WORD/7 Text Processing System
Version 2.1 User Guide

Micro Research & Development, Inc.

July 1, 1983
To: Bob
Date: 1-18
Time: 10:29
WHILE YOU WERE OUT
M: Mark McDonald
of: Micro Research
Phone: 719/598-8223
Area Code/Number/Extension

<table>
<thead>
<tr>
<th>TELEPHONED</th>
<th>PLEASE CALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALLED TO SEE YOU</td>
<td>WILL CALL AGAIN</td>
</tr>
<tr>
<td>WANTS TO SEE YOU</td>
<td>URGENT</td>
</tr>
<tr>
<td>RETURNED YOUR CALL</td>
<td></td>
</tr>
</tbody>
</table>

Message:

[Blank]

Operator:

MOTOROLA/GED E1184 1/72 CTL 276

UCSD p-System is a registered trademark of the Regents of the University of California.

719 633-2344 X 272

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I. INTRODUCTION TO WORD/7

The WORD/7 Text Processor is a complete system for producing high quality letters and documentation on SAGE computers. This system offers the SAGE user capabilities formerly available only on dedicated word processors.

The system is easy to use and makes full use of any available terminal capabilities including special function keys. It allows operators to become productive immediately, yet offers advanced editing and formatting features for the more demanding document requirements.

System components include a full-screen CRT editor with on-the-screen formatting for document creation, a filing system to store documents for later retrieval, and sophisticated print formatting features for producing quality printed documents.

WORD/7 follows conventions of the UCSD p-System Operating System and stores documents as normal text files to facilitate interfacing with other programs. The system also provides functions to configure for any model of CRT terminal and computer printer hardware.

A. Communicating with The Computer

The computer user and the computer communicate via a keyboard (like a typewriter) and a CRT display screen (like a TV screen). To request an action by the computer, a command is typed on the keyboard and the RETURN key pressed to send the command to the computer. The computer responds by displaying selections and messages on the CRT display screen.

WORD/7 is a MENU-DRIVEN system which displays an entire screen describing available options, somewhat like a menu in a restaurant. (see figure 1). An option is identified by a one line description and is selected by positioning the cursor in front of the description and pressing the RETURN key. For example, positioning to the second line in figure 1 and pressing RETURN selects the option of editing (or changing) a previously created document.

B. The Computer Keyboard

The computer KEYBOARD is like a typewriter keyboard with many additional keys specific to the use of the computer. Most of the keys are used by WORD/7 and are described in the appropriate sections of this guide. However, at this point, let's introduce some important keys used throughout the system.
1. CURSOR Keys

The keyboard is related to the CRT screen by the CURSOR, a small square of light which indicates the current position on the CRT. When a letter is typed on the keyboard, it is printed at the current cursor position, and the cursor moves one space to the right.

The keyboard contains four keys, each marked with an arrow on the key face, that are used to move the cursor in each of the four directions. These keys are especially important for making selections from menus and in making changes to documents.

2. BACK SPACE Key

Anytime an incorrect character is typed, the BACK SPACE key (which is usually marked with a left pointing arrow) may be used to move the cursor back and retype the character correctly.

3. RETURN Key

The RETURN KEY is always used to send a selected option or response to a question into the computer for processing.

4. ESC (Escape) Key

Anytime the computer asks a question or is waiting for an option to be entered, the ESC key may be pressed to say "GET OUT", or ESCAPE from the question. Specific examples will be noted throughout this guide.

C. Using Disks

Most microcomputers use either diskettes or hard disks for storage of programs and data. Diskettes are generally used to store documents since they are inexpensive, removable and convenient to transport. In usage, WORD/7 makes no distinction between the two devices and throughout this document the word "disk" is used to refer to either.

WORD/7 is distributed as a program file stored on diskette and can be executed from there or moved to a hard disk with the operating system filing functions if desired. It is highly recommended that the original diskette be copied to a working disk and the original
stored in a secure place for making further copies if the working copy is ever damaged.

The disk containing the WORD/7 program should be mounted at all times while executing the system. If removed, the system will request it to be mounted as needed to bring in required program functions. This may necessitate some handling of disks, but don't worry about harming WORD/7 or confusing the program— that won't happen.

Other disks may be inserted or removed as necessary to read documents for editing or printing, or for storing documents.

D. Starting the WORD/7 System

The system is started by inserting (mounting) the WORD/7 disk and executing the program file named WORD7 (Refer to the User's Manual of your specific computer for more information). Once started, WORD/7 displays the Main Menu shown in figure 1 and waits for an option to be selected. An option is selected by positioning the cursor in front of the desired option and pressing the RETURN key.

E. Creating a Simple Letter

Let's create a simple letter to illustrate how WORD/7 works. Throughout this illustration, it is helpful to view your computer as the equivalent of a typewriter and relate its different components and functions to those of a typewriter.

Beginning at the Main Menu (shown in figure 1), with the cursor in front of the "CREATE" function, press the RETURN key. Your computer display should now resemble the top line of figure 2, the EDIT DISPLAY SCREEN. The line along the top of the screen displays the columns from 1 to 80, the left and right margin settings (shown with the characters "[" and "]" respectively), and any TABS you have set. Since you are just beginning, no tabs are set or displayed yet.

Notice now the MESSAGE LINE at the bottom line (or on some terminals the top line) of the screen which displays two types of information. The small block on the right tells that you are now in CHARACTER OVERTYPE mode (more on modes later), and the large block on the left displays the functions assigned to the terminal FUNCTION KEYS. Occasionally, you will also see additional information and error messages displayed in the left block.

Most of the screen is now blank (corresponding to a blank sheet of paper in a typewriter) and ready for the letter to be typed. The cursor should now be at the left margin of the first line and you
are ready to type. For this letter, let's leave some blank lines by using the RETURN key and then space over near the middle and type the date as shown in figure 2. Just type every letter as you would on a typewriter and use RETURN to end the line.

1. Correcting Errors

Suppose you make an error in typing, and need to correct a letter or two. Use the key with the left-pointing arrow to back up, type the correct letter and continue typing. In fact, the keyboard contains a complete set of CURSOR KEYS (with arrows on them) for moving up, down, left, and right that can be used to position to any line and make a correction by overtyping.

2. Word Wrap

Another feature of WORD/7 is WORDWRAP. There is no need to type RETURN at the end of each line, just keep typing. Any word that would extend past the right margin will automatically be moved to the next line and you can continue typing. Prove it to yourself now by typing the body of the sample letter in figure 2 without using the RETURN key.

3. Setting and Using Tabs

Tabs may be set and used like on a typewriter to move quickly to specific columns of the letter. Tabs are set by moving the cursor to the top line of the CRT (the TAB LINE) and typing the letter "t" wherever a tab is desired. A capital "T" remains to show you at a glance where tabs are set: tabs can be cleared by typing a space over the "T".

The TAB key on the keyboard will move the cursor to the next set tab position and the BACK TAB key will move to the previous tab position. You might experiment with tabs now on the sample letter in figure 2. Notice that the TAB keys will automatically move to the left and right margins as tab positions and will move up or down a line if necessary to go to the next tab position.

4. Printing the Letter

Creating a letter is not too useful unless it can be printed. To start the print function, press the HOME key to position to the top line, type the letter "p", and press RETURN.

Several options are then displayed on the Print Function Menu (figure 4) for controlling different aspects of how the letter will be printed. For now we aren't concerned with the options, but they are described in detail later. To begin
printing, enter the RETURN key and then answer "n" to the following question:

Print on Printer? (y/n) _

The document will be "printed" on the CRT so we can see how it will look. Later it could be printed on the printer to produce a real letter. Notice that the document rolls up just like typewriter paper and, in addition, the display stops after a full screen is displayed for review. Type any key to continue printing.

When the printing is complete and the Print Function Menu reappears, press RETURN to return to the Edit Screen.

5. Saving the Letter

One of the great advantages of using a text processor is the ability to save (or file) copies of documents for later retrieval and modification. The letter you have just typed can be saved to disk by leaving Edit (just press the ESC key twice), answering the following question with the letter "y".

Save Changes? (y/n or return) _

and then typing a name for the letter in response to the following question:

Document Name? _

For this example, just reply with a name like "LETTER1" followed by RETURN. The document will be written onto disk and the display returned to the Main Menu.
Figure 1 - The Main Menu
Mr. Henry Gillis  
1234 Walnut Street  
Anytown, USA 90322

Dear Mr. Gillis:

I am writing to inform you of our purchase of WORD/7 a text processing system for micro-computers. The system incorporates features for creating, editing, storing and printing documents of all kinds.

Research has shown the value of text processing systems in reducing the cost of producing printed documents by eliminating the need for costly and time-consuming manual retyping.

Sincerely,

Ward Seven

Figure 2 - Sample Letter
II. CREATING AND EDITING DOCUMENTS

A new document is created by selecting the first option of the Main Menu. WORD/7 will enter Edit Mode which offers a full set of functions for typing and changing documents.

An existing document is changed (or edited) by selecting the second option of the Main Menu, which also enters Edit Mode. The following question is displayed at the bottom of the screen,

Document name? _

and should be answered with the name of a document which exists on disk followed by a RETURN. The document will be read from disk and the first 22 lines displayed on the Edit Display Screen shown in figure 2.

Edit Mode may also be entered from the filing system as described later in this manual. This method of entering edit is particularly useful if you know which disk contains a document but don't remember the document name.

Document editing is a very powerful feature of WORD/7, allowing words, lines, paragraphs and large sections of a document to be inserted, changed, copied, moved, or deleted as desired. Documents can be stored on a diskette for later recall and each new version can be printed by the computer without the need for manual re-typing. It is here that the power of a computer offers a tremendous advantage over use of a typewriter.

The following sections describe in detail all features and commands of the WORD/7 Editor. Methods of positioning to different parts of the document are presented first, followed by commands operating on CHARACTERS, WORDS, LINES, PARAGRAPHS, and BLOCKS of lines. The final section describes PRIMARY COMMANDS which perform functions related to an entire document such as printing, saving to disk, searching for words, etc. Appendix A provides a convenient summary of all WORD/7 editing commands.

A. POSITIONING within a Document

1. LEFT, RIGHT, UP, and DOWN ARROWS

The four keys with left, right, up, and down arrows allow the cursor to be positioned to any character currently displayed on the screen. In addition, special actions occur when the cursor reaches the left or right margins, or the top or bottom of the screen.
Bumping the right margin while pressing the right arrow positions the cursor at the left margin of the next line down. In addition, if the cursor is on the bottom line, the entire display will move up one line so the new position is shown.

If the down arrow is used to bump the bottom of the display, the display will similarly move up one line.

Bumping the left margin positions the cursor to the right margin of the previous line, and if done on the top line results in moving the entire display up several lines (scrolling).

Using the up arrow to bump the top of the display scrolls up to display the new cursor position.

2. Carriage Return (RETURN)

The RETURN key causes the cursor to move to the beginning of the next line. For a blank line, this means the cursor will be positioned at the left margin and for non-blank lines the cursor will be placed at the first non-blank character of the line.

3. TABS (TAB and BACKTAB)

The TAB and BACKTAB keys move the cursor to the next or previous tab column, respectively. The left and right margins are always defined as tab positions and tabs may be set at any other column by typing the letter "T" on the top line of the EDIT DISPLAY SCREEN. The current tab settings are continuously represented on the top line by the letter "T".

Tabs are kept with the document and not lost when it is saved on disk. The tabs will still be set in the same columns when the document is edited again at a later time.

4. SCROLL DOWN (F9)

Function Key 9 moves down in the view of the document by several lines (scrolls down). The cursor stays on the same line as before the scroll unless that line is moved off the screen. In that case it is placed on the top line. On terminals without special function keys, this function is usually assigned to the two key sequence ESC 9.
5. SCROLL UP (F10)

Function Key 10 scrolls up in the view of the document by several lines. On terminals without special function keys, this function is usually assigned to the two key sequence ESC 0.
B. CHARACTER Commands

There are two different character modes in editing documents: OVERTYPE mode and INSERT mode. The initial mode upon entering edit is OVERTYPE mode as indicated by the right portion of the message line at the bottom of the screen. Any character you type is overlayed on the position at which you type it, replacing whatever character was in that position. This is just right for replacing characters, but not for inserting new characters into a line.

Pressing the CHAR INSERT key switches into INSERT mode. Any character typed now is inserted at the cursor and moves the remaining characters of the line to the right. In fact, if enough characters are inserted so the line bumps the right margin, the word at the end of the line will be moved to the next line. This process will be repeated indefinitely and allows entire lines to be entered by continuously typing, without ever pressing the RETURN key.

The rules for moving a word to the next line are as follows. The word will be moved onto the next line of text if it will fit by shifting the words of that line to the right. Otherwise a new line is added and the word moved to start at the column where the next line of text starts. A new line will always be added if the following line is blank or contains a DOT command (refer to the section on printing documents for a discussion of DOT commands).

This insertion strategy tends to maintain the existing paragraph structure as closely as possible. Generally, after inserting text, the paragraph formatting command is entered to fix up the paragraph by moving words back together (refer to later section on formatting paragraphs).

Notice that the character mode only affects what happens when you type printable characters from the keyboard. Use of the other keys (eg. arrow keys, RETURN, HOME, TAB, scrolling, etc) is not affected by the mode. This means the mode could be set to INSERT and left that way while moving around to several locations on the screen and inserting text. Deletion of text is also not affected and may be done while in either mode as described below.

1. CHAR DELETE Key

This key deletes the character under the cursor position regardless of which character mode you are in. The characters to the right on the line are all moved left one position for
each time the key is pressed. Since the key automatically repeats on most terminals, it is easy to delete large portions of a line by holding it down.

2. CHAR INSERT Key

This key is pressed to begin CHARACTER INSERT Mode. WORD/7 remains in this mode until the DEL key is pressed to return to OVERTYPE Mode. The message in the lower right of the display constantly indicates the current mode.

3. DEL Key

This key ends INSERT Mode and returns to OVERTYPE Mode. Pressing the key while in OVERTYPE Mode has no effect.
C. WORD Commands

WORD/7 defines a WORD as any sequence of non-spaces, and two commands are provided to position the cursor relative to the words in the document. These commands are useful for rapidly moving the cursor across a line of text to a word where changes are to be made.

1. NEXT WORD (CTRL/n)

Entering the NEXT WORD command positions the cursor to the first letter of the next word from its current location. This may result in moving to the next line and scrolling down in the document if necessary to display the new cursor position. Notice that this function is very similar to that provided by the RIGHT ARROW key except that the cursor moves several columns at a time instead of just one.

2. PREVIOUS WORD (CTRL/p)

The PREVIOUS WORD command positions the cursor to the last letter of the previous word in the document. The display is scrolled up if necessary to show the new cursor location.
D. MARGIN Commands

The CURRENT MARGINS in WORD/7 influence how paragraphs are formatted and what happens when typing or inserting text beyond the end of a line. The left and right margins are always shown on the top line of edit with the left and right square brackets respectively ("[" and "]").

The current set of margins is displayed on the top line, but WORD/7 constantly maintains 5 separate margin sets and provides functions for setting and switching between them. When a new document is created, all margins are set to default settings contained in the current configuration file. Those defaults can be changed as described in the section "Defining Document Style".

All 5 sets of margins may also be reset from the Edit Options Menu which is invoked by the "Option" Edit Primary Command. All margins are stored with a document and are automatically in place when the document is edited at a later time.

1. NEXT Margin

This command switches to the next NARROWER (or deeper) set of margins. The new margins are shown on the tabline and affect all subsequent formatting until margins are changed again. A switch of this type would typically be required when a document switches to a subsidiary section which is to be more indented. The two-key sequence ESC-right arrow is usually set to this command.

2. PREVIOUS Margin

Switching to the next WIDER set of margins is done with this command in the same manner as the NEXT Margin command above.
E. LINE Commands

A full set of commands allow for manipulating entire lines of text in a document. Several of these commands make use of special FUNCTION KEYS on the terminal keyboard. For terminals without special function keys, the two key sequence ESC "number" is used. For example, function 1 (F1) would be ESC 1, function 2 (F2) would be ESC 2, and function 10 (F10) would be ESC 0.

1. LINE DELETE key

The line containing the cursor is deleted by the LINE DELETE key. The UNDELETE command (CTRL/u) may be used to bring back a line which is accidentally deleted.

2. LINE INSERT

The LINE INSERT key adds a new blank line above the line containing the cursor. The cursor is placed directly above the first non-blank letter in the current line.

3. LEFT-JUSTIFY LINE (F1)

Function Key 1 left-justifies the line containing the cursor so that the line will start at the current left margin. The cursor remains in its original position.

4. CENTER LINE (F2)

Function key 2 causes the current line to be centered between the currently defined margins.

5. RIGHT JUSTIFY LINE (F3)

Function Key 3 right-justifies the current line so that the last non-blank of the line is placed at the right margin. The cursor remains in its original position.

6. SPLIT LINE (F4)

Function Key 4 splits the line containing the cursor at the position of the cursor. The portion of the line from the cursor to the right is moved down to begin at the left margin of a new line.
7. UNDELETE LINE (CTRL/u)

This function is particularly useful when a line is accidentally deleted. Pressing the control key (labelled CTRL) simultaneously with the letter "u" will re-insert the deleted line above the current line. This means that an UNDELETE immediately after a DELETE will result in no change.
F. PARAGRAPH Commands

The commands in this section deal with a paragraph at a time. A paragraph is defined as a group of adjacent lines separated from other lines by blank lines or DOT commands (see the "Printing Documents" section for a discussion of DOT commands). Paragraph commands are assigned to the FUNCTION KEYS of the keyboard (keys with F1, F2, etc on them) and require use of the SHIFT key along with the function key. A message describing the keys is generally displayed at the bottom of the edit display so the keys needn't be memorized.

You will notice that each paragraph command has a corresponding line command described in the section above which uses the same function key. However, paragraph commands always use the function key in conjunction with the SHIFT key while line commands never use the SHIFT key.

Terminals without special function keys can be set up to use any other keys or sequence of keys for these functions. (refer to the "Defining Terminal Configuration" section)

1. LEFT JUSTIFY PARAGRAPH (F1 shifted)

Every line in the paragraph containing the cursor is aligned to start at the left margin with this function. The cursor may be on any column of any line of the paragraph when the key is pressed.

2. CENTER PARAGRAPH (F2 shifted)

Each line in the paragraph containing the cursor is centered between the current margins with this command.

3. RIGHT JUSTIFY PARAGRAPH (F3 shifted)

The last letter of each line in the paragraph containing the cursor is aligned with the right margin using this command.

4. SPLIT PARAGRAPH (F4 shifted)

The line containing the cursor is split at the cursor and a blank line inserted between the two parts. The right portion of the line is left-justified on its new line and begins a new paragraph separated from the previous by a blank line.
5. FORMAT PARAGRAPH (F8 shifted)

Inserting or deleting words may change the structure of a paragraph by leaving blank spaces. This command formats the paragraph containing the cursor by re-aligning the words to fit within the margins. Each word is followed by one space, while periods, commas, semi-colons, colons, question marks, and exclamation points are followed by two spaces.

The first line of a paragraph is indented by the current value of the INDENT amount (see "PRIMARY Commands" below) and remaining lines are justified at the left margin. An INDENT amount of 5 will indent the first line by 5 letters and a zero indent amount signifies block paragraphs.

An indent amount of "R" signals that another type of indenting (called RELATIVE INDENTING) is to be used. RELATIVE INDENTING uses the first two lines of the paragraph as a model of how lines should be indented. These lines will maintain the same indent amount and succeeding lines will be aligned with the second line. This type of formatting is very flexible and allows you to produce blocked, indented and hanging-indent paragraphs.

As an example, the following display on the screen,

1. This example of automatic formatting illustrates the use of a "hanging indent", particularly useful in generating numbered lists.

will be formatted as:

1. This example of automatic formatting illustrates the use of a "hanging indent", particularly useful in generating numbered lists.

Formatting may leave the right margin uneven, so many people prefer to set the JUSTIFY option ON (refer to the later section on "Primary Commands"). In this case, blanks are distributed throughout the line to force an even right margin, as illustrated by the paragraphs in this user guide.

6. NEXT PARAGRAPH (F9 shifted)

Function Key 9 moves the cursor down to the next paragraph in the document. The display will scroll downward if necessary to display the new position.
7. PREVIOUS PARAGRAPH (F10 shifted)

Function Key 10 moves the cursor upward to the previous paragraph in the document.
G. BLOCK Commands

BLOCK Commands allow a block of lines to be deleted, copied or moved elsewhere in the document, or saved to a different disk file. All of the block commands are initiated by placing the cursor on the first line of the desired block and pressing the F7 key. A prompt is displayed on the top line requesting the type of command to perform (COPY, DELETE, MOVE, or SAVE) and is answered by typing the first letter of the command followed by RETURN. WORD/7 then prompts for additional lines to be marked to complete the block operation.

1. BLOCK Copy (C)

The line containing the cursor is marked by pressing the F7 key and a block copy indicated by answering "C" to the prompt on the top line. The cursor should be positioned to the last line to copy and F7 pressed again. Note that any edit commands may be used to position to the desired line including FIND, REPLACE, and SCROLL commands. The line should next be positioned to the line after which the marked block of lines is to be copied and F7 pressed again to complete the copy.

2. BLOCK Delete (D)

The cursor is positioned to the first line to be deleted and F7 pressed to mark the line. The prompt is answered with the character "D", and the cursor moved to the last line to be deleted. Pressing F7 removes the lines from the document.

3. BLOCK Move (M)

The line containing the cursor is marked by pressing the F7 key and a block move indicated by answering "M" to the prompt. The cursor should be positioned to the last line to be moved and F7 pressed again. The cursor should then be placed on the line after which the marked block of lines is to be moved and F7 pressed again to complete the move.

4. BLOCK Save (S)

This feature allows the "cutting" of part of one document to be "pasted" into another. The cursor is positioned to the first line to be cut and the F7 key pressed. After answering with an "s" to the displayed prompt, the cursor is positioned
to the last line to be saved and F7 pressed again. Another prompt will ask for the name of a file (either new or existing) where the lines will be saved. ESC may be used to terminate the save operation.
H. PRIMARY Commands (Entered on the top display line)

PRIMARY commands are entered on the top line (or TAB LINE) of the Edit Display Screen by typing the first letter of the command and RETURN. Each command displays an appropriate prompting message on the top line asking for other information.

1. EXIT From Block Command

The EXIT command is used to exit from a pending BLOCK COMMAND. (refer to the section on "BLOCK commands"). This command allows a block command to be terminated before completion.

2. FIND Character String

This command is useful for locating a word or string of characters that occur in the document. In combination with the REPLACE command below, words or strings of characters may be found and automatically replaced with another words or strings.

The FIND command is initiated by typing the letter "F" followed by RETURN. WORD/7 responds with "Find string?". after which any group of characters (a string), partial word, word, or phrase up to 30 characters in length may be entered. WORD/7 then responds with "Search options? (Asis.Word)". Just pressing RETURN means neither option is to be used.

WORD/7 searches downward in the document from the line containing the cursor to find the characters entered. When a match is found, the cursor is moved to the beginning of the string and the screen display scrolled downward if needed to display the line where the string is found. The REPEAT FIND \+(F5) key can be used to find the next occurrence, and so on until the end of the document is reached.

Now back to the prompt for options mentioned above. The standard condition is to search for the characters entered regardless of whether they are upper or lower case letters and regardless of the characters found around them. The letters "Down" may be found in the text "downward", for example.

It may be desired to be more specific in what letters will match the string entered by using the following options:
Asis - Specifying the letter "a" as an option means the search must match the string entered exactly as to upper and lower case letters. (for example, the word "dog" would not match "Dog" because the first letter is different)

Word - Entering the letter "w" specifies that the characters entered form an entire word and to be found must not be part of a larger word. (the above example of the word "down" would not match "downward" for this option)

The two options may be used separately or in conjunction with each other. Both options could be entered as follows:

Search options? (Asis,Word) a w

A message is always displayed indicating whether or not the string was found.

3. LINE COUNT Display

The LINE COUNT command displays the current line and page number, the total number of lines in the document and the number of edit lines still available for new text. The current line and page are only approximate, and may be different at print time if DOT commands are used.

4. Edit Options Menu

The Edit Options Menu shown in Figure 3 is shown by entering the "Options" primary command and displays values of certain edit options. An option can be changed by positioning the cursor in front of an option and pressing RETURN. An appropriate message is displayed at the bottom of the screen asking for the new value.

a. Edit Scroll Amount

This value is the number of lines the Edit display will move up or down when the scrolling keys are pressed. Typically used values are 12 for half a screen, 23 for a whole screen, or 18 for three-quarters of a screen. Pressing RETURN or ESC to the resulting prompt retains the current value.
b. Paragraph Indent Amount

There are two valid responses for this option: a numerical value representing the number of columns for the first line of a paragraph to be indented, or the letter "R" to indicate "RELATIVE INDENTING". Pressing RETURN or ESC retains the current value. (see FORMAT PARAGRAPH command above for a discussion of how this value is used)

c. Right Justification

This option determines whether subsequent paragraph formatting will right justify each line by adding spaces as necessary between words. This value alternates between "YES" and "NO" when changed.

d. Define Margins

The five sets of left and right margins may be changed by positioning in front of the desired settings and pressing RETURN. The new columns for the left and right margins should be entered separated by either a space or a comma. Note that Margin 1 corresponds to the OUTERMOST margin and Margin 5 to the INNERMOST margin setting to be used.

Any of the five margins may be deleted by typing the characters "DEL" instead of column numbers. The NEXT MARGIN and PREVIOUS MARGIN edit commands will sequence through the remaining settings.

5. REPLACE Character String

Words or strings of characters may be located and changed by use of this command. The command prompts for the string to be changed and what string it is to be changed to. Each string is entered followed by the RETURN key. Searching begins at the line containing the cursor and proceeds to the end of the document. The first time the string is found, it is replaced and the display positioned to the line where the replace occurred with the display being scrolled if necessary.

The two character strings of this command are retained after a string is found and replaced. Pressing the F5 key will find and replace the next occurrence of the string from the cursor position and may be used to step through the remainder of the document, changing all occurrences.
However, it may not be desired to change the string every time it appears in the document. In this case, the F5 key may be used to FIND the next occurrence, displaying if for inspection, and F6 pressed only if the string is to be replaced. F5 could be used repeatedly to find all places where the string occurs without changing any of them.

Terminating the "TO" string with the ESC key instead of RETURN will not replace the string but store the FIND and REPLACE strings for later use with the F5 and F6 keys.

6. SAVE to disk

The SAVE command writes the document onto a disk for permanent storage. The system prompts for a name under which to store the document. If the document named LETTER2 is being edited, the following question will be asked:

Save document name LETTER2? (y/n) _

The responses to this question are "y" for yes, and "n" for no. A response of "y" causes the new version of the document to be stored on the disk replacing the old copy of the document named LETTER2. A response of "n" will ask that another name be entered:

Document name? _

A valid document name should be typed followed by RETURN. If a document already exists with the name typed, you will be asked whether or not to replace that document. Be aware that if an existing document is replaced, the old version is gone and cannot be retrieved.

Saved with each document are margin and tab settings, paragraph indent amount, and whether or not paragraphs are to be right-justified when formatted. The SAVE command may be exited at any time by entering the ESC (for ESCAPE) key to return to the top line of the Edit Display Screen.

7. VIEWING Another Document

It is many times helpful while editing a document to see what is contained in another document without ending edit and saving the document being changed. The VIEW command is just for that purpose. Typing the letter "v" and RETURN displays the following message:
VIEW what document? _

Any valid document name may be entered to see that document displayed. The display is cleared and the specified document shown line by line. The display pauses after each screenful with the message "Continued" and continues when any character is typed. Pressing ESC will end the display and return to the Edit Display Screen for the document being edited.

The document to be viewed may be stored on any disk currently mounted on the computer. However, to view a document stored on any disk other than the "current" disk, the name should include the disk name (i.e. DISK1:LETTER.A or *A.B.C). It is also possible to view programs or files other than WORD/7 documents by entering the complete filename followed by a period:

   TMP:PROG.A.TEXT.

I. Ending EDIT

The ESC key should be pressed twice to exit from editing a document. If any changes have been made, the system will ask for a name under which to save the document in a dialogue similar to that described above for the SAVE command.

   Save changes? (y/n or return) _

   Any response other than "y" or "n" will return to edit.
EDIT Options Menu

QUIT this menu

Edit scroll amount = 16

FORMATTING:
Paragraph indent amount = 4
Right justification? = NO

MARGINS:
MARGIN Set 1 = 6.75
MARGIN Set 2 = 10.75
MARGIN Set 3 = 14.75
MARGIN Set 4 = 18.75
MARGIN Set 5 = 22.75

FIGURE 3 - Edit Options Menu
III. THE DOCUMENT FILING SYSTEM

WORD/7 supplies a complete set of functions for storing, viewing, deleting, and renaming documents. The collection of these functions is known as the FILING SYSTEM. This system is similar to a filing cabinet containing documents, except that in this case documents are stored on magnetic "records" known as disks (or diskettes). Each disk can contain up to 77 individual documents.

A. Document names

Each document stored on a disk is given a name comprised of up to 13 characters. The name is typed in when the document is stored and should in some way imply the contents of the document. The name may contain the alphabetic characters, the numeric digits (0-9), and the special characters "/", "_" and ".". The name must not contain the following special characters: "$", ":", "=" "?", ",," or "-".

For example: LETTER1, MEMO.TO.DAVE, CHAPTER5, USER MANUAL, and DESIGN.REPORT are all valid document names.

WORD/7 looks for a document with the entered name on the "CURRENT" disk, which may be set from the Filing System Display. Throughout the system, documents may be stored and retrieved from other disks by preceding the document name with its disk name. Disk names are similar to document names but are limited to 7 characters in length. A complete document name might be "DISK1:LETTER.A".

B. The Document Selection Screen

Entering the FILING system from the Main Menu displays the Document Selection Screen shown in figure 4, so called because documents are selected from this screen for filing system functions. The top line of the screen displays the name of the current disk (similar to a document name except for a maximum of 7 characters) and there is one line per document displaying the document name, size and date of last change.

The four cursor keys are used to move up and down on this screen as well as the TAB, BACK TAB, SCROLL UP, and SCROLL DOWN keys.

Note that 77 documents can be stored on one disk, but there are only 20 names displayed on the screen. If the disk contains more than 20 documents, the additional names are down below the screen and will be displayed if the cursor is moved down past the bottom.
The RETURN key or the up and down arrows can be used to move up and down the screen as desired.

An operation on a document is specified by typing the letter for one of the filing functions in front of the document name followed by RETURN.

C. HELP (?)

Entering a question mark "?" or any invalid command character displays a help message at the bottom of the screen listing all valid filing commands.

D. COPYING a document (C)

A document may be copied (or duplicated) by typing the character "C" in front of its name. A prompt will appear to the right of the name asking for the name of where the document is to be copied. If the named destination document already exists, another prompt will verify that the document is to be replaced. Entering ESC or RETURN in reply to any prompt ends the copy operation.

Note that the destination document name may be preceded by a volume name and the copy operation will be from one disk to another (both disks must be currently mounted).

EXAMPLE: disk4:invoice.21

E. DELETING a document (D)

Typing the character "D" in front of a document name selects the document for deletion from the disk. The following message will be displayed to the right of the name.

Confirm Delete? (y/n) _

A response of "y" and RETURN deletes the document or "n" exits the delete function. This confirmation ensures against accidental deleting of documents.

Notice that once a document is deleted, it is gone from the disk and can no longer be retrieved in any way.

F. Selecting a document for editing (E)

Typing the character "E" in front of a document name selects that document for editing. The document is read from the disk into
memory and the program placed into EDIT MODE for modifying the document. When EDIT MODE is ended, the display is returned to the same place on the DOCUMENT SELECTION SCREEN.

G. RENAMING a document (R)

The name of a document can be changed by typing the character "R" before its name. The following message prompts for the desired new name which should be typed in followed by RETURN. The ESC or RETURN key may be used to end without renaming the document.

New Document Name?

H. VIEWING a document (V)

A document can be retrieved from storage on disk for viewing on the screen by typing the character "V". The first 24 lines of the document will be displayed and the message "Continued". Pressing any key displays the next 24 lines, and so on, through the entire document. The ESC key can be entered at any time to stop viewing.

I. PRINTING a document (P)

Entering the letter "P" in front of a document name selects that document for printing and displays the PRINT OPTIONS MENU shown in figure 6. Refer to the section on PRINTING DOCUMENTS for details on how to proceed from there.

J. CHANGING the CURRENT Disk (HOME key)

WORD/7 always keeps the name of one disk as its CURRENT DISK. The filing system always displays the names of documents on that disk and documents are normally stored to and retrieved from that disk.

The current disk can be changed to another disk by entering the HOME key (placing the cursor at the top of the screen) and then typing the name of a different disk. The new disk should be inserted before using the RETURN key to enter the new name. The display will change to the document names on the new disk. If the new disk doesn't contain any documents or is not properly inserted, the following messages are displayed at the bottom of the screen.
No Documents on Disk xxxx
Available disks: SYS, DOC1
Which Disk? _

In this example, the disks "SYS" and "DOC1" are currently inserted and either of the names may be typed to select the respective disk. Pressing ESC or RETURN will exit from the FILING SYSTEM and return to the Main Menu.

Another option is to type a question mark after going to the top of the screen with the HOME key. In this case, the names of all currently mounted disks are displayed for selection as shown above.
## DOCUMENT Selection Screen for disk DISK1

<table>
<thead>
<tr>
<th>Document</th>
<th>Size</th>
<th>Date Changed</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.MAIN.DOC</td>
<td>4</td>
<td>4/14/82</td>
</tr>
<tr>
<td>ANOTHER.DOC</td>
<td>4</td>
<td>10/24/82</td>
</tr>
<tr>
<td>BILL S_MEMO</td>
<td>8</td>
<td>1/19/82</td>
</tr>
<tr>
<td>LETTER1</td>
<td>6</td>
<td>6/12/82</td>
</tr>
<tr>
<td>LETTER2</td>
<td>6</td>
<td>7/1/82</td>
</tr>
<tr>
<td>LETTER3</td>
<td>8</td>
<td>7/8/82</td>
</tr>
<tr>
<td>LETTER4</td>
<td>8</td>
<td>8/1/82</td>
</tr>
<tr>
<td>OPENING.BID</td>
<td>10</td>
<td>11/16/82</td>
</tr>
<tr>
<td>RECEIPT</td>
<td>4</td>
<td>3/31/82</td>
</tr>
<tr>
<td>REPORT_AB</td>
<td>14</td>
<td>12/22/82</td>
</tr>
<tr>
<td>REPORT_AC</td>
<td>12</td>
<td>12/22/82</td>
</tr>
<tr>
<td>SECOND.BID</td>
<td>14</td>
<td>1/15/83</td>
</tr>
<tr>
<td>XYZ.DOCUMENT</td>
<td>8</td>
<td>6/4/82</td>
</tr>
</tbody>
</table>

**FIGURE 4** - Document Selection Screen
IV. PRINTING DOCUMENTS

The WORD/7 system supplies a full complement of functions for printing documents. In most cases, what you see displayed on the screen is almost exactly what will be printed. However, there are special printing features which require instructions to be typed in a document which are seen while editing but disappear while printing. These features include text underlining, bold print, and other capabilities depending on the printer being used.

WORD/7 allows great flexibility in defining the format of a printed page as shown in figure 5. DOT commands may be used to set top, bottom, and left margins, define standard page header and footer lines, and determine placement of page numbers.

A. DOT Commands

Many different printing features cannot be displayed on the screen while editing a document, but are desired when a document is printed. DOT commands (so called because they all begin with a period, or dot) are the mechanism in WORD/7 to accommodate those features. A convenient summary of DOT commands is given in APPENDIX B.

A DOT command is entered on a line by itself while editing a document, and specifies an action to happen when that line is encountered in printing. The command can appear in any column, but the period must be the first non-space on the line. The rest of the command may be in upper or lower case letters. For example, the printer will skip to the top of the next page before the third line below is printed:

```
This line will be printed on one page
\*pg
and this line will be printed on the next.
```

The DOT command itself is not printed, but merely signals a print action to be taken by the computer.

Some DOT commands are followed by spaces as in the above example, while others require a number or string of characters to complete the line. An example of using a number is the SKIP command.

```
.sk 5
```

which causes five blank lines to be skipped. The number may be placed anywhere after the "k" in this example as long as it is preceded by at least one space. Any letters on the rest of the
line are ignored.

1. Comment Lines (.*

It is sometimes convenient to make notes within a document for future reference but not print the notes as part of the finished document. A line beginning with the characters ".*" is used to denote a comment.

**EXAMPLE**

`. * NOTES THAT WILL NOT BE PRINTED: 
. * This memo was written on 08/17/82 in response 
. * to Mr. Donner's request for further details 
. * on our new computerized System

2. Skipping Lines (.SK)

The ".SK" command leaves the specified number of blank lines in the printed copy. This command is especially useful for leaving blank space if drawings or figures are to be inserted in the document after printing.

**EXAMPLE**

.sk 10

Will skip 10 blank lines.

3. Page Titles (.TN)

Up to 3 TITLE lines may be defined to appear at the top of the printed page just below the page number line. These lines may be re-defined as desired throughout a document or deleted when no longer needed.

The following example illustrates how page titles are generated for this User Guide. Note the use of the underscore character, defined with the ".CU" command, to obtain an underlined heading. (refer to later section on SPECIAL PRINT CHARACTERS). Note also that the heading consists of three lines: a blank line to separate from the page number, a title line, and another blank line to separate from the text on the page.
Page titles may be deleted from appearing on following pages by following the ".T" command with the characters "DEL". The example below deletes all three page titles.

### EXAMPLE

```
.cu
t1
.t2
.WORD/7 User's Manual
.t3
```

**PRINTS AS**

```
.WORD/7 User's Manual
.Printing Documents
```

Documents that are to be printed on both sides of the page require that page titles on even and odd pages be different (usually mirror images). The page title commands accommodate this type of page title as follows:

```
.t1 odd
.WORD/7 User Guide
.t1 even
.Printing
```

The word "ODD" or "EVEN" after the dot command specify that the title is to appear only on odd or even numbered pages respectively. The alternating page titles need not be mirror images, and can complement each other in any manner desired.

When even and odd titles are produced, both are deleted by the following delete command which is specified without the word "EVEN" or "ODD".

```
.T1 del
```

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4. Page Footers (.Fn)

Page Footers are very similar to Page Titles except that they appear as the bottom three lines of a printed page.

The following example illustrates how a single Copyright line is defined as a Page Footer. The copyright notice shown will be printed at the bottom of each subsequent page of the document.

EXAMPLE

.f1
Copyright 1982 by Micro Research & Development, Inc.

PRINTS AS

Copyright 1982 by Micro Research & Development, Inc.

Page footers may be deleted from appearing on following pages by following the ".Fn" command with the characters "DEL". The example below deletes all three page footers.

EXAMPLE

.f1 del
.f2 del
.f3 del

Page Footers for two sided copying can be produced by including the word "ODD" or "EVEN" after the dot command. (see page titles described above).

5. Margin from Top (.MP)

A margin of blank lines may be specified from the top of the page, before the page titles are printed. The following example leaves 8 lines.

EXAMPLE

.mp 8
6. **Margin at Top (.MT)**

A margin of blank lines may be left after the page titles and before the document body using this command. The following example leaves four lines after the page titles.

**EXAMPLE**

```
.ml 4
```

7. **Margin at Bottom (.MB)**

A margin of blank lines may also be left after the document body and before the page footer lines. The following example specifies a margin of one line.

**EXAMPLE**

```
.mb 1
```

8. **Margin at Left (.ML)**

The entire text of a document or section of a document may be shifted to the right on the printer with this command.

**EXAMPLE**

```
.ml 10
```

9. **Paragraph Breaks (.P)**

Paragraphs are assumed by WORD/7 to be separated by blank lines which is important in formatting paragraphs on the edit screen. However, these blank lines will be printed on the final document which may not be desired. A PARAGRAPH BREAK command can be used to indicate a new paragraph that will be printed without forcing a blank line for separation.

**EXAMPLE**

```
Computers are extremely powerful, versatile machines and in many ways are indispensable in the modern work environment.
```

```
.P

Human beings, on the other hand, are much more powerful and will continue to be indispensable forever.
```
Computers are extremely powerful, versatile machines and in many ways are indispensible in the modern work environment.

Human beings, on the other hand, are much more powerful and will continue to be indispensible.

10. Page Number Mask (.PN)

The PAGE NUMBER MASK gives full flexibility in placing page numbers anywhere on a line. WORD/7 will automatically generate and increment numbers, but allows the placing of the number and any descriptive text via this mask.

The " .PN" command is followed by a line containing any text desired plus a pound sign "#" somewhere on the line. The page number mask will be printed at each new page with the current line number substituted for the "#".

Note that this function only places the number on a line: at print time you specify whether page numbers are to be generated and if they are to appear at the top or bottom line of the document. (refer to the section "PRINT OPTIONS")

EXAMPLE

.pn

   page no. #

PRINTER AS

   page no. 10

The line number mask may also specify line numbers that alternate from the right half of the page to the left half for documents that will be printed double-sided on the page by use of the special words "ODD" and "EVEN".

EXAMPLE

   .pn even
      - # -
   .pn odd
      - # -
11. Page Eject (.PG)

When a .PG command is encountered, the current page is ended by printing any defined Page Footers, and a new page begun for subsequent text.

EXAMPLE

This line will be printed on one page
.PG
and this line will be printed on the next page.

12. Page Eject Conditionally (.PC)

It is often undesirable for a figure, table, or other small section of the document to be split across two pages. This command informs WORD/7 to start a new page if a specified number of lines is not available on the current page. A number following the command specifies the number of required lines.

The following example contains Table 1 which should not be split across pages. The "PC" command ensures that if less than 7 lines are available on the current page, a page eject will be done before printing the table.

EXAMPLE

Work effort should be reported using the codes shown in Table 1.

.PC 7

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>99</td>
<td>non-billable hours</td>
</tr>
<tr>
<td>100</td>
<td>Sales and Marketing</td>
</tr>
<tr>
<td>200</td>
<td>Program Development</td>
</tr>
<tr>
<td>300</td>
<td>Documentation</td>
</tr>
<tr>
<td>400</td>
<td>Maintenance</td>
</tr>
</tbody>
</table>

Table 1 - Work Codes
13. Turning Dot Commands Off (.OFF)

WORD/7 assumes that any line beginning with a period contains one of the DOT commands described here. DOT command processing can be turned off with the "OFF" command which allows subsequent lines to begin with a period.

14. Turning Dot Commands On (.ON)

The "ON" command is used to turn DOT command processing on after use of the "OFF" command described above.

15. INSERTing Another Document (.IN)

A very powerful feature of the WORD/7 system is the ability to print one document as part of another. This is useful when inserting a common paragraph in a form letter, or when several reports contain identical sections. It is also necessary to break large reports into smaller pieces since the WORD/7 editing function limits the number of lines in a document based on the main memory of your computer system.

When a document is inserted via the "IN" command, it is printed immediately in place of the line containing the command. There is no indication on the printed version where one document ends and another begins. Printing resumes with the line after the insert command.

An inserted document need not exist on the same disk as the main document; the computer will prompt for the proper disk to be mounted as printing occurs. Any valid document name may be placed on the command (refer to the section on DOCUMENT NAMES).

Note that an "inserted" document may also insert documents. The only limitation is the main memory of the computer. However, printing while in EDIT can generally only support one level of insertion. If more levels are tried, a message will be printed that memory is not available and printing will proceed with the next line.

EXAMPLE

Assume that a document named "rejection" has been written to contain a standard job applicant rejection letter. The following could be used to print a specific rejection letter to Mr. Figg.
Dear Mr. Figg:

in rejection

Sincerely,
Daniel Personnel

PRINTS AS

Dear Mr. Figg:

Your qualifications and job experience do not match any of our currently open positions. However, we will file your recent application for a period of 1 year and continue to review it as new positions become available. Thank you very much for interest in our company.

Sincerely,
Daniel Personnel

16. Keyword Substitution (Printing a Mailing List) (.KW)

A frequently used business function is sending a standard letter to many different people at different addresses. WORD/7 supports such mass mailings with "Keyword Substitution" features. A single document can be printed a number of times with names, addresses, and other "keyword" information substituted throughout the document before printing.

Let's look at an example of this feature:

.KW clients title/namel/name2/addrl/addr2/zipcode

&title &namel &name2
&addrl
&addr2 &zipcode

&title &name2:

This letter announces the new offices recently occupied by Keyword, Inc. We trust that our new facilities will help in better serving you, our valued client, and be convincing evidence that there is no substitute for service.
Sincerely,

I.M.A. Komputer

Printing of the letter is different depending on whether it is printed from within the Edit Function, or from the Filing Functions. Printing from Edit will look like the above with no changes and is useful for previewing the letter.

Printing from the Filing Functions is much different. The .KW command specifies that the document "CLIENTS" contains names and addresses of all recipients of the letter. The first line of document "CLIENTS" contains a first name, the second line a last name, the third line a line of the address, and so on for a total of six lines. The information on each line will be substituted throughout the letter wherever the corresponding name occurs preceded by an ampersand (ie. &name1 will be replaced by the person's first name).

The printed letter might look like this:

Ms. Emma Satisfied
1234 Circle Dr.
Colingua, Ca. 95035

Ms. Satisfied:

This letter announces the new offices recently occupied by Keyword, Inc. We trust that our new facilities will help in better serving you, our valued client, and be convincing evidence that there is no substitute for service.

Sincerely,

I.M.A. Komputer

The letter will be printed once for each person represented in the client document. The client document could be used in a similar manner to envelope print mailing labels to the same set of people.
a. Rules for Keyword Substitution

The word "&NAME1" in the document above is known as a "keyword" and is only intended as a placeholder until the document is printed. At print time, the "value" of the keyword from the keyword document file is substituted for the keyword according to the following rules:

1. A value that contains fewer characters than the keyword is placed into the same space with spaces to the right of it.

2. A value that contains more characters than the keyword is inserted directly without disturbing text to the right on the line if there are enough spaces after the keyword. Otherwise, remaining text on the line is moved right to make room.

EXAMPLE

&street &city

MAY BECOME

1234 Anystreet Denver, Colorado

ANOTHER EXAMPLE

&street, &city

BECOMES

1234 Anystreet, Denver, Colorado

Keywords may be placed within formatted paragraphs, but this type of substitution will generally not be acceptable because it will change the right margin. This situation is best handled by specifying keywords in combination with "PRINT TIME" formatting as discussed below for the .FS and .FE commands.
b. The Keyword Document File

Values of keywords are contained in the "Keyword Document File" as described above. This file can be an ordinary document created and edited by WORD/7, or may be a system "TEXT" file created by another program. Anything other than a WORD/7 file should be specified by entering its full name followed by a period and optionally preceded by the disk name and a colon.

EXAMPLES

SYS:CLIENT1.TEXT. (System TEXT file with disk name)
 NAMES.TEXT. (System TEXT file without disk name)
 NAME_ADDR2 (WORD/7 Document file)

17. Formatting at Print Time (.FS)

WORD/7 documents are usually formatted at the time of creation or editing. However, it is possible to reformat a document at the time of printing. This feature is intended for use when performing keyword substitution as described for the .KW command. The command is:

```
.FS left indent right JUST
```

where the column of the left margin is substituted for the word "left", the number of columns of indenting for paragraphs is substituted for "indent" and the right margin is substituted for "right". The word "JUST", if present, says to right-justify all lines that are formatted. Otherwise lines are left with a jagged right margin.

EXAMPLE,

```
.FS 10 4 70 JUST
```

This command says to format text between columns 10 and 70 with the first line of each paragraph indented by 4 columns. Blanks will be added between words to achieve a straight right margin (right-justified). Formatting continues until a format end (.FE) command is encountered.

.on
18. End Print Formatting (.FE)

The .FE command is used after a .FS command to stop formatting at print time:

.FE

19. Generating Section Headings (.Hn)

Section headings can be generated automatically in either Outline Format (Roman numerals, letters, and numbers as shown in the following example) or in Dewey-Decimal Format. Refer to the next section for details on specifying the type. The standard type if you don't say differently is Outline Format.

Headings start at level 1 (the highest level) and can be generated at indented levels 1, 2, 3, and 4. The level number is specified as a digit following the .h in the heading command. The remaining letters on the line are used as the body of the section heading.

The advantage of having section headings generated by the system is that sections may be freely moved around during editing without concern for section numbers.

EXAMPLE

.h1 INTRODUCTION

Let me introduce you to a new product that we feel will revolutionize the gold-making industry.

.h2 TECHNICAL DESCRIPTION

Technically, there is not much to say.

.h3 REQUIRED NEW TECHNOLOGY

There are many required discoveries before the new system will become practical.

.h3 PROPOSED RESEARCH

Research through the year 2050 will be required to verify the initial hypothesis.

.h2 MARKETING CONSIDERATIONS

Let's wait and see for this one.
CONCLUSIONS

Our effort would be better spent in another area!

PRINTS AS

I. INTRODUCTION

Let me introduce you to a new product that we feel will revolutionize the gold-making industry.

A. TECHNICAL DESCRIPTION

Technically, there is not much to say.

1. REQUIRED NEW TECHNOLOGY

There are many required discoveries before the new system will become practical.

2. PROPOSED RESEARCH

Research through the year 2050 will be required to verify the initial hypothesis.

B. MARKETING CONSIDERATIONS

Let’s wait and see for this one.

II. CONCLUSIONS

Our effort would be better spent in another area!

20. Specify Section Heading Type (.HT)

This command specifies the type of Generated Section Headings as described above and takes one of the following forms:

\ht 1  - Specifies that Outline Format headings are to be generated. This is the default type when you initially create a document. Headings will appear as follows:

Level 1 - Roman Numerals
Level 2 - Capital letters A thru Z
Level 3 - Numbers 1 thru 99
Level 4 - Lower-case letters a thru z

\ht 2  - Specifies that Dewey-Decimal headings are to generated as follows:
21. Generating a Table of Contents (.TC)

The system will automatically build a Table of Contents from the section headings generated by the .Hn command above, inserting the correct page number for each heading. The Table of Contents is built when the document is printed, and is directed to an ordinary document file with a name specified in the .TC command:

```
.TC doc.contents
                          
```

The above command specifies that a Table of Contents is to be built and placed into the document named "DOC CONTENTS". If the document already exists, it will be replaced. Otherwise a new document will be created with that name. The Table of Contents is not printed; just built and placed in a document from which it can be edited and then printed.

The line after the .TC command is a "mask", or sample of what lines of the Table of Contents lines will look like. Each generated heading will be superimposed on top of the mask and the current page number substituted for the number sign (#).

The generated Table of Contents for the above example might look like this:

```
Table of Contents

I. Introduction. ..................... 1
II. Discussion. ........................ 3
```

Notice the two title lines that are also created. The WORD/7 Edit function may be used to modify the Table of Contents document to change any spacing or formatting.
22. Additions to Table of Contents (.TE)

This command is inserted above a line that is to be added to the Table of Contents.
B. Defining Special Print Characters

1. Bold Printed Text (.CB)

An entire section of text may be printed in bold print by surrounding it with the character defined in the ".cb" command.

EXAMPLE

.cb \
This example will print \textit{boldly} by surrounding a word with the currently defined \textit{bold} character.

PRINTS AS

This example will print \textit{boldly} by surrounding a word with the currently defined \textit{bold} character.

2. Capitalized Text (.CC)

To capitalize an entire section of text, it should be surrounded with the character defined in the ".cc" command.

EXAMPLE

.cc |
| This sentence will be printed entirely in capitals. |

.pc 4

PRINTS AS

THIS SENTENCE WILL BE PRINTED ENTIRELY IN CAPITALS.

3. Text Pitch (.CP)

A character may be defined which changes the horizontal pitch (the number of characters per inch) of your printed copy. The character is defined with the ".cp" command, but the printer must also be capable of different horizontal spacing and the WORD/7 configuration file must contain the appropriate printer character sequence. (Refer to the section on System Configuration)
EXAMPLE

```
.cp ^
"This line will be expanded."
```

PRINTS AS

This line will be expanded.

4. Stop Printing (.CS)

The character defined in the .CS command may be placed anywhere in the document so that the printer will stop. A different print wheel can then be mounted to get special characters or italics for a word or phrase, and any character typed to resume printing. Another character should be placed after the word or phrase so that the original wheel can be mounted again.

5. Text Underlining (.CU)

This command allows underlining to be turned on and off as desired. If a letter other than a space follows the command, that letter becomes the underline flag and will start underlining when it appears later in the document. The next time the character appears, underlining will end, and so on for the rest of the document.

The ".CU" command followed by only spaces turns the underlining character OFF.

EXAMPLE

```
.cu_
Let me make this_perfectly_clear!
```

```
.pc 5
_PRINTS AS_
Let me make this perfectly clear!
```

The underline character is replaced by a space when the above example is printed. Sometimes, though, it is not appropriate for a space to be printed as in this heading:
EXAMPLE

The last word of a sentence can be a problem!
Either placement of the underline character is wrong.

PRINTS AS

The last word of a sentence can be a problem!
Either placement of the underline character is wrong.

The "NOSPACE" option can be included on the .CU command to handle this situation and not print a space for the underline character.

EXAMPLE

.cu ~ nospace
The last word is no longer a "problem"!
A single letter of a word may also be underlined.

PRINTS AS

The last word is no longer a problem!
A single letter of a word may also be underlined.

It may seem that this option should always be used. However, it is generally only used for the line or lines where necessary because it creates an inconsistency between how text is printed and how it looks on the screen. Formatting of paragraphs on the screen always count the underline character as taking a space, so using the nospace options makes the text print differently than seen on the screen.

6. Other Special Characters (.Cn)

WORD/7 also allows up to ten other special print characters to support other features of the printer begin used. These are specified in the document using the .C1, .C2, etc. up to .C10, and function in a similar manner to the print commands described above.

These special characters must be set up with the "Define Printer Configuration" function of WORD/7 to the desired printer character sequence. Typical uses are to start and stop superscripts and subscripts, italics or other print fonts, and to switch horizontal or vertical pitch settings.
Assume that special characters 1 and 2 have been defined to the printer as starting and stopping superscript mode. The following example prints the mathematical equation $X = Y^2 + Z^2$.

```
.c1 ^
.c2 |

X = Y^2 + Z^2
```

Note that the special characters will not take a space when printed and the equation will appear correctly.
C. Print Options

The PRINT OPTIONS SCREEN in Figure 6 is displayed if a document is printed either from the EDIT MODE or FILING SYSTEM functions of WORD/7. Options may be selected to specify the type of PRINT FORMS, generation of PAGE NUMBERS, and HOW TO PRINT the document on the printer. These options provide flexibility in printing documents on different printer forms and influence the appearance of the final document.

The previous value for any print option is kept by WORD/7 and will be remembered from day to day. A value may be changed by typing in the letter corresponding to the option (see figure 6) and then responding to questions that are printed on the screen.

1. Printer Forms

   a. CONTINUOUS FORMS or INDIVIDUAL SHEETS

   Option A specifies whether the printer contains continuous computer paper (value of "Y") or individual sheets of paper (value of "N"). For individual sheets of paper, the computer will pause after each page and display a message to "INSERT PAPER". Printing will resume after inserting another sheet of paper and pressing the RETURN key.

   b. SIZE OF FORM

   Option B specifies how many printed lines will fit on a page of paper. A full 8 1/2" by 11" sheet of paper will generally hold 66 printed lines, while mailing labels may contain only 3 or 4 lines.

   Note that this number represents the full size of the page including top and bottom margins, not the actual number of lines that will be printed. That number is specified in the LINES/PAGE option described below.

2. Page Numbering

   Page numbers will be automatically generated, if desired, and printed at either the top or bottom of each page depending on the option below. Page numbers may also be eliminated completely.
a. NUMBERING OPTION

This option has the following three values:

0 = No page numbers will be printed
1 = Page numbers will be printed at the top of each page.
2 = Page numbers will be printed at the bottom of each page.

Note that the column of the page number for options 1 and 2 depends on any page number mask defined in the document with the PAGE NUMBER MASK DOT command described above. If a page number mask is not provided, numbers will be printed starting in column 70.

b. INITIAL PAGE NUMBER

Page numbers usually begin with 1 but may be started at any other number with this option. This is particularly useful when a document is printed separately but will be physically appended to a previously printed document.

3. Other Print Options

a. LINES/PAGE

This option specifies how many lines are to be printed on a page. The number should be less than the number of lines on a page as specified above.

b. LINE SPACING

This value specifies SINGLE, DOUBLE or TRIPLE spacing. (1, 2 or 3)

c. NUMBER OF COPIES

Multiple identical copies may be printed by entering a number other than 1 for this option. Every page of the first copy will be printed, followed by the second copy, etc.
d. USE OF FORM FEEDS

The normal action (value of "Y") is to send a form feed command to the printer at the end of each printed page. If your printer does not support form feeds, or if you want to print continuously without regard for pages, specify a value of "N" for this option.

e. FIRST/LAST PAGE TO PRINT

It may be desired to print only a portion of a large document. These two options specify which page numbers will be printed. Notice that if the printing starts at any page other than the first, there will be a delay as the computer checks formatting of prior pages.

f. PRINTER DEVICE NAME

This option specifies the operating system name for the printer. It usually contains one of these names:

| PRINTER: | if your printer is connected to the PARALLEL printer port of your computer. |
| REMOUT:  | if your printer is connected to the SERIAL printer port of your computer. |
FIGURE 4 - WORD/7 Print Page Format
## WORD/7 Print Menu

<table>
<thead>
<tr>
<th>FUNCTIONS:</th>
<th>PRINT Document</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quit this Menu</td>
</tr>
</tbody>
</table>

### PRINT FORMS:
- Continuous Forms? = Y
- Lines/Page of Form = 66

### PAGE NUMBERS:
- Numbering Option = 1
- INITIAL Page Number = 1

### PRINTING:
- Text Lines/page = 50
- Text Line Spacing = 1
- No. of Copies = 1
- Use FORM FEEDS? = Y
- FIRST Page to Print = 1
- LAST Page to Print = 50
- Printer Device = PRINTER:

---

**FIGURE 5 - Print Options Menu**

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V. SYSTEM CONFIGURATION

Selecting the "Set System Configuration" option of the Main Menu displays the menu shown in figure 6. An option is selected by positioning the cursor in front of the desired function, and pressing the RETURN key.

Several of the options modify system information stored in the "WORD/7 Configuration File" (named WORD7.PARMS). WORD/7 searches all mounted disks for this file when execution begins and reads information about the terminal, printer, and edit command assignments. The file is rewritten after execution if any information is changed.

A. Set Current Disk

WORD/7 always keeps one disk name as the "current disk" from which documents are read and to which documents are written. The filing functions also use the current disk when displaying document names. The current disk is set to the system "prefix" disk when WORD/7 is executed and may be changed by this option.

This option displays the names of all disks currently on the system and prompts for one of the names to become the new current disk.

B. Set Current Date

The date is remembered in order to mark files with the last modified date. However, it is important that the date be set with this option each day to ensure that the modified date is meaningful.

Invoking this option results in prompts for the month, day, and year. Entering just RETURN for any prompt will retain the old value, which is especially useful when only the day is being changed.

C. Define Document Style

Several edit options are grouped together as "Document Style" options and apply to every new document created. This allows a company or department to define a "standard" style for all new documents created (although different options may be specified in Edit for non-standard documents). All prompts should be answered with a character or number followed by RETURN. Just pressing RETURN keeps the current setting.
**Paragraph indent amount** - The number of columns of indent for the first line of paragraphs when formatting in edit.

**Format with right justification?** - "Y" means paragraph formatting will include right justification, "N" means not.

**MARGINS** - Five sets of margins may be defined for document editing. Left and right column are specified for each.

**Keyword start character** - Keyword names used with the "Keyword Substitution" facility will start with the letter defined here. The usual character is ampersand (&).

---

**D. Define Terminal Configuration**

Characteristics of the terminal being used are contained in the system "Configuration File" and may need to be modified before using the program from your specific terminal.

This option proceeds through each of the following terminal attributes and command sequences, displaying the current values, and allowing new values to be entered. Each line displays the integer values for a one to five character sequence. Pressing RETURN keeps the current setting while typing up to five integer numbers changes the command sequence.

If the configuration file is so different from the terminal being used that it is impossible to execute the system at all, the file should be deleted and WORD/7 executed. The program will pick up the cursor keys, and some minimal terminal information from the operating system and the following options can then be used to define the remaining information.

**CURSOR DISPLAY ATTRIBUTE** - The character sequence to display a square block cursor. A value of zero will leave the cursor with the attributes it had when the program was invoked.

**CURSOR NON-DISPLAY ATTRIBUTE** - The character sequence to make the cursor invisible. This value should be set to zero if CURSOR ATTRIBUTE above is zero, or if the terminal doesn't have the ability to display an invisible cursor.

**NORMAL FIELD ATTRIBUTE** - The character sequence that begins a normal video, (white on blank) non-underlined field. If the terminal does not require a screen position for the attribute, this sequence should be terminated with...
and 950 terminals. Should equal 148 for those terminals and zero otherwise.

E. Define Printer Configuration

This option proceeds through each of the following printer command sequences, displaying the current values, and allowing new values to be entered. Each line displays the integer values for a one to seven character sequence. Pressing RETURN keeps the current setting while typing up to seven integer numbers changes to new values.

**Carriage RETURN on Line Print** - (Y/N) - The value is always 'Y' for a SAGE computer.

**PRINTER INIT CHARACTERS** - The character sequence to be sent to the printer whenever a document starts to print. Many times no sequence is needed and this will be set to nulls (or zeros). It may, however, be desired to send a sequence that resets the printer to its power up state or sets to a particular horizontal pitch.

**PRINTER Start UNDERLINE Chars** - The sequence of characters that, when received by the printer, starts underlining subsequent characters. On printers without this function, the value should be set to nulls (zero) and the program will underline characters by printing a character, backspacing, and printing the underscore character.

**PRINTER End UNDERLINE Chars** - The character sequence that signals the printer to stop underlining subsequent characters. On printers without this function, the value should be set to nulls (zeros) along with the value for starting underlining.

**PRINTER Start BOLD Chars** - The character sequence that signals the printer to start printing in boldface characters. On printers without this function, the value should be set to nulls (zeros) and the program will print bold characters by printing a character, backspacing, and printing the character again.

**PRINTER End BOLD Chars** - The character sequence that signals the printer to stop printing in boldface characters. On printers without this function, the value should be set to nulls (zeros).

**PRINTER Start NEW PITCH Chars** - A character sequence that
signals the printer to change to another horizontal pitch. The choice of pitch is arbitrary and may represent compressed print or expanded pitch. On printers that do not support other print pitch, the value should be set to nulls (zeros).

**PRINTER End NEW PITCH Chars** - A character sequence that ends the new horizontal pitch set above and returns to the normal setting.

**PRINTER Set Form Length Chars** - This character sequence is sent to the printer at the start of each document to set the number of print lines on the print paper being used. Printers use various command sequences which always contain either one or two digits that specify the number of lines per page. The command sequence should be entered here with the digit positions replaced with the number sign (#, ASCII code 35).

**EXAMPLE:**
A printer requires the sequence "ESC F1 n n", where the characters "n n" represent the lines per form. The value should be set to "27 70 35 35".

**PRINTER device name** - The operating system device name for the printer should be entered here, including the colon. Typical values are "PRINTER:" for the parallel printer port and "REMOU:" for the remote output port.

**SPECIAL Char seq 1 - 10** - Ten special sequences may be entered here to be invoked by using the .Cn command (see section "Defining Special Print Characters"). Possible functions for these special characters are: start superscript or subscript, stop superscript or subscript, different horizontal and vertical pitches, and special printing modes or fonts such as italics.

**F. Define Edit Keys**

Different keys may be assigned to the various commands in the WORD/7 Edit Function. Each command may be set to a sequence of from one to five keys. The current setting is first displayed and may be retained by just entering the equals sign "=" (don't press RETURN). A new key or sequence of keys may be specified by entering the key(s) followed by the equals sign.

It is important that certain keys that have significance to the operating system and the terminal not be assigned to any Edit function. These typically include CTRL-S, CTRL-X, CTRL-C, and
others. Refer to Appendix A for typical edit command assignments, and Appendix D for specific examples.

This option also prompts for the maximum number of edit lines in a document. This value should always be set to 430 at the current time.
QUIT this menu

Default DISK = SYS:
Current Date = 12/28/82

DEFINE Document Style
DEFINE TERMINAL Setup
DEFINE PRINTER Setup
DEFINE EDIT Commands
GLOSSARY OF TERMS

25th line - The bottom line of the CRT screen which is used for status and error messages.

arrow keys - See cursor keys

backup - To copy the contents of a disk onto another to protect against loss of documents.

BLOCK Commands - Commands of WORD/7 Edit mode that COPY, MOVE, or DELETE entire groups of lines.

bold print - A type of printing where letters are printed multiple times so they appear darker on paper.

bug - A problem or mistake in a computer program that causes incorrect results when using the program.

caps - An option of printing where all letters are printed as uppercase.

character - Letters, numbers, and other symbols printed on a printer or CRT are referred to as characters.

command - An instruction to the computer to perform some function or action. Instructions to WORD/7 are generally typed at the keyboard.

continuous forms - A type of paper where the bottom of one page is joined to the top of the next page forming a continuous series of pages. This type of form is particularly convenient since a printer can feed several sheets without intervention.

CPU - Central Processing Unit - The part of a computer which performs arithmetic calculations and logical comparisons.

CRT - Cathode Ray Tube - see "display".

cursor - The spot on a CRT screen which indicates where typed characters will appear. As letters are typed, they appear at the cursor position and the cursor moves to the right.

cursor keys - The set of keys marked with left, right, up and down arrows which control movement of the CRT cursor.

delete - The function of removing a character or line from a document, or removing a document from where it is stored on a diskette.
disk - A magnetic storage device that looks somewhat like a phonograph record and stores computer programs and data. There are two classes of disks: hard disks and diskettes. They function in a similar manner but a hard disk is permanently mounted inside the computer, sealed from dust and dirt, and runs much faster.

diskette - Also known as a "floppy disk".

display - The television-like part of a computer terminal on which letters, numbers and other characters are printed to communicate with the person using the computer.

document - A letter, memo, report, manual, mailing label, or any other written correspondence.

document name - WORD/7 allows document names of up to 13 characters including alphabetic, numeric and other characters including period, hyphen, and others. Each document on a given disk must have a unique name for identification.

DOT commands - Commands that are typed into a WORD/7 document that always begin with a period (or dot), and specify some special instructions about how the document is to be printed. (examples are underlining, bold print, and skipping to a new page)

error - A malfunctioning of a computer system or a bad recording of information on a disk.

error message - A message displayed to inform the operator that an error has occurred and that special action may be required. Messages are generally displayed on the bottom or top line of the CRT display screen.

ESC key - A key used throughout WORD/7 to mean "get out" or "escape" from a question or dialog with the computer. The key is usually labelled with the letters "ESC".

Escape key - See ESC key above.

editing - The function of WORD/7 that facilitates making changes to a document.

filing functions - A set of functions of WORD/7 that allow documents stored on disk to be deleted, renamed, printed, stored, or viewed.

floppy disk - See diskette.

form feed - Most printers can feed paper an entire sheet at a time by pressing a button labelled "FORM FEED". The computer can also
perform the function of pressing this button when it prints documents and most of the time WORD/7 will function in this manner.

**format** - The function of WORD/7 which moves words within a paragraph to close up any blank spaces and perform left and right justification.

**function keys** - Special keys of the computer keyboard usually labelled with F1, F2, or PF1, PF2, etc. These keys are used in EDIT to specify functions like scrolling and line formatting.

**Home key** - A key in WORD/7 which generally means to position the cursor to the top or near the top of the display screen.

**indent amount** - A number which defines how many columns the first line of paragraphs is to be indented. This quantity is changed by the INDENT command which is entered on the top line in the Edit Display Screen.

**insert mode** - A mode within the WORD/7 Editing functions where letters typed are inserted at the cursor position. Existing letters are shifted to the right and possibly moved down to the next line.

**keyboard** - The typewriter-like part of a computer terminal which is the primary method by which a person gives instructions to the computer.

**left-justify** - The function of moving a line of text so that the first non-blank character is aligned with the currently defined left margin.

**message line** - The bottom line of the CRT which is used to display informational and error messages in WORD/7. On some terminals, messages will also be displayed on the top line.

**menu** - A method of presenting information and choices on a computer CRT display. A variety of options are described and one is chosen by either positioning the cursor in front of it or typing a letter identified with the option.

**menu-driven** - A computer system that uses menus as described above as its primary technique of communicating with the person using the system.

**overtype mode** - A mode within WORD/7 Edit where any character typed will overlay the character at the cursor location.

**page footer** - An optional group of lines that may be specified to be placed at the bottom of each printed page of a document.
footer may be added, changed, or deleted as often as desired throughout printing of the document.

**page title** - An optional group of lines that may be specified to appear at the top of each printed page of a document. The title lines may be added, changed, or deleted as desired throughout printing of the document.

**paragraph** - A group of lines, possibly with an indented first line, that are separated from previous and following lines by a blank line or a paragraph DOT command.

**primary command** - An editing command which is entered on the top line (tab line) of the edit display.

**printer** - The mechanical device connected to a computer which prints documents on paper.

**program** - A stored set of computer instructions that can command the hardware to perform meaningful information processing.

**rename** - A function of the WORD/7 Filing System that allows the name of a document stored on disk to be changed.

**replace** - A function of the WORD/7 Editing System that allows a specified string of characters to be replaced with another string. The replace operation may always be repeated by pressing a single key and therefore replace many or all occurrences of the specified string.

**RETURN key** - A key on computer keyboard corresponding to the carriage return on a typewriter. Pressing this key in WORD/7 sends the characters typed to the system for processing.

**right-justify** - The function of moving a line of text so that the last non-blank character is aligned with the currently defined right margin.

**screen** - See "display".

**store** - The act of putting an image of a document onto a disk for later retrieval. The document is given a descriptive name and copied from main memory of the computer to a disk.

**string** - A series of letters, numbers, or other characters ended by the RETURN key.

**text processing** - The computer functions associated with creating, changing, storing, and printing documents of all types.

**underlined print** - A special type of printing where words or lines
are printed with continuous underlining.

**word** - Any sequence of non-blank characters.

**word processing** - See text processing.

**wordwrap** - A feature of the WORD/7 Editor where words that would extend past the right margin of the document are automatically moved to the next line without having to press the RETURN key.
## Summary of WORD/7 Edit Commands

### DISPLAY POSITIONING COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Assigned Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>UP 1 Line</td>
<td>UP ARROW</td>
</tr>
<tr>
<td>DOWN 1 Line</td>
<td>DOWN ARROW</td>
</tr>
<tr>
<td>LEFT 1 Column</td>
<td>LEFT ARROW</td>
</tr>
<tr>
<td>RIGHT 1 Column</td>
<td>RIGHT ARROW</td>
</tr>
<tr>
<td>TAB RIGHT</td>
<td>TAB</td>
</tr>
<tr>
<td>TAB LEFT</td>
<td>BACK TAB</td>
</tr>
<tr>
<td>Top Line of Display</td>
<td>HOME HOME</td>
</tr>
<tr>
<td>Beginning of Document</td>
<td>HOME HOME HOME</td>
</tr>
<tr>
<td>End of Document</td>
<td></td>
</tr>
</tbody>
</table>

### CHARACTER COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Assigned Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELETE Character</td>
<td>CHAR DELETE</td>
</tr>
<tr>
<td>INSERT Character Mode</td>
<td>CHAR INSERT</td>
</tr>
<tr>
<td>END INSERT Mode</td>
<td>DEL</td>
</tr>
</tbody>
</table>

### WORD COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Assigned Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEXT Word</td>
<td>CTRL/n</td>
</tr>
<tr>
<td>PREVIOUS Word</td>
<td>CTRL/p</td>
</tr>
</tbody>
</table>

### MARGIN COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Assigned Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEXT Margin</td>
<td>ESC n</td>
</tr>
<tr>
<td>PREVIOUS Margin</td>
<td>ESC p</td>
</tr>
</tbody>
</table>

### LINE COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Assigned Key</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSERT Line</td>
<td>LINE INSERT</td>
</tr>
<tr>
<td>DELETE Line</td>
<td>LINE DELETE</td>
</tr>
<tr>
<td>ERASE to End of Line</td>
<td>LINE ERASE</td>
</tr>
<tr>
<td>LEFT Justify Line</td>
<td>F1</td>
</tr>
<tr>
<td>CENTER Line</td>
<td>F2</td>
</tr>
<tr>
<td>RIGHT Justify Line</td>
<td>F3</td>
</tr>
<tr>
<td>SPLIT Line</td>
<td>F4</td>
</tr>
<tr>
<td>BLOCK Command</td>
<td>F7</td>
</tr>
<tr>
<td>SCROLL DOWN</td>
<td>F9</td>
</tr>
<tr>
<td>SCROLL UP</td>
<td>F10</td>
</tr>
<tr>
<td>UN-DELETE Line</td>
<td>CTRL/u</td>
</tr>
</tbody>
</table>
APPENDIX A

WORD/7 Edit Commands

PARAGRAPH COMMANDS

<table>
<thead>
<tr>
<th>Command</th>
<th>Key(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT Justify Paragraph</td>
<td>F1 (Shifted)</td>
</tr>
<tr>
<td>CENTER Paragraph</td>
<td>F2 (Shifted)</td>
</tr>
<tr>
<td>RIGHT Justify Paragraph</td>
<td>F3 (Shifted)</td>
</tr>
<tr>
<td>SPLIT Paragraph</td>
<td>F4 (Shifted)</td>
</tr>
<tr>
<td>FORMAT Paragraph</td>
<td>F8 (Shifted)</td>
</tr>
<tr>
<td>NEXT Paragraph</td>
<td>F9 (Shifted)</td>
</tr>
<tr>
<td>PREVIOUS Paragraph</td>
<td>F10 (Shifted)</td>
</tr>
</tbody>
</table>

PRIMARY COMMANDS (entered on top line followed by RETURN)

<table>
<thead>
<tr>
<th>Command</th>
<th>Key(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXIT Block command</td>
<td>E</td>
</tr>
<tr>
<td>FIND Character String</td>
<td>F</td>
</tr>
<tr>
<td>LINE Information</td>
<td>L</td>
</tr>
<tr>
<td>Set Edit OPTIONS</td>
<td>O</td>
</tr>
<tr>
<td>REPLACE Character String</td>
<td>R</td>
</tr>
<tr>
<td>SAVE Document</td>
<td>S</td>
</tr>
</tbody>
</table>

END EDIT ESC ESC
## Summary of WORD/7 Printing Commands

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>.*</td>
<td>COMMENT LINE</td>
</tr>
<tr>
<td>.CB c</td>
<td>Define character &quot;c&quot; as the BOLD character</td>
</tr>
<tr>
<td>.CC c</td>
<td>Define character &quot;c&quot; as the CAPS character</td>
</tr>
<tr>
<td>.CP c</td>
<td>Define character &quot;c&quot; as the PITCH character</td>
</tr>
<tr>
<td>.CS c</td>
<td>Define character &quot;c&quot; as the STOP character</td>
</tr>
<tr>
<td>.CU c</td>
<td>Define character &quot;c&quot; as the UNDERLINE character</td>
</tr>
<tr>
<td>.CU c NOSPACE</td>
<td>UNDERLINE char that requires no space</td>
</tr>
<tr>
<td>.C1 c</td>
<td>Define character &quot;c&quot; as special character ONE</td>
</tr>
<tr>
<td>.C2 c</td>
<td>Define character &quot;c&quot; as special character TWO</td>
</tr>
<tr>
<td>.C9 c</td>
<td>Define character &quot;c&quot; as special character NINE</td>
</tr>
<tr>
<td>.C10 c</td>
<td>Define character &quot;c&quot; as special character TEN</td>
</tr>
<tr>
<td>.Fn</td>
<td>Next line contains PAGE FOOTER LINE n (1,2,or 3)</td>
</tr>
<tr>
<td>.Fn DEL</td>
<td>Delete PAGE FOOTER LINE n</td>
</tr>
<tr>
<td>.Fn ODD</td>
<td>Next line contains FOOTER n for odd pages</td>
</tr>
<tr>
<td>.Fn EVEN</td>
<td>Next line contains FOOTER n for even pages</td>
</tr>
<tr>
<td>.FE</td>
<td>End PRINT-TIME formatting.</td>
</tr>
<tr>
<td>.FS</td>
<td>Start PRINT-TIME formatting. Specifies LEFT MARGIN, INDENT COLUMNS, RIGHT MARGIN and optional JUSTIFICATION.</td>
</tr>
<tr>
<td>.H1</td>
<td>Generate level 1 SECTION HEADING</td>
</tr>
<tr>
<td>.H2</td>
<td>Generate level 2 SECTION HEADING</td>
</tr>
<tr>
<td>.H3</td>
<td>Generate level 3 SECTION HEADING</td>
</tr>
<tr>
<td>.H4</td>
<td>Generate level 4 SECTION HEADING</td>
</tr>
<tr>
<td>.HT 1</td>
<td>Specifies Outline Format SECTION HEADINGS</td>
</tr>
<tr>
<td>.HT 2</td>
<td>Specifies Dewey-Decimal SECTION HEADINGS</td>
</tr>
<tr>
<td>.HI</td>
<td>Initialize SECTION HEADING counts to 0</td>
</tr>
<tr>
<td>.IN docname</td>
<td>INSERT named DOCUMENT into print</td>
</tr>
<tr>
<td>.KW filename</td>
<td>Named file contains keyword values</td>
</tr>
<tr>
<td>.MB n</td>
<td>Define bottom margin of n lines</td>
</tr>
<tr>
<td>.MP n</td>
<td>Define margin from top of page n lines</td>
</tr>
<tr>
<td>.ML n</td>
<td>Define left margin of n columns</td>
</tr>
<tr>
<td>.MT n</td>
<td>Define top margin of n lines</td>
</tr>
<tr>
<td>.OFF</td>
<td>Turn &quot;DOT&quot; command processing OFF</td>
</tr>
<tr>
<td>.ON</td>
<td>Turn &quot;DOT&quot; command processing ON</td>
</tr>
</tbody>
</table>

---

* .C- c Subscript (Flag does not use space)
* .C+ c Superscript
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.P</td>
<td>Paragraph break</td>
</tr>
<tr>
<td>.PC n</td>
<td>Page eject conditionally on the number n</td>
</tr>
<tr>
<td>.PG</td>
<td>Page eject to top of next page</td>
</tr>
<tr>
<td>.PN</td>
<td>Next line is the PAGE NUMBER Mask</td>
</tr>
<tr>
<td>.SK n</td>
<td>SKIP &quot;n&quot; lines when printing</td>
</tr>
<tr>
<td>.TC docname</td>
<td>Generate Table of Contents to the named document</td>
</tr>
<tr>
<td>.TE</td>
<td>Enter the next line in the Table of Contents</td>
</tr>
<tr>
<td>.Tn</td>
<td>Next line contains PAGE TITLE LINE n (1,2,or 3)</td>
</tr>
<tr>
<td>.Tn DEL</td>
<td>Delete PAGE TITLE LINE n</td>
</tr>
<tr>
<td>.Tn ODD</td>
<td>Next line contains TITLE LINE n for odd pages</td>
</tr>
<tr>
<td>.Tn EVEN</td>
<td>Next line contains TITLE LINE n for even pages</td>
</tr>
</tbody>
</table>
I. EDIT MESSAGES (In alphabetical order)

BEGINNING

The display has been positioned to the first lines of the document. The first line is at the top of the screen.

Can't mark TAB LINE

The top line of the screen (the TAB LINE) cannot be marked as a line to be MOVED, COPIED, or DELETED. Move the cursor to any line other than the top line and press the F7 key again.

COMMANDS ARE: Copy, *Exit, Find, Lines, Options, Print, Replace, Save, View

This HELP message displayed in response to a question mark on the top line lists the commands that are valid to enter on that line. A command may be entered by positioning to the top line and typing the first character of the command followed by RETURN.

Document xxxxxxx copied

The document named xxxxxxx has been copied into the document currently being edited. The copied document still exists on disk after the copy.

Document xxxxxxx saved

The document named xxxxxxx has been written successfully to disk.

END of Document

The display has been positioned to the last lines of the document. The last line is at the bottom of the screen.

Enter command on top line

This command is displayed whenever the HOME key is pressed. The cursor is placed on the top line of the screen (the TAB LINE) where any edit primary command may be typed followed by RETURN.
APPENDIX C

Edit Messages

INSERT Mode

This message indicates that the system is currently in CHARACTER INSERT mode. Typing in this mode moves existing characters on the line to the right to insert each character typed.

Mark DESTINATION of BLOCK COPY

A block of lines has been marked to be copied and the computer needs to know where to copy them. The first and last lines of the block are shown with the characters "===>" in the first few columns. Position the display to the line after which you want the marked block of lines copied and press the F7 key. If you don't really want to copy the lines, position to the top line of the screen with the HOME key and type the EXIT command.

Mark DESTINATION of BLOCK MOVE

A block of lines has been marked to be moved and the computer needs to know where to move them. The first and last lines of the block are shown with the characters "===>" in the first few columns. Position the display to the line after which you want the block of lines moved and press the F7 key. If you don't really want to copy the lines, position to the top line of the screen with the HOME key and type the EXIT command.

Mark DESTINATION of document COPY

A block of lines has been marked for copying and the computer needs to know where the block is to be copied. The first and last lines of the block are shown with the characters "===>" in the first few columns. Position the cursor to be on the line after which you want the lines copied and press the F7 key. If you don't really want to copy the lines, position to the top line of the screen with the HOME key and type the EXIT command.

Mark LAST LINE of BLOCK COPY

The first line of a block to be copied has been marked and displays the characters "===>" in the first few columns. Position the display to the last line to be copied and press
the F7 key. If you don't really want to copy the lines, position to the top line of the screen with the HOME key and type the EXIT command.

Mark LAST LINE of BLOCK DELETE

The first line of a block to be deleted has been marked and displays the characters "==>" in the first few columns. Position the display to the last line to be deleted and press the F7 key. If you don't really want to delete the lines, position to the top line of the screen with the HOME key and type the EXIT command.

Mark LAST LINE of BLOCK MOVE

The first line of a block to be moved has been marked and displays the characters "==>" in the first few columns. Position the display to the last line to be moved and press the F7 key. If you don't really want to move the lines, position to the top line of the screen with the HOME key and type the EXIT command.

No find string

The REPEAT FIND key (F6) was entered before a string of characters was entered for the FIND command. Enter a FIND command on the top line of the screen followed by RETURN and then type a string of characters to find.

No room for Replace

There was not room on the line for the REPLACE command to insert the new string. Split the line to make room, and retry the REPLACE command.

OVERTYPE mode

This message indicates that the computer is currently in OVERTYPE mode. Any character on the screen may be changed by positioning the cursor over it and retyping.
APPENDIX C

Paragraph FORMATTED

The paragraph containing the cursor has been formatted. Words have been moved around to place as many as possible on each line, and right margin justification may have been performed depending on the setting of the JUSTIFY mode.

Save changes? (y/n or return)

This message is displayed when leaving edit after making any changes to a document. If you want to save all edit changes on disk, enter the letter "y" followed by return to be prompted for the document name. Entering the letter "n" will leave edit and all changes will be lost. Entering just the return key returns edit.

String Found

The specified FIND STRING was found and the cursor is left at the beginning of the string.

String Not Found

The document was searched from the cursor position to the end of the document and the FIND string was not found.
II. SAVE MESSAGES (In alphabetical order)

Document Exists, Reuse? (y/n)

The document name specified for the save already exists. To replace the currently existing version on disk, enter "y". Otherwise enter "n" and you will be prompted to enter a new name.

Document name xxxxxx? (y/n)

In this message, xxxxxx represents the name of the document you have just edited. To save the changed version under the same name, respond with "y". Note that the old version of the document will be replaced and no longer exist on disk. A reply of "n" will result in the message below.

Document name?

Respond to this message with a valid document name for the document being saved. If you want to quit without saving, press the ESC key.

Name Too Long, Shortened

Document names may not exceed 13 characters in length. A longer name will be limited to 13 characters and this message printed. This message is for information only and does not require any action.
III. FILING MESSAGES (In alphabetical order)

COMMANDS ARE: C(opy, D(lete, E(dit, P(rint, R(ename or V(iew

This HELP message is displayed whenever an invalid command is typed in front of a document name on the FILE SELECTION DISPLAY. Each command is entered by typing only the first letter of the command name followed by RETURN.

Confirm delete? (y/n)

This prompt ensures that a document is not deleted inadvertently. An answer of "y" results in the document being deleted, and an "n" aborts the delete.

DISK Not MOUNTED

No disk was found with the name specified. Either another name should be specified or the desired disk inserted and the same disk name specified again.

Document xxxxxxx DELETED

The document xxxxxxx has been deleted from disk.

Document RENAMED

The selected document has been renamed. The cursor is placed in front of the new name on the selection screen.

Document xxxxxxx not Found

The document named xxxxxxx was not found on the disk. This usually only occurs if the disk is removed after obtaining the File Selection display of the filing system. Insert the disk and try the command again.

End of Document

The complete document has been viewed. Entering any character from the keyboard will return to the FILE SELECTION display.
**Enter NEW Disk Name or "?"**

The cursor is placed at the top of the screen over the current disk name. Another disk name may be typed to display the document names on it, or a question mark will display the names of all disks currently mounted on your computer.

**NEW Name Exists**

A document already exists on disk with the new name specified in a rename operation. No rename is performed.

**NEW Name INVALID**

The new name specified for a rename operation is not a legal document name. The name might be too long, contain invalid characters, or contain blanks. Refer to the section of this manual on NAMING OF DOCUMENTS for more information about valid names.

**No Documents on Disk**

No WORD/7 documents were found on the disk with the name entered. This message is followed by a list of the disks currently mounted on the computer and waits for one to be specified.

**Replace xxxxxx? (y/n)**

The specified destination for a document copy already exists on disk. Respond with the letter "y" to replace it or "n" to terminate the copy operation.

**xxxxxxx Continued**

The document named xxxxxx is continued but the computer is waiting for the current screen to be viewed before going on. Enter any character from the keyboard and the next lines will be displayed.
IV. PRINTING MESSAGES (In alphabetical order)

Continued

The document is continued but the computer is waiting for the current screen to be viewed before going on. Enter any character from the keyboard and the next lines will be displayed.

Document xxxxxx NOT FOUND

An insert print command (.in) specified a document name that could not be found. Check that the name is correctly spelled.

End of Print

The complete document has been printed. Enter any character from the keyboard to return to the PRINT OPTIONS MENU.

Insert Disk xxxxxx

A document is being printed from a disk that is not inserted on the system. Insert the disk with name xxxxxx and press RETURN.

Insert Paper

The system is waiting for the next page of paper to be inserted in the printer before continuing the print operation. Insert the paper and type any character on the keyboard to continue printing. Note that this message is only displayed if you are not using continuous form computer paper (specified in the PRINT OPTIONS MENU).

Keyword file error - Document not found

The specified file of keywords in a .KW DOT command could not be found on disk. Correct the file name and re-print the document.
No MEMORY to insert document

The limit of computer memory has been reached while inserting a document within another. This usually only happens while printing from edit. Leave the edit function and try printing from the filing functions where more memory is available.

Table of Contents error - Disk not mounted

The document name specified for the generated table of contents refers a disk that is not mounting. Type any character to continue printing without generating the Table of Contents.

xxxxxxx Continued

The document named xxxxxx is continued but the computer is waiting for the current screen to be viewed before going on. Enter any character from the keyboard and the next lines will be displayed.
## Word/7 Terminal Configuration

<table>
<thead>
<tr>
<th>Terminal Model</th>
<th>DEC VT100 (ANSI)</th>
<th>DEC VT52</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Terminal model</strong></td>
<td><strong>27 46 50</strong></td>
<td><strong>27 46 48</strong></td>
</tr>
<tr>
<td><strong>Cursor Display attribute</strong></td>
<td><strong>27 46 48</strong></td>
<td><strong>27 71 48</strong></td>
</tr>
<tr>
<td><strong>Cursor Non-Display attribute</strong></td>
<td><strong>27 71 56</strong></td>
<td><strong>27 71 52</strong></td>
</tr>
<tr>
<td><strong>Normal CRT attribute</strong></td>
<td><strong>27 71 58</strong></td>
<td><strong>27 71 58</strong></td>
</tr>
<tr>
<td><strong>Underline field attribute</strong></td>
<td><strong>27 84</strong></td>
<td><strong>27 84</strong></td>
</tr>
<tr>
<td><strong>Erase to end of line</strong></td>
<td><strong>27 89</strong></td>
<td><strong>27 89</strong></td>
</tr>
<tr>
<td><strong>Erase Screen</strong></td>
<td><strong>26</strong></td>
<td><strong>26</strong></td>
</tr>
<tr>
<td><strong>Gotoxy</strong></td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td><strong>Has 25th line?</strong></td>
<td><strong>Y</strong></td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td><strong>Char Seq to Load 25th line</strong></td>
<td><strong>27 102</strong></td>
<td><strong>27 102</strong></td>
</tr>
<tr>
<td><strong>Char Seq to Show 25th line</strong></td>
<td><strong>27 103</strong></td>
<td><strong>27 103</strong></td>
</tr>
<tr>
<td><strong>25th line Normal attribute</strong></td>
<td><strong>144</strong></td>
<td><strong>32</strong></td>
</tr>
<tr>
<td><strong>25th line Reverse attribute</strong></td>
<td><strong>148</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

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### WORD/7 TERMINAL CONFIGURATION

<table>
<thead>
<tr>
<th>TERMINAL model</th>
<th>QUATE VT102</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURSOR DISPLAY attribute</td>
<td>27 46 50</td>
</tr>
<tr>
<td>CURSOR NON-DISPLAY attribute</td>
<td>27 46 48</td>
</tr>
<tr>
<td>NORMAL CRT attribute</td>
<td>27 71 48</td>
</tr>
<tr>
<td>UNDERLINE field attribute</td>
<td>27 71 56</td>
</tr>
<tr>
<td>BOLD Text VIDEO attribute</td>
<td>27 71 52</td>
</tr>
<tr>
<td>BOLD UNDERLINED attribute</td>
<td>27 71 58</td>
</tr>
<tr>
<td>ERASE to end of line</td>
<td>27 84</td>
</tr>
<tr>
<td>ERASE to end of screen</td>
<td>27 89</td>
</tr>
<tr>
<td>ERASE SCREEN</td>
<td>26</td>
</tr>
<tr>
<td>GOTOXY</td>
<td>0</td>
</tr>
<tr>
<td>Has 25th line?</td>
<td>N</td>
</tr>
<tr>
<td>Char Seq to LOAD 25th line</td>
<td>0</td>
</tr>
<tr>
<td>Char Seq to SHOW 25th line</td>
<td>0</td>
</tr>
<tr>
<td>25th line NORMAL attribute</td>
<td>0</td>
</tr>
<tr>
<td>25th line REVERSE attribute</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TERMINAL model</th>
<th>LEAR SIGLER ADM22</th>
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</thead>
<tbody>
<tr>
<td>CURSOR DISPLAY attribute</td>
<td>0</td>
</tr>
<tr>
<td>CURSOR NON-DISPLAY attribute</td>
<td>0</td>
</tr>
<tr>
<td>NORMAL CRT attribute</td>
<td>27 91 48 109 32</td>
</tr>
<tr>
<td>UNDERLINE field attribute</td>
<td>32 27 91 52 109</td>
</tr>
<tr>
<td>BOLD Text VIDEO attribute</td>
<td>32 27 91 55 109</td>
</tr>
<tr>
<td>BOLD UNDERLINED attribute</td>
<td>32 27 91 56 109</td>
</tr>
<tr>
<td>ERASE to end of line</td>
<td>27 91 48 75</td>
</tr>
<tr>
<td>ERASE to end of screen</td>
<td>27 91 48 74</td>
</tr>
<tr>
<td>ERASE SCREEN</td>
<td>27 91 50 74</td>
</tr>
<tr>
<td>GOTOXY</td>
<td>0</td>
</tr>
<tr>
<td>Has 25th line?</td>
<td>N</td>
</tr>
<tr>
<td>Char Seq to LOAD 25th line</td>
<td>0</td>
</tr>
<tr>
<td>Char Seq to SHOW 25th line</td>
<td>0</td>
</tr>
<tr>
<td>25th line NORMAL attribute</td>
<td>0</td>
</tr>
<tr>
<td>25th line REVERSE attribute</td>
<td>0</td>
</tr>
</tbody>
</table>
### SUGGESTED EDIT COMMAND KEY ASSIGNMENTS

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>KEY(S)</th>
<th>KEY(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURSOR Right</td>
<td>RIGHT ARROW</td>
<td>RIGHT ARROW</td>
</tr>
<tr>
<td>CURSOR Left</td>
<td>LEFT ARROW</td>
<td>LEFT ARROW</td>
</tr>
<tr>
<td>CURSOR Up</td>
<td>UP ARROW</td>
<td>UP ARROW</td>
</tr>
<tr>
<td>CURSOR Down</td>
<td>DOWN ARROW</td>
<td>DOWN ARROW</td>
</tr>
<tr>
<td>SCROLL Up</td>
<td>F9</td>
<td>F9</td>
</tr>
<tr>
<td>SCROLL Down</td>
<td>F10</td>
<td>F10</td>
</tr>
<tr>
<td>HOME</td>
<td>HOME</td>
<td>HOME</td>
</tr>
<tr>
<td>TAB</td>
<td>TAB</td>
<td>TAB</td>
</tr>
<tr>
<td>BACK TAB</td>
<td>BACK TAB</td>
<td>BACK TAB</td>
</tr>
<tr>
<td>DELETE Char</td>
<td>CHAR DELETE</td>
<td>CHAR DEL</td>
</tr>
<tr>
<td>INSERT Char Mode</td>
<td>CHAR INSERT</td>
<td>CHAR INS</td>
</tr>
<tr>
<td>END Char Insert Mode</td>
<td>DEL</td>
<td>DEL</td>
</tr>
<tr>
<td>DELETE to End of Line</td>
<td>LINE ERASE</td>
<td>CLR EOL</td>
</tr>
<tr>
<td>FIND Char String</td>
<td>F5</td>
<td>F5</td>
</tr>
<tr>
<td>REPLACE Char String</td>
<td>F6</td>
<td>F6</td>
</tr>
<tr>
<td>NEXT word</td>
<td>CTRL/n</td>
<td>CTRL/n</td>
</tr>
<tr>
<td>PREVIOUS word</td>
<td>CTRL/p</td>
<td>CTRL/p</td>
</tr>
<tr>
<td>NEXT margin</td>
<td>ESC n</td>
<td>ESC n</td>
</tr>
<tr>
<td>PREVIOUS margin</td>
<td>ESC p</td>
<td>ESC p</td>
</tr>
<tr>
<td>DELETE Line</td>
<td>LINE DELETE</td>
<td>LINE DEL</td>
</tr>
<tr>
<td>UNDELETE Line</td>
<td>CTRL/u</td>
<td>CTRL/u</td>
</tr>
<tr>
<td>INSERT Line</td>
<td>LINE INSERT</td>
<td>LINE INS</td>
</tr>
<tr>
<td>LEFT JUSTIFY line</td>
<td>F1</td>
<td>F1</td>
</tr>
<tr>
<td>CENTER line</td>
<td>F2</td>
<td>F2</td>
</tr>
<tr>
<td>RIGHT JUSTIFY Line</td>
<td>F3</td>
<td>F3</td>
</tr>
<tr>
<td>SPLIT line</td>
<td>F4</td>
<td>F4</td>
</tr>
<tr>
<td>BLOCK line commands</td>
<td>F7</td>
<td>F7</td>
</tr>
<tr>
<td>LEFT JUSTIFY Paragraph</td>
<td>F1 (shifted)</td>
<td>F1 (shifted)</td>
</tr>
<tr>
<td>CENTER Paragraph</td>
<td>F2 (shifted)</td>
<td>F2 (shifted)</td>
</tr>
<tr>
<td>RIGHT JUSTIFY Paragraph</td>
<td>F3 (shifted)</td>
<td>F3 (shifted)</td>
</tr>
<tr>
<td>SPLIT Paragraph</td>
<td>F4 (shifted)</td>
<td>F4 (shifted)</td>
</tr>
<tr>
<td>FORMAT Paragraph</td>
<td>F8 (shifted)</td>
<td>F8 (shifted)</td>
</tr>
<tr>
<td>DOWN Paragraph</td>
<td>F9 (shifted)</td>
<td>F9 (shifted)</td>
</tr>
<tr>
<td>UP Paragraph</td>
<td>F10 (shifted)</td>
<td>F10 (shifted)</td>
</tr>
</tbody>
</table>

- **Command to QUIT edit**: ESC ESC
- **Maximum number of edit lines**: 430
- **FUNCTION Key Description**: LEFT CENTER RIGHT SPLIT FIND REPL BLOCK FORMAT DOWN UP
## SUGGESTED EDIT COMMAND KEY ASSIGNMENTS

<table>
<thead>
<tr>
<th>TERMINAL model</th>
<th>DEC VT100 &amp; VT52</th>
<th>QUATE VT102</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COMMAND</strong></td>
<td><strong>KEY(S)</strong></td>
<td><strong>KEY(S)</strong></td>
</tr>
<tr>
<td>CURSOR Right</td>
<td>RIGHT ARROW</td>
<td>RIGHT ARROW</td>
</tr>
<tr>
<td>CURSOR Left</td>
<td>LEFT ARROW</td>
<td>LEFT ARROW</td>
</tr>
<tr>
<td>CURSOR Up</td>
<td>UP ARROW</td>
<td>UP ARROW</td>
</tr>
<tr>
<td>CURSOR Down</td>
<td>DOWN ARROW</td>
<td>DOWN ARROW</td>
</tr>
<tr>
<td>SCROLL Up</td>
<td>ESC 9</td>
<td>ESC 9 ESC P</td>
</tr>
<tr>
<td>SCROLL Down</td>
<td>ESC 0</td>
<td>ESC 0 ESC P</td>
</tr>
<tr>
<td>HOME</td>
<td>EDIT</td>
<td>HOME</td>
</tr>
<tr>
<td>TAB</td>
<td>TAB</td>
<td>TAB</td>
</tr>
<tr>
<td>BACK TAB</td>
<td>ESC TAB</td>
<td>BACK TAB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Command</th>
<th>DEC VT100 &amp; VT52</th>
<th>QUATE VT102</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELETE Char</td>
<td>PF1</td>
<td>PF4</td>
</tr>
<tr>
<td>INSERT Char Mode</td>
<td>PF2</td>
<td>PF2 PF1</td>
</tr>
<tr>
<td>END Char Insert Mode</td>
<td>DELETE</td>
<td>DEL</td>
</tr>
<tr>
<td>DELETE to End of Line</td>
<td>ESC 1</td>
<td>ESC 5</td>
</tr>
<tr>
<td>FIND Char String</td>
<td>ESC 5</td>
<td>ESC 5</td>
</tr>
<tr>
<td>REPLACE Char String</td>
<td>ESC 6</td>
<td>ESC 6</td>
</tr>
<tr>
<td>NEXT word</td>
<td>CTRL/n</td>
<td>CTRL/n</td>
</tr>
<tr>
<td>PREVIOUS word</td>
<td>CTRL/p</td>
<td>CTRL/p</td>
</tr>
<tr>
<td>Delete word</td>
<td></td>
<td>CTRL/P</td>
</tr>
<tr>
<td>NEXT margin</td>
<td>ESC n</td>
<td>ESC n</td>
</tr>
<tr>
<td>PREVIOUS margin</td>
<td>ESC p</td>
<td>ESC p</td>
</tr>
<tr>
<td>DELETE Line</td>
<td>PF4</td>
<td>PF4</td>
</tr>
<tr>
<td>UNDELETE line</td>
<td>CTRL/u</td>
<td>CTRL/u</td>
</tr>
<tr>
<td>INSERT Line</td>
<td>PF3</td>
<td>PF3</td>
</tr>
<tr>
<td>LEFT JUSTIFY line</td>
<td>ESC 1</td>
<td>ESC 1</td>
</tr>
<tr>
<td>CENTER line</td>
<td>ESC 2</td>
<td>ESC 2</td>
</tr>
<tr>
<td>RIGHT JUSTIFY Line</td>
<td>ESC 3</td>
<td>ESC 3</td>
</tr>
<tr>
<td>SPLIT line</td>
<td>ESC 4</td>
<td>ESC 4 ESC 5</td>
</tr>
<tr>
<td>BLOCK line commands</td>
<td>ESC 7</td>
<td>ESC 7 ESC 1</td>
</tr>
<tr>
<td>LEFT JUSTIFY Paragraph</td>
<td>ESC .1</td>
<td>ESC ESC (join line)</td>
</tr>
<tr>
<td>CENTER Paragraph</td>
<td>ESC .2</td>
<td>ESC ESC 2 ESC ESC</td>
</tr>
<tr>
<td>RIGHT JUSTIFY Paragraph</td>
<td>ESC .3</td>
<td>ESC ESC 3 ESC ESC</td>
</tr>
<tr>
<td>SPLIT Paragraph</td>
<td>ESC .4</td>
<td>ESC ESC 4 ESC ESC</td>
</tr>
<tr>
<td>FORMAT Paragraph</td>
<td>ESC .8</td>
<td>ESC ESC 6 ESC ESC</td>
</tr>
<tr>
<td>DOWN Paragraph</td>
<td>ESC .9</td>
<td>ESC ESC 7 ESC ESC</td>
</tr>
<tr>
<td>UP Paragraph</td>
<td>ESC .0</td>
<td>ESC ESC 0 ESC ESC</td>
</tr>
</tbody>
</table>

**Command to QUIT edit**
- ESC ESC

**Maximum number of edit lines**
- 430

**FUNCTION Key Description**
- Blanks

---

**BEGINNING of Document**
- Press `CTRL/6`

**END of Document**
- Press `CTRL/8`

---

Page 86
## SUGGESTED WORD/7 PRINTER CONFIGURATIONS

<table>
<thead>
<tr>
<th>PRINTER Type</th>
<th>OKIDATA ML84, 92</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYWORD Start char</td>
<td>&amp;</td>
</tr>
<tr>
<td>Carriage RETURN on Line Print</td>
<td>Y</td>
</tr>
<tr>
<td>PRINTER Init Chars</td>
<td>27 48 30 27 54 {DP, 10-CPI, 6-LPI}</td>
</tr>
<tr>
<td>PRINTER Start UNDERLINE Chars</td>
<td>27 67</td>
</tr>
<tr>
<td>PRINTER End UNDERLINE Chars</td>
<td>27 68</td>
</tr>
<tr>
<td>PRINTER Start BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER End BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER Start NEW PITCH Chars</td>
<td>29 27 56</td>
</tr>
<tr>
<td>PRINTER End NEW PITCH Chars</td>
<td>30 27 54</td>
</tr>
<tr>
<td>PRINTER Set Form Length Chars</td>
<td>27 70 35 35</td>
</tr>
<tr>
<td>PRINTER device name</td>
<td></td>
</tr>
<tr>
<td>SPECIAL Char seq 1</td>
<td>27 74            {SUPERSCRIPT}</td>
</tr>
<tr>
<td>SPECIAL Char seq 2</td>
<td>27 76            {SUBSCRIPT}</td>
</tr>
<tr>
<td>SPECIAL Char seq 3</td>
<td>27 49            {CORRESP QUALITY}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRINTER Type</th>
<th>C.Itoh Starwriter F10</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYWORD Start char</td>
<td>&amp;</td>
</tr>
<tr>
<td>Carriage RETURN on Line Print</td>
<td>Y</td>
</tr>
<tr>
<td>PRINTER Init Chars</td>
<td>27 31 12 {10-CPI}</td>
</tr>
<tr>
<td>PRINTER Start UNDERLINE Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER End UNDERLINE Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER Start BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER End BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER Start NEW PITCH Chars</td>
<td>27 31 10 {12-CPI}</td>
</tr>
<tr>
<td>PRINTER End NEW PITCH Chars</td>
<td>27 31 12 {10-CPI}</td>
</tr>
<tr>
<td>PRINTER Set Form Length Chars</td>
<td>27 70 35 35</td>
</tr>
<tr>
<td>PRINTER device name</td>
<td></td>
</tr>
<tr>
<td>SPECIAL Char seq 1</td>
<td>27 30 4 27 10 {SUPERSCRIPT}</td>
</tr>
<tr>
<td>SPECIAL Char seq 2</td>
<td>27 30 4 10 {SUBSCRIPT}</td>
</tr>
<tr>
<td>SPECIAL Char seq 3</td>
<td>27 30 8 {RETURN TO 6-LPI}</td>
</tr>
</tbody>
</table>

NOTE: CPI = Characters per inch, horizontal pitch  
LPI = Lines per inch, vertical pitch  
DP = Data processing print mode
**SUGGESTED WORD/7 PRINTER CONFIGURATIONS**

<table>
<thead>
<tr>
<th>PRINTER Type</th>
<th>GEMINI 10 Dot Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYWORD Start char</td>
<td>&amp;</td>
</tr>
<tr>
<td>Carriage RETURN on Line Print</td>
<td>Y</td>
</tr>
<tr>
<td>PRINTER Init Chars</td>
<td>27 48 30 27 54 {DP, 10-CPI, 6-LPI}</td>
</tr>
<tr>
<td>PRINTER Start UNDERLINE Chars</td>
<td>27 67</td>
</tr>
<tr>
<td>PRINTER End UNDERLINE Chars</td>
<td>27 68</td>
</tr>
<tr>
<td>PRINTER Start BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER End BOLD Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER Start NEW PITCH Chars</td>
<td>29 27 56           {12-CPI, 8-LPI}</td>
</tr>
<tr>
<td>PRINTER End NEW PITCH Chars</td>
<td>30 27 54                  {10-CPI, 6-LPI}</td>
</tr>
<tr>
<td>PRINTER Set Form Length Chars</td>
<td>27 70 35 35</td>
</tr>
<tr>
<td>PRINTER device name</td>
<td></td>
</tr>
<tr>
<td>SPECIAL Char seq 1</td>
<td>27 74</td>
</tr>
<tr>
<td>SPECIAL Char seq 2</td>
<td>27 76</td>
</tr>
<tr>
<td>SPECIAL Char seq 3</td>
<td>27 49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRINTER Type</th>
<th>EPSON MX-80</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEYWORD Start char</td>
<td>&amp;</td>
</tr>
<tr>
<td>Carriage RETURN on Line Print</td>
<td>Y</td>
</tr>
<tr>
<td>PRINTER Init Chars</td>
<td>27 50 18            {6-LPI, Normal}</td>
</tr>
<tr>
<td>PRINTER Start UNDERLINE Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER End UNDERLINE Chars</td>
<td>0</td>
</tr>
<tr>
<td>PRINTER Start BOLD Chars</td>
<td>27 71</td>
</tr>
<tr>
<td>PRINTER End BOLD Chars</td>
<td>27 72</td>
</tr>
<tr>
<td>PRINTER Start NEW PITCH Chars</td>
<td>15                                 {Compressed}</td>
</tr>
<tr>
<td>PRINTER End NEW PITCH Chars</td>
<td>18                                 {Normal}</td>
</tr>
<tr>
<td>PRINTER Set Form Length Chars</td>
<td>27 67 35</td>
</tr>
<tr>
<td>PRINTER device name</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:**  
CPI = Characters per inch, horizontal pitch  
LPI = Lines per inch, vertical pitch  
DP = Data processing print mode
1. The functions of left justifying, centering and right justifying lines (function keys F2, F3, and F4) while editing a document have been improved to be more flexible. Function key 2 now enters "Adjust Mode" where the current line may be shifted left or right by pressing the left or right cursor keys repeatedly. The line shifts one column each time a key is pressed. Once a line is "adjusted" to the proper column, Adjust Mode is ended by pressing the Accept key (F1), the adjust mode key (F2) again, or pressing ESC twice.

Adjusting several lines is very easy. The first line is adjusted to the desired column as explained above and then the down cursor key used to automatically adjust each succeeding line.

Another option within "adjust mode" is to type one of the letters "L, C, or R" to left justify, center or right justify lines respectively.

2. Another new editing function is called "Kolumn Mode" and is similar to Adjust Mode, but works only on the portion of the line from the cursor position to the right. Kolumn Mode can be used to shift part of a line to the right (which inserts spaces at the cursor position) or to the left (characters are removed at the cursor position). This mode is particularly useful for editing documents which contain columns of numbers where it is desired to shift the whole column to the left or right.

Kolumn Mode is started by positioning the cursor to the desired column and pressing the F3 key. The right and left cursor keys will shift the right part of the line to the right or left just as they do in Adjust Mode above. the up and down arrows may be used to move up and down and shift several lines. The Accept key (F1), the Kolumn Mode key (F3), or the ESC key may be used to end Kolumn Mode.

3. Along with the two new modes for the F2 and F3 keys, the "split line" command has been reassigned to the F4 key to be much more convenient. The "join lines" command is reassigned to the shifted F4 key on keyboards that can used function keys in conjunction with the shift key.

4. A new option on the Print Options screen allows you to be prompted at each page of a document and to either print the page or skip it.

5. The Document Selection Screen now gives the time that a file was last updated as well as the date.