text displayed, so that relationships between the text in the columns are as close to what will be printed as possible. For example, text in one column which prints below text in the next column is never shown above it, but characters which appear parallel in the two columns may not be printed that way.
- o Line spacing is a paragraph attribute. The command is applied to the paragraph where you have your cursor, unless you make a selection.

SEE ALSO

Format command

Section 8, "Structuring Document Format"

Use the List Documents command to get a listing of documents in any work area (directory). The document names in the list can be sorted alphabetically or by creation date, or they can remain unsorted.

To give the List Documents command, press CODE-fl (DOCUMENTS) and choose option L (List Documents) from the Documents menu. The List Documents form shown below is displayed.

Three types of listings are provided.

- o The Names option lists document names only for all documents in your work area or the specified work area.
- o The Dates option lists each document name and in addition for each document shows
 - creation date
 - revision date
 - last access date
 - last print date
 - number of pages
- o The Everything option lists each by name and gives
 - document length in pages and characters
 - creation date, time, and the user name used for creation
 - last revision date, time, and user name used for revision
 - last access date and time
 - last print date and time
 - time to print
 - Type of access: "view", "change", or "neither". "Neither" includes such processes as copying without opening the file.

Displayed at the end of each listing are the current number of files in the work area, the amount of space used in the work area (by number of pages and characters), and the amount of space left on the volume.

LIST DOCUMENTS: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Pattern:

Volume:

Directory:

Password:

Details: Names Dates Everything (Press N, D, or E)

Sort by: Names Date (Revision) Unsorted (Press N, D, or U)

Node:

COMPLETING THE LIST DOCUMENTS FORM

Pattern: If you want to see a partial listing of documents in the work area, you can use this field to enter a single document name or a pattern for the names you want to see. To see a pattern use some characters from the real document names, plus wild card characters. (See Section 4, "Giving a Command," for a discussion of wild card characters).

Volume: Change the entry in this field if you want to see a listing from another volume (disk).

Directory: Change the entry in this field if you want to see a listing from another directory.

Password: If the directory is password protected, supply the password here.

Details: Choose the type of listing you want, showing names only; dates; or everything (dates, user name, type of access, etc.; see above).

Sort by: Choose whether you want the listing sorted by name (in ascending alphabetical order of document name), sorted by creation date (with the most recent date first), or unsorted.

Node: Change the entry in this field if you want to see a listing from another node. This field is only applicable if your workstation is part of a network as well as a cluster.

CAPABILITIES

- o To quickly open, rename, copy, delete, or print a document, select the document name in any list by pressing any Mark key, then give the appropriate command. The document name appears in the command form. To move the cursor quickly from name to name, press any Mark key repeatedly.
- o An unsorted directory is displayed more quickly.
- o The information displayed by List Documents, such as document length or time to print, is generated by the Word Processor. Therefore, for a document copied using the Executive's Copy command, the information displayed is incorrect. However, if the document is subsequently modified by the Word Processor and Saved, the correct information is recalculated.
- o The number of pages left on the volume is an estimate of document pages.
- o In the document list, a tilde (~) precedes any approximate number.

SEE ALSO

Section 13, "Document Management"

Use the List Macros command to list the names of some or all of the macros in your macro file.

If you want to know what a particular macro does when it is executed, you can also see the expansion of the macro. The expansion shows you what the macro does by indicating the keystrokes that are executed when the macro is recalled. If the macro is very long you may see only part of it followed by an ellipsis (...), which is used to show that more exists but has not been shown.

Since the macro is actually stored in a machine-readable file, the keystrokes are indicated by macrocommands, a special format designed for you to read. When you see the expansions you will probably be able to tell what actions the Word Processor performs without knowing anything about macrocommands. However, interpreting macrocommands is described in Section 21, "Advanced Use of Keystroke Macros," and the macrocommands are listed in Section 22, "Macrocommands."

LIST MACROS: (Press GO to execute, CANCEL to dismiss)

Pattern:

Details: Names Expansions (Press N or E)

COMPLETING THE LIST MACROS FORM

Pattern: If you want to see specific macros only, rather than a list of all your macros, enter a pattern here. You can use wild card characters (an asterisk [*] or a question mark [?]), to indicate a group of macro names, or you can enter one macro name. (See Section 4, "Giving a Command," for a complete explanation of the use of wild card characters to enter patterns.)

Details: If you want to see a list of the keystrokes that the macro will execute when recalled, choose E for Expansions. Otherwise the Word Processor will display only a listing of macro names.

CAPABILITIES

- o Note that if the macro is very long, not all of it is listed when you specify Expansions and an ellipsis is used to indicate the remainder. To see the entire macro in this case, use Unload Macro.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

Recall Macro command

Store Macro command

Unload Macro command

Load Macro command

Remove Macro command

LIST PHRASES**CODE-f7 (COMMANDS)...I**

To display a list of all or part of the contents of your phrase file use the List Phrases command.

To give the List Phrases command, press CODE-f7 (COMMANDS) and choose option I (List Phrases) from the Commands menu.

LIST PHRASES: (Press GO to execute, CANCEL to dismiss)

Pattern:

Details: **Names** Expansions (Press N or E)

COMPLETING THE LIST PHRASES FORM

Pattern: If you want to see specific phrases only, rather than a list of all your phrases, enter a pattern here. You can use wild card characters (an asterisk [*] or a question mark [?]), to indicate a group of phrase names, or you can enter one phrase name. (See Section 4, "Giving a Command," for a complete explanation of the use of wild card characters to enter patterns.)

Details: Choose "Names" if you want to see only the phrase names, "Expansions" if you want to see the phrases also.

CAPABILITIES

- o If no pattern is entered, all phrase names are listed.

SEE ALSO

Store Phrase command

Recall Phrase command

Remove Phrase command

Use the Load Macro command to load macrocommands from a document into your macro file to redefine an existing macro or to create a new one. The loaded macrocommands are translated into machine-readable format and become a macro that you can recall later using Recall Macro.

The text you load must be in the form of macrocommands (special commands that represent ordinary Word Processor commands, but use a different format). The macrocommand names used to represent all the keystrokes a macro can contain are discussed in Section 22, "Macrocommands."

You can load an entire document or a selection.

Load macro is usually used after you have unloaded an existing macro using the Unload Macro command, and modified the macro.

When a macro is first created, you usually use Store Macro to do so. Store Macro records your keystrokes as you execute them. (If you have not yet tried Store Macro, it is recommended that you use that command to create a macro before attempting to use Load Macro.)

LOAD MACRO:	(Press GO to execute, CANCEL to dismiss)
-------------	--

Macro Name:

COMPLETING THE LOAD MACRO FORM

Macro name: Enter the name you want to assign to the macro. This can be the name of an existing macro, if you wish to redefine the existing one.

CAPABILITIES

- o If you want to use an existing macro as a basis for a new one, but do not want to modify the original, you can make a copy by unloading the first macro, and then loading it using a new name.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

Recall Macro command

Store Macro command

Unload Macro command

List Macros command

Remove Macro command

LOAD PERSONAL DICTIONARY CODE-f7 (COMMANDS)...L

The Load Personal Dictionary command loads words from a personal dictionary document into your personal dictionary.

To give the Load Personal Dictionary command, press CODE-f7 (COMMANDS) and choose option L (Load Personal Dictionary) from the Commands menu.

Your personal dictionary is created for you by the Check Spelling command and you add words to it while you are checking your spelling.

The Load Personal Dictionary command is typically used only after using Unload Personal Dictionary to produce a personal dictionary document. You can edit the contents after unloading it.

This command only works if you have the spelling dictionary installed with your system.

LOAD PERSONAL DICTIONARY: (Press GO to execute, CANCEL to dismiss)

From document:

Keep old dictionary contents? Yes No (Press Y or N)

COMPLETING THE LOAD PERSONAL DICTIONARY FORM

From document: Enter the name of the personal dictionary document which contains the words to be loaded into your personal dictionary.

Keep old dictionary contents? Choose Yes if you have a personal dictionary already and want to have the new words added to it. Otherwise the new dictionary will replace the old one.

CAPABILITIES

- o Words you enter that include spaces, for example "ice cream" are broken down as individual dictionary entries.
- o The personal dictionary is limited to a capacity of about 250 words.

SEE ALSO

Unload Personal Dictionary

Section 15, "Maintaining the Spelling Checker"

LOCATE

CODE-L

The Locate command shifts the text containing the cursor or any marked and selected text to the center of the current window.

This command is a quick way to adjust your screen while typing or to return a selection that has been scrolled away to the window display.

MARK**MARK**

The Mark command selects and highlights the character at the cursor position.

You use a selection to indicate which text you want to apply a command to. However, for most commands, if the cursor is not within the selection when the command is given then the command is applied to the text where the cursor is located, rather than to the selection.

CAPABILITIES

- o Only one character at a time is marked. To include more in the selection, combine Mark with Bound.
- o Extend a selection by using the Bound command.

SEE ALSO

Bound command

Unmark command

Mark Column command

The Mark Column command selects and highlights the tabbed column in which the cursor is positioned.

You use a selection to indicate which text you want to apply a command to. However, for most commands, if the cursor is not within the selection when the command is given, the command is applied to the text where the cursor is located, rather than to the selection.

CAPABILITIES

- o Mark Column marks the column for all paragraphs included in the table (i.e., all adjacent paragraphs with the same tab stops and containing tab characters.)
- o Mark Column does not mark a synchronized or serpentine column.
- o Extend a selection by using the Bound command.

SEE ALSO

Bound command

Unmark command

Mark command

Section 10, "Entering Text in Columns"

MARK DOCUMENT
MARK PAGE

CODE-f10 (MARK DOCUMENT)
CODE-f8 (MARK PAGE)

The Mark Document and Mark Page commands select and highlight the entire document or page, respectively, in which the cursor is positioned.

Pressing Mark Page successively moves the selection from page to page.

If you use either of these commands to select text and then make a character format change, the Mark menu is displayed, and you can specify that the change include header, footer, and/or footnote text. The Mark menu will also be displayed with some paragraph and page format changes.

MARK: (Press GO to execute, CANCEL to dismiss)

Alter regular text?	Yes	No	(Press Y or N)
odd headers?	Yes	No	(Press Y or N)
even headers?	Yes	No	(Press Y or N)
odd footers?	Yes	No	(Press Y or N)
even footers?	Yes	No	(Press Y or N)
footnotes?	Yes	No	(Press Y or N)

COMPLETING THE MARK MENU

Alter regular text? If you want to alter only the text associated with the headers, footers, and/or footnotes, press N for No. Otherwise choose Yes.

Other fields: The other fields in the command form all default to No. Formatting changes do not affect those attributes unless you change the field to Yes.

CAPABILITIES

- o To change pitch or print wheel, use Mark Document or Mark Page to include header, footer, or footnote text in the change.

MARK LINE	f9 (MARK LINE)
MARK PARAGRAPH	f10 (MARK PARAGRAPH)
MARK WORD	f8 (MARK WORD)

These Mark commands select and highlight the line, paragraph, or word in which the cursor is positioned.

If you press the Mark key successively, the selection moves from unit to unit.

You use a selection to indicate which text you want to apply a command to. However, for most commands, if the cursor is not within the selection when the command is given, the command is applied to the text where the cursor is located, rather than to the selection.

Example: To select successive words in a line, press f8 (MARK WORD) to mark the first word, then press it again to remove the highlight from the first word and mark the space between the words, then press it again to remove the highlight again and highlight the next word.

CAPABILITIES

- o If the Word Processor displays a list, you can use any of the Mark keys to select an item in the list, then give another command and copy the selection into the command form. For the commands on the Documents menu, you do not have to press Copy to move the entry to the command form; it is filled in for you.
- o Extend a selection by using the Bound command.

SEE ALSO

Bound command

Unmark command

The Merge command merges text from a records file to a form document. Merging text is discussed in detail in Section 16, "List Processing."

Text from the records file can be inserted into the form document at more than one place.

During Merge, text is sent directly to the printer or spooler and is not stored in a file.

To give the Merge command, press CODE-f7 (COMMANDS) and choose option G (Merge). Then complete the Merge form.

MERGE: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Form name:

Records file(s):

Number of records to skip:

Start numbering at:

Number forms separately: **Yes** No (Press Y or N)

Paper feed: **Continuous** Manual (Press C or M)

Printer name: **DIABLO**

for example: DIABLO, LPT

Priority (0-9)

Inform when formatting done? **Yes** No (Press Y or N)

Print statistics? **Yes** No (Press Y or N)

COMPLETING THE MERGE FORM

Form name: Enter the name of the form document, into which you want records from the records file merged. Only one form document name can be listed.

Records file(s): Enter the name(s) of the records file(s) to be merged into the form document.

Number of records to skip: If you want to skip a certain number of records, perhaps because a Merge operation did not finish successfully, use this option.

The number of records skipped is the number of records eligible for this merge, not necessarily the number of records in the records file.

Enter the number of records to skip. If the number you enter is n, the Word Processor skips n acceptable records before beginning the Merge. Therefore, if you stopped a Merge or it was stopped for another reason, count the number of records that were printed.

If you want the first n numbers of records in the records file to be skipped over, you can enter n. Remember, however, that unacceptable records are not counted, so that the number skipped is the number of acceptable records.

Start numbering at? Enter the number you want assigned to the first page generated.

Number forms separately? If you want the pages of each form produced to be numbered separately, choose Yes. If you choose Yes, the first page of every form document is assigned the page number one or the number you entered in the "Start Numbering at" field.

Paper feed: If you want to feed paper into the printer manually, choose the "Manual" option. The default is Continuous feed.

Printer name: The name of your default printer is displayed. If you wish to choose another printer, enter that name.

Priority (0-9): If you want to change the priority for the printing of the merged files to a number other than 5, enter a priority number. Highest priority is 0; lowest is 9.

Inform when formatting done? If you choose Yes, a message is displayed when the Word Processor has finished formatting. The default is No.

Print statistics? If you choose No, the merge errors and statistics are not printed. However, for foreground printing, the statistics are still displayed on the screen at the completion of the Merge.

CAPABILITIES

- o Merge prints the merged documents. They are not stored on disk. If you want to merge to a document, use the Merge to a Document command.
- o You must use a records file and a form document.
- o If a field in the records file is blank, the Word Processor automatically removes any extra spacing that might be left in the form document because of the blank field. If the blank field would result in a blank line, the line is also removed.
- o If a form document contains a keyword not supplied in the specified records file, the Word Processor looks to see if the keyword is a phrase name. If so, it substitutes the associated phrase.
- o If there is not enough memory available for the Merge to occur in the background, the Merge form stays on the screen during the Merge operation and no other Word Processor operations can take place.
- o You can also Merge to a file by entering the file name in the "Printer" field.

SEE ALSO

Section 16, "List Processing"

Keyword command

Merge to a Document command

Sort/Select command

The Merge to a Document command merges text from a records file to a form document and writes the new document to a file, rather than printing it. Merging text is discussed in detail in Section 16, "List Processing."

Merge to a Document works exactly the same way that Merge does, except that the form letters generated are stored in memory and then written to the disk, rather than being printed.

Text from the records file can be inserted into the form document at more than one place.

To give the Merge to a Document command, press CODE-f7 (COMMANDS) and choose option Q (Merge to a Document). Then complete the Merge to a Document form.

MERGE TO A DOC: (Press GO to execute, NEXT for next item,
CANCEL to dismiss)

Form name:

Records file(s):

Document to Merge to:

Number of records to skip:

Start numbering at:

Number forms separately: Yes No (Press Y or N)

Inform when formatting done? Yes No (Press Y or N)

Attach statistics? Yes No (Press Y or N)

COMPLETING THE MERGE TO A DOCUMENT FORM

Form name: Enter the name of the form document into which you want records from the records file merged. Only one form document name can be listed.

Records file(s): Enter the name(s) of the records file(s) to be merged into the form document.

Document to Merge to: Enter the name of the document you want the Word Processor to create. Note that this document will hold all the form letters generated by the Merge.

Number of records to skip: If you want to skip a certain number of records, perhaps because a merge operation did not finish successfully, use this option.

The number of records skipped is the number of records eligible for this merge, not necessarily the number of records in the records file.

Enter the number of records to skip. If the number you enter is n, the Word Processor skips n acceptable records before beginning the Merge to a Document. Therefore, if you stopped a merge or it was stopped for another reason, count the number of records that were written.

If you want the first n numbers of records in the records file to be skipped over, you can enter n. Remember, however, that unacceptable records are not counted, so that the number skipped is the number of acceptable records.

Start numbering at: Enter the page number you want assigned to the first page generated.

Number forms separately? If you want the pages of each form produced to be numbered separately, choose Yes. If you choose yes, the number of the first page of each form document will be one, or the number you entered in the "Start Numbering at" field.

Inform when formatting done? If you choose Yes, a message is displayed when the Word Processor has finished formatting. The default is No.

Attach statistics? Choose No if you do not want the merge errors and statistics to be appended to the end of the document. If you have foreground printing, the statistics are written to the screen in either case.

CAPABILITIES

- o Merge to a document stores form documents in memory until the merge is completed, then writes the document to the disk. Therefore, you may run out of memory if you are trying to merge large records files with form documents for such things as mass mailings. Use Merge instead, and use Merge to a Document for small jobs, tests, or other list processing applications.
- o You must use a records file and a form document.
- o If a field in the records file is blank, the Word Processor automatically removes any extra spacing that might be left in the form document because of the blank field. If the blank field would result in a blank line, the line is also removed.
- o If a form document contains a keyword not supplied in the specified records file, the Word Processor looks to see if the keyword is a phrase name. If so, it substitutes the associated phrase.
- o If there is not enough memory available for the Merge to a Document to occur in the background, the form stays on the screen during the merge and no other Word Processor operations can take place.

SEE ALSO

Section 16, "List Processing"

Keyword command

Merge command

Sort/Select command

MOVE**MOVE**

The Move command moves marked and selected text to the current cursor position and deletes the text from the original location.

Text can be moved across any windows on the screen, whether they divide one document or are for multiple documents.

The Move command works exactly like Copy, except that Move deletes the selected text from its original location.

MOVE: (Press GO to execute, CANCEL to dismiss)

Select text to be moved, then press GO to execute.

SEE ALSO

Copy command

MULTIPLAN**CODE-f7 (COMMANDS)...M**

To invoke Multiplan, give the Multiplan command by pressing CODE-f7 (COMMANDS) and choosing the M option from the Commands menu.

Any documents that are currently open are saved, the Word Processor session finishes, and Multiplan's initial display appears on the screen.

To return to the Word Processor again, you merely Finish Multiplan.

MULTIPLAN: (Press GO to execute, CANCEL to dismiss)

CAPABILITIES

- o Multiplan must be installed on your workstation for this feature to function.

NEXT**NEXT**

Press NEXT to move the cursor to the next field of any command form. If the cursor is at the last of the command form, it is moved to the first field again.

OPEN DOCUMENT

CODE-f1 (DOCUMENTS)...0
or CODE-0

To open an existing document or to create a new one, use the Open Document command.

You can give the Open Document command in either of two ways:

- o Press CODE-f1 (DOCUMENTS) and choose option 0 from the Documents menu.
- o Press CODE-0.

OPEN DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Document name:

Password:

Allow changes? **Yes No** (Press Y or N)

Copy from document:

COMPLETING THE OPEN DOCUMENT FORM

Document name: Enter the name of the document you want to open. If the document does not exist, when the command is executed, it is created for you.

Password: If the document you are opening or the directory in which the document is being created has been password protected, enter the password here. This field does not assign a password.

Allow changes? If you want to ensure that text is not changed while this document is open, or if you want to allow others on a multiworkstation setup to view this document at the same time that you do, choose No.

Copy from document: This field is used only when creating a new document. If you want to copy another document, enter the name of that document here.

CAPABILITIES

- o If a new document is created, it is kept only in memory and is not written to the disk until you Finish or Save.
- o It is recommended that you do not use spaces or commas in a document name. One reason for this is that the Executive requires file names that include spaces to be enclosed in single quotes.

SEE ALSO

Documents command

Section 2, "Getting Started"

Section 13, "Document Management"

OVERTYPE**OVERTYPE**

If you wish to replace existing characters on the screen with other characters, you can use overtype mode, so that each character you type will write over a character in the document until you press OVERTYPE again.

While the keyboard is in overtype mode, a red light appears on the OVERTYPE key.

CAPABILITIES

- o Backspace operates like an arrow key in overtype mode.
- o In overtype mode RETURN and SHIFT-RETURN replace an existing character with a paragraph symbol and a line break symbol respectively.

SEE ALSO

Section 2, "Getting Started"

Backspace (Required) command

The Page Attribute command, an option on the Format menu, allows you to set the following page attributes:

- o forced page number
- o forced footnote number
- o facing page format
- o sheet feeder bin number

To give the Page Attribute command, press f4 (FORMAT) and choose option T. Then complete the form. (See the subsection "Format" for information on how to use the Format menu.)

Page Attribute applies to the page where you have your cursor, unless your cursor is within a selection when you give the command. In that case the command is applied to the entire selection.

If you go on to begin a new page, it inherits the format from the page that preceded it.

PAGE ATTRIBUTES: (Press GO to execute, NEXT for next item,
CANCEL to dismiss)

Forced page number:	none				
Forced footnote number:	none				
Facing pages?	Yes No				(Press Y or N)
Sheet Feeder Bin	Bin 1 Bin 2 Bin 3				(Press 1, 2, or 3)

COMPLETING THE PAGE ATTRIBUTE FORM

If you wish, you can specify values for only the fields you want to change.

Forced page number: If you want to assign a specific page number to the page where you had your cursor when you gave the command, enter that number here.

To assign a forced page number the page break must be a static one.

(Remember that you can force a page to be odd or even without assigning a specific number to it, by using the Break Type command.)

Forced footnote number: If you want to assign a specific footnote number to the footnote that appears on the page where you had your cursor when you gave the command enter that number here.

To assign a forced footnote number the page break must be a static one.

Facing pages? If you want pages formatted so that the left page margins are a mirror image of those used for the right page (for example, to allow a larger margin for binder rings), choose Yes.

If you choose facing pages, margins shown on the screen are affected as well as margins of the printed document.

Sheet feeder bin: If you have a sheet feeder with more than one bin, you may want to specify that certain pages be printed on stock from a particular bin (for instance, on letterhead rather than memo stock.) Enter the bin number you want in this field.

CAPABILITIES

- o All attributes set with the Page Attribute command are page format attributes. This means that if you move or copy a page break, the associated page format goes with it.

SEE ALSO

Break Type command

Page Dimension command

Section 8, "Structuring Document Format"

Section 10, "Entering Text in Columns"

The Page Dimension command, an option on the Format menu, allows you to set the following page attributes:

- o paper height and width
- o top, bottom, left, and right margins
- o text height and width
- o distance of header and footer from top and bottom of the page, respectively.
- o serpentine columns

To give the Page Dimension command, press f4 (FORMAT) and choose option P. Then complete the form. (See the subsection "Format" for information on how to use the Format menu.)

Page Dimension applies to the page where you have your cursor, unless your cursor is within a selection when you give the command.

If you go on to begin a new page, it inherits the format from the page that preceded it.

PAGE DIMENSIONS: (Press GO to execute, NEXT for next item, CANCEL to dismiss)	
	<u>Currently</u> (Please enter measurements in inches.)
Paper width:	8.5"
Paper height:	11.0"(66.0 lines)
Left margin:	1.0"
Text width:	6.5"
Right margin:	1.0"
Top margin:	1.0"(6.0 lines)
Text height:	9.0"(54 lines)
Bottom margin:	1.0"(6.0 lines)
Header position:	0.5"(3.0 lines)
Footer position:	0.5"(3.0 lines)
Number of columns:	1
Margin between columns:	

COMPLETING THE PAGE DIMENSION FORM

Default values for page dimension are shown in parentheses on the Page Dimension form.

Enter all measurements in inches or tenths of inches or in lines, for example, 8.5 inches or 52 lines

If you wish, you can specify values for only the fields you want to change, and the Word Processor will compute a reasonable solution for the other fields. For instance, if you want to change the size of the right margin you do not have to specify the text width and left margin, unless you want to be sure that a certain value is used for one of those fields also.

Paper width: If you are not using 8 1/2-inch wide paper, enter the width of your paper in inches. Maximum paper width is 25 inches.

Paper height: If you are not using 11-inch high paper, enter the height of your paper in inches or lines.

Left margin: If you want left and right margin width to differ from each other, enter the left margin width here in inches. Otherwise, leave this field blank and complete "Text width" only.

Text width: Enter text width in inches. If you specified left and right margins, you can leave this field blank.

Right margin: If you want left and right margin width to differ from each other, enter the right margin width here in inches.

Top margin: If you want the top and bottom margins to differ from each other, enter top margin in inches or lines. Otherwise, leave this field blank and complete "Text height" only.

Text height: Enter length of text from first line to last line in inches or lines. If you specified top and bottom margins, you can leave this field blank.

Bottom margin: If you want the top and bottom margins to differ, enter bottom margin in inches or lines.

Header position: Enter the number of inches or lines you want between the top of the page and the top of the header.

Footer position: Enter the number of inches or lines you want between the bottom of the page and the top of the footer.

Number of columns: If you want text formatted in serpentine columns, enter the number of columns you want.

If you want to return to normal page dimension from serpentine format, enter the number of columns as 1.

Margin between columns: If you specified more than one column in the field above, enter the space you want between columns in inches or tenths of an inch.

CAPABILITIES

- o All attributes set with the Page Dimension command are page attributes. This means that if you move or copy a page break, the associated page formatting goes with it.
- o If you made a selection of pages before giving the command, the "Currently" settings for page dimension attributes are not displayed on the form.

SEE ALSO

Break Type command

Page Attribute command

Section 8, "Structuring Document Format"

Section 10, "Entering Text in Columns"

PAGE NUMBER
PAGE NUMBER (ROMAN)

CODE-f5 (PAGE #)
CODE-SHIFT-f5

If you want a page number to be printed, use the Page Number command, CODE-f5 (PAGE NUMBER), to insert a page number symbol (#) where you want the page number to appear. The page number symbol appears half-bright on the screen and is replaced by the correct page number during printing.

ROMAN PAGE NUMBER

A Roman page number (viii) can be printed in the same way, by pressing CODE-SHIFT-f5 to insert a Roman page number symbol (i) in the text.

CAPABILITIES

- o The page number is most useful if placed in a header or footer.
- o Page numbers do not have to begin at one and continue consecutively throughout the document. You can specify that page numbers begin at any number or that the page number return to one again within a document by completing the "Forced Page Number" field in the Page Attribute form. You can also use the Break Type command (f4(FORMAT)...Q) to make a page number be odd or even, without specifying an exact number for the page.

- o To paginate by section (e.g., I-1, I-2, I-3, II-1, II-2, II-3, etc.) type the section number plus a hyphen, and then give the page number command. The text appears on the screen as I-#. When the document prints, sequential numbers replace the # symbol.

More than one section can be included in the document and paginated separately, by renumbering from one as described above.

SEE ALSO

Footer command

Page Format command

Section 11, "Printing"

PARAGRAPH INDENT

CODE-f3 (INDENT)

OUTLINE INDENT

CODE-TAB

OUTLINE TOTAL UNINDENT

CODE-SHIFT-RETURN

OUTLINE UNINDENT

CODE-SHIFT-TAB

To assign left, right, first line, or other line indentations to the paragraph where you have your cursor; use the Paragraph Indent command. (The subsection "Indentation Attributes" in Section 8, "Structuring Document Format," explains the left, right, first, and other line indent points of a paragraph.)

The paragraph indentation points are set to measurements that appear in the ruler display. (See Section 2, "Getting Started," for an explanation of how to read the ruler display.)

To assign the indentation to existing paragraphs, mark and select them before giving the command.

To change an indent, you must reset it by giving the Paragraph Indent command again.

PARAGRAPH INDENT: (Press CANCEL to dismiss)

Move cursor to desired indent position, then:

Press L to set Left indent
R Right indent
F First line indent only
O Other lines

PARAGRAPH INDENT MENU OPTIONS

Left indent. To set a left indent point for all lines in the paragraph, position the cursor where you want the first character of text to be entered (one character to the right of where you want the indent marker to appear in the ruler display) and press L.

Right indent. To set a right indent point for all lines in the paragraph, position the cursor one character to the right of where you want the last character of text (exactly where you want the indent marker to appear in the ruler display) and press R.

First line indent only. To set a left indent for the first line of the paragraph only, position the cursor at the indent point as described above and press F.

Other lines. To set a left indent for all lines of a paragraph (except the first line), position the cursor at the indent point as described above and press O.

CAPABILITIES

- o Paragraph indent is a paragraph attribute, and is assigned individually to each paragraph. The command is applied to the paragraph where you have your cursor, unless you make a selection.

When you press return, the new paragraph inherits the paragraph indent settings of the previous one.

- o Paragraph indent points are stored by the Word Processor internally as so many inches from the margin. Thus, paragraph width can change if you move a paragraph to a document with different margins. Column margins are treated like page margins with respect to paragraph indents.

OTHER WAYS TO SET PARAGRAPH INDENTS

Three shortcut outline indent commands indent or unindent the paragraph, without changing the relationship of the first, right and left indent points to each other. They are called outline indent commands because they indent paragraphs in the manner of an outline.

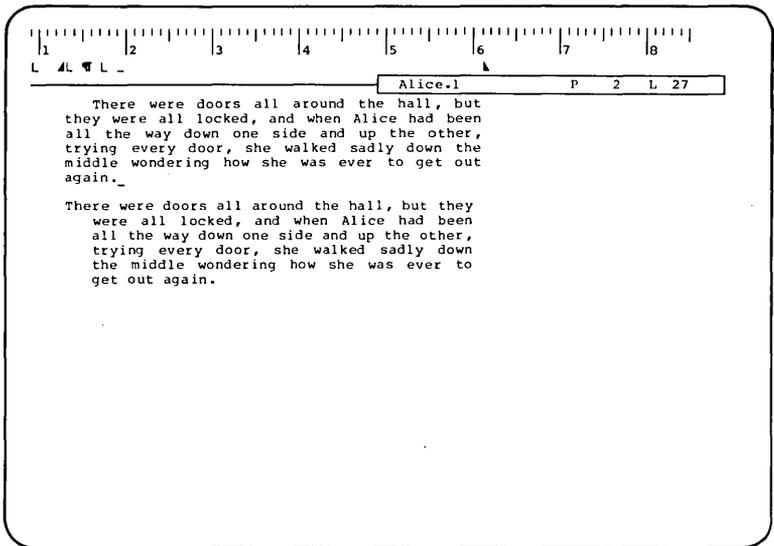
- o The Outline Indent command (CODE-TAB) moves the left edge of the paragraph in which the cursor is positioned in to the next tab stop. If no next tab stop exists, it moves the paragraph over by half an inch. You can repeat this operation by giving the command again.
- o The Outline Unindent command (CODE-SHIFT-TAB) moves the left edge of the paragraph back to the previous tab stop. If no previous tab stop exists, the paragraph is moved back half an inch.
- o The Outline Total Unindent command (CODE-SHIFT-RETURN) moves the paragraph back to the left margin.

When the commands are applied to existing text, adjustments are made to line wraparounds to allow for wider or narrower paragraph width.

The figure below shows how the ruler display and two indented paragraphs appear after the Outline Indent command is executed.

If the paragraph has a first line indent point that differs from the other line indent point, the Outline Indent and Outline Unindent commands use the first line indent setting to align the left edge of the paragraph with a tab stop or, if there are no tab stops, with a point half an inch from the last alignment. The Outline Total Unindent command aligns the first line indent setting with the left margin.

Note that margin settings do not imply that text cannot be printed in the margin. Therefore, if you made the first line of your paragraph narrower than the other lines using the First Line Indent option, and use CODE-TAB to move the paragraph in, then use CODE-SHIFT-RETURN to move it back to the margin, the first line indent point is lined up with the margin and the other lines of the paragraph appear in the margin.



SEE ALSO

"Reading the Ruler Display," Section 2, "Getting Started"

Subsection "Indentation Attributes" in Section 8, "Structuring Document Format"

To start a new paragraph, use the RETURN key. A paragraph symbol (¶) is inserted into text.

You can assign paragraph format characteristics to each paragraph, using the Format command, Indent commands, Paragraph Indent command, and the Tabs command. These characteristics are associated with the paragraph symbol, so that if you mark and move the symbol, the format characteristics move with it.

When you press RETURN, a new paragraph inherits the format attributes of the previous paragraph. If there is no previous paragraph, the default format applies (single-spaced, left-justified, no tabs, left and right indents set at the page margins).

CAPABILITIES

- o Paragraph symbols take memory space. Do not use them to break lines unless you want to start a new block of text.

SEE ALSO

Line Break command (Shift-Return)

To invoke the Picture Editor (Business Graphics), give the Picture Editor command by pressing CODE-f7 (COMMANDS) and choosing the P option from the Commands menu. Complete the form displayed and press GO.

Any documents that are currently open are saved, the Word Processor session finishes, and the Picture Editor initial display appears on the screen.

To return to the Word Processor again, you Finish the Picture Editor.

<p>PICTURE EDITOR: (Press GO to execute, CANCEL to dismiss)</p>

<p>Picture file:</p>

CAPABILITIES

- o The Picture Editor must be installed on your workstation for this command to work.

To specify a pitch that is not standard for the print wheel currently in use, use the Pitch command. As an example, you might wish to change pitch from 10 to 12 for the Courier 72 to leave less space between characters.

To give the Pitch command, press f4 (FORMAT) and choose the Pitch option by pressing the spacebar.

When you change pitch, the ruler display changes to show the pitch of the smallest text on the line containing the cursor. For example, if all text on a line is 15 pitch, a 15 pitch ruler is displayed.

PITCH: (Press GO to execute, CANCEL to dismiss)

Press 8	for 8-pitch text
0	10-pitch text
2	12-pitch text
5	15-pitch text
D	Default pitch

USING THE PITCH MENU

The Pitch menu allows you to choose from 8, 10, 12 or 15 pitch text or to choose the default pitch for the wheel you have mounted. A large pitch number indicates more characters printed to the inch than does a small number.

CAPABILITIES

- o Pitch is a character attribute. The command is applied to the next character(s) you type, unless you mark and select existing text.
- o Changing pitch can cause the characters on the screen to be displayed in half-bright intensity.
- o When the document is printed, you are prompted to change the print wheel to the one you specified with this command.
- o You can specify that a pitch change be applied to headers, footers, and/or footnotes, as well as to regular text. Use Mark Doc or Mark Page to select your text, and complete the Mark menu displayed when you give the Pitch command.

SEE ALSO

Format command

PRINT**SHIFT-f4 (PRINT)**

Use the Print command to print a document. Print allows you to specify

- o one document or a list of documents to be printed
- o more than one copy
- o repagination during printing
- o printing of footnotes
- o renumbering of footnotes
- o printing certain pages of a document only
- o consecutive pagination for two or more documents
- o printing on continuous forms or single sheets
- o printer to be used to print the document(s)
- o a priority for the document to take in the print queue
- o that a message is displayed when the document has finished formatting

PRINT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Document name(s):

Number of copies:

Repaginate? Yes No (Press Y or N)

Print footnotes? Yes No (Press Y or N)

Renumber footnotes? Yes No (Press Y or N)

Pages to print:

for example: 1,3-5

Start numbering at:

Number docs. separately? Yes No (Press Y or N)

Paper feed: Continuous Manual (Press C or M)

Printer name

for example: SPLA, DIABLO, LPT, MVP, ANADEX, etc.

Priority (0-9):

Inform when formatting done? Yes No (Press Y or N)

COMPLETING THE PRINT FORM

Document name(s): Enter the name(s) of the document(s) you want to print. Separate the names with commas if you enter more than one.

Number of copies: If you want to print more than one copy, enter the number of copies you want.

Repaginate? Yes is the default. If you choose No, page breaks are not reinserted and the document is not repaginated before printing. The document is not removed from the screen for printing if you choose this option.

Print footnotes? If you do not want footnotes to be printed at the bottom of the page, choose No.

The default is Yes.

Renumber footnotes? If you do not want footnotes to be renumbered during formatting, choose No. Renumbering is only necessary if you have added or deleted footnotes since the last renumbering.

The default is Yes.

Pages to print: If you want to print only certain page numbers enter them here. Example: 5-10, 18, 25-6.

Start numbering at: If you do not want the Word Processor to start numbering your document at one or at the number assigned to the first page as a forced page number, enter the number you do want it to use for the first page of the document.

Note that if you are printing more than one document and numbering each separately, the first page of each will start with the number you enter in this field.

Number docs. separately? If you are printing more than one document and you want page numbers to be assigned consecutively during pagination (page numbers assigned as if one document), choose No.

Paper feed: For continuous forms or for printers with sheet feeders attached, you will usually want the default, continuous printing.

If you choose Manual, the printer pauses after each page is printed to allow insertion of a new piece of paper. (You can manually feed sheets even if you have a sheet feeder attached. See your printer documentation.)

Note that if you want to specify which sheet feeder bin is used, this is done by assigning sheet feeder bin number as a page format attribute using the Page Attribute command before printing.

Printer name: If you do not want to use the default printer name displayed, enter the name of another printer. The names of printers you can choose from are listed after "for example."

Priority (0-9): If you want to change the priority from 5 (the default), enter the priority number you want. The highest priority is 0 and 9 is the lowest. Priority number determines the placement of the print request within a queue of print requests waiting for a printer.

Inform when formatting done? If you choose Yes, when formatting has finished, an attention flag appears in the upper left hand corner with the highlighted message "Formatting done."

CAPABILITIES

- o If a document is on the screen when you give the Print command, that document name automatically appears in the "Document name(s)" field.
- o Floating page breaks assigned previously are reassigned if you choose the default setting for "Repaginate".
- o Formatting for printing is faster if you choose No for "Print footnotes?" and "Renumber footnotes?".

- o The default printer is determined by whatever entry appears first in the printer configuration file [SYS]<Sys>Sys.Printers and can be changed. (See Section 19, "System Administration.")
- o You cannot Save while the document is formatting. The Word Processor reminds you if you attempt to Finish or Save that printing will be canceled if you Save. Once formatting is complete and the file is being printed, you can Save.
- o If you opened a document with the "Allow changes" field of the Open Document form set to Yes and the document is on the screen when you print it, the window closes. You cannot work on the document again until formatting is complete.

SEE ALSO

Print Wheel command

Printer Status command

Review Document command

Section 11, "Printing"

Use the Print Wheel command to specify a change to a different print wheel during printing.

To give the Print Wheel command, press f4 (FORMAT) and choose option W (change print wheel).

When the document is printed later, the printer stops to allow you to insert the new print wheel. A printer attention flag appears in the upper left hand corner of the screen with a highlighted message to inform you that the printer needs attention. You can see what print wheel is needed by using the Printer Status command.

The Print Wheel menu choices are determined by entries in your Print Wheel Set file. The default print wheel can be changed by altering this file. (See Section 19, "System Administration.")

Unless you choose option O, Print Wheel Only, text pitch also changes to match the pitch specified for the print wheel you select. If you choose Print Wheel Only, an additional menu is displayed, that looks very similar to the Print Wheel menu, but does not change pitch, provided you previously used the Pitch command to assign a specific pitch to this text.

CAPABILITIES

- o Print wheel is a character attribute. The command is applied to the next character(s) you type, unless your cursor is within a selection when you give the command.
- o When the document is printed, a new print wheel is required for printing the characters you applied the command to.

To change text attributes back so that characters are printed with the normal wheel, you must give the Print Wheel command again and specify the wheel you want.

- o Before you can use this command with a new print wheel, that print wheel must be defined in the Print Wheel Set file. (See Section 19, "System Administration.")
- o If the print wheel chosen has a different pitch, the ruler display changes to reflect the new pitch.
- o If you entered a special character not on your default print wheel, and do not specify a new print wheel, the Word Processor stops during printing and prompts you to mount a new print wheel.
- o You can specify that a print wheel change be applied to headers, footers, and/or footnotes, as well as to regular text. Use Mark Doc or Mark Page to select your text, and complete the Mark menu displayed when you give the Pitch command.

SEE ALSO

Format command

Section 11, "Printing"

Subsection "Print Wheel Configuration" in Section 19, "System Administration"

Use the Printer Status command to check the progress of printing and to interrupt printing after it has begun.

Status is displayed for the default printer, or for the printer you chose the last time you issued a print request.

If an attention flag appears in the upper left hand corner of the screen with the message "Printer", you can use the Printer Status command to check the problem.

PRINTER STATUS: (Press CANCEL to dismiss)			
Printer name:			
Status:			
Press S	to Select printer	Press P	to reprint from page <u>n</u>
H	Halt printing	C	Cancel printing
R	Resume printing	Q	display Print Queue

PRINTER STATUS MENU OPTIONS

Select printer. To change the printer for which status is displayed, choose the S option.

When the Select Printer form is displayed, enter the printer name.

Reprint from page n. If, when you resume printing after using Halt or Cancel, you want to print the document from a page other than the one at which it stopped, choose the P option.

When the Reprint From Page form is displayed, enter the page number from which you want the document to be printed.

You can also use this option to skip ahead to another page if you wish after halting printing.

Halt printing. If you need to halt the printer while it is printing a document, choose the H option.

The printer will stop printing after a few seconds delay.

When you halt a document, it can be restarted using the Resume printing option.

Cancel printing. If you want to remove a document from the print queue, choose option C (Cancel Printing.) Cancel print cancels printing whether the document is printing or in the queue. The document cannot be restarted after you cancel it.

When the Cancel Printing form is displayed, enter the name of the document you want to cancel.

Resume printing. To resume printing where printing stopped, choose the R option. You can use R to start printing when you stopped the printer using the Halt option or when the printer stops itself for any reason, for example for a paper change.

Display Print Queue. To see a list of documents in the print queue for the printer selected, choose the Q option.

Document name, user name, priority, and time to print are shown. Time to print is an estimate based on the length of the document and the speed of the printer.

You can cancel printing of any document in the print queue by selecting the name from the print queue list (using any Mark key) and pressing C for the Cancel Print option.

CAPABILITIES

- o Because many printers have a buffer of characters transmitted by the computer but not yet printed, there will usually be a delay before Halt printing and Cancel printing of the Printer Status command are obeyed by the printer.

Use the Recall Macro command to recall and execute a macro you stored earlier with the Store Macro command.

By default a macro executes once and stops automatically, however, you can also choose to have the macro repeated a specified number of times.

If you want to slow down the execution of a macro so that you can see the steps the Word Processor is going through, you can also choose single step mode. In this case the Word Processor pauses the replay of stored keystrokes after each command.

A recalled macro replays every keystroke as stored. If it is recalled into an environment different from the one within which it was created, it may have a different effect.

RECALL MACRO: (Press GO to execute, CANCEL
to dismiss)

Macro name:

Number of repetitions:

Single step mode: Yes No (Press Y or N)

COMPLETING THE RECALL MACRO FORM

Macro name: Enter the name of the macro you want to recall.

Number of repetitions: If you want the macro to replay more than one time, enter the number of repetitions you want here.

Single step mode: If you want the Word Processor to pause the execution of the macro after each command or series of typed text, press Y for Yes.

During recall of the macro, when the Word Processor pauses, you must press CODE-GO to resume execution.

The Word Processor stores each macro in machine-readable form. This option is designed to help you see what steps are used to execute the macro. The Word Processor stops after every command, which means that it stops after each cursor movement or each scroll up or down, as well as after each command or each series of typed text.

CAPABILITIES

- o An attention flag appears in the upper left corner of the screen during the recall of a macro. When the macro is finished, this attention flag disappears.
- o The macro is stored in machine-readable form only. You can view the macrocommands that are executed by using the Unload Macro command.
- o The amount of available memory on your system limits the memory available during the recall of a macro. If you get Memory Low messages, you can unload the macro and add Save commands to it to reduce the amount of memory used when it is recalled.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

Store Macro command

Unload Macro command

Load Macro command

List Macros command

Remove Macro command

To recall a stored phrase and insert it into text at the cursor position, use the Recall Phrase command.

Two different procedures can be used to recall a phrase. The first uses the Recall Phrase form to insert a phrase at the cursor position. For the second, you mark and select the phrase name in text and Recall Phrase replaces it with the phrase itself.

To insert a phrase at the cursor position:

1. Move the cursor to the position at which you want to insert the phrase.
2. Press f7 (RECALL PHRASE).
3. Type the phrase name into the Recall Phrase form and press GO.

To replace a phrase name with the phrase:

1. Select the phrase name in the text.
2. Press f7 (RECALL PHRASE).

CAPABILITIES

- o Phrase recalled must previously be stored using Store Phrase command.
- o Recalled phrases inherit formatting from the text into which they are inserted, as well as retaining the format attributes applied to the phrase itself. See Section 8, "Structuring Document Format," for an explanation of inherited format.

SEE ALSO

List Phrases command

Store Phrase command

Replace command

To repeat any edits you made since your last cursor movement, use the Redo command.

Redo can also be used to delete a string of text; to repeat commands, such as Search or Format; to add text, etc.

CAPABILITIES

- o Redo is limited by cursor movement. Thus, if you begin typing, never moving your cursor; Redo repeats all the text you typed. However, if you move your cursor to edit a spot, insert text, then move the cursor again, Redo only repeats the text you inserted.

- o Redo uses the selection present when you press f1 (REDO). This allows you to easily repeat a command that invokes more than one keystroke.

You cannot use Redo to reapply a selection. Instead, you can select text, give a command, then cursor away, select new text and use Redo to give that command again.

- o You must have a document open to use Redo.
- o Redo can be used to bring text back to the way it was when you gave the Undo command.
- o Redo is not the opposite of Undo. Redo is not location specific and repeats your last edit at any point where you place your cursor. Undo undoes a specific edit at a specific point in your document.

SEE ALSO

Undo command

Replace command

Store Macro command

Tabs work differently on releases of the Word Processor numbered 8.3 and higher than they do on releases numbered 6.05 and lower. This is described in detail in Appendix C, "Reformatting Tabs."

Use the Reformat Tabs command only if you are opening a document on 8.3 or higher that was last saved on 6.05.

The document must be open when you give the Reformat Tabs command.

Tabs are reformatted and additional tab symbols can be added where necessary.

CAPABILITIES

- o Use only for 6.05 or lower documents the first time they are opened on a Word Processor Release of 8.3 or higher.
- o This command can only be used once on a document. Subsequent uses add too many tab symbols.

SEE ALSO

Appendix C, "Reformatting Tabs"

To remove all formatting from a file, leaving only the typed characters, spaces, carriage returns, and form feeds, use the Remove Format command.

THIS COMMAND CANNOT BE UNDONE. DOCUMENT IS SAVED AT THE SAME TIME FORMATTING IS REMOVED.

The figure below shows how a document looks when formatting has been removed.

There were doors all around the hall, but they were all locked, and when Alice had been all the way down one side and up the other, trying every door, she walked sadly down the middle wondering how she was ever to get out again. Suddenly, she came to a little three legged table, all made of solid glass; there was nothing on it but a tiny golden key, and Alice's first idea was that this might belong to one of the doors of the hall; but alas! either the locks were too large or it was too small, but at any rate it would not open any of them. However, on the second time round, she came upon a low curtain she had not noticed before, and behind it was a little door about fifteen inches high; she tried the little golden key and to her great delight, it fitted! Alice opened the door and found that it led into a small passage not much larger than a rat hole: She knelt down and looked along the passage into the loveliest garden you ever saw. How she longed to get out of that dark hall, and wander about

CAPABILITIES

- o Remove Format is irreversible.
- o This command is useful only in situations where the extra formatting stored with the document is unwanted. Such a situation might occur, for example, if you used the Word Processor to write a program and want to compile it.

SEE ALSO

Appendix B "Programmers Notes"

Undo command

Discard Edits command

To delete a macro from your macro file, use the Remove Macro command.

REMOVE MACRO: (Press GO to execute, CANCEL to dismiss)

Macro name:

COMPLETING THE REMOVE MACRO FORM

Macro name: Enter the name of the macro you want to delete from your macro file.

CAPABILITIES

- o This command cannot be reversed with Undo.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

Recall Macro command

Store Macro command

Unload Macro command

Load Macro command

List Macros command

REMOVE PHRASE**CODE-f7 (COMMANDS)...R**

To remove a phrase from your phrase file, use the Remove Phrase command.

To give the Remove Phrase command, press CODE-f7 (COMMANDS) and choose option R (Remove Phrase) from the Commands menu.

REMOVE PHRASE: (Press GO to execute, CANCEL to dismiss)

Phrase name:

COMPLETING THE REMOVE PHRASE FORM

Phrase name: Enter the name of the phrase to be removed.

If you select the phrase name from the list displayed by the List Phrases command (f7(COMMANDS)...L), that name will be automatically entered here after you give the Remove Phrase command.

CAPABILITIES

- o You can remove only one phrase at a time.
- o To remove all your phrases, use the Delete command in the Executive to delete your entire phrase file. The next time you give the Store Phrase command, the phrase file is re-generated.

SEE ALSO

List Phrases command

Store Phrase command

RENAME DOCUMENT**CODE-f1 (DOCUMENTS)...R**

To change the name of an existing document, use the Rename Document command.

The name is changed and the "-Old" version of the document is deleted.

To give the Rename Document command, press CODE-f1 (DOCUMENTS) and choose option R (Rename Document) from the Documents menu.

RENAME DOCUMENT: (Press GO to execute, NEXT for
next item, CANCEL to dismiss)

Old document name:

New document name:

Password:

COMPLETING THE RENAME DOCUMENT COMMAND

Old document name: Enter the name of the document you want to rename.

New document name: Enter the new name you want to assign to the document.

Password: If a password is required for access to the document you want to rename, enter it here.

CAPABILITIES

- o Only one document at a time can be renamed.
- o Rename is equivalent to Copy followed by Delete. Since Delete removes from the disk both the specified file and any corresponding "-old" file, for consistency Rename renames only the specified file and deletes any corresponding "-old" file.

SEE ALSO

Documents command

Copy Document command

Subsection "-Old Files" in Section 13, "Document Management"

REPLACE**SHIFT-f6 (REPLACE)**

To search a document for a specific string of characters and replace it with another character string, use the Replace command.

You can search the entire document, or only a selection.

The replacement string inherits the formatting of the replaced text.

REPLACE: (Press GO to execute, NEXT for next item,
CANCEL to dismiss)

Search for:

Replace with:

Check caps while searching? Yes No (Press Y or N)

Alter caps of replacement? Yes No (Press Y or N)

Confirm each? Yes No (Press Y or N)

COMPLETING THE REPLACE FORM

Search for: Enter the character or string of characters you want to replace.

The Word Processor will search for the exact string entered, checking for capitalization only when the "Check caps" option is Yes. Spaces are treated as characters.

Replace with: Enter the string of characters you want used for replacement.

Check caps while searching? Choose Yes to replace only those instances for which capitalization exactly matches the string you entered in the "Search for" field.

Choose No if you want all instances of the string replaced, regardless of capitalization in the text.

Alter caps of replacement? If you choose Yes, the replacement string is altered for each replacement, so that capitalization is similar to the replaced string. Thus, if a word appears at the beginning of a sentence, capitalization is maintained, but an occurrence in the middle of the sentence is not capitalized.

If you choose the No option, the replacement string is left exactly as you entered it in the "Replace with" field.

CAPABILITIES

- o When "Alter caps" is Yes, the Word Processor determines replacement case (capitalization) by checking the first two letters of each replaced string.
- o If the string of characters you enter in the "Replace with" field contains any capital letters, these capitals will not be altered when they are inserted into text, even if the "Alter caps?" field is Yes.
- o Replace does not distinguish between strings of characters bearing different format characteristics. For example you cannot search for only Boldface occurrences of the string "SEE ALSO".
- o The default for "Confirm each" is No.

SEE ALSO

Search command

Redo command

RETURN

SEE PARAGRAPH, NEW

REVIEW DOCUMENT

CODE-f4 (REVIEW)

The Review Document command reviews the formatting of the document, making adjustments for new pagination, hyphenation, and the elimination of widow text.

REVIEW DOCUMENT: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Hyphenate?	Yes No (Press Y or N)
Hot zone (default = 1/2 inch):	
Paginate?	Yes No (Press Y or N)
Leave room for footnotes?	Yes No (Press Y or N)
Renumber footnotes?	Yes No (Press Y or N)
Eliminate widows?	Yes No (Press Y or N)

COMPLETING THE REVIEW DOCUMENT FORM

Hyphenate? If you choose Yes, text is checked for excess white space. The Word Processor prompts you to insert discretionary hyphens in places where hyphenating a word could eliminate unnecessary white space.

If you have a spelling dictionary installed with your system, when you choose Yes the dictionary and your personal dictionary are used to automatically supply hyphenation information.

Hot zone: Enter the amount of acceptable white space in inches or fractions of an inch.

If the default is used, no more than one half inch is used to separate words on one line.

Paginate? If you enter No, adjustments to pagination are not made during review. (These adjustments can be made during printing.)

Leave room for footnotes? If you want pagination to take footnotes into account, choose Yes.

Renumber footnotes? Choose Yes if you want footnotes to be renumbered. If you have not added, removed, or changed footnotes since the last print you can choose No to reduce formatting time.

Eliminate widows? If you choose the default, Yes, the Word Processor checks to see if a few words at the end of a paragraph are carried over to the next page or if a page contains one line only. In these cases, the Word Processor adds an extra line to the page.

Formatting is faster if you choose No.

The choice you make for this field remains in effect for the specified document until you change this field when you give the command again.

Example: If you specify a page length of 54 lines and create a document 55 lines long, the "Eliminate widows" option keeps line 55 on the first page.

CAPABILITIES

- o Eliminating widows occurs by default. This keeps a trailing line of a paragraph on the same page as the rest of the paragraph; however, it does not keep a one line paragraph from being forwarded to the next page. This occurs so that headings can be printed with the text to which they belong.
- o If you want to check page break placement before printing, use Review Document.

SEE ALSO

Print command

To print characters in a different ribbon color, use the Alternate Ribbon Color command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format command.

To give the Alternate Ribbon Color command press f4 (FORMAT) and choose option A (Alternate Ribbon color).

Text to be printed in another color is shown half-bright on the screen.

CAPABILITIES

- o Text is only printed in an alternate ribbon color if you have a two color ribbon on your printer.
- o Alternate Ribbon Color is a character attribute. The command is applied to the next character(s) you type, unless you mark and select existing text.
- o When you give the Alternate Ribbon color command, it is applied to the next character(s) you type. To apply it to existing text, make a selection.
- o To remove the Alternate Ribbon color attribute from text, select it, press f4 (FORMAT) and press CODE-A.

SEE ALSO

Format command

Subsection "Alternate Ribbon Color" in Section 11, "Printing"

To align text evenly with the right paragraph indent position use the Right-Flush Text command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Right-Flush Text command, press f4 (FORMAT) and choose option R (Right-flush).

CAPABILITIES

- o Text alignment is a paragraph attribute. The command is applied to the paragraph where you have your cursor unless you make a selection.

SEE ALSO

Format command

For each document opened since the last Save or Finish, the Save command transfers all changes made to the disk file. Save does not close any windows.

Changes made to documents are stored in memory until saved.

When you give the Save command, no more editing can be done until the Save is completed. If you made changes to the document, progress of the Save is indicated as ten small boxes in the lower right hand corner of the screen are filled.

SEE ALSO

Finish command

Section 13, "Document Management"

To search for a string of one or more characters within a document or a selection, use the Search command.

The search begins at the cursor position or at the beginning of the selection and continues to the end of the document or selection.

When the string is found, it is highlighted, unless you choose otherwise. You must give the command again or press REDO to search for the next occurrence.

SEARCH: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Search for:

Check caps? Yes No (Press Y or N)

Select? Yes No (Press Y or N)

COMPLETING THE SEARCH FORM

Search for: Enter the string of characters you want to find.

Check caps? If you choose Yes, the Word Processor will find only those occurrences of the string with capitalization exactly matching the string you supplied in the "Search for" field.

Select? If you choose No, the string of characters is not highlighted when found. Instead the cursor is moved to the end of the string of characters.

CAPABILITIES

- o Characters can be only alphanumeric. Format characters are ignored during a search.

- o With the Select? option you can search for a string with Select Yes to highlight it, then search for another string with Select No and press BOUND to select the intervening text.
- o You can Search for characters that cannot be typed into the Search form, such as the paragraph symbol, by using the following procedure.

To search for a character you cannot type into the Search form:

1. Use the Insert Literal command (CODE-') or the Insert Hexadecimal command (CODE-I) to insert the character in your document. See these commands for instructions on how to do this.
2. Mark and select the inserted character.
3. Give the Search command, f6 (SEARCH).
4. Move the cursor to the "Search for" field of the Search command.
5. Press MOVE or COPY. The character is inserted in the Search form.
6. Press GO to execute the Search command.

SEE ALSO

Replace command

Redo command

Section 21, "Advanced Use of Keystroke Macros"

SERPENTINE COLUMNS

SEE PAGE DIMENSION

To sort the contents of a records file or to select only certain records from it, use the Sort/Select command. A records file is a document that contains records with a special format .

Section 16, "List Processing," discusses how to use the Sort/Select command with list processing, how to format a records file, and gives examples.

To give the Sort/Select command, press CODE-f7 (COMMANDS) and choose option S (Sort/Select).

You can sort records only, select only, or do both operations.

```

SORT/SELECT:  (Press GO to execute, NEXT for next item, CANCEL
               to dismiss)

Records from file(s):
Records to file:

Selection test 1:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)
Selection test 2:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)
Selection test 3:
  Select on field:
  Field value(s):
  Keep/discard these records?  Keep Discard(Press K or D)

Primary sort field:
  Sort type:      Ascending Descending (Press A or D)
Secondary sort field:
  Sort type:      Ascending Descending (Press A or D)
Tertiary sort field:
  Sort type:      Ascending Descending (Press A or D)

```

COMPLETING THE SORT/SELECT FORM

Records from file(s): Enter the name of the records file containing the records you want to sort and/or select.

Records to file: Enter the name you want assigned to the file into which the sorted and/or selected records are placed.

You can enter the same file name in this field as you did in the "Records from file". In this case the "Records from" file is overwritten with the new file.

Selection tests 1, 2, and 3: If you want to select records, complete the "Selection test" fields. Otherwise leave them blank and skip to the "Sort" fields. When the "Selection test" fields are left blank, all the records in the file are selected.

You can make selections based on records in one, two, or three different fields from your records file.

Each field you use for the selection is a selection test. Complete the necessary information for "Selection test 1" if you want to select from one field only, both "Selection test 1" and "Selection test 2" if you want to select on two fields, and all three if you want to select from three fields.

Records selected from "Selection test 1" are reevaluated for "Selection test 2", and the resultant set is reevaluated again for "Selection test 3".

Select on field: Enter the keyword for the field you want selected.

Field value(s): Enter the values you want selected. You can enter a single value or a range of values.

Example: If your records are numeric, you can wish to select a range such as 35 to 45, which you enter as 35-45. If your records are alphabetic characters, you can enter a value such as CA, or a range such as A-J.

Keep/discard these records? Records are either kept in the "Records to" file or are discarded, i.e., not included in the "Records to" file. You can use this technique to reduce sort time. When records are discarded, the original records file is left intact.

Primary sort field: Enter the keyword for the field you want to use as the "Primary sort field".

Selected records are sorted and appear in the "Records to" file according to the values found in this field.

This field is sorted last during the sort, to ensure that records are arranged according to the values that appear in this field.

Sort type: Choose either ascending or descending sort for the "Primary sort field". An ascending sort lists items from A-Z or from 1 up.

Secondary sort field: Enter the keyword for the field you want to use as the "Secondary sort field".

The "Secondary sort field" provides a subcategory to the "Primary sort field". "Secondary sort field" is sorted second during the sort process.

Tertiary sort field: Enter the keyword for the field you want to use as the "Tertiary sort field".

The "Tertiary sort field" provides a subcategory to the "Secondary sort field". "Tertiary sort field" is sorted first during the sort process.

CAPABILITIES

- o To sort on more than three fields, repeat the Sort/Select command using the sorted records file. Start the sort process with the least significant level first.
- o To select on more than three fields, you must repeat the Sort/Select command.
- o Sort is alphanumeric unless the field was set up as a numeric field when the records file was created.
- o The limit to the number of records that can be sorted or selected is 5957.

SEE ALSO

Merge command

Section 16, "List Processing" (includes examples)

SPACE (NONBREAKING)**CODE-SHIFT-SPACEBAR**

Use a nonbreaking space to keep expressions together as a group rather than splitting them at a space.

To insert a nonbreaking space, use CODE-SHIFT-SPACEBAR instead of a regular space. The nonbreaking space is shown on the screen as a nonbreaking space symbol (␣) when in half- or full-visible mode.

Example: A␣+␣B␣=␣C

SPELLING CHECKER**SEE CHECK SPELLING**

To store a set of any keystrokes for later recall, whether commands or typed text, use the Store Macro command.

After you complete the menu and press GO, all subsequent keystrokes, until you press CODE-f2 again, are stored as a recallable macro in a special file called a macro file.

Store Macro also allows you to add the keystrokes you are storing to the end of an existing macro.

Macros are recalled using the Recall Macro command.

Macro files are machine-readable. To read and edit a macro, you use the Unload Macro command to translate the machine-readable macro into special macrocommands that you can read.

STORE MACRO: (Press GO to execute, CANCEL to dismiss)

Macro Name:

Append: Yes No (Press Y or N)

Confirmation from: User Macro Default (Press U, M or D)

COMPLETING THE STORE MACRO FORM

Macro name: Enter the name you want to assign to the new macro or the name of the macro to which you want your keystrokes to be appended.

If you give the name of an existing macro and have not chosen Yes for Append, after you press GO you will be asked if you want to redefine the existing macro. Redefining, in effect, removes the old macro and substitutes a new one.

Append: If you want your subsequent keystrokes to be added to the end of an existing macro, named in the Macro Name field, choose Yes.

Confirmation from: This field is used to tell the Word Processor where to go for confirmation when a command that needs confirmation is executed during recall of the macro.

For example, Replace can prompt the user for each Replace if you select the Confirm each? option, and Open Document prompts you to confirm creating a new document.

Choose U if you want to be prompted for confirmation during the storing and recall of the macro, and M if you want the responses made during the Store Macro session to be those used when the macro is recalled.

You can also choose D for Default if you want the Word Processor to use the default confirmation that it uses internally. If you choose this option, the Word Processor does not prompt you for confirmation during the storing or the recall of the macro.

For example, the internal default for Open Document is to create the document.

CAPABILITIES

- o Most Word Processor commands can be stored for use in a macro. When recalled they generally work in the same fashion as when you stored them. Typethrough, Unload Macro, Load Macro, List Macros, and Remove Macro do not work within a macro.

- o Macros can be nested within each other. The limit to the number of levels of nesting is dependent on available memory, however, the maximum number is 256.
- o Macros can be recursive, that is, they can call themselves.
- o Special macrocommands that allow for operator input, messages, and conditions can be added to any macro by first unloading the macro, editing the macro document thus produced, and loading the macro again into the macro file. Using macrocommands is discussed in Section 21.
- o Although you can recall the typing of text, it is recommended that a macro not be used for recall when a phrase is adequate.
- o The amount of available memory on your system limits the memory available during the recall of a macro. Save as you would normally to reduce the amount of memory used when the macro is recalled.
- o A macro may work differently when created on one type of workstation and recalled on one that displays a different number of lines on the screen. You will find that using commands like Thumb and Search, rather than scrolling up or scrolling down to move within a document will minimize this problem.

In addition, a macro may work differently when you use it with a later release of the Word Processor than that with which it was originally created. Changes in sizes of menus, placement of fields within a form, etc., could change the way the macro affects the document.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

List Macros command

Load Macro command

Recall Macro command

Remove Macro command

Unload Macro command

STORE PHRASE**SHIFT-f7 (STORE PHRASE)**

To store a block or string of text that is in your open document so that it can be recalled for subsequent insertions in the same or another document, use the Store Phrase command

To store a phrase, mark and select it, then press SHIFT-f7 (Store Phrase).

STORE PHRASE: (Press GO to execute, CANCEL to dismiss)

Phrase name:

COMPLETING THE STORE PHRASE FORM

Phrase name: Enter the name you want to use when you recall the phrase later using the Recall Phrase command. Using a short name makes recall easier.

CAPABILITIES

- o To store a phrase you must select it first.
- o You can store a paragraph symbol, page break symbol, or any text.
- o Formatting stored is subject to the rules of inherited attributes (See Section 8, "Structuring Document Format.")

Thus, if you recall a phrase, the characters you type after it inherit the character attributes of the text into which you inserted the phrase.

- o Phrases are stored in a separate file. The default phrase file is called [Sys]<Sys>username.phrases. If a different phrase file is used, it must be specified in your User Configuration file.

- o During a Merge operation, if a keyword is found in a form document that cannot be found in the records file, the phrase file is searched for a phrase with that name. If a phrase is found then it is merged into the form document.

SEE ALSO

Recall Phrase command

List Phrases command

Remove Phrase command

Redo command

Section 19, "System Administration"

To print characters in text with a line drawn through it (struck-out) use the Struck-out command.

Depending on the type of workstation, struck-out text is shown on the screen either in half-bright intensity or with a line drawn through it. When the document is printed the struck-out phrase looks like this:

...all men are created equal, but some men
are created more equal than ~~others~~.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Struck-out command press f4 (FORMAT) and choose option S (Struck-out).

CAPABILITIES

- o Struck-out is a character attribute. The command is applied to the next character(s) you type, unless you mark and select existing text.
- o To remove the struck-out attribute from text, select it, press f4 (FORMAT) and press CODE-S.

SEE ALSO

Format command

SUBSCRIPT TEXT**f4 (FORMAT)...period(.)**

To print characters below the regular line of text in subscript, use the Subscript command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Subscript command press f4 (FORMAT) and choose the period option (Subscript).

If you specify subscript digits (0-9), they appear on the screen as smaller than normal subscript text. All other subscript characters (alphabetic and symbols) are shown on the screen as half-bright.

CAPABILITIES

- o When you give the Subscript command, it is applied to the next character(s) you type. To apply it to existing text, make a selection.
- o To remove the subscript attribute from text, select it, press f4 (FORMAT) and press CODE-period (.). NOTE: This removes superscript text present in the selection also.

SEE ALSO

Format command

To print characters above the regular line of text in superscript, use the Superscript command.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Superscript command press f4 (FORMAT) and choose option ^ (Superscript).

Superscript works just like subscript, except that the characters are printed above the line instead of below it and you can remove Superscript from text by pressing f4 (FORMAT) and CODE-^.

Synchronized columns are aligned with each other across the page. The tops of the columns are synchronized.

Give the synchronized columns command by pressing CODE-/. Complete the form displayed to set column specifications.

You can specify the number of columns across the page and the width of the margins between the columns. If you do not specify the margin width, the Word Processor spaces the columns evenly. You can set up to 10 columns.

Synchronized columns are indicated on the screen by a synchronization mark, a half-bright line which you can see when the screen is in half- or full-visible mode. The synchronization mark contains the format information for the column. All text below the synchronization mark is considered to be part of that column until another synchronization mark appears.

When you give the Synchronized columns command, a synchronization mark is inserted for the first column at the point where you position your cursor. Text you enter remains in the column until you start a new column by pressing CODE-NEXT.

You can stop entering text in synchronized columns by reissuing the Synchronized Columns command and entering "1" for "Number of columns". A synchronization mark extending across the entire page is inserted at that point.

SYNCH COLUMNS: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Currently Please enter measurements in inches

Number of columns:
Width of Column 1:
 (Margin between 1-2):
Width of Column 2:
 (Margin between 2-3):
Width of Column 3:
 (Margin between 2-3);
Width of Column 4:
 (Margin between 4-5);
Width of Column 5:
 (Margin between 5-6);
Width of Column 6:
 (Margin between 6-7);
Width of Column 7:
 (Margin between 7-8);
Width of Column 8:
 (Margin between 8-9);
Width of Column 9:
 (Margin between 9-10);
Width of Column 10:

COMPLETING THE SYNCHRONIZED COLUMN FORM

Number of columns: Enter the number of columns you want. If you need to enter specifications for more than 6 columns, the form will scroll up when you press NEXT, RETURN, or SCROLL UP.

Width of columns: Enter the width of each column in inches or tenths of inches.

Margin between columns: If you want to specify a certain margin width between columns, enter that measurement in inches. If you do not specify a margin, the Word Processor will space the columns evenly.

CAPABILITIES

- o Synchronized column format is applied to all text below the synchronization mark.
- o You can remain in one column for more than one page.
- o You can begin a new column by pressing CODE-NEXT.
- o When you are working in half- or full-visible mode with synchronized columns, the synchronization mark takes up a line of the screen. This line is not present when the document is printed.
- o Remember that paragraph indents are stored internally by the Word Processor as a measurement from the margin, so that if you move a paragraph which has indents set to a point other than the margin into a synchronized column, the width of the paragraph text can change. You can adjust the paragraph width using the Paragraph Indent command (CODE-f3).
- o If two synchronized columns have different line spacing, the Word Processor alters the way the text is displayed on the screen so that no text in one column appears before text in another column if when printed the text will actually follow the text in the other column(s). Because this adjustment must be made, line spacing sometimes does not appear the same on the screen when you are working with synchronized columns as it does when you are working with full page text.

SEE ALSO

Section 10, "Entering Text in Columns"

Page Format command (Serpentine Columns)

Tabs command (Tabbed Columns)

TAB

TAB

To insert a tab symbol to position text at the next tab stop, press TAB. This also moves the cursor to the next tab stop

The Word Processor inserts one tab symbol for each tab stop previous to the text. Thus, when you press TAB, more than one tab symbol can be inserted. If you are working in full-visible mode, the tab symbols can displace some text. Return to normal mode to see how the text appears when it is printed.

TABS

f3(TABS)

The Tabs command sets tab stops within a paragraph. Once tabs have been set, the cursor can be moved across the page from tab stop to tab stop using TAB.

When the cursor is within a paragraph, the position of each tab stop for that paragraph appears on the ruler display.

TABS: (Press Cancel to dismiss)

Move cursor to desired tab stop, then

Press L for Left-aligned tab
R Right-aligned tab
C Centered tab
D Decimal tab
E Evenly spaced left-aligned tabs
. Leader dots

Press O to clear One tab at cursor point

A All tabs in current paragraph

USING THE TABS MENU

The Tabs menu presents options for four different kinds of tab stops, or evenly spaced left-aligned tab stops, or tabs with leader dots. If you choose leader dots, the Leader Dot menu appears.

Each of the four types of tab stop aligns the text differently beneath it.

- o Left-aligned Left edge of text aligned with tab stop
- o Right-aligned Right edge of text aligned with tab stop
- o Centered Text centered under tab stop
- o Decimal Decimal points aligned

Since the menu remains on the screen until you press CANCEL, you can set as many tab stops as you like without having to give the Tabs command again.

You can use the shadow cursor in the ruler display to help you judge where to set tabs.

Once tabs have been set, they are indicated in the ruler display. L is used to indicate a Left-aligned tab, R for a Right-aligned tab, and so on. See Section 2, "Getting Started," for a detailed explanation of how to read the ruler display.

To set tab stops:

1. Press f3. The menu appears.
2. Move the cursor to the place you want the tab stop.
3. Press the appropriate key for the type of tab stop.
4. Repeat for any other tabs stops you want to set.
5. Press CANCEL. The menu and any selection disappear.

Setting Evenly Spaced Tab Stops

You can set a series of evenly spaced Left-aligned tab stops in one operation by choosing the option E (evenly spaced left-aligned tabs.)

The space set between tabs with this operation is variable. Spacing is determined by the position of the cursor relative to the previous tab stop or the left indent point.

Setting Tab Stops with Leader Dots

To set leader dots, press the period key (.) and the Leader Dot menu appears. You use this menu in the same way that you use the Tabs menu.

Leader dots: (Press CANCEL to dismiss)

Press L for Left-aligned tab
R Right-aligned tab
C Centered tab
D Decimal tab

When you set tabs with leader dots, a series of dots precede the text when you enter it. This is also indicated on the ruler display. Leader dots can be set with each of the four kinds of tab stop.

In this example.....leader dots were used.

The Leader Dots menu does not offer an evenly spaced leader dot tabs option.

To set additional leader dot tab stops efficiently, use fl (REDO).

REMOVING TAB STOPS

You can use the Tabs menu to remove only one tab stop within a paragraph or to remove all tab stops in a paragraph.

Remove one tab stop, as indicated on the menu, by moving the cursor to the tab stop and pressing O. To remove all tab stops, press A.

CAPABILITIES

- o Tabs are a paragraph attribute. The command is applied to the paragraph where you have your cursor, unless you make a selection.
- o Columns entered using tabs are referred to as tabbed columns. These can be moved or copied using CODE-f9 (MARK COLUMN).
- o In a justified document, it is useful to use tabs to position text at a specified point, relative to text on other lines, rather than to try to use spaces. Justification can cause extra space to be added around space characters, but tabbed text is held steady on the line.

THUMB

CODE-^
or CODE-1 to CODE-0

To move the cursor to a specified position within the document (on a 100 point relative scale) use the Thumb command.

Press CODE and the appropriate number key (listed in Table 18-2) to thumb to a relative position.

Table 18-2. Number Keys Used with CODE Key for Thumbing.

^	0 or beginning of document
1	10% through document
2	20%
3	30%
4	40%
5	50% or middle of document
6	60%
7	70%
8	80%
9	90%
0	100% or end of document

SEE ALSO

Go to Page command

Go to Beginning and Go to End commands

Next Page command

Scroll command

TIME

SEE DATE/TIME

TYPETHROUGH

CODE-SHIFT-T

The Typethrough command sends your keystrokes directly to the printer, as if you were using a typewriter. To use this command, you must have a printer attached directly to your workstation.

CAPABILITIES

- o When you use Typethrough no other word processing commands are available.

No document is created with Typethrough.

- o You cannot use Typethrough within a keystroke macro.

SEE ALSO

Section 11, "Printing"

UNDERLINE TEXT

**f4 (FORMAT)...hyphen(-)
f4 (FORMAT)...equal sign(=)**

To print characters with a single or double underline, use the Underline commands.

This command is one of the options on the Format menu. See the subsection "Format" for information on how to use the Format menu.

To give the Underline command press f4 (FORMAT) and press the hyphen (-) to choose the single underline option or press the equal sign (=) to choose the double underline option.

Single underlines are shown underlined on the screen.

Double underlines are shown half-bright instead of underlined.

CAPABILITIES

- o Underlining is a character attribute. These commands are applied to the next character(s) you type, unless you mark and select existing text.
- o To remove either underline attribute from text, select it, press f4 (FORMAT) and press CODE-hyphen(-) or CODE-equal(=).

SEE ALSO

Format command

UNDO

f2 (UNDO)

To undo the last editing or format change operation, press f2 (UNDO). The Word Processor defines your last edit as the last time you move the cursor to a point in text and began typing or the last time you gave a command.

CAPABILITIES

- o You can undo any editing or any format changes with Undo as long as you have not begun a new edit.

Some commands that you cannot use Undo to reverse are

- Remove Format
- Discard Edits
- Save
- Print

- o Undo can be used to undo itself.

SEE ALSO

Discard Edits command

Redo command

Using the Unload Macro command, you create an editable document that shows you all the keystrokes in one of your stored macros.

The original macro is not deleted from the macro file when you unload a macro.

The unloaded macro appears as an ordinary document. It is made up of macrocommand names that represent all the keystrokes the macro contains. Section 22, "Macrocommands," lists these commands.

You will usually unload a macro in order to make additions, deletions, or corrections. In particular, you need to unload a macro if you want to add some of the special macrocommands that cannot be included in a macro when it is originally stored with the Store Macro command.

After you have modified the document, you can insert all of it, or a selection, into the macro file using the Load Macro command. Then it can be recalled as usual.

UNLOAD MACRO: (Press GO to execute, CANCEL to dismiss)

Macro Name:
To document:

COMPLETING THE UNLOAD MACRO FORM

Macro name: Enter the name of the macro you want to unload.

To document: Enter the name you want to give the document to which the macro is unloaded. You can use the same name as the macro if you have no other document of that name.

If you inadvertently give the name of an existing document, you will be asked if you want to overwrite it with the unloaded macro.

CAPABILITIES

- o Since unloading a macro does not delete it from the macro file, you do not have to use Load Macro to reload the macro unless you want the changes you make to take effect.
- o If you want to use an existing macro as a basis for a new one, but do not want to modify the original, you can make a copy by unloading the first macro, and then loading it as a new macro with a different name.

SEE ALSO

Section 20, "Introduction to Keystroke Macros,"
Section 21, "Advanced Use of Keystroke Macros,"
and Section 22, "Macrocommands."

Recall Macro command

Store Macro command

Load Macro command

List Macros command

Remove Macro command

UNLOAD PERSONAL DICTIONARY CODE-f7 (COMMANDS)...U

To move the contents of your personal dictionary file into a document for storage or editing, use the Unload Personal Dictionary command.

This command does not delete the contents of your personal dictionary. You can load the dictionary again after editing, using Load Personal Dictionary (f7(COMMANDS)...L). At that time any entries you removed from the document are also removed from the personal dictionary. The personal dictionary is discussed in Section 15, "Maintaining the Spelling Dictionaries."

To give the Unload Personal Dictionary command, press CODE-f7 (COMMANDS) and choose option U (Unload Personal Dictionary).

<p>UNLOAD PERSONAL DICTIONARY: (Press GO to execute, CANCEL to dismiss)</p>

<p>To document:</p>

COMPLETING THE UNLOAD PERSONAL DICTIONARY FORM

To document: Enter the name you want to assign to the document to which the dictionary contents are copied.

CAPABILITIES

- o If your personal dictionary is on the system directory and is password protected, you might have to change your Work Area to the system directory and give the password for that directory before you can unload the dictionary.

SEE ALSO

Load Personal Dictionary command

Section 15, "Maintaining the Spelling Dictionaries"

UNMARK

CODE-MARK

To remove the highlight from any selection, therefore canceling the selection, use CODE-MARK.

SEE ALSO

Mark commands

To see special characters and symbols, such as the paragraph sign and tab symbols, use the Visible command.

Press CODE-V once for half-visible mode. Paragraph symbols, line break symbols, and the tiny dots which hold spaces appear in text.

Press CODE-V a second time for full-visible mode. Tab symbols, required backspaces, etc., are shown. In this mode, tab symbols can displace text. To see how text will be printed, return to normal mode.

Press CODE-V a third time to return to normal mode.

CAPABILITIES

- o Hardware limitations limit which format attributes etc., can be shown on the screen and which have to be shown only by making the characters appear half-bright.

To change the node, volume, or directory within which you are working, use the Work Area command. See Section 13, "Document Management" for a discussion of the work area.

To give the Work Area command, press CODE-f1 (DOCUMENTS) and choose option W (change Work Area) from the Documents menu.

CHANGE WORK AREA: (Press GO to execute, NEXT for next item, CANCEL to dismiss)

Node:

Volume:

Directory:

Password:

COMPLETING THE WORK AREA FORM

Node: If you want to access a volume or directory located at another node within your network, enter the node name here. Otherwise leave this field blank. The brackets used with a full file specification are not necessary and should not be used.

Volume: If you want to access a directory located on another volume, or if you entered a node name in the "Node" field, enter the name of the volume you want to access here. The brackets used with a full file specification are not necessary and should not be used.

Directory: If you want to access another directory, or if you entered a volume name in the "Volume" field, enter the name of the directory you want to access here. Otherwise leave this field blank. The brackets used with a full file specification are not necessary and should not be used.

Password: If a password is required to access the work area you specified, enter it here.

CAPABILITIES

- o You can access volumes on the master workstation for your cluster or your own workstation, but not other volumes on the cluster.
- o To access a directory, it must be created first through the Executive, using the Create Directory command.

SEE ALSO

Executive Manual, Subsection "File Management" in Section 4, "Basic Concepts"

Section 13, "Document Management"

If you have an IWS workstation, you can use the Zoom command to switch the screen display from 80 characters in width to 132 characters.

When the screen content expands to 132 columns, the size of the characters grows proportionately smaller.

To return the screen to 80 columns, press CODE-Z again.

19 SYSTEM ADMINISTRATION

The average user rarely requires more than a knowledge of the Word Processor commands and principles of document management; however, sometimes the files that are used by the Word Processor need modification to tailor the system to your particular hardware or software configuration. This is not a difficult task. This manual refers to the person who performs this task as the system administrator.

The information presented in this section is for the system administrator. It describes

- o User Configuration files
- o new print wheel configuration
- o printer configuration
- o Document Exchange Format for translating files
- o operator statistics

When your Word Processor is installed, most of the files necessary to operate the system are also installed. In addition, certain files, such as your phrase file, are generated the first time you use a command for which they are necessary.

Besides the default directory where your documents are located, the Word Processor accesses files in a directory called <WP> and writes temporary and scratch files to a special dollar sign directory. (Dollar sign directories are named (\$nnn), where nnn is your user number.) Both the <WP> and dollar sign directories are created automatically.

If an error causes either the <WP> or <\$> directories to be deleted, you can create them again using the Executive command, Create Directory.

USER CONFIGURATION

A User Configuration file (sometimes called a User Profile file) uniquely identifies each user to the system. This file is used by the SignOn program and by application systems such as the Word Processor. The file entries define such options as the application environment, default volume and directory, and messages displayed when you sign on to the system.

Each user is assigned a unique user name, which is associated with a specific User Configuration file. The user name can be any string of characters up to 30 characters in length. A user can have more than one user name assigned.

User Configuration files are always located on the System directory, [Sys]<Sys>. The file specification consists of the user name given when you sign on plus the suffix ".User". For example,

```
[Sys]<Sys>Allen.User
```

(The format of the User Configuration file and the standard entries required by the SignOn program are discussed in the subsection "User Configuration" in Section 5, "Advanced Concepts," of the Executive Manual.)

WORD PROCESSOR ENTRIES

When the Word Processor is installed on your system, it creates whatever files it needs to operate. You do not need to make any special Word Processor entries in the User Configuration file if you want to use the default file specifications for these.

However, you might want to place a file in a different volume or directory than that used in the default specification. For instance, to save disk space, a common word dictionary on the master workstation of a cluster can be accessed by all cluster users by placing a dictionary entry that points to the file(s) on the master in each User Configuration file.

Figure 19-1 shows the contents of a User Configuration file for the user name John. The file is configured so that the Word Processor is invoked through the Executive.

```

:SignOnTextFile:[sys]<sys>System.Txt
:SignOnExitFile:[sys]<sys>Exec.Run
:SignOnVolume:DØ
:SignOnDirectory:John
:SignOnFilePrefix:
:SignOnPassword:
:WpPhrasefile:[sys]<John>Phrases
:WpDictionary:[Master]<WP>Wp.correct

```

Figure 19-1. User Configuration File.

Format

The Word Processor entries that you can make in your User Configuration file are described below. The description of each entry is followed by the default file specification used if no other is specified in your User Configuration file when the Word Processor needs to create that file.

User Configuration file entries are of the format `:Keyword:FileSpecification`, where `Keyword` is the entry name and `FileSpecification` is the name of the file you want.

o `:WpPhraseFile:FileSpecification`

This entry points to a phrase file that is used by the Store and Recall Phrase commands. The phrase file can be unique for the user, or it can be shared. Sharing a phrase file is discussed in Section 14, "Maintaining Store and Recall Phrase."

The default phrase file created is `[Sys]<WP>username.phrases`

o `:WpMacroFile:FileSpecification`

This entry points to a macro file that is used by the Store and Recall Macro commands. Like a phrase file, a macro file can be unique for the user, or it can be shared. Using a shared macro file is discussed in Section 20, "Introduction to Keystroke Macros."

The default macro file created is
[Sys]<WP>username.macros

o :WpPersonalDictionary:FileSpecification

This entry points to a personal dictionary file, used by the Check Spelling command. The personal dictionary file is unique for the user.

The default personal dictionary file created is named [Sys]<WP>username.correct.

o :WpDictionary:FilePrefix

This entry is used as a prefix for four dictionary files created by the Word Processor with the format

FileprefixDictionarysuffix

where Dictionarysuffix is the suffix X, M, S, or L.

For example, the file prefix Dictionary causes the Word Processor to look for the files DictionaryX, DictionaryM, DictionaryS, and DictionaryL.

The default files are [Sys]<Sys>Wp.correctX, [Sys]<Sys>Wp.correctM, [Sys]<Sys>Wp.correctS, and [Sys]<Sys>Wp.correctL

o :WpPrintWheels:FileSpecification

This entry points to a print wheel configuration file that defines each available print wheel.

The default file created is named [Sys]<Sys>Wp.Whl

o :WpPrinters:FileSpecification

This entry points to a printer configuration file that specifies for the Word Processor the available printers and their characteristics.

The default file is named [Sys]<Sys>Sys.Printers

o :WpForceForegroundPrint:Yes

If you frequently find that your workstation runs low on available memory when it prints in the background, you can add this field to your user file to force printing to the foreground.

o :WpFormatSet:FileSpecification

This entry points to a format set file. The format set file sets the default format characteristics used by the Word Processor when it creates new files.

The default format file is named [Sys]<Sys>Wp.Fmt

Besides the default file two other files are available, which create default formats more suitable for programming:

- The file Prog132.fmt provides a default format with page width set to 132 characters and tab stops at 8/10-inch intervals.
- The file Prog80.fmt provides a default format with page width set to 80 characters and tab stops at 4/10-inch intervals.

PRINT WHEEL CONFIGURATION

When the Word Processor is installed, a binary file that defines the standard print wheel set [Sys]<Sys>wp.whl is also installed.

This standard Print Wheel Set file contains information that allows the Word Processor to be used with the following print wheels:

- o Courier 72
- o Elite 12
- o Cubic PS 96
- o Scientific 10
- o Courier 10

If you want to use a print wheel that has a typeface or character set that is not included in the standard file, a new entry must be made in the Print Wheel Set source file, [Sys]<Sys>wp.wheels, to describe the new print wheel. Then the modified Print Wheel Set file must be assembled using the Make Wheel Set command before it is ready to use.

This section describes the Print Wheel Set file and the procedure for modifying it.

PRINT WHEEL ENTRY FORMAT

The Print Wheel Set source file, [Sys]<Sys>wp.wheels, contains one entry for each type of print wheel you use. Each entry you add must follow the format described in this subsection. In addition the file itself must end with a line break character (SHIFT-RETURN).

The format for each print wheel entry consists of three parts:

- o print wheel name
- o print wheel character spacing attributes
- o print wheel character set to spoke position mapping table

In addition a print wheel overstrike table can be added to each print wheel entry.

The first print wheel that appears in the Print Wheel Set file is used as the default print wheel.

Figure 19-2 shows the entries for two print wheels from the Print Wheel Set file. Note that the character spacing entry differs for the two files.

Print Wheel Name

The format for the print wheel name part of the entry is

```
Wheel-name "text"
```

where, text is the name for the print wheel.

The name used for the print wheel is usually the one printed on the print wheel. This name is used by the Word Processor with the Print Wheel command (f4(FORMAT)...W) when you specify that text is to be printed with a different print wheel. It is also used to prompt you when it is necessary to change the print wheel on the printer during printing.

Print Wheel Character Spacing Attributes

Spacing for the characters on each print wheel is either allotted according to fixed pitch or is assigned proportionally.

- o Fixed pitch allots the same amount of space for each character. For instance, a 10 pitch print wheel prints 10 characters per inch.
- o Proportional spacing allots more space for certain characters (such as "m" or "w") than for others (such as "i" or "j").

The print wheel entry in the Print Wheel Set file indicates character spacing using a different format depending on whether the spacing for the print wheel described is by fixed pitch or is proportional.

```

Wheel-name "Courier 72" (Default printwheel)
Fixed 24 (10 pitch)
Mapped
FFh FFh FFh 20h FFh FFh
FFh FFh FFh FFh FFh FFh 7Ch FFh FFh FFh FFh FFh 7Fh FFh FFh FFh
FFh 21h 22h 23h 24h 25h 26h 27h 28h 29h 2Ah 2Bh 2Ch 2Dh 2Eh 2Fh
30h 31h 32h 33h 34h 35h 36h 37h 38h 39h 3Ah 3Bh 3Ch 3Dh 3Eh 3Fh
40h 41h 42h 43h 44h 45h 46h 47h 48h 49h 4Ah 4Bh 4Ch 4Dh 4Eh 4Fh
50h 51h 52h 53h 54h 55h 56h 57h 58h 59h 5Ah 5Bh 5Ch 5Dh 5Eh 5Fh
60h 61h 62h 63h 64h 65h 66h 67h 68h 69h 6Ah 6Bh 6Ch 6Dh 6Eh 6Fh
70h 71h 72h 73h 74h 75h 76h 77h 78h 79h 7Ah 7Bh 7Ch 7Dh 7Eh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh

```

```

Wheel-name "Cubic PS 96"
Half-bright
Proportional
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 12 16 24 20 32 28 8 12 12 20 20 12 16 12 16
20 20 20 20 20 20 20 20 20 20 12 12 24 20 24 20
32 28 24 28 28 24 24 28 28 12 20 28 24 32 28 28
24 28 28 20 24 28 24 32 28 28 24 20 20 20 20 20
12 20 20 20 20 20 16 20 20 12 12 20 12 32 20 20
20 20 16 16 16 20 20 28 20 20 12 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20
20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20

```

```

Mapped
FFh FFh FFh 20h FFh FFh
FFh FFh FFh FFh FFh FFh 7Ch FFh FFh FFh FFh FFh FFh FFh FFh
FFh 21h 22h 23h 24h 25h 26h 27h 28h 29h 2Ah 2Bh 2Ch 2Dh 2Eh 2Fh
30h 31h 32h 33h 34h 35h 36h 37h 38h 39h 3Ah 3Bh 3Ch 3Dh 3Eh 3Fh
40h 41h 42h 43h 44h 45h 46h 47h 48h 49h 4Ah 4Bh 4Ch 4Dh 4Eh 4Fh
50h 51h 52h 53h 54h 55h 56h 57h 58h 59h 5Ah 5Bh 5Ch 5Dh 5Eh 5Fh
60h 61h 62h 63h 64h 65h 66h 67h 68h 69h 6Ah 6Bh 6Ch 6Dh 6Eh 6Fh
70h 71h 72h 73h 74h 75h 76h 77h 78h 79h 7Ah 7Bh 7Ch 7Dh 7Eh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh
FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh FFh

```

Figure 19-2. Two Entries from a Print Wheel Set File.

Indicating Fixed Pitch Spacing. The format for indicating fixed pitch is

Fixed #

where # is the desired space to be allotted to each character, measured in 240ths of an inch.

You figure the desired space by dividing 240 by the pitch number. Table 19-1 shows the correct spacing for the standard pitch numbers.

Table 19-1. Fixed Spacing Numbers.

<u>Pitch number</u>	<u>Spacing Number</u>
8	30
10	24
12	20
15	16

For example, for the Elite 12 print wheel which allots 12 characters to an inch, the print wheel name and character spacing parts of the entry look like this

Wheel name "Elite 12"
Fixed 20

Indicating Proportional Spacing. The Word Processor can print 256 possible characters. Figure 19-3 shows those characters.

To indicate the proper spacing for each character on the print wheel, a 256-character spacing table is used. The table is 16 lines deep, and each line holds the spacing value for 16 characters. The possible characters and their placement in the table can be seen in the Word Processor symbol table shown in Figure 19-3.

Figure 19-2 shows an example of the format for a proportional spacing table.

To enter the value for a specific character, you find the character in the Word Processor symbol table shown in Figure 19-3, and enter the space allotted to that character on the print wheel in the corresponding space in the spacing table. Space information is obtainable from the manufacturer's data sheet supplied with the print wheel. Detailed steps are described below.

To enter the spacing value for each character on the print wheel into the proportional spacing table:

1. For each symbol that appears in the table shown in Figure 19-3, find the spacing required by the manufacturer. (May be called PS Value or PS units.)
 - a. Find that same symbol in the manufacturer's data sheet.
 - b. Next to each symbol on the data sheet is a number which represents the required spacing.
 - c. If the desired symbol does not appear in the data sheet, use the number listed for the space character (usually 5 or 6).
2. Multiply the spacing value obtained in step 1 by 4 to obtain the correct spacing measurement in 240ths of an inch.
3. Enter the resulting number in your proportional table for the print wheel set at the same position where the symbol appears in Figure 19-3.
4. Repeat steps 1 through 3 for all symbol positions in Figure 19-3.

(0-15)		†		€			1/2				↓			←	↑	
(16-31)	1/4	‡	→			+		§	≠	≈	π	•	┌	≦	±	≧
(32-47)		!	"	#	§	§	&	'	()	*	+	:	-	.	/
(48-63)	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
(64-79)	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
(80-95)	P	Q	R	S	T	U	V	W	X	Y	Z	[\]	^	_
(96-111)	'	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
(112-127)	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
(128-143)																
(144-159)																
(160-175)	Å	ä	Å	ä	ö	ö	ø	ø	U	ü	ç	ê	é	è	Æ	æ
(176-191)	β	£	0	©	®	"										
(192-207)																
(208-255)																

Figure 19-3. Word Processor Symbol Table.

MAPPING THE PRINT WHEEL CHARACTER SET

A character set is the set of symbols that can be printed using a given print wheel.

Not all print wheels have the same character set. For example, some print wheels have square brackets where others have symbols for one-half and one-fourth. Other print wheels have no letters at all and consist entirely of special symbols. In addition, even when they can print the same characters, not all print wheels use the same spoke position for those characters.

For this reason, whenever you want to use a new type of print wheel, you must configure the print wheel source file for that print wheel.

The last part of each print wheel entry in the Print Wheel Set file is a mapping table that indicates to the Word Processor the spoke position on the print wheel where it can find each character.

Figure 19-2 shows a spoke position mapping table for two print wheels.

The format for entering the mapping table is

```
Mapped
  table
```

where table is a matrix containing the spoke position number for each character. Each position in the matrix must have an entry.

To complete the new mapping table you must use a template document designed for configuring new print wheels called `Template.wheels`. `Template.wheels` contains each possible character you can display on your screen. You replace each character with the appropriate spoke position number for your print wheel. Note that for a few characters that can be displayed but never printed, `Template.wheels` contains the number 255 instead of a character. An example is the line break.

To determine all printable characters on the wheel and the spoke position numbers for each, you mount the new print wheel and use the special print wheel configuration "ConfigureOnly" to print the document `AllSpoke.Doc`. When printed, `Allspoke.doc` is a customized table showing which spoke position is used by each character on your wheel.

`Allspoke.doc` and `Template.wheels` are provided with the distribution diskette for the Word Processor. (There are special copies of `Allspoke.doc` for the two extended character set printers, `AllspokeNEC.doc` for the NEC 3515 and `AllspokeECS.doc` for the Diablo 630 API-2.)

If you are using the wheels file (`Wp.whl`) provided, `ConfigureOnly` is a wheel option on the Print Wheel menu. If you are not using the distributed `Wp.whl`, you will need to rename your own file temporarily and install the distributed `Wp.whl` to configure the new print wheel.

The following procedure describes in detail how to use `Allspoke.doc` and `Template.wheels` to develop your new mapping table. If you have an extended character set printer the procedure is basically the same but must be modified somewhat. Modifications are described in the subsection "Mapping Print Wheels for Extended Character Set Printers."

To configure a new print wheel:

1. Invoke the Word Processor and give the Print Wheel command (f4(FORMAT)...W). ConfigureOnly should be an option on the Print Wheel menu.

If ConfigureOnly is not shown as an option on the menu, you must exit the Word Processor and install the Wp.whl file that came on the distribution diskette for the Word Processor.

2. Place the new print wheel on the printer. Make sure that the printer switch settings are appropriate for the new print wheel. For example, if the new print wheel is a 96-character metal wheel, set the switches accordingly.
3. Give the Print command and print the document "Allspoke.Doc". The printed copy of this document will show spoke number entries, but it is not designed to be read on the screen.
4. Print a copy of Allspoke.Doc, using the Word Processor Print command.

If you are prompted to mount the print wheel ConfigureONLY, simply press R for Resume.

5. Using the Copy Document command, copy the document Template.wheels. (This lets you edit one copy and save the other for use with other print wheels.)
6. For each character in Template.wheels,
 - a. Find that character in the printed copy of Allspoke.doc and note the number printed above it.

If the character did not print, then use the number 255.

If your printed copy does not show numbers above each character, (this sometimes happens if the print wheel does not have digits on it), then you can compare it with a printed copy produced using an already configured print wheel to find those numbers. The numbers always are in the same place. Simply find the place in the table for the already configured wheel that corresponds to the place where the character printed in the table printed with the new print wheel. Use that number.

- b. In `Template.wheels` replace the character with the number from `Allspoke.doc`. You are overwriting the character with the spoke position.

(Note that the entries in `Template.wheels` that showed the number 255 originally are characters that will never print. Simply leave the 255 entry in the template document.)

7. Replace the entry "`Wheel-name TemplateWheel`" with the name of the new wheel.
8. Replace the entry "`Fixed 24`" with the pitch of the new wheel (or a complete spacing table if it is a proportional wheel.)
9. Copy the entire contents of `Template.wheel` into `Wp.wheels` (or, if you previously had a customized print wheel file, into your print wheel source file.)
10. Assemble your print wheel source file as described in the subsection "`Assembling the New Print Wheel Set File`" below.
11. Try your newly configured print wheel.

Read the notes below for additional information.

Additional Notes on Mapping the Character Set

- o `Template.wheels` includes an entry for each displayable character. Some of these do not appear on the keyboard. If some of the characters that print when you print `Allspoke.doc` do not appear on the keyboard, remember that they can be displayed on the screen in your document using the `Insert Hexadecimal` or `Insert Literal` commands. As long as you follow the mapping procedure, this character will print as displayed. (See Section 18, "Commands," for more information on the `Insert Hexadecimal` or `Insert Literal` commands.)
- o When you print `AllSpoke.doc` the printed document shows all printable characters. Note that occasionally one of these characters will not be a displayable character and, therefore, will not appear in `Template.wheels`. For instance, a mathematical wheel might include the lambda (λ).

If you want to use such a character, you can configure the print wheel so that the character you want prints when you type a different character. Note that you will have to remember that with this print wheel, a certain character does not print correctly but prints another character instead.

To do so choose a displayable character which you do not want to ever print with this print wheel. In its place in `Template.wheels`, enter the spoke position from `Allspoke.doc` for the non-displayable character that you do want to print. For instance, you could choose to enter the spoke position for the lambda in the place of the tilde (\sim). In this case, when you type a tilde it is displayed on the screen as a tilde, but when the document is printed a lambda (λ) appears in its place.

Character Mapping to Multiple Print Wheel Spokes

You can map one character from Word Processor text to a sequence of print wheel spokes. To do so, for each character you want to map to a sequence of strokes you make a reference in the mapping table to an overstrike table that indicates the sequence.

For example, a cent sign character can be mapped to the sequence of a lower case "c" plus a vertical bar "|", so that when the text contains a cent sign character, the printer overstrikes the "c" with the "|" to create a "¢".

Figure 19-4 shows how this appears in the print wheel file.

Any character you can enter can be mapped to a sequence of spokes. See Appendix B in the CTOS Operating System Manual for a list of characters that can be shown on the screen.

To make an entry in the mapping table that indicates a sequence of characters, use the format

*n

for the print wheel spoke value, where n is any positive nonzero number.

The width of the character produced by the sequence of strokes given for this example is the width taken from the entry in the proportional spacing table at location 3 (character code for a cent sign.)

To add an overstrike table with one line for each character you are replacing with an overstrike sequence, use the format

*n < "c" h x y > < "c" h x y > etc.

where

*n corresponds to *n entered in the mapping table.

< is the opening bracket indicating a sequence of strokes for that character.

c is the print wheel spoke. This can be either a quoted character, as shown, or you can enter a decimal or a hexadecimal number. If you enter a number, double quotes are not necessary.

h is the hammer energy used. This must always be 1.

x is the horizontal offset. Default is -2.

This offset is used to fine-tune the position of each component character on the paper. The offset is in 240ths of an inch. Position is relative to the center of the character cell (that is, where a normal individual character would be printed). The value can be positive or negative. Note that the offset of each character in the character list is relative to the center of the character cell, and not to the previous character in the list.

y is the vertical offset. Default is 3.

Vertical offset is similar in effect to the horizontal offset of the character. (Can be positive or negative.)

> Closing bracket.

This entire sequence can be repeated up to 255 times, once for each possible character.

Note that spaces must be left between each of the fields of the overstrike sequence, just as they appear in the example in Figure 19-4.

```
Wheel-name "Special cent sign"
Half-Bright
Fixed 24 (10 pitch)
Mapped
  FFh FFh *1 FFh FFh FFh FFh FFh FFh FFh
  .
  .
  .
Overstrike
  *1 < "c" 1 0 0 > < "|" 1 0 0 >
Wheel-name "Special type"
  .
  .
  .
```

Figure 19-4. Example of an Overstrike Table.

Mapping Print Wheels for Extended Character Set Printers

If you are configuring a print wheel for use on one of the supported extended character set printers, you follow basically the same procedure that you do for a regular printer. However, you use a different document to determine spoke numbers and you use an overstrike sequence to access some of the spokes.

For the NEC 3515 you print AllspokeNEC.doc, and for the Diablo API-2 you print AllspokeECS.doc to determine the spoke numbers for each printable character.

These two documents contain a larger number of characters than Allspoke.doc. You will notice that a group of characters is separated from the rest by spacing and the message "USE SHIFTOUT AND SHIF TIN CODES WITH THE FOLLOWING NUMBERS." These are the extensions to the character set.

The extension characters must be mapped using an overstrike sequence of shift-out(0Eh), spoke number, shift-in(0Fh), 0FFh, in order to differentiate the spokes referred to for the Word Processor.

For example, if the extension character you want to map is printed under the number 62, for this character in the Template.wheels file you enter a *1, then include an overstrike table that begins

```
*1 < 0Eh 1 0 0 > < 62 1 0 0 > < 0Fh 1 0 0 > < 0FFh 1 0 0 >
```

You assign a different number to each overstrike entry, for example *1, *2, *3.

Note that this use of the overstrike capability is supported only for use with extended character set printers and not for sending other escape codes to printers.

ASSEMBLING THE NEW PRINT WHEEL SET FILE

To assemble the new Print Wheel Set file, you must enter the Executive and give the command, Make Wheel Set. The Make Wheel Set command form is displayed.

```
Make Wheel Set
  Wheel set file _____
  [Listing file] _____
```

Complete the command form as described below and press GO to execute the command. The resulting assembled file has the same name as the source file, except it is given the suffix ".whl". For example, if you specify the source file [Sys]<Sys>wp.wheels, the assembled file is named [Sys]<Sys>Wp.whl.

In the "Wheel set file" field, enter the file specification for the source file that you modified.

The "[Listing file]" field is optional. Enter a file specification if you want to get a listing of the file and error messages. The listing also indicates the position of errors. Errors are listed on the screen whether you request a listing file or not.

PRINTER MANAGEMENT

Workstations can be clustered together to share storage on a master workstation and/or to share peripheral hardware devices, such as printers or plotters.

All workstations except the AWS 210 can store files locally and can be used as master workstations. Different types of workstations can be clustered together. For example, a cluster can have IWS, AWS, and NGEN workstations.

All cluster workstations can access files stored on a master. Files are accessed by changing your work area or by giving a full file specification. (To change work area use the Word Processor Work Area command (CODE-fl(DOCUMENTS)..W), an option on the Documents menu, or use the Executive Path command.)

Although workstations with local storage can access files on the master, the files on these local workstations cannot be accessed from the master.

Unauthorized access to files can be prevented by assigning passwords and protection levels. (See the subsection "File Security" in Section 4, "Basic Concepts," in the Executive Manual, for more information.)

PRINTERS

Printers used with the Word Processor can be configured for letter quality printing or for draft printing. Letter quality printing reproduces the full range of Word Processor formatting. Draft printing, however, does not use the Word Processor print wheel configuration file and does not print special character format attributes such as boldface, underlines, superscript, and subscript.

You can use daisy wheel printers, matrix printers, or line printers with the Word Processor.

Daisy wheel printers use interchangeable print wheels and can be configured for letter quality printing or for draft printing.

Daisy wheel printers that are supported for use with the Word Processor are the Qume Sprint 5, Qume Sprint 9, and Qume Sprint 11 Plus, the Diablo 630 HPR05 and Diablo 630 API-2.

The NEC Spinwriter 3515 and Envision 420 and 430 are also supported for letter quality printing.

Matrix printers and line printers can usually only be configured for draft quality printing.

Supported matrix printers are the Envision 420, the Printronix MVP, the Anadex DP9620A, and the IDS Prism 132 with color and graphics options. The Dataproducts B600-103 is a supported line printer.

Sheet feeders supported for use with printers that use the Word Processor are the NEC Spinwriter 2000/3500 series Single Bin Cut Sheet Feeder (with or without the NEC 2000/3500 Dual Bin Adapter),

Diablo F32, Diablo F33, Ziyad 200, and Ziyad 300. Note that the Ziyad sheet feeders are only supported for use with certain paper sizes, listed in Appendix E, "Paper Sizes for Ziyad Sheet Feeders."

DIRECT AND SPOOLED PRINTING

Any type of printer can be connected for direct or spooled printing on all workstations except the AWS 210 whether the workstation is a standalone, a cluster, or a master workstation.

When the printer is configured for direct printing, files are transferred directly to the printer without going through the spool queue. Documents or files printed directly must be stored on the workstation to which the printer is attached. This is sometimes referred to as dedicated printing.

With spooled printing, by contrast, all workstations in a cluster can share a printer. Documents or files can be located on a different workstation from the one to which the printer is attached.

CONNECTING PRINTERS TO THE WORKSTATION

All workstations except the AWS 210 can have a printer attached. This is true whether the workstation is a part of a cluster or not and whether printing is direct or spooled.

Up to three printers can be attached to a workstation. Printers are attached to the parallel printer port, input/output channel A, or input/output channel B, depending on whether the printer is a parallel or serial printer.

A parallel printer can be connected to the parallel printer port.

A serial printer can be connected to input/output channel B. A serial printer can also be connected to input/output channel A for all workstations except the IWS, which requires that the channel be reconfigured first. (Reconfiguring input/output channel A is described in Appendix D of the Workstation Hardware Manual.)

Figure 19-5 shows three different types of printer attached to a standalone workstation.

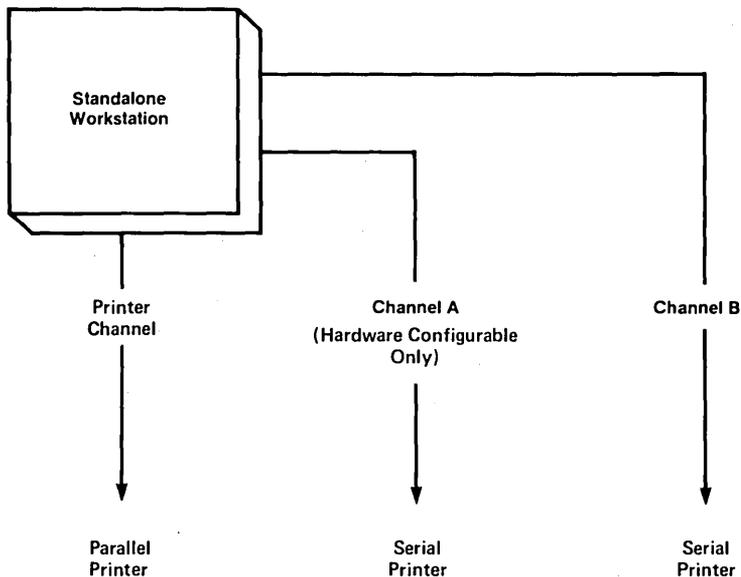


Figure 19-5. IWS Standalone Printers.

Information on the cables for connecting printers to workstations and setting printer switches correctly appears in Appendix D, "Printer Switches and Cable Connections."

STANDALONE AND CLUSTER PRINTING

Up to three printers can be attached to any standalone workstation. Printers can be configured for direct or spooled printing.

In a cluster configuration, printing can be direct or spooled, and printers can be attached to master or cluster workstations. Types of workstations can be mixed and a cluster can include workstations with directly attached printers as well as one or more spooled printers.

Figure 19-6 shows a typical cluster configuration.

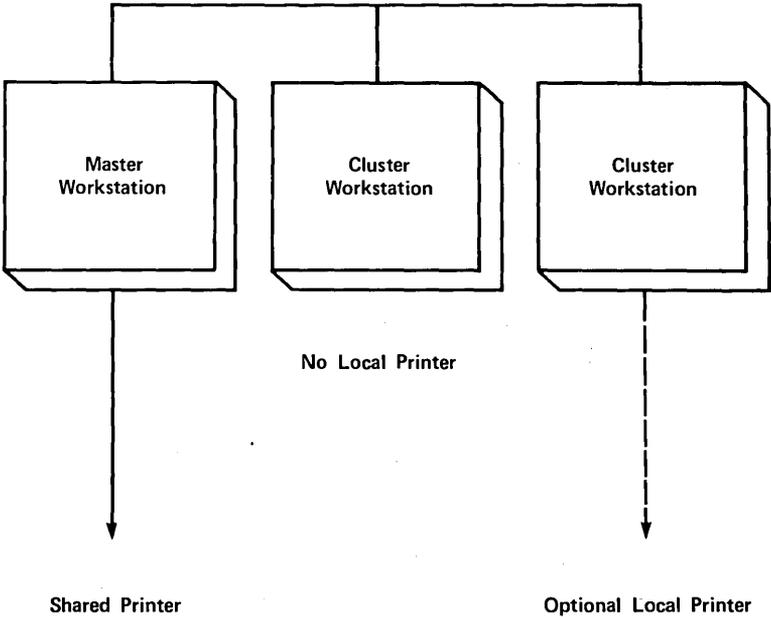


Figure 19-6. Typical Cluster Configuration.

PRINTER CONFIGURATION

Configuring printers for direct and spooled printing is discussed in detail in the subsection "Printer Management" in Section 5, "Advanced Concepts," of the Executive Manual.

When the Word Processor is installed, an additional printer description file is also installed that specifies for the Word Processor and other application systems all printers that are part of your printer configuration.

When the Word Processor is installed, the printer description file contains entries for each printer in the standard printer configuration. When a new printer is added, or if your configuration is not standard, then you must modify the printer description file to describe your configuration.

The printer description file must be present whether you are configured for direct or spooled printing. Both types of printers are specified in this file.

The default file name for the printer description file installed with the Word Processor is [Sys]<Sys>Sys.Printers. If you wish to change this name, an entry must be made in the User Configuration file to specify the new name. (See the subsection "User Configuration.")

Printer Description File Format

Each printer has one entry in the printer description file. Each entry begins on a new line.

The first entry in the printer description file determines which printer is used by default when you give the Print command (SHIFT-f5). The user can specify any other printer listed in the printer description file by entering the printer name in the "Printer" field of the Print command form.

Since the Word Processor uses your printer description file during operation, you cannot open the file with the Word Processor to make changes. However, you can copy it and edit the new file. After you have edited it, use the Remove Format command, CODE-R, to remove all Word Processor format from the file. Then exit the Word Processor and use the Executive to rename the new file to the old name, writing over the original.

Figure 19-7 shows a sample printer description file.

```
DIABLO:[SplB],[Ptr]B&[Sys]<Sys>WpPtrBConfig.Sys: Diablo630:
LPT: [Lpt]&[Sys]<Sys>WpLptConfig.Sys,[Spl]: Draft :
```

Figure 19-7. Sample Printer Description File.

The format for each entry in the printer description file is:

PRINTERNAME:Device or Q Name:Format:Graphics Type:Sheet Feeder

PRINTERNAME is the name used to refer to the printer. This field determines the name supplied in the "Printer" field of the Print command form.

The name should be kept short for ease of entry.

Device or Q Name is the printer configuration file specification

[Ptr]B&[Sys]<Sys>PtrBConfig.Sys

or the spool queue name [SPLB].

If the device can be attached directly and spooled, you can enter the correct configuration file specification and the queue name, separated by commas. For example,

[Ptr]B&[Sys]<Sys>PtrBConfig.Sys,[SPLB]

When a print command is given, the Word Processor checks the file and determines whether the device is installed as a spooled device and, if so, spools the file. If not, it prints the file directly.

This field can be as long as necessary.

Format is the printer format in which the document is to be generated.

Five entries are valid:

- o Draft
- o Diablo630
- o QumeSprint9
- o Envision
- o NEC3515

If you are configuring another printer, use the one of the five names above that most closely describes your printer's format.

Graphics type is the plotter type. This field is ignored by the Word Processor, but the colons must be included in the file even if you have no entry here. For example,

B: [SPLB]: Diablo630: : DiabloF32

Sheet Feeder is the type of sheet feeder.

- o If you have a NEC Spinwriter 2000/3500 series Single Bin Cut Sheet Feeder, enter NECSingle.
- o If you have added the 2000/3500 Dual Bin Adapter, enter NECDual instead of NEC Single.

Other valid entries are

- o DiabloF32
- o DiabloF33
- o Ziyad200
- o Ziyad300

NOTE

Instead of entering an identifier in the Print form, you can enter Device and/or Format fields directly, separated by a colon. The Word Processor will react in the same way as if the Device and Format fields were read from the printer description file. In this case, if the Format field is omitted, Format defaults to draft.

TRANSLATING FILES: DOCUMENT EXCHANGE FORMAT

Document Exchange Format (DEF) is used to provide a common language through which word processing files created on one word processing system can be interpreted by another system.

DEF can be used to translate files produced on other word processing systems (such as NBI or Wang) into a format that can be used by the Word Processor, or files from the Word Processor can be translated into a format that can be used by other systems.

DEF can also be used to translate files from application systems, such as Query, to the Word Processor.

HOW DOES IT WORK?

Each word processing system has its own internal structures to indicate format characteristics such as paragraphs, pages, boldface text, etc.

Documents created on this Word Processor have a complex binary internal structure. Formatting information is kept in tables at the end of the file.

Some other systems embed format information in text, using escape sequences to activate and deactivate formats.

Translating files from one system to another calls for an intermediary formatting scheme. DEF format provides such a scheme.

DEF format uses a series of escape sequences that can be in the text to indicate format characteristics.

Figure 19-8 shows the file conversion process using DEF.

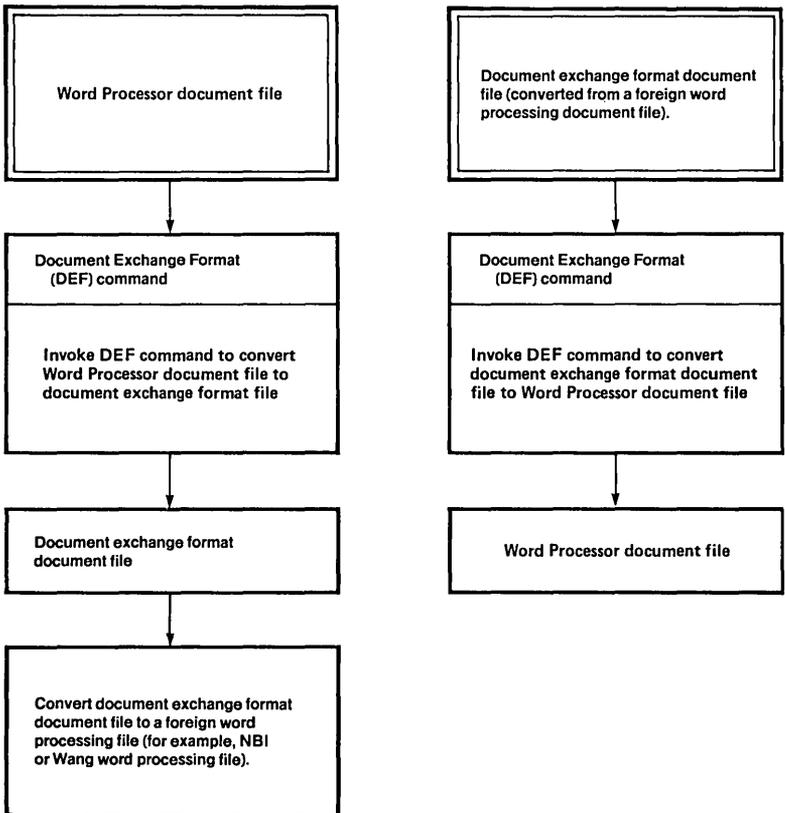


Figure 19-8. Document Exchange Format Operations.

Translating Word Processor Files to Other Systems

To translate files into DEF format to be used by other word processing systems, you can use the Document Exchange Format command.

Before these files can be interpreted by the other system, you may have to write a program that translates the DEF escape sequences into the internal structures used by that system.

Translating Other Files for the Word Processor

To translate other word processing system files for use on your Word Processor you must first put those files into DEF format. This usually involves the following steps:

1. The document to be transferred is translated into an ASCII file.
2. A program is written to embed the DEF escape sequences in the ASCII file.
3. The ASCII file is run against the program to add format information using DEF escape sequences.
4. The Document Exchange Format command is used to translate the DEF formatted file into Word Processor format.

If you know the internal structures used by the other Word Processor, it is possible that you could write a program to combine steps 1 and 3.

DEF FORMAT

DEF uses escape sequences to signify each of the possible format attributes.

DEF escape sequences are of the format \$(command).

DEF escape sequences are listed in the subsection "DEF Escape Sequences" below.

There are five types of DEF escape sequences:

- o character escape sequences
- o paragraph escape sequences
- o page escape sequences
- o additional text escape sequences (for headers, footers, and footnotes)
- o special escape sequences

Character, Paragraph, and Page Formatting

The Word Processor applies document formatting attributes in three levels. DEF also applies three levels of formatting. The format levels are

- o character (for example, boldface, underline)
- o paragraph (for example, tabs, indents)
- o page (for example, margin, header)

Formatting attributes are described in detail in Section 8, "Structuring Document Format."

It is important to understand the relationship between the three format attribute levels. Since paragraphs are composed of characters and pages consist of characters and paragraphs, it is easy to confuse levels.

Certain format characteristics are applied at the character level, such as boldface. All characters in a paragraph can be boldface, but the Word Processor assigns the attribute to each character individually. Even though the paragraph appears in boldface, boldface is NOT a paragraph attribute.

The Tabs command, however, applies tab settings to an entire a paragraph and the tab settings exist for all text within the paragraph.

Format Attributes Are Indicated by Runs. DEF indicates formatting as a run of any one type of format attribute. A run is a contiguous portion of text sharing the same format attributes.

You can have a character format run, a paragraph format run, or a page format run.

Each type of run can coexist with each other type without dependencies, so that a new paragraph run, for example, does not affect an existing character run.

Examples are

- o A character run might consist of several words which are subscripted.
- o A group of paragraphs with the left-flush attribute might make up a paragraph run.
- o Contiguous pages with the same size and margins might make up a page run.

Attributes Must be Identical Within a Run. All format attributes for a particular run type must be identical to be specified as a run.

For example, text with boldface and strike-through signifies a character attribute run. However, if these attributes are changed by the addition of the character attribute underline, a new run begins.

Specifying a Run

DEF escape sequences indicate format runs. Any DEF escape sequence remains in effect until some other DEF escape sequence terminates the run.

For example, if a DEF escape sequence sets the left document margin at two inches, all subsequent document margins are at the same position until changed.

DEF files are stream files and are accessed sequentially. DEF escape sequences apply to subsequent text only. No DEF escape sequence can apply to prior text.

Interpretation of DEF files is done in a single pass. Although it may be necessary to make several passes on a foreign system document in order to create a DEF file, the DEF file can only be a sequential file.

DEF escape sequences for character runs apply to the characters that immediately follow the escape sequence.

When paragraph and page escape sequences are used, however, the new attributes do not go into effect until an explicit New Paragraph or New Page escape

sequence is encountered. This enables the DEF file to set a variety of paragraph and page formats prior to their actual invocation.

Escape Sequences for Special Characters

Unique DEF escape sequences exist for some special characters the Word Processor uses that do not have an ASCII representation. Examples include page numbers, discretionary hyphens, and nonbreaking spaces.

The escape sequences for New Paragraph and New Page are also unique.

Escape Sequences for Additional Text

A document can have additional text associated with particular parts of it. Additional text is text which is not part of the main body of the document but which is associated with it. Examples are headers, footers and footnotes, where headers and footers are associated with page breaks and footnotes are associated with footnote reference characters.

This additional text is not stored with the document text, but rather immediately following the rest of the text in an additional text array. There can be more than one piece of additional text. In this case pieces of additional text are stored in the array sequentially.

Headers and footers are page format attributes. They are both treated in the same way by DEF and internally by the Word Processor.

For convenience, when this discussion uses the word headers it also refers to footers.

Each page can have a different header, or each page can have the same header, or some or all pages can have no header at all.

Header format includes the following:

- o The header application command.

This command specifies that a header will reside on a given page, and also references the additional text array entry for the text for that header.

- o The additional header text itself.

Since multiple headers are allowed, that is, each page can have a different header independent from the other pages, each new header is stored in the additional text array at the end of all other text in the DEF file.

Footnotes are character format attributes. They are treated in the same way by DEF as they are treated internally by the Word Processor.

A footnote format includes the following:

- o The footnote application command.

This command specifies that a footnote will be associated with a particular reference character and will be printed at the bottom of the page on which the reference character is printed. The footnote reference character also refers to the footnote text in the additional text array at the end of the DEF file.

- o The additional text itself.

A special DEF escape sequence indicates the end of the text for the body of the document and the beginning of the additional text array.

All text from an additional text escape sequence to the one or the end of the DEF file is considered part of the additional text definition. Note that additional text can contain paragraph and character formats but page formats are ignored.

Example. Suppose a three-page document contained headers. In the body text portion of the first page, a header escape sequence would indicate a header is used on this page, and the first header

text defined is to be used. On the second page, the header escape sequence could specify the third header text item (since order in the array is not important.) The third page would then specify the second header text item.

DEF ESCAPE SEQUENCES

All DEF escape sequences have the format \$(aa), where aa is two or more characters.

Escape sequences signal the beginning or end of a format run or insertion of a special character.

Certain DEF escape sequences require numeric values in addition to the two or three character escape sequence identifiers. Many of these numeric values are measurements, such as margins, tab stops, and page sizes. These measurements are given in units of 240ths of an inch. This allows the lowest common denominator of many standard word processing measuring schemes. Therefore, a numeric value of 240 represents one inch, and 48 represents 1/5 inch. Note that these numeric values are kept in ASCII rather than binary. This enables DEF to be used with simple communications schemes which only permit ASCII data and it makes DEF files easier to read.

Character Escape Sequences

DEF character escape sequences affect formatting when they occur. All character Word Processor formats have corresponding escape sequence representation.

Character formats set by DEF escape sequences remain in effect until reset by some other escape sequence.

<u>Escape Sequence</u>	<u>Format Action</u>
\$(AY)	Start alternate ribbon.
\$(AN)	Stop alternate ribbon.
\$(BY)	Start boldface.
\$(BN)	Stop boldface.
\$(DY)	Start double underline.
\$(DN)	Stop double underline.
\$(SY)	Start strike-through text.
\$(SN)	Stop strike-through text.
\$(UY)	Start underline.
\$(UN)	Stop underline.
\$(XY)	Start superscript.
\$(XN)	Stop superscript.
\$(YY)	Start subscript.
\$(YN)	Stop subscript.
\$(NR)	Start normal text. This will reset all character attributes, including print wheel.
\$(<u>WHname</u>)	Use print wheel specified by <u>name</u> . The named print wheel must be a supported wheel or this escape sequence is ignored.
\$(<u>PTn</u>)	Set character pitch, where <u>n</u> represents the width of subsequent characters in units of 1/240th inch. For example, 12 pitch text would have the escape sequence \$(PT20).
\$(KY)	Start keyword.
\$(KN)	Stop keyword.

Escape
Sequence

Format Action

\$(FRn)

Footnote reference; the subsequent characters have footnote text associated with them. The footnote text is stored in the additional text array at the end of the document. The particular text for this footnote is indicated by n, which is an index into the additional text array.

Since the footnote reference character must reside both in the document and at the beginning of the footnote text, a special index value of 65534 has been created to specify that the reference character resides in the footnote.

Paragraph Escape Sequences

Paragraph escape sequences (those which describe the paragraph attributes) do not go into effect immediately when encountered. Instead, their actions are saved until a New Paragraph escape sequence (\$(SB)) is encountered. (See the subsection "Special Character Codes" below.)

This allows several formatting commands to go into effect at one time.

All paragraph Word Processor formats have corresponding DEF escape sequences.

Whenever numeric values are required, these are represented in ASCII rather than in binary.

<u>Escape Sequence</u>	<u>Format Action</u>
\$(IF <u>n</u>)	Set the paragraph first line indent to the value specified by <u>n</u> (given in units of 1/240th inch). The first line indent is measured relative to the paragraph left indent (see below).
\$(IL <u>n</u>)	Set the paragraph left indent to the value specified by <u>n</u> (given in units of 1/240th inch). The left indent is measured relative to the left document margin (see page escape sequences).
\$(IR <u>n</u>)	Set the paragraph right indent to the value specified by <u>n</u> (given in units of 1/240th inch). The right indent is measured relative to the right document margin (see page escape sequences).
\$(TB <u>tp</u> , <u>tp</u> ,..., <u>tp</u>)	<p>Set the tab stops to the position represented by <u>p</u>, and of the type represented by <u>t</u>.</p> <p>The tab types can be one of the following: L (left-flush), R (right-flush), C (centered), D (decimal-aligned), or A (comma-aligned).</p> <p>Further, each type can be optionally preceded by a period to indicate leader dots, e.g., .L indicates a left-flush tab with leader dots.</p> <p>The tab position is specified by <u>p</u> (in units of 1/240th inch). The position is measured relative to the left document margin. A maximum of twenty tabs per paragraph is allowed.</p>

Escape Sequence

Format Action

- \$(LF) Set the paragraph to left-flush.
- \$(RF) Set the paragraph to right-flush.
- \$(JS) Set the paragraph to justified.
- \$(CN) Set the paragraph to centered.

NOTE THAT LEFT-FLUSH, RIGHT-FLUSH, JUSTIFIED, AND CENTERED ARE MUTUALLY EXCLUSIVE. Unlike many other word processing systems, for the Word Processor, Center is a paragraph format attribute.

\$(LNb,w,a)

Set paragraph line spacing. These measurements are required to set paragraph line spacing: before (b), within (w), and after (a). All three measurements are given in units of 1/240th inch, with before and after biased by 40.

For example, to indicate single line spacing, where each line takes 1/6 inch of space on the page, specify \$(LN0,40,0).

For systems that support only two kinds of paragraph spacing, within and between, it is suggested that both before and after be set to 1/2 of the between value.

Because of the bias of 40, these values can be negative, for example 1/2 line spacing for before, within and after values is specified as \$(LN65516,20,65516).

Page Escape Sequences

Page escape sequences do not go into effect immediately when encountered. Instead, their actions are saved until a New Page escape sequence is encountered. (See the subsection "Special Character Codes" below.)

This allows several formatting commands to go into effect at one time.

All Word Processor page formats have corresponding escape sequence representation.

Remember, whenever numeric values are required, these are represented in ASCII rather than in binary.

<u>Escape Sequence</u>	<u>Format Action</u>
<code>\$(PGSw,<u>w</u>,<u>h</u>)</code>	Set page width, represented by <u>w</u> , and height, represented by <u>h</u> (each given in units of 1/240th inch.) Both entries are required.
<code>\$(PGM<u>l</u>,<u>r</u>,<u>t</u>,<u>b</u>)</code>	Set the page margins. These are represented by <u>l</u> (left margin), <u>r</u> (right margin), <u>t</u> (top margin), and <u>b</u> (bottom margin.) All four entries are required. Each is given in 240ths of an inch.
<code>\$(PGH<u>h</u>,<u>f</u>)</code>	Set the page header and footer margins. The header margin is represented by <u>h</u> , and the footer margin is represented by <u>f</u> . The header margin is measured relative to the top edge of the paper, and the footer margin is measured relative to the bottom edge of the paper (given in units of 1/240th inch). Both measurements are necessary.

Escape
Sequence

Format Action

\$(PGNfa,fo,n)

Set the page attributes. These will set facing pages (represented by fa) forced page (represented by fo), and page number (represented by n).

The facing pages value (fa) can be either Y or N, where Y means facing pages is true.

The forced page value (fo) can be either Y, N, O, E, C or S, where Y means forced page, N means no forced page, O means odd forced page, E means even forced page (Odd and even forced page breaks will produce blank pages in order to generate the necessary parity), C means forced column and S means same as the last forced page value.

The page number (n), determines the actual page number only if one of the three types of forced page breaks (i.e., Y, O or E) have been set.

\$(PGCsyn,c,fr,...,fr)

Set column attributes. These set the type of columns whether synchronized or serpentine, the total number of columns and the column widths and distances between columns.

The synchronized/serpentine value (syn) is either Y or N, where Y means synchronized columns.

The total number of columns (c) is the actual number of columns with a maximum of 10.

Escape
Sequence

Format Action

The fr values specify the margins of each column, where the first fr value is the right margin of the first column, the second fr value is the left margin of the second column, the third fr value is the right margin of the second column, and so on until the left margin of the last column. The total number of fr values is $(c-1)*2$; there must be an even number of fr values.

The fr value represents a fraction of the text width, given in 240ths of an inch.

Example: If a page has 3 synchronized columns, and the first column ends at 1 inch from the left edge of the paper, and the second begins at 2 inches and ends at 3 inches, and the third begins at 4 inches and ends at 5 inches; the escape sequence would read

$\$(PGCy, 3, 240, 480, 720, 960)$

- $\$(PGI\underline{i})$ Set column number. Subsequent text resides in column number i.
- $\$(PGF\underline{n})$ Set forced footnote number; subsequent footnotes are numbered starting at number n.
- $\$(HO\underline{n})$ Set headers for odd pages to the nth Additional Text Definition. The number n indexes into the set of all Additional text for the document as defined by the $\$(DH)$ format escape sequence. (See the subsection "Additional Text Escape Sequence.")

Escape
Sequence

Format Action

- \$(HEn) Set headers for even pages to the nth Additional Text Definition. The number n indexes into the set of all Additional text for the document as defined by the \$(DH) format escape sequence. (See the subsection "Additional Text Escape Sequence.")
- \$(HBn) Set headers for both odd and even pages to the nth Additional Text Definition. The number n indexes into the set of all Additional text for the document as defined by the \$(DH) format escape sequence. (See the subsection "Additional Text Escape Sequence.")
- \$(FOn) Set footers for odd pages to the nth Additional Text Definition. The number n indexes into the set of all Additional text for the document as defined by the \$(DH) format escape sequence. (See the subsection "Additional Text Escape Sequence.")
- \$(FEn) Set footers for even pages to the nth Additional Text Definition. The number n indexes into the set of all Additional text for the document as defined by the \$(DH) format escape sequence. (See the subsection "Additional Text Escape Sequence.")

<u>Escape Sequence</u>	<u>Format Action</u>
\$(FB <u>n</u>)	Set footers for both odd and even pages to the nth header of footer Text Definition. The number <u>n</u> indexes into the set of all Additional text for the document as defined by the \$(DH) format escape sequence. (See the subsection "Additional Text Escape Sequence.")
\$(B <u>In</u>)	Set sheet feeder bin number equal to n. Valid numbers are 1, 2, and 3.
\$(W <u>Y</u>)	Start widow control. Indicates that widows have been eliminated during pagination of this document. Note: widow control is applied at the document level.
\$(W <u>N</u>)	Stop widow control.

Additional Text Escape Sequences

Additional text escape sequences are distinct from other format specifications. These specify the array at the end of the document that contains the text for headers, footers, and footnotes.

For simplicity's sake, when header is mentioned, assume footnote, header, and footer text definition.

This escape sequence specifies the beginning of a piece of additional text that appears within the headers, footers or footnotes as defined per page (see the subsection "Page Escape Sequences" above).

The text contained within a header specification begins after the Define Header escape sequence and continues until the next Define Header escape sequence (or end of the file). The first occurrence of a Define Header escape sequence signifies the end of the body text portion of a document. All Define Header escapes must be contiguous.

The text within a header text definition can itself contain DEF escape sequences. These can be either character escape sequences, paragraph escape sequences, or special escape sequences. Page escape sequences are not allowed and header escape sequences delimit header text.

<u>Escape Sequence</u>	<u>Format Action</u>
\$(DH)	Define additional text. The text includes that which follows the header escape sequence up to, but not inclusive of, the next header escape sequence (or the end of the file).

Special Escape Sequences

Special escape sequences are those that represent characters not easily interpreted by normal text. Included among the special escape sequences are New Paragraph and New Page. These special escape sequences signify the start of a new paragraph or page and also apply any new paragraph or page formats as defined by the paragraph or page escape sequences.

<u>Escape Sequence</u>	<u>Special Character</u>
\$(SA)	\$ - Since the \$ character is used to indicate an escape sequence, when the \$ character occurs in text, it is indicated with the escape sequence \$(SA).
\$(SB)	New paragraph - Begin a new paragraph and set any new paragraph format attributes that are pending a new paragraph.
\$(SC)	New page - Begin a new page and set any new page format attributes that are pending a new page.

<u>Escape Sequence</u>	<u>Format Action</u>
\$(SD)	Arabic page number.
\$(SE)	Discretionary line break. (Also known as a discretionary space.)
\$(SF)	Nonbreaking space. (Also known as a required space.)
\$(SG)	Discretionary hyphen.
\$(SH)	Discretionary return. NOTE THAT THERE IS NO SUCH CHARACTER USED BY THE WORD PROCESSOR. THIS IS INCLUDED FOR COMPATIBILITY WITH OTHER WORD PROCESSING SYSTEMS.
\$(SI)	Nonbreaking hyphen. (Also known as a required hyphen.)
\$(SJ)	Roman page number.
\$(SK)	New Synchronization mark. Begin synchronized text and set any format attributes that are pending a new synch mark.
\$(SL)	Keep Together open.
\$(SM)	Keep Together close.

OPERATOR STATISTICS

If you have the Operator Statistics program installed on your workstation, statistics are recorded in a statistics file each time you Save (CODE-S). Instructions for configuring statistics files are included in the Operator Statistics Release Notice.

Statistics recorded are: date and time a session began, user name, number of keystrokes made during a session, the names of documents opened, and whether or not those documents were modified.

The statistics file cannot be read directly. To generate a report that lists statistics for each session, use the Executive to give the Operator Statistics command.

The Operator Statistics form is shown in Figure 19-9. A sample Operator Statistics report is shown in Figure 19-10.

Operator Statistics	
[Statistics file name]	_____
[Starting date(e.g., Mon Sep 26, 1983 8:00 PM)]	_____
User name	_____
Output file	_____

Figure 19-9. Operator Statistics Command Form.

COMPLETING THE OPERATOR STATISTICS COMMAND FORM

All the fields of this command form are optional. If you do not complete any of them, the report is generated for all users, all statistics are included in the report, and the output is written to the screen only.

[Statistics file name]

Enter the name of the statistics file from which you want the report.

The default file name used is [Sys]<Wp>Wp.Stats.

[Starting date (e.g., Mon Sep 26, 1983 8:00 PM)]

Enter the day and date from which you want the report to start. Statistics are given for the date you enter to the present.

If you do not enter the time all statistics are included in the report.

[User name] If statistics for more than one user name are recorded in the same statistics file, and you want statistics for specific user name(s) only, enter those name(s) here.

[Output file] Enter the name of the file to which you want the report written.

If you have a printer directly attached to your workstation, you can also enter the name of that printer and the output is printed directly.

Output is written to the screen by default.

USING OPERATOR STATISTICS

Operator statistics are recorded by user name. If you have more than one user on your system or want to use the statistics for billing purposes, you may wish to use a separate user name for each user or customer.

Since statistics are recorded whenever you Save, if you want to use operator statistics for billing purposes, you may wish to combine the records from more than one session, or to Save only at the end of a job.

The Operator Statistics program records statistics whenever your workstation is used. The file therefore, continues to become larger with time. If the file becomes too large, you can rename the original file or delete it, and the statistics file will be recreated for you at your next Save.

Word Processor Operator Statistics
=====

SESSION NUMBER 1

DATE	TIME	OPERATOR	KEYSTROKES
01/30/84 Mon	12:09 pm	wp9	386

OPERATION DOCUMENT

Modified [june]<WP9Docs>testing
Modified [june]<WP9Docs>test2

SESSION NUMBER 2

DATE	TIME	OPERATOR	KEYSTROKES
01/30/84 Mon	12:11 pm	wp9	11

OPERATION DOCUMENT

Modified [june]<WP9Docs>testing
Not modified [june]<WP9Docs>test2

SESSION NUMBER 3

DATE	TIME	OPERATOR	KEYSTROKES
01/30/84 Mon	4:38 pm	wp9	565

OPERATION DOCUMENT

Not modified [june]<WP9Docs>testserpents
Modified [june]<WP9Docs>test2

SESSION NUMBER 4

DATE	TIME	OPERATOR	KEYSTROKES
01/31/84 Tue	1:22pm	wp9	1847

OPERATION DOCUMENT

Modified [june]<WP9Docs>art

Figure 19-10. Sample Operator Statistics Report.

Keystroke macros can be used to "automate" any task you now do with the Word Processor. They are especially useful for repetitive tasks like completing monthly financial reports or forms, setting up special Word Processor formats, and repeating any series of predictable edits.

A keystroke macro is a series of keystrokes that you store for later recall. Thus, it is like a single command that you can use to execute several. Each macro has a name that you use to recall it.

To store a macro, give the Word Processor command Store Macro (CODE-f2); then type and give commands as you normally would. As you type, the Word Processor stores each keystroke in a macro file, until you press CODE-f2 again to end storing the macro. The macro file is a machine-readable file, much like a phrase file, and stores all your macros, each under a different name.

To use the macro, you give the Recall Macro command (SHIFT-f2) and complete the form displayed. The keystrokes you stored (typing, cursor movements, screen movements, and commands) are all replayed in the order that you stored them.

You can store most Word Processor commands as part of a macro, including Save. Those you cannot store are Typethrough, Finish, and the commands that are used to change the macro file, which will be explained later.

Note that the keystroke macro is not meant to replace the other tools the Word Processor provides that can help you manipulate text quickly and easily. Some of these are Store and Recall Phrase, Search, Replace, and the list processing commands, Sort/Select and Merge. A keystroke macro is best used when it takes advantage of these tools to make them easier to use, rather than when it is used to replace them. For instance, the fastest way to recall a block of text is to recall a phrase. Therefore, if you are creating a macro and you want it to add a block of text to a document, the most efficient way to do so is to use Recall Phrase within the macro.

CREATING AND RECALLING A KEYSTROKE MACRO

As you develop your experience with macros, you will learn how to make the best use of them. A procedure is included below, so that you can try a macro.

The procedure uses the Store Macro command (CODE-f2). You will note when you give the command that the form includes three fields:

- o "Macro name" is the only field you must complete.
- o "Append" adds the keystrokes you store to the end of an existing macro.
- o "Confirmation from" tells the Word Processor what to do when the macro is recalled in the case of commands that require a confirming action from you (like when you press GO to confirm creating a new document.)

This field is set on the default "User". Changing that setting, which you will rarely want to do, is discussed in Section 21, "Advanced Use of Keystroke Macros."

The Recall Macro command is also used. It includes three fields.

- o You must complete the "Macro name" field.
- o "Number of repetitions" makes the Word Processor repeat the entire macro the specified number of times.
- o "Single step mode" executes the macro one step at a time with a pause between each step. This is useful when you need to find out what is wrong with a complicated macro that does not seem to do what you expected it would.

In the following procedure, you create and then recall a simple macro that executes the List Documents command for a specified work area:

1. Enter the Word Processor; give the Store Macro command by pressing CODE-f2. Complete the "Macro Name" field by typing whatever name you would like for the macro. Press GO to execute the command.

An attention flag appears in the upper left hand corner of your screen and reads "CODE-f2 to Finish Macro." Every keystroke you make is now being stored.

2. Give the Documents command (CODE-f1) and choose option L, "List documents". The List Documents form is displayed.
3. Complete the "Work area" field of the List Documents form, by entering a work area name that would be useful for you.

If another option on the List Documents command would also be useful to you, you might want to complete these fields also. For instance you might want to specify a pattern, or choose Yes for "Details".

4. Press GO to execute the List Documents command.
5. Press CODE-f2 to stop storing keystrokes.
6. Now recall your macro by giving the Recall Macro command (SHIFT-f2) and complete the "Macro name" field of the command form by entering the name you gave to the macro you created. Press GO. The List Documents form is redisplayed, and the command is executed for you.

Now that you have tried the example above, you might want to create your own new macro, storing some of the keystrokes you think you would find useful. Remember to try these macros with test documents only.

Some operations you might want to try include typing text, recalling a phrase, completing a complicated menu, and setting up a complicated format. Try appending keystrokes to an existing macro.

Try recalling a macro and choose single step mode to see how the Word Processor performs each step of the operation.

MORE ON CREATING KEYSTROKE MACROS

Using Word Processor Commands in Macros

All the commands work within macros except for Typethrough, Finish, and the commands that affect the macro file (Store Macro, Unload Macro, Remove Macro, and Load Macro.) Note that you can recall a macro while you are storing another one. (This is explained in Section 21, "Advanced Use of Keystroke Macros.)

This means that you can Save in macros and you can Undo or Discard Edits to correct errors just as you normally can.

When you give the Store or Recall Macro commands, all menus that normally "remember" their last entries (for example, Search) are cleared.

The Environment

When a macro is stored, the environment within which the macro was recorded is not stored.

For instance, if you have a document open on the screen when you store the macro, that open document is the environment. All the keystrokes you use to edit the document will be stored, but the fact that you have that document open will only be recorded if you actually open it while storing the macro. Similarly, if your macro includes the Recall Phrase command, and, after you store the macro, you remove the specified phrase

from your phrase file, the environment is changed. When you recall the macro, it is in a new environment and it will not work as it did before.

Note that for most purposes the macros you create will be for your own use, for your own workstation, so that you will probably think of the environment as the document(s) displayed on the screen and stored on your disk.

To help you plan a macro, keep in mind that the environment includes the document(s) displayed on the screen, your phrase and macro files, your workstation, the documents you have stored, and even the Word Processor itself (if you try to recall a macro under a later release than the one you created it on). If the macro is planned so that it requires any of these factors to remain the same and they have changed, when the macro is recalled, it will behave differently.

Note that since the size of a workstation screen varies from model to model, a macro you create on your workstation may work differently on another. For instance, use of CODE-up arrow to move to the top of the screen can move the cursor up more lines on one type of workstation than another.

Scrolling and Cursor Movement

Since the macro stores all keystrokes, any scrolling of the screen or cursor movement while the macro is being stored is also recorded as a part of the macro. For instance, if while storing the macro you recorded above, you had moved the cursor up into the document and then moved back into the command form; the macro would have included a movement of the cursor so many lines up, then so many lines back down.

Cursor movement and scrolling are executed relative to the last cursor position, rather than being related to specific characters in the document being edited.

Last cursor position is also affected when you call up a command form, since this moves the cursor to the command form.

Selection of Text

The Mark commands work the same way in a macro that they do otherwise: they select a unit of text where you have your cursor.

A macro that cursors up from a menu three lines and then marks three words will do so in any document.

Since the document (the environment) can vary, the text selected will not necessarily be the same words. For that kind of operation, Search should be used.

Typing and Execution Errors While Storing a Macro

Since the macro stores all keystrokes you make, it also stores those keystrokes you make to fix typing errors. When the macro is recalled the errors are replayed, just as they are during a recovery.

In the same way, all other Word Processor actions that are corrected during the Store Macro session are replayed. Thus, if you give a command, change your mind when the menu is displayed, and cancel, the macro records all of this.

Undo works while you are creating a macro.

Macro Size and Saving

Note that there is a limit to the amount of memory you can use while any one macro is executing, so that you will want to Save during macros in the same way that you normally Save during any work session.

In addition, if you wish to type text as a part of a macro, it is much more efficient to use the Recall Phrase command as a part of the macro to add text, rather than to type more than about two or three lines.

WHERE IS A MACRO STORED?

All your macros are stored in one machine-readable file. Each macro forms a part of the file. Like a phrase file, the macro file cannot be opened as a Word Processor document.

You can use the List Macros command (CODE-F7(COMMANDS)...T) to list the names of your macro.

Your macro file has no size limit. However, you may want to remove a macro from your file, to make more efficient use of disk space. To do so, give the Remove Macro command (CODE-f7(COMMANDS)...O) and specify the name of the macro you want to remove.

The macro file can be your file exclusively or can be shared with other users on your cluster or node.

If you want to share the macro file, your User Configuration file must contain the proper entry. (See Section 19, "System Administration.")

If you do share a macro file, you should be aware that if you use a command that changes the macro file, such as Store Macro, this requires that you have exclusive access to the file. No one else can use the file after you store the macro until you Save. Similarly, you cannot store the macro until other users who have accessed the file (by storing, recalling, listing) have Saved.

Table 20-1. Keystroke Macro Hints.

If you want to...

Have your macro add text that will always be used with the same phrase file

Fix a mistake during storing of a macro

Have your macro repeat edits a specified number of times

Remove a macro from your macro file, after you listed all your macros with List Macros

Have your macro highlight a block of text when you know the beginning and end of the block will always be the same, but intervening text may be different

Store a macro to be used on different documents that includes command forms which "remember" the last entry or automatically display the name of the document where your cursor was when you gave the command

Then...

Use Recall Phrase. (It is faster than typing on recall.)

Fix it as you normally would. The fix will be stored and the recalled macro will make the mistake and fix it.

Use the "Number of repetitions" field of the Recall Macro command.

Move the cursor to the name of the macro you want to remove, press Mark, then press O. The Remove Macro form is displayed and the Macro Name form is already completed.

Search with Select Yes for the first block, then Search with Select No for the second; Bound.

Give the command; use Mark line (F9), Delete, to blank the fields, rather than using Mark Word or Backspace.

Once you have used keystroke macros to perform such simple tasks as changing work areas, completing a menu, searching for a phrase and performing a simple format change on that phrase, or setting up page formats and paragraph indents, you will have an understanding of the principles on which macros work.

The Word Processor offers several more features that can make keystroke macros much more useful to you.

These include the ability to use macros within other macros and to have macros that call themselves. You can also add special macrocommands to your macro to pause the macro for user input, perform edits repeatedly and/or conditionally, or display messages.

MACRO LISTINGS AND MACROCOMMANDS

Most of the additional features described in this section require that you add commands to the macro by editing it, rather than adding them while using Store Macro. All of them require that you understand how the Word Processor executes a macro.

Although macros are actually stored in machine-readable format, you can unload one into a readable format or listing, using the Unload Macro command (CODE-f7(COMMANDS)...N). The listing produced is a separate, editable document.

Unload Macro translates the keystrokes stored from machine-readable format into macrocommands, a format that you can read. Each set of keystrokes that causes the Word Processor to perform a specific action is represented by a macrocommand. For instance, pressing down the left arrow key once is represented by the macrocommand, "CursorLeft," and CODE-SHIFT-F, which displays the Collect Footnotes menu is represented by the macrocommand, "DisplayCollectFootnotesMenu".

Note that, like Unload Dictionary, Unload Macro does not delete the macro from the macro file.

Figure 21-1 shows a macro listing of a macro named "Bold." The macro shown searches for the word, "macrocommands," then makes it boldface.

```
DisplaySearchMenu
Typing 'macrocommands'
Search
DisplayFormatMenu
BoldOn
```

Figure 21-1. A Macro Listing.

You will probably have no problem reading the macrocommands, since they are designed for that purpose. However, if you have trouble understanding some, you can find a listing of all the available macrocommands in Section 22, "Macrocommands."

There is a macrocommand to display each of the menus and another that shows the execution of the command that goes with that menu. Macrocommands are also included for each space the cursor moves and for typing strings of text shown enclosed in single quotes ('like this').

You will probably only use the Unload Macro command when you want to change a macro, for instance to remove sequences of keystrokes or to add special macrocommands that cannot be included in a macro when you record it with Store Macro. Adding macrocommands is discussed in the subsection, "Editing a Macro Listing," below.

Macrocommands are also shown when you use the List Macros command and specify that you want to see Expansions. The expansion may only show part of the macro if it is a long one. The additional macrocommands are indicated by an ellipsis (...). Unload Macro shows the entire macro.

EDITING A MACRO LISTING

The macro listing that you create when you use Unload Macro can be edited to remove macrocommands or add them in the same way that you edit any document.

When you add macrocommands, you should be aware that each has a special format, or syntax, which must be used when you use it in the macro listing. You will find detailed information on the syntax of each macrocommand in Section 22, "Macrocommands."

In addition, macrocommands should be separated from each other in a listing by a space, tab, line break, or paragraph mark.

After you have made changes to the listing, you must use the Load Macro command (CODE-f7(COMMANDS)...T) to translate the macro command back into machine-readable format and insert the macro into your macro file.

When you do this, you can redefine (overwrite) the original macro by specifying the same name in the Load Macro command form, thus changing the macro, or you can create a new macro. To create a new macro, use a different name for it when you complete the Load Macro command. This process leaves the original macro untouched.

If you have a selection present when you give the Load Macro command, only those macrocommands included in the selection are loaded. Note that the selection is taken as the entire macro and is not appended, or inserted, into the original macro.

If the Word Processor finds any macrocommands that it cannot interpret, it beeps and indicates the text that it cannot interpret by highlighting it.

Any document containing a listing of macrocommands can be loaded into the macro file by using the Load Macro command. The macro listing does not have to be one you unloaded originally, but it is faster to use Store Macro to create macros, and then edit them to your specifications than it is to compose a macro of macrocommands.

MACROS CAN USE OTHER MACROS

Macros can call other macros, often referred to as nesting. The limit to the number of macros that can be nested within each other is usually determined by the amount of available memory. You will probably never reach the absolute maximum, which is 256.

When a call to another macro is made, the Word Processor proceeds to execute the second macro until it comes to an end, then returns to the original macro.

You can call another macro by using the Recall Macro command while you are storing the first macro.

Figure 21-2 shows how the Word Processor executes three nested macros.

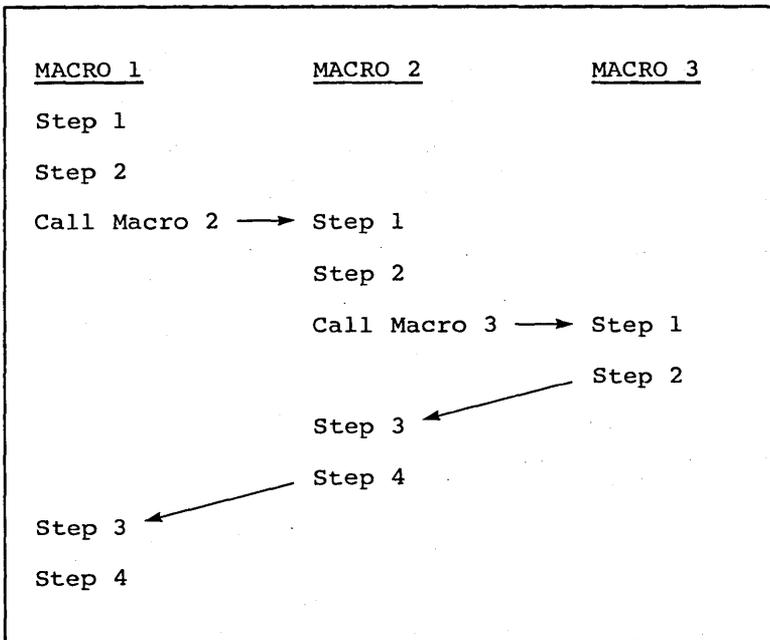


Figure 21-2. Execution of Nested Macros.

An example of use of a nested macro would be performing the same series of edits to a group of documents. For instance, you could create a macro that opens several documents, and, after each document is opened, calls the macro shown in Figure 21-1, then Saves and closes the document. Figure 21-3 shows how a listing of this macro would look. Remember that the macro in Figure 21-1 is named Bold.

```
DisplayOpenDocumentMenu
Typing 'DocumentName1'
OpenDocument
DisplayRecallMacroMenu
Typing 'Bold'
RecallMacro
Save
DisplayOpenDocumentMenu
Typing 'DocumentName2'
OpenDocument
DisplayRecallMacroMenu
Typing 'Bold'
RecallMacro
Save
```

Figure 21-3. A Macro Listing Showing Nested Macros.

HOW TO MAKE THE WORD PROCESSOR JUMP TO A DIFFERENT PLACE IN THE MACRO OR EXECUTE CONDITIONALLY

Sometimes you would like to have the Word Processor execute the same commands over and over, in a looping, or circular fashion. Sometimes you will also find that you would like your macro to execute certain macrocommands in one case and others in a different case. For instance, a macro might include the following series: Search; if found, repeat this series of keystrokes; if not found, jump here and execute this series.

To accomplish this you can add special macrocommands to your macro that tell the Word Processor where to jump, and when to do so. These macrocommands are designed especially to deal with conditional execution and can be added only by

unloading your macro, editing the listing, and loading the macro again.

The macrocommands introduced in this subsection are discussed in more detail in Section 22, "Macrocommands." An example, shown in Figure 21-4, illustrates the use of the macrocommands that are described below.

Many of these special macrocommands use the concept of a label, which is like a signpost that shows the Word Processor where in the macro it should jump. A label is exactly that, a string of characters that you place immediately before a series of macrocommands.

You label a series of macrocommands in your macro by using the Label macrocommand to assign a label, this way

```
Label 'labelname'  
macrocommand  
macrocommand
```

Then, you use another macrocommand to tell the Word Processor to jump to the label. For example the macrocommand Goto tells the Word Processor to jump to a specified label and is given this way

```
Goto 'labelname'
```

Goto is most often used to create a looping or circular series of macrocommands. In this case, you need to find a way to keep the Word Processor from executing the loop forever. To do so, you use one of the conditional macrocommands.

Conditional macrocommands execute only if a certain condition is true. They all begin with the word "if". They can be used in conjunction with the Goto macrocommand or alone.

The conditional commands available are

- o If 'Found' Used with Search only
- o If 'Not Found' Used with Search only

- o If 'This Character' Used to make the Word Processor jump to a different labeled place in the macro, if the cursor is under the character specified.

- o If 'Not This Character' Used as the command above, only works if the character specified does not match the one the cursor is under.

- o If 'Operator Choice' Used to make the Word Processor display a message on the screen, pause for keyboard input, and, then, if a specified character is entered, to jump to a different labeled place in the macro.

- o If 'At End of Document' Used to test that the end of the document has been reached. Note this is not the last character in the document. It is the point after the last one.

- o If 'Not At End of Document' Used to test that the end of the document has not been reached.

These commands are described in more detail in Section 22, "Macrocommands."

When you use a conditional macrocommand you often will want to follow it with a Goto command or another macrocommand, Exitmacro, which makes the Word Processor stop this repetition of the macro. Since the Word Processor always stops when it reaches the end of the macro, Exitmacro is usually used with a conditional somewhere other than the end of your macro.

```

Label'Repeat Figure Bold'
Display SearchMenu
Typing 'Figure 21-'
Search
If 'Not Found' 'Bold Macrocommands'
CursorRight
CursorRight
Bound
DisplayFormatMenu
BoldOn
Goto 'Repeat Figure Bold'
Label 'Bold Macrocommands'
DisplaySearchMenu
Typing 'macrocommands'
Search
If 'Not Found' 'End Label'
DisplayFormatMenu
BoldOn
Label'End Label'
ExitMacro

```

Figure 21-4. A Macro Listing Showing Conditional Execution and Looping.

EXAMPLE SHOWING CONDITIONALS AND LOOPING

The example shown in Figure 21-4 shows the use of several looping series of macrocommands.

The macro first searches for a phrase. If the phrase is not found, it jumps to the label "Bold Macrocommands." Otherwise it extends the selection by two additional characters and makes the characters Boldface text. Then it jumps back to the beginning and executes this series of commands again.

The inclusion of the If 'Not Found' macrocommand terminates the loop above, so that the commands after the label "Bold Macrocommands" can finally be executed. Note that this loop also is terminated by an If 'Not Found' command, which sends the Word Processor to the label "End Label" and the end of the macro.

MACROS CAN USE THEMSELVES

Macros can be recursive; that is, they can call themselves. This is the same looping principle described above, except that the entire macro is a loop.

Recursive macros are useful when a simple task must be performed over and over.

For example, if you want to Search for all occurrences of some phrase and perform an edit, such as to make the phrase boldface; a macro that performs the task once, then calls itself is easy to create and would execute as often as necessary.

When you use a recursive macro, you must add a macrocommand to tell the Word Processor when to stop repeating itself.

A listing of a sample recursive macro is shown in Figure 21-5. The macro itself is named "Bold". It calls itself to repeat the search until the phrase is not found, when it ends the macro, using the ExitMacro macrocommand.

```
DisplaySearchMenu
Typing 'macrocommands'
Search
If 'Not Found' 'end'
DisplayFormatMenu
BoldOn
DisplayRecallMacro
Typing 'bold'
RecallMacro
Label 'end'
ExitMacro
```

Figure 21-5. A Macro Listing Showing a Recursive Macro.

MACROS INTERACT WITH THE OPERATOR

You can use the Message macrocommand to make the Word Processor display a specified message on the screen. You can also specify that the Word Processor beep when the message is displayed.

The AllowOperatorInput macrocommand is used to set up your macro so that the Word Processor will suspend the execution of the macro at a specified point during recall. During the suspension you can do any Word Processor action(s) you usually do. Then you press CODE-GO to resume the execution of the macro.

For instance, you could set up a macro to search for a phrase and pause if it is found so that you can modify the sentence within which the phrase occurs, then resume and repeat.

AllowOperatorInput works like Message, so that you can have the Word Processor display a message to tell the operator what to do and beep to get the operator's attention.

Both Message and AllowOperatorInput can be used after a conditional command to perform complicated series of commands and edits.

EXAMPLE OF A MACRO SHOWING OPERATOR INPUT

The example shown in Figure 21-6 creates the heading for a memo, pausing for operator input to complete the To, From, Date, Subject, and Copies fields of the memo heading. The last phrase recalled includes a line that goes across the page to separate the heading from the rest of the memo, and a paragraph symbol. After this, the macro ends so that the text of the memo can be typed.

Note that phrases are used to construct the heading, rather than typed text. This allowed more accurate placement of the cursor and quicker recall of the macro.

If you want to try this example yourself, use your own memo format and store each of the phrases first. Each phrase should be a new paragraph.

```

DisplayDocumentsMenu
DisplayOpenDocumentMenuFromDocumentsMenu
Typing 'memo.'
AllowOperatorInput 'Enter memo title after
period.' '4' 'Beep'
OpenDocument
DisplayRecallPhraseMenu
Typing 'To'
RecallPhrase
AllowOperatorInput 'Enter the name(s) of those
on your distribution list.
Then press CODE-GO to resume.' '4' 'Beep'
DisplayRecallPhraseMenu
Typing 'From'
RecallPhrase
AllowOperatorInput 'Enter your name.
Then press CODE-GO to resume.' '4' 'Beep'
DisplayRecallPhraseMenu
Typing 'Date'
RecallPhrase
AllowOperatorInput 'Enter today''s date.
Then press CODE-GO to resume.' '4' 'Beep'
DisplayRecallPhraseMenu
Typing 'Subject'
RecallPhrase
AllowOperatorInput 'Enter the memo title.
Then press CODE-GO to resume.' '4' 'Beep'
DisplayRecallPhraseMenu
Typing 'Copies'
RecallPhrase
AllowOperatorInput 'Enter the names of those
you want to have copies of the memo.
Then press CODE-GO to resume.' '4' 'Beep'
DisplayRecallPhraseMenu
Typing 'Line'
RecallPhrase

```

Figure 21-6. A Macro Listing Showing Operator Input.

SETTING CONFIRMATION

Many Word Processor commands that you will want to use in your macro require some confirming action from you. Two examples are

- o When you create a new document, the Word Processor prompts you for confirmation by asking you to press GO.
- o When you use the command Replace, you might choose Yes for the field "Confirm Each?", so that the Word Processor prompts you for confirmation with each occurrence of the string.

When you store your macro with Store Macro, you can choose to change the default setting, "User" to "Macro" or "Default".

The "User" setting causes the Word Processor to prompt for confirmation during the recall of the macro, just as it would if it were executing the same commands and not executing a macro.

To have the macro replay exactly as stored, including each confirmation keystroke, you can use the "Macro" setting. In this case, the macro can execute with no operator input at all.

The "Default" setting is used when you want the macro to execute automatically, but you want it to choose its own internal default for the confirmation. For instance, the default for confirmation when a new document is created is to create the document. The best way to find out how the "Default" setting will work is to try it, since the default is used for confirmation during storing of the macro as well as recall.

You can set Confirmation using the Confirmation macrocommand also.

TESTING A MACRO

When you work with more sophisticated macros, you may find that a macro you just created does not work as you had expected.

To see how a macro is being executed you may want to recall the macro in single step mode, which causes the Word Processor to pause after each macrocommand. When you do this you can follow along in the macro listing as the macro executes, and you can see where a change is necessary.

You cannot make any edits during the pause. Recall is resumed when you press CODE-GO.

Since macros can actually make changes to the text of a document, it is useful to make a copy of the document on which you want to test your macro before you try the macro for the first time.

WARNING

A macro created using one release of the Word Processor may not work under a later release.

Commands are invoked by the macro in the same way as they are when you actually type them. Therefore, a macro that uses a changed menu can complete the wrong field of the form, scroll to the wrong place in the document, for example.

If you want to use a macro created under a different Word Processor release, test it first on a copy of your document, or create a new macro.

Macros may also work differently from one type of workstation to another, depending on the size of the screen.

Table 21-1. Advanced Keystroke Macro Hints.

<u>If you want to...</u>	<u>Then...</u>
Copy a macro	Unload Macro (f7(COMMANDS)...N), then Load Macro, (f7(COMMANDS)...A), specifying a new name for the macro.
Use only part of an existing macro	Unload the macro, mark and select the macrocommands you want. Give the Load Macro command and load the selected macrocommands under a new macro name.
Type text in a macro that you intend to use repeatedly	Use Recall Phrase; it is faster.
Perform the same task, over and over	Make part of the macro loop with Goto and a Label.
Use a macro to perform a repetitive task that requires human decisions	Add the AllowOperatorInput command.
Perform the same series of edits as a small part of a macro when you already have a different macro that does them	Nest one macro with- in the other.
Set up a macro for use on some other type of workstation	Try to make all scrolling and move- ment dependable; use predictable com- mands like Search, Go to Page, etc.

22 MACROCOMMANDS

This section lists all available macrocommands that you could find in a macro listing, including macrocommands that cannot be invoked directly through the Word Processor.

This list of macrocommands is explained in three subsections, "Macro Programming Commands," "Macrocommands for Screen and Cursor Movement," and "Word Processor Commands."

Some macrocommands require that you supply certain parameters, additional information the Word Processor needs to execute the command, similar to the information you supply when you complete a command form. For instance, when you give the AllowOperatorInput macrocommand you also indicate a message, how many lines that message will need on the screen, and whether the Word Processor should beep.

In the following sections, if a macrocommand requires parameters, the parameters are indicated within single quotes ('description'). Parameters should be given in single quotes when you add the macrocommand to your document. If you want to skip the parameter, you still have to include the single quotes, and should leave no spaces between (''). To add a single quote within your quoted string, you must type the single quote twice (''). For example to include a single quote in a typing string do it like this: Typing 'Here''s the single quote.'

Within each subsection additional information is given that applies to the use of that specific type of macrocommand.

Note that if you are unsure about what a macrocommand does or need to know how to give a series of macrocommands for the Word Processor, an ideal solution is to try the command. You can store it as a small macro using Store Macro, then unload the listing, using Unload Macro. To experiment in the other direction, select the macrocommand you are wondering about, give the Load Macro command and specify a new name for this short macro, then use Recall Macro to see how it appears when it is executed.

MACRO PROGRAMMING COMMANDS

These macrocommands allow you to include special functions in your macro. They cannot be included in the macro when you use Store Macro. To use them you must add them to a macro listing (usually created by using Unload Macro), then insert into your macro file using the Load Macro command.

You must use the syntax defined below for each of these macrocommands when you add it to the macro listing.

Message 'message' 'number of lines for message'
'beep' 'a'

Displays the message in the specified number of lines at the bottom of the screen, beeps, stops the macro until you enter 'a', but allows no other operator input.

Number of lines on the screen can be a maximum of 31. (This may vary with type of workstation.)

The character 'a' does have to be a typing character, that is, one that can be entered from the keyboard without the use of the Insert Literal or Insert Hexadecimal commands.

If you do not want the workstation to beep, enter 'Do not beep'.

AllowOperatorInput 'message' 'number of lines for message' 'beep'

This command displays the message in the specified number of lines at the bottom of the screen, beeps, displays the 'CODE-GO to Continue Macro' attention flag, and suspends the recalling of the macro so that you can perform any Word Processor commands. The macro is resumed when you press CODE-GO.

The number of lines on the screen can be a maximum of 31. (This may vary with type of workstation.)

If you do not want the workstation to beep, enter 'Do not beep'.

Goto 'labelname'

Goto jumps to the specified label.

Label 'labelname'

Label defines a label for all commands that jump to a label.

If 'Found' 'labelname'

If the previous Search is successful the macro jumps to the specified label.

This command must only be used immediately after a Search command.

If 'Not Found' 'labelname'

If the previous Search is not successful the macro jumps to the specified label.

This command must only be used immediately after a Search command.

If 'This Character' 'a' 'labelname'

If the character under the cursor is the same as 'a', the macro will jump to the specified label.

If 'Not This Character' 'a' 'labelname'

If the character under the cursor is not 'a', the macro will jump to the specified label.

If 'At End Of Document' 'Label'

Used to jump to the specified label if the macro is at the end of the document. Note that this does not mean at the last character of the document, but at a point past this last character.

If 'Not At End Of Document' 'Label'

Used to jump to the specified label if the macro is not at the end of the document.

If 'Operator Choice' 'a' 'b' 'message' 'number of lines for message' 'labelname'

'a' and 'b' must be different typing characters.

Displays the message in the specified number of lines at the bottom of the screen, stops the macro until you enter 'a' or 'b'. If 'a' is entered, jumps to the specified label; if 'b' is entered, continues to the next macrocommand without jumping.

Exitmacro

Exitmacro ends the recall of the current macro. Use with a condition to end a macro at a place other than the last macrocommand.

Confirmation 'From'

Used to indicate where the confirmation for commands requiring user confirmation will come from; user, stored in the macro, or internal Word Processor default.

Valid entries are 'From User', 'From Macro', and 'Use Default'.

MACROCOMMANDS FOR TYPING AND SCREEN MOVEMENT

These commands are used to indicate keystrokes that you regularly use to type, move the cursor, and move the screen display. The Mark keys, CANCEL, HELP, MOVE, DELETE, and COPY are Word Processor commands and are discussed in the subsection "Word Processor Commands." In the list below, keys or key combinations are indicated in parentheses.

Note that when you are storing a macro, the Word Processor records the depression and continued holding down of an arrow key as a series of single

spaced cursor movements, which is quite different from the way in which it records the use of CODE or SHIFT plus an arrow key.

Backspace Moves the cursor back one space. In overtype mode, does not delete the character. (BACKSPACE)

ClearColumn Clears a column of tabbed text where you have your cursor. (CODE-DELETE)

CursorDown Moves cursor down one space. (Down arrow)

CursorLeft Moves cursor left one space. (Left arrow)

CursorRight Moves cursor right one space. (Right arrow)

CursorToBeginningOfLine

Moves the cursor to the first character or format symbol on the line. (CODE-left arrow)

CursorToBottomOfWindow

Moves the cursor to the bottom of the window. (CODE-down arrow)

CursorToEndOfLine

Moves the cursor to the point after the last character on the line. (CODE-right arrow)

CursorToTopOf Window

Moves the cursor to the top of the window. (CODE-up arrow)

CursorUp Moves cursor up one space. (CODE-up arrow)

Diacritical '..'

Inserts a diacritical into text. This example shows the umlaut, but any other diacritical mark can be added. This should be followed by

a Typing macrocommand to indicate the letter to which the diacritical is added.

FastCursorDown

Moves cursor down 3 spaces.
(SHIFT-down arrow)

FastCursorLeft

Moves cursor left 5 spaces.
(SHIFT-left arrow.)

FastCursorRight

Moves cursor right 5 spaces.
(SHIFT-right arrow)

FastCursorUp Moves cursor up 3 spaces.
(SHIFT-up arrow)

FastScrollDown

Scrolls document displayed in window down by 4 lines.
(SHIFT-SCROLL-DOWN)

FastScrollUp Scrolls document displayed in window up by 4 lines.
(SHIFT-SCROLL-UP)

NextPage Scroll to next page break.
(NEXT PAGE)

PrevPage Scroll to last page break.
(PREV PAGE)

Next Moves the cursor to the next field of a command form. (NEXT)

NextTab Moves the cursor to the next tab position. (NEXT)

NewLine Inserts a line break.
(SHIFT-RETURN)

Overtyp Turns the OVERTYPE key on if it is off, and off if it is on.
(OVERTYPE)

ScrollScreenDown

Scrolls the window down as far as it will go. (CODE-SCROLL-DOWN when the cursor is on the window divider)

ScrollScreenUp

Scrolls the window up as far as it will go. (CODE-SCROLL-UP when the cursor is on the window divider)

ScrollDown SCROLL DOWN one line.
(SCROLL DOWN)

ScrollUp SCROLL UP one line. (SCROLL UP)

SetChoice 'Y' Sets a menu choice. Y can be any character that is a menu choice. For instance, you usually have a choice in menus between Y or N, for Yes or No, but using the Break Type menu one choice is S for static page break.

SingleTab Inserts only one tab symbol into text. (SHIFT-TAB)

Tab Inserts the correct number of tab symbols and moves the cursor to the next tab stop. (TAB)

Typing 'whatever you type'

Used to indicate typing of any text in a macro, whether it is text in a document or typing that completes a command form.

WORD PROCESSOR COMMANDS

You can use all Word Processor commands in a macro except Typethrough, Finish, Load Macro, Unload Macro, List Macros, and Remove Macro.

Use of macrocommands reflects internal Word Processor execution. This means that sometimes you have to use a macrocommand for a special circumstance. For example, the macrocommand RemoveTabsorIndentMenu is used when you press

CANCEL to remove the Tabs or the Indent menu from the screen, because this is a use of the CANCEL key that the Word Processor requires special information for.

Note that when you use a command that invokes a menu there is a macrocommand that brings up the menu, then an additional macrocommand is used to indicate the choice. For instance, to make something boldface, you give the DisplayFormatMenu macrocommand, then the macrocommand BoldOn.

When you use a command that has a command form, you use a macrocommand to bring up the form, and you make the necessary typing commands to complete the form; an additional command executes the command. GO does not appear explicitly as a macrocommand.

For example, for the Collect Footnotes command, DisplayCollectFootnotesMenu brings up the menu, then the macrocommand Typing 'Document name' is used with the name of the document that you type into the command form shown in the quotes, and the macrocommand CollectFootnotes executes the command.

In addition, if the form is one like Page Dimension, for which choices must be set, you use the SetChoice macrocommand, listed in the subsection "Macrocommands for Typing and Screen Movement."

If you are considering writing a macro without using Store Macro, note that menu and form completion is much easier if you do use Store Macro.

The following listing is organized alphabetically by command name. It differs from the commands listing in Section 18, "Commands and Options," in that commands such as Boldface, which is really an option on the menu displayed by another command, Format, are not listed under their own name. Instead, they appear under the names of the commands through which they are accessed.

The keystrokes that each macrocommand represents are shown at the right edge of the page. When the macrocommand is the same as the command name, the name only is listed.

Add Row/Column

DisplaySumMenu CODE-=

Backspace BACKSPACE

Backspace

RequiredBackspace CODE-BACKSPACE

Backspace, Word

BackWord CODE-W

Bound BOUND

Cancel CANCEL

See also Interrupt, RemoveTabsorIndentMenu

Close Window

CloseWindow CODE-C

Collect Footnotes

DisplayCollectFootnotesMenu CODE-SHIFT-F
CollectFootnotes Executes completed form

Commands

DisplayCommandsMenu F7(COMMANDS)

Macro Maintenance commands. Note that these commands would change the macro file. You can display the menu, but cannot execute the command.

List Macros

DisplayListMacrosMenu T

Remove Macro

DisplayRemoveMacrosMenu O

Load Macro

DisplayLoadMacroMenu A

Unload Macro

DisplayUnloadMacroMenu N

Commands (cont.)

Exit Commands

Electronic Mail

DisplayElectronicMailMenu	E
ElectronicMail	Executes completed form

Multiplan

DisplayMultiplanMenu	M
Multiplan	Executes completed form

Picture Editor

DisplayPictureEditorMenu	P
PictureEditor	Executes completed form

Executive

DisplayExecutiveMenu	X
Executive	Executes completed form

Phrase Maintenance Commands

Remove Phrase

DisplayRemovePhraseMenu	R
RemovePhrase	Executes completed form

List Phrases

ListPhrases	I
DisplayListPhrasesMenu	
	Executes completed form

Spelling Commands

Check Spelling

VerifySpelling	C
DisplayWordNotFoundMenu	
UseCorrection1	1
UserCorrection2	2
UserCorrection3	3
SkipWord	
IgnoreWord	
AddWordToUserDictionary	
CancelSpell	CANCEL

Commands (cont.)

Spelling Commands (cont.)

Load Personal Dictionary

DisplayLoadDictionaryMenu L
LoadDictionary L
 Executes completed form

Unload Personal Dictionary

DisplayUnloadDictionaryMenu U
UnLoadDictionary U
 Executes completed form

Hyphenate Word

HyphenateWord H

List Processing Commands

Sort/Select

DisplaySortSelectMenu S
SortSelect S
 Executes completed form

Merge

DisplayMergeMenu G
Merge G
 Executes completed form

Merge to a Document

DisplayMergeToADocumentMenu Q
MergeToADocument Q
 Executes completed form

Other Commands

Document Exchange

DisplayDEFMenu D
DEF D
 Executes completed form

Reformat Tabs

FixTabs TAB

Copy

DisplayCopyMenu COPY
Copy COPY
 Executes completed form

Date Time

DisplayDateAndTime CODE-T

Delete DELETE

Discard Edits

Discard CODE-U

Divide Window CODE-D

DivideWindow CODE-D

Documents

DisplayDocumentsMenu CODE-f1(DOCUMENTS)

Open Document

DisplayOpenDocumentMenuFromDocumentsMenu

OpenWindow Executes completed form O

Note that the Open Document Command (CODE-O) appears in macrocommand format as follows:

DisplayOpenDocumentMenu CODE-O

OpenWindow Executes completed form

Delete Document

DisplayDeleteDocumentMenu D

DeleteDocument Executes completed form

Copy Document

DisplayCopyDocumentMenu C

CopyDocument Executes completed form

Rename Document

DisplayRenameDocumentMenu R

RenameDocument Executes completed form

Work Area

DisplayWorkAreaMenu W

WorkArea Executes completed form

Documents (cont.)

List Documents

DisplayListDocumentsMenu	L
Directory	Executes completed form

Finish. Finish cannot be executed from a macro. If the command is given while storing a macro, it is not executed but appears in the listing as "Finish."

Footers

DisplayFooterMenu	SHIFT-f5(FOOTER)
DisplayBothFooters	B
DisplayEvenFooter	E
DisplayOddFooter	O
ApplyHeaderOrFooter	Executes completed footer

Footnotes

DisplayFootnote	CODE-F
ApplyFootnote	Executes completed form

Forced Page

InsertForcedPage	CODE-NEXT PAGE
------------------	----------------

Format

DisplayFormatMenu	f4(FORMAT)
DisplaySecondFormatMenu	
displayed by pressing twice	f4(FORMAT)

Return to Normal text

Normaltext	CODE-N
------------	--------

Boldface

BoldOn	B
BoldOff	CODE-B

Underlined

UnderlineOn	hyphen key
UnderlineOff	CODE-hyphen

Double-underlined

DoubleUnderlineOn	=
DoubleUnderlineOff	CODE==

Format (cont.)

Struck-out Text

StrikeThroughOn	S
StrikeThroughOff	CODE-S

Superscript Text

SuperscriptOn	^
SubscriptSuperscriptOff	CODE-^

Subscript Text

SubscriptOn	.
SubscriptSuperscriptOff	CODE-.

Alternate Ribbon Color

AlternateRibbonOn	A
AlternateRibbonOff	CODE-A

Merge Keyword

KeyWordOff	K
KeyWordOn	CODE-K

Left-flush Text

LeftFlush	L
-----------	---

Centered Text

Center	C
--------	---

Justified Text

Justify	J
---------	---

Right-flush Text

RightFlush	R
------------	---

Single-spaced Text

SingleSpacing	1
---------------	---

Double-spaced Text

DoubleSpacing	2
---------------	---

Format (cont.)

Single/Double Spacing

Single/DoubleSpacing	/
1 1/2 Line Spacing	1/2 key
OneAndAHalfSpacing	

Other Line Spacing

DisplayOtherLineSpacingMenu	O
OtherLineSpacing	Executes completed form

Page Format

DisplayPageFormatMenu	P
SetPageFormat	Executes completed form

Page Dimension

DisplayPageDimensionMenu	D
FormatPageDimensions	Executes completed form

Pitch

DisplayPitchMenu	spacebar
8Pitch	8
10Pitch	0
12Pitch	2
15Pitch	5
DefaultPitch	D

Print Wheel

DisplayWheelMenu	W
Wheel1	1
Wheel2	2
Wheel3	3
Wheel4	4
Wheel5	5
Wheel6	6
Wheel7	7
Wheel8	8
Wheel9	9
Wheel10	0

Format (cont.)

Print Wheel (cont.)

DisplaySecondWheelMenu	
displayed by pressing W twice	W
Wheel11	1
Wheel12	2
Wheel13	3
Wheel14	4
Wheel15	5
Wheel16	6
Wheel17	7
Wheel18	8
Wheel19	9
Wheel20	0

Print Wheel Only

DisplayWheelOnlyMenu	0
Wheel1Only	1
Wheel2Only	2
Wheel3Only	3
Wheel4Only	4
Wheel5Only	5
Wheel6Only	6
Wheel7Only	7
Wheel8Only	8
Wheel9Only	9
Wheel0Only	0
DisplaySecondWheelOnlyMenu	
displayed by pressing O twice	0
Wheel11Only	1
Wheel12Only	2
Wheel13Only	3
Wheel14Only	4
Wheel15Only	5
Wheel16Only	6
Wheel17Only	7
Wheel18Only	8
Wheel19Only	9
Wheel20Only	0

Break Type

DisplayBreakTypeMenu	Q
SetFloatingPageBreak	F
SetStaticPageBreak	S
SetOddPageBreak	O
SetEvenPageBreak	E
SetColumnPageBreak	C

GO. Note that Go only appears in your macro when you have pressed it by mistake while storing your macro, for example, when you press GO instead of the right-arrow key as a typing error.

If you put Go into a macro listing, and load the listing, the Go is not executed.

Go to Page

DisplayPageMenu	CODE-f6(GO TO PAGE)
GoToPage	Executes completed form

Go to Previous Edit

LastInsertionPoint	SHIFT-f1(GO TO PREVIOUS EDIT)
--------------------	-------------------------------

Go to Source Code Line

DisplayGotoLineMenu	CODE-SHIFT-G
GoToLine	Executes completed form

Headers

DisplayHeaderMenu	f5(HEADER)
DisplayEvenHeader	E
DisplayOddHeader	O
DisplayBothHeaders	B
ApplyHeaderOrFooter	Executes completed form

Help

DisplayHelpMenu	HELP
-----------------	------

Hyphen

Hyphen	hyphen
Non-breakingHyphen	CODE-hyphen
Non-requiredhyphen	CODE-SHIFT-hyphen

Insert Hexadecimal

DisplayInsertHexadecimalMenu	CODE-I
InsertHexadecimal	Executes completed form

Insert Literal

LiteralInsertion	CODE-'
------------------	--------

Interrupt This command is given to cancel a command during execution.

Interrupt CANCEL

Keep Together

KeepTogether

Line Break

NewLine SHIFT-RETURN

Locate

Locate CODE-L

Mark Commands

MarkCharacter MARK

MarkColumn CODE-f9 (MARK COLUMN)

MarkLine f9 (MARK LINE)

MarkParagraph f10 (MARK PARAGRAPH)

MarkWord f8 (MARK WORD)

MarkDocument CODE-f10 (MARK DOC)

MarkPage CODE-f8 (MARK PAGE)

Mark Page or Mark Doc also use the Mark menu displayed when you give a character format command after Mark Page or Mark Doc.

DisplayMarkMenu

FormatFromMarkMenu Executes completed form

Move

DisplayMoveMenu

Move MOVE

Next Key

Next		NEXT
NextTab	Moves to the next field in a menu	NEXT
NextColumn	Moves to the next tab stop in text	CODE-NEXT
	Starts the next serpentine or synchronized column	column

Page Number

PageNumber	CODE-f5 (PAGE NUMBER)
RomanPageNumber	CODE-SHIFT-f5

Paragraph, New

NewParagraph	RETURN
--------------	--------

Paragraph Indent

DisplaySetParagraphIndentMenu	CODE-f3 (INDENT)
SetFirstLineIndent	F
SetOtherLineIndent	O
SetLeftIndent	L
SetRightIndent	R

Indent	CODE-TAB
--------	----------

Unindent	CODE-SHIFT-TAB
----------	----------------

TotalUnindent	CODE-SHIFT-RETURN
---------------	-------------------

RemoveTabsOrIndentMenu	CANCEL
------------------------	--------

Print

DisplayPrintMenu	SHIFT-f4 (PRINT)
DisplayLocalPrintingMenu	SHIFT-f4 (PRINT)
Print	Executes completed form

Printer Status

DisplayPrinterStatusMenu		CODE-P
DisplaySelectPrinterMenu		S
SelectPrinter	Executes completed form	
HaltPrinting		H
ResumePrinting		R
DisplayReprintMenu		P
Reprint	Executes completed form	
DisplayCancelPrintingMenu		C
CancelPrinting	Executes completed form	
PrintQueue		Q
BackgroundQueue		B

Recall Phrase

DisplayRecallPhraseMenu	f7(RECALL PHRASE)	
RecallPhrase	Executes completed form	

Redo

Redo	f1(REDO)	
------	----------	--

Recall Macro

DisplayRecallMacroMenu	SHIFT-f2(RECALL MACRO)	
Recall Macro	Executes completed form	

Replace

DisplayReplaceMenu	SHIFT-f6(REPLACE)	
Replace	Executes completed form	

Remove Format

RemoveFormat		CODE-R
--------------	--	--------

Review Document

DisplayReviewMenu	CODE-f4(REVIEW)	
Review	Executes completed form	

Roman Page Number; see Page Number

Save

Save CODE-S

Search

DisplaySearchMenu f5 (SEARCH)
Search Executes completed form

Space

Non-breakingSpace CODE-SHIFT-spacebar
Non-requiredSpace spacebar

Store Macro

DisplayStoreMacroMenu CODE-f2 (STORE MACRO)
StoreMacro Executes completed form

Store Phrase

DisplayStorePhraseMenu SHIFT-f7
StorePhrase Executes completed form

Synchronized Columns

DisplaySynchColumnsMenu CODE-/
SynchColumns Executes completed form

Tabs

DisplayTabMenu f3 (TABS)
SetLeftTab L
SetRightTab R
SetCenteredTab C
SetDecimalTab D
SetEvenlySpacedTabs E
ClearOneTab O
ClearAllTabs A
DisplayLeaderMenu .
SetLeftTabwithLeaderDots L
SetRightTabwithLeaderDots R
SetCenteredTabwithLeaderDots C
SetDecimalTabwithLeaderDots D
RemoveTabsOrIndentMenu CANCEL

Thumb

Thumbto0percent	CODE-^
Thumbto10percent	CODE-1
Thumbto20percent	CODE-2
Thumbto30percent	CODE-3
Thumbto40percent	CODE-4
Thumbto50percent	CODE-5
Thumbto60percent	CODE-6
Thumbto70percent	CODE-7
Thumbto80percent	CODE-8
Thumbto90percent	CODE-9
Thumbto100percent	CODE-0

Unmark

Unmark	CODE-MARK
--------	-----------

Undo

Undo	f2(UNDO)
------	----------

Visible

Visible	CODE-V
---------	--------

Word Backspace; see Backspace, Word

Zoom (available only on some workstations)

Zoom	CODE-Z
------	--------

APPENDIX A: STATUS CODES

The Status Codes Manual lists all status messages generated outside the Word Processor.

The status messages produced by the Word Processor that are self-explanatory have not been listed here.

If you get a status code in the range 1300-1399, record the number, note the operation you were performing just before this condition, and initiate a recover, as described in Section 13, "Document Management." After the Recover is complete, immediately give the Save command (CODE-S) before proceeding.

The 1300-1399 status codes indicate some internal inconsistency in the word processing software, perhaps because of some table or work area being exceeded. The exact causes are hard to determine, since several functions in sequence may have caused the problem. A description of your previous sequence of operations, plus the status code number will be of help in determining the error.

APPENDIX B: PROGRAMMING NOTES

This Appendix describes the programming-specific functions that are used primarily by software programmers for editing and documenting work. These functions are inserting hexadecimal and literal characters, thumbing through a document, moving directly to a numbered source code line, discarding edits, and removing formats.

In addition, note that the keystroke macro facility can be of great use in programming, since it allows you to automate repetitive editing jobs. For instance, a macro can be used to remove the last parameter and the space and comma preceding it from a parameter list by the following: storing a search for a particular procedure call, a search for a right parenthesis, a Backspace, a Mark Word, a Delete, and two additional Backspace and Delete sequences.

Each of the commands mentioned here is discussed in detail in Section 18, "Commands and Options." Section 18 is organized alphabetically by command name and includes information on the defaults and limitations of each command.

GO TO SOURCE CODE LINE

The Go to Source Code Line command (CODE-SHIFT-G) moves the cursor to a specific source code line. Source code line is based on the number of line breaks and paragraph marks in your document and, therefore, corresponds to the line number listed by the compiler.

INSERTING HEXADECIMAL CODE

The Insert Hexadecimal command (CODE-I) inserts a character specified by hexadecimal code. The Insert Hexadecimal form is shown below.

INSERT HEXADECIMAL: (Press GO to execute,
CANCEL to dismiss)

Hexadecimal code(s):

To insert a character specified by hexadecimal code:

1. Place the cursor at the point in text where you want to insert the character.
2. Give the Insert Hexadecimal command by pressing CODE-I. The Insert Hexadecimal form appears.
3. Type the hexadecimal code.

For example, to insert a slashed 0, type A6 into the command form.

To specify more than one hexadecimal code, separate them with commas. For example, A6, A7, A8.

4. Press GO and the hexadecimal character is inserted in text at the cursor position.

INSERTING LITERAL CHARACTERS

The Insert Literal command (CODE-') inserts a literal character at the cursor position. To use this command, press CODE-' and then the key for the literal you want to insert. For example, to insert a (up arrow), press CODE-' and then the up arrow key.

THUMBING THROUGH A DOCUMENT

Thumbing moves the cursor to a specified relative position within the document. The caret key (^) to the zero key (0) on the top row of the typewriter pad are analogous to the thumb indents of a dictionary. Think of the document as being divided into tenths. Each time you press CODE together with any of the keys 1 through 0, the cursor moves through the document in increments of ten. CODE-^ moves the cursor to the beginning of the document.

DISCARDING EDITS

The Discard Edits command discards all edits made to the current document since the last Finish or Save.

Discard is invoked by pressing CODE-U. When these keys are pressed, the following message appears:

Press GO to confirm Discard or CANCEL to cancel the command

Before you press GO, be sure that you really want to remove the edits from the document. Once this command is executed, it cannot be undone.

ACTION-FINISH

Pressing ACTION and FINISH at the same time exits the Word Processor without saving any documents and returns the Executive to the screen. This procedure should not normally be used to finish a word processing session.

REMOVING FORMATTING

You might wish to remove a document's formatting attributes and leave just the raw, unformatted text. Use the Remove Format command, invoked by pressing CODE-R.

When these keys are pressed, the following message appears:

Press GO to confirm Remove Format, CANCEL to cancel command.

Before you press GO, be sure that you really want to remove the formatting from the document. Once this command is executed, it cannot be undone.

When GO is pressed, the message

Saving...

appears at the bottom of the screen to indicate that the document is being saved while the formatting attributes are removed.

The message

Save complete

appears when the formatting is removed.

Figure 8-2 shows how the document looks when formatting has been removed. All character attributes such as boldface and underline are removed, as are tab stops and paragraph indents. All text is aligned at the default left indent setting.

WILD CARD CHARACTERS AND FILE SPECIFICATIONS

In the Word Processor, use of wild card characters varies from the Executive. The wild card characters cannot be used as a part of a file specification with the Open Document, Copy Document, Delete Document, or Rename Document commands.

Use of the wild card characters in the Word Processor is limited to the "Pattern" field of command forms only.

CHARACTERS THAT SHOULD NOT BE INCLUDED IN SOURCE CODE

Note that the Keep Together symbols, discretionary hyphens, non-breaking hyphens, discretionary spaces, and non-breaking spaces are not stored internally in the same way that other Word Processor formatting is. Because of this, they should not be included in source code.

APPENDIX C: REFORMATTING TABS

Tabs in Word Processor Release number 8.3 and higher work slightly differently than in earlier versions (6.05 and earlier) of the Word Processor, to facilitate tabbed column operations.

HOW TABS FUNCTIONED BEFORE 8.3

The Figure below shows columns of data, using tabs to separate the columns:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
aaa	bbb	ccc	ddd
eee	fff	ggg	hhh

If text is added to field aaa in column 1, the tab following that text grows smaller until it is only one character wide.

In previous versions of the Word Processor, when the next character is added to field aaa, the tab character is displaced into the next tab field, moving the text following it to the start of the next tab stop as shown below:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
aaaaaaa	bbb	ccc	ddd
eee	fff	ggg	hhh

This changes the relationship of a data field and the column of which it is a part.

With tabbed column operations, it is desirable to retain the relationship of a data field and its column. Word Processor releases of 8.3 and higher do this by displacing only the data in the next column by only a small amount and additionally do not change the relationship of a data field and its column, as shown below:

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
aaaaaaa	bbb	ccc	ddd
eee	fff	ggg	hhh

HOW TABS WORK ON 8.3 AND HIGHER

The general rule for tabs has changed. In 6.05 and earlier versions of the Word Processor, any tab character tabbed to the next tab stop. In Word Processor 8.3, the general rule is that the nth tab character tabs to the nth tab stop.

To make this as transparent to the user as possible, pressing TAB will automatically insert as many tab characters as needed to get the cursor to the next tab stop.

Pressing SHIFT-TAB inserts exactly one tab character.

EXAMPLE

The figure below shows Left tab stops represented by "L" above the line, text below the line. Note the position of the cursor at the end of the line of text.

```
      L      L      L      L      L      L      L      L
-----
Abcd efgh ijkl mnop qrst uvwx yz_
```

In Word Processor 8.3 or higher, if TAB is pressed, 6 tab characters will be inserted into the text, so that the next character entered will align itself at the sixth tab stop, which is the first tab stop past the cursor.

In 6.05 and earlier versions of the Word Processor, if TAB is pressed, one tab character will be inserted into the text, and the next character entered will align itself at the sixth tab stop, which is the first tab stop past the cursor.

This means that documents created with the older versions of the Word Processor will not always align text under tab stops correctly.

UPDATING DOCUMENTS TO WORK WITH NEW TABS

Documents created under these older versions of the Word Processor may be updated to handle tabs correctly by using the Reformat Tabs command (CODE-f7(COMMANDS)...TAB), an option on the Commands menu.

Place the cursor in the document that is to have tabs reformatted and press CODE-f7(COMMANDS)...TAB and then GO. In the above example, the Reformat Tabs command would add the additional five tab characters needed for the text to correctly align under the tab stops.

CAUTION

You should run the Reformat Tabs command **ONLY** on documents last **SAVED** on version 6.05 (or earlier) Word Processor. Moreover you should **execute** the command **only ONCE** on such documents.

If you do not know if the document has had tabs reformatted, you can open the document and examine the tab symbols before using Reformat Tabs.

If you wish to use Reformat Tabs on a large set of documents, you need not enter the Word Processor and type CODE-f7(COMANDS)...TAB for each one. This feature also works in a batch mode as a command from the Executive. This allows you to create submit files to run overnight, for example, which will convert large sets of documents.

The user invokes this utility by entering "Fix Tabs" on the command line in the Executive. The Executive form will then prompt the user for a document or documents to be reformatted. A document will be reformatted, saved, and then the utility will exit to the Executive. The document as well as status messages will be displayed while a document is being reformatted. As many as seven documents can be reformatted at one time.

To implement this feature, the user must create a new command called "Fix Tabs" as follows:

New Command

Command name	<u>Fix Tabs</u>
Run file	<u>[Vol]<Dir>WordProcessor.run</u>
Field names	<u>Document(s)</u>
Description	<u>Reformats tabs from 6.05 to 8.3</u>
[Overwrite ok?]	<u></u>

A user should enter the command name "Fix Tabs", because the Word Processor is specifically looking for that command name to inform it that it is to perform a batch Reformat Tabs operation.

APPENDIX D: PRINTER SWITCH SETTINGS AND CABLE CONNECTIONS

PRINTER SWITCH SETTINGS

QUME SPRINT 5 SERIAL SWITCH SETTINGS

To use a Qume Sprint 5 serial printer with the Word Processor, the switch settings should be as follows:

Front Panel Switches

Baud rate	1200
Duplex	Full
Parity	Even
Auto linefeed	Off
Twintellect	Standard
Character spacing	10
Form length	11

Keyboard Switches (if applicable)

On-line On

Inside Switches

No modem	High (left)
Baud rate	High (left)

The Qume Sprint 5 does not support XON/XOFF handshaking, which requires that the configuration for the printer be set for CTS only, not both CTS and XON/XOFF.

Figure D-1 shows the switches of the Sprint 5 printer. This printer must be connected by a serial printer interface cable such as the one described in Section 7, "Cabling and Interconnect," of the Peripherals Hardware Manual. (See also "Printer Cables and Connections" below.)

The WP/WPS switch found on some Qume printers, should always be set to WP.

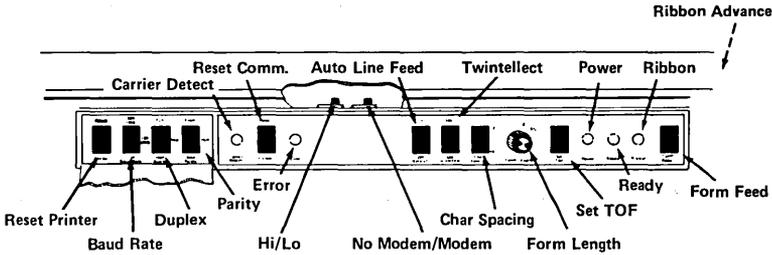


Figure D-1. Sprint 5 Printer Switches.

QUME SPRINT 9 SERIAL PRINTER SWITCH SETTINGS

If a Qume Sprint 9 serial printer is to be used with the Word Processor, the switch settings should be as follows.

Front Panel Switches

Linespace	Set number of lines to 3, 6, or 8 lines per inch
Pitch	Set to 10, 12, or 15 characters per inch
WPS	Off
Set TOF	Set top of form as needed
Form length	Set form length as needed
Form feed	On
Pause	Off

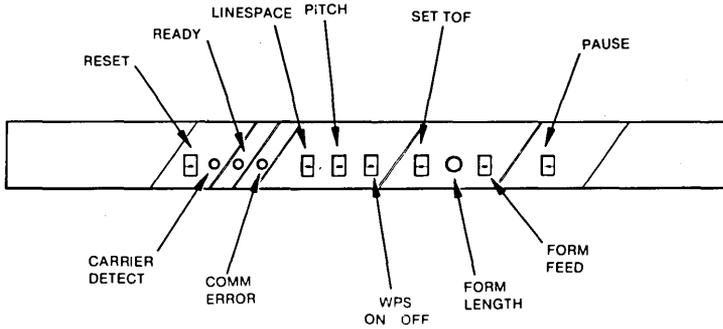
Internal Front Panel Switches

Even parity	Off (A8)
Even parity	On (A7)
No modem	On (A6)
Full duplex	Off (A5)
Self test	Off (A4)
1200 baud	On (A3)
1200 baud	Off (A2)

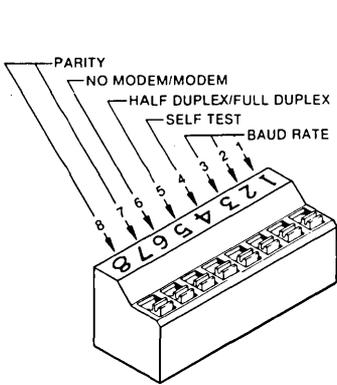
1200 baud	Off (A1)
XON/XOFF	Off (B8)
XON/XOFF	Off (B7)
Auto CR/LF	Off (B6)
Auto LF	Off (B5)
Stop print on paper out	Off (B4)
Twintellect	Off (B3)
	(B2--not used)
Automatic bidirectional printing	Off (B1)

Figure D-2 shows the switches of the Sprint 9 printer. This printer must be connected by a serial printer interface cable such as the one described in Section 7, "Cabling and Interconnect," of the Peripherals Hardware Manual.

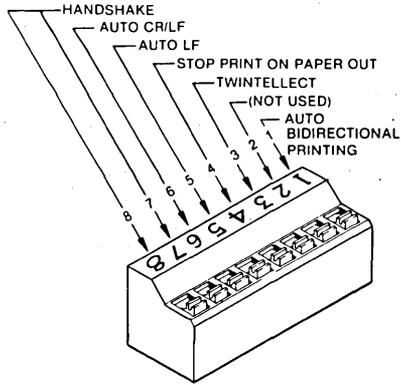
The WP/WPS switch found on some Qume printers, should always be set to WP.



STANDARD FRONT PANEL



"A" (LEFT HAND) INTERNAL FRONT PANEL SWITCHES



"B" (RIGHT HAND) INTERNAL FRONT PANEL SWITCHES

Figure D-2. Sprint 9 Switches.

QUME SPRINT 11/55 PLUS SERIAL PRINTER SWITCH SETTINGS

If a Qume Sprint 11 serial printer is to be used with the Word Processor, the switch settings should be as follows.

Inside Front Dip Switches

Note that some Qume Sprint 11 printers do not have inside front dip switches.

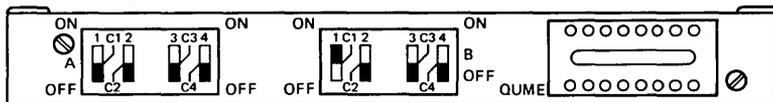
1	Character Spacing	Off	(10 pitch)
2		Off	
3	Line Spacing	Off	(6 lpi)
4	Auto Line Feed	Off	
1	Form length	On	(11 inches)
2		Off	
3		Off	
4		Off	

Back Switches

All the back switches are set to Off (down)

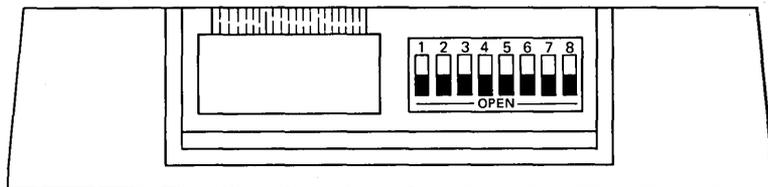
1	Reserved Twintellect	Off	
2		Off	
3	Twintellect German WP	Off	
4	Reserved Twintellect	Off	
5	Auto Bidi Print	Off	
6	Auto CR/LF	Off	
7	Not Used	Off	
8		Off	

Figures D-3 and D-4 show the switches of the Sprint 11 printer.



■ Dark indicates down.

Figure D-3. Qume Sprint 11 Front Dip Switches.



■ Dark indicates down.

Figure D-4. Qume Sprint 11 Back Switches.

This printer can be connected using an RS-232-C Qume Connection or a Centronics Qume Connection with the appropriate cable. Switch settings for the Qume Connections appear with the cable diagrams in the subsection "Printer Cables and Connections" below.

NEC 3515 SERIAL PRINTER SWITCH SETTINGS

If a NEC 3515 serial printer is to be used with the Word Processor, the switch settings should be as follows.

Front Panel Switches (Left Side)

Figure D-5 shows the switches of the NEC 3515 printer.

Set 1

Local LF	Down (line feed not automatic)
Even Parity	Up
Parity Check	Up
Full Duplex	Up

Set 2

LF (8/6)	Down (6 lines per inch)
SP	Set according to print thimble. See NEC documentation.
SP	"
SP	"

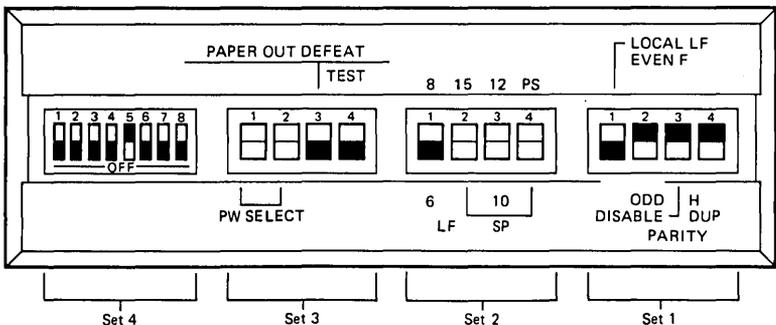
Set 3

PW Select	Set according to print thimble.
PW Select	"
Paper out	Down (halts when out)
Test	Down (no test)

Set 4

1	Power On	Down
2	Form feed/Line Feed	Down
3	Horizontal Tab Clear	Down
4	Auto Return	Down (no)
5	Protocol	Up (XON/XOFF)
6	Break/Interrupt	Down Break
7	Cut Sheet Guide	Down Used only with Cut Sheet Guide
8	Error Monitor	Down

This printer can be connected using an RS-232 cable with some modification. Cable pinouts are described in the subsection "Printer Cables and Connections" below.



■ Dark indicates down. Switches where setting is not indicated depend on print thimble. See NEC documentation.

Figure D-5. NEC 3515 Front Panel Switches.

The NEC 3515 can be used with the NEC Spinwriter 2000/3500 series Single Bin Sheet Feeder and Dual Bin Adapter. These sheet feeders require a special entry in the Sys.Printers file, which is described in the subsection "Printer Configuration" in Section 19, "System Administration."

ENVISION 420 or 430 VECTORPRINTER

An Envision 420 or 430 Vectorprinter can be used with the Word Processor in serial or parallel mode.

Note that to be used with the Word Processor, it must be in text mode.

Figure D-6 shows the front panel of the Envision printer.

To set the Envision printer for use with the Word Processor, you must change the default Envision configuration. First print a copy of the Envision default configuration when the printer is off-line by pressing the following series of switches:

Function-5-0-Enter

Config

Then to use the Envision in serial mode with the standard configuration files supplied with the Word Processor, press the following series of front panel switches:

1. To change baud rate,

Function-1-1-Enter

3-Enter

2. To change data bits,

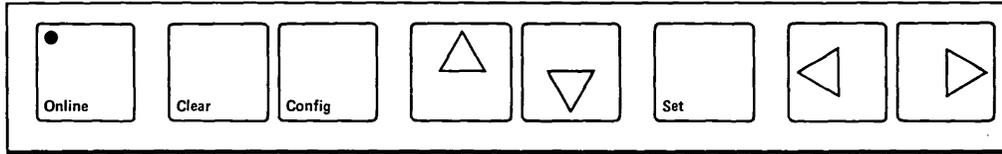
Function-1-3-Enter

3-Enter

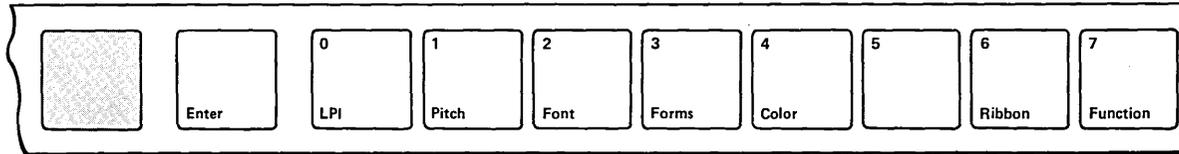
3. To change parity,

Function-1-2-Enter

1-Enter



Visible Switches



Switches Beneath Cover

Figure D-6. Envision Front Panel Switches.

For a parallel interface used with the standard configuration files supplied with the Word Processor, you only need to change the default configuration from serial to parallel. Press the following series of front panel switches:

Function-1-0-Enter

1-Enter

This printer can be connected for serial printing using a crossed RS-232-C cable or for parallel printing using a Centronics-compatible parallel interface cable (the standard printer interface cable). More information and pinouts for both cables are shown in Section 7, "Cabling and Interconnect," of the Peripherals Hardware Manual.

DIABLO 630 HPR05 SERIAL PRINTER SWITCH SETTINGS

If a Diablo 630 HPR05 serial printer is to be used with the Word Processor, the switch settings should be as follows:

Print wheel select	Match print wheel in use
Double line feed	Off
Auto line feed	Off
Uppercase only	Off
Message load	Off
Full duplex	On
Parity enable	On
Baud 30	Off
Baud 1200	On
Even parity	On
Paper out	Off

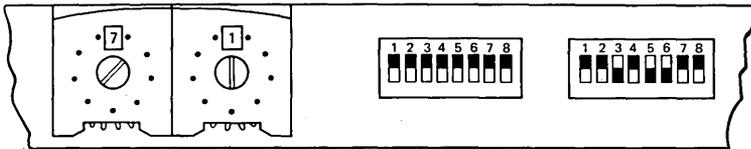
Do not set the spacing switches to proportional, even if proportional print wheels are being used.

Figure D-7 shows the switches of the Diablo 630 HPR05 printer. This printer must be connected by a serial printer interface cable such as the one described in Section 7, "Cabling and Interconnect," of the Peripherals Hardware Manual. (Also see "Printer Cables and Connections" below.)

Right Switches

1	Auto Line Feed	Off
2	Baud rate	Off
3	Baud rate	On (assuming 1200 baud)
4	undefined	Off
5	Parity	On
6	Parity	On
7	Protocol	Off
8	undefined	Off

Figure D-8 shows the switches of the Diablo 630 API-2 printer.



White indicates raised part of switch.

Figure D-8. Diablo 630 API-2 Switches.

The cable which comes with the 630 API must be modified to work with the Word Processor in serial mode. This printer can also work in parallel mode. The cables are discussed in the subsection "Printer Cables and Connections," below.

PRINTER CABLES AND CONNECTIONS

QUME SPRINT 5 PRINTER CABLE CONNECTION

The serial interface option for the Qume Sprint 5 serial printer does not provide the standard female 25-pin D type cable connector mounted on the back of the printer. (This connection is standard on the Qume Sprint 9 serial printer and the Diablo HPR05.)

Instead, the serial interface is a 10 conductor cable that is hard wired to the printer. The diagram in Figure D-9 shows the proper way to connect the wires within the cable to a male 25-pin D type connector to plug into one of the serial input/output channels on the workstation.

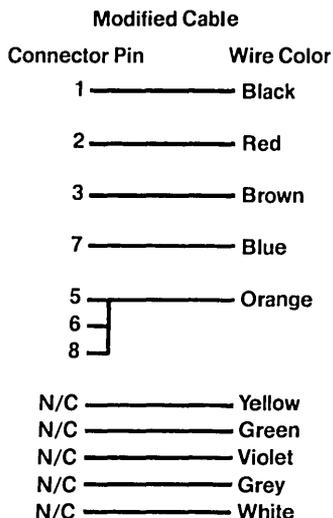


Figure D-9. Modified Cable Connections for the Qume Sprint 5 Serial Printer.

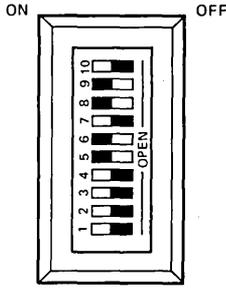
QUME SPRINT 11 PRINTER CABLE CONNECTIONS

The Qume Sprint 11 printer must be connected to the workstation using a Qume Connection. You can use the Centronics compatible Qume Connection for parallel printing or the RS-232-C Qume Connection for serial.

For serial printing with an RS-232-C Qume Connection, the Connection switches are set as follows:

1	Half/Full Duplex	Off	(full duplex)
2	Stop on Paper Out	Off	
3	Baud rate	Off	(1200 baud)
4		Off	
5		On	
6	Handshake	On	(XON/XOFF)
7		Off	
8	Modem/No Modem	On	(No modem)
9	Parity	On	(Even)
10		Off	

The switch settings are shown in Figure D-10.



Dark indicates down.

Figure D-10. Qume Connection RS-232-C Switches.

The cable for the RS-232-C Qume Connection is shown in Figure D-11.

Workstation side (male) Qume Side (female)

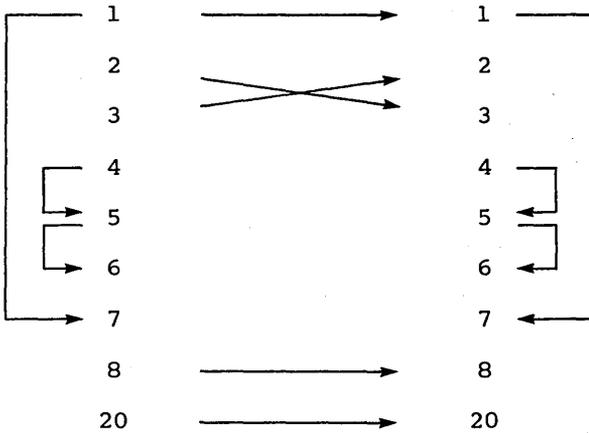


Figure D-11. Cable for Qume Sprint 11/RS-232-C.

For parallel printing with a Centronics-compatible Qume Connection, the Connection switches are set as follows:

1	Inhibit Prime on Select	On
2	Stop on Paper Out	Off
3	Auto Carriage Return on LF & FF	Off
4	Not used	
5	Not used	
6	Not used	
7	Not used	
8	Inhibit Delete	On
9	Inhibit Select/Deselect	On
10	Inverted Data Storage	Off

The switch settings for the Centronics Qume Connection are shown in Figure D-12.

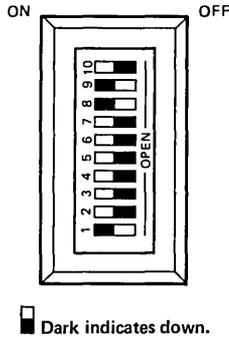


Figure D-12. Centronics-Compatible Qume Connection Switches.

You need a standard 36 to 25 pin interface cable for the Centronics-compatible Qume Connection. See Section 7, "Cabling and Interconnect," of the Peripherals Hardware Manual for additional information on cabling.

NEC 3515

For the NEC 3515, the RS-232-C cable is used for serial connection. NEC uses a normally unused pin on the RS-232 interface to indicate the state of the receive buffer as follows:

While a Spinwriter has room in its receive buffer, pin 19 of the RS-232 is held high. Should this buffer become saturated, pin 19 is held low until more space becomes available. The cable modification shown in Figure D-13 takes full advantage of this design.

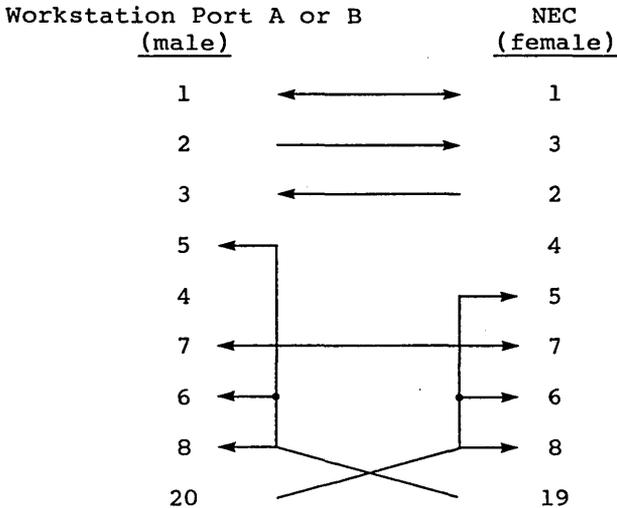


Figure D-13. Cable Pinouts for the NEC 3515 Serial Connection.

DIABLO 630 HPR05 CABLE CONNECTION

In certain configurations of the Diablo 630 HPR05 serial printer, the Printer Ready signal is at pin 11 of the RS-232-C connector, rather than at pin 20. The result of having the Printer Ready signal at pin 11 is that the signal never reaches the system, and data is not retransmitted to the printer.

It is possible for the problem to occur in the Diablo 630 HPR05 depending on the state of an internal jumper on its logic board. Normally, the Printer Ready signal appears at pin 11 of the RS-232-C connector unless a jumper is installed between pins 5 and 6 of plug A60 on the HPR05 logic board. When the jumper is installed, the Printer Ready signal appears on pin 20 of the RS-232-C connector.

If you encounter the problem of your printer having the Printer Ready signal at pin 11 with no jumper installed, you can modify the printer end of the printer cable. Figure D-14 shows the original cable connection and the modified cable connection.

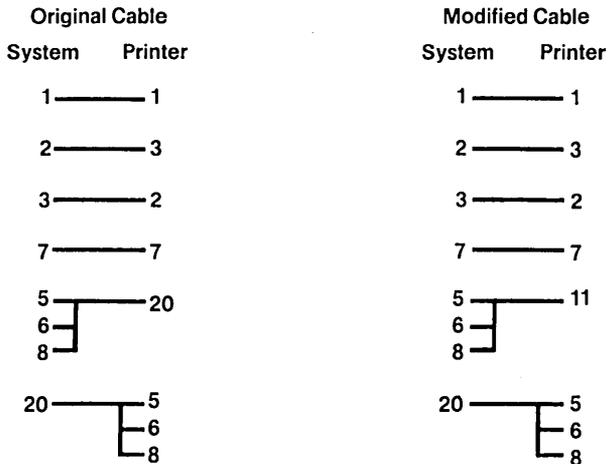


Figure D-14. Cable Connections for the Diablo 630 HPR05 Serial Printer.

CAUTION

Be aware that when you modify the printer cable, it becomes asymmetric and that the proper end must be plugged into the proper device. Also be aware that the modified cable may not work for all printer configurations. Therefore, both types of cables may be needed.

DIABLO 630 API-2 CABLE

The Diablo API-2 printer can work in serial mode using a RS-232-C cable from Diablo (shown in Figure D-15) modified as shown in Figure D-16.

<u>Workstation</u>		<u>Diablo</u>
1	—————	22
2	—————	24
3	—————	48
4	—————	23
5		no connection
6	—————	49
7	—————	47
8		
20	—————	25

Figure D-15. Original RS-232-C Cable for Diablo 630 API-2.

For parallel printing the Centronics cable available from Diablo must be used with an additional standard (36 to 25 pin) Centronics cable as described in Section 7, "Cabling and Interconnect" of the Peripherals Hardware Manual.

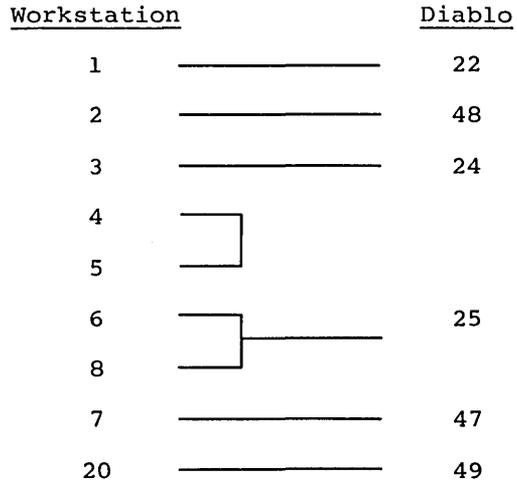


Figure D-16. Modified RS-232-C Cable for Diablo 630 API-2.

APPENDIX E: PAPER SIZES FOR ZIYAD SHEET FEEDERS

THE Ziyad 200 and 300 Sheet Feeders are supported for use with the Word Processor.

Note that the Ziyad sheet feeders are only supported for use with certain paper sizes, listed below:

Standard Paper:	8.5 x 11 inches
Legal Paper:	8.5 x 13 inches
Legal Paper:	8.5 x 14 inches
Wide Paper:	11 x 8.5 inches
Government Paper:	8 x 10.5 inches
Monarch Paper:	7.25 x 10.5 inches
DIN A4 Paper:	8.25 x 11.7 inches approximately 210mm x 297mm

GLOSSARY

attribute. See **format attribute.**

character string. A character string is a group of contiguous characters. Any characters that can appear on the screen can be included in the string.

column break. A column break is a dashed line or a line of colons that indicates the beginning or end of a serpentine column. Column breaks may be floating (moved as necessary by the Word Processor during pagination) or static (associated with that point in the text until you delete the column break).

command. A command is an instruction you give to the Word Processor to tell it what you want to do. Commands are given by a series of keystrokes.

command form. For many commands, the Word Processor requires you to supply information or to complete another step before it can execute the command. A command form is displayed for this purpose. The form is made up of fields for which you supply the requested information. To complete a field, you may need to enter text or choose an option. The command is executed after you complete the form and press GO.

current paragraph. The current paragraph is the paragraph within which the cursor is positioned.

current window. The current window is the window containing the cursor. Editing operations affect the document in the current window.

cursor. The cursor is the blinking underline on the screen that indicates where the next character can be entered. A shadow cursor appears in the ruler display to indicate the position of the real cursor across the screen.

daisy wheel printer. A daisy wheel printer is a character printer that uses interchangeable metal and plastic print wheels to print several types and sizes of characters. Daisy wheel printers usually produce letter quality printing. (See also **draft printer.**)

default value. A default value is the value assumed by a field in a form or menu in the absence of a user-specified parameter.

delimiter. A delimiter is a character that is used to separate and organize a string of data, but is never a part of the string.

direct printing. Direct printing prints a file directly from the workstation to a printer attached to that workstation. The printer must be unoccupied before any direct printing job can be started.

disk. A disk is a magnetic storage unit for computer readable information. Most workstations have a hard disk permanently installed that can store large amounts of data. You can also insert floppy disks, flexible plastic disks, in the disk drive of your workstation.

document. In the Word Processor, a document is whatever text you store together under one document name. Documents are usually stored on the disk in a file. When you display a document on the screen, you are not directly accessing the disk file. Instead, an image of the document and your edits are stored in memory until you give the Save command (CODE-S) or Finish (FINISH).

document status line. The document status line is the line dividing the main text area of the screen and the ruler display. It displays the name of the current document, the page number in the current window, and the number of the line in which the cursor is positioned.

draft printer. A draft printer is a printer that has been configured to print documents with draft quality formatting. Draft formatting does not reproduce character formats, such as underlines, boldface, proportional spacing, etc.

field. A field is a part of a form in which specific instructions are given to the Word Processor. A field is either a blank (to be filled in) or a choice of options. In list processing, a field is a group of characters, separated by delimiters, that represent a single unit.

file. A file is a set of related records treated as a unit. All the documents you create are stored on the disk as files containing text and special codes that you do not normally see that tell the Word Processor how to format the text. Other files stored on the disk may not be documents that can be accessed through the Word Processor. Examples are files that are used by the operating system and applications systems installed on your workstation.

footer. A footer is one or more lines of text that print at the bottom of each page of a document.

footnote. A footnote is a note giving a reference, explanation, or comment that is indicated by a reference character in the main text of the document. The reference character is superscripted when printed and the text of each footnote is printed at the bottom of the page, or, optionally, at the end of the document.

form. See **command form**.

form document. In list processing, a form document is the document into which the data from a records file is merged during a merge operation. See also **records file**.

format attribute. A format attribute is a characteristic that can be applied to a character, paragraph, or page of text and which changes the shape or appearance of the text. For example, boldface text, print wheel, paragraph indent, and page length are all format attributes.

full-visible mode. See **visible mode**.

function key. A function key is one of the ten keys, labeled f1 to f10, in the top row of the typewriter pad of the keyboard.

half-bright. Half-bright intensity is a characteristic of the screen display. When text appears in half-bright intensity it usually means that some format attribute has been applied to text that cannot be shown on the screen. For example the character may be a footnote reference or may appear when printed in an alternate ribbon color.

half-visible mode. See **visible mode.**

header. A header is one or more lines of text that print at the top of each page of a document.

highlight. See **selection.**

indent. An indent is the setting for the left, right, first line or other line margin of each paragraph. Indent is a paragraph format attribute. Indents are not the same as margins, and are, in fact, stored by the Word Processor internally as a measurement relative to the margin settings.

index tab. An index tab is the highlighted strip that forms the top boundary of each secondary window displayed. The index tab shows the number of the page being displayed and the number of the line containing the cursor.

insert mode. Insert mode is the mode in which characters typed from the typewriter pad of the keyboard are inserted into a document. The characters are inserted just before the cursor. The cursor, and any characters on the line to the right of it, move to the right. The Word Processor is in insert mode when the light on the Overtyping key is off. See also **overtyping mode.**

keyword. In list processing, a keyword is the symbolic field name (defined in the template record of the records file) that represents the actual data that is merged into the form document during the merge operation. A keyword can have no embedded spaces. A keyword used in a form document must also have the Merge keyword format attribute applied to it.

letter quality printing. Letter quality printing reproduces all the formatting you can assign to Word Processor text. Not all printers can produce letter quality printing.

lexicographic sort. In list processing, a records file can be sorted either numerically, or lexicographically (alphabetically and numerically). An ascending lexicographic sort places most characters and numbers before letters. (Exceptions are the square brackets ([]), caret (^), underline (_), and the tilde (~), which sort after letters.) Entries in a dictionary are sorted and listed lexicographically.

line printer. A line printer is a high-speed printer that usually produces draft quality printing.

local printer. A local printer is a printer that is directly attached to a particular workstation. It can be shared by other workstations if it is local to the master and the spooler is installed. (See also dedicated printer and shared printer.) A dedicated printer is a printer that is physically connected to a particular workstation and cannot be shared by another workstation. (See also local printer and shared printer.)

matrix printer. A matrix printer prints each character as a group of dots within a matrix, rather than using a print wheel as does a daisy wheel printer.

menu. A menu lists various command options, from which you can make one choice. When you choose an option, the Word Processor can display an additional form for you to complete, or it may execute the command immediately.

overstriking. Overstriking occurs during printing when a print wheel character or character(s) strike more than once in the same place. It is usually used to combine the impression made with more than one character. Overstriking can be produced when the Required Backspace command is used or when a special entry is made in the Print Wheel Set file so that a special text character always results in a specified overstriking pattern.

overtyping mode. Overtyping mode is the mode in which characters typed from the typewriter pad of the keyboard replace (rather than insert) characters in a document. You can move the cursor and type characters exactly as in insert mode, but every character typed replaces the existing one (if any) at the cursor position. The Word Processor is in overtyping mode when the light on the overtype key is on.

page break. A page break is a dashed or double dashed line that appears on the screen and indicates where the end of the paper will break the document into pages when it is printed. Page breaks may be floating (moved as necessary by the Word Processor during pagination) or static

(associated with that point in the text until you delete the page break.)

page number symbol. The page number symbol (typed CODE-f5) is a half-bright pound sign (#) on the screen and is replaced with the proper page number when the document is printed.

paging. Paging is an operation that shifts the content of the document backward or forward one page at a time.

paragraph. A paragraph is a block of text beginning with a paragraph symbol and ending at (but not including) the next paragraph mark or the end of the document. A new paragraph begins each time RETURN is pressed.

password. A password must be supplied before access to a file or document is allowed, if that file has been protected and a password has been assigned through the Executive. The password itself is a string of characters.

pitch. Pitch refers to the size of a printed character (in characters per inch) on a print wheel. The Word Processor has 10-pitch and 12-pitch print wheels as standard. Print wheels with nonstandard pitch (such as 8- or 15-pitch) also can be used.

primary window. A primary window is the top window of a document.

records. In list processing, a record is a contiguous group of related items. Each item is represented by a single field.

records file. In list processing, a records file is a text document containing a list of records, each of which contains zero or more fields. The contents of a records file can be sorted and/or selected during sort/select operations, and are merged with a form document during a merge operation. (See also **form document**.)

recover. The Recover command is used to repeat automatically the work of a word processing session by replaying a typescript of all work done.

ruler display. The ruler display occupies the top two lines of the screen and is used for setting tabs and indents and margins. It is divided into units that represent inches on the page. The ruler display may vary according to the pitch of the text displayed.

scrolling. Scrolling is an operation that moves text up and down (vertical scrolling) or left and right (horizontal scrolling) on the screen.

secondary window. A secondary window is the lower window created after division of a document.

selection. A selection is a contiguous block of characters highlighted in reverse video, on which certain operations can be performed (such as formatting, moving, copying and deleting).

serpentine column. Text formatted into serpentine columns flows from column to column across the page from the bottom of one column to the top of the next, just as text does in a newspaper or magazine.

spooled printing. Spooled printing uses a queue system to transmit the contents of a file to the printer. With spooled printing, workstations in a cluster can print to a locally attached printer or to printers attached to other workstations in the cluster system.

status message. A status message appears at the bottom line of the screen to inform you of a particular occurrence within the system.

string. See **character string**.

struck-out text. Struck-out text is a character format attribute that specifies a single horizontal line typed over the text.

subscript. Subscript is a character format attribute that specifies that characters be printed below the normal line of text.

superscript. Superscript is a character format attribute that specifies that characters be printed above the normal line of text.

synchronization mark. A synchronization mark is a half-bright line that indicate the tops and width

of each synchronized column and is only visible when the screen is in half- or full-visible mode.

synchronized columns. Synchronized columns are aligned with each other side by side on the page. Text is kept within the column, despite page breaks, until a new column is started. The new column begins aligned with the beginning of the first.

tab stop. A tab stop can be set against the ruler display and is used with tab symbols to hold text at the specified position across the page. Text can be formatted into columns using tabs.

template record. In list processing, the template record is the first record in a records file. It defines the record start and field start characters and the keywords.

typescript. A typescript is a file created during a word processing session that contains a record of all changes made to a document during that session.

visible mode. When the screen is in visible mode, special characters and symbols, such as the paragraph sign and tab symbols, can be seen as well as the text of the document. The Visible command (CODE-V) places the screen first into half-visible mode. Paragraph symbols, line feeds, and the tiny dots that represent spaces appear in text. When given again, the command places the screen in full-visible mode. Tab symbols, required backspaces, etc., are shown. Pressing CODE-V again returns the screen to normal mode.

window. The text of a document is displayed in the main text area within a window, bounded by a document status line or an index tab. You may be able to see only part of the document through the window. The text can be scrolled up and down and sideways so that you can view the entire document.

wraparound. Wraparound is the automatic moving of text as it is entered to the next line when the end of a line is reached.

Zoom. The Zoom command (CODE-Z) switches an IWS workstation screen between 80 and 132 columns of text. Zoom does not work on an AWS workstation.

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USER'S COMMENT SHEET

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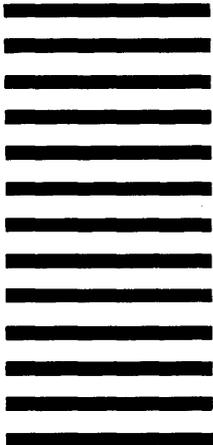
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