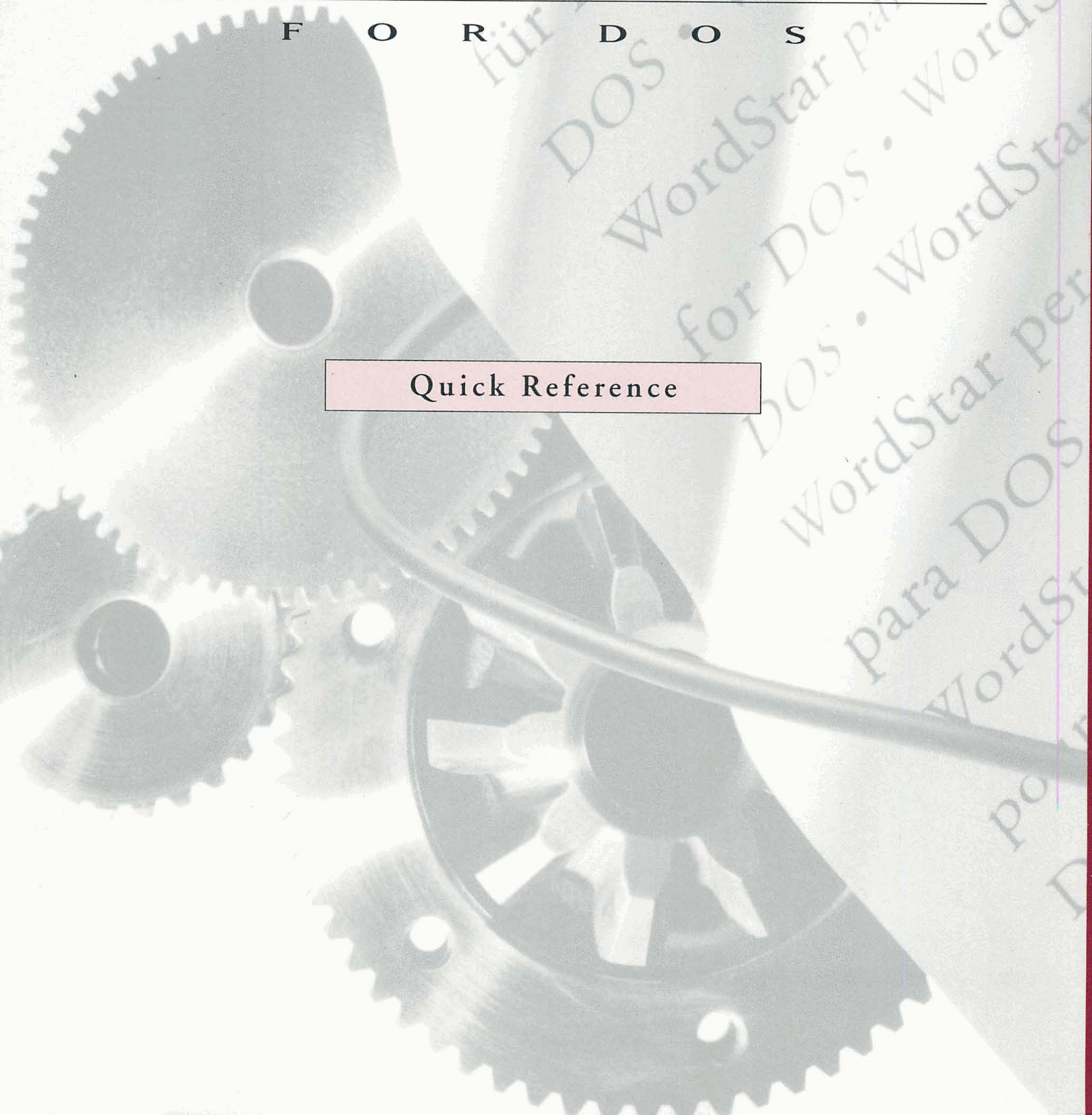
WORDSTAR®

FOR DOS



Quick Reference

WORDSTAR®

FOR DOS

Quick Reference

Version 7.0

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FUNCTIONS AND COMMANDS

This section of *Quick Reference* provides an alphabetical listing of important WordStar topics. Under the topics you will find a list of classic and pull-down commands and brief explanations of their functions. The commands are used at the Edit Menu unless "Opening Menu" appears beside the classic command.

ALIGN ONE LINE OF TEXT AT RIGHT MARGIN

Classic	Pull-down
^O]	Layout→Right Align Line

Use this command to align one line of text at the right margin instead of the left margin.

ALIGNMENT OF TEXT

Classic	Pull-down
^OS	Layout→Alignment and Spacing

You can select how to align text: Flush Left, Centered, Flush Right, or Justified (both margins aligned). You can also set alignment in paragraph styles. Line spacing is another option in the Alignment and Spacing dialog box. For more information on line spacing, see "Line Spacing."

ASCII

Classic	Pull-down
N (Opening Menu)	File→Open Nondocument
^KW	Edit→Copy→To Another File→Copy in ASCII Format

ASCII (American Standard Code for Information Interchange) is a standard file format. To create an ASCII file, open a nondocument file. To convert a document to ASCII format, print the file to disk using the ASCII PDF. You can also copy a block of text as an ASCII file. Mark a block and then press ^KW (Copy to Another File). Select the option to Copy in ASCII Format in the dialog box.

Auto Align

Classic	Pull-down
^OA	Edit→Editing Settings→Auto Align

When you edit text, you change the length of the lines. The auto align feature aligns the text to fit within the margins. This command turns auto align on and off. When aligning a whole document, you can mark certain sections of text, such as charts, that you do not want to align. Place the cursor on the line above the section and type the dot command **.aw off**. Type **.aw on** on the line above the line where you want aligning to resume.

Backup Files

Each time you save a file, WordStar saves the previous version of the file as a backup and gives the backup filename the .BAK extension. To edit a .BAK file, you must first rename it with a different extension. In WSCHANGE, you can set WordStar to make backup files every few minutes, or you can turn backup files off.

Bidirectional Printing

Classic
.bp on/off

Some printers print from right to left, then from left to right on alternate lines. On some printers, you can turn bidirectional printing off to improve print quality, or on to speed up printing. The **.bp on** and **.bp off** dot commands turn bidirectional printing on or off. The default setting for bidirectional print is on. Some printers will revert to left-to-right printing on the first few lines of a page. Some printers may not print bidirectionally with a page offset of .8 inch. Try setting the page offset to 1 inch if you want bidirectional print.

BINDING SPACE

Classic	**Pull-down**
^PO	Layout→Special Effects→Keep Words Together on Line

To make sure that adjacent words print on the same line instead of different lines, put the command between the words instead of pressing the Spacebar.

BLANK LINES

Classic

^N

You can use either ^N or Enter to insert a blank line (space between two lines of text). When you press ^N, a blank line is inserted and the cursor remains at its original position. If insert mode is on and you press Enter, a blank line is inserted and the cursor moves to the next line.

BLOCK COMMANDS

A block is a marked portion of a document on which you can perform certain tasks. All the commands for working with blocks of text are listed below.

Classic	**Pull-down**
^KB	Edit→Mark Block Beginning
^KK	Edit→Mark Block End
^KH	View→Block Highlighting
^KC	Edit→Copy→Block
^KV	Edit→Move→Block
^KY	Edit→Delete→Block
^KW	Edit→Copy→To Another File
^KR	Insert→File

Classic	Pull-down
^KN	Edit→Editing Settings→Column Block Mode
^KI	Edit→Editing Settings→Column Replace Mode
^KA	Edit→Copy→Block from Other Window
^KG	Edit→Move→Block from Other Window
^KM	Utilities→Block Math
^KZ	Utilities→Sort Block
^K'	Style→Convert Case→Lowercase
^K"	Style→Convert Case→Uppercase
^K.	Style→Convert Case→Sentence Case
^K?	Utilities→Word Count
^K[	Edit→Copy→From Windows Clipboard
^K]	Edit→Copy→To Windows Clipboard
^KU	Edit→Mark Previous Block
^K< (Unmarks a block)	

BLOCK MATH

Classic	Pull-down
^KM	Utilities→Block Math
^M=	Insert→Other Value→Last Math Result
^M$	Insert→Other Value→Last Math as Dollar

Mark the mathematical expression as a block and press ^KM (Block Math) to calculate the answer. To insert the most recent answer at the cursor position, press ^M= (Last Math) or ^M$ (Last Math as Dollar) for dollar amounts.

BOLD

Classic	Pull-down
^PB	Style→Bold

To make text bold, place the cursor where you want the bold to start and use ^PB (Bold). To mark the end of bold, place the cursor one space after the last character you want bold and repeat the command. Bold is printed as a 13 percent offset if you have a page printer and there is no bold font. If you want less of an offset, you can use double strike which prints at 7 percent offset.

Calculator

Classic	Pull-down
^QM	Utilities→Calculator
^M=	Insert→Other Value→Last Math Result
^M$	Insert→Other Value→Last Math, as Dollar
^M#	Insert→Other Value→Last Math Expression

To use the onscreen calculator during editing, use the calculator command, type a mathematical expression, and press Enter. Press ^M= (Last Math) or ^M$ (Last Math, as Dollar) to insert the answer into your document at the cursor position. To insert the last mathematical expression in your text, press ^M# (Last Math Expression).

Carriage return

Carriage returns are either hard or soft. You enter a hard return by pressing the Enter key. WordStar adds a soft return when it wraps text to the next line.

Case conversion

Classic	Pull-down
^K’	Style→Convert Case→Lowercase
^K"	Style→Convert Case→Uppercase
^K.	Style→Convert Case→Sentence Case

To change the case of characters, mark a block containing the text you want to change and press the command for the case conversion you want. (Do not hold down the Ctrl key when you press the ’, “, or . character.)

Centering text

Classic	Pull-down
^OC	Layout→Center Line
.ojc	Layout→Alignment and Spacing→Centered

^OC (Center Line) centers one line of text. To center a group of lines, select Centered in the Alignment and Spacing dialog box or type the dot command directly. Another way to center text is with paragraph styles. Define a style and then press Alt+N to select Centered. For information on centering text vertically, see "Vertically Center Text."

CLASSIC COMMANDS

Classic	Pull-down
^OB	View→Screen Settings→Classic Commands on Pull-down Menus

Classic commands appear on the menus at all help levels. Some people prefer to work at help level 4 (pull-down menus) without seeing classic commands. If you don't want the classic commands to appear on the pull-down menus, use ^OB (Classic Commands on Pull-down Menus) and turn them off.

CLEARING THE SCREEN

Classic
^\

This command (sometimes called a screen refresh) removes extra characters which are sometimes caused by electrical interference or a message from the operating system. These characters are not actually in the file.

CLIPBOARD

Classic	Pull-down
^K]	Edit→Copy→To Windows Clipboard
^K [	Edit→Copy→From Windows Clipboard

Before you copy text to the Clipboard, mark the text as a block. You can also copy ASCII text from the Clipboard to WordStar. The Clipboard feature works only if you have Windows running in 386 enhanced mode.

COLORS AND SHADING

Classic	Pull-down
^P–	Style→Other→Color/Shading

To print text in a different color or shading, give the command where you want the color to begin. The colors or shadings you can use are those that are available on your printer. Select a color or shading from the colors list. Text following the command is printed in the selected color or shading until you change the color again.

COLUMN BLOCKS

Classic	Pull-down
^KN	Edit→Editing Settings→Column Block Mode
^KI	Edit→Editing Settings→Column Replace Mode

You can work with columns of text easily by switching from a horizontal arrangement of text to a vertical arrangement. Put the beginning and ending block markers at the top-left and bottom-right corners of the block. Turn on Column Block Mode and then Column Replace Mode to replace text at the cursor with a moved, copied, or inserted block. Also, if you delete a block with Column Replace Mode on, text doesn't move to fill in the space.

COLUMN TABS

Classic	Pull-down
^OI	Layout→Ruler Line→Tab Stops

Set a tab where each column of text is to begin. Use ^I or the Tab key to move the cursor to the beginning of each column and type the text for that line.

COLUMNS, NEWSPAPER-STYLE

Classic	Pull-down
^OU	Layout→Columns
.cb	Insert→Column Break

To set up newspaper-style columns, press ^OU, and specify the number of columns (from 1- 8). You can also determine the space between columns. If necessary, specify the right margin for the page (not the column width). WordStar calculates the width of each column.

COMMAND FILES

Classic	Pull-down
.fi	Insert→File at Print Time

A command file contains dot commands only and no text. For example, a command file can contain **.fi** commands to insert several files. Command files are useful for chaining and nesting files.

COMMENTS

Classic	Pull-down
^ONC	Insert→Note→Comment

Use this command to insert unprinted comments and instructions into a file. When display of command tags is on, the first few words of the comment appear in a tag onscreen. When display is off, the tag does not appear. You can view the entire comment by moving the cursor to the command tag and pressing ^OND (Edit Note). Use the dot command **.ig** or **..** (two periods) to create a one-line comment that is entirely displayed.

CONVERTING DOCUMENTS

Use Star Exchange™ to convert documents created on one type of word processor to documents that are compatible with another type of word processor. You can also convert spreadsheets and databases. For more information on the applications that you can convert, see "Star Exchange" in the *Companion Programs* manual.

COPYING A FILE

Classic	Pull-down
O (Opening Menu)	File→Copy
^KO	File→Copy

Copying a file makes an exact duplicate of the file that is copied; the original is preserved, not erased.

COPYING TEXT

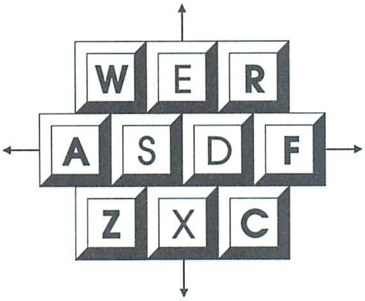
Classic	Pull-down
^KC	Edit→Copy→Block
^KA	Edit→Copy→Block From Other Window
^KW	Edit→Copy→To Another File
^K]	Edit→Copy→To Windows Clipboard
^K [	Edit→Copy→From Windows Clipboard

Copying text makes an exact duplicate of whatever is copied; the original is preserved, not erased. For information on copying text to and from the Clipboard, see "Clipboard."

CURSOR

The cursor is a small blinking rectangle or line on the screen that marks your place. To change the shape of the cursor, use WSCHANGE.

CURSOR DIAMOND



WordStar commands that move the cursor up one line, left one character, right one character, and down one line form a diamond on the keyboard.

TO MOVE THE CURSOR	PRESS
Up one line	^E
Down one line	^X
Left one character	^S
Right one character	^D
Left one word	^A
Right one word	^F
Scroll up one line	^W
Scroll down one line	^Z
Scroll up one screen	^R
Scroll down one screen	^C

CURSOR MOVEMENT AND SCROLLING

You can use the direction keys and the cursor movement control commands to move the cursor and to scroll through text. The direction keys and cursor movement control commands move the cursor across text. Scrolling allows you to move another portion of text onto the screen, either vertically or horizontally.

TO MOVE UP	PRESS
One line	^E or Up Arrow
To column 1 in first onscreen line	^QE or Home
One line (scroll up)	^W or ^PgUp
Line by line to document beginning	^QW (type 0-9 for speed)
To previous screen	^R or PgUp
Directly to document beginning	^QR or ^Home
Screen by screen to document beginning	^QQ^R (type 0-9 for speed)

TO MOVE LEFT	PRESS
One character	^S or Left Arrow
One word	^A or ^Left Arrow
To column 1 of current line	^QS

TO MOVE RIGHT	PRESS
One character	^D or Right Arrow
One word	^F or ^Right Arrow
To end of current line	^QD

TO MOVE DOWN	PRESS
One line	^X or Down Arrow
To last onscreen line	^QX or End
One line (scroll down)	^Z or ^PgDn
Line by line to document end	^QZ (type 0-9 for speed)
To next screen	^C or PgDn
Directly to document end	^QC or Ctrl+End
Screen by screen to document end	^QQ^C (type 0-9 for speed)

TO MOVE TO	PRESS
Beginning of block	^QB
Character	^QG*x*
Character (backward)	^QH*x*
End of block	^QK
Font tag	^Q=
Last find/replace or block location	^QV
Marker	^Q0-9
Next page	^QI+ (Plus key) Enter
Note	^ONG
Page or line (number)	^QI*n* Enter
Paragraph end	^QG Enter
Previous page	^QI– (Minus key) Enter

TO MOVE TO	PRESS
Window	^OK
Word or phrase	^QF *word/phrase*

CUSTOM PRINTER CODE

Classic	**Pull-down**
^PF	Insert→Custom Printer Code→1
^PG	Insert→Custom Printer Code→2
^PQ	Insert→Custom Printer Code→3
^PW	Insert→Custom Printer Code→4
^PE	Insert→Custom Printer Code→5
^PR	Insert→Custom Printer Code→6
^P!	Insert→Custom Printer Code→Other...

Custom printer codes are special printing instructions that let you take advantage of special features on your printer. Use these commands to insert printer codes in your documents. ^PF prints the phantom character at a print wheel's hex code 20 (space) position. ^PG prints the character at hex code 7F (rubout) position.

You can define a printer code by adding it to your PDF in PRCHANGE or by typing a dot command directly in your document. The dot command is followed by the hex code for the printer feature. Use **.xq** to define the printer code sent by ^PQ, **.xw** for ^PW, **.xe** for ^PE, and **.xr** for ^PR. To define a printer code you use only once, press ^P! and type the ASCII code or type ***%F"filename"*** to name the file containing the printer code.

CUSTOMIZING WORDSTAR

To customize WordStar, run the WordStar installation program WINSTALL, then choose the WSCHANGE or PRCHANGE option from the WINSTALL menu.

DATA FILES

A WordStar data file is a nondocument file that holds information to merge into a WordStar document. A data file consists of a series of records. Each record consists of several fields or items of information. You can use WordStar to create your own data files or you can use data files from MailList™, dBASE II, III, III+, or IV, Symphony, Quattro, or Lotus 1-2-3, all versions previous to 3.

DECIMAL TABS

Classic	**Pull-down**
^OI	Layout→Ruler Line→Tab Stops

A decimal tab stop aligns decimal points in a column. To set a decimal tab, set a regular tab preceded by the # symbol.

DEFAULTS

Most options in WordStar have preset, or default, settings. To change settings in a single document, use editing commands. To change settings for all documents, use paragraph styles or WSCHANGE.

DELAYS

A delay is a pause before an instruction is carried out. For example, a delay allows you to press the other key in a classic command before the submenu appears. You can change the length of delays with WSCHANGE.

DELETING TEXT

The chart below shows the WordStar commands for deleting text.

TO DELETE	DO THIS
Character, space, or command tag at cursor	Press ^G or Del.
Previous character, space, or command tag	Press ^H or Backspace.

TO DELETE	DO THIS
Word	Place cursor on first character and press ^T.
Carriage return	Place cursor at end of line and press ^T, ^G, or Del.
Line, blank line, or dot command line	Press ^Y.
Line right of cursor	Press ^QY.
Line left of cursor	Press ^Q Del.
From cursor to a specific character	Press ^QT and type the character.
Sentence	Press ^QT and type a period.
Paragraph	Press ^QT and press Enter.
Page or text block	Mark beginning (^KB) and end (^KK), then press ^KY.
Footnote	Place cursor on command tag and press ^G or Del.
File	Press Y at the classic Opening Menu or ^KJ while editing.

DIALOG BOXES

A dialog box has one or more areas where you fill in information or select settings. The chart below shows how to move around in a dialog box. (In addition, you can use the arrow keys.)

TO MOVE	PRESS
Forward	The Tab key
Backward	Shift and the Tab key
To specific option	Alt plus the highlighted or underlined character

To select a file or change settings in the dialog box, follow the steps below as appropriate.

- Type a name or press the arrow keys to select a name from the list. You can use the ^R (Restore) command to restore the information you entered previously.
- Move the cursor to the option button with the setting you want to select or clear, or press Alt and the key for the highlighted or underlined character. When you move the cursor to a button, it's selected. A diamond shape indicates a selection.
- Move the cursor to the check box for the setting you want to turn on or off and press the Spacebar, or press the key for the highlighted or underlined character. An X in the brackets indicates that the setting is on. To turn the setting off, repeat the keystroke.

To save the settings and close a dialog box, press F10 or choose OK. (F10 enters the WordStar command ^K; you can use ^K and F10 interchangeably.)

DIRECTORY DISPLAY

Classic	**Pull-down**
F (Opening Menu)	File→Change Filename Display

Press F at the classic Opening Menu to turn on or off the display of filenames in the current directory. When you turn on the display of filenames, you can specify which files to see. For example, you could use *.DOC to display only files with the .DOC extension. To change the default display of directories to off, use WSCHANGE. When you change the logged drive or directory, the display shows the files on the new logged drive and directory.

DISPLAYING COMMAND TAGS AND OTHER SCREEN SETTINGS

Classic	**Pull-down**
^OD	View→Command Tags
^OB	View→Screen Settings

Press ^OD (Command Tags) to turn the display of command tags and other screen elements on or off. The other screen elements that can be turned on or off with command tags are dot commands, the flag column, and soft space dots. Use ^OB (Screen Settings) to change which of these elements are displayed with command tags. You can also use the Screen Settings dialog box to turn on or off the scroll bar, the style bar, the status line, the ruler line, and classic commands on pull-down menus.

DOCUMENTS AND NONDOCUMENTS

Classic	Pull-down
D (Opening Menu)	File→Open Document
S (Opening Menu)	File→New
N (Opening Menu)	File→Open Nondocument

Document files are text files. Nondocument files are ASCII files. If you open a document file with D (Open Document), you name the file before you open it. If you create a document file with S (New), you name the file when you save it.

DOT COMMANDS

Classic	Pull-down
^OD	View→Command Tags
^OB	View→Screen Settings→Dot Commands

A WordStar dot command has a period in column one followed by a code that changes settings in a document. Most dialog boxes and some classic commands insert dot commands. If you prefer, you can type a dot command directly into a document. For a complete list of dot commands see the "Command Reference" section in this book.

Use ^OD (Command Tags) to turn the display of dot commands on or off. If you want dot commands to remain displayed when Command Tags are off, use ^OB.

DOUBLE STRIKE

Classic	**Pull-down**
^PD	Style→Other→Double Strike

When you use this command, the printer strikes each character twice to produce a light bold. To double strike text, place the cursor where you want the double strike to start and give the command. To mark the end of double strike, move the cursor to the space after the last character you want WordStar to double strike and repeat the command.

EDITING

Editing is the process of making changes to the content or appearance of an existing document. To edit a document, open the file and use any of the WordStar edit commands. To edit a file without going through the Opening screen, name the file at the system prompt when you start WordStar. For example, type **ws** *filename*.

When you do extensive editing in one session, it's a good idea to use ^KS to save your work frequently. If you then experience any hardware or power failures, most of your work will have been saved to disk.

EMS

WordStar supports Expanded Memory Specification (EMS) if it is available. The default for EMS support is 256 kilobytes of memory (16 pages of 16 kilobytes memory for each page). EMS support can be increased or decreased in WSCHANGE.

ENDNOTES. *See "Footnotes, Endnotes, and Annotations."*

ENVELOPES

To create a file that prints a standard 9.5 x 4-inch business envelope, use the following editing settings: top margin 2 inches, bottom margin 0 inch, page length 4 inches, page offset 4 inches, and page numbers off. These settings work with most printers except lasers and other page printers. WordStar provides several files for printing envelopes on HP LaserJet and compatible printers. For more information on printing envelopes, see the "MailList" section of *Companion Programs*.

EXITING A DOCUMENT

Classic	**Pull-down**
^KD	File→Save and Close
^KQ	File→Close
^KT	File→Save As
^KX	

Use ^KD (Save and Close) to save and exit a document. Use ^KQ (Close) to save or abandon changes and exit a document. Use ^KT (Save As) to save the document under a new name and exit. Use ^KX to save the file and exit WordStar.

EXITING WORDSTAR

Classic	**Pull-down**
X (Opening Menu)	File→Exit WordStar

To exit WordStar, use X (Exit WordStar) at the Opening Menu. You can't exit while you are printing in the background; you must finish or quit printing first.

EXTENDED CHARACTER SET

Classic	**Pull-down**
^P0	Insert→Extended Character

Some printers can print special characters such as graphic characters, Greek letters, and letters with accent marks. These characters are called the extended character set and may vary from font to font. If your font uses the IBM extended character set, you can use ^P0 (Extended Characters) and choose the characters from a dialog box.

FAX FILES

Classic	Pull-down
\ (Opening Menu)	File→Fax
^K\	File→Fax

Use these commands to create .PCX graphic format files from WordStar documents. You can send these files using a fax board and fax software.

FILENAMES

A filename can have up to eight characters and an optional three-character extension. Filenames can include letters, numbers, and the following symbols:

$ & # @ ! % ’ ‘ ( ) – _ ~

Some filenames do not appear in the directory, for example, .EXE and .COM extensions. For more information on filenames and the directory, see "Directory Display."

FINDING TEXT

Classic	Pull-down
^QF	Edit→Find

The Find command locates text or command tags. You can select options such as searching for whole words, ignoring the case of characters, or searching backward. If you don't select any options in the Find dialog box, WordStar uses the default options you set in WSCHANGE. Use ^L (Next Find) to find the next occurrence.

FINDING AND REPLACING TEXT

Classic	Pull-down
^QA	Edit→Find and Replace
^L	Edit→Next Find

Use the Find and Replace command to locate and replace or delete text or command tags. You can select options such as having WordStar replace text without asking and indicating how many occurrences of the string are to be replaced. If you don't select any options, WordStar uses the default options you set in WSCHANGE. Use the Next Find command to repeat the same Find and Replace.

FLAG COLUMN

Classic	Pull-down
^OD	View→Command Tags
^OB	View→Screen Settings→Flag Column

The flag column on the right side of the screen displays a *flag* for each line to remind you of what you typed on the line. For example, when WordStar inserts a dot command into your file, a dot appears in the flag column. Use ^OD (Command Tags) to turn the display of the flag column on or off. If you want the flag column displayed even when command tags are hidden, use ^OB (Screen Settings).

FONTS

Classic	Pull-down
^P=	Style→Font

A font is a particular style and size of typeface in a character set. To change to a different font, use this command where you want the font to begin. The paragraph that contains the font reformats automatically. To reformat the rest of the document, press ^QU.

FOOTNOTES, ENDNOTES, AND ANNOTATIONS

Classic	Pull-down
^ONF	Insert→Note→Footnote
^ONE	Insert→Note→Endnote
^ONA	Insert→Note→Annotation
.pe	Edit→Note Options→Endnote Location

Footnotes and annotations appear at the bottom of the page; endnotes appear on the last page of the document. Use **.pe** (Endnote Location) to specify a different location for endnotes. Use Preview to see how the footnotes and annotations appear on the printed page.

FORM FEEDS

Classic	**Pull-down**
^PL	
.pa	Insert→Page Break

Use these commands to cause your printer to advance to the next page. If your printer requires a different form-feed string than the printer description file (PDF) uses, type the dot command **.xl** and the required form-feed string.

FUNCTION KEYS

Function keys are labeled F1-F10 (or F12) and are assigned specific functions with macros. To change the settings of the function keys, re-record or edit the current macros. For a list of the function keys, see the *Reference* manual.

GRAPHICS (INSET®)

Classic	**Pull-down**
^P*	Insert→Graphic
^P&	Utilities→Inset

^P& (Inset) starts Inset during editing. Use ^P* (Graphic) to import images in graphics format into a WordStar document. This command allows you to use files from a number of graphics programs.

HANGING INDENT

A hanging indent indents all lines of text after the first line of a paragraph. For example, the paragraph style Hanging Indent 1 starts the first line of a paragraph at the left margin and indents subsequent lines to the first tab stop.

HEADERS AND FOOTERS

Classic	**Pull-down**
.h*n*/.f*n*	Layout→Headers/Footers

Use this command to insert a header or footer dot command. You can define up to five lines for each header and footer. The dot commands for five lines of a header are .he or .h1, .h2, .h3, .h4, .h5. The dot commands for five lines of a footer are .fo or .f1, .f2, .f3, ,f4, .f5. To specify a different header or footer for odd or even pages, select Odd Pages or Even Pages in the Header and Footer dialog boxes. You can also type **e** or **o** after the header or footer number in the dot command, for example, **.h1e** for an even header.

HELP LEVELS

Classic	**Pull-down**
F1F1	Help→Change Help Level

Use these commands anywhere in WordStar to control the amount of onscreen information displayed in menus, messages, and prompts. Help level 4 displays pull-down menus. Help levels 3 and below display decreasing levels of classic menus.

HELP MESSAGES

Classic	**Pull-down**
F1	Help→Help

Onscreen help is available for every command and option anywhere in WordStar.

HYPHENATION

Classic	**Pull-down**
^OH	Layout→Alignment and Spacing→Hyphenation
^OE	Layout→Special Effects→Optional Hyphen

Use ^OH (Hyphenation) to turn auto-hyphenation on and off. WordStar hyphenates words at the ends of lines when auto-hyphenation is on. The hyphens that WordStar adds during auto-hyphenation are called soft hyphens. To specify that a word can be hyphenated even when auto-hyphenation is off, or to change the location of a soft hyphen, place the cursor where you want the word to be hyphenated and press ^OE (Optional Hyphen).

INDENTING

Classic	**Pull-down**
^OI	Layout→Ruler Line→Tab Stops
^OL	Layout→Ruler Line→First Line Indent
^OL	Layout→Ruler Line→Left Margin

You can indent text several ways: Set tab stops and then press the Tab key, set a first line indent, or change the left margin. You can set tab stops in the Ruler Line dialog box or when you define paragraph styles. The Hanging Indent paragraph styles supply preset hanging indents.

INDEXING

Classic	**Pull-down**
I (Opening Menu)	Utilities→Index
^ONI	Insert→Index/TOC Entry→Index Entry
^PK	Insert→Index/TOC Entry→Mark Text for Index

Use ^ONI (Index Entry) to type index entries. Use ^PK (Mark Text for Index) to mark the beginning and end of text for index entries. To create the index, press I (Index) at the Opening Menu.

INSERTING FILES

Classic	**Pull-down**
^KR	Insert→File

To insert a file at the cursor location, give the command, and specify the file you want to insert. Include the drive and directory name, if necessary. You can also insert a file with the **.fi** dot command. The file is inserted when you print the document and does not remain in the document. For information on commands to copy or insert part of a file, see "Copying Text."

INSERTING TEXT

Classic
^V

Use ^V to turn Insert mode on and off. When Insert mode is on, you can insert characters without typing over existing text. When Insert mode is off, you overtype characters. Another way to turn Insert mode on and off is to press the Ins key.

INSTALLING WORDSTAR

For information on installing WordStar see the *Installing and Customizing* booklet.

INTERNATIONAL CHARACTERS

Some international characters have accents or other diacritical marks that distinguish them from other alphabetical characters. When the international character table is turned on in WSCHANGE (the default setting is OFF), you can enter international characters into your document by pressing the two keys that compose the character. For information on the onscreen display and printing of international characters, see the *Reference* manual.

ITALIC

Classic	**Pull-down**
^PY	Style→Italic

To make text italic, place the cursor where you want the italic to start and press ^PY (Italic). To mark the end of italic, place the cursor in the space after the last character you want italic and repeat the command.

JUSTIFICATION

Classic	Pull-down
^OJ	Layout→Alignment and Spacing→Justified

When justification is on, WordStar adds spaces to make all lines extend to the right margin. When justification is off, right margins are ragged.

KERNING

Classic	Pull-down
.kr on/off	Layout→Alignment and Spacing→Kerning

Kerning adjusts the space between certain pairs of printed characters for a more professional look. Kerning eliminates gaps and gives an even look to letters that are typically paired.

LANDSCAPE AND PORTRAIT MODE

Classic	Pull-down
^OY	Layout→Page→Portrait
^OY	Layout→Page→Landscape

Use these commands at the top of a page if you have a page printer and want to switch between portrait and landscape mode. If you specify portrait mode (the default), your document is printed the usual way on the page. If you specify landscape mode, your document is printed lengthwise on the page.

LANGUAGE CHANGE

Classic	Pull-down
.la	Utilities→Language Change

With the appropriate dictionaries installed in WordStar, you can hyphenate and check spelling in various languages. You can change the default language in WSCHANGE. To change the language within a document, use this command and the code for the language you want.

LINE DRAWING

When used with the Alt key, ten of the function keys produce line-drawing characters. You can use these characters to draw lines and boxes. For more information on box and line drawing, see "Box and Line Drawing" in the *Reference* manual.

LINE FEEDS

Classic

^PJ

When the printer encounters a line-feed symbol, it moves down a line without returning to the left margin and prints in the column following the one that contains the line feed.

When you press Enter with insert on, a hard carriage return and a line feed are inserted into the file. When insert is off, Enter moves the cursor to the next line and no code is inserted into the file.

LINE HEIGHT

Classic	**Pull-down**
^OS	Layout→Alignment and Spacing→Leading

The distance between lines of print is the leading (or line height). It is measured from the bottom of one line to the bottom of the following line. You can specify the distance between lines (in 48ths of an inch) using this command or your current paragraph style. When you change line height, use Preview to see the new spacing onscreen.

LINE NUMBERING

Classic	**Pull-down**
.l#	Layout→Line Numbering

Line numbers print in the left margin of your document. This command turns your document into legal pleading paper.

LINE SPACING

Classic	Pull-down
^OS	Layout→Alignment and Spacing→Line Spacing

Line spacing prints your text double-spaced, triple-spaced, and so on. When you change line spacing, you see the new spacing onscreen.

LOGGED DRIVE AND DIRECTORY

Classic	Pull-down
L (Opening Menu)	File→Change Drive/Directory
^KL	File→Change Drive/Directory

The logged drive or directory is the one you're currently working in. WordStar looks for and stores files on the logged drive unless you tell it otherwise. Use these commands to change the logged drive or directory.

LSRFONTS

Use the LSRFONTS option in WINSTALL to add laser fonts to a custom font database. Then use PRCHANGE to add the fonts from the database to a PDF. These fonts are for HP or compatible printers, PostScript printers, the IBM 4019/4029, and the Xerox 4045. For more information on LSRFONTS, see the *Installing and Customizing* booklet.

MACROS

Classic	Pull-down
M (Opening Menu)	Utilities→Macros
^MD	Utilities→Macros→Edit/create
^MO	Utilities→Macros→Copy
^MP	Utilities→Macros→Play
^MR	Utilities→Macros→Record
^ME	Utilities→Macros→Rename
^MS	Utilities→Macros→Single Step
^MY	Utilities→Macros→Delete

You can record or create macros to enter frequently used text into a document or to enter a sequence of commands. When you want to play the macro, use the Play command or use the hot key assigned to the macro. Single Step allows you to play the macro one step at a time in order to analyze it.

MAILLIST

Classic	**Pull-down**
AM (Opening)	Additional→MailList

MailList lets you easily create, update, and sort mailing lists and inventories by providing onscreen forms for entering your data. You can then print letters, reports, or lists using this data.

MAILMERGE®. *See "Merge Printing."*

MARGINS

The margins in a document specify the limits of the text area. WordStar has eight margins—first line indent, header and footer, left and right, page offset, and top and bottom. The default unit of measurement for setting margins is inches. You can also set margins in ruler units (columns), lines, centimeters, or points.

MARGINS, FIRST LINE INDENT

Classic	**Pull-down**
^OL	Layout→Ruler Line→First Line Indent

The first line indent sets a separate left margin for the first line of each paragraph. This is useful for indenting the first line, or for outlines where you want the first line of a paragraph to hang out to the left of the text. WordStar puts a **.pm** command in your document when you choose First Line Indent in the dialog box. You can also set a first line indent when you define a paragraph style (^OFD).

MARGINS, HEADER AND FOOTER

Classic	Pull-down
^OY	Layout→Page→Header
^OY	Layout→Page→Footer

The header margin is the space between the last header line and the first line of text. The footer margin is the space between the last line of text (on a full page) and the first footer line. WordStar inserts a **.hm** command in your document for a header margin and a **.fm** command for a footer margin.

MARGINS, LEFT AND RIGHT

Classic	Pull-down
^OL	Layout→Ruler Line→Left Margin
^OR	Layout→Ruler Line→Right Margin

The left margin is the space between the page offset and the start of text. The right margin is the space between the page offset and the end of text. You can set the left margin to any value between 0 and 25.4 inches, and the right margin between 1 and 36 inches, but there must be at least a .2 inch space between them. WordStar puts a **.lm** command in your document when you change the left margin and a **.rm** command when you change the right margin.

MARGINS, PAGE OFFSET

Classic	Pull-down
^OY	Layout→Page→Odd Offset
^OY	Layout→Page→Even Offset

Page offset is the amount of space between the left edge of the paper and column 1 of your text. When you select different page offsets for odd and even pages, WordStar inserts **.poe** in your document for even pages and **.poo** for odd pages. If you put pages in a binder, you may want a bigger page offset on odd pages to leave room for the binder holes. To set a page offset for all pages, type the dot command **.po**. For example, **.po .5"** prints text .5 inch from the left edge of the paper for all pages.

MARGINS, TOP AND BOTTOM

Classic	Pull-down
^OY	Layout→Page→Top
^OY	Layout→Page→Bottom

The top margin is the amount of space between the top of the page and the text area. The bottom margin is the amount of space between the bottom of the page and the text area. The top and bottom margin commands take effect at the beginning of the next page after they are inserted. If you want the commands to take effect on the current page, you must place them at the top of the page. When you change the top margin, WordStar inserts a **.mt** command. When you change the bottom margin, WordStar inserts a **.mb** command. Use Preview to see the top and bottom margins of a page.

MARKERS

Classic	Pull-down
^K*n* (0 to 9)	Edit→Set Marker
^Q*n* (0 to 9)	Edit→Go to Marker

Temporary markers help you find your place. Once you set a marker, you can quickly move the cursor to that marker with ^Q*n*.

MEMORY USAGE

Classic	Pull-down
? (Opening Menu)	File→Status
^O?	File→Status

WordStar is loaded into a computer's random-access memory (RAM). At the Status screen you can find out how much RAM is used by WordStar and your text and data files.

MENU BAR

The menu bar shows the names of the pull-down menus. To see a menu at the Opening screen click the menu name with a mouse, or press the key for the highlighted or underlined character in the menu name. To see a menu at the Edit screen, use the mouse or press Alt plus the highlighted or underlined character in the menu name. Use the direction keys to move from name to name.

MENUS

A menu contains a list of commands from which you choose the task you want to do. WordStar has two types of menus: pull-down and classic. The pull-down menus are the default menus. When the help level is 3 or below, the classic Opening Menu appears when you start WordStar.

MERGE PRINTING

Merge printing is the process of inserting information into a document while it's being printed. Merge printing is most commonly used with form letters, mailing labels, contracts, and any other documents that require you to "fill in the blanks." You can use data files from MailList, Lotus 1-2-3 (all versions except 3), Symphony, Quattro, dBASE II, III, III+, or IV for merge printing. WordStar comes with files that include the correct commands to merge print using MailList data files.

MERGE PRINTING — CONDITIONAL COMMANDS

Classic	**Pull-down**
.if	Utilities→Merge Print Commands→If
.ei	Utilities→Merge Print Commands→End If
.el	Utilities→Merge Print Commands→Else

Conditional merge print dot commands allow you to use a master document to produce letters that contain customized information, based on conditions you set.

MERGE PRINTING — DOT COMMANDS

Classic	**Pull-down**
.av	Utilities→Merge Print Commands→Ask for Variable
.df	Utilities→Merge Print Commands→Data File
.ma	Utilities→Merge Print Commands→Set Variable to Math Result
.rv	Utilities→Merge Print Commands→Name Variables
.sv	Utilities→Merge Print Commands→Set Variable

Merge printing dot commands in the master document tell WordStar the variable names and where to get the data that goes with them. The Ask for Variable command (**.av**) has WordStar pause during printing and ask you for the data to replace a variable. The Data File command (**.df**) tells WordStar the name of your data file. Set Variable to Math Result (**.ma**) performs calculations while you are merge printing. The Name Variables command (**.rv**) tells WordStar the variable names for the fields in your data file. Every **.df** command must be followed by a **.rv** command to name the fields. For information on the Set Variable command (**.sv**) see "Merge Printing—Variable Formatting" and "Merge Printing—Variable Number Formatting."

MERGE PRINTING — MESSAGES WHILE PRINTING

Classic	**Pull-down**
.cs	Utilities→Merge Print Commands→Clear Screen While Printing
.dm	Utilities→Merge Print Commands→Display Message

These commands are useful for displaying messages that explain what's going on while you're printing. For example, you can have WordStar clear the screen and then display messages that give reminders and instructions to the person doing the printing.

MERGE PRINTING — VARIABLE FORMATTING

Classic	**Pull-down**
.sv	Utilities→Merge Print Commands→Set Variable

Variable formatting allows you very close control of the appearance of your form documents, especially those that use merge print variables in tables or charts. For example, with the set variable command you can define the maximum number of characters allowed to replace a variable and how the data is justified.

MERGE PRINTING — VARIABLE NUMBER FORMATTING

Classic	**Pull-down**
.sv	Utilities→Merge Print Commands→Set Variable

Variable number formatting controls the appearance of numeric data items that replace variables in your form documents. For examples of variable number formatting, see the *Reference* manual.

MERGE PRINTING — VARIABLES

Master documents contain variables wherever data is to be inserted. At the spot in the text where you want to insert variable data, type the variable name with ampersands (&) before and after it.

See the following table for the eight predefined variables. WordStar supplies data for these variables when you print a document.

VARIABLE	DESCRIPTION
&#&	Inserts the current page number.
&_&	Inserts the current line number.
&@&	Inserts today's date.
&!&	Inserts the current time.
&:&	Inserts the currently logged drive.
&.&	Inserts the currently logged directory name.
&*&	Inserts the current filename.
&\&	Inserts the full path and filename of the current file.

MICROJUSTIFICATION

Classic

.uj on/off/dis

When text is justified, microjustification spreads the white space as evenly as possible, not only between words but also between the letters of each word. In your document, type **.uj on** to turn microjustification on. If microjustification is on, then justification (Layout→Alignment and Spacing→Justified) should also be on. Justification tells WordStar to extend all lines to the right margin. To turn microjustification off, type **.uj off**. The default **.uj dis** lets WordStar determine whether to use microjustification.

MOUSE

You can use a mouse in WordStar to position the cursor; select commands or options from menus, dialog boxes, and the style bar; move between windows, and select text.

NESTING AND CHAINING

Classic	**Pull-down**
.fi	Insert→File at Print Time

You can chain files so that they print one after the other, or nest them, inserting one inside the other. The files are connected only for printing; their contents remain separate. You can nest files up to eight levels.

NONDOCUMENTS. *See "Documents and Nondocuments."*

OUTLINING. *See "Paragraph Outline Numbering."*

OVERPRINTING

Classic	Pull-down
^PH	Layout→Special Effects→Overprint Character
^P↵	Layout→Special Effects→Overprint Line

To print two characters in one space, use ^PH (Overprint Character). To print a line on top of another line, use ^P↵.

PAGE BREAKS

Classic	Pull-down
.pa	Insert→Page Break

A page break is the division between two pages. WordStar inserts page breaks when the text fills a page. You can insert a hard page break anywhere you want to begin a new page. For information on form feeds see "Form Feeds."

PAGE NUMBERING

Classic	Pull-down
^O#	Layout→Page Numbering→Set Page Number
^O#	Layout→Page Numbering→Position on Line
^O#	Layout→Page Numbering→Print Page Numbers

The page numbering commands control the printing of the default page number. In the Page Numbering dialog box, use the Set Page Number option to restart page numbers at a specified number. Use the Position on Line option to print the page number at a specified location. Clear the Print Page Numbers check box to omit printing of page numbers. Select Print Page Numbers to turn printing of page numbers on.

PAGE OFFSET. *See "Margins, Page Offset."*

PAGE PREVIEW. *See "Preview."*

PAPER BIN

Classic	Pull-down
^OY	Layout→Page Layout→Paper Bin

Single-sheet printers, such as laser printers, use sheet feeders to advance the paper. If you have a laser printer, WordStar installs your paper bin for you. If you have another type of printer, you need to install it yourself. Some sheet feeders have more than one paper bin. You can use paper from different bins in one document by selecting the bin in the dialog box.

PARAGRAPH OUTLINE NUMBERING

Classic	Pull-down
^OZ	Insert→Paragraph Outline Number
.p#	Insert→Paragraph Outline Number→Options

Paragraph numbers are useful for outlines, proposals, and contracts. Place the cursor where you want the number to appear and press ^OZ (Paragraph Outline Number). You can change the numbering system from only numerals to combinations of letters, roman numerals, and numerals in the dialog box.

PARAGRAPH STYLES

Classic	Pull-down
^OFS	Style→Select Paragraph Style
^OFP	Style→Return to Previous Style
^OFD	Style→Define Paragraph Style
^OFO	Style→Manage Paragraph Styles→Copy Style to Library
^OFY	Style→Manage Paragraph Styles→Delete Library Style
^OFR	Style→Manage Paragraph Styles→Rename Library Style
^OFE	Style→Manage Paragraph Styles→Rename Document Style

Paragraph styles store layout settings such as margins, tabs, and line heights. Styles also set print attributes such as bold, underline, and italic. By using a paragraph style you can change several layout and print settings at once.

PATHS

The basic directory on a disk is called the root directory, with other directories forming a tree structure off the root directory. The directories you go through from the root directory to a specific file comprise the path to that file.

PAUSE PRINTING

Classic

^PC

Use the pause printing command at the location in your document where you want printing to pause. Your printer's buffer may affect the location of the print pause.

PDFEDIT

The PDFEDIT program allows you to make changes to printer files (PDFs). You can also make changes to PDFs for supported printers. To use PDFEDIT, you must have installed a printer and created a PDF. For more information about PDFEDIT, see the *Installing and Customizing* booklet.

PITCH

Pitch is the amount of horizontal space taken up by each character in a non-proportional font, usually expressed as characters per inch (cpi). In a proportional font, where characters take up different amounts of space, point size is used instead of pitch.

PLACE MARKERS. *See "Markers."*

PORTS

Printers are usually connected by cables to ports at the back of your computer. WordStar looks for printers on the LPT1 port. If your printer is connected to a different port, be sure to specify the correct port during installation. You can also choose a different port at print time by using the option to Redirect Output To in the Print dialog box.

PRCHANGE

Use the PRCHANGE option in WINSTALL to specify default settings for your printers. For information on PRCHANGE, see the *Installing and Customizing* booklet.

PREVIEW

Classic	**Pull-down**
^OP	View→Preview

Preview lets you see exactly how your document will look when printed. The preview includes columns, headers, footers, footnotes, fonts, and so on. This feature works only on a graphics monitor.

PRINTER DESCRIPTION FILES

Each time you install a printer, WordStar creates a printer description file (PDF). The PDF contains the information WordStar needs to work with that printer.

PRINTING A FILE

Classic	**Pull-down**
P (Opening Menu)	File→Print
^KS^KP	File→Print

You can print from the Opening Menu or during editing. If you use the Print command while you're editing, WordStar saves your current file and then displays the Print dialog box. Printing is normally done in the background. This means that you can continue with what you were doing before you started the printing process.

PRINTING FROM KEYBOARD

Classic	Pull-down
K (Opening Menu)	File→Print from Keyboard

When you print from the keyboard, you use your printer like a typewriter. Each time you press Enter, that line of text goes directly to the printer. Not all printers can print from the keyboard. Use DRAFT.PDF for the best results.

PRINTING MERGE VARIABLES

Classic	Pull-down
P (Opening Menu)	File→Print
^KS^KP	File→Print

You can print from the Opening Menu or during editing. If you use the print command while you're editing, WordStar saves your current file and then displays the Print dialog box. In the Print dialog box, the default is for WordStar to Interpret Merge Variables. If you clear this check box, variable names are printed in the text rather than the variable data, and merge print commands are ignored.

PRINTING TO DISK

Classic	Pull-down
P (Opening Menu)	File→Print
^KP	File→Print

Sometimes you may want to print a document to a file on disk rather than printing it on paper. You can print to disk by using one of five special PDFs — PRVIEW, ASCII, ASC256, XTRACT, and WS4. You can also print to disk by typing a filename in the Redirect Output To option in the Print dialog box. If you print to disk during editing, WordStar saves your file first.

PROFINDER™

ProFinder helps you manage all the files on your disk. For more information, see the "ProFinder" section in *Companion Programs*.

PROPORTIONAL SPACING

Proportional spacing occurs when you print a file with proportional fonts. In proportional spacing, different letters take up different amounts of space; for example, an "m" takes up more space than an "i." Proportional font sizes are measured in points (72nds of an inch), which specify the height of the letters.

PROTECTING A FILE

Classic	**Pull-down**
C (Opening Menu)	File→Protect/Unprotect

You can protect a file so it can't be changed. Protect your own files if you share disks with other operators, or protect final drafts of any documents. You can remove protection whenever you want.

README

README contains technical advisories regarding WordStar and information that came in too late to be included in the manuals.

To see the README information at the system prompt, log on to the WordStar directory, type **readme**, and press Enter.

REFORMATTING TEXT

Classic	**Pull-down**
^B	Utilities→Reformat→Paragraph
^QU	Utilities→Reformat→Rest of Document

Use these commands to reformat text in document mode when you change margins, tabs, or fonts.

REFRESH SCREEN. *See "Clearing The Screen."*

RENAMING A FILE

Classic	Pull-down
E (Opening Menu)	File→Rename
^KE	File→Rename
^KT	File→Save As

You can rename a file either at the Opening Menu or the Edit menu. To rename the edited version of the file you're working on, press ^KT (Save As).

REPEATING

Classic	Pull-down
^QQ	Utilities→Repeat Next Keystroke

The repeat command tells WordStar to continuously repeat a single-letter command or a keyboard character. You stop the repeat command by pressing the Spacebar.

RULER LINE

Classic	Pull-down
^OL	Layout→Ruler Line
^OB	View→Screen Settings→Ruler Line

The ruler line above the text shows the margins and tab stops that currently apply to your text. Press ^OL (Ruler Line) to change the left margin or first line indent. Press ^OR (Right Margin) to change the right margin and ^OI (Tab Stops) to change tab stops. The marker on the ruler line shows the position of the cursor on the page and moves as you move the cursor. You can turn the display of the ruler line on and off with ^OB (Screen Settings).

RUNNING A DOS COMMAND

Classic	Pull-down
R (Opening Menu)	File→Run DOS Command
^KF	File→Run DOS Command

You can run a DOS command at the Opening Menu or during editing without leaving WordStar. WordStar temporarily moves into the background, and you type the DOS command you want.

SAVING A FILE

Classic	**Pull-down**
^KD	File→Save and Close
^KQ	File→Close
^KS	File→Save
^KT	File→Save As
^KX	

When you open a document, the original file stays on the disk while you work on a copy in the computer's memory. When you save the document, the copy in memory (with all the changes) goes back to the disk and replaces the original file. The original file is saved with the .BAK extension.

When you use ^KD (Save and Close), the file is saved and you return to the Opening Menu. If you've edited the file, ^KQ (Close) asks whether you want to save, abandon your changes, or cancel the command and return to the file. ^KS (Save) saves the file and allows you to continue editing. ^KT (Save As) prompts you for a new filename and saves the file with that name. ^KX saves the file and exits WordStar.

SCREEN SETTINGS

Classic	**Pull-down**
^OB	View→Screen Settings

At the Screen Settings dialog box you can select which of the following items will be turned on and off with ^OD (Command Tags): dot commands, flag column, and soft space dots. You can also determine whether the following items appear onscreen: scroll bar, style bar, status line, ruler line, and classic commands on pull-down menus.

SCROLL BAR

Classic	Pull-down
^OB	View→Screen Settings→Scroll Bar

If you have a mouse, you can use the vertical scroll bar at the right of the screen to go forward or backward in a document by lines, screens, or pages. Choose the Scroll Bar option in the Screen Settings dialog box to turn the display of the scroll bar on and off.

SCROLLING. *See "Cursor Movement and Scrolling."*

SHEET FEEDERS. *See "Paper Bin."*

SOFT SPACES

Classic	Pull-down
^OB	View→Screen Settings→Soft Space Dots

When WordStar justifies text, it inserts extra soft spaces between words to make the line extend all the way to the right margin. WordStar can display soft spaces as dots.

The Soft Space Dots option allows you to choose to display soft space dots, to have display off, or to display soft space dots with command tags.

SORTING

Classic	Pull-down
^KZA	Utilities→Sort Block→Ascending
^KZD	Utilities→Sort Block→Descending

You can sort lines in your text to put them in alphabetic and numeric order. If column mode is on, WordStar determines the sort order based on the highlighted text. If column mode is off, the sort order is based on all the characters on the line. To sort your text, mark the text as a block, then press ^KZ (Sort Block). When prompted, type **A** or **D** to choose ascending (A-Z) or descending (Z-A) sort order.

SPEED WRITE

Classic	Pull-down
S (Opening Menu)	File→New

Press S (New) at the Opening Menu to open a new, unnamed file and go directly to the editing screen. When you save or exit the file, WordStar prompts you for a filename.

SPELLING CHECK

Classic	Pull-down
^QR^QL	Utilities→Spelling Check Global
^QL	Utilities→Spelling Check Other→Rest of Document
^QN	Utilities→Spelling Check Other→Word
^QO	Utilities→Spelling Check Other→Type Word
^ONL	Utilities→Spelling Check Other→Rest of Notes

Use the spelling check commands to check the spelling in your documents and to find double words, such as *the the*.

Press ^QR^QL (Spelling Check Global) to check the spelling of your entire document. Press ^QL (Rest of Document) to check the spelling of the rest of the document. Place the cursor under a word and press ^QN (Word) to check the spelling of a word. Press ^QO (Type Word) to type a word and check its spelling. Press ^ONL (Rest of Notes) to check the spelling in notes, such as footnotes and endnotes.

SPREADSHEETS

Classic	Pull-down
^KR	Insert→File

You can insert a spreadsheet from Lotus 1-2-3 (previous to version 3.0), Symphony, or Quattro into your WordStar document. You can insert the entire worksheet or you can choose the range to insert. For Lotus 3.0 and for other file formats, you can either save the file to a supported format or use Star Exchange to convert the file to WordStar format before inserting it.

STAR EXCHANGE™

Classic	**Pull-down**
AS (Opening Menu)	Additional→Star Exchange

Use Star Exchange to convert documents created with one application to be compatible with documents created with another application. For example, you can convert a document originally created with WordStar 2000 to the WordStar format, and then edit the file as you would any WordStar document.

STARTING WORDSTAR

Before you start WordStar for the first time, follow the installation instructions in the *Installing and Customizing* booklet.

To start WordStar, type **ws** at the system prompt and press Enter.

STATUS LINE

Classic	**Pull-down**
^OB	View→Screen Settings→Status Line

The status line appears at the bottom of the screen when you edit a file. It shows the cursor location and various messages. You can turn the display of the status line on and off with ^OB. You can change the location of the status line in WSCHANGE.

STATUS SCREEN

Classic	**Pull-down**
? (Opening Menu)	File→Status
^O?	File→Status

You can see the status screen from either the Opening Menu or the Edit menu. The status screen includes information about memory usage, the name of your default printer, and whether Inset is loaded.

STRIKEOUT

Classic	**Pull-down**
^PX	Style→Other→Strikeout
.xx	Style→Settings→Character for Strikeout

Text you mark for strikeout is overprinted with hyphens, for example, ~~text~~. You can change the strikeout character in WSCHANGE or use the dot command **.xx** while you're editing. Strikeout is useful when you want the reader to see text that was included in previous drafts.

STYLE BAR

Classic	**Pull-down**
^OB	View→Screen Settings→Style Bar

The style bar appears at the top of the screen. It contains option buttons you can select with a mouse, and displays information such as the current paragraph style and font. Select Style Bar at the Screen Settings dialog box to turn display of the style bar on and off. In WSCHANGE, you can change the location of the Style Bar or turn it off permanently.

SUBSCRIPT AND SUPERSCRIPT

Classic	**Pull-down**
^PV	Style→Other→Subscript
^PT	Style→Other→Superscript

Subscript text is printed slightly below the rest of the text on the line, for example, H_2O. Superscript text is printed slightly above the rest of the text on the line, for example, MailList^{TM}. To mark text for subscript, for example, press ^PV (Subscript) at the beginning and end of the text to mark. If you have trouble getting your subscript or superscript fonts to print, try using the command **.sr 0** before the subscript or superscript commands.

SUPPRESS BLANK LINES

Classic	Pull-down
^OY	Layout→Page→Suppress Blank Lines at Top of Page

Sometimes when you edit a file, blank lines ending with hard carriage returns fall at the top of a page, creating uneven top margins. If you want to suppress these lines in your printed document, move the cursor to the top of the page, give the command, and select Suppress Blank Lines at Top of Page. The blank lines at the tops of pages are suppressed in the rest of the printed document.

TABLE OF CONTENTS

Classic	Pull-down
T (Opening Menu)	Utilities→TOC
.tc	Insert→Index/TOC Entry→TOC Entry

In the TOC Entry dialog box, type the text you want to appear in the table of contents; include punctuation and indentation. To create the table of contents, use T (TOC) at the Opening Menu.

TABS

Classic	Pull-down
^OI	Layout→Ruler Line→Tab Stops

Tab stops provide a way to indent text. Press ^OI (Tab Stops) to set new tabs. Type # in front of a number to set a decimal tab.

TELMERGE®

Classic	Pull-down
AT (Opening Menu)	Additional→TelMerge

Use the TelMerge telecommunications program to link to telecommunications services such as MCI Mail, or electronic bulletin boards to send files over your phone lines. You need a modem to use Telmerge. For more information on Telmerge, see the *Companion Programs* manual.

TEMPORARY FILES

WordStar creates temporary files in the logged directory while you're editing or printing a document. When you finish editing and close the document, WordStar erases these temporary files.

THESAURUS

Classic	Pull-down
^QJ	Utilities→Thesaurus

To look up a synonym for a word in your document, place the cursor on the word and press ^QJ (Thesaurus). To select a synonym, move the cursor to the word you want and press Enter. The word you select replaces the original word in your document.

TITLE BAR

The title bar is at the top of the screen and includes the name of the file being edited, the program name, and messages, such as *Printing,* or messages when macros are playing. If you have a second window open, the right side of the title bar shows the current window number. If you have a mouse, the left side of the title bar has a close button and the right side has a button to maximize or minimize window size.

UNDERLINING

Classic	Pull-down
^PS	Style→Underline
.ul on/off	Style→Settings→Continuous Underline

To underline text, place the cursor where you want the underlining to start and use the Underline command. To mark the end of the underlining, place the cursor in the space after the last character you want underlined and repeat the command.

Usually spaces between underlined words are underlined when you print a file. To stop underlining spaces, use **.ul off**. For information on double underscore, see the *Reference* manual.

UNDO

Classic	**Pull-down**
^U	Edit→Undo

When you use the Undo command, the last group of characters you erased is restored to the screen at the current cursor location. Single characters erased with ^G, ^H, Backspace, or Del cannot be unerased (except for note tags).

UNITS OF MEASUREMENT

WordStar supports inches, ruler units (columns or lines), centimeters, and points as units of measurement. You can use separate units of measurement for any options that use measurements. Use the appropriate notation after the measurement:

" or **i** or **in**	inches
r	ruler units (columns for horizontal settings, lines for vertial settings)
c or **cm**	centimeters
p or **pt**	points (in 72nds of an inch)

You set default units in WSCHANGE. Otherwise, the default in dialog boxes is inches and the default in dot commands is ruler units. The default is used if no notation is specified.

VARIABLES. *See "Merge Printing — Variables."*

VERTICALLY CENTER TEXT

Classic	**Pull-down**
^OV	Layout→Special Effects→Vertically Center Text on Page

When you center text vertically on a page, the text from the cursor to the next page break is centered vertically in the remaining space on the page.

WINDOWS

Classic	**Pull-down**
^OK	View→Open/Switch Window

You can look at two documents at once, or at two parts of the same document. You can edit in either window.

With this command, you can select the file that you want to open or move from one window to the other. To copy a block from one window to another, use ^KA (Edit→Copy→Block From Other Window).

WORD COUNT

Classic	**Pull-down**
^K?	Utilities→Word Count

To get a count of the words and bytes in a marked block, press ^K? (Word Count). If no block is marked, you get a count for the entire file. The maximum words counted is 65,535.

WORD WRAP

Classic	**Pull-down**
.aw	Layout→Alignment and Spacing→Word Wrap

As you type, WordStar moves the cursor to a new line when you reach the end of the current line. This is called word wrap. You press Enter only to mark the end of a paragraph. You can turn word wrap on and off with this command.

WSCHANGE

Use the WSCHANGE option in WINSTALL to customize WordStar to run exactly the way you want. For more information on WSCHANGE, see the *Installing and Customizing* booklet.

WSSETUP

To install WordStar the first time, type **wssetup** at the system prompt. WordStar prompts you for the disks to copy to your hard disk and lets you install your monitor and printer.

COMMAND REFERENCE

The Command Reference includes commands from the classic menus, dot commands, and commands from the pull-down menus. The commands from the classic menus and dot commands are listed in alphabetical order. Commands from the pull-down menus are listed by menu.

COMMANDS FROM THE CLASSIC OPENING MENU

COMMAND	DESCRIPTION	COMMAND	DESCRIPTION
?	Display status	L	Change drive/directory
\	Fax	M	Macros
^\	Screen repaint	N	Open a nondocument
A	Additional Menu	O	Copy file
C	Protect/unprotect file	P	Print file
D	Open a document	R	Run a DOS command
E	Rename file	S	Speed Write (new file)
F	Directory display	T	Table of contents
F1	Help	X	Exit WordStar
I	Index	Y	Delete file
K	Print from keyboard		

COMMANDS FROM THE CLASSIC EDIT MENU

COMMAND	DESCRIPTION
^_	Enlarge window
^6	Auto-indent mode (nondoc)
^6	Change hard carriage return to soft in document file
^A	Move left one word
^B	Reformat paragraph
^C	Scroll down a screen
^D	Move right one character
^E	Move cursor up one line
^End	Move to end of file
^F	Move right one word
F1	Help
^G	Delete character at cursor
^H	Delete previous character
^Home	Move to beginning of file
^I	Insert tab
^K	Accept all answers in dialog box
^K	Block and Save Menu
^K\	Create fax file
^K]	Copy to Clipboard
^K[	Copy from Clipboard
^K"	Convert block to uppercase
^K'	Convert block to lowercase
^K.	Convert block to sentence case
^K?	Word/byte count of block or file
^K<	Unmark block

COMMAND	DESCRIPTION
^K*n* (0-9)	Insert place marker
^KA	Copy block between windows
^KB	Beginning block marker
^KC	Copy block
^KD	Save file, go to Opening Menu
^KE	Rename a file
^KF	Run a DOS command
^KG	Move block between windows
^KH	Display/hide block/place markers
^KI	Column replace mode on/off
^KJ	Delete a file
^KK	Ending block marker
^KL	Change logged drive/directory
^KM	Block math
^KN	Column mode on/off
^KO	Copy a file
^KP	Print a file
^KQ	Exit file and abandon changes
^KR	Insert file into document
^KS	Save file and resume editing
^KT	Save and name file
^KU	Mark previous block
^KV	Move block
^KW	Write block to file
^KX	Save file and exit WordStar
^KY	Delete block
^KZ	Sort block

COMMANDS FROM THE CLASSIC EDIT MENU *(Continued)*

COMMAND	DESCRIPTION
^L	Repeat previous find/replace
^Left Arrow	Move left one word
^M	Macro Menu
^M!	Insert time
^M#	Insert math expression
^M$	Insert last math result as dollar amount
^M*	Insert current filename
^M.	Insert current directory
^M:	Insert current drive name
^M=	Insert last math result
^M@	Insert today's date
^M\	Insert current path and filename
^MD	Edit/Create macro
^ME	Rename macro
^MO	Copy macro
^MP	Play macro
^MR	Record macro
^MS	Single step
^MY	Delete macro
^N	Insert blank line
^O	Onscreen Format Menu
^O?	Display status screen
^O]	Right-align line
^O#	Page number
^O↵	Enter closes dialog box
^OA	Auto align text
^OB	Change screen settings
^OC	Center line
^OD	Command tags on/off
^OE	Soft hyphen
^OF	Paragraph Style Menu
^OFD	Create/edit paragraph style
^OFE	Rename a document paragraph style
^OFO	Copy paragraph style to library
^OFP	Revert to previous paragraph style
^OFR	Rename a library paragraph style
^OFS	Select paragraph style
^OFV	View a paragraph style
^OFY	Delete library paragraph style
^OG	Temporary indent
^OH	Auto-hyphenation on/off
^OI	Tab settings
^OJ	Justification on/off
^OK	Open/switch window
^OL	Left margin
^OM	Size current window
^ON	Notes Menu
^ONA	Create annotation
^ONC	Comments (nonprinting)
^OND	View/edit notes/index entries
^ONE	Create endnote

COMMANDS FROM THE CLASSIC EDIT MENU *(Continued)*

COMMAND	DESCRIPTION
^ONF	Create footnote
^ONG	Find note
^ONI	Index entry
^ONL	Check spelling in notes
^ONN	Change note number
^ONU	Reformat text in notes
^ONV	Convert notes
^OO	Ruler to text
^OP	Page preview
^OR	Right margin
^OS	Line spacing
^OU	Columns (newspaper-style)
^OV	Center text vertically
^OW	Word wrap on/off
^OX	Margin release
^OY	Page layout
^OZ	Paragraph numbering
^P	Enter control characters in dialog boxes
^P	Print Controls Menu
^P!	Custom printer code
^P&	Start Inset
^P*	Insert graphic
^P-	Change color/shading
^P.	Insert dot leaders to tab
^P=	Change font
^P?	Change printer
^P↵	Overprint line
^P0	Insert extended character
^PA	Alternate font
^PB	Bold on/off
^PC	Pause print
^PD	Double Strike on/off
^PE	Custom printer code
^PF	Phantom space
^PG	Phantom rubout
^PgDn	Scroll down a line
^PgUp	Scroll up a line
^PH	Overprint character
^PI	Tab (8-column)
^PJ	Line feed
^PK	Index entry on/off
^PL	Form feed
^PM	Carriage return
^PN	Normal font
^PO	Binding space
^PQ	Custom printer code
^PR	Custom printer code
^PS	Underline on/off
^PT	Superscript on/off
^PV	Subscript on/off
^PW	Custom printer code
^PX	Strikeout on/off
^PY	Italic on/off
^Q	Quick Menu

COMMANDS FROM THE CLASSIC EDIT MENU (Continued)

COMMAND	DESCRIPTION
^Q=	Go to font tag
^Q<	Go to style tag
^Q*n* (0-9)	Find marker
^QA	Find and replace characters
^QB	Move to block beginning
^QC	Move to end of file
^QD	Move to end of line
^QDel	Delete line left of cursor
^QE	Move to beginning of screen
^QF	Find characters
^QG*n*	Go to next occurrence of character *n*
^QG↵	Go to end of paragraph
^QH*n*	Go to previous occurrence of character *n*
^QI#	Go to page/line number
^QJ	Thesaurus
^QK	Move to block end
^QL	Check spelling in rest of file
^QM	Calculator
^QN	Check spelling of word in text
^QO	Check spelling of word you enter
^QP	Go to previous position
^QQ*n*	Repeat keystroke *n*
^QR	Move to beginning of file

COMMAND	DESCRIPTION
^QS	Move to beginning of line
^QT*n*	Delete to *n*
^QU	Reformat rest of file
^QV	Go to most recent find/replace or block
^QW	Scroll up continuously, one line at a time
^QX	Move to end of screen
^QY	Delete line right of cursor
^QZ	Scroll down continuously, one line at a time
^R	Repeat last answer at prompt
^R	Scroll up one screen
^Right Arrow	Move right one word
^S	Move left one character
^T	Delete word
^U	Abandon changes (dialog box)
^U	Undo last deletion
^V	Insert on/off
^W	Scroll file directory
^W	Scroll up one line
^X	Move cursor down one line
^Y	Delete line
^Z	Scroll down a line
^Z	Scroll file directory

DOT COMMANDS

COMMAND	DESCRIPTION
..	Unprinted comment
.av *varname*	Ask for variable
.aw on/off	Auto word wrap
.bn *n*	Sheet feeder tray
.bp on/off	Bidirectional printing
.cb	Column break
.cc *n*	Conditional column break (*n*=number of lines)
.co *n,m*	Columns (*n*=number, *m*=gutter size)
.cp *n*	Conditional page break (n=number of lines)
.cs	Clear screen for messages while printing
.cvc>e	Print comment as endnote
.cvc>f	Print comment as footnote
.cve>f	Print endnote as footnote
.cvf>e	Print footnote as endnote
.cw *n*	Character width (n/120)
.df *filename*	Data file (merge printing)
.dm *message*	Display message at print time
.e# *n*	Endnote starting value
.ei	End If condition
.el	Else condition
.f# *n*	Footnote starting value
.f*n* (1–5)	Footer(s)
.fi *filename*	Insert file at print time
.fm *n*	Footer margin
.f*ne/o*	Footer on even or odd pages

COMMAND	DESCRIPTION
.fo	Footer
.go top/bottom	Skip to top/bottom
.h*n* (1–5)	Header(s)
.he	Header
.hm *n*	Header margin
.h*ne/o*	Header on even or odd pages
.hy on/off	Hyphenation on/off
.if *condition*	If condition
.ig	Unprinted comment
.ix	Index entry
.kr on/off	Kerning
.l# d	Line numbering continuous throughout document
.l# p	Line numbering restarted on each page
.l# d/p *n*	Line number spacing
.l# d/p *n,n*	Place line number n columns to left of column 1
.l# 0	Turn off line numbering
.la *ccc*	Language change (*ccc*=country code)
.lh a	Line height automatic leading
.lh *n*	Line height
.lm *n*	Left margin
.ls *n*	Line spacing
.ma *expression*	Set variable to result of expression
.mb *n*	Bottom margin
.mt *n*	Top margin

DOT COMMANDS (Continued)

COMMAND	DESCRIPTION
.oc on/off	Center line(s)
.oj on/off	Justification
.ojc	Center line(s)
.ojr	Right align
.op	Omit page number
.p# *n*	Starting number for paragraph numbers
.p# *n,x.x.x...* *-or-* .p# *,x.x.x...*	Style for paragraph numbers **Options for *x*:** Z Uppercase letters z Lowercase letters I Uppercase roman numerals i Lowercase roman numerals 9 Numbers starting with 0 1 Numbers starting with 1
.p#,,c	Switch from outline to compound numbering
.p#,,o	Switch from compound to outline numbering
.pa	Page break
.pc *n*	Page number position (0 = center)
.pe	Endnote print position
.pf on/off/dis	Reformat at print time
.pg	Default page numbering on
.pl *n*	Page length
.pm *n*	Paragraph margin
.pn *n*	Page number
.po e/o *n*	Page offset (even/odd pages)

COMMAND	DESCRIPTION
.pr or=l/p	Landscape/portrait orientation
.ps on/off/dis	Proportional spacing
.rm *n*	Right margin
.rp *n*	Repeat printing
.rr	Ruler line
.rv	Read variable(s)
.rv*	Read field/dBASE/spreadsheet variable
.rv+	Read variable(s), combine with next .rv
.sb on/off	Suppress blank lines at top of page
.sr *n*	Subscript/superscript roll
.sv	Set variable
.tb *n*	Tab settings
.tb #*n*	Decimal tab
.tc	Table of contents entry
.tc1–9	Entries for additional table of contents
.uj on/off/dis	Microjustification
.ul on/off	Underline spaces between words
.xe hex code	Custom printer code define
.xl hex code	Form feed define
.xq hex code	Custom printer code define
.xr hex code	Custom printer code define
.xw hex code	Custom printer code define
.xx character	Strikeout define

COMMANDS FROM THE PULL-DOWN OPENING SCREEN

DESCRIPTIONS	KEYSTROKES
FILE MENU (F)	
Open New	F,W
Open Document	F,D
Open Nondocument	F,N
Print	F,P
Print from Keyboard	F,K
Fax	F,F
Copy	F,O
Delete	F,T
Rename	F,E
Protect/Unprotect	F,C
Change Drive/Directory	F,V
Change Files Displayed	F,H
Run DOS Command	F,R
Status	F,U
Exit WordStar	F,X
UTILITIES MENU (U)	
Index	U,I
TOC	U,T
Macros	U,M
ADDITIONAL MENU (A)	
MailList	A,M
TelMerge	A,T
Star Exchange	A,S
HELP MENU (H)	
Help	H,H
Change Help Level	H,C

COMMANDS FROM THE PULL-DOWN EDITING SCREEN

DESCRIPTIONS	KEYSTROKES
FILE MENU (ALT+F)	
Open/Switch	Alt+F,W
Close	Alt+F,C
Save	Alt+F,S
Save As	Alt+F,A
Save and Close	Alt+F,L
Print	Alt+F,P
Fax	Alt+F,F
Change Printer	Alt+F,H
Copy	Alt+F,O
Delete	Alt+F,T
Rename	Alt+F,E
Change Drive/Directory	Alt+F,V
Run DOS Command	Alt+F,R
Status	Alt+F,U
Exit WordStar	Alt+F,X

COMMANDS FROM THE PULL-DOWN EDITING SCREEN (*Continued*)

DESCRIPTIONS	KEYSTROKES
EDIT MENU (ALT+E)	
Undo	Alt+E,U
Mark Block Beginning	Alt+E,B
Mark Block End	Alt+E,E
Move	Alt+E,V
Move-Block	Alt+E,V,B
Move-Block from Other Window	Alt+E,V,O
Copy	Alt+E,C
Copy-Block	Alt+E,C,B
Copy-Block from Other Window	Alt+E,C,O
Copy-From Windows Clipboard	Alt+E,C,F
Copy-To Windows Clipboard	Alt+E,C,T
Copy-To Another File	Alt+E,C,A
Delete	Alt+E,D
Delete-Block	Alt+E,D,B
Delete-Word	Alt+E,D,W
Delete-Line	Alt+E,D,L
Delete-Line Left of Cursor	Alt+E,D,I
Delete-Line Right of Cursor	Alt+E,D,R
Delete-To Character	Alt+E,D,T
Mark Previous Block	Alt+E,K
Find	Alt+E,F
Find and Replace	Alt+E,R
Next Find	Alt+E,X
Go to Character	Alt+E,G
Go to Page	Alt+E,P
Go to Marker	Alt+E,M

DESCRIPTIONS	KEYSTROKES
Go to Marker-*n* (0 to 9)	Alt+E,M,*n* (0 to 9)
Go to Other	Alt+E,O
Go to Other-Font Tag	Alt+E,O,F
Go to Other-Style Tag	Alt+E,O,T
Go to Other-Note	Alt+E,O,N
Go to Other-Previous Position	Alt+E,O,P
Go to Other-Last Find/Replace	Alt+E,O,L
Go to Other-Beginning of Block	Alt+E,O,B
Go to Other-End of Block	Alt+E,O,E
Go to Other-Document Beginning	Alt+E,O,D
Go to Other-Document End	Alt+E,O,O
Go to Other-Scroll Continuously Up	Alt+E,O,U
Go to Other-Scroll Continuously Down	Alt+E,O,S
Set Marker	Alt+E,S
Set Marker-*n* (0 to 9)	Alt+E,S,*n* (0 to 9)
Edit Note	Alt+E,N
Note Options	Alt+E,T
Note Options-Starting Number for Note	Alt+E,T,S
Note Options-Convert Note	Alt+E,T,C
Note Options-Convert at Print	Alt+E,T,P
Note Options-Endnote Location	Alt+E,T,E
Editing Settings	Alt+E,I
Editing Settings-Column Block Mode	Alt+E,I,C

COMMANDS FROM THE PULL-DOWN EDITING SCREEN *(Continued)*

DESCRIPTIONS	KEYSTROKES
Editing Settings-Column Replace Mode	Alt+E,I,R
Editing Settings-Auto Align	Alt+E,I,A
Editing Settings-Closes Dialog	Alt+E,I,D

VIEW MENU

DESCRIPTIONS	KEYSTROKES
Preview	Alt+V,P
Command Tags	Alt+V,C
Block Highlighting	Alt+V,B
Open/Switch Window	Alt+V,O
Change Window Size	Alt+V,W
Screen Settings	Alt+V,S

INSERT MENU

DESCRIPTIONS	KEYSTROKES
Page Break	Alt+I,P
Column Break	Alt+I,C
Today's Date Value	Alt+I,T
Other Value	Alt+I,A
Other Value-Current Time	Alt+I,A,T
Other Value-Last Math Result	Alt+I,A,M
Other Value-Last Math Expression	Alt+I,A,E
Other Value-Last Math, as Dollar	Alt+I,A,L
Other Value-Current Filename	Alt+I,A,F
Other Value-Current Drive	Alt+I,A,D
Other Value-Current Directory	Alt+I,A,I
Other Value-Current Path	Alt+I,A,A
Variable	Alt+I,V
Variable-Date	Alt+I,V,D
Variable-Time	Alt+I,V,T
Variable-Page	Alt+I,V,P
Variable-Line	Alt+I,V,L
Variable-Filename	Alt+I,V,F
Variable-Drive	Alt+I,V,D
Variable-Directory	Alt+I,V,I
Variable-Path	Alt+I,V,A
Extended Character	Alt+I,E
Custom Printer Code	Alt+I,U
Custom Printer Code-*n* (1 to 6)	Alt+I,U,*n* (1 to 6)
Custom Printer Code-Other	Alt+I,U,O
File	Alt+I,F
File at Print Time	Alt+I,L
Graphic	Alt+I,G
Note	Alt+I,N
Note-Comment	Alt+I,N,C
Note-Footnote	Alt+I,N,F
Note-Endnote	Alt+I,N,E
Note-Annotation	Alt+I,N,A
Index/TOC Entry	Alt+I,I
Index/TOC Entry-TOC Entry	Alt+I,I,T
Index/TOC Entry-Index Entry	Alt+I,I,I
Index/TOC Entry-Mark Text for Index	Alt+I,I,M
Index/TOC Entry-Dot Leader to Tab	Alt+I,I,D
Paragraph Outline Number	Alt+I,O
Change Printer Codes	Alt+I,H

COMMANDS FROM THE PULL-DOWN EDITING SCREEN *(Continued)*

DESCRIPTIONS	KEYSTROKES
STYLE MENU	
Bold	Alt+S,B
Italic	Alt+S,I
Underline	Alt+S,U
Font	Alt+S,F
Other	Alt+S,O
Other-Strikeout	Alt+S,O,S
Other-Subscript	Alt+S,O,B
Other-Superscript	Alt+S,O,P
Other-Double Strike	Alt+S,O,D
Other-Color/Shading	Alt+S,O,C
Select Paragraph Style	Alt+S,S
Return to Previous Style	Alt+S,R
Define Paragraph Style	Alt+S,D
Manage Paragraph Styles	Alt+S,M
Manage Paragraph Styles-Copy Style to Library	Alt+S,M,C
Manage Paragraph Styles-Delete Library Style	Alt+S,M,D
Manage Paragraph Styles-Rename Library Style	Alt+S,M,R
Manage Paragraph Styles-Rename Document Style	Alt+S,M,E
Convert Case	Alt+S,C
Uppercase	Alt+S,C,U
Lowercase	Alt+S,C,L
Sentence Case	Alt+S,C,S
Settings	Alt+S,E

DESCRIPTIONS	KEYSTROKES
LAYOUT MENU	
Center Line	Alt+L,C
Right Align Line	Alt+L,I
Ruler Line	Alt+L,R
Columns	Alt+L,O
Page	Alt+L,P
Headers/Footers	Alt+L,H
Headers/Footers-Header	Alt+L,H,H
Headers/Footers-Footer	Alt+L,H,F
Page Numbering	Alt+L,N
Line Numbering	Alt+L,L
Alignment and Spacing	Alt+L,A
Special Effects	Alt+L,E
Special Effects-Overprint Character	Alt+L,E,C
Special Effects-Overprint Line	Alt+L,E,L
Special Effects-Optional Hyphen	Alt+L,E,H
Special Effects-Vertically Center Text on Page	Alt+L,E,V
Special Effects-Keep Words Together on Line	Alt+L,E,K
Special Effects-Keep Lines Together on Page	Alt+L,E,P
Special Effects-Keep Lines Together in Column	Alt+L,E,O
UTILITIES MENU	
Spelling Check Global	Alt+U,S
Spelling Check Other	Alt+U,O

COMMANDS FROM THE PULL-DOWN EDITING SCREEN (Continued)

DESCRIPTIONS	KEYSTROKES
Spelling Check Other-Rest of Document	Alt+U,O,R
Spelling Check Other-Word	Alt+U,O,W
Spelling Check Other-Type Word	Alt+U,O,T
Spelling Check Other-Rest of Notes	Alt+U,O,N
Thesaurus	Alt+U,T
Language Change	Alt+U,L
Inset	Alt+U,I
Calculator	Alt+U,C
Block Math	Alt+U,B
Sort Block	Alt+U,K
Sort Block-Ascending	Alt+U,K,A
Sort Block-Descending	Alt+U,K,D
Word Count	Alt+U,W
Macros	Alt+U,M
Macros-Play	Alt+U,M,P
Macros-Record	Alt+U,M,R
Macros-Edit/Create	Alt+U,M,E
Macros-Single Step	Alt+U,M,S
Macros-Copy	Alt+U,M,C
Macros-Delete	Alt+U,M,D
Macros-Rename	Alt+U,M,N
Merge Print Commands	Alt+U,P
Merge Print Commands-Data File	Alt+U,P,D
Merge Print Commands-Name Variables	Alt+U,P,N

DESCRIPTIONS	KEYSTROKES
Merge Print Commands-Set Variable	Alt+U,P,S
Merge Print Commands-Set Variable to Math Result	Alt+U,P,V
Merge Print Commands-Ask for Variable	Alt+U,P,A
Merge Print Commands-If	Alt+U,P,I
Merge Print Commands-Else	Alt+U,P,L
Merge Print Commands-End If	Alt+U,P,E
Merge Print Commands-Go to Top of Document	Alt+U,P,T
Merge Print Commands-Go to Bottom of Document	Alt+U,P,B
Merge Print Commands-Clear Screen While Printing	Alt+U,P,C
Merge Print Commands-Display Message	Alt+U,P,M
Merge Print Commands-Print File *n* Times	Alt+U,P,R
Reformat	Alt+U,R
Reformat-Rest of Document	Alt+U,R,R
Reformat-Paragraph	Alt+U,R,P
Reformat-Rest of Notes	Alt+U,R,N
Repeat Next Keystroke	Alt+U,E
HELP MENU	
Help	Alt+H,H
Change Help Level	Alt+H,C

COMMANDS FROM THE SYSTEM PROMPT

To use the following commands, your DOS path should include the WordStar directory. If it doesn't, you need to log on to that directory.

COMMAND	DESCRIPTION
ws	Starts WordStar and goes to the Opening Menu.
ws *filename*	Starts WordStar and opens the file *filename* in document mode unless the default has been changed to nondocument.
ws *filename* /n	Starts WordStar and opens the file *filename* in nondocument mode.
ws *filename* /d	Starts WordStar and opens the file *filename* in document mode.
ws *filename* /s	Starts WordStar and opens a new file with no filename.
ws *filename* /p	Starts WordStar and prints the file *filename*.
ws *filename* /x	Starts WordStar, opens the file, and exits WordStar upon returning to the Opening screen. (Use x with another option; see next example.)
ws *filename* /p /x	Starts WordStar, prints the file *filename*, and exits to DOS.
ws *filename* /o *nnn*	Starts WordStar, opens the file, and goes to the decimal location *nnn*.
ws *filename* /h*n*	Starts WordStar, opens the file, and sets the help level at *n*.
ws *filename* /m *macroname*	Executes the named macro from inside the file *filename*.
ws /m *macroname*	Plays the named macro from the Opening screen.

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A1-C2030

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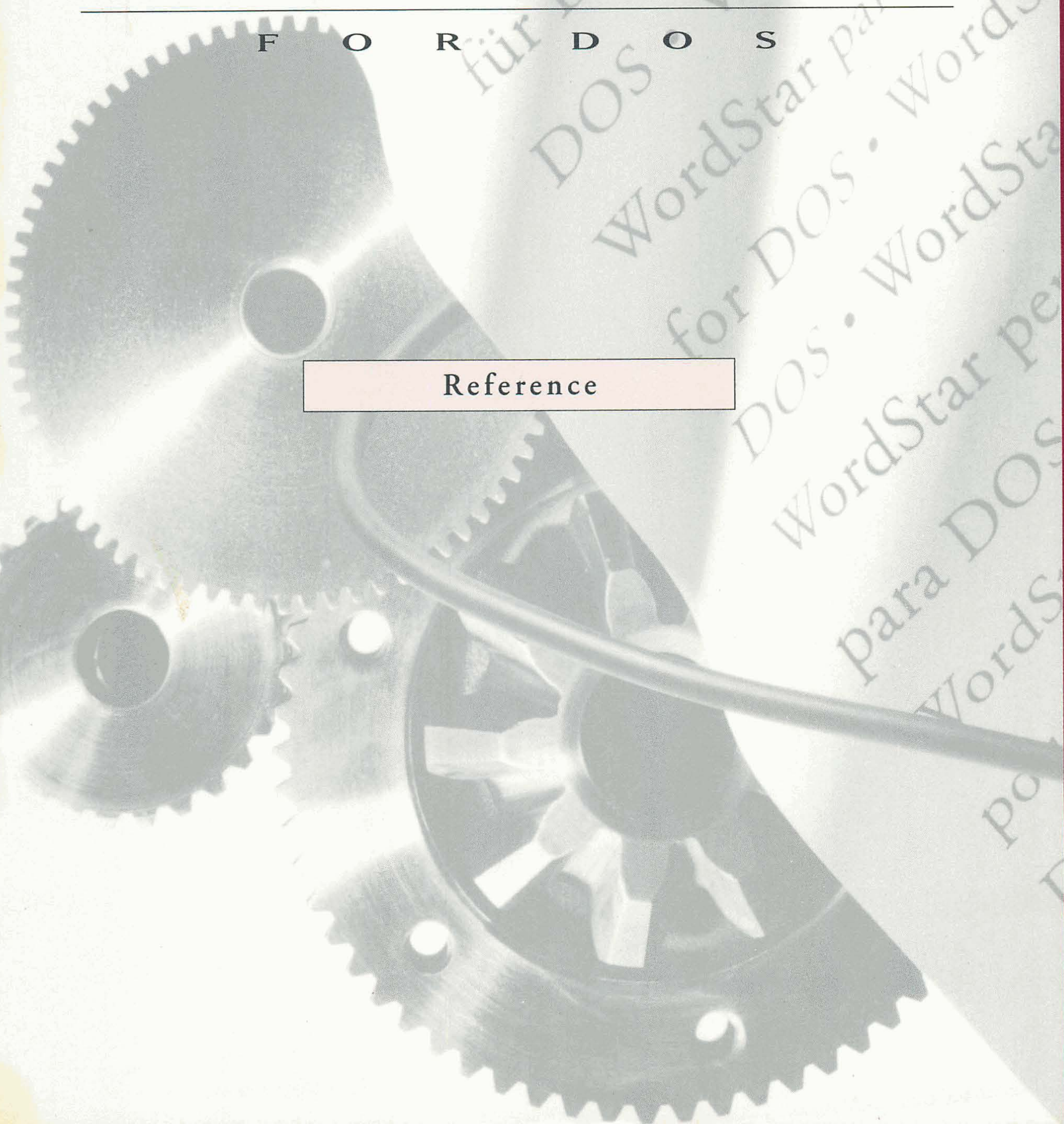
FOR DOS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Version 7.0

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CHAPTER 1

WORDSTAR BASICS

"WordStar Basics" describes the organization and conventions used in this manual. It also presents an overview of the WordStar menus and commands, cursor movement, and mouse support.

The procedures in this manual assume that you've installed WordStar following the instructions in the *Installing and Customizing* booklet, and that the default settings are in effect. If you've changed any default settings, you can adapt the instructions to your settings.

HOW TO USE THIS MANUAL

The *Reference* manual gives detailed explanations of features, functions, and commands available in WordStar, organized by commands on the pull-down menus. Each chapter describes the commands on one pull-down menu, in the order they appear on the menu. For example, Chapter 2 describes each command on the File menu, which is the first menu on the Opening menu bar.

You can enter each command in several ways. "Menus and Commands" in this chapter describes in detail how to enter commands. The heading for each command in this manual includes the corresponding Alt key shortcut followed by the equivalent classic command.

If you don't know what command performs the function you want, or if you don't use pull-down menus, you can easily find any feature by using the subject index and the command index (which contains all the classic commands).

KEYBOARD CONVENTIONS

This manual uses several conventions to describe commands you enter from the keyboard.

The arrow symbol (→) points to the next item you choose on a pull-down menu or in a dialog box. For example, File→Copy means to choose the File menu and then choose Copy from the menu. Following the pull-down command, the equivalent classic command is shown.

Alt+*KEY* means to hold down the Alt key and press another key.

Alt+*KEY1,KEY2* means to hold down the Alt key while you press *KEY1*. Then you can release the Alt key or keep it depressed and press *KEY2*.

^*KEY* means to hold down the Ctrl (^) key while you press the key assigned to the command.

^*KEY1 KEY2* means to hold down the Ctrl (^) key while you press the first key, and then press the second key. (It doesn't matter whether or not you are still pressing the Ctrl key when you press the second key.)

STARTING WORDSTAR

To start WordStar, at the system prompt, type **ws** and press Enter. The first screen that appears shows the version number, serial number, copyright notice, and the names of your computer and printer. Then the Opening screen appears, and you can choose a command from one of the menus.

MENUS AND COMMANDS

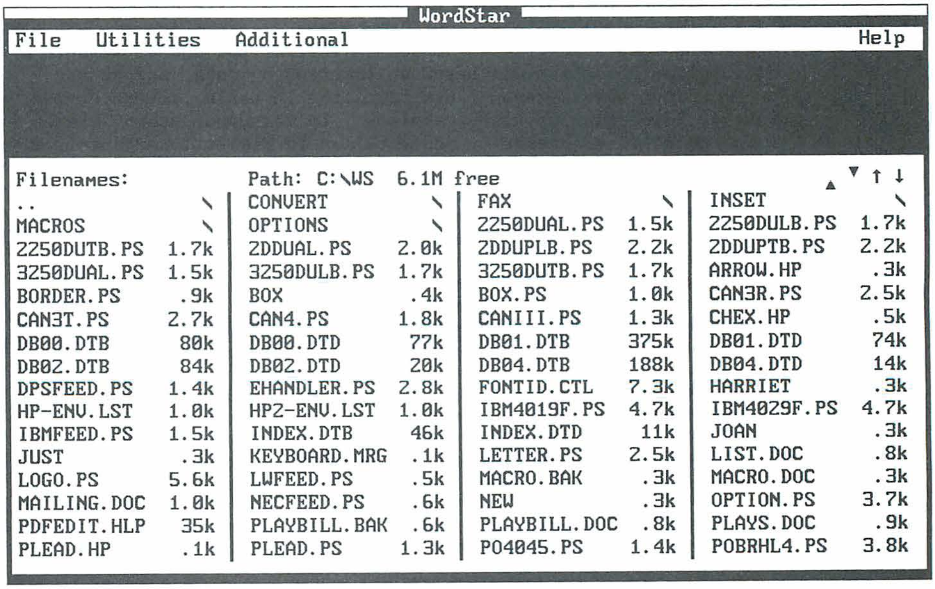
WordStar has two complete sets of menus. They are pull-down menus and classic menus. The commands on both sets of menus perform the same tasks, using different keystrokes.

HELP LEVELS

The help level setting determines which menus WordStar displays. Pull-down menus (help level 4) are the default. You can change between pull-down and classic menus, and change the way classic menus are displayed, by choosing Help→Change Help Level, or (except in help level 4) by pressing F1 F1. For a complete description of the five help levels, see "Change Help Level" in the "Opening Screen Help Menu" chapter.

PULL-DOWN MENUS AND COMMANDS

At help level 4, the default setting, the menu bar at the top of the Opening and Edit screens displays the menus available at that screen.



menu bar →

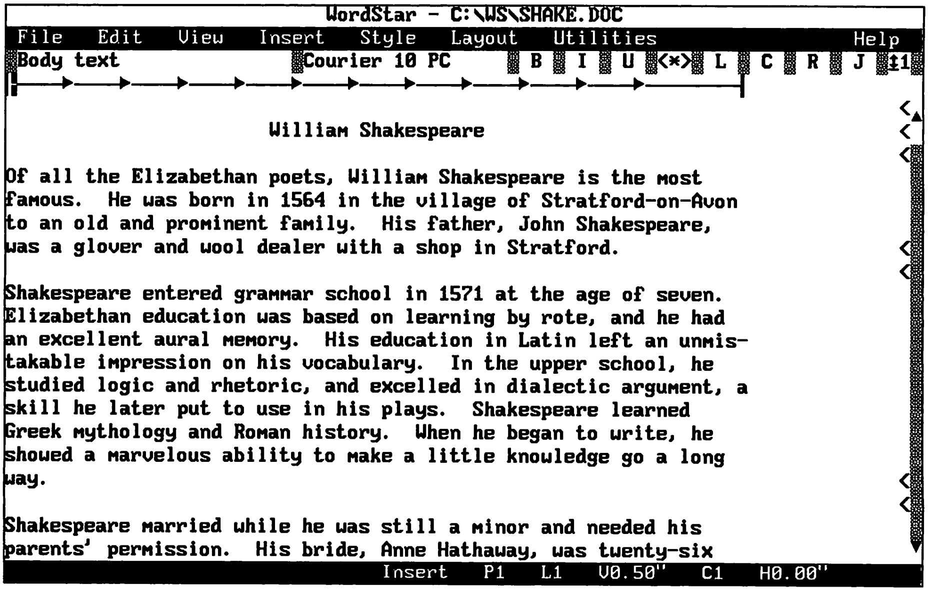
```
Filenames:           Path: C:\WS   6.1M free                           ▲ ▼ ↑ ↓
..               \ | CONVERT          \ | FAX              \ | INSET            \
MACROS           \ | OPTIONS          \ | 2250DUAL.PS   1.5k | 2250DULB.PS   1.7k
2250DUTB.PS   1.7k | 2DDUAL.PS     2.0k | 2DDUPLB.PS    2.2k | 2DDUPTB.PS    2.2k
3250DUAL.PS   1.5k | 3250DULB.PS   1.7k | 3250DUTB.PS   1.7k | ARROW.HP       .3k
BORDER.PS      .9k | BOX            .4k | BOX.PS        1.0k | CAN3R.PS      2.5k
CAN3T.PS      2.7k | CAN4.PS       1.8k | CANIII.PS     1.3k | CHEX.HP        .5k
DB00.DTB       80k | DB00.DTD       77k | DB01.DTB      375k | DB01.DTD       74k
DB02.DTB       84k | DB02.DTD       20k | DB04.DTB      188k | DB04.DTD       14k
DPSFEED.PS    1.4k | EHANDLER.PS   2.8k | FONTID.CTL    7.3k | HARRIET        .3k
HP-ENV.LST    1.0k | HP2-ENV.LST   1.0k | IBM4019F.PS   4.7k | IBM4029F.PS   4.7k
IBMFEED.PS    1.5k | INDEX.DTB      46k | INDEX.DTD      11k | JOAN           .3k
JUST           .3k | KEYBOARD.MRG   .1k | LETTER.PS     2.5k | LIST.DOC       .8k
LOGO.PS       5.6k | LWFEED.PS      .5k | MACRO.BAK      .3k | MACRO.DOC      .3k
MAILING.DOC   1.0k | NECFEED.PS     .6k | NEW            .3k | OPTION.PS     3.7k
PDFEDIT.HLP    35k | PLAYBILL.BAK   .6k | PLAYBILL.DOC   .8k | PLAYS.DOC      .9k
PLEAD.HP       .1k | PLEAD.PS      1.3k | P04045.PS     1.4k | POBRHL4.PS    3.8k
```

To display a menu at the Opening screen in help level 4, press the first letter of the menu name or, if you have a mouse, click the name. You can move between menus using the Right and Left Arrow keys, ^S and ^D, or a mouse. To choose a command on a menu, press the highlighted or underlined character (depending on what type of monitor you have) or click the command.

A ▶ symbol to the right of a command name indicates that the command displays a submenu. To display the submenu, choose the command or press the Right Arrow key or ^D. To return to the menu, press the Left Arrow key or ^S.

Three dots (...) to the right of a command name indicate that the command displays a dialog box.

When you're editing a file, you work at the Editing screen.



William Shakespeare

Of all the Elizabethan poets, William Shakespeare is the most famous. He was born in 1564 in the village of Stratford-on-Avon to an old and prominent family. His father, John Shakespeare, was a glover and wool dealer with a shop in Stratford.

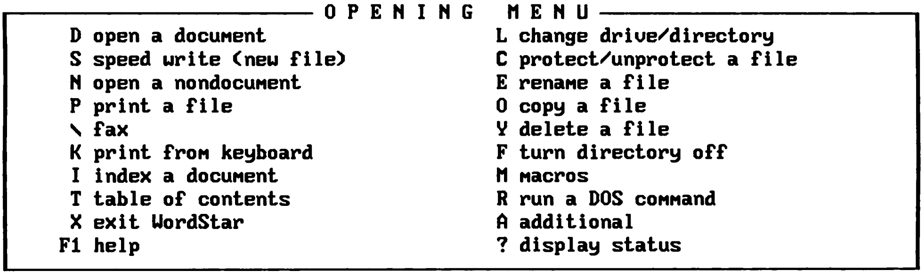
Shakespeare entered grammar school in 1571 at the age of seven. Elizabethan education was based on learning by rote, and he had an excellent aural memory. His education in Latin left an unmistakable impression on his vocabulary. In the upper school, he studied logic and rhetoric, and excelled in dialectic argument, a skill he later put to use in his plays. Shakespeare learned Greek mythology and Roman history. When he began to write, he showed a marvelous ability to make a little knowledge go a long way.

Shakespeare married while he was still a minor and needed his parents' permission. His bride, Anne Hathaway, was twenty-six

To display a menu at the Editing screen in help level 4, press Alt and the first letter of the menu name. When the menu appears, you choose a command by pressing the highlighted or underlined character (depending on what type of monitor you have) or by clicking the command name.

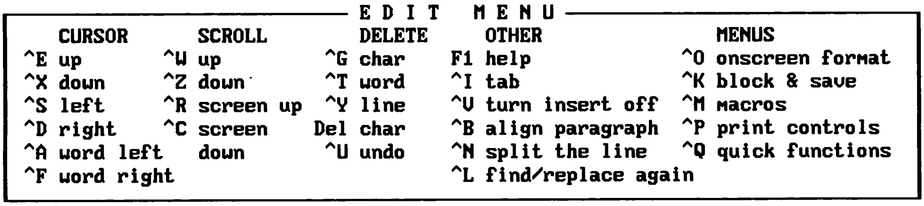
CLASSIC MENUS AND COMMANDS

When the help level is set at 1, 2, or 3, the classic Opening Menu appears when you start WordStar. The pull-down menus don't appear. The Opening Menu lists commands for such operations as editing, printing, and deleting files. To use a command, press the highlighted character.



```
O P E N I N G   M E N U
   D open a document                L change drive/directory
   S speed write (new file)         C protect/unprotect a file
   N open a nondocument             E rename a file
   P print a file                   O copy a file
   \ fax                            Y delete a file
   K print from keyboard            F turn directory off
   I index a document               M macros
   T table of contents              R run a DOS command
   X exit WordStar                  A additional
  F1 help                           ? display status
```

When you open a file, the classic Edit Menu appears. It contains basic editing commands, including the commands to display the other classic menus.



```
E D I T   M E N U
   CURSOR       SCROLL          DELETE     OTHER                MENUS
^E up        ^W up           ^G char    F1 help              ^O onscreen format
^X down      ^Z down         ^T word    ^I tab               ^K block & save
^S left      ^R screen up    ^Y line    ^V turn insert off   ^M macros
^D right     ^C screen      Del char    ^B align paragraph   ^P print controls
^A word left    down         ^U undo    ^N split the line    ^Q quick functions
^F word right                           ^L find/replace again
```

To see the classic menus in help levels 2, 3, or 4, hold down the Ctrl key and press the command for the menu you want. You can choose any command on the menu by pressing the appropriate character.

Classic commands work at all help levels, even if they're not displayed.

DISPLAYING CLASSIC COMMANDS AT PULL-DOWN MENUS

Some people who use classic commands like to use pull-down menus so that they can easily find a command that they don't remember. As a default, classic commands are shown next to the corresponding pull-down commands on the pull-down menus.

If you want to turn off the display of classic commands at the pull-down menus, choose View→Screen Settings, or use the ^OB classic command, and turn off the setting for Classic Commands on Pull-down Menus. Classic commands work at all help levels, even if they're not displayed.

To change the default setting for the display of classic commands on pull-down menus, use WSCHANGE, the WordStar customization program. See "Changing WordStar Settings in WSCHANGE" in the *Installing and Customizing* booklet.

DOT COMMANDS

WordStar commands include a number of dot commands. Sometimes a dot command is inserted into a document when you make a choice at a menu or dialog box. You can also type a dot command directly into a document.

A dot command begins with a period, which is followed by the two-letter or three-letter command and whatever text or setting is required. The period must be in column 1 of the line, and the dot command must be on a line by itself. Dot commands are not part of the text, so they take up no real space in the document.

As a default, dot commands are shown in the document while you're editing. When you turn off Command Tags display (View→Command Tags or ^OD), they are not displayed except while you enter them. If you want to always display dot commands, choose View→Screen Settings, or use the ^OB classic command, and select Dot Commands: Always On.

WordStar assumes that any line that begins with a period is a dot command line.

ONSCREEN HELP

Onscreen help is available for every command in WordStar. To get help at pull-down menus, press F1 or choose Help from the Help Menu.

To get help at classic menus, press F1 at the Opening Menu, and then press the command you want help with. To get help while editing a document, press F1, and then press the command you want help with. To get help for an option in a dialog box, move the cursor to the option and press F1.

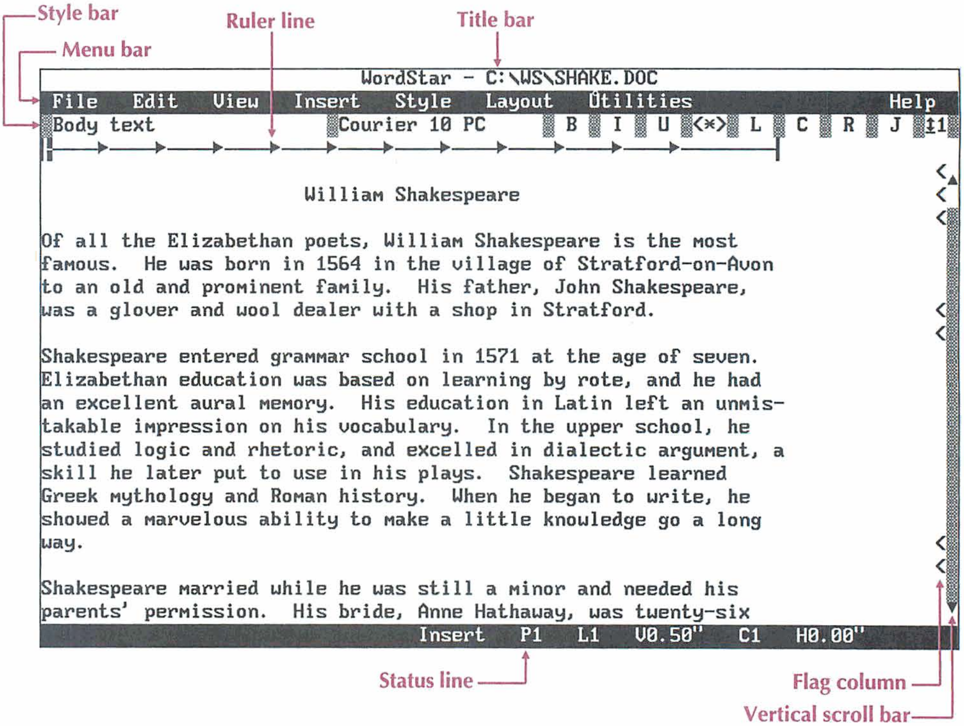
SCREENS AND DIALOG BOXES

The following sections describe the elements that appear on the WordStar screens.

THE EDITING SCREEN

You create and edit your documents at the Editing screen. The Editing screen can include several screen elements, including menus and other information. If you want more space on the screen for editing, you can use the WSCHANGE customization program to remove most of the Editing screen elements (for information about WSCHANGE, see the *Installing and Customizing* booklet). You can also turn on and off the display of the scroll bar, style bar, status line, and ruler line by choosing View→Screen Settings or using the ^OB classic command.

The following illustration shows the Editing screen for help level 4 (pull-down menus). The parts of the screen are described below the illustration.



```
WordStar - C:\WS\SHAKE.DOC

                     William Shakespeare

Of all the Elizabethan poets, William Shakespeare is the most
famous.  He was born in 1564 in the village of Stratford-on-Avon
to an old and prominent family.  His father, John Shakespeare,
was a glover and wool dealer with a shop in Stratford.

Shakespeare entered grammar school in 1571 at the age of seven.
Elizabethan education was based on learning by rote, and he had
an excellent aural memory.  His education in Latin left an unmis-
takable impression on his vocabulary.  In the upper school, he
studied logic and rhetoric, and excelled in dialectic argument, a
skill he later put to use in his plays.  Shakespeare learned
Greek mythology and Roman history.  When he began to write, he
showed a marvelous ability to make a little knowledge go a long
way.

Shakespeare married while he was still a minor and needed his
parents' permission.  His bride, Anne Hathaway, was twenty-six
                              Insert   P1   L1   V0.50"   C1   H0.00"
```

THE TITLE BAR

The title bar shows the name and path of the file you're editing. If you have installed a mouse, the Close File button is at the left of the title bar. The command in progress is shown next to the Close File button. The title bar also shows messages such as *Printing* and *Replace Y/N*. If you have a second window open, the right side of the title bar shows the current window number and, if you have a mouse, a button to maximize/minimize window size.

THE MENU BAR

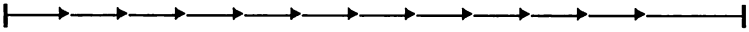
The menu bar displays the names of the pull-down menus.

THE STYLE BAR

The style bar shows information about current settings such as the paragraph style and font names. If you have a mouse, you can click any setting to select it or turn it on or off. From left to right, the settings are paragraph style, font name, bold, italic, underline, Command Tags display, alignment (left, center, right, or justify), and line spacing. You can move the style bar to the bottom of the screen using the WSCHANGE customization program. The style bar is not displayed in nondocument mode.

THE RULER LINE

The ruler line shows current margin and tab settings. The marker on the ruler line shows the position of the cursor on the page and moves as you move the cursor. The ruler line is not used in nondocument mode.



The initial ruler line settings in a document are those in the default paragraph style. The default settings are left margin at 0, right margin at 6.5 inches, and tab stops every .5 inch.

When you change the margin or tab settings in a document, the ruler line changes to show the new settings.

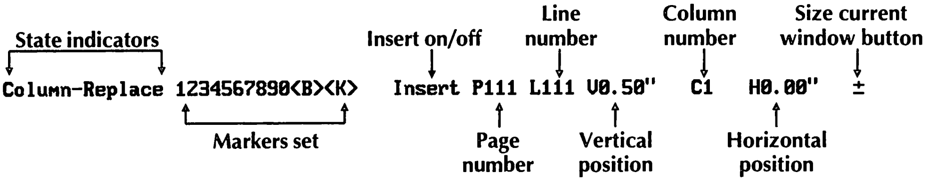
The ruler line can contain the following characters:

CHARACTER	**MEANING**
├	Left margin
┤	Right margin
¶	First line indent (paragraph margin)
▶	Tab stops
•	Decimal tabs
–	Space between margins and tabs
]	Temporary indent (^OG)

You can change margin and tab settings using paragraph styles or by choosing Layout→Ruler Line (or using the ^OL classic command). For more information, see "Ruler Line" in the "Editing Screen Layout Menu" chapter.

THE STATUS LINE

The status line shows the cursor location, messages, and warnings as shown in the following illustration. The status line is located at the bottom of the screen. You can move it to the top of the screen using the WordStar customization program WSCHANGE (DBA2B).



```
Column-Replace 1234567890<B><K>  Insert P111 L111 V0.50"  C1   H0.00"   ±
```

You can use a mouse with several status line options. You can click Insert to switch between Insert and Overtype. You can click the page number (for documents) or line number (for nondocuments) to display the Go to Page (or Line) dialog box, and you can click the beginning and end block markers and marker numbers to go to those locations.

THE VERTICAL SCROLL BAR

The vertical scroll bar lets you use a mouse to move around in a document. For more information, see "Moving the Cursor and Scrolling with a Mouse" in this chapter.

THE FLAG COLUMN

The flag column shows a flag character for each line to remind you of what is on the line. The flags and their meanings are listed below.

FLAG	MEANING
<	The line ends with a hard carriage return.
	A blank space means that the line ends with a soft carriage return produced by word wrap within a paragraph.
P	This is a page break; a new page begins below this line.
F	This line ends with a form feed produced by the ^PL command.
C	This is a column break.
^	The file ends on or above this line.
+	Text on this line extends beyond the right edge of the sceen.

FLAG	MEANING
.	The dot command on this line changes the onscreen format and the printout.
:	The dot command on this line changes only the printout.
?	The dot command on this line is not recognized by WordStar.
1	The dot command on this line changes the onscreen format and the printout; it works best if it's placed at the beginning of a page.
-	The line ends with a carriage return without a line feed; it will be overprinted by the next line.
J	The line ends with a line feed without a carriage return (produced by ^PJ); the next line may not begin at the left margin when printed.
W	This is the second window separator in nondocument mode.

DISPLAYING COMMAND TAGS

When you choose a WordStar command, WordStar often puts a command tag into your text. For example, **^B** appears at the beginning and end of bold text, and if you change the font, for example, to the Courier 10 font, the tag **<Courier 10.0>** is inserted.

Command tags and dot commands take up space on the screen and may make text appear out of alignment. You can choose View→Command Tags, or use the ^OD classic command, to remove these tags from the screen while you edit, and to display them again. (If you have a mouse, you can also click the [*] button on the style bar.) The commands remain in effect even when the tags aren't displayed.

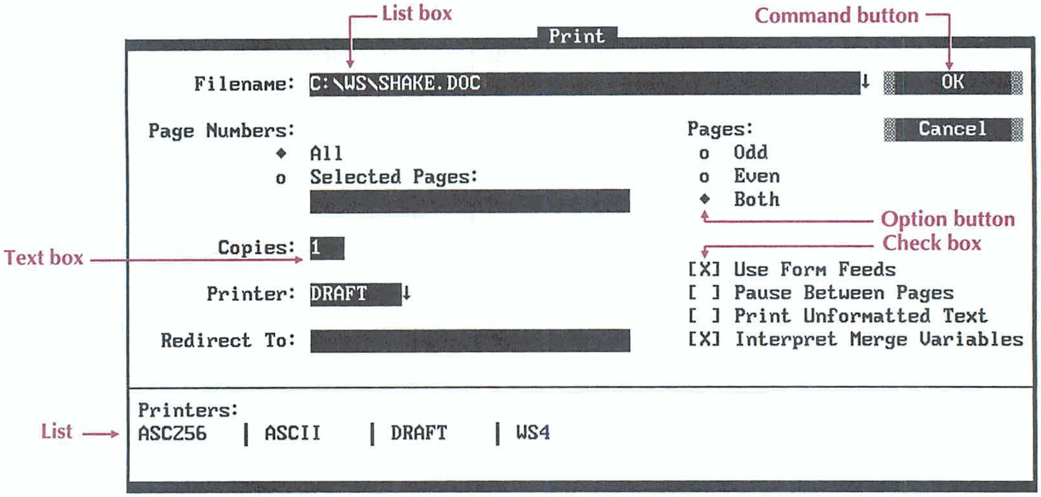
If you edit with Command Tags off, you may want to turn them on periodically to see what commands are active in the file. For example, it's a good idea to have Command Tags on before you delete, copy, or remove text, so that you can see what commands are included in the text.

For more information, see "Command Tags" in the "Editing Screen View Menu" chapter.

DIALOG BOXES

If WordStar needs more information to carry out a command, a dialog box appears. Each dialog box contains one or more areas where you fill in information or select settings.

The illustration below shows the Print dialog box.



```
                                 Print
      Filename: C:\WS\SHAKE.DOC                          ↓      OK

  Page Numbers:                                   Pages:       Cancel
            ◆  All                                 o  Odd
            o  Selected Pages:                     o  Even
                                                   ◆  Both

        Copies: 1                                 [X] Use Form Feeds
       Printer: DRAFT   ↓                         [ ] Pause Between Pages
                                                  [ ] Print Unformatted Text
   Redirect To:                                   [X] Interpret Merge Variables

 Printers:
 ASC256    | ASCII     | DRAFT     | WS4
```

The list of printers below the dialog box is displayed because the cursor is in the list box; whenever you move the cursor to a list box, the corresponding list appears below the dialog box. The list shows the available choices, for example, for filenames or fonts.

To move around in a dialog box, press the Tab key to move forward and Shift+Tab to move backward. To select an option directly, press Alt and the key for the highlighted or underlined character. You can also use a mouse to move around and select options. To change settings in a dialog box, use these procedures.

- In a list box, type a name, or press the Down Arrow key to move to the list and then use the Arrow keys to select a name from the list. You can use the ^R (Repeat) command to repeat the information you entered most recently.

- To select an option button, move to the button for the setting you want. A diamond shape indicates a selection. If you change your mind, you can press Alt and the highlighted or underlined character or use the Up or Down Arrow keys to move to another option button.
- To turn a check box setting on or off, move to the option and press the Spacebar. An X in the brackets indicates that the setting is on; empty brackets show an off setting. Once you select the option, you can also press the Plus (+) key to turn the option on and the Minus (–) key to turn it off.
- When you select an option with a text box, type the appropriate information, for example, the number of copies to print. (Some text boxes may not be long enough for the information you need to type; in this case, when you get to the end of the box, the information you typed scrolls to the left and you can keep typing.)

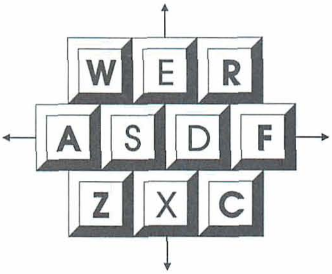
To save the settings and close the dialog box, press F10 or choose OK. (F10 enters the WordStar command ^K; you can use ^K and F10 interchangeably.) To cancel your choices, press Esc or tab to the Cancel button and press Enter or, if you have a mouse, click Cancel.

TIP If you prefer to use the Enter key instead of the Tab key to move between options, you can change this setting while editing by choosing Edit→Editing Settings→↵ Closes Dialog. When you use Enter to move between options, it doesn't close dialog boxes; use F10, ^K, or OK. You can also change this setting using the WINSTALL ***Change basic editing defaults*** *option.*

MOVING THE CURSOR AND SCROLLING

To move the cursor, you can use the direction keys located on the numeric keypad to the right of the regular keyboard or you can use WordStar commands. (For information about using a mouse to move around in a document, see "Using a Mouse.") The direction keys include the Arrow keys, the PgUp and PgDn keys, the Home key, and the End key.

The WordStar commands that move the cursor are called the cursor diamond because of the locations of the keys on the keyboard.



TO MOVE THE CURSOR	PRESS
Up one line	^E or ↑
Down one line	^X or ↓
Left one character	^S or ←
Right one character	^D or →
Left one word	^A or ^←
Right one word	^F or ^→
To column 1 in first onscreen line	^QE or Home
Beginning of file	^QR or ^Home
Right end of last onscreen line	^QX or End
End of file	^QC or ^End

Scrolling allows you to move another portion of the text onto the screen, either vertically or horizontally.

TO SCROLL	PRESS
Up one line	^W or ^PgUp
Down one line	^Z or ^PgDn
To previous screen	^R or PgUp
To next screen	^C or PgDn

For a complete list of cursor movement and scrolling commands, see *Quick Reference.*

USING A MOUSE

The *mouse pointer,* which is normally a rectangle, appears onscreen when a mouse is installed on your computer. The pointer does not appear in any companion program except Inset®. You can switch between the mouse and keyboard at any time.

If you would rather not use a mouse in WordStar, you can turn off mouse support in the WordStar customization program WSCHANGE (DCHA).

MOUSE CONVENTIONS IN WORDSTAR

Click means to point to an item and press the left mouse button.

Double-click means to point to an item and press the left mouse button twice in quick succession.

Drag means to hold down the left mouse button while you move the mouse, and then release the button.

Ctrl+Click means to hold down the Ctrl key and press the left mouse button.

Shift+Click means to hold down the Shift key and press the left mouse button.

Ctrl+Shift+Click means to hold down the Ctrl key and press the Shift key and the left mouse button.

MOVING THE CURSOR AND SCROLLING WITH A MOUSE

The vertical scroll bar, located along the right side of the screen, is for moving forward and backward in a document. The vertical scroll bar contains a *slider box* that indicates the relative position of the cursor in the file.

TO SCROLL TO	DO THIS IN VERTICAL SCROLL BAR
Previous line	Click ↑
Next line	Click ↓
Previous screen	Click above the slider box
Next Screen	Click below the slider box
Beginning of a document	Drag the slider box to the top
End of a document	Drag the slider box to the bottom
Approximate position in a document	Drag the slider box to the relative position in the file

WORDSTAR MOUSE SHORTCUTS

You can use these mouse shortcuts.

TO DO THIS	USE THIS MOUSE SHORTCUT
Change drive/directory at a filenames list	Double-click the directory
Open document	Double-click the document name
Close a document	Double-click the Close File button in the title bar
Go to page	Click the page number in the status line
Go to marker	Click the marker in the status line
Switch windows	Click in the window
Select setting on style bar	Click the button

When you're using Preview, you can also click on a button in the menu bar to do the same thing as pressing the corresponding key. You can also use the right mouse button as a shortcut to View→Adjust Window, and then drag or click the mouse to choose a window to view.

FUNCTION KEYS

You can use the function keys, which are labeled F1, F2, F3, and so on, to execute the most frequently used WordStar commands with a single keystroke. The function keys are set to issue WordStar commands with the WordStar macro function. For complete information, see Appendix D, "Function Keys and Other Macros."

COMMAND LINE OPTIONS

When you start WordStar, you can bypass the copyright screen and the Opening screen to begin editing a document immediately. To do this, type **ws** followed by the name of the file you want to edit, for example, **ws first.doc**.

WordStar opens the file in document mode. To specify nondocument mode, use the /n option, for example, **ws first.doc /n**.

The chart below describes the options you can use.

OPTION	**DESCRIPTION**
/n	Opens the named file as a nondocument
/d	Opens the named file as a document (use this option if you've changed the default file mode to nondocument)
/s	Opens a new file with no filename
/p	Prints the named file
/m *macroname*	Executes the named macro; if a filename is also specified, opens the file before executing the macro
/x	Exits WordStar upon returning to the Opening screen (use /x with another option, for example, type **filename.doc /p /x** to print the file and then exit WordStar)
/o *nnn*	Goes to decimal location *nnn* in the named file
/h *n*	Sets the help level to *n* (0, 1, 2, 3, or 4)

THE WSCHANGE CUSTOMIZATION PROGRAM

The WSCHANGE customization program allows you to set up WordStar to run the way you want. You can specify initial settings for many features, such as margins and justification. You can also customize how WordStar works on your computer. For example, you can change the colors for the screen display.

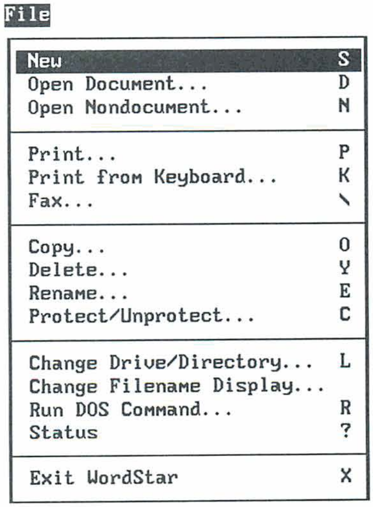
WSCHANGE works through a series of menus, where you make a choice by typing a letter. When this manual refers to a setting you can change with WSCHANGE, the letters you press to get to that setting are shown in parentheses. For example WSCHANGE (CCD) means that to get to that setting, you start WSCHANGE and then press C, press C, and press D.

For complete information on WSCHANGE, see the *Installing and Customizing* booklet.

CHAPTER 2

OPENING SCREEN FILE MENU

The Opening Screen File menu includes commands to open, copy, delete, rename, and print files, and other commands to manage files.


File
New S
Open Document... D
Open Nondocument... N
Print... P
Print from Keyboard... K
Fax... \
Copy... O
Delete... Y
Rename... E
Protect/Unprotect... C
Change Drive/Directory... L
Change Filename Display...
Run DOS Command... R
Status ?
Exit WordStar X

NEW

Pull-down: ALT + F, W
Classic: S

Opens a new file without assigning a name to it.

When you open a new file, it's empty. You can type or insert other files. When you save the file, WordStar prompts you for a filename.

The file you open when you use the New command is a document file. If you like, you can use WSCHANGE (DCBA) to make nondocument the default file format.

OPEN DOCUMENT

Pull-down: ALT + F, D
Classic: D

Opens a document file.

Follow these steps to open a document file.

1 Choose File→Open Document, or use the D classic command.

2 In the Open Document dialog box, specify the name of the file to open. You can open either an existing file or a new one. If necessary, specify the path with the filename.

A filename can have up to eight characters and an optional extension of up to three characters. Type a period between the filename and the extension. Don't use spaces between the characters. Filenames can include letters, numbers, and these symbols:

$ & # ! % ' ` ( ) { } - _ ~ @

Note: Files with the extensions .COM, .EXE, .OVR, .SYS, .DCT, .CRT, .WSF, .PDF, .DCC, .INF, .PRD, .WSM, and .$?? (where ? can be any character) do not appear in the WordStar filename lists, so don't use them to name your text files. You can change this list of filename extensions using WSCHANGE (CEC).

3 Press F10 or choose OK.

TIP *To go directly to a specific file when you start WordStar, type the filename on the command line. For example, type* ***ws \ws\status.dan*** *to go directly to the STATUS.DAN file.*

For more information on documents and nondocuments (ASCII files), see "Open Nondocument."

OPEN NONDOCUMENT

***Pull-down:* ALT + F, N**
***Classic:* N**

Opens a nondocument file.

Follow these steps to open a nondocument file.

1 Choose File→Open Nondocument, or use the N classic command.

2 In the Open Nondocument dialog box, specify the name of the file to open. You can open either an existing file or a new one. If necessary, specify the path with the filename.

3 Press F10 or choose OK.

A nondocument file is in ASCII format, which is a standard text format. When you edit a nondocument, most of the WordStar text formatting capabilities, such as aligning text, word wrap, and justification, are not applicable.

TIP *To go directly to a specific nondocument file when you start WordStar, type the filename and the /n option on the command line. For example, type* ***ws \ws\knox.txt /n*** *to go directly to the KNOX.TXT file in the WS directory.*

If you open a nondocument file in document mode by mistake, exit the file without saving it (File→Close, or ^KQ). If you save the file, WordStar adds formatting codes to it. If you open a document file in nondocument mode and save it, WordStar strips codes necessary for formatting.

When you print a nondocument, select Print Unformatted Text in the Print dialog box. (Otherwise, any lines that begin with periods will be considered dot commands.) You can print a nondocument with any printer definition file (PDF), but if your PDF contains formatting codes for documents, you may get unexpected printing results. If you have problems printing a nondocument, choose DRAFT for the printer.

DOCUMENTS AND NONDOCUMENTS

The differences between documents and nondocuments are described below.

Menus and Commands Documents have complete menus. For nondocuments, classic menus include only the commands available in nondocument mode; pull-down menus are the same as those in document mode, but commands that apply only to documents do not work. Two commands work differently: in a nondocument, the ^OI command sets tab width rather than displaying the Ruler Line dialog box, and the ^6 command turns auto-indent on and off rather than changing hard carriage returns to soft returns.

Note: When auto-indent is on, WordStar indents lines as they are typed. Type spaces or tab to the column to which you want to indent. Each time you press Enter, the new line starts at that column. You can change the amount of indentation by adding or deleting spaces or tabs on the line where you want the new indentation to begin.

Formatting The following functions are not available for nondocuments: centering, automatic hyphenation, justification, line spacing, margins, ruler line, soft hyphens, and word wrap.

Tab Stops Document tab stops are initially set every .5 inch, but you can reset them anywhere on the ruler line. Tabs in nondocuments usually use a special tab character and are customarily set every 8 spaces; you can use the ^OI classic command to reset them only to a binary multiple, such as 1, 2, 4, or 16 spaces. You can also use WSCHANGE (DCBD) to set nondocument mode to use other tab stops.

Cursor Indicator In documents, the status line shows the page, line, and column where the cursor is located. In nondocuments, it shows only line and column.

Dot Commands WordStar checks dot commands in documents and changes the screen display and printed documents accordingly. Dot commands in a nondocument do not take effect, and the commands themselves are printed.

Embedded Information If you open a document file as a nondocument, you will see printing-related information embedded in codes throughout the document.

Go to Page The Go to Page command on the Edit menu (^QI) finds a page number in documents; it finds a line number in nondocuments.

Aligning Text In nondocument mode, using the Reformat commands on the Utilities menu (^B or ^QU) strips high order bits and symmetrical sequences. Tab sequences are replaced with blanks; soft carriage returns are replaced with hard carriage returns. Other sequences are deleted.

CONVERTING DOCUMENTS TO NONDOCUMENTS

Before editing a document in nondocument mode, you should convert the file to nondocument (ASCII) format. Depending on the type of nondocument you want, you can use any of three methods:

- Open the file in nondocument mode, and then choose Utilities→Reformat→Rest of Document, or press ^QU. This method doesn't preserve any formatting, such as page offset or page breaks.

- Print the file to disk using the ASCII or ASC256 special printer selection. Use ASC256 if you want extended characters to remain in the file. This method preserves formatting; spaces are at the beginning of each line if there was a page offset, and blank lines are at the ends of pages for page breaks.

  Use this procedure: Choose File→Print and specify the file to convert. In the Print dialog box, select ASCII or ASC256 in the Printer list box. In the Redirect To text box, type the name you want to give the ASCII file. If you don't type a filename, the file is named ASCII.WS or ASC256.WS. Press F10 or choose OK to start printing to disk.

  For more information on printing to disk, see "Printing to Disk" in "Print" in this chapter.

- Mark the entire file as a block, and then choose Edit→Copy→To Another File, or press ^KW. In the dialog box, select the Copy in ASCII Format check box. This method does not preserve any formatting, and does not insert carriage returns at the end of each line; each paragraph appears as one long line.

CONVERTING NONDOCUMENTS TO DOCUMENTS

If you want to edit a nondocument (ASCII) file in document mode, open the file as a document. Before you start editing, you should change the hard carriage returns to soft returns. Press ^6 at each line, except at the last line of each paragraph and the blank lines between paragraphs. (Use the 6 at the top of the keyboard and not the 6 in the numeric keypad.) This changes hard carriage returns to soft returns. Then reformat the entire file (Utilities→Reformat→Rest of Document, or ^QU).

Note: If the text in the nondocument doesn't start in the far left column on the screen, before you use ^6, you can delete the spaces at the beginning of each line by putting the cursor in column 1 and pressing ^T. Or you can mark the entire area to the left of the text as a column block and delete the block.

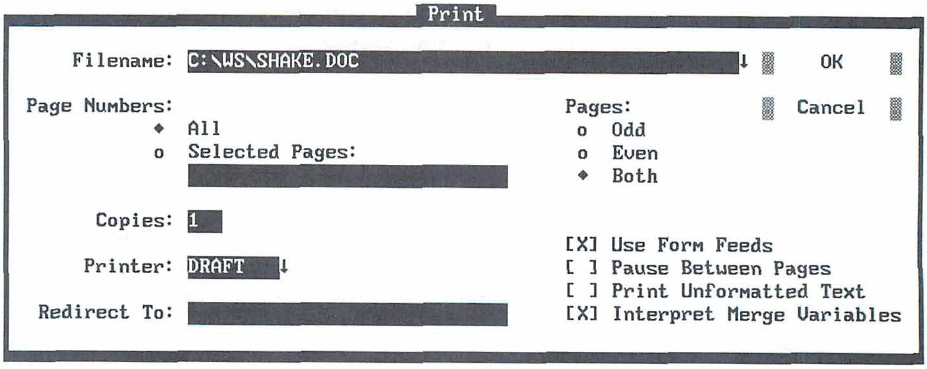
PRINT

***Pull-down:* ALT + F, P**
***Classic:* P**

Prints a file.

Follow these steps to print a file:

1. Choose File→Print, or use the P classic command.
2. In the Print dialog box, change any of the print options you want. The print options and their defaults are described below.



```
Filename: C:\WS\SHAKE.DOC

Page Numbers:                          Pages:
         ◆ All                          ○ Odd
         ○ Selected Pages:              ○ Even
                                        ◆ Both

Copies: 1
                                       [X] Use Form Feeds
Printer: DRAFT                         [ ] Pause Between Pages
                                       [ ] Print Unformatted Text
Redirect To:                           [X] Interpret Merge Variables
```

Filename Select the file to print. The default is the last file you edited.

Page Numbers Select All (the default) to print every page in the file. To specify the pages to print, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, to print pages 1 through 3 and pages 5 and 7, type **1-3 5 7**. (If you've reassigned page numbers, when you use Selected Pages, printing starts at the first occurrence of the first number specified, and ends at the first occurrence of the last number specified.)

Copies You can print more than one copy of the document. The default is one copy. To change it, type the number of copies you want. (If you always want the file printed a certain number of times, you can use Utilities→Merge Print Commands→Print File n Times, or the **.rp** dot command. See "Merge Print Commands" in "Editing Screen Utilities Menu.")

Printer WordStar displays the name of the printer assigned to the file. To change it, type another printer name or select a name from the list of your installed printers.

Redirect To The output normally goes to whatever port you specified for the printer you are using. If you want to redirect the output to another port, type the name of the port. If you want to redirect output to a disk file, type the filename. For more information, see "Printing to Disk" in this section.

Pages To print only odd or only even pages, select Odd or Even. The default is Both.

Use Form Feeds If you want WordStar to send a form feed command when moving to the next page of a printout, select this check box. Form feeds are required for a laser printer or other sheet feeder. The default depends on the type of printer you are using. You can use PRCHANGE to specify a different default for each of your printers. Whenever you print on paper shorter than 11 inches, clear this box.

Pause Between Pages If you need to have the printer pause between pages so that you can feed individual sheets of paper to it, select this check box. You can use PRCHANGE to specify a different default for each of your printers. The default is no pause. If you select this option, WordStar pauses before the second page and each subsequent page.

Print Unformatted Text If you select this option, WordStar prints all the dot commands and does not execute them. Always use this option for printing nondocuments. The check box is clear as a default.

Interpret Merge Variables Merge print variables and commands are interpreted as a default. If you clear this check box, variable names are printed in the text rather than the variables, and merge print commands are ignored. For more information on merge print commands and variables, see "Merge Print Commands" in "Editing Screen Utilities Menu."

Note: You can change the default settings for many of the print options using WSCHANGE or PRCHANGE.

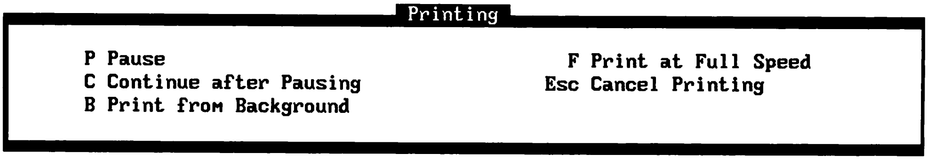
3 Press F10 or choose OK to print the file.

WordStar normally prints in the background so that you can continue with what you were doing before you started printing. The word *Printing* appears in the status line. If printing stops during background printing, *Print Wait* replaces *Printing.* You can use WSCHANGE (BDCA) to turn background printing off. This makes printing faster.

If your file contains any Ask for Variable, Pause Print, or Clear Screen commands, and you are using background printing, the *Print Wait* message appears in the status line. You must press P to go to the Printing screen (described below), and then enter the required response. If your file contains any Display Message commands, you don't see the messages unless you go to the Printing screen.

TIP *The default speed for printing is full speed. However, some printers can't receive the printing input at this speed. If you're printing while editing, you may notice a time lag between pressing keys and the resulting onscreen operation. To eliminate this lag, use PRCHANGE to change the printing speed to a slower setting.*

The Printing screen shows messages and commands related to printing. The Printing screen is hidden during background printing. You must display the Printing screen before you can see a printing-related message or enter a printing-related command during printing. To display this screen, choose File→Print or use the classic command P at the Opening screen or ^KP while editing.



```
                                  Printing
   P Pause                                       F Print at Full Speed
   C Continue after Pausing                    Esc Cancel Printing
   B Print from Background
```

Messages appear below the Printing screen commands. The commands are described below.

COMMAND	DESCRIPTION
P	Pauses printing temporarily
C	Continues printing after a pause
B	Starts background printing and exits the Printing screen
F	Starts full-speed printing if you used PRCHANGE to choose a slower printer speed
Esc	Cancels printing completely and exits the Printing screen

During printing, the Printing screen status line shows the page number that is currently being printed. It also shows the copy number that is currently being printed. This is useful if you are printing more than one copy of a document.

PRINTING TO DISK

Sometimes you may want to "print" a document to a file on disk rather than printing it on paper. For example, you can review merge-printed form letters on the screen before you print them on letterhead paper. You can print to disk either by typing a filename to redirect the output to or by using one of the special printer description files (PDFs). Both methods are described below.

SENDING PRINTER-FORMATTED OUTPUT TO A FILE

To tell WordStar to run a file through a specific PDF and send the output to a new file rather than sending it to the printer, specify the new filename in the Redirect To box in the Print dialog box.

You can print to disk if your computer is not connected to the printer, and produce a disk copy of the document formatted with all the proper codes for the printer. You can then take the file on a floppy disk to a computer connected to the printer and print the file using the DOS COPY command. For example, if the printer is connected to port LPT1, type **copy output.doc lpt1 /b** at the system prompt. For more information on the DOS COPY command, see your DOS manual.

SPECIAL PDFS FOR PRINTING TO DISK

WordStar allows you to select any of five "printers" that make disk files rather than sending text to a regular printer. They are named PRVIEW, ASCII, ASC256, XTRACT, and WS4. You can select one in the Printer box in the Print dialog box.

Note: The ASCII, ASC256, and WS4 PDFs are already created for you. If you want to use the PRVIEW or XTRACT PDF, use PRCHANGE to install it.

PRVIEW Produces a file that looks as much like an actual printout as possible, with headers and footers and with data inserted if you are merge printing. It begins with the **.pl** dot command so that the page breaks appear in the proper spots when you look at the file in document mode. Each line ends with a hard carriage return.

ASCII and ASC256 Produce a file that is an ASCII version of the document, with all print controls and dot commands removed. Each line ends with a hard carriage return. With ASCII, extended characters (ASCII 128-255) are not printed or are replaced with ASCII characters; ASC256 prints extended characters. (You can also use Edit→Copy to Another file, or ^KW, to write text to an ASCII file.)

XTRACT Produces a file similar to the PRVIEW file, but without headers, footers, and page breaks, and with soft carriage returns. This format allows you to perform some simple manipulations on text and data files. For example, if you had a data file named FORM1.DTA with several fields (such as name, title, company, address, city, state, and zip), you could use XTRACT to create a data file containing only the information in the name field. Create a file called FORM1.LTR containing these commands:

```
.op
.df form1.dta
.rv name,title,company,address,city,state,zip
&name&
```

Note that this file ends with a carriage return after &name& so that each name prints on a separate line.

When you merge print this file and use the XTRACT PDF, the output file contains only the names from the data file.

WS4 Creates a file that is compatible with WordStar Release 4.

When you use any of these PDFs, specify a name for the output file by typing the new filename at the Redirect To box in the Print dialog box. If you don't specify a new filename when printing with ASCII, ASC256, PRVIEW, or EXTRACT, the output file is given the same name as the PDF but with a .WS extension, for example, ASCII.WS. With WS4, the new file has the same filename as the original file with the .WS4 extension.

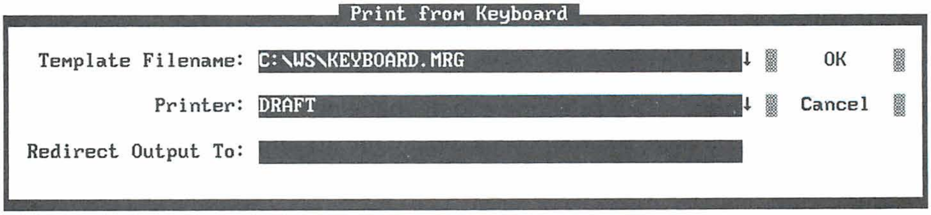
PRINT FROM KEYBOARD

***Pull-down:* ALT + F, K**
***Classic:* K**

Allows you to use your printer as a typewriter.

This command is useful for addressing envelopes and filling out forms. Follow these steps:

1. Choose File→Print from Keyboard, or use the K classic command.
2. In the Print from Keyboard dialog box, select the template filename, printer, and, if necessary, the port. These options are described below.



Print from Keyboard

Template Filename: C:\WS\KEYBOARD.MRG

Printer: DRAFT

Redirect Output To:

Template Filename A sample template file (KEYBOARD.MRG) is included with WordStar. You can use that file or create a new one. More information is given below this list.

Printer Select the printer you're using. Do not specify a printer, such as the ASCII printer, that is used to create disk files.

Redirect Output To You can direct the printed output to a different port just as you can from other printing dialog boxes.

3. Press F10 or choose OK.
4. Type the text you want, and press Enter after each line. As soon as you press Enter, that line of text is sent directly to the printer. (You must press Enter before text will print, even if your printer is in unbuffered mode.) When you print from keyboard, text doesn't wrap automatically and it can't be reformatted.

   You can type dot commands while printing from the keyboard. When you type Enter at the end of the line, the line is not printed, and the dot command takes effect. Do not use the **.co** command (for columns) because printing is unpredictable. WordStar interprets any line that begins with a period as a dot command.
5. When you finish typing the text, press Esc to quit.

When printing begins depends on the type of printer you have. On page printers, the entire page must be filled before printing begins. If you want to print before the page is full, try a manual form feed or type a **.pa** (page break) command or use a ^PL (form feed) command. On daisy wheel printers, the internal buffer must be full.

Template Files Template files for printing from the keyboard contain dot commands that define the page margins. A template file can also include dot commands for selecting a font, changing line height and line spacing, and turning off page numbers. A template file also includes **.av** dot commands that ask for variables at print time.

A template file might look like this:

```
.tb.7"
.rp 65000        (lets you repeat the instructions that
                  follow up to 65,000 times)
.mt 0            (top margin of zero)
.mb 0            (bottom margin of zero)
.op              (omits page numbers)
.av text         (asks for variable "text")
.lh 8            (line height of 6 lines per inch)
.ls 2            (double spacing)
&text&           (text variable)
```

FAX

***Pull-down:* ALT + F, F**
***Classic:* \**

Creates files that you can send with a fax board.

This command creates fax files in .PCX format. These files can be transmitted directly through a fax board using the software that came with the fax board. The resulting faxes look like the printed file, including all the fonts and other formatting.

Note: Most fax boards can transmit .PCX files. However, if your board does not support .PCX format, you must convert the .PCX file to a format supported by the board. Most fax board software includes a conversion utility that can do this.

One .PCX file is created for each page in a document. All the .PCX files you create are placed in the WS\FAX directory, which WordStar creates the first time you create a fax file. You can specify another fax file directory using WSCHANGE (CD4I).

Follow these steps to create fax files:

1. Choose File→Fax, or use the \ classic command.

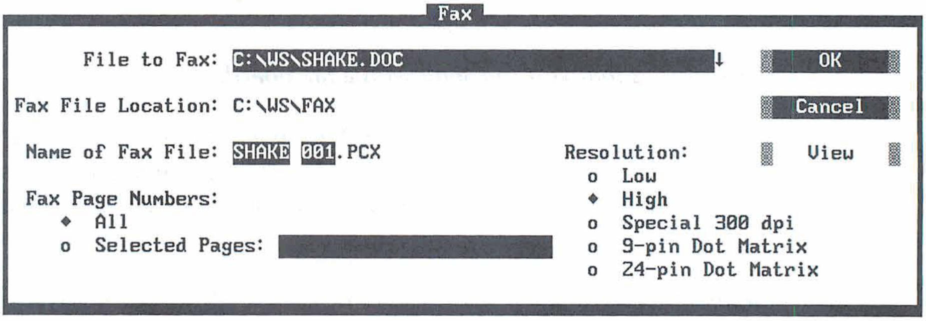
2. In the Fax dialog box, specify the name of the file to fax. If necessary, specify the path with the filename.

3 If you want to change the displayed name for the first fax file to create, specify the name you want. The default is the first five letters of the original filename, followed by three digits that represent the page number, starting with 001. Fax files for subsequent pages are numbered sequentially. The filename extension is always .PCX.

If the filename you specify is the name of an existing file, WordStar asks if you want to overwrite the file. If you choose Overwrite (or press Y), WordStar deletes the old file and replaces it with the new file. If you choose Cancel (or press N), WordStar does not create the fax files. You can start again and use a different filename.

TIP To avoid confusion, always choose a unique filename when you create fax files, and delete fax files promptly when you no longer need them.

4 Change any of the options you want. These options are described below.



File to Fax: C:\WS\SHAKE.DOC

Fax File Location: C:\WS\FAX

Name of Fax File: SHAKE 001.PCX

Fax Page Numbers:
◆ All
○ Selected Pages:

Resolution:
○ Low
◆ High
○ Special 300 dpi
○ 9-pin Dot Matrix
○ 24-pin Dot Matrix

Fax Page Numbers Select All (the default) to create fax files for every page. To specify pages, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, for pages 1 through 3 and pages 5 and 7, type **1-3 5 7**.

IMPORTANT When you use Selected Pages, you must specify the physical page numbers, even if you've reassigned page numbers. For example, if you have a three-page document with no page number on the first page, and the second and third pages numbered 1 and 2, you must specify 2-3 (or 2 3) to create fax files for the last two pages. If you're not sure about the physical page numbers, you can choose the View button (described below) to start Preview. Preview displays the physical page numbers at the top of the screen or, if more than one page is displayed, above each page.

Resolution Select the resolution your fax board uses. High resolution, the default, is 200x200 dots per inch (dpi), and low resolution is 200x100 dpi. The Special 300 dpi option is provided for fax drivers that use this resolution. The 9-Pin Dot Matrix and 24-Pin Dot Matrix settings are not used for creating fax files. They create files that can be printed on a dot matrix printer using a utility (not provided with WordStar) for printing .PCX files.

If the setting does not match the setting in your fax software, the file may not look right when it is faxed. High resolution produces much better-looking output. (Be sure to send the fax using the same resolution you create it with.)

View You can choose the View button to preview the file in order to decide which pages to create fax files for. While you are previewing the file, you can use all the usual Preview commands, including the Options command to create fax files. If you create fax files in Preview, you return to editing when you exit Preview; otherwise, you return to the Fax dialog box. For more information about Preview, see "Preview" in "Editing Screen View Menu."

5. When you finish, press F10 or choose OK. WordStar creates the fax file or files, displaying the progress.

   You can press Esc to cancel fax file creation after the current page, or press Esc twice to cancel it immediately.

After you create a fax file, you can use the SHOWPCX utility to identify the file, to make sure you've processed the correct pages, and to check the quality of the fonts. Start at the system prompt, type **showpcx fax*filename*** (you don't need to type the .PCX extension), and press Enter. The fax file appears on the screen in half-size format, so that you can see more of the page. Press the plus (+) key on the numeric keypad to view it in maximum resolution. You can use the scrolling commands and PgUp and PgDn to move around on the page. When you finish viewing the file, press Esc to exit SHOWPCX. (Depending on your monitor and the resolution you specified for the fax file, the image may not have the proper proportions.)

When you are working with fax files, keep these things in mind:

- The fax file is a graphic representation of the printed page and is created using the same process as Preview. All the features and limitations of Preview apply to creation of fax files. For example: The same fonts are available, and a 72-point font is used for fonts that are larger than 72 points. Colors other than white are changed to black. System variables (such as date and time) and merge print variables are not replaced with the corresponding data.

- For the best appearance of fonts in fax files, it's best to use the FAX.PDF printer driver for the document. This printer driver supplies fonts comparable to Hewlett-Packard LaserJet III fonts, including Courier, Line Printer, and scalable Times and Univers fonts. FAX.PDF is installed when you install WordStar. You can add your own fonts to this PDF using PRCHANGE.

- The best way to determine how the fax will look is by using Preview at 4x zoom. Usually (depending on your monitor resolution), this option corresponds most closely with the fax file resolution.

- Creating fax files requires up to 27K of memory in addition to what WordStar usually needs. You may need to free up memory for optimum performance with fax files. See *Installing and Customizing* for guidelines on memory usage. If your fax driver software remains in memory, you may need to remove it before starting WordStar, and send your faxes after exiting WordStar.

- If the appearance of fonts (especially large fonts) is blocky, WordStar may need more memory while creating screen fonts. If less than 512K is available when you start WordStar, you can remove memory-resident programs or use WSCHANGE settings to make more memory available, and then run the DELCRT utility to delete the blocky fonts. Then start WordStar and create the fax files again. You can also improve these fonts by creating .WSF files for large fonts using smaller symbol sets. For more information on .WSF files, see the *Installing and Customizing* booklet.

- Fax files are large, and take up a lot of disk space. You may want to delete them regularly. Also, .CRT files are created when you create fax files. You can delete .CRT files that you no longer need using the DELCRT utility. For more information, see "Preview Files" in "Preview" in "Editing Screen View Menu."

COPY

Pull-down: ***ALT + F, O***
Classic: ***O***

Copies a file.

Copying makes an exact duplicate of the file being copied; the original is saved, not erased. Follow these steps to copy a file:

1. Choose File→Copy, or use the O classic command.
2. In the Copy dialog box, specify the name of the file to copy. If the file is not on the current drive and directory, specify the path with the filename.
3. Specify the name of the file to copy to. You can put the copy on another drive or directory by specifying the path with the filename.

   You can use the same filename if you copy from one drive or directory to another, but you cannot have two files with the same name in the same directory. If the filename you specify for the new copy is the name of an existing file, WordStar asks if you want to overwrite the file. If you choose Overwrite (or press Y), WordStar deletes the old file and replaces it with the new file. If you choose Cancel (or press N), WordStar does not copy the file. You can start again and use a different filename.

4. Press F10 or choose OK to copy the file.

DELETE

Pull-down: ***ALT + F, T***
Classic: ***Y***

Deletes a file.

Follow these steps to delete a file:

1. Choose File→Delete, or use the Y classic command.
2. In the Delete dialog box, specify the name of the file to delete. If the file is not on the current drive and directory, specify the path with the filename.

3 Press Y or Enter to confirm you want to delete the file.

4 Press F10 or choose OK to delete the file.

RENAME

***Pull-down:* ALT + F, E**
***Classic:* E**

Renames a file.

Follow these steps to rename a file:

1 Choose File→Rename, or use the E classic command.

2 In the Rename dialog box, specify the name of the file to rename. If the file is not on the current drive and directory, specify the path with the filename.

3 Type a new name for the file.

If the filename you specify is the name of an existing file, WordStar tells you that the file already exists. Type a different name.

4 Press F10 or choose OK to rename the file.

TIP You can move a file when you rename it by specifying the path with the filename. The new location must be on the same disk drive.

PROTECT/UNPROTECT

***Pull-down:* ALT + F, C**
***Classic:* C**

Protects a file so that it can't be changed, or removes protection from a protected file.

Use this command to protect master versions of form documents and final drafts of documents so they can't be changed accidentally. You may want to protect files if you share disks with other people. You can remove the protection whenever you want. Follow these steps to protect a file or remove the protection from a file.

1 Choose File→Protect/Unprotect, or press C, the classic command.

2 In the Protect/Unprotect dialog box, specify the name of the file to protect or unprotect. If the file is not on the current drive and directory, specify the path with the filename.

  WordStar shows whether the file is currently protected and asks if you want to change the setting.

3 Press F10 or choose OK to protect or unprotect the file.

When you edit a protected file, *Protect* is displayed in the status line. You can move through the file, but you can't use commands that would change it, and you can't add or delete anything. To leave a protected file, choose File→Close or use the ^KQ classic command.

WordStar automatically protects backup files (.BAK) from changes as a safety measure. Files are also protected by DOS if you have too many files in the root directory of a disk (for most disks, 110-112 files). You must remove some files from the full directory to unprotect the files in the directory.

You can also protect files (or make them read-only) using the operating system or other software, such as local area network (LAN) software. WordStar can't unprotect files protected by other software.

CHANGE DRIVE/DIRECTORY

***Pull-down:* ALT + F, V**
***Classic:* L**

Changes the logged drive and directory.

The logged drive or directory is the one you're currently working in. WordStar looks for and stores files on the logged drive and directory unless you tell it otherwise.

1 Choose File→Change Drive/Directory, or use the L classic command.

2 In the Change Drive/Directory dialog box, specify the name of the drive and directory to change to.

3 Press F10 or choose OK.

CAUTION *When you change disks in a floppy disk drive, log on to the drive again. If you don't, the operating system may refuse to write to the disk, or it may damage data on the new disk. (Never remove a floppy disk while you're editing a file on it and then log on to the drive again.)*

CHANGE FILENAME DISPLAY

Pull-down: ALT + F, H
Classic: F

Changes which filenames are displayed in the filenames list.

When you choose File→Change Filename Display, or use the F classic command, the Change File Listings dialog box appears. Type the filenames you want to see at the Opening screen. Use the * and ? wild-card characters. For example, *.* displays the names of all the files, and CHAP????. displays all the names that begin with CHAP, have four more characters, and have no filename extension.

Note: You can omit all filenames with a certain extension from the filename list using WSCHANGE (CEC). For more information, see "Open Document" in this chapter.

RUN DOS COMMAND

Pull-down: ALT + F, R
Classic: R

Allows you to run a DOS command without leaving WordStar.

When you use this command, WordStar temporarily moves into the background, and you can type the DOS command you want. For example, you can start Lotus 1-2-3 and look up information on a spreadsheet, or you can use the DOS CHKDSK command to check how much free disk space you have.

1 Choose File→Run DOS Command, or use the R classic command.

2 In the Run DOS Command dialog box, type the DOS command to run.

3 Press F10 or choose OK.

TIP If you want to run more than one DOS command without returning to WordStar, type ***command*** *and press Enter to run the DOS command processor. You can then run as many commands as you want. When you finish using DOS commands, type* ***exit*** *and press Enter. Then press any key to return to WordStar.*

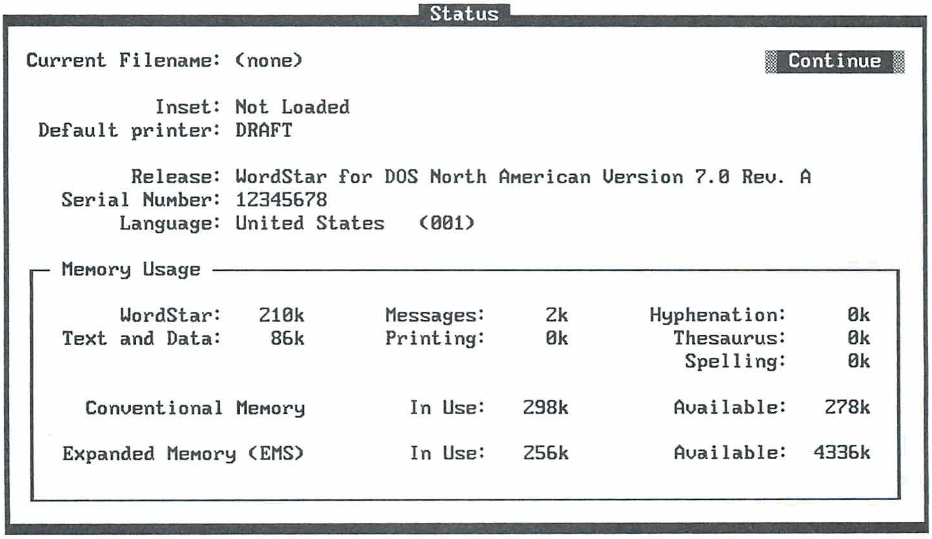
The amount of memory you can use to run DOS commands depends on how much memory WordStar is using, whether you are using any memory-resident programs, how much EMS memory is available to WordStar, and how much disk space is available.

CAUTION Never load a memory-resident program (such as DOS PRINT or Sidekick) using this command. If you plan to use such a program from within WordStar, be sure you load it before you start WordStar.

STATUS

Pull-down: ALT + F, U
Classic: ?

Displays the Status screen.



```
Current Filename: (none)

           Inset: Not Loaded
 Default printer: DRAFT

         Release: WordStar for DOS North American Version 7.0 Rev. A
   Serial Number: 12345678
        Language: United States   (001)

 Memory Usage

        WordStar:   210k      Messages:     2k       Hyphenation:    0k
   Text and Data:    86k      Printing:     0k         Thesaurus:    0k
                                                        Spelling:    0k

     Conventional Memory        In Use:   298k         Available:  278k

   Expanded Memory (EMS)        In Use:   256k         Available: 4336k
```

The Status screen gives information on last file edited, Inset status, default printer, WordStar version and serial number, language, and memory usage.

EXIT WORDSTAR

***Pull-down:* ALT + F, X**
***Classic:* X**

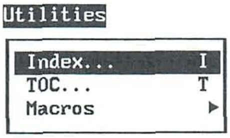
Exits WordStar.

If you're printing in the background when you use the Exit command, the Printing screen appears. You must wait until printing finishes, or press Esc to cancel printing, before you exit WordStar.

CHAPTER **3**

OPENING SCREEN UTILITIES MENU

The Opening Screen Utilities menu includes commands for creating an index or a table of contents and for using the WordStar macro system.



INDEX

Pull-down: ***ALT + U, I***
Classic: ***I***

Creates an index.

You can create an index from entries you've already made in a document, or you can tell WordStar to index every word except those listed in an exclusion list. (Exclusion lists are described later in this section.)

For information on marking index entries in your documents, see "Index/TOC Entry" in "Editing Screen Insert Menu."

Follow these steps to create an index:

1. Choose Utilities→Index, or use the I classic command.
2. In the Index dialog box, specify the name of the file to index. Specify the directory path if necessary.
3. Select any options you want to change. The options are described below.

   Page Numbers Select All (the default) to index the entire file. To specify the pages to index, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, to index pages 1 through 3 and pages 5 and 7, type **1-3 5 7**. (If you've reassigned page numbers, when you use Selected Pages, indexing starts at the first occurrence of the first number specified, and ends at the first occurrence of the last number specified.)

   Index Every Word If you don't select this check box (the default), WordStar indexes only the entries you've marked and typed. If you select this option, WordStar indexes all those entries, and all the words in the document minus any words that appear in exclusion lists.

   Pages To index only odd or only even pages, select Odd or Even. The default is Both.

4. Press F10 or choose OK to create the index.

WordStar creates an index file that has the same filename as the document with the .IDX extension. All entries in the file are in alphabetical order with the page numbers listed, and duplicate entries are combined. You can edit the index file to make any formatting changes or corrections.

EXCLUSION LISTS

An exclusion list is a nondocument file that contains an alphabetical list of words to exclude from an index. WordStar uses two exclusion lists.

The general exclusion list is named WSINDEX.XCL and is supplied with WordStar. It contains a list of the most common words in English (articles, pronouns, prepositions, conjunctions, and so on) that are rarely indexed.

The document-specific exclusion list has the same name as the document for which you are making the index, but with the .XCL extension. To create this list, create a nondocument file with the appropriate name, and type the specific words from your document that you want to exclude from the index. Be sure to type each word on a separate line.

TIP *You can quickly create a document-specific exclusion list. First, use the Index command to index every word in your document. Next, open the index file as a nondocument and delete the words you do want in the index. Then change the extension of the file to .XCL. This file is now an exclusion list.*

Toc

***Pull-down:* ALT + U, T**
***Classic:* T**

Creates a table of contents.

The table of contents is created from entries you've previously inserted in your document. For information on entering table of contents entries, see "Index/TOC Entry" in "Editing Screen Insert Menu."

Follow these steps to create a table of contents:

1. Choose Utilities→TOC, or use the T classic command.
2. In the Table of Contents dialog box, specify the name of the file to create the table of contents for. Specify the directory path if necessary.
3. Select any options you want to change. The options are described below.

   Page Numbers Select All (the default) to include table of contents entries from the entire file. To specify pages, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, to create a table of contents for pages 1 through 3 and pages 5 and 7, type **1-3 5 7**. (If you've reassigned page numbers, when you use Selected Pages, the table of contents starts at the first occurrence of the first number specified, and ends at the first occurrence of the last number specified.)

Pages To create a table of contents from entries on only odd or only even pages, choose Odd or Even. The default is Both.

4 Press F10 or choose OK to create the table of contents.

WordStar places all the table of contents entries, with page numbers, in a new file that has the same filename as the document with the .TOC extension. You can edit the table of contents file to make any formatting changes or corrections.

If you specified table of contents entries for separate tables of contents using **.tc1**, **.tc2**, and so on, WordStar creates a separate table of contents file for each with the extensions .TO1, .TO2, and so on.

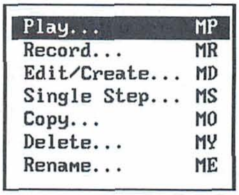
MACROS

***Pull-down:* ALT + U, M**
***Classic:* M**

Records, creates, edits, or runs a macro that enters a longer series of text and commands.

The WordStar macro capabilities allow you to use a few keystrokes to enter a series of keystrokes and commands. For example, you can create a macro so that each time you press Alt+W, the word WordStar is inserted in your text. Or a macro can change the order of two words (mark the first word as a block, move the cursor to the end of the next word, and move the block).

When you choose Macros, the following menu appears.



You can create a macro in either of two ways:

- Use Record, or the MR classic command, to record keystrokes. This is the easier way to create a macro. WordStar records commands and keystrokes as you enter them. When you are finished, WordStar compiles them into a macro file that contains all the appropriate macro commands.

- Use Edit/Create, or the MD classic command, to enter macro commands into a file that you edit like a nondocument. To use this command, you need to know the WordStar macro language. This language allows you to create macros that are too complex to record with the Record command. For example, you can repeat a certain action as many times as needed each time you run the macro. The example in "The Macro Language" in "Editing Screen Utilities Menu" enters a bullet character and waits for you to type text, then repeats that sequence after the end of each paragraph; the macro stops and returns you to editing when you finish your bulleted list.

If you need to write a macro that is too complex to record, you can first record a simple macro that contains commands and keystrokes that can be recorded, then use Edit/Create to add the macro language for the rest of the macro. You can also copy a macro and edit it to create a similar one, and you can copy blocks of macro commands from one macro file to another.

After you create a macro, you can use Single Step, or the MS classic command to play it back step by step to identify any problems.

To execute a macro, you can either use a hot key, or use Play or the MP classic command. You can stop the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.) You can change the Esc keystroke or add another key to stop a macro in WSCHANGE (DCDC and DCDD).

You can also copy, rename, and delete macros using commands on the Macros menu.

TIP *You can set up a macro to run a series of commands that you frequently use when you start WordStar. Then you can run the macro immediately when you start WordStar by typing* **ws /mmacroname**. *For example, you can set up a macro named LETTER to change to the C:\CUSTOMER directory, open a new file, and read in a file of boilerplate text and formatting. Then, any time you want to start WordStar and start a new letter, type* ***ws /mletter***. *If you want to start WordStar, open a file, and then run a macro, type the filename before the /m option.*

WORKING WITH MACROS

MACRO HOT KEYS

You can execute a macro by pressing a single key or key combination called a hot key. You can assign a hot key to a macro when you create it. Eighty-two hot keys are available:

- The function keys F2 through F9, and F11 and F12. (F1 is reserved for Help and F10 for closing dialog boxes.)
- The function keys F1 through F12 combined with the Shift key.
- The function keys F1 through F12 combined with the Ctrl key.
- The function keys F1 through F12 combined with the Alt key.
- The Alt key combined with the letters A-Z and the digits 0-9.

Keep these points in mind about macro hot keys:

- The Alt key combined with the letters F, E, V, I, S, L, U, and H access the WordStar pull-down menus. If you use any of these keystrokes as hot keys, you can't use them for those menus. (You can still display the menus using a mouse or using the Right and Left Arrow keys in the menu bar.)
- You don't have to assign a hot key to each macro. If a macro is not assigned a hot key, you can run the macro using the Play command (or the MP classic command).
- If you want to assign a hot key to a macro that doesn't have one, or change the hot key assigned to a macro, use Macros→Rename, or ME. Don't use Macros→Record (MR); it will erase the macro and create a new one.
- WordStar comes with predefined macros for most of the function key hot keys and for several other hot keys. These macros are listed in Appendix D, "Function Keys and Other Macros." You can define new macros for these keys if you want, using Record (MR) or Edit/Create (MD).

MACRO FILES AND DIRECTORIES

Each macro is stored as a file, with the name you gave it while recording or editing and the .WSM extension.

CAUTION *When you record, create, or edit a macro and save it, WordStar compiles the macro, adding executable code. Macro files appear to be nondocuments (ASCII files) when you edit them, but they contain other information. You must edit them with Macros→Create/Edit (or MD) to get usable macros.*

On most systems, all the macro files are stored in one directory. The default macro directory name is WS\MACROS; you can change it with WSCHANGE (CD2G).

PLAY

***Pull-down:* ALT + U, M, P**
***Classic:* MP**

Executes a macro.

You can execute a macro either using a hot key or using this command. For an explanation on using hot keys, see "Macro Hot Keys" in this section.

Follow these steps to play a macro:

1. Choose Utilities→Macros→Play, or use the MP classic command.
2. In the Play Macro dialog box, specify the macro to play. You can choose the macro either by name or hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.
3. Press F10 or choose OK.

WordStar executes all the commands and enters all the text specified in the macro. Generally, menus and dialog boxes are not displayed unless you need to enter input.

You can stop the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.)

RECORD

***Pull-down:* ALT + U, M, R**
***Classic:* MR**

Records a series of keystrokes and stores them as a macro that you can execute.

You can create a macro by choosing Record and then pressing all the keystrokes that you want in the macro. Follow these steps:

1. Choose Utilities→Macros→Record, or use the MR classic command.
2. In the Record Macro dialog box, type the name you want to give the macro. If the macro name is already in use, confirm that you want to redefine the macro, or specify another name.
3. Specify the hot key that will execute the macro. You can press the Down Arrow key and scroll through the list to see which hot keys are available. If the hot key you specify is already in use, confirm that you want to reassign the hot key or specify another hot key. If you don't want to assign a hot key to the macro, you can skip this step.
4. Type a description of the macro to remind you of what it does and to help you find it in the list. The description can be up to 48 characters long. If you don't want to give a description for the macro, you can skip this step.
5. Press F10 or choose OK.
6. Enter all the keystrokes you want in the macro. Enter them in the same way you want to play them back when you run the macro.

   You may need the macro to pause when you run it so that you can enter information such as a filename. At any place you want the macro to pause, press Alt+hyphen. Then type any number of keystrokes as an example of the input. Press Alt+hyphen again to end the pause, and continue entering the macro keystrokes. When you execute the macro, it pauses at that point for input and continues after you press Alt+hyphen. (You can change the Alt+hyphen keystroke to another keystroke in WSCHANGE (DCDB).)

   Note: Mouse actions and clicks are not recorded in macros and do not work while you are recording a macro; you must use the keyboard.

7 When you finish entering the keystrokes, press Alt+= (hold down the Alt key and press =). (You can change the Alt+= keystroke to another keystroke using WSCHANGE (DCDA).)

WordStar records and compiles the macro. If you want to make adjustments to the macro, you can either record it again or edit it using Macros→Edit/Create, or the MD classic command.

EDIT/CREATE

***Pull-down:* ALT + U, M, E**
***Classic:* MD**

Creates and modifies a macro that contains keystrokes and commands that you enter.

Each macro consists of a series of WordStar commands and functions. You edit a macro using the same commands you use for editing a nondocument file. Follow these steps:

1 Choose Utilities→Macros→Edit/Create, or use the MD classic command.

2 In the Edit/Create Macro dialog box, specify the macro name.

When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3 If you're creating a new macro, specify the hot key that will execute the macro. You can press the Down Arrow key and scroll through the list to see which hot keys are available. If the hot key you specify is already in use, confirm that you want to reassign the hot key or specify another hot key. If you don't want to assign a hot key to the macro, you can skip this step.

4 Type a description of the macro to remind you of what it does and to help you find it in the list. The description can be up to 48 characters long. If you don't want to give a description for the macro, you can skip this step.

5 Press F10 or choose OK. WordStar opens a full-screen editing window for the macro.

6 Type the text of the macro or make any editing changes. For information about what you can enter, see "The Macro Language" in "Macros" in "Editing Screen Utilities Menu." When you edit a macro, you can use the commands used for editing nondocuments.

TIP You may want to periodically use File→Save (^KS) to save your changes while editing.

7 When you finish, save the macro using File→Save and Close (^KD).

WordStar compiles the macro. If it finds any syntax errors or other errors, they are entered into the macro file. You must edit the macro again to correct the errors.

Errors in a macro file are noted by a message describing the error, followed by the line of the macro that contains the error, with a caret (^) below the line pointing to the location of the error.

TIP The Alt+D hot key is preassigned to a macro that goes to the next error message in a macro file. This is helpful when you edit macros to fix errors.

If you want to copy a block of text from one macro into another, be sure to start from the Opening screen. Choose Macros→Edit/Create (or MD), and then choose File→Open/Switch (or ^OK). Then copy the block between the windows in the same way you would while editing a document.

SINGLE STEP

***Pull-down:* ALT + U, M, S**
***Classic:* MS**

Plays back a macro one step at a time to locate errors.

After you create or edit a macro, you can play it back step by step to identify any problems. This command is helpful when a macro doesn't work exactly as you expect it to. Follow these steps:

1 Choose Utilities→Macros→Single Step, or use the MS classic command.

2 In the Single Step dialog box, specify the macro to play. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3 Press F10 or choose OK.

WordStar executes the first command or keystroke in the macro, and pauses.

4 Press the Spacebar to continue to the next command, function, or keystroke. Continue in this manner until the macro finishes. You can stop running the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.)

COPY

Pull-down: ***ALT + U, M, C***
Classic: ***MO***

Copies a macro.

If you want to create a macro similar to another one, you can copy the first macro and edit the copy. You can also make copies of macros so that several people can use them on their computers. Follow these steps:

1 Choose Utilities→Macros→Copy, or use the MO classic command.

2 In the Copy Macro dialog box, specify the macro to copy.

You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3 Specify the macro name for the new copy. Type the path with the name if necessary. If the name is already in use, confirm that you want to overwrite the current macro.

4 Press F10 or choose OK to copy the macro.

The copied macro has the same description as the original, but is not assigned a hot key. You can assign a hot key and description when you edit the macro, or you can use Rename Macro (or the ME classic command).

DELETE

Pull-down: ALT + U, M, D
Classic: MY

Deletes a macro.

Follow these steps to delete a macro:

1. Choose Utilities→Macros→Delete, or use the MY classic command.
2. In the Delete Macro dialog box, specify the macro to delete. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.
3. Press F10 or choose OK to delete the macro, and confirm the deletion.

RENAME

Pull-down: ALT + U, M, N
Classic: ME

Renames a macro.

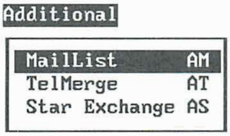
You can use this command to rename a macro, assign a new hot key, or add or edit a description. Follow these steps:

1. Choose Utilities→Macros→Rename, or use the ME classic command.
2. In the Rename Macro dialog box, specify the macro to rename. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.
3. Specify the new macro name, hot key, and/or description. If the name or hot key is already in use, confirm that you want to overwrite the current assignment.
4. Press F10 or choose OK to rename the macro.

CHAPTER 4

OPENING SCREEN ADDITIONAL MENU

The Opening Screen Additional menu includes commands for starting the MailList™, TelMerge®, and Star Exchange® companion programs.



MAILLIST

Pull-down: **ALT + A, M**
Classic: **AM**

Starts the MailList program.

MailList lets you easily create, update, and sort mailing lists and inventories by providing you with ready-made forms on which to enter your data. You can then merge print letters, envelopes, reports, labels, and lists using this data. For information, see "MailList" in the *Companion Programs* manual.

TELMERGE

***Pull-down:* ALT + A, T**
***Classic:* AT**

Starts the TelMerge telecommunications program.

TelMerge lets you easily link to telecommunications services such as MCI Mail and electronic bulletin boards. It also lets you send files over your phone lines. For information, see "TelMerge" in the *Companion Programs* manual.

STAR EXCHANGE

***Pull-down:* ALT + A, S**
***Classic:* AS**

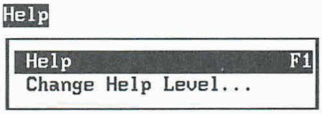
Starts the Star Exchange file conversion program.

Star Exchange converts documents created with one word processor to documents that are compatible with another word processor. After you convert a file to WordStar format using Star Exchange, you can edit the file with WordStar. For information, see "Star Exchange" in the *Companion Programs* manual.

CHAPTER 5

OPENING SCREEN HELP MENU

Use the commands on the Opening Screen Help menu to get onscreen help for WordStar commands and options, and to change the way WordStar displays menus and prompts.



HELP

Pull-down: ***ALT + H, H***
Classic: ***F1***

Displays help for the current command.

You can get onscreen help for every WordStar command and for each option in a dialog box.

If you are using pull-down menus, when you choose Help from the Help menu, you get an overview of WordStar help. To get help for a specific command, highlight it on the menu and press F1. To get help in a dialog box, press F1.

If you are using classic menus, press F1 at the Opening Menu or at the editing screen, and then press the command you want help with. To get help in a dialog box, press F1.

CHANGE HELP LEVEL

***Pull-down:* ALT + H, C**
***Classic:* F1 F1**

Changes which menus and prompts are displayed.

Once you're an experienced WordStar user, you might want to display classic menus instead of pull-down menus, or turn off the display of menus and confirmation prompts altogether. You can do either of these by changing the help level.

The classic menus take up one third of most screens, so turning them off by changing from help level 3 to help level 2 allows you to see considerably more of a document while you edit. Even when menus are not displayed, you can still use the commands.

Follow these steps to change the help level:

1. If you are using pull-down menus, choose Help→Change Help Level. If you are using classic menus, press F1 F1.
2. Choose the help level you want.

HELP LEVEL	DESCRIPTION
4	Pull-down menu names are displayed on the menu bar at the top of the screen. To see a menu, hold down the Alt key and press the first letter of the menu name. All prompts are displayed. This is the default setting.
3	All classic menus and prompts are displayed.
2	The classic Edit Menu is not displayed, but prompts are displayed. This gives a full-screen display of the document. Other classic menus are displayed if you pause after pressing the menu letter (^K, ^O, ^P, ^Q).

HELP LEVEL	DESCRIPTION
1	No menus are displayed during editing unless you ask for help. Dialog boxes asking you to confirm a response are not used either.
0	Menus are not displayed unless you ask for help. Confirmation dialog boxes are not displayed. You can move, copy, and delete hidden blocks.

3 Press F10 or choose OK.

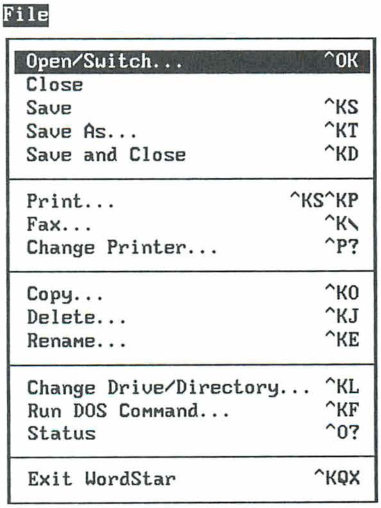
At help levels 2 and below, you can display the classic Edit Menu by pressing F1.

You can change the default help level at the WINSTALL Set Basic Editing Defaults menu or using WSCHANGE (DBAA).

CHAPTER 6

EDITING SCREEN FILE MENU

The File menu includes commands to open, close, save, and print files, prepare files for fax transmission, and other commands to manage files.


File
Open/Switch... ^OK
Close
Save ^KS
Save As... ^KT
Save and Close ^KD
Print... ^KS^KP
Fax... ^K\
Change Printer... ^P?
Copy... ^KO
Delete... ^KJ
Rename... ^KE
Change Drive/Directory... ^KL
Run DOS Command... ^KF
Status ^O?
Exit WordStar ^KQX

OPEN/SWITCH

Pull-down: ALT F, W
Classic: ^OK

Opens a window so that you can look at two documents at once, or at two parts of the same document. If two windows are already open, moves the cursor to the other window.

Follow these steps to open a new window or to move the cursor to the other window:

1. Choose File→Open/Switch, or use the ^OK classic command.
2. In the Open dialog box, specify the name of the file to open. You can open either an existing file or a new one.

   A filename can have up to eight characters and an optional extension of up to three characters. Type a period between the filename and the extension. Don't use spaces between the characters. Filenames can include letters, numbers, and these symbols:

   $ & # ! % ' ` ( ) { } - _ ~ @

   Note: Files with the extensions .COM, .EXE, .OVR, .SYS, .DCT, .CRT, .WSF, .PDF, .DCC, .INF, .PRD, .WSM, and .$?? (where ? can be any character) do not appear in the WordStar filenames lists, so don't use them to name your text files. You can change this list of filename extensions using WSCHANGE (CEC).
3. Press F10 or choose OK. The screen splits in half. The cursor is located in the new file on the bottom half of the screen.

You can edit in either window. To move the cursor to the other window, use this command or choose View→Open/Switch Window, or use the ^OK classic command.

The title bar shows a [1] when the cursor is in the top window and a [2] when the cursor is in the bottom window. It also shows the name of the file where the cursor is currently located. You can use a mouse to switch to the other window by clicking this number.

The file in the second window is always opened as a document if the file in the first window is a document, or as a nondocument if the file in the first window is a nondocument. If you want to be able to open a document and a nondocument at the same time, use WSCHANGE (DCGG) to turn on the prompt that asks you whether to open a document or a nondocument when you open a second window.

TIP *If you want to see how the document you're editing looked before you made your most recent editing changes, you can open a second window on the same document. The second window shows the version that you saved last, in protected mode, because you can't make changes to both copies.*

Keep these points in mind when working with two windows:

- To change the sizes of the windows, choose View→Change Window Size, or use the ^OM classic command. You can also press ^– (hyphen) to enlarge the current window one line at a time. For more information, see "Change Window Size" in "Editing Screen View Menu."
- You can mark blocks in both windows at once. To copy a block between windows, choose Edit→Copy→Block from Other Window, or press ^KA. To move a block between windows, choose Edit→Move→Block from Other Window, or press ^KG. For more information, see "Copy" and "Move" in "Editing Screen Edit Menu."
- You cannot edit notes or macros when you have a document in the second window.

CLOSE

Pull-down: ALT + F, C

Closes the file you are editing.

If you have made any changes to the file since you last saved it, WordStar asks if you want to save the changes, abandon them, or cancel the operation. The default is to save the changes.

You can also use the ^KQ classic command to close the file and abandon changes. If you press ^KQ, and you have made changes to the file since you last saved it, WordStar tells you that you've made changes and asks whether you want to abandon it anyway. The default is Yes, to abandon. If you choose

No, WordStar returns you to editing; if you choose Save, WordStar saves the changes and closes the file.

SAVE

Pull-down: ALT + F, S
Classic: ^KS

Saves the file you're editing, then resumes editing in the same place.

It's a good idea to use this command periodically when you're working in a file. It guarantees you won't lose your work if you have a power failure or other problem.

When you edit an existing file, the original file stays on disk while you work on a copy in the computer's memory. Each time you save the file, the copy in memory (with all your changes) goes back on the disk and replaces the original file. The original is saved as the backup file, with the .BAK extension.

SAVE AS

Pull-down: ALT + F, A
Classic: ^KT

Saves the file you are editing and allows you to rename the file.

Follow these steps to save and name a file.

1. Choose File→Save As, or use the ^KT classic command.
2. In the Save As dialog box, specify the name for the file. Include a directory path if necessary.
3. Press F10 or choose OK to save the file.

If you keep the same filename, the previous version of the file is saved as the backup file. If you give the file a different name than it originally had, the original file is unchanged.

TIP *If the current disk is full and you want to save the file to another disk, just specify the new drive as part of the filename.*

SAVE AND CLOSE

Pull-down: ALT + F, L
Classic: ^KD

Saves the file and returns you to the Opening screen.

This command saves the file with the same name it had when you opened it.

When you edit an existing file, the original file stays on disk while you work on a copy in the computer's memory. Each time you save the file, the copy in memory (with all your changes) goes back on the disk and replaces the original file. The original is saved as the backup file, with the .BAK extension.

TIP If you try to save a file and WordStar tells you there is insufficient disk space to save it, you can choose File→Save As (or use ^KT) to save it to a different disk, or you can choose File→Run DOS Command (or use ^KF) to delete files from the disk so that you can save the file.

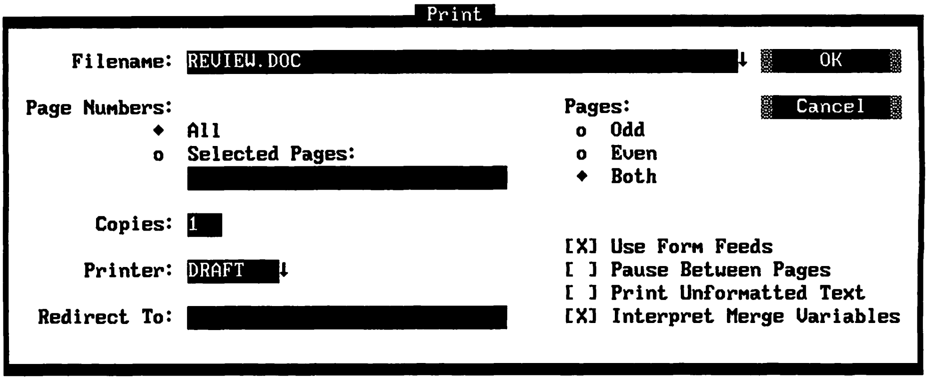
PRINT

Pull-down: ALT + F, P
Classic: ^KS^KP

Saves the current file and then prints it.

This command saves the current file and then prints it (or prints another file that you specify). The file is not closed; you can continue editing it, although your changes aren't printed. Follow these steps:

1. Choose File→Print, or use the classic commands ^KS (to save the file) and then ^KP (to print it).
2. In the Print dialog box, change any of the print options you want. The print options and their defaults are described below.



Filename: REVIEW.DOC

Page Numbers:
● All
○ Selected Pages:

Pages:
○ Odd
○ Even
● Both

Copies: 1

Printer: DRAFT

Redirect To:

☒ Use Form Feeds
☐ Pause Between Pages
☐ Print Unformatted Text
☒ Interpret Merge Variables

Filename Specify the file to print. The default is the file you are currently editing.

Page Numbers Select All (the default) to print every page in the file. To specify the pages to print, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, to print pages 1 through 3 and pages 5 and 7, type **1-3 5 7**. (If you've reassigned page numbers, when you use Selected Pages, printing starts at the first occurrence of the first number specified, and ends at the first occurrence of the last number specified.)

Copies You can print more than one copy of the document. The default is one copy. To change it, type the number of copies you want. (If you always want the file printed a certain number of times, you can use Utilities→Merge Print Commands→Print File n Times, or the **.rp** dot command. See "Merge Print Commands" in "Editing Screen Utilities Menu.")

Printer WordStar displays the name of the printer assigned to the file. To change it, type another printer name or select a name from the list of your installed printers.

Redirect To The output normally goes to whatever port you specified for the printer you are using. If you want to redirect the output to another port, type the name of the port. If you want to redirect output to a disk file, type the filename. For more information, see "Printing to Disk" in "Print" in "Opening Screen File Menu."

Pages To print only odd or only even pages, choose Odd or Even. The default is Both.

Use Form Feeds If you want WordStar to send a form feed to the printer when moving to the next page of a printout, select this check box. Form feeds are required for a laser printer or other sheet feeder. The default depends on the type of printer you are using. You can use PRCHANGE to specify a different default for each of your printers. Clear this box whenever you print on paper shorter than 11 inches.

Pause Between Pages If you need to have the printer pause between pages so you can feed individual sheets of paper to it, select this check box. You can use PRCHANGE to specify a different default for each of your printers. The default is no pause. If you select this option, WordStar pauses before the second page and each subsequent page.

Print Unformatted Text If you select this option, WordStar prints all the dot commands and does not execute them. Always use this option for printing nondocuments. The check box is clear as a default.

Interpret Merge Variables Merge print variables and commands are interpreted as a default. If you clear this check box, variable names are printed in the text rather than the variables, and merge print commands are ignored. For more information on merge print commands and variables, see "Merge Print Commands" in "Editing Screen Utilities Menu."

Note: You can change the default settings for many of the print options using WSCHANGE or PRCHANGE.

3 Press F10 or choose OK to print the file.

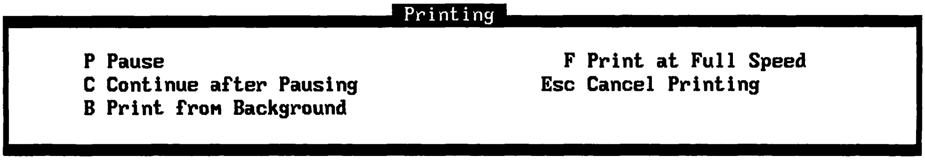
WordStar normally prints in the background so that you can continue with what you were doing before you started printing. The word *Printing* appears in the status line. If printing stops during background printing, *Print Wait* replaces *Printing.* You can use WSCHANGE (BDCA) to turn background printing off. This makes printing faster.

If your file contains any Ask for Variable, Pause Print, or Clear Screen commands, and you are using background printing, the *Print Wait* message appears in the status line. You must press P to go to the Printing screen (described below), and then enter the required response. If your file contains any Display

Message commands, you don't see the messages unless you go to the Printing screen.

TIP *The default speed for printing is full speed. However, some printers can't receive the printing input fast enough. If you're printing while editing, you may notice a time lag between pressing keys and the resulting onscreen operation. To eliminate this lag, use PRCHANGE to change the printing speed to a slower setting.*

The Printing Screen shows messages and commands related to printing. The Printing screen is hidden during background printing. You must display the Printing screen before you can see a printing-related message or enter a printing-related command during printing. To display this screen, choose File→Print or use the classic command P at the Opening screen or ^KP while editing.



```
                              Printing
    P Pause                                      F Print at Full Speed
    C Continue after Pausing                   Esc Cancel Printing
    B Print from Background
```

Messages appear below the Printing screen commands. The commands are described below.

COMMAND	DESCRIPTION
P	Pauses printing temporarily
C	Continues printing after a pause
B	Starts background printing and exits the Printing screen
F	Starts full-speed printing if you used PRCHANGE to choose a slower printer speed
Esc	Cancels printing completely and exits the Printing screen

During printing, the Printing screen status line shows the page number that is currently being printed. It also shows the copy number that is currently being printed. This is useful if you are printing more than one copy of a document.

FAX

Pull-down: ALT + F, F
Classic: ^K

Creates files that you can send with a fax board.

This command creates fax files in .PCX format. These files can be transmitted directly through a fax board using the software that came with the fax board. The resulting faxes look like the output to the printer, including all the fonts and other formatting.

Note: Most fax boards can transmit .PCX files. However, if your board does not support .PCX format, you must convert the .PCX file to a format supported by the board. Most fax board software includes a conversion utility that can do this.

One .PCX file is created for each page in a document. All the .PCX files you create are placed in the WS\FAX directory, which WordStar creates the first time you create a fax file. You can specify another fax file directory using WSCHANGE (CD4I).

Follow these steps to create fax files:

1. Choose File→Fax, or use the ^K\ classic command.

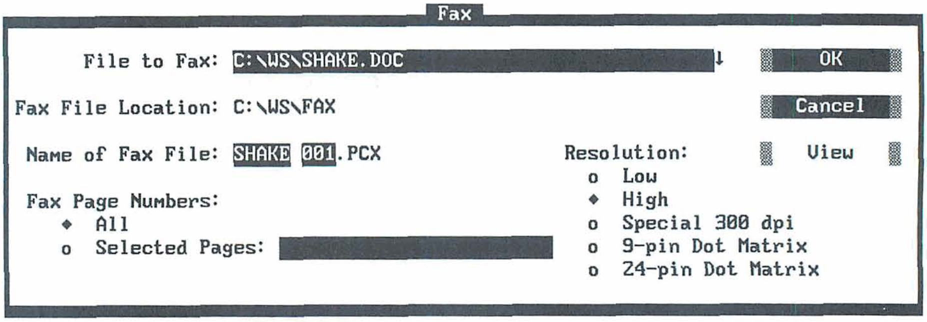
2. In the Fax dialog box, specify the name of the file to fax. If necessary, specify the path with the filename.

3. If you want to change the displayed name for the first fax file to create, specify the name you want. The default is the first five letters of the original filename, followed by three digits that represent the page number, starting with 001. Fax files for subsequent pages are numbered sequentially. The filename extension is always .PCX.

   If the filename you specify is the name of an existing file, WordStar asks if you want to overwrite the file. If you choose Overwrite (or press Y), WordStar deletes the old file and replaces it with the new file. If you choose Cancel (or press N), WordStar does not create the fax files. You can start again and use a different filename.

   TIP *To avoid confusion, always choose a unique filename when you create fax files, and delete fax files promptly when you no longer need them.*

4 Change any of the options you want. These options are described below.



File to Fax: C:\WS\SHAKE.DOC

Fax File Location: C:\WS\FAX

Name of Fax File: SHAKE 001.PCX

Fax Page Numbers:
- ◆ All
- o Selected Pages:

Resolution:
- o Low
- ◆ High
- o Special 300 dpi
- o 9-pin Dot Matrix
- o 24-pin Dot Matrix

Fax Page Numbers Select All (the default) to create fax files for every page. To specify pages, select Selected Pages and type the page numbers, separated with spaces. You can specify a range by using a hyphen. For example, for pages 1 through 3 and pages 5 and 7, type **1-3 5 7**.

IMPORTANT When you use Selected Pages, you must specify the physical page numbers, even if you've reassigned page numbers. For example, if you have a three-page document with no page number on the first page, and the second and third pages are numbered 1 and 2, you must specify 2-3 (or 2 3) to create fax files for the last two pages. If you're not sure about the physical page numbers, you can choose View→Preview (or ^OP). Preview displays the physical page numbers at the top of the screen or, if more than one page is displayed, above each page.

Resolution Select the resolution your fax board uses. High resolution, the default, is 200x200 dots per inch (dpi), and low resolution is 200x100 dpi. The Special 300 dpi option is provided for fax drivers that use this resolution. The 9-Pin Dot Matrix and 24-Pin Dot Matrix settings are not used for creating fax files. They create files that can be printed on a dot matrix printer using a utility (not provided with WordStar) for printing .PCX files.

If the setting does not match the setting in your fax software, the file may not look right when it is faxed. High resolution produces much better-looking output. (Be sure to send the fax using the same resolution you create it with.)

View You can choose the View button to preview the file in order to decide which pages to create fax files for. While you are previewing the file, you can use all the usual Preview commands, including the Options command to create fax files. If you create fax files in Preview, you return to editing when you exit Preview; otherwise, you return to the Fax dialog box. For more information about Preview, see "Preview" in "Editing Screen View Menu."

5 When you finish, press F10 or choose OK. WordStar creates the fax file or files, displaying the progress.

You can press Esc to cancel fax file creation after the current page, or press Esc twice to cancel it immediately.

After you create a fax file, you can use the SHOWPCX utility to identify the file, to make sure you've processed the correct pages, and to check the quality of the fonts. Start at the system prompt, type **showpcx fax*filename*** (you don't need to type the .PCX extension) and press Enter. The fax file appears on the screen in half-size format, so that you can see more of the page. Press the Plus (+) key on the numeric keypad to view it in maximum resolution. You can use the scrolling commands and PgUp and PgDn to move around on the page. When you finish viewing the file, press Esc to exit SHOWPCX. (Depending on your monitor and the resolution you specified for the fax file, the image may not have the proper proportions.)

When you are working with fax files, keep these things in mind:

- The fax file is a graphic representation of the printed page and is created using the same process as Preview. All the features and limitations of Preview apply to creation of fax files. For example: The same fonts are available, and a 72-point font is used for fonts that are larger than 72 points. Colors other than white are changed to black. System variables (such as date and time) and merge print variables are not replaced with the corresponding data.

- For the best appearance of fonts in fax files, it's best to use the FAX.PDF printer driver for the document. This printer driver supplies fonts comparable to Hewlett-Packard LaserJet III fonts, including Courier, Line Printer, and scalable Times and Univers fonts. FAX.PDF is installed when you install WordStar. You can add your own fonts to this PDF using PRCHANGE.

- The best way to determine how the fax will look is by using Preview at 4x zoom. Usually (depending on your monitor resolution), this option corresponds most closely with the fax file resolution.

- Creating fax files requires up to 27K of memory in addition to what WordStar usually needs. You may need to free up memory for optimum performance with fax files. For guidelines on memory usage, see *Installing and Customizing.* If your fax driver software remains in memory, you may need to remove it before starting WordStar, and send your faxes after exiting WordStar.
- If the appearance of fonts (especially large fonts) is blocky, WordStar may need more memory while creating screen fonts. If less than 512K is available when you start WordStar, you can remove memory-resident programs or use WSCHANGE settings to make more memory available, and then run the DELCRT utility to delete the blocky fonts. Then start WordStar and create the fax files again. You can also improve these fonts by creating .WSF files for large fonts using smaller symbol sets. For more information on .WSF files, see the *Installing and Customizing* booklet.
- Fax files are large, and take up a lot of disk space. You may want to delete them regularly. Also, .CRT files are created when you create fax files. You can delete .CRT files that you no longer need using the DELCRT utility. For more information, see "Preview Files" in "Preview" in "Editing Screen View Menu."

CHANGE PRINTER

***Pull-down:* ALT + F, H**
***Classic:* ^P?**

Changes the printer assigned to the file you are editing.

When you choose this command, WordStar displays a list of the available printer description files (PDFs), and you can choose the one you want. Follow these steps:

1. Choose File→Change Printer, or use the ^P? classic command.
2. In the Change Printer dialog box, specify the name of the printer to use. The list below the dialog box shows the available printers.
3. Press F10 or choose OK.

After you change the printer, you can use Style→Font (or ^P=) to see the fonts available for that printer. See "Font" in "Editing Screen Style Menu."

After you change the printer and any fonts you need to change, be sure to reformat your document (Utilities→Reformat→Rest of Document or the ^QU classic command).

COPY

***Pull-down:* ALT + F, O**
***Classic:* ^KO**

Copies a file.

Copying makes an exact duplicate of the file being copied; the original is saved, not erased. Follow these steps to copy a file:

1 Choose File→Copy, or use the ^KO classic command.

2 In the Copy dialog box, specify the name of the file to copy. If the file is not on the current drive and directory, specify the path with the filename.

3 Specify the name of the file to copy to. You can put the copy on another drive or directory by specifying the path with the filename.

  You can use the same filename if you copy from one drive or directory to another, but you cannot have two files with the same name in the same directory. If the filename you give for the new copy is the name of an existing file, WordStar asks if you want to overwrite the file. If you choose Overwrite (or press Y), WordStar deletes the old file and replaces it with the new file. If you choose Cancel (or press N), WordStar does not copy the file. You can start again and use a different filename.

4 Press F10 or choose OK to copy the file.

DELETE

***Pull-down:* ALT + F, T**
***Classic:* ^KJ**

Deletes a file.

Follow these steps to delete a file:

1. Choose File→Delete, or use the ^KJ classic command.
2. In the Delete dialog box, specify the name of the file to delete. If the file is not on the current drive and directory, specify the path with the filename.
3. Press Y or Enter to confirm you want to delete the file.
4. Press F10 or choose OK to delete the file.

RENAME

***Pull-down:* ALT + F, E**
***Classic:* ^KE**

Renames a file.

Follow these steps to rename a file:

1. Choose File→Rename, or use the ^KE classic command.
2. In the Rename dialog box, specify the name of the file to rename. If the file is not on the current drive and directory, specify the path with the filename.
3. Type a new name for the file.

   If the filename you type is the name of an existing file, WordStar tells you that that file already exists. Type a different name.
4. Press F10 or choose OK to rename the file.

TIP *You can move a file when you rename it by specifying the path with the filename. The new location must be on the same disk drive.*

CHANGE DRIVE/DIRECTORY

Pull-down: ALT + F, V
Classic: ^KL

Changes the logged drive and directory.

The logged drive or directory is the one you're currently working in. WordStar looks for and stores files on the logged drive and directory unless you tell it otherwise.

1. Choose File→Change Drive/Directory, or use the ^KL classic command.
2. In the Change Drive/Directory dialog box, specify the name of the drive and directory to change to.
3. Press F10 or choose OK.

CAUTION When you change disks in a floppy disk drive, log on to the drive again. If you don't, the operating system may refuse to write to the disk, or it may damage data on the new disk. (Never remove a floppy disk while you're editing a file on it and then log on to the drive again.)

RUN DOS COMMAND

Pull-down: ALT + F, R
Classic: ^KF

Allows you to run a DOS command without leaving WordStar.

When you use this command, WordStar temporarily moves into the background, and you can type the DOS command you want. For example, you can start Lotus 1-2-3 and look up information on a spreadsheet, or you can use the DOS CHKDSK command to check how much free disk space you have.

1. Choose File→Run DOS Command, or use the ^KF classic command.
2. In the Run DOS Command dialog box, type the DOS command to run.
3. Press F10 or choose OK.

TIP *If you want to run more than one DOS command without returning to WordStar, type* ***command*** *and press Enter to run the DOS command processor. You can then run as many commands as you want. When you finish using DOS commands, type* ***exit*** *and press Enter. Then press any key to return to WordStar.*

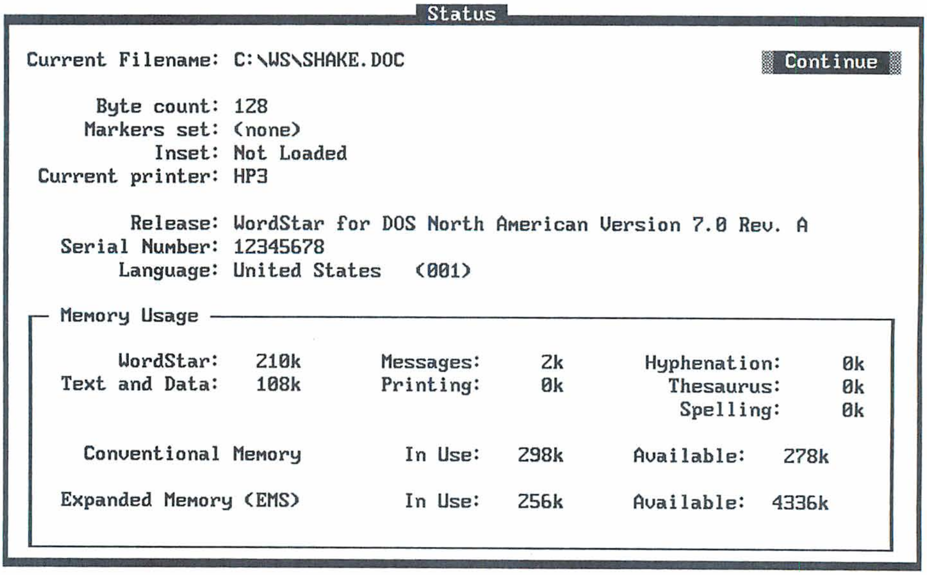
The amount of memory you can use to run DOS commands depends on how much memory WordStar is using, whether you are using any memory-resident programs, how much EMS memory is available to WordStar, and how much disk space is available.

CAUTION *Never load a memory-resident program (such as DOS PRINT, Inset or Sidekick) using this command. If you plan to use such a program from within WordStar, be sure you load it before you start WordStar.*

STATUS

***Pull-down:* ALT + F, U**
***Classic:* ^O?**

Displays the Status screen.



```
Current Filename: C:\WS\SHAKE.DOC

      Byte count: 128
     Markers set: (none)
           Inset: Not Loaded
 Current printer: HP3

         Release: WordStar for DOS North American Version 7.0 Rev. A
   Serial Number: 12345678
        Language: United States   (001)

 Memory Usage
        WordStar:   210k        Messages:      2k       Hyphenation:     0k
   Text and Data:   108k        Printing:      0k         Thesaurus:     0k
                                                           Spelling:     0k

      Conventional Memory          In Use:   298k     Available:   278k

   Expanded Memory (EMS)           In Use:   256k     Available:  4336k
```

The Status screen gives information on the current filename, byte count from the beginning of the file to the cursor position, markers set, Inset status, printer, WordStar version and serial number, language, and memory usage.

EXIT WORDSTAR

Pull-down: **ALT + F, X**
Classic: **^KQX**

Closes the file without saving changes, then immediately exits WordStar.

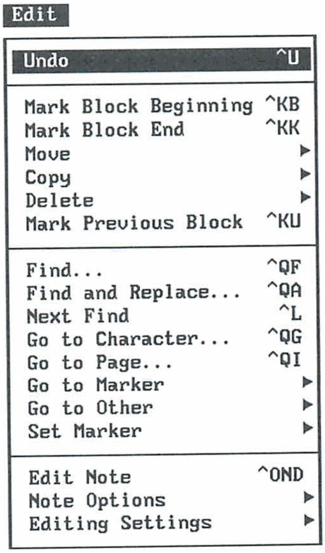
If you've made changes to the file since the last time you saved it, WordStar prompts you to verify that you want to abandon your changes.

If you're printing in the background when you use the Exit command, the Printing screen appears after you exit the file. You must wait until printing finishes, or press Esc to cancel printing, before you exit WordStar.

CHAPTER 7

EDITING SCREEN EDIT MENU

The Edit menu includes commands for marking and working with blocks of text, finding and replacing text, going to various locations in the file, editing notes, and other editing operations.


Edit
Undo ^U
Mark Block Beginning ^KB
Mark Block End ^KK
Move ▶
Copy ▶
Delete ▶
Mark Previous Block ^KU
Find... ^QF
Find and Replace... ^QA
Next Find ^L
Go to Character... ^QG
Go to Page... ^QI
Go to Marker ▶
Go to Other ▶
Set Marker ▶
Edit Note ^OND
Note Options ▶
Editing Settings ▶

UNDO

Pull-down: ALT + E, U
Classic: ^U

Cancels or stops a command.

You can use Undo to cancel many WordStar operations. For example, you can

- Restore the text that you most recently deleted
- Cancel a response to a prompt before the response is final
- Stop a find or a find-and-replace operation
- Stop a spelling check
- Stop printing

RESTORING TEXT

When you choose Edit→Undo or use the ^U classic command, the last group of characters you erased is restored to the screen (unerased) at the current cursor location.

Undo does not unerase single characters erased with the Backspace key, the Del key, ^G, or ^H (except for note tags, index tags, graphics tags, and user print tags). However, you can use WSCHANGE (DBEB) to specify that they can be unerased.

TIP *Unerasing is an easy way to move a phrase. Erase the text, move the cursor to the new location, and choose Edit→Undo.*

WordStar stores your last erasure in a special memory buffer. Only the last erasure is stored. Each time you erase something, WordStar empties the buffer of the previous erasure and puts the current erasure in its place.

Using Undo copies the contents of the buffer into the text. It does not empty the buffer. You can unerase the same text repeatedly. This is useful for duplicating words and phrases.

Normally, WordStar unerases a maximum of 500 bytes, but you can change that value with WSCHANGE (CCJ). Keep in mind that the buffer is in working memory. Therefore, the larger the buffer, the less memory is available for editing your files and other WordStar operations.

MARK BLOCK BEGINNING

***Pull-down:* ALT + E, B**
***Classic:* ^KB**

Marks the beginning of a block of text.

A block is a portion of text that you mark so that you can perform a task on it, for example, move, copy, or delete it.

When you choose Edit→Mark Block Beginning or use the ^KB classic command, the <B> marker appears. Once you mark both ends of the block, the markers disappear, and the block is highlighted.

TIP *It's a good idea to have Command Tags display on before you mark a block, so that you can see what commands you're including in the block. For example, if you mark bold text, be sure to include both the beginning and end bold command tags.*

MARKING A BLOCK WITH A MOUSE

To mark a block using a mouse, position the mouse pointer where you want the block to begin. Drag the mouse to where you want the block to end and release the button.

If you drag the mouse down, the text above it is highlighted to the end of each line unless column mode is on (for information on column mode, see "Editing Settings" in this chapter).

You can also use the following keyboard/mouse button combinations to mark a block:

Ctrl+Click If no block is marked, marks a block from the cursor to the mouse pointer. If a block is already marked, sets a new block beginning marker.

Shift+Click If no block is marked, marks a block from the cursor to the mouse pointer. If a block is already marked, sets a new block ending marker.

Ctrl+Shift+Click Unmarks the block in the current window and moves the cursor to the mouse pointer position.

WORKING WITH BLOCKS

Keep these points in mind when you work with blocks:

- The block beginning marker, <B>, must precede the block end marker, <K>, in the text. In column block mode, the end marker must also be to the right of the beginning marker.
- To mark a new block, move the cursor to the new block beginning and end locations and mark them. The <B> and <K> markers move to the new locations.
- A block is marked only while you are editing. After you exit the file, the block is no longer marked.
- You can mark one block at a time in each window.
- You can unmark the block in the current window by pressing ^KU.

For more information about working with blocks, see the following sections:

TOPIC	**SECTION**
Moving a block	"Move" in this chapter
Copying a block	"Copy" in this chapter
Copying a block to another file	"Copy" in this chapter
Deleting a block	"Delete" in this chapter
Column blocks	"Editing Settings" in this chapter
Hiding a block	"Block Highlighting" in "Editing Screen View Menu"
Inserting a block from another file	"File" in "Editing Screen Insert Menu"

TOPIC	**SECTION**
Block math	"Block Math" in "Editing Screen Utilities Menu"
Sorting a block alphabetically	"Sort Block" in "Editing Screen Utilities Menu"
Converting the case of the text in the block	"Convert Case" in "Editing Screen Style Menu"
Counting words in a block	"Word/Character Count" in "Editing Screen Utilities Menu"

MARK BLOCK END

***Pull-down:* ALT + E, E**
***Classic:* ^KK**

Marks the end of a block of text.

When you choose Mark Block End, the <K> marker appears. Once you mark both ends of the block, the marker disappears, and the block is highlighted.

To include the carriage return in the last line of the block, mark the block end at the beginning of the next line.

For more information on working with blocks, see "Mark Block Beginning" above.

MOVE

***Pull-down:* ALT + E, V**

Moves a block of text to the current cursor position.

The following table describes the commands on this menu and the corresponding classic commands.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Block	^KV	Moves the marked block to the current cursor position.
Block from Other Window	^KG	Moves the block marked in the other window to the current cursor position.

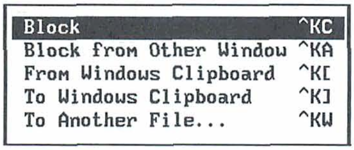
The block is inserted; it does not overtype text. The text at the original location disappears.

For information on moving a block in column mode, see "Editing Settings" in this chapter.

COPY

Pull-down: ***ALT + E, C***

Copies a block of text.


Block ^KC
Block from Other Window ^KA
From Windows Clipboard ^K[
To Windows Clipboard ^K]
To Another File... ^KW

The following table describes the commands on this menu and the corresponding classic commands.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Block	^KC	Copies the marked block of text to the current cursor position.
Block from Other Window	^KA	Copies the block of text marked in the other window to the current cursor position.
From Windows Clipboard	^K[	Copies the block of text from the Microsoft Windows Clipboard to the current cursor position.

PULL-DOWN COMMAND	**CLASSIC COMMAND**	**DESCRIPTION**
To Windows Clipboard	^K]	Copies the block of text to the Microsoft Windows Clipboard.
To Another File	^KW	Copies the marked block of text to another file. In the dialog box, specify the name of the file to which to copy the block. Include a path if necessary. If you select Copy in ASCII Format, WordStar strips out the formatting (command tags and dot commands) and converts tabs to spaces. If you specify a file that already exists, you can either Overwrite (delete the old file and create a new one consisting of the block) or Append (add the block to the end of the existing file). If you type a filename that does not already exist, a new file is created and the block is copied to it.

The block you copy is inserted; it does not overtype text. The text at the original location remains where it is and is still marked as a block.

To copy a block to or from the Windows Clipboard, you must be running WordStar under the Windows program in 386 enhanced mode. When you copy a block from the Clipboard, the text is inserted into your WordStar file in ASCII format. You cannot copy a block from the Clipboard if it contains graphics or text that is not in ASCII format. When you copy a block to the Clipboard, all WordStar formatting commands are removed, so that only the text is copied, in ASCII format. The block replaces the previous contents of the Clipboard. If the block includes a note tag, only the reference number is copied; to copy a note to the Clipboard, display the note text, mark it as a block, and then copy it.

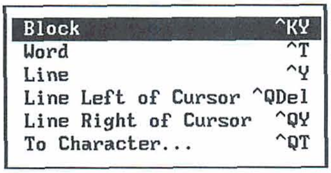
Note: The Windows clipboard is limited to 64K of data; if you try to copy a larger block, only the first 64K can be copied. Also, WordStar needs up to 64K of memory (depending on the size of the block) to copy a block to the Clipboard; if enough memory is not available, only part of the block is copied.

For information on copying a block when you're using column mode, see "Editing Settings" in this chapter.

DELETE

Pull-down: ***ALT + E, D***

Deletes text.



The following table describes the commands on this menu and the corresponding classic commands.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Block	^KY	Deletes the currently marked block. The text around it is automatically reformatted.
Word	^T	Deletes from the cursor position to the end of the word.
Line	^Y	Deletes the entire current line (the one containing the cursor).
Line Left of Cursor	^QDel	Deletes the text on the same line as and to the left of the cursor.
Line Right of Cursor	^QY	Deletes the text on the same line as and to the right of the cursor.
To Character	^QT	Deletes all the text up to a specified character. Specify the character at the Delete to Character dialog box. You can type a period to delete to the end of the sentence, or press Enter to delete to the end of the paragraph. (If display of dot commands is off, dot commands are not deleted.)

You can also use several other keys to delete text.

COMMAND	DESCRIPTION
^G or Del	Deletes the character, space, or command tag at the cursor.
^H or Backspace	Deletes the character, space, or command tag to the left of the cursor.

TIP *Use Edit→Undo (^U) to restore the last text deleted (except single characters). See "Undo" in this chapter.*

MARK PREVIOUS BLOCK

***Pull-down:* ALT + E, K**
***Classic:* ^KU**

Marks the block that was marked before you marked the current block or moved a block marker.

When you choose Edit→Mark Previous Block, or use the ^KU classic command, WordStar marks the block that was previously marked. If no block was marked before the current one, the command has no effect.

This command allows you to work with two blocks of text. You can, for example, mark one block and copy it, then mark another and move it, then re-mark the first block to copy it again.

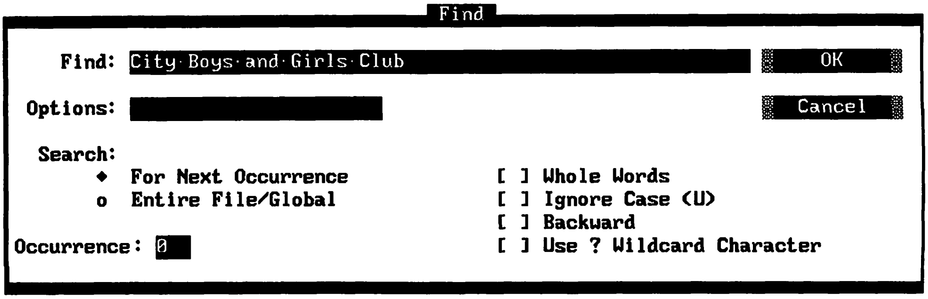
FIND

***Pull-down:* ALT + E, F**
***Classic:* ^QF**

Locates text that you specify.

Follow these steps to find text in the current document.

1. Choose Edit→Find, or use the ^QF classic command.
2. In the Find dialog box, type the text to find. Guidelines for typing text are given after these steps.



```
                              Find
     Find: City·Boys·and·Girls·Club                         OK
  Options:                                               Cancel
   Search:
        ◆  For Next Occurrence          [ ] Whole Words
        o  Entire File/Global           [ ] Ignore Case (U)
                                        [ ] Backward
Occurrence: 0                           [ ] Use ? Wildcard Character
```

3 Select any options you want to use, or type the option letters in the Options box, which shows all the selected options. Press ^Y if you want to clear all the options. The options are described below. As a default, the search is for the next occurrence and no other options are used. You can set default options with WSCHANGE (DBGA).

Search For Next Occurrence (C) Finds the next occurrence (or the previous one, if Search Backward is also used) after the current cursor location.

Search Entire File/Global (G) Moves to the beginning of the file (or the end, if Search Backward is also used) before beginning the search.

Occurrence (*n*) When you select this option, you also type a number, ***n***. Then the search goes to the *n*th occurrence of the search text. For example, to find the fifth occurrence of a word in the document, type **5**.

Whole Words (W) Finds whole words only. For example, if you type "can" and don't select this option, WordStar finds "can," "canned," "American," and "scandal."

Ignore Case (U) Ignores the case (uppercase or lowercase) of the characters. This option finds text whether or not any letters are capitalized.

Backward (B) Searches backward from the cursor toward the beginning of the file.

Use ? Wildcard Character (?) Treats a question mark (?) in the search text as a wildcard character. For example, if you type "d?g" and select this option, WordStar finds "dig," "dog," and "dug." If you use a ? in the search text and don't select this option, WordStar searches for the ? character.

4 When you finish selecting options, press F10 or choose OK to start the find operation. The cursor moves to the next instance of the text you typed.

5 If you want to go to the next instance of the text you typed, choose Edit→Next Find, or use the ^L classic command.

To interrupt a Find operation, press Esc.

TYPING THE TEXT TO FIND

When you type the text to find, keep these things in mind:

- WordStar can find any sequence of characters, including spaces and control characters (control characters are the command tags that begin with a caret, such as ^B for bold). The text to find can be up to 65 characters long.
- When you type the text to find, you must be precise. WordStar searches for exactly what you type. If you type an extra space after a word, WordStar finds it only if you used an extra space in the text.
- You can use the question mark (?) as a wildcard character. For example, to find all occurrences of Suzy, Susy, and Suzi, type Su??.
- To specify a control character that is included in the text to find, press ^P and the character. For example, to specify a bold command (^PB), hold down the Ctrl key and press PB (be sure to hold down the Ctrl key for both keystrokes).
- To specify a hard carriage return, hold down the Ctrl key and press N. To find a soft hyphen at the end of a line, hold down the Ctrl key and press P–. To find a soft hyphen in the middle of a line, hold down the Ctrl key and press P6.

Note: You can find some elements using Go To commands. See the information on the Go To commands in this chapter.

FIND AND REPLACE

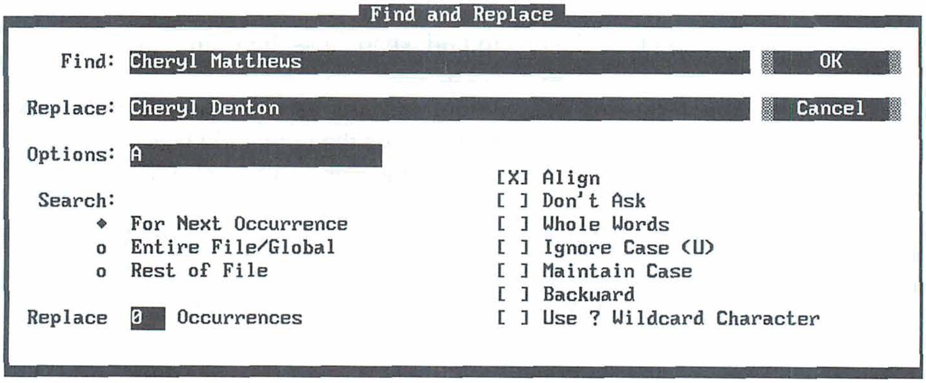
Pull-down: ***ALT + E, R***
Classic: ***^QA***

Locates text and replaces it with text you specify.

Follow these steps to find and replace text in the current document.

1. Choose Edit→Find and Replace, or use the ^QA classic command.

2. In the Find and Replace dialog box, type the text to find. Guidelines for typing text are given after these steps.



Find: Cheryl Matthews

Replace: Cheryl Denton

Options: A

Search:
◆ For Next Occurrence
○ Entire File/Global
○ Rest of File

Replace 0 Occurrences

☒ Align
☐ Don't Ask
☐ Whole Words
☐ Ignore Case (U)
☐ Maintain Case
☐ Backward
☐ Use ? Wildcard Character

3. Type the replacement text.

4. Select any options you want to use, or type the option letters in the Options box, which shows all the selected options. Press ^Y if you want to clear all the options. The options are described below. As a default, the search is for the next occurrence and no other options are used. You can set default options with WSCHANGE (DBGA).

   Search For Next Occurrence (C) Finds the next occurrence (or the previous one, if Search Backward is also used) after the current cursor location.

   Search Entire File/Global (G) Searches globally through the entire file starting from the beginning (or the end if Search Backward is also used).

Search Rest of File (R) Searches through the rest of the document for all occurrences of the text.

Replace *n* Occurrences (*n*) When you select this option, you also type a number, ***n***. Then WordStar finds and replaces *n* occurrences of the text. For example, to replace five occurrences of a word, type **5**.

Align (A) Aligns the paragraph after replacement. After reaching the end of the paragraph, the cursor returns to the spot where the replacement was made. If you don't use this option, you may need to reformat your paragraphs after replacing text.

Don't Ask (N) Replaces text without asking whether or not you want to make the replacement. As a default, the replace operation is displayed so that you can keep track of it.

Whole Words (W) Finds whole words only. For example, if you type "can" and don't select this option, WordStar finds "can," "canned," "American," and "scandal."

Ignore Case (U) Ignores the case (uppercase or lowercase) of the characters. This option finds text whether or not any letters are capitalized.

Maintain Case (M) Enters the replacement text using the same case as the text you're replacing.

Backward (B) Searches backward from the cursor toward the beginning of the file.

Use ? Wildcard Character (?) Treats a question mark (?) in the search text as a wildcard character. For example, if you type "d?g" and select this option, WordStar finds "dig," "dog," and "dug." If you use a ? in the search text and don't select this option, WordStar searches for the ? character.

TIP *When you select Entire File or Rest of File with the Don't Ask option, you can turn off the display of replacements to speed up the operation. Just press the Spacebar after the operation starts.*

5 When you finish selecting options, press F10 or choose OK to start the Find and Replace operation. The cursor moves to the next instance of the text you typed and WordStar asks whether you want to replace this instance (unless you selected the Don't Ask option).

6 Choose Yes to replace the text or No to skip this instance.

7 If you selected the Entire File option, WordStar goes to the next instance of the text to find, and you repeat step 6.

If you didn't select the Entire File option, and you want to go to the next instance of the text you typed, choose Edit→Next Find, or use the ^L classic command.

To interrupt a Find and Replace operation, press Esc.

TYPING THE TEXT TO FIND

When you type the text to find or the replacement text, keep these things in mind:

- WordStar can find and replace with any sequence of characters, including spaces and control characters (control characters are the command tags that begin with a caret, such as ^B for bold). The text to find and the replacement text can each be up to 65 characters long.
- When you type the text to find, you must be precise. WordStar searches for exactly what you type. If you type an extra space after a word, WordStar finds it only if you used an extra space in the text.
- You can use the question mark (?) as a wildcard character in the text to find. For example, to find all occurrences of Suzy, Susy, and Suzi, type Su??.
- To specify a control character that is included in the text to find or the replacement text, press ^P and the character. For example, to specify a bold command (^PB), hold down the Ctrl key and press PB.
- To specify a hard carriage return, hold down the Ctrl key and press N. To find a soft hyphen at the end of a line, hold down the Ctrl key and press P–. To find a soft hyphen in the middle of a line, hold down the Ctrl key and press P6.

Note: You can find some elements using Go To commands. See the information on the Go To commands in this chapter.

NEXT FIND

Pull-down: ALT + E, X
Classic: ^L

Locates the next instance of text you specified with Find or Find and Replace.

If you used Find, WordStar moves the cursor to the next occurrence of the specified text and returns you to the editing screen.

If you used Find and Replace, WordStar moves the cursor to the next occurrence of the specified text, asks whether you want to replace it, replaces it if you answer Yes, and then returns you to the editing screen.

GO TO CHARACTER

Pull-down: ALT + E, G
Classic: ^QG

Moves the cursor to the next occurrence of a particular character.

To go to a character, follow these steps:

1. Choose Edit→Go to Character, or use the ^QG classic command.
2. In the Go to Character dialog box, type the character to go to. You can type any character, or you can press Enter to go to the end of the paragraph.

If dot command display is off, WordStar ignores characters in a dot command.

GO TO PAGE

Pull-down: ALT + E, P
Classic: ^QI

Moves the cursor to the first character on the page (or line, in a nondocument) you specify.

Follow these steps to go to a page:

1. Choose Edit→Go to Page, or use the ^QI classic command.

2 In the Go to Page dialog box, type the page number to go to. You can also type the Plus (+) sign for the next page or the Minus (–) sign for the previous page. To go forward or back a certain number of pages, type **+*n*** or **-*n***, where *n* is the number of pages to move. For example, **+6** moves the cursor forward six pages.

3 Press F10 or choose OK.

GO TO MARKER

***Pull-down:* ALT + E, M**
***Classic:* ^Q 0-9**

Moves the cursor to the marker you specify.

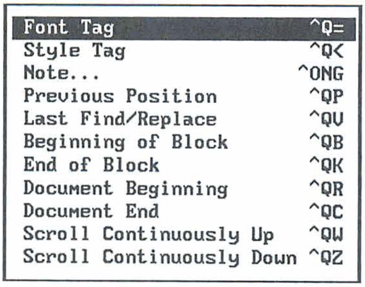
To move the cursor to a marker, choose Go to Marker, and then choose a number for the marker (0-9) from the menu that appears. Alternately, you can use the classic command ^Q followed by the marker number.

For information on setting markers, see "Set Marker" in this chapter.

GO TO OTHER

***Pull-down:* ALT + E, O**

Moves the cursor to a particular location.


Font Tag ^Q=
Style Tag ^Q<
Note... ^ONG
Previous Position ^QP
Last Find/Replace ^QV
Beginning of Block ^QB
End of Block ^QK
Document Beginning ^QR
Document End ^QC
Scroll Continuously Up ^QW
Scroll Continuously Down ^QZ

The following table describes the commands on this menu and the corresponding classic commands.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Font Tag	^Q=	Moves the cursor to the next font tag.
Style Tag	^Q<	Moves the cursor to the next paragraph style tag.
Note	^ONG	Moves the cursor to the next note. Select the type of note (the default is Any Note). Specify Note Tag Only to move to the note tag. If this check box is clear, WordStar opens a window on the note, and you can specify text to locate within the note and options for the text. (If no text is specified, WordStar goes to the beginning of the note.) See "Find and Replace" in this chapter for information on the options.
Previous Position	^QP	Moves the cursor to where it was located before the previous operation.
Last Find/Replace	^QV	Moves the cursor to the previous Find or Find and Replace location or to the last block location.
Beginning of Block	^QB	Moves the cursor to the beginning of the currently marked block.
End of Block	^QK	Moves the cursor to the end of the currently marked block.
Document Beginning	^QR	Moves the cursor to the beginning of the document.
Document End	^QC	Moves the cursor to the end of the document.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Scroll Continuously Up	^QW	Scrolls continuously up, one line at a time. When you choose this command, the screen starts scrolling up toward the beginning of the document (the text moves down). You can stop the scrolling by pressing any key.
Scroll Continuously Down	^QZ	Scrolls continuously down, one line at a time. When you choose this command, the screen starts scrolling down toward the end of the document (the text moves up). You can stop the scrolling by pressing any key.

SET MARKER

***Pull-down:* ALT + E, S**
***Classic:* ^K 0-9**

Puts a temporary marker in the file to mark a certain location.

You can use place markers to help find your place in a file. Once you set a marker, you can then quickly move the cursor to that location. You can put up to 10 markers in a file.

To set a marker, choose Edit→Set Marker, and then choose a number for the marker (0-9) from the menu that appears. Alternately, you can use the classic command ^K followed by the marker number.

To move a marker, move the cursor to the new location and choose Edit→Set Marker (or ^K) with the same marker number. To delete a marker, move the cursor to the marker and use Set Marker with the same marker number.

To move the cursor from anywhere in the file to a marker, use Go to Marker or the classic command ^Q followed by the marker number. See "Go to Marker" in this chapter.

Markers are in effect only while you edit the file. They are not saved when you exit.

If you sort text that contains markers, the markers stay in their original location and do not move with the text.

EDIT NOTE

Pull-down: **ALT + E, N**
Classic: **^OND**

Allows you to edit an existing footnote, endnote, annotation, unprinted comment, or index entry.

Follow these steps to edit a note:

1. Place the cursor on the note you want to edit.
2. Choose Edit→Edit Note, or use the ^OND classic command.

   If the note is a footnote, endnote, annotation, or unprinted comment, WordStar opens a window on the note so that you can edit it. Or, if the note is an index entry, the Edit Index Entry dialog box appears.
3. If the note is a footnote, endnote, annotation, or unprinted comment, edit the note as you would a document. When you finish editing, choose File→Save, or press ^KD, to save your changes.

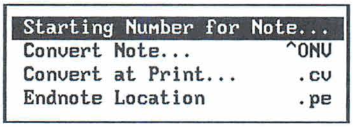
   Or, if the note is an index entry, edit the entry, and then press F10 or choose OK to save your changes.

This command is used for editing existing notes only. For information on inserting notes, see "Note" and "Index Entry" in "Editing Screen Insert Menu."

NOTE OPTIONS

Pull-down: ***ALT + E, T***

Sets options for notes.



STARTING NUMBER FOR NOTE

Pull-down: ***ALT + E, T, S***

Changes the starting number for footnotes and endnotes.

Footnotes and endnotes are usually numbered, starting with 1. You can change the starting number, or change to a letter sequence. You can also choose to restart footnote numbering on each page or to number footnotes consecutively throughout the document.

It's usually best to use this command at the beginning of the file; otherwise, only the subsequent notes will be numbered in the new sequence. Follow these steps:

1. Choose Edit→Note Options→Starting Number for Note or use the ^ONN classic command.
2. In the Starting Number for Note dialog box, choose Footnote Starting Value or Endnote Starting Value.
3. Type the new starting number or letter. For example, you could type **A** to use an alphabetical sequence, **4** to use a numeric sequence starting with the number 4 rather than the number 1, or **F** to use an alphabetical sequence starting with F.
4. As a default, footnote numbers start with the starting value on each page. To number footnotes sequentially throughout the document, select Continuous Through Document. To return to the default, select Restart on Each Page.
5. Press F10 or choose OK.

WordStar inserts the **.f#** (footnote numbering) or **.e#** (endnote numbering) dot command, followed by the new starting number or letter, for example, **.e# a**. The **.f#** command can also have a **d** for numbering throughout the document or a **p** to restart numbering on each page, for example, **.f#d 1**. You can get the same result by typing the **.f#** or **.e#** command. To return to default numbering, delete the dot command line.

CONVERT NOTE

***Pull-down:* ALT + E, T, C**
***Classic:* ^ONV**

Converts a footnote, endnote, annotation, or comment to another type of note.

1. Place the cursor on the note you want to convert.
2. Choose Edit→Note Options→Convert Note. Alternately, you can use the ^ONV classic command.
3. In the Convert Note dialog box, select the type of note to convert to.
4. Press F10 or choose OK.

CONVERT AT PRINT

***Pull-down:* ALT + E, T, P**
***Classic:* .CV**

Converts all footnotes, endnotes, and comments from one type of note to another for printing only.

This command allows you to print all notes of one type as another type of note. For example, if you have both footnotes and endnotes in one document, you can print all the notes as footnotes, and they will be numbered consecutively. You can also print comments as either endnotes or footnotes.

1. Choose Edit→Note Options→Convert at Print.
2. In the Convert at Print Time dialog box, select the appropriate conversion or conversions.
3. Press F10 or choose OK.

The **.cv** dot command is inserted, followed by the appropriate conversion. The possible dot command lines are **.cv f>e** (print footnotes as endnotes), **.cv e>f** (print endnotes as footnotes), **.cv c>f** (print comments as footnotes), and **.cv c>e** (print comments as endnotes). You can get the same result by typing the appropriate **.cv** command. To delete the conversion, delete the dot command line.

The notes will be converted when you print. Each note will appear the same as the printed type of note in the text, but will revert to its original type if you remove the **.cv** dot command. To convert a note permanently, use the Convert Note command on this menu.

ENDNOTE LOCATION

***Pull-down:* ALT + E, T, E**
***Classic:* .PE**

Changes the location in the file where endnotes are printed.

Endnotes are usually printed at the end of a file, but you can print them at another location using this command. For example, if you have three chapters of a book in one file, you can print the endnotes for each chapter at the end of that chapter rather than printing all of them at the end of the third chapter.

1. Place the cursor at the first location where you want to print endnotes.
2. Choose Edit→Note Options→Endnote Location.

   All the endnotes that are inserted earlier in the file will be printed at this location. Subsequent endnotes will be printed at the next location where you use this command. Endnotes that come after the last location where you use this command will be printed at the end of the document.

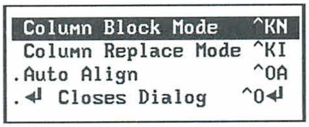
The **.pe** dot command is inserted. You can get the same result by typing the **.pe** command. To delete the endnote location, delete the dot command line.

For information about endnotes, see "Note" in "Editing Screen Insert Menu."

EDITING SETTINGS

Pull-down: ALT + E, I

Changes settings for column block mode, column replace mode, auto align, and for using the Enter key in dialog boxes.



```
 Column Block Mode   ^KN
 Column Replace Mode ^KI
.Auto Align          ^OA
.↵ Closes Dialog     ^O↵
```

These settings are either on or off. When a setting is on, a dot is displayed next to it on the menu. To change a setting, choose the command or use the corresponding classic command.

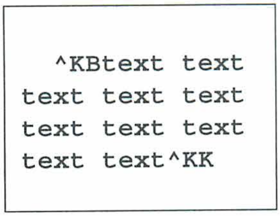
COLUMN BLOCK MODE

Pull-down: ALT + E, I, C
Classic: ^KN

Turns column block mode on and off.

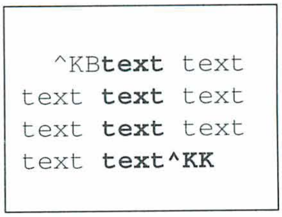
In column block mode, block operations are performed with column blocks, as opposed to regular blocks. With column block mode on, the beginning and end block markers define the top-left and bottom-right corners of the block.

column mode off



```
   ^KBtext text
text text text
text text text
text text^KK
```

column mode on



```
   ^KBtext text
text text text
text text text
text text^KK
```

You can use column block mode, for example, to switch two columns of information in a table. When column mode block is on, the word *Column* appears in the status line.

TIP *If your text contains command tags, turn on Command Tags display before marking the block to make sure you include the command tags in the block. Then turn off Command Tags display to make sure you included all the columns you want in the block.*

Keep these points in mind when you work with column blocks:

- A dot command is not considered part of a column block. If you move or delete a column block, a dot command within the block remains at its original location.
- When column block mode is on, moving, copying, inserting, or deleting a block affects the surrounding text. It's a good idea to save your work just before doing any of these operations, so you can go back to the previous version quickly. Also see "Column Replace Mode" below.
- When you sort a column block (Utilities→Sort Block, or ^KZ), WordStar uses the highlighted portion of each line to determine how to sort the entire line.
- When you insert a file (Insert→File, or ^KR) when column block mode is on, WordStar expects the inserted file to be a column; it inserts the file one line at a time and expects all lines to be the same length. If a line in the block is not the same length as the previous lines, WordStar pauses and warns you.

For more information on working with column blocks, see "Column Replace Mode" below. For information on blocks, see "Mark Block Beginning" and "Mark Block End" in this chapter.

COLUMN REPLACE MODE

***Pull-down:* ALT + E, I, R**
***Classic:* ^KI**

Turns column replace mode on and off.

Column replace mode determines how moving, copying, inserting, and deleting column blocks affect the surrounding text. Column replace mode is effective only when column block mode is on. When column replace mode is on, *Column-Repl* appears in the status line.

When column replace mode is on, if a block is moved or deleted, spaces replace the block, leaving a "hole" at its original location. A moved, copied, or inserted block replaces any text at the cursor. You can use Edit→Undo, or ^U, to restore that text.

CAUTION *If the text that is replaced is too long to fit in the undo buffer, no warning is given, and you will be unable to restore all the text. See "Undo" in this chapter for more information.*

When column replace mode is off, if a block is moved or deleted, surrounding text fills in the space that was originally occupied by the block. A moved, copied, or inserted block pushes to the right any text at its new location.

AUTO ALIGN

***Pull-down:* ALT + E, I, A**
***Classic:* ^OA**

Turns auto align off or on.

When you edit a document, you often change the length of lines. WordStar then aligns the paragraph you're editing to fit the lines within the margins. This is called auto align. When you start WordStar, auto align is normally on. When auto align is off, text in a paragraph is not realigned when you edit that paragraph.

Use this command to turn auto align on and off while you're editing.

Auto align works only in paragraphs that you edit. You must use Utilities→Reformat, or ^B or ^QU, to reformat other paragraphs or the rest of the document. You would use Reformat, for example, if you changed margin or tab settings. See "Reformat" in "Editing Screen Utilities Menu."

If you turn off Word Wrap (Layout→Alignment and Spacing, or **.aw**), Auto Align is also off until you turn Word Wrap on again.

You can change the default setting for auto align using WSCHANGE (DBCE).

↵ CLOSES DIALOG

***Pull-down:* ALT + E, I, D**
***Classic:* ^O↵**

Changes the function of the Enter key in dialog boxes.

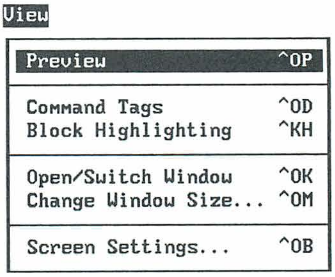
Normally, when you press the Enter key in a dialog box, WordStar closes the dialog box. Use this command to make the Enter key move the cursor to the next option. At the last option, the Enter key still closes the box.

This command changes the Enter key function for the current editing session. You can change the default setting using WSCHANGE (DBH2D).

CHAPTER 8

EDITING SCREEN VIEW MENU

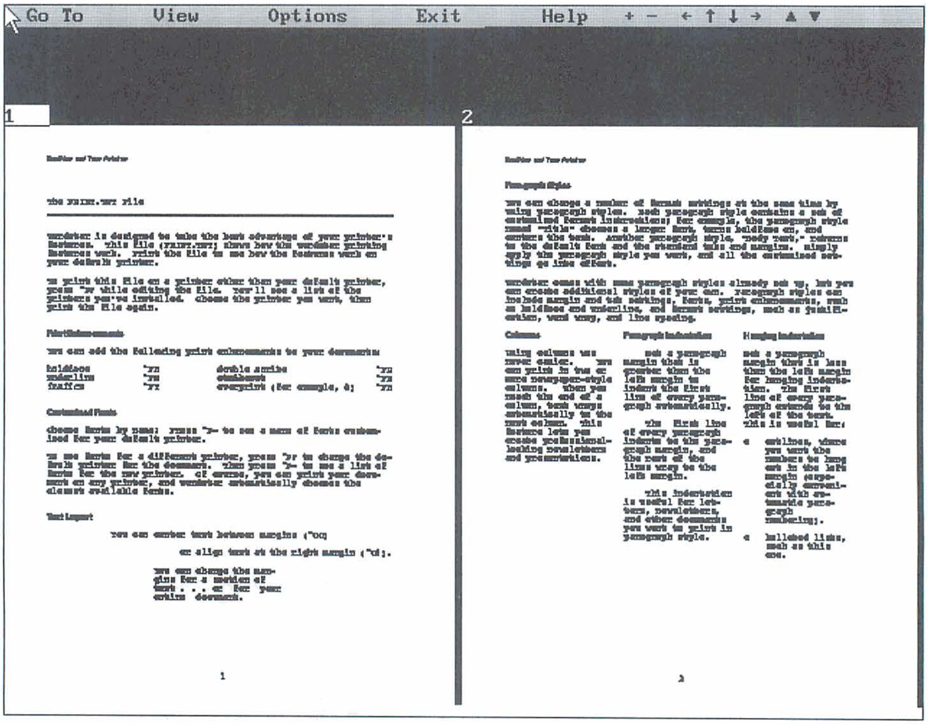
The View menu includes commands for previewing your printed document onscreen, turning on and off the display of command tags and other screen elements, and opening, switching, and sizing windows.


View
Preview ^OP
Command Tags ^OD
Block Highlighting ^KH
Open/Switch Window ^OK
Change Window Size... ^OM
Screen Settings... ^OB

PREVIEW

Pull-down: ***ALT + V, P***
Classic: ***^OP***

Displays the document onscreen exactly as it will appear printed.



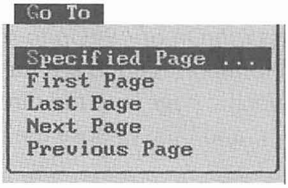
When you start Preview, you see the current page onscreen, with columns, headers, footers, footnotes, fonts, line spacing, and so on. At the top of the screen is the Preview menu bar. The commands on the Preview menus let you move around in your document and change your view of the document. You can view another page, choose a different view of a page or pages, scan a range of pages, and display a grid for checking page alignment. You can also prepare faxes for transmission.

The Preview commands are described below.

GO TO

Pull-down: ***ALT + V, P, G***
Classic: ***^OPG***

Previews another page.

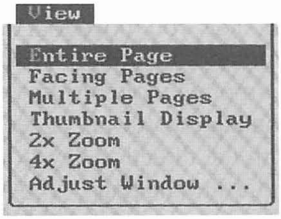

Go To
Specified Page ...
First Page
Last Page
Next Page
Previous Page

To display the first, last, next, or previous page, choose the appropriate option. To preview a specific page, choose Specified Page, type the page number and press Enter. Preview goes to the specified physical page and ignores any page number commands you may have set. If Preview is displaying more than one page, the page you specify will be the first page at the top of the screen.

VIEW

Pull-down: ***ALT + V, P, V***
Classic: ***^OPV***

Previews the document from any of several perspectives.


View
Entire Page
Facing Pages
Multiple Pages
Thumbnail Display
2x Zoom
4x Zoom
Adjust Window ...

Entire Page Displays the entire current page, the same view as when you first choose Preview.

Facing Pages Zooms out and displays two pages next to each other, the way pages look in a book or newsletter.

Multiple Pages Zooms out and displays four to ten pages, depending on your monitor and the page size. It is good for looking at the overall layout of a short document, or a section of a longer one.

Thumbnail Display Zooms out and displays ten or more pages, depending on your monitor and the page size. It's good for looking at the overall layout of a document. Press ^PgDn or ^PgUp to see the next set or the previous set of pages. Press ^Home or ^End to see the first or last page of a document. To zoom in on a specific page, use the direction keys to move the highlighting to the page number, and then choose the magnification.

TIP *You can quickly change the magnification by using the Plus (+) or Minus (–) keys on the numeric keypad. For example, if you're viewing the thumbnail display, press + to see the multiple pages display. If you're viewing the entire page display, press – to see facing pages.*

2x Zoom Zooms in and makes the page appear twice as large. You can then use the direction keys to move the display window to a different part of the page. For example, press the Down Arrow key or ^X to move down a few lines, or press PgDn or ^C to move down a full screen. Use ^PgDn to move to the next page.

4x Zoom Zooms in and makes the page appear four times as large. You can use the same commands as you can with 2x Zoom.

Adjust Window Lets you move to a different part of the page. When you choose this command, WordStar displays a small picture of the page with a box outlining the current window display. Use the direction keys to move the box to the area of the page you want to see. (To move the box more quickly, use the Shift key with the direction keys.) When the box is where you want it, press Enter to return to the page. The area you selected appears on the screen.

TIP *To adjust the window display without choosing View and Adjust Window, press Insert to display the box, and use the direction keys to move it. When you stop moving the box, WordStar returns you to the page.*

OPTIONS

***Pull-down:* ALT + V, P, O**
***Classic:* ^OPO**

Scans the document, displays a grid to check the alignment of text, and prepares faxes for transmission.

These options are described below.

Automatic Scan Shows successive portions of the document until you press Esc.

TIP *To locate a portion of your document quickly, scan the document in thumbnail display, then press Esc when you see the page you want. Move the highlighting to that page number and choose a View command to preview, or press Alt+1 or choose Return to Editing and then Current page to exit Preview and edit that page.*

Scan Range Scans a specified range of pages. After you choose Scan range, you specify the page numbers where you want the scan to start and stop.

Fax Files for Entire Document Creates a .PCX file for each page of the document. You can send these files through a fax board using the software that came with the board. The resulting page printed by the fax machine at its destination looks exactly like the previewed page. If you did not start Preview from the Fax dialog box, WordStar prompts you for a five-letter name for the first fax file. The default name is F*nnn*P*mmm*.PCX, where *nnn* is a document number and *mmm* is the page number, assigned sequentially. The default resolution is used (high resolution unless you've changed the value for FAX_RES in the FONTID.CTL file).

When you choose this command, an entire view of each page is displayed in Preview as its .PCX file is created, and the .PCX filename is displayed at the top of the screen. When all the .PCX files are created, Preview displays the entire page view of the last page for which a .PCX file was created. The .PCX files are created in the WS\FAX directory. (The fax directory is a subdirectory of the directory that contains the FONTID.CTL file. If it doesn't already exist when you create fax files, WordStar creates it.)

You can also create fax files using the Fax→File command. For more information on creating fax files, see "Fax" in "Opening Screen File Menu."

Fax Files for Range Creates fax files for a specified range of pages. After you choose this command, you specify the page numbers where you want the range to begin and end. For more information on creating fax files, see the information above on the previous command, Fax Files for Entire Document. If you want to create fax files for several ranges, just use this command as many times as necessary.

IMPORTANT *When you specify the range of pages, you must specify the physical page numbers, even if you've reassigned page numbers. For example, if you have a three-page document with no page number on the first page, and the second and third pages numbered 1 and 2, you must specify 2-3 to print the last two pages. If you're not sure about the physical page numbers, you can check them using Preview. Preview displays the physical page numbers at the top of the screen or, if more than one page is displayed, above each page.*

Grid Display On/Off Displays a grid across the page. Grid display is useful for making sure your text is properly aligned.

EXIT

Pull-down: ***ALT + V, P, E***
Classic: ***^OPE***

Exits Preview and returns you to the editing screen.

You can choose to return to the page you're currently viewing or to the original page you were editing when you chose Preview.

To return to the page you're currently viewing, choose Current Page or press Alt+1. If you're in a view that displays more than one page, you return to the page whose number is highlighted. To return to the page you were editing before you chose Preview, choose Original Page or press Alt+2.

PREVIEW FILES

Preview creates CRT directories containing screen font files (.CRT) and graphics files (.G*n*$, where *n* is a number) in your WordStar directory. WordStar may create a number of CRT directories, depending on your monitor(s) and on the page size and orientation.

The .CRT files are created when you preview a document with fonts that you haven't previewed before. Each time you see the message *Building preview font,* WordStar is creating a .CRT file.

The .G*n*$ files are created when you use the zoom commands in Preview with graphics (.PIX) files.

Each time you preview a document that contains a new Inset graphic, a .WSG file is created. This file contains specific graphics information that is needed for Preview. The .WSG files are stored in the directory that contains your .PIX files. To save disk space, you can delete the .WSG files when you're finished with them (use the DOS DEL command).

To save disk space, you may want to delete the .CRT and .G*n*$ files and the CRT directories periodically, especially if they contain files for fonts and graphics that you are no longer using. You can delete these files and directories individually by using the DOS DEL and RD commands, or you can delete them all at once by using the DELCRT.EXE program, which is in your WordStar directory. At the DOS prompt in the WordStar directory, type **delcrt** and press Enter. DELCRT.EXE deletes all of the .CRT files, .Gn$ files, and CRT directories from your WordStar directory. (Note that DELCRT deletes only those .CRT files with eight digits in the filename (*nnnnnnnn*.CRT).

PREVIEW ADVISORIES

Keep these points in mind when you use Preview:

- Preview works only on monitors with graphics capability.
- Preview can't run with two windows open, unless you are have at least 80K (5 pages) of EMS memory available.
- If the appearance of fonts (especially large fonts) is blocky, WordStar may need more memory while creating fonts. If less than 512K is available when you start WordStar, you can remove memory-resident programs or use WSCHANGE settings to make more memory available, and then run the DELCRT program to delete the blocky fonts. Then start WordStar and use Preview again. You can also improve these fonts by creating .WSF files for

large fonts using smaller symbol sets. For more information on .WSF files, see the *Installing and Customizing* booklet.

- If an Inset graphic is too compressed (for example, if a very large graphic is reduced to a small size for printing), it won't be displayed correctly in Preview.
- Preview does not support text mode .PIX files. If you want to preview a page with a text mode pix file, you must first convert the .PIX file to graphics mode, which may affect the appearance of the printed page. For more information, see "Converting a text screen to graphics" in the "Inset" section of the *Companion Programs* manual.
- If you often start WordStar from ProFinder™, you may want to redefine the + and – ProFinder hot keys. Otherwise, you won't be able to use the + and – keys as zoom keys in Preview. For more information, see "Setting the Configuration Options" in the "ProFinder" section of the *Companion Programs* manual.

COMMAND TAGS

***Pull-down:* ALT + V, C**
***Classic:* ^OD**

Turns display of WordStar command tags on and off.

WordStar command tags, such as **^B** for bold and **<COURIER 10>** for a font change, are normally displayed onscreen. However, they take up space and may make text appear out of alignment. Choose View→Command Tags, or use the ^OD classic command, to remove these tags from the screen while you edit, or to display them again. The commands remain in effect even when the tags aren't displayed.

It's a good idea to turn Command Tags display on before you mark a block to see what commands you're including in the block. For example, if bold text begins at the beginning of the block, be sure to include the tag that begins bold in the block.

View→Command Tags can also turn on and off the display of dot commands, soft space characters, and the flag column at the right of the screen. You can specify whether or not to include each of these elements in Command Tags by choosing View→Screen Settings, or ^OB. If display of dot commands is off and you type a dot in column 1, the new dot command disappears after you press Enter. For more information, see "Screen Settings" in this chapter.

You can turn Command Tags display on and off with a mouse by clicking the [*] button in the style bar.

You can use WSCHANGE (DBAB) to turn the default setting for Command Tags on or off and to change which elements are turned on and off when you choose Command Tags.

BLOCK HIGHLIGHTING

***Pull-down:* ALT + V, B**
***Classic:* ^KH**

Turns block highlighting (and display of block markers) on and off.

You can use this command to hide the block markers and highlighting, and to turn them on again. If you hide a block or a marker, and then mark a new block beginning or end, block highlighting is turned on again.

At all help levels except 0, you can hide the marked block as a safety measure. At these levels, WordStar won't move, copy, erase, or write blocks when the markers are hidden.

You can delete block markers, rather than hiding them, by pressing ^K<.

OPEN/SWITCH WINDOW

***Pull-down:* ALT + V, O**
***Classic:* ^OK**

Opens a window so that you can look at two documents at once, or at two parts of the same document. If two windows are already open, moves the cursor to the other window.

Follow these steps to open a window or move the cursor to the other window:

1 Choose View→Open/Switch Window, or use the ^OK classic command.

2 In the Open dialog box, specify the name of the file to open. You can open either an existing file or a new one.

A filename can have up to eight characters and an optional extension of up to three characters. Type a period between the filename and the extension. Don't use spaces between the characters. Filenames can include letters, numbers, and these symbols:

$ & # ! % ´ ` ( ) { } - _ ~ @

Note: Files with the extensions .COM, .EXE, .OVR, .SYS, .DCT, .CRT, .WSF, .PDF, .DCC, .INF, .PRD, .WSM, and .$?? (where ? can be any character) do not appear in the WordStar filenames lists, so don't use them to name your text files. You can change this list of filename extensions using WSCHANGE (CEC).

3 Press F10 or choose OK.

The screen splits in half. The cursor is located in the new file on the bottom half of the screen.

You can edit in either window. To move the cursor to the other window, use this command or choose File→Open/Switch, or use the ^OK classic command.

The title bar shows a [1] when the cursor is in the top window and a [2] when the cursor is in the bottom window. It also shows the name of the file where the cursor is currently located. You can use a mouse to switch to the other window by clicking this number.

The file in the second window is always opened as a document if the file in the first window is a document, or as a nondocument if the file in the first window is a nondocument. If you want to be able to open a document and a nondocument at the same time, use WSCHANGE (DCGG) to turn on the prompt that asks you whether to open a document or a nondocument when you open a second window.

TIP *If you want to see how the document you're editing looked before you made your most recent editing changes, you can open a second window on the same document. The second window shows the version that you saved last, in protected mode because you can't make changes to both copies.*

Keep these points in mind when working with two windows:

- To change the sizes of the windows, choose View→Change Window Size, or use the ^OM classic command. You can also press ^– (hyphen) to enlarge the current window one line at a time. For more information, see "Change Window Size" in this chapter.
- You can mark blocks in both windows at once. To copy a block between windows, choose Edit→Copy→Block from Other Window, or press ^KA. To move a block between windows, choose Edit→Move→Block from Other Window, or press ^KG. For more information, see "Copy" and "Move" in "Editing Screen Edit Menu."
- You cannot edit notes or macros when you have a document in the second window.

CHANGE WINDOW SIZE

***Pull-down:* ALT + V, W**
***Classic:* ^OM**

Changes the number of lines displayed in a window.

When you open a second window, each window takes up half the screen. Follow these steps to change the window size:

1. Choose View→Change Window Size, or use the ^OM classic command.
2. In the Change Window Size dialog box, choose Full Screen or Half Screen or specify the number of lines you want for the current window.

   If you choose Full Screen, each window takes up the full screen, and the screen flips from one file to the other when you move the cursor between windows.
3. Press F10 or choose OK.

You can specify a default window size in WSCHANGE (DCGH).

Note: You can press ^– (hyphen) to enlarge the current window one line at a time.

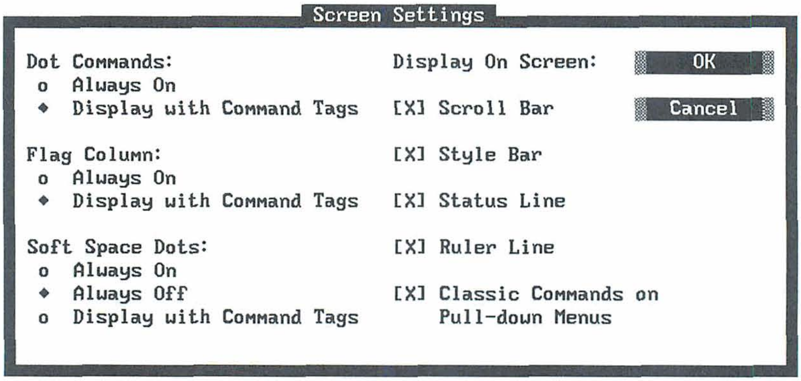
SCREEN SETTINGS

Pull-down: ***ALT + V, S***
Classic: ***^OB***

Determines which screen elements are displayed during editing.

You can use this command to turn on and off the display of several screen elements and to decide which elements to turn on and off using View→Command Tags (or ^OD). Follow these steps:

1. Choose View→Screen Settings, or use the ^OB classic command.
2. In the Screen Settings dialog box, change any options you want. The options are described below.



Screen Settings

Dot Commands:
○ Always On
● Display with Command Tags

Flag Column:
○ Always On
● Display with Command Tags

Soft Space Dots:
○ Always On
● Always Off
○ Display with Command Tags

Display On Screen:
☒ Scroll Bar
☒ Style Bar
☒ Status Line
☒ Ruler Line
☒ Classic Commands on Pull-down Menus

Dot Commands Dot commands can be always displayed or turned on and off with Command Tags (the default). If display of dot commands is off and you type a dot in column one, the new dot command disappears after you press Enter. You can change the default in WSCHANGE (DBAE).

Flag Column The flag column at the right of the screen can be always displayed or turned on and off with Command Tags (the default). You can change the default in WSCHANGE (DBAC).

Soft Space Dots The spaces that WordStar inserts when it justifies text to make the line end at the right margin are called soft spaces. WordStar can display soft spaces as small dots. These dots can be always displayed, never displayed (the default), or turned on and off with Command Tags. You can change the default in WSCHANGE (DBAD).

Scroll Bar This option turns on and off the display of the vertical scroll bar at the right of the screen. The scroll bar is especially useful for mouse users. The default is scroll bar display on. You can change the default in WSCHANGE (DBAJ).

Style Bar This option turns on and off the display of the style bar. The style bar displays information about current settings, and allows easy access to these settings using a mouse. The default is style bar display on. You can change the default in WSCHANGE (DBAG).

Status Line This option turns on and off the display of the status line. The status line displays information about the current editing status. The default is status line display on. You can change the default or move the status line to the top of the screen using WSCHANGE (DBAI or DBA2B).

Ruler Line This option turns on and off the display of the ruler line at the top of the screen. The ruler line shows the margins and tab stops that currently apply to your text. The default is ruler line display on. You can change the default in WSCHANGE (DBAH). You can still make changes to the ruler when it's not displayed. For more information on ruler lines, see "Ruler Line" in "Editing Screen Layout Menu."

Classic Commands on Pull-down Menus This option turns on and off the display of classic commands on the pull-down menus. If you use the classic commands, this display is useful as a reminder and to determine the related pull-down commands. The default is classic commands on. You can change the default in WSCHANGE (DBAK).

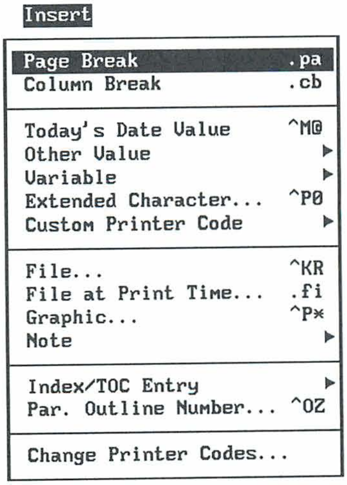
3. Press F10 or choose OK.

For more information on these screen elements, see "Screens and Dialog Boxes" in "WordStar Basics" in this manual.

CHAPTER 9

EDITING SCREEN INSERT MENU

The Insert menu includes commands for inserting elements such as page breaks, other files, graphics, footnotes, and so on, into your documents.


Insert
Page Break .pa
Column Break .cb
Today's Date Value ^M@
Other Value ▶
Variable ▶
Extended Character... ^P0
Custom Printer Code ▶
File... ^KR
File at Print Time... .fi
Graphic... ^P*
Note ▶
Index/TOC Entry ▶
Par. Outline Number... ^OZ
Change Printer Codes...

PAGE BREAK

***Pull-down:* ALT + I, P**
***Classic:* .PA**

Inserts a page break.

Use Page Break when you want to force a new page to start before the next automatic page break.

Place the cursor on the first line you want to appear on the new page, and choose Insert→Page Break.

The **.pa** dot command is inserted. You can get the same result by typing the **.pa** command. To delete the page break, delete the **.pa** command line.

This command inserts a hard page break, which stays in the same location relative to the surrounding text when you edit the document. The page break that WordStar automatically inserts when you fill a page is a soft one. Text moves across a soft page break as needed when you add or delete lines.

For information on page length, see "Length of Page" in "Page Layout" in "Editing Screen Layout Menu." For information on keeping lines on the same page, see "Special Effects" in "Editing Screen Layout Menu." For information on handling blank lines at the end of a page, see "Suppress Blank Lines at Top of Page" in "Page Layout" in "Editing Screen Layout Menu."

COLUMN BREAK

***Pull-down:* ALT + I, C**
***Classic:* .CB**

Starts a new column.

WordStar automatically ends a column at the bottom of a page. Use Column Break when you want to force a new column to start before the next automatic column break.

Place the cursor on the first line you want to appear in the new column, and choose Insert→Column Break.

The **.cb** dot command is inserted. You can get the same result by typing the **.cb** command. To delete the column break, delete the **.cb** command line.

This command inserts a hard column break, which stays in the same location relative to the surrounding text when you edit the document. The automatic column break is a soft one. Text moves across a soft column break as needed when you add or delete lines.

For more information on columns, see "Columns" in "Editing Screen Layout Menu."

TODAY'S DATE VALUE

***Pull-down:* ALT + I, T**
***Classic:* ^M@**

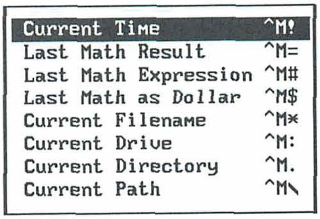
Inserts the current date at the cursor position.

When you choose Insert→Today's Date Value, or use the ^M@ classic command, the date is inserted, for example, June 4, 1992. You can change the date format with WSCHANGE (DCDG). For example, you can format the date like this: 4 June 1992.

OTHER VALUE

***Pull-down:* ALT + I, A**

Inserts a value into the text.



```
Current Time            ^M!
Last Math Result        ^M=
Last Math Expression    ^M#
Last Math as Dollar     ^M$
Current Filename        ^M*
Current Drive           ^M:
Current Directory       ^M.
Current Path            ^M\
```

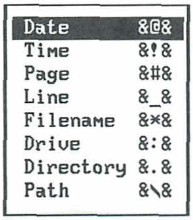
When you choose Insert→Other Value, WordStar displays a menu of the values you can insert. Choose the one you want. The table below describes all of the values and gives the classic command that inserts each one.

VALUE	CLASSIC COMMAND	DESCRIPTION
Current Time	^M!	Inserts the current time, for example, 9:30 p.m. You can change the time format with WSCHANGE (DCDH).
Last Math Result	^M=	Inserts the last math result you obtained using Utilities→Calculator (^QM) or Utilities→Block Math (^KM).
Last Math Expression	^M#	Inserts the last math expression you entered using Utilities→Calculator (^QM).
Last Math as Dollar	^M$	Inserts the last math result you obtained using Utilities→Calculator (^QM) or Utilities→Block Math (^KM), in dollar format. For example, if the result was 23.1, it is inserted as $23.10; if it was 28, it is inserted as $28.00.
Current Filename	^M*	Inserts the name of the current file.
Current Drive	^M:	Inserts the currently logged drive letter.
Current Directory	^M.	Inserts the currently logged directory name.
Current Path	^M\	Inserts the full path and filename of the current file.

VARIABLE

Pull-down: ***ALT + I, V***

Inserts a predefined variable into the text.



A variable is information that is inserted into a document when you print it; you put the variable name in the text, and WordStar replaces it with the appropriate value at print time. The commands on this menu insert variable names for several predefined variables.

When you choose Insert→Variable, WordStar displays a menu of the variables you can insert. Choose the one you want. The table below describes all of the variables. You can type the variable names in the text instead of issuing the command if you like.

VARIABLE	NAME	DESCRIPTION
Date	&@&	Inserts the current date, for example, September 28, 1992. You can change the date format with WSCHANGE (DCEC).
Time	&!&	Inserts the current time, for example, 9:30 a.m. You can change the time format with WSCHANGE (DCED).
Page	&#&	Inserts the current page number. (Note that the ampersands are not required in headers and footers.)
Line	&_&	Inserts the current line number.

VARIABLE	NAME	DESCRIPTION
Filename	&*&	Inserts the name of the current file.
Drive	&:&	Inserts the currently logged drive letter.
Directory	&.&	Inserts the currently logged directory name.
Path	&\&	Inserts the full path and filename of the current file.

When you print a file that contains a variable, you must be sure the Interpret Merge Variables option is selected in the Print dialog box so that WordStar replaces the variable name with the value. Otherwise, the variable name is printed.

For more information about variables, see "Merge Printing Commands" in "Editing Screen Utilities Menu."

EXTENDED CHARACTER

Pull-down: ALT + I, E
Classic: ^PO

Inserts an extended character.

Some printers can print special characters such as graphics characters, Greek letters, and accented letters. These characters are called an extended character set. They vary from printer to printer, and from font to font on many printers.

Before printing an extended character, check your printer documentation to find the corresponding ASCII code (a number between 0 and 255). Then follow these steps:

1. Choose Insert→Extended Character, or use the ^P0 (zero) classic command.

   WordStar displays the Extended Character dialog box. It includes a chart that shows the IBM extended character set.

2. Type the code you want. (Use the code from the chart only if your printer uses the IBM extended character set.) The character is inserted.

In your text, WordStar displays the characters from the IBM extended character set. If your printer or font uses a different character set, the characters displayed in the text will not match those that are printed.

TIP *You can use a shortcut to enter an extended character. Just hold down the Alt key and press the number (ASCII code) on your numeric keypad. When you release the Alt key, the character appears on the screen.*

You can use extended characters for international characters such as accented letters and for box and line drawing, as described below. For more information about extended characters, see Appendix B, "ASCII Conversion Charts."

INTERNATIONAL CHARACTERS

Some languages include characters with accents or other diacritical marks that distinguish them from other alphabetical characters, such as ü and à, other characters such as ¿ or £, and words with accent marks, such as écran. WordStar provides several methods for entering these characters:

- If the character is available on your printer, you can use Insert→Extended Character, use the ^P0 classic command, or press Alt plus the number for the character as described above.
- You can use Layout→Special Effects→Overprint Character, or the ^PH classic command, to overprint a character with an accent mark or other available character. However, if you are using a proportional font, the accent mark may be off center. In that case, you can try one of the other methods.
- Many international keyboards produce extended characters when keys are pressed normally, and some keyboards have a "dead key" that produces extended characters when used with certain other keys. For information, see your computer or keyboard documentation.
- When the international character table is turned on in WSCHANGE (DCGM; the default setting is off), you can enter international characters into your document by pressing the two keys that compose the character. For example, if you type a quotation mark (") and then the letter o, an o with an umlaut (ö) appears on the screen. (The first character you type does not appear; the international character appears only after you type the second character.) This method emulates the "dead key" described above.

The ö character appears onscreen only if it is supported by your computer's onscreen character set (code page). If the character is not supported, the characters you typed appear next to each other ("o) on the screen. If your printer supports the ö character, WordStar prints it as ö; otherwise, WordStar prints it as ő.

The keys and characters you can use are:

KEY	**EXAMPLE**	**LETTERS**
'	á	a, e, E, i, o, u (also A, I, O, U, y, Y with code page 850)
'	à	a, e, i, o, u (also A, E, I, O, U, y, Y with code page 850)
^	â	a, e, i, o, u (also A, E, I, O, U with code page 850)
"	ö	a, e, i, o, u (also A, E, I, O, U, y with code page 850)
~	ñ	n, N (also a, A, o, O with code page 850)
,	ç	c, C

If you turn the international character table on, and you need to type two characters that normally form an international character, type the first character twice to override the international character function. For example, to type the word open in quotation marks, type " "**open**".

You can change the WordStar default settings for the international character table and the code page in WSCHANGE (DCGM and DCGL). (For information about code pages, see Appendix B, "ASCII Conversion Charts," and your DOS manual.)

BOX AND LINE DRAWING

The IBM extended character set includes characters for drawing lines and boxes. If your printer (or the font you are using) uses this character set, you can draw lines and boxes in WordStar. (If your printer cannot draw these characters, WordStar may instruct it to use the available characters that are most similar to them.)

You can insert a line or box character using Insert→Extended Character (or ^P0), or the Alt key plus the character, or you can use the function keys that are preset to enter ten of these characters. You can also use the BOX file supplied with WordStar to draw boxes. The function keys and the BOX file are described below.

When used with the Alt key, ten of the function keys insert line and box drawing characters. The function key settings are shown below. (You can change these settings using the Macros commands; see "Macros" in "Editing Screen Utilities Menu.")

F1	│	F2	─
F3	┌	F4	┐
F5	└	F6	┘
F7	┬	F8	┴
F9	├	F10	┤

When you install WordStar, the BOX file is placed in your WS directory. It consists of a box drawn with the function key characters. This box is 23 columns wide and 7 lines deep. You can use it to enclose a title or text up to 21 columns wide and 5 lines long. You can insert this box into a file using Insert→File (or ^KR). If you create other boxes or line drawings frequently, you can keep each one in a separate file, and insert the files when you want them.

Keep these points in mind when working with boxes:

- You must use a nonproportional (fixed width) font for a box. Otherwise, the right side of the box will be uneven when it's printed.
- When you edit text inside a box, turn Insert off. With Insert on, characters and spaces you type push the right side of the box to the right on the line you're editing. Use column blocks to move text inside a box. Also be careful when using the Backspace and Del keys. If you accidentally erase a character that's part of the box, you can replace it with the appropriate function key character. You should also turn off auto-alignment before a box in your text to be sure the box is not accidentally realigned. Then turn it on again after the box. Use Word Wrap in Layout→Alignment and Spacing or **.aw off** and **.aw on**.

- If you use a laser printer and you want to use a proportional font or edit text within a box, you can use the **.xl0** command to overprint two pages. For more information, see the laser printer information in "Customizing" in the *Installing and Customizing* booklet.
- To quickly add height to an existing box, place the cursor on one row of the box and delete the line (Edit→Delete→Line or ^Y). Then use Edit→Undo (^U) to restore the row. Continue to use Undo until the box is the height you want. To change the width of a box, use column blocks to add or delete characters.

CUSTOM PRINTER CODE

Pull-down: ALT + I, U

Inserts a custom printer code.

Custom printer codes are special printing instructions that let you take advantage of a printer's special features. You can use a custom printer code, for example, to print a special character, such as a paragraph symbol. You can also use a custom printer code to insert a file that contains the series of printer codes you want. For example, you can insert a file in your printer's programming language to print a border or a logo.

WordStar comes with preset custom printer codes for many printers. If they are available for your printer, they are listed on the Printer Information screen when you install your printer. If the printer code you want is not set up for your printer, you can use the Change Printer Codes command on this menu. See "Change Printer Codes" in this chapter.

When you choose Insert→Custom Printer Code, WordStar displays a menu of the seven available codes. Choose the one you want. Alternately, you can use the corresponding classic command.

The first six codes, 1-6, enter the preset codes. They correspond to the classic commands ^PF, ^PG, ^PQ, ^PW, ^PE, and ^PR.

Other (or the ^P! classic command) allows you to enter a one-time custom printer code. When you choose this command, the Custom Printer Code dialog box appears. The options in this box are described below.

Printer Code Enter either the ASCII code or the name of the file containing the printer code. To enter the name of the file, type **%F"filename"**. Be sure to type an uppercase F and to include the quotation marks. (If you use an ASCII, ASC256, PRVIEW, or EXTRACT PDF, you can't insert files into a custom printer code.)

Screen Display Enter a descriptive name. This name will be displayed on the screen where you insert the code when Command Tags display is off. (When Command Tags display is on, the ASCII code or filename is shown.)

Width of Character(s) If the code will print a character or characters, type the width of the character(s) in inches. If the code is nonprinting, use the default setting, 0".

FILE

Pull-down: **ALT + I, F**
Classic: **^KR**

Inserts a copy of a file into the file you're editing.

This command is useful for inserting standard paragraphs, combining documents, and inserting files from several other programs.

INSERTING A WORDSTAR FILE

Follow these steps to insert a WordStar file:

1 Choose Insert→File, or use the ^KR classic command.

2 In the Insert File dialog box, specify the file you want to insert. Include the path if necessary.

Note: With a dBASE file, you can insert only field names by typing the filename followed by /f; for example, **address.dbf/f**.

If the file is a spreadsheet, another dialog box appears. See the instructions below for inserting a spreadsheet.

3 Press F10 or choose OK to insert the file.

If column mode is on, the file is inserted as a column. Text to the right of the column moves to the right.

INSERTING A SPREADSHEET OR DATABASE

You can insert a WordStar file, a dBASE II, dBASE III, dBASE III+, or dBASE IV database file, a Lotus 1-2-3 (versions previous to 3.0), Symphony, or Quattro spreadsheet, or a file in any of these formats created by another program.

For Lotus 1-2-3 version 3.0 and later and for other file formats, either save the file to a supported format or use Star Exchange to convert the file to WordStar format before inserting it.

Follow these steps to insert a spreadsheet or database:

1. Choose Insert→File, or use the ^KR classic command.

2. In the Insert File dialog box, specify the file you want to insert. Include the path if necessary.

   Note: With a dBASE file, you can insert only field names by typing the filename followed by /f; for example, **address.dbf/f**.

   If the file is a spreadsheet, specify the range to insert. The default displayed shows the full range of the worksheet, and if you assigned range names to the worksheet, these names are also displayed. To insert the entire worksheet, press F10 or choose OK. To insert part of the worksheet, specify the range of cells or a range name and press F10 or choose OK. You can use * to mean the end of the worksheet; for example, if Z41 is the last cell, **D1..*** is the same as **D1..Z41**.

   If the file is a Symphony file that contains more than one spreadsheet window, choose the window to insert. If you restricted a window in Symphony, only the restricted area is inserted. If you choose a window that is smaller than the range you chose, or vice versa, the smaller of the two is inserted.

3. Press F10 or choose OK to insert the file.

TIP If you use proportional fonts, you may prefer to use Star Exchange to convert a database or spreadsheet before you insert it. Star Exchange inserts tabs between columns; Insert→File inserts spaces. If you don't use Star Exchange, change to a nonproportional font before you insert the database or spreadsheet so that the columns are aligned properly. Also, if the lines in the file you insert are longer than the line length in the document, you can set a large right margin (Layout→Ruler Line, or ***.rm****) or turn off Word Wrap (Layout→Alignment and Spacing, or* ***.aw off****) above the inserted file to prevent realigning. You can return to your previous settings at the end of the inserted file.*

FILE AT PRINT TIME

***Pull-down:* ALT + I, L**
***Classic:* .FI**

Inserts another file when you print the current file.

You can chain files so that they print one after the other, or nest them, inserting one inside the other. The files are connected only for printing; their contents remain separate. Follow these steps to chain or nest files:

1. Choose Insert→ File at Print Time.
2. In the Insert File at Print Time dialog box, specify the file you want to insert. Include the path if necessary.
3. Press F10 or choose OK.

WordStar inserts the **.fi** dot command with the filename. You can get the same result by typing **.fi** and the filename on a new line.

To print the files, specify the first file in the series. WordStar inserts each file in turn while printing.

Keep the following points in mind when you insert files at print time:

- If your files contain paragraph styles, be sure to select a paragraph style at the beginning of each file you insert so that the file is printed with the correct formatting.

- If you want a file to begin on a new page, insert a page break just above the location where you insert the file.
- If you insert a file at the end of another file, leave a blank line (ending with a carriage return) under the **.fi** command.
- WordStar automatically numbers all pages in order as they are printed. If you want an inserted file to use different page numbers, assign page numbers in the appropriate locations (Layout→Page Numbering).

If you have text files on floppy disks, and you insert a file that is on a different floppy disk, you can add the **c** option at the end of the **.fi** command to have WordStar stop and prompt you to change disks. The command would read **.fi** *filename* **c.**

CHAINING FILES

To chain files, insert the next file at the end of each file.

If you want, you can create a command file that contains just the **.fi** commands. For example, if you have a book with five chapters, each in its own file, you can create a command file named BOOK.ALL, as shown below:

```
.fi c:\write\chapter1
.fi c:\write\chapter2
.fi c:\write\chapter3
.fi c:\write\chapter4
.fi c:\write\chapter5
```

To print the book, just print the command file, BOOK.ALL. WordStar prints each chapter in turn.

TIP *WordStar can display messages that tell you which file is currently being printed. See "Display Message" in "Merge Print Commands" in "Editing Screen Utilities Menu."*

NESTING FILES

To nest files, insert the file at the location where you want it in the current file. Once the nested file is printed, WordStar resumes printing the original file where it left off. You can nest one file inside another, and those two files inside a third, and so on, up to eight levels.

The nesting level is very important when you merge print documents with data files. The printing repeats only the file containing the **.df** (define data file) command and files nested within it.

GRAPHIC

***Pull-down:* ALT + I, G**
Classic:* ^P

Inserts a graphic.

You can insert into your documents graphics created using a number of programs. You can use files in any of the formats listed in the following table:

TYPE	EXTENSION	TYPE	EXTENSION
Amiga ILBM	.IFF	KoFax Group 4	.KFX
ASCII Text	.TXT	Lotus	.PIC
AT&T Group 4	.ATT	MacPaint	.MAC
AutoCAD DXF	.DXF	Mac PICT	.PCT
CALS Raster	.CAL	MS-Windows	.WMF
CompuServe	.GIF	Metafile	.CGM
DeluxePaint	.LBM	Micrografx	.DRW
Dr. Halo	.CUT	Microsoft Paint	.MSP
GEM Image	.IMG	PC Paintbrush	.PCX
GEM Metafile	.GEM	TIFF	.TIF
HP LaserJet	.PCL	TARGA	.TGA
HP Plotter	.PGL	Tektronix Plot 10	.P10
Inset	.IGF	WordPerfect	.WPG
Inset	.PIX		

You can also insert files in several fax formats. See "Inserting Fax Files" in this section.

WordStar uses Inset® .PIX file format for previewing and printing graphics, and shows the graphic in the document with a command tag called a pix tag. When you insert a graphic file in another format, WordStar converts it to a .PIX file and inserts a pix tag that specifies the .PIX file.

If you change your original graphic, the graphic in your document is not updated; you must delete the old pix tag and insert the graphic again.

Follow these steps to insert a graphic:

1. Place the cursor where you want the upper-left corner of the graphic. (See "Placement of Graphics" in this section for more information.)

2. Choose Insert→Graphic, or use the ^P* classic command.

   WordStar prompts you for the name of the file to insert. Note that the filenames list shows all the files in your default graphics directory (the one where you installed Inset). You can use WSCHANGE (CD3D) to change your default directory for graphics files to insert and to include in the list only files with a specific filename extension.

3. Specify the file to insert.

4. Press Enter or F10 or choose OK.

   If the file is a .PIX file, WordStar inserts a pix tag, and you return to editing.

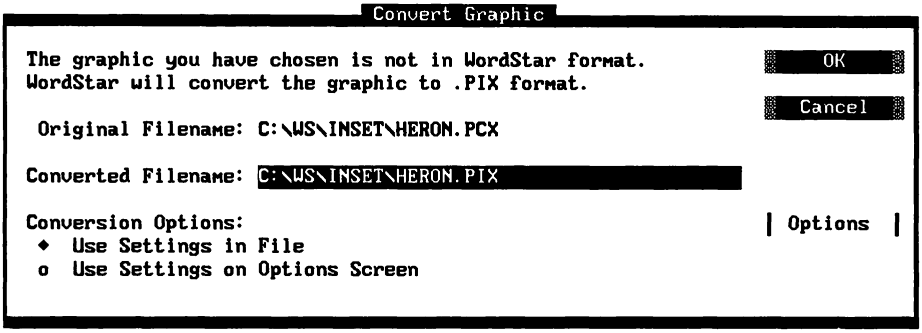
   If the file is in another format, the Convert Graphic dialog box appears. You can accept the defaults, or you can change several options:

   Converted Filename The default name for the converted filename is the original filename with the .PIX extension. You can specify a different filename if you like.

   Conversion Options The default, Use Settings in File, converts the graphic file using the dimensions, colors, and so on, in the file. If you select Use Settings on Options Screen, the file is converted using the settings on the Convert Graphic Options dialog box, described below.

Options If you choose the Options button, WordStar displays the Convert Graphic Options dialog box. You can change output options such as dimensions, color, resolution, and so on. Change any options you want. The options are described below these steps.

5 Press F10 or choose OK. The file is converted, and WordStar inserts a pix tag.



The graphic you have chosen is not in WordStar format.
WordStar will convert the graphic to .PIX format.

Original Filename: C:\WS\INSET\HERON.PCX

Converted Filename: C:\WS\INSET\HERON.PIX

Conversion Options:
- ◆ Use Settings in File
- ○ Use Settings on Options Screen

The options on the Convert Graphic Options dialog box are described below:

Height The height of the image. The default, .00", uses the height from the original file. You can specify the height in inches (in or "), centimeters (cm), or points (pt).

Width The width of the image. The default, .00", uses the width from the original file. You can specify the width in inches (in or "), centimeters (cm), or points (pt).

Aspect The aspect ratio is the width divided by the height, as a decimal value (for example, 1.5). Specifying any two of these values determines the third. If you change any of these values, the converted image may appear shorter and wider or taller and thinner.

Rotation Rotation is available for vector graphics only. It is specified in degrees counterclockwise from the original rotation; for example, 45 turns the image 45 degrees counterclockwise.

Reverse B/W If you select this check box, the printed image will have the colors inverted if it is a black and white image. If it is a gray or color image, the foreground and background colors will be swapped if they are explicitly identified; otherwise, the highest color number on the palette will be swapped with color zero.

Smoothness Edge smoothing for the "jaggy" appearance of some raster images.

Ignore Background If an image has a varied, non-solid background, selecting this option changes it to white during conversion. For example, when you convert a .GIF file, select this option if there are holes in the background.

Resolution Horizontal and vertical resolution in dots per inch (dpi). The default, 300 dpi, is used for most laser printers. Leave the settings as 0 to use 300 dpi.

Screen Frequency This option provides a way to adjust the number of gray levels in an image, using the formula $Gray\ levels=(Resolution/Screen\ Frequency)^2$.

Contrast Contrast from lightest to darkest colors on a relative scale of –100 to +100.

Brightness Intensity of all colors on a relative scale of –100 to +100.

Colors The default is 16 colors. If you have a printer that does gray scaling, such as a laser printer, use the default. If your printer doesn't have gray scaling, use 2.

Process Type Snap, the default, matches colors in the image to the nearest available color when converting. It produces a fast, high-contrast conversion. Halftone and Dither are useful when converting color to black and white. Halftone uses the standard diagonal pattern, which is better for high-resolution printing; Dither uses a more random pattern, which may be better for low-resolution dot matrix printers or low-resolution monitors. Diffuse is useful when the number of colors is being reduced, for example, when you are converting a VGA image that will be displayed on a CGA monitor. Diffuse can also produce better results than Halftone or Dither when creating black and white files; however, it takes longer.

Color Processing Allow Color is the default. If you want to change colors to grays or black, select Force Gray to use a gray level palette or Force B/W to print all colors as black and the background as white. Select Allow Color or

Force Gray if you have a color printer or one that is capable of gray scaling. Force B/W produces black and white images without any shades of gray.

If you change Convert Graphic options, the new settings are the ones WordStar displays the next time you use the Convert Graphic Options dialog box. These settings are saved in the TOPIX.SET file.

INSERTING FAX FILES

If you have fax files created by any of several fax devices, you can insert them into your document in the same way as other graphics files. The following table shows the formats you can insert. Since many of the formats do not have unique filename extensions, you need to identify the file type to WordStar using a different, unique extension. The table shows both the original extension and the WordStar extension.

TYPE	**ORIGINAL EXTENSION**	**WORDSTAR EXTENSION**
AdTech Perfectfax	.F01	.ADT
Brooktrout Fax-Mail 96	.301	.BRK
Calculus EZ-Fax	.001	.EZF
Canon Navigator Fax	.FAX	.CAN
Cognition Sciences SciFax	.SCI	.SCI
Complete (PC) FAX	.001	.CPF
Complete FAX/Portable	.001	.CFP
Everex EverFax24/96 Mode C	.FAX	.EFX
Everex EverFax 24/96 Mode B	.FAX	.EF3
Fremont FreCom FAX96	.FAX	.F96
Fujitsu dexNET	.001	.DXN
GammaLink Fax	.TIF	.GAM
Generic Fax	.FAX	.CG3
Hayes JT Fax	.001	.JTF
Imavox TurboFax	.IMG	.TBF

TYPE	**ORIGINAL EXTENSION**	**WORDSTAR EXTENSION**
Intel	.DCX	.DCX
JetFax	.FFF	.JET
OAZ Communications NetFax Manager	.OAZ	.OAZ
Relisys TEFAX	.FAX	.TEF
Ricoh Fax Card/DX-1 Adapter	.001	.RIC
American Data Tech SMARTFAX	.001	.SMF
SpectraFAX	.DCX	.DCX
Touchbase Systems WorldPort 2496	.001	.WPF
TriGem SoftFax	.F01	.TRI
Xerox MicroFax	.FAX	.MIF

If the fax file you are inserting is in a format that has two different extensions in the table, follow these steps to tell WordStar which format corresponds with the filename extension:

1 Open the TOPIX.SET file as a nondocument. This file is in your graphics directory (\WS\INSET unless you specified a different directory name during installation).

2 Add a new line at the bottom of the file. The line should consist of the original filename extension, an equal sign, and the WordStar extension.

For example, if you are using Hayes JT Fax format, the line is: 001=JTF. This line causes WordStar to assume that all imported graphics with the .001 extension are in Hayes JT Fax format.

3 Save the TOPIX.SET file.

You can add as many lines as you want for different fax formats, as long as the original extensions are different.

THE INSET GRAPHICS PROGRAM

WordStar prints graphics using Inset, a graphics program that is included with WordStar as a companion program. You must install Inset before you can print graphics.

You can use Inset to "capture" an image onscreen and store it in a .PIX file, and to create and edit graphics. See the "Inset" section of the *Companion Programs* manual for complete information about how to use Inset.

See also "Inset" in "Editing Screen Utilities Menu."

PLACEMENT OF GRAPHICS

You must manually make space in your file for graphics that you insert. If a graphic is not on the same line as any text, leave enough blank lines for the graphic.

If you want text and graphics on the same line, reset the margins if necessary so that the text doesn't overwrite the graphic. Use these guidelines:

- To place the graphic to the left of text, set a paragraph margin where the left side of the graphic will be. Then set the left margin where the text will start, and set a tab at the same location as the left margin. Insert the graphic, press Tab, and type the text.
- To place the graphic to the right of text, wait until the text is final so you won't need to reformat it later, then insert the graphic. You can use right margin settings or hard carriage returns to format the text around the graphic.
- When placing text next to a graphic, use absolute leading rather than automatic leading. See "Leading (Line Height)" in "Alignment and Spacing" in "Editing Screen Layout Menu."

To see how the text will look with the inserted graphic, use View→Preview, or the classic command ^OP.

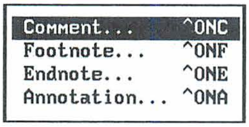
PRINTING FILES THAT CONTAIN GRAPHICS

WordStar automatically loads Inset into memory as needed at print time. While you're printing a file that contains graphics, you can't check spelling or open a second window; that memory is reserved for Inset.

NOTE

***Pull-down:* ALT + I, N**

Inserts a comment, footnote, endnote, or annotation.



COMMENT

***Pull-down:* ALT + I, N, C**
***Classic:* ^ONC**

Inserts a nonprinting comment that you can see on the screen.

1. Choose Insert→Note→Comment, or use the ^ONC classic command.
2. Type the comment in the new window at the bottom of the screen. The comment can be as long as you like. You can edit it the same way you edit a document.
3. When you finish typing the comment, choose File→Save and Close, or use the ^KD classic command.

When Command Tags display is on, the first few words of the comment appear as a command tag. When display is off, the command tag is not displayed.

To view or edit a comment, be sure display is on, move the cursor to the command tag, and choose Edit→Edit Note, or use the ^OND classic command.

If you want to insert a one-line unprinted comment, you can use the **.ig** or the **..** dot command. Just type the dot command at the beginning of the line, and type the text on the same line. For example, you could type **.ig This is an unprinted comment.** You might also use one of these dot commands if you want to display the entire comment rather than a note tag that shows the first few words of the comment.

TIP *Use the .. dot command if you want to see a comment when Command Tags display is turned off. The .. dot command is displayed even when you've set dot commands to turn on and off with Command Tags.*

For more information, see "Edit Note" and "Note Options" in "Editing Screen Edit Menu."

FOOTNOTE

***Pull-down:* ALT + I, N, F**
***Classic:* ^ONF**

Inserts a footnote.

1. Choose Insert→Note→Footnote, or use the ^ONF classic command.

2. Type the footnote in the new window at the bottom of the screen. The footnote can be as long as you like. You can edit it the same way you edit a document.

3. When you finish typing the footnote, choose File→Save and Close, or use the ^KD classic command.

When Command Tags display is on, the first few words of the footnote appear as a command tag. When display is off, the command tag is not displayed, but the reference number is displayed.

To view or edit a footnote, be sure display is on, move the cursor to the command tag, and choose Edit→Edit Note, or use the ^OND classic command.

When you print the document, the reference to the footnote is superscripted. Footnotes are printed at the bottom of the page.

Footnotes are numbered automatically. You can change the first number or change numbers to letter references using Edit→Note Options→Starting Number for Note, or the **.f#** dot command.

You can change a number of footnote options using WSCHANGE (DAD).

For more information about notes, see "Edit Note" and "Note Options" in "Editing Screen Edit Menu."

ENDNOTE

***Pull-down:* ALT + I, N, E**
***Classic:* ^ONE**

Inserts an endnote.

1. Choose Insert→Note→Endnote, or use the ^ONE classic command.

2. Type the endnote in the new window at the bottom of the screen. The endnote can be as long as you like. You can edit it the same way you edit a document.

3. When you finish typing the endnote, choose File→Save and Close, or use the ^KD classic command.

When Command Tags display is on, the first few words of the endnote appear as a command tag. When display is off, the command tag is not displayed, but the reference number is displayed.

To view or edit an endnote, be sure display is on, move the cursor to the command tag, and choose Edit→Edit Note, or use the ^OND classic command.

When you print the document, the reference to the note is superscripted. Endnotes are printed at the end of the document unless you specify a different location using Edit→Note Options→Endnote Location, or the **.pe** dot command.

Endnotes are numbered automatically. You can change the first number or change to letter references using Edit→Note Options→Starting Number for Note , or the **.e#** dot command.

For more information, see "Edit Note" and "Note Options" in "Editing Screen Edit Menu."

ANNOTATION

***Pull-down:* ALT + I, N, A**
***Classic:* ^ONA**

Inserts an annotation.

An annotation is similar to a footnote; the difference is that you specify the reference symbol that appears in text, rather than having a numbered sequence.

1 Choose Insert→Note→Annotation, or use the ^ONA classic command.

2 In the Annotation Mark dialog box, type the reference you want the annotation to have; for example, * or ##. This reference is printed in the same way as a footnote number.

3 Press Enter or F10 or choose OK.

4 Type the annotation in the new window at the bottom of the screen. The annotation can be as long as you like. You can edit it the same way you edit a document.

5 When you finish typing the annotation, choose File→Save and Close, or use the ^KD classic command.

When Command Tags display is on, the first few words of the annotation appear as a command tag. When display is off, the command tag is not displayed, but the annotation mark is displayed.

To view or edit an annotation, be sure display is on, move the cursor to the command tag, and choose Edit→Edit Note, or use the ^OND classic command.

When you print the document, the reference to the annotation is superscripted. Annotations are printed at the bottom of the page.

You can change a number of note options using WSCHANGE (DAD). The footnote options also apply to annotations.

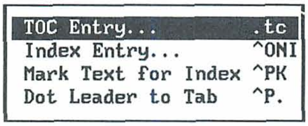
For more information, see "Edit Note" and "Note Options" in "Editing Screen Edit Menu."

INDEX/TOC ENTRY

***Pull-down:* ALT + I, I**

Displays the Index/TOC Entry menu.

Use this command to insert or mark an entry for an index or table of contents. After you insert or mark all your entries, use Index or TOC at the Opening Utilities menu to create the index or table of contents.



TOC ENTRY

***Pull-down:* ALT + I, I, T**
***Classic:* .TC**

Specifies a line of text to appear in the Table of Contents.

Before you create a table of contents, you use this command at the beginning of each heading line in your document. At each location, you insert the line of text you want to appear in the table of contents. Then you use TOC at the Opening Utilities menu to create a table of contents composed of all the entries you inserted. For more information, see "TOC" in "Opening Screen Utilities Menu."

Follow these steps to insert a table of contents entry:

1. Place the cursor at the beginning of the heading line that you are entering in the table of contents.

2. Choose Insert→Index/TOC Entry→TOC Entry.

3. In the Table of Contents Entry dialog box, type the entire line of text that you want to appear in the table of contents, including punctuation and indentation. You can block copy the actual heading line if you want. Use these guidelines to type the entry:

- To indent an entry, type extra blank spaces before the text.
- Type the # symbol where you want the page number to be printed. If you want the # symbol to appear in the entry, precede it with a backslash (\).

4 When you finish typing the entry, press F10 or choose OK.

WordStar inserts the **.tc** dot command followed by the text for the table of contents entry. You can get the same result by typing the dot command and the entry on a new line. If you want to edit the table of contents entry, edit it in the dot command line.

You can insert periods up to the next tab stop by putting the cursor in the appropriate position in the dot command and using Dot Leader to Tab (see "Dot Leader to Tab" in this section).

One space after the **.tc** and before the text produces no indentation. Insert additional spaces as needed for the different levels of indentation.

For example, if you insert this entry on page 1:

```
.tc DEFINITION . . . . . . . . . . . . . #
```

and this one on page 3:

```
.tc    Looking It Up . . . . . . . . . . #
```

the entries below will appear in the table of contents:

```
DEFINITION . . . . . . . . . . . . . #
   Looking It Up . . . . . . . . . . #
```

You can have several different tables of contents in one document. For example, you can have a regular table of contents, another for figures, and a third for tables. To assign an entry to a different table of contents, edit the **.tc** command line and enter a digit from 1 to 9 directly after the **.tc** (without any spaces). For example, if you use the number 1 for the Figures table of contents, you might have the following entry:

```
.tc1 Figure 1 . . . . . . . . . . . #
```

To create the table of contents, save and close the document. At the Opening screen, choose Utilities→TOC, or use the classic command T. WordStar then puts all the table of contents entries, with page numbers, into a file with the .TOC extension. You can edit and print the .TOC file.

INDEX ENTRY

***Pull-down:* ALT + I, I, I**
***Classic:* ^ONI**

Allows you to type an entry to appear in the Index.

Before you create an index, you mark the index entries in your text. Use this command when the word or phrase you want in the index does not appear in the text as you want it to appear in the index. (If the word or phrase appears in the text as you want it to appear in the index, you can instead mark it with the Mark Text for Index command on this menu.)

1 Place the cursor at the location you want to reference in the index.

2 Choose Insert→Index/TOC Entry→Index Entry, or use the ^ONI classic command.

3 In the Index Entry dialog box, type the word or phrase that you want to appear in the index. Keep in mind the following points:

- Capitalize the entry the way you want it to appear in the index.
- If you want to add a subreference, type a comma and the subreference, for example, type **Phrase to index, subreference**. When you create the index, the subreference appears under the main reference, indented two spaces.
- A phrase to index can contain up to 150 characters, including the subreference. (An extended character counts as 3 characters.) Extra characters are ignored.
- To make the page number for an entry bold, type a plus (+) before the text in the entry, for example, type **+Files, naming**.
- For a cross-reference, type a hyphen (–) before the word or phrase, for example, type **–Naming files, see Files**. When WordStar creates the index, it won't add a page number for this entry.

- If you want to include a comma, plus sign, or hyphen as part of the text instead of using them for subreferences, boldface, or cross-references, insert a backslash (\) before the character; for example, type **\–** to include a hyphen. If you want a backslash to be part of an entry, type a second backslash (\\).

4 When you finish typing the index entry, press F10 or choose OK.

When Command Tags display is on, the first few words of the index entry appear as a command tag. When display is off, the command tag is not displayed.

To view or edit an index entry, be sure display is on, move the cursor to the command tag, and choose Edit→Edit Note, or press ^OND. For more information, see "Edit Note" in "Editing Screen Edit Menu."

You can also use the **.ix** dot command to enter an index entry. Type **.ix** and the entry on a new line. Type the entry as described above.

To create the index, save and close the document. At the Opening screen, choose Utilities→Index, or use the classic command I. WordStar then puts all the index entries, with page numbers, into a file with the .IDX extension. You can edit and print the .IDX file. For more information, see "Index" in "Opening Screen Utilities Menu."

For more information, see "Mark Text for Index" below and "Index" in "Opening Screen Utilities Menu."

MARK TEXT FOR INDEX

***Pull-down:* ALT + I, I, M**
***Classic:* ^PK**

Marks the beginning and end of a word or phrase to appear in the Index.

Before you create an index, you mark the index entries in your text. Use this command to include a word or phrase in the index, when you want the index entry to appear exactly as it does in the text. (If the word or phrase does not appear in the text as you want it to appear in the index, use the Index Entry command on this menu.)

Place the cursor on the first character that will be in the index entry. Choose Insert→Mark Text for Index, or use the ^PK classic command. With Command

Tags display on, the ^K tag appears. To mark the end of the index entry, place the cursor after the last character to be included and choose Mark Text for Index again.

To delete an index entry, place the cursor on the ^K and press Del or ^G. Be sure to remove both the beginning and ending command tags.

For more information, see "Index Entry" above and "Index" in "Opening Screen Utilities Menu" in "Opening Menu."

DOT LEADER TO TAB

Pull-down: ALT + I, I, D
Classic: ^P.

Inserts periods up to the next tab.

This command is used primarily for entering table of contents entries. When you choose Insert→Dot Leader to Tab or use the ^P. classic command, WordStar inserts a tab and a line of periods that goes to the next tab stop. You can then type # so that the page number is printed after the periods. The cursor moves over the tab and all of the periods as if they are all one character, and you can delete them all at once using Del or Backspace.

For more information, see "TOC Entry" in this chapter.

PAR. OUTLINE NUMBER

Pull-down: ALT + I, O
Classic: ^OZ

Inserts a paragraph outline number.

Paragraph outline numbers allow you to number headings or sections of your document. Follow these steps to insert a paragraph outline number.

1. Choose Insert→Par. Outline Number, or use the ^OZ classic command.
2. In the Paragraph Outline Number dialog box, specify the number to insert in one of these ways:

- Press Enter to accept the displayed number.
- Press the Right Arrow key or N to change to the next level. For example, the next number displayed after 1 is 2. If you press the Right Arrow key, the 2 changes to 1.1. When the number you want is displayed, press Enter.
- Press the Left Arrow key or P to change to the previous level. For example, the next number displayed after 1.1 is 1.2. If you press the Left Arrow key, the 1.2 changes to 2. When the number you want is displayed, press Enter.

Paragraph numbers are highlighted in the text. WordStar automatically renumbers subsequent paragraphs when you enter a new number or delete a number.

To change a paragraph number, delete the existing one and insert a new one at the same location. To delete a paragraph number, place the cursor on it and press the Del key. The entire number is deleted.

The first paragraph outline number you assign in a document is normally 1. To change the starting number or the format for paragraph numbers, follow these steps:

1. Choose Insert→Par. Outline Number, or use the ^OZ classic command.
2. In the Paragraph Outline Number dialog box, choose the Options button. The options in the Paragraph Outline Options dialog box are described below.

   Starting Number To specify a different starting number, select this option and type the new number. For example, if you type 3.3, the next paragraph number you insert is 3.3.

   Paragraph Outline Numbering Style Normally, paragraph numbers contain only numerals, up to eight levels deep. Select this option to change the numbering system to include upper- and lowercase letters and roman numerals or to have a different number of levels. Type **9** wherever you want numerals starting with 0 to appear. Type **1** for numerals starting with 1. Type **Z** where you want uppercase letters, **z** where you want lowercase letters, and **I** and **i** for upper- and lowercase roman numerals. For example, Z.1.z would use a numbering system that started with A, then A.1, then A.1.a.

Use Compound Numbers When this option is selected (the default), paragraph numbers include the full number, for example, **I.A.1.a.** Clear this check box for outline style numbering, which uses only the last character of the current level, for example, **a.**

You can include other characters in the command to print those characters as part of the paragraph number. For example, if you type {Z.9.Z}, the paragraph numbers are enclosed in braces.

TIP *You can use your printer's extended characters to add the paragraph symbol (¶) or the section symbol (§). If your printer uses the IBM extended character set, the paragraph symbol is Alt-20 and the section symbol is Alt-21. For more information, see "Extended Character" in this chapter.*

3 Press F10 or choose OK.

WordStar inserts the **.p#** dot command in your text, followed by the starting number if you changed it, then the style information, then c if you turned compound numbering on or o (outline numbering) if you turned it off. The settings are separated with commas, and commas indicate options without changed settings. You can get the same result by typing the dot command.

For example, the dot command **.p#3.3** changes the starting number to 3.3, **.p#, Z.1.z** changes to letter, number, letter format, **.p#, {Z.9.Z}** encloses the paragraph numbers in braces, and **.p# 3.3, Z.9.z.** changes both the starting number and the style. The command **.p#,, o** switches from compound to outline numbering, and **.p# 3,I.A.1,c** changes all three settings.

You can use WSCHANGE (DBI) to change the paragraph numbering options.

CHANGE PRINTER CODES

Pull-down: ***ALT + I, H***

Allows you to specify the code to be entered when you insert a custom printer code.

Custom printer codes are special printing instructions that let you take advantage of a printer's special features. You can use a custom printer code, for example, to print a special character, such as a paragraph symbol. You might use one custom printer code to turn on a printer feature and another one to turn it off.

Custom printer codes are already set up in the WordStar PDF files for some printers. If your printer has them, they are listed on the Printer Information screen when you install your printer.

IMPORTANT *If you want to set up a printer code so that it is available for all your documents, you can use PRCHANGE to define it in the PDF as described in the following section, "Adding Custom Printer Codes to Your PDF." Use Change Printer Codes when you want to change the code for the current document only.*

Use Change Printer Codes to define a custom printer code in the current document, overriding any setting for the code in the PDF. Use the following steps.

1 Choose Insert→Change Printer Codes.

2 In the Change Custom Printer Codes dialog box, select the code you want to change. The four available codes correspond to the classic commands ^PQ, ^PW, ^PE, and ^PR. (You can change ^PF and ^PG only with PRCHANGE.)

3 Type the code for the feature you want to use on your printer. Refer to your printer manual to find out what code to use. For example, if your printer manual shows a BASIC program, you need to translate to ASCII or hexadecimal (hex) code. Use the "ASCII Conversion Charts" in Appendix B to translate your printer code to ASCII or hex.

4 Press F10 or choose OK.

WordStar enters the printer code definition into the document using the **.xq**, **.xw**, **.xe**, and **.xr** commands. You can get the same result by typing the dot command followed by the code in your text. At the point in the document where you want to send the code, type the corresponding ^PQ, ^PW, ^PE, or ^PR command.

When you use custom printer codes, keep these points in mind:

- Codes for different makes and models of printers are usually different. Custom printer codes that work on one printer may not work properly on another.

- Don't use a custom printer code for a standard print feature that is normally supported by WordStar, such as underlining or superscript. If you don't get the feature with the usual WordStar command, you can try using a different PDF, or you can use PDFEDIT to enter the correct code for the command. See the *Installing and Customizing* booklet for more information.
- Be sure to choose No sheet feeder for your PDF (either during installation or using PRCHANGE) before trying to access your sheet feeder with your own custom printer codes. Otherwise, the WordStar sheet feeder commands may conflict with your custom printer codes.
- The WordStar character tables are mapped according to the character/symbol set associated with the font currently in use. If you change the character/symbol set with a custom printer code, WordStar will not know about the change, and the results will be unpredictable.

ADDING CUSTOM PRINTER CODES TO YOUR PDF

If you want to have custom printer codes available in all your documents that use a particular PDF, you can add them to your PDF in PRCHANGE (using ASCII codes). Follow these steps:

1. Start at the DOS prompt. Exit WordStar if necessary.
2. From the DOS prompt, type **winstall** and press Enter to start WINSTALL.
3. Choose **Modify or install a printer (PRCHANGE).**
4. At the Installed Printer Menu, choose the PDF in which you want to change or add custom printer codes.
5. At the PDF Modification Menu, choose **Change custom printer code.**
6. Any existing custom printer codes are listed on the Custom Printer Code Menu. Choose one to change or press + to add a new one.

   The Define a custom printer code screen appears. Notice that the WordStar command for the code is shown at the right of the screen. (The commands are added in the order ^PF, ^PG, ^PQ, ^PW, ^PE, and ^PR.)

7 Enter a descriptive name for the printer code.

8 Enter the ASCII code for the feature you want (up to 72 characters). For example, Esc A 0 (zero) would be entered as ^[A^@. Refer to your printer manual to find out what code to use.

9 The width option is for proportional spacing of printable characters. If the ASCII code you entered is a printable character, enter a character of similar width for the width option for a wide character, A for a medium character, or I for a narrow character. If the code you entered is not a printable character, skip the width option, leaving 0 (zero) on the screen.

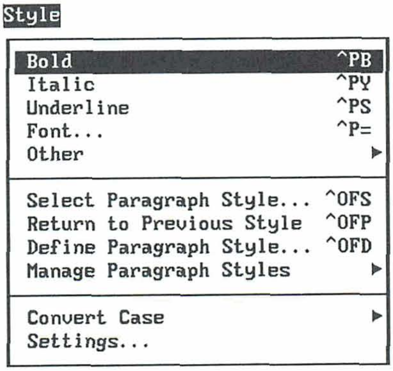
10 Save your changes and exit.

For more information, see "Modifying a PDF" in the *Installing and Customizing* booklet.

CHAPTER 10

EDITING SCREEN STYLE MENU

The Style menu includes commands for inserting styles such as bold and underline into your files, specifying fonts, working with paragraph styles, and converting text to upper- or lowercase.


Style
Bold ^PB
Italic ^PY
Underline ^PS
Font... ^P=
Other ▶
Select Paragraph Style... ^OFS
Return to Previous Style ^OFP
Define Paragraph Style... ^OFD
Manage Paragraph Styles ▶
Convert Case ▶
Settings...

BOLD

Pull-down: ALT + S, B
Classic: ^PB

Marks the beginning or end of text you want printed in bold.

Follow these steps to mark bold text:

1. Place the cursor where you want bold text to start.
2. Choose Style→Bold, or use the ^PB classic command. The text is highlighted and, with Command Tags display on, the ^B tag appears.
3. Place the cursor where you want the bold text to end, and choose Style→Bold or press ^PB again.

You can also mark bold text with a mouse by clicking the B button on the style bar. The B button is highlighted when bold is in effect.

To delete bold, place the cursor on the ^B and press Del or ^G. Be sure to remove both the beginning and ending markers.

If you're using custom fonts, be sure to add the bold font to your PDF. For more information, see the *Installing and Customizing* booklet.

If bold isn't available on your printer, use double strike. (See "Double Strike" in "Other" in this chapter.)

Note: With many proportional fonts, bold characters are larger than regular characters, so you may not get as many characters on a line.

ITALIC

Pull-down: ALT + S, I
Classic: ^PY

Marks the beginning or end of text you want printed in italic.

Follow these steps to mark italic text:

1. Place the cursor where you want italic text to start.

2 Choose Style→Italic, or use the ^PY classic command.

The text is highlighted and, with Command Tags display on, the ^Y tag appears.

3 Place the cursor where you want the italic text to end, and choose Style→Italic or press ^PY again.

You can also mark italic text with a mouse by clicking the I button on the style bar. The I button is highlighted when italic is in effect.

To delete italic, place the cursor on the ^Y and press Del or ^G. Be sure to remove both the beginning and ending markers.

If you're using custom fonts, be sure to add the italic font to your PDF. For more information, see the *Installing and Customizing* booklet.

UNDERLINE

***Pull-down:* ALT + S, U**
***Classic:* ^PS**

Marks the beginning or end of text you want underlined.

Follow these steps to mark underlined text:

1 Place the cursor where you want underlining to start.

2 Choose Style→Underline, or use the ^PS classic command.

The text is highlighted and, with Command Tags display on, the ^S tag appears.

3 Place the cursor where you want the underlining to end, and choose Style→Underline or press ^PS again.

You can also mark underlined text with a mouse by clicking the U button on the style bar. The U button is highlighted when underlining is in effect.

To delete underlining, place the cursor on the ^S and press Del or ^G. Be sure to remove both the beginning and ending markers.

Usually, spaces between underlined words are underlined when you print the document. To change this setting, choose Style→Settings and select Continuous Underline in the Settings dialog box, or use the **.ul** dot command. For more information, see "Settings" in this chapter.

TIP *You can get double underlining by redefining the strikeout character and using the Strikeout command. (See "Strikeout" in "Other" in this chapter.)*

FONT

***Pull-down:* ALT + S, F**
***Classic:* ^P=**

Changes the font in which text is printed.

A font is a particular size and style of typeface. Here are some examples of different fonts:

`Courier 10 point`
Helvetica 10 point italic
Bodoni 12 point bold

Use these steps to change the font:

1. Place the cursor where you want the new font to start.
2. Choose Style→Font, or use the ^P= classic command.
3. In the Font dialog box, select the font you want.
4. If the font you select is a scalable font, type the point size (for a proportional font) or pitch (for a nonproportional font).
5. Press F10 or choose OK.

If Command Tags display is on, a font tag appears in the text, for example, <COURIER 10>. Text following the tag is printed in the new font until you change to a different font. To remove a font tag, place the cursor on it and press Del or ^G.

The style bar shows the current font. You can change the font using a mouse by clicking the font name.

After you change a font in an existing document, use Utilities→Reformat→Rest of Document or the ^QU classic command to reformat the rest of the document.

When you choose Font, you can select from the fonts available for the printer PDF assigned to the document. You can customize the list of available fonts when you install or modify your printer. See "Customizing WordStar" in the *Installing and Customizing* booklet. Keep in mind that even if you add the font to a printer PDF, the font must also be present in your printer for you to be able to print with it.

You can also change fonts using paragraph styles. See "Define Paragraph Style" in this chapter.

If you print a document with a printer other than the one assigned to it, WordStar tries to match the fonts. If that is not possible, WordStar chooses the closest available fonts, maintaining the line breaks and adjusting the justification if necessary. It's best to change the printer assigned to your document, then change the fonts, and reformat before printing.

WORKING WITH FONTS

The following sections give information about the different kinds of fonts.

For detailed information about installing and modifying fonts, see "Customizing WordStar" in the *Installing and Customizing* booklet.

INTERNAL, CARTRIDGE, AND SOFT FONTS

The fonts available to you depend on your printer. Internal fonts are those that are already installed on the printer when you purchase it. For some printers, you can also get cartridge fonts, which plug into the printer, or soft fonts, which come on a disk for you to copy to the printer. When you install your printer for WordStar, you choose the fonts you want to use from a list of those typically available for the printer.

You can use the WINSTALL option **Add or delete fonts (PRCHANGE)** to add fonts after the initial printer installation. If you want to add fonts for a laser printer, and the fonts aren't shown on the PRCHANGE list for that printer, you can use the WINSTALL option **Add fonts to custom database (LSRFONTS)** to create a custom database, and then use PRCHANGE to add fonts from the custom database to the PDF. See "Adding Fonts to a PDF" in "Customizing WordStar" in the *Installing and Customizing* booklet.

FIXED-SIZE AND SCALABLE FONTS

On most nonlaser printers and many laser printers, fonts are available in specific sizes only. Some printers also have scalable fonts, which contain the information for the font style, but not the size. WordStar lets you choose the size you want for these fonts and has the printer scale the typeface to that size. You can choose any size from .25 points to 999.75 points (in .25-point increments) for a proportional scalable font, or from .1 to 40 characters per inch for a nonproportional scalable font.

PROPORTIONAL AND NONPROPORTIONAL FONTS

In nonproportional (fixed pitch) fonts, each character takes up the same amount of space on the page. Nonproportional fonts are measured in pitch (characters per horizontal inch). For example, a COURIER 10 font is a nonproportional font with 10 characters per inch (pica); a COURIER 12 font has 12 characters per inch (elite). On dot matrix printers, expanded print is usually 5 characters per inch and compressed print is 17 characters per inch.

When you select a font with a different pitch, WordStar determines how many characters of the new pitch will fit on a line and displays the correct line breaks onscreen.

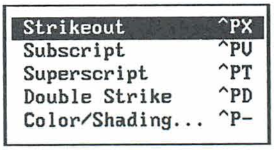
In proportional fonts, different letters take up different amounts of space; for example, an "m" takes up more space than an "i." Proportional fonts are usually measured in points, which specify the height of the letters. For example, standard text characters are 10 points, but footnotes might be in a smaller size, such as 8 points.

On the screen, a line of proportionally spaced text may appear to extend beyond the margins. This is because proportionally spaced letters often take up less space than nonproportionally spaced letters, and you can fit more characters on a line. To see where the characters will be printed, look at the marker in the ruler line. As you move the cursor across a line of text, the marker shows where the text at the cursor will be printed. If you have a graphics monitor, you can also choose View→Preview, or use the ^OP classic command, to see how the text will look on the printed page.

OTHER

***Pull-down:* ALT + S, O**

Lets you use strikeout, subscript, superscript, double strike, and colors or shadings.



STRIKEOUT

***Pull-down:* ALT + S, O, S**
***Classic:* ^PX**

Marks the beginning or end of text you want to strike out.

Text you mark for strikeout is overprinted with hyphens. It is useful, for example, in documents to indicate where you want to delete text.

Follow these steps to strike out text:

1. Place the cursor where you want strikeout to start.

2. Choose Style→Other→Strikeout, or use the ^PX classic command.

   The text is highlighted and, with Command Tags display on, the symbol ^X appears.

3. Place the cursor where you want strikeout to end, and choose Style→Other→Strikeout or press ^PX again.

To delete strikeout, place the cursor on the ^X and press Del or ^G. Be sure to remove both the beginning and ending markers.

To change the character used to strike out text, choose Style→Settings and select the Character for Strikeout option in the Settings dialog box, or use the **.xx** dot command, followed by the new character. For example, type **.xx/** to use the slash. See "Character for Strikeout" in "Settings" in this chapter.

*TIP To get a double underline, change the strikeout character to an underscore character (**.xx_**). Then mark the text for both underline and strikeout.*

SUBSCRIPT

***Pull-down:* ALT + S, O, B**
***Classic:* ^PV**

Marks the beginning or end of text you want printed as a subscript.

Subscript text is printed slightly below the rest of the text on the line, for example, H_2O.

Follow these steps to subscript text:

1. Place the cursor where you want the subscript to start.
2. Choose Style→Other→Subscript, or use the ^PV classic command.

   The text is highlighted and, with Command Tags display on, the ^V tag appears.
3. Place the cursor where you want the subscript to end, and choose Style→Other→Subscript or press ^PV again.

To delete subscript, place the cursor on the ^V and press Del or ^G. Be sure to remove both the beginning and ending markers.

On some printers you can specify how far below or above the text subscripts and superscripts are printed. This amount is normally 3/48 inch. To change it, start on a new line above the subscripts in the text. Type **.sr** (sub/superscript roll) followed by the number of 48ths of an inch of roll you want, and press Enter. For example, to change to 4/48-inch roll, type **.sr 4**. To permanently change the sub/superscript roll, use WSCHANGE (BCK).

The **.sr 0** command usually gives the best results on dot matrix printers. This command allows WordStar to access the printer's built-in subscript/superscript settings. Some dot matrix printers have a special half-high font available specifically for subscript and superscript. If you don't use **.sr 0**, WordStar prints full size subscript/superscript moved up or down as described above. However, if you use **.sr 0**, in some instances WordStar may not recognize the smaller font and may not justify the text properly. If this happens, delete the **.sr 0** and try choosing another font for subscript and superscript.

With scalable fonts, WordStar automatically uses a smaller font size for subscripts. The size is the x-height (height of the lowercase x) of the original height. For example, if the text is 12-point Times Roman, the subscript text is 8.1-point Times Roman.

On some printers, you can change the font assigned to subscript and superscript by choosing a font from the list of available fonts in your PDF. See the information on the PRCHANGE **Add or Delete Fonts** option in "Customizing" in the *Installing and Customizing* booklet.

SUPERSCRIPT

***Pull-down:* ALT + S, O, P**
***Classic:* ^PT**

Marks the beginning or end of text you want printed as a superscript.

Superscript text is printed slightly above the rest of the text on the line, for example, MailList^{TM}.

Follow these steps to superscript text:

1. Place the cursor where you want the superscript to start.
2. Choose Style→Other→Superscript, or use the ^PT classic command.

   The text is highlighted and, with Command Tags display on, the ^T tag appears.
3. Place the cursor where you want the superscript to end, and choose Style→Other→Superscript or press ^PT again.

To delete superscript, place the cursor on the ^T and press Del or ^G. Be sure to remove both the beginning and ending markers.

On some printers, you can specify how far below or above the text subscripts and superscripts are printed. This amount is normally 3/48 inch. To change it, start on a new line above the superscripts in the text. Type **.sr** (sub/superscript roll) followed by the number of 48ths of an inch of roll you want, and press Enter. For example, to change to 4/48-inch roll, type **.sr 4**. To permanently change the sub/superscript roll, use WSCHANGE (BCK).

The **.sr 0** command usually gives the best results on dot matrix printers. This command allows WordStar to access the printer's built-in subscript/superscript settings. Some dot matrix printers have a special half-high font available specifically for subscript and superscript. If you don't use **.sr 0**, WordStar prints full size subscript/superscript moved up or down as described above. However, if you use **.sr 0**, in some instances WordStar may not recognize the smaller font and may not justify the text properly. If this happens, delete the **.sr 0** and try choosing another font for subscript and superscript.

With scalable fonts, WordStar automatically uses a smaller font size for superscripts. The size is the x-height (height of the lowercase x) of the original height. For example, if the text is 12-point Times Roman, the superscript text is 8.1-point Times Roman.

On some printers, you can change the font assigned to subscript and superscript by choosing a font from the list of available fonts in your PDF. See the information on the PRCHANGE **Add or Delete Fonts** option in the *Installing and Customizing* booklet.

DOUBLE STRIKE

***Pull-down:* ALT + S, O, D**
***Classic:* ^PD**

Marks the beginning or end of text you want printed with double strike.

When you choose Double Strike, the printer strikes each character twice to produce a light bold for emphasizing words or phrases. On page printers, the printer prints each character twice, with the two characters slightly offset. Double strike is useful when bold is not available for your printer or type style.

Follow these steps to double strike text:

1. Place the cursor where you want double strike to start.
2. Choose Style→Other→Double Strike, or use the ^PD classic command.

The text is highlighted and, with Command Tags display on, the ^D tag appears.

3 Place the cursor where you want double strike to end, and choose Style→Other→Double Strike or press ^PD again.

To delete double strike, place the cursor on the ^D and press Del or ^G. Be sure to remove both the beginning and ending markers.

COLOR/SHADING

***Pull-down:* ALT + S, O, C**
***Classic:* ^P–**

Prints text in a different color or shade of gray.

Use this command only if you have a color printer or one, such as the Hewlett-Packard LaserJet III, that supports shades of gray or other patterns and font enhancements such as outline, shadow, and reverse (white on black).

Follow these steps to change the color or shade:

1 Place the cursor where you want the new color or shade to start.

2 Choose Style→Other→Color/Shading, or use the ^P– classic command.

3 The Color dialog box shows the color currently in effect and a list of 16 colors, shades of gray, or patterns available on your printer. Select the color or shade you want.

4 Press F10 or choose OK.

If Command Tags display is on, a command tag stating the color or shade (for example, <Red>) appears on your screen. Text following the command tag prints in the new color until you change the color again.

To remove the color, place the cursor on the command tag and press Del or ^G.

SELECT PARAGRAPH STYLE

***Pull-down:* ALT + S, S**
***Classic:* ^OFS**

Assigns a paragraph style to subsequent text.

Paragraph styles contain layout settings for text. You can use them to change several layout settings at once, and to store groups of settings that you use often, so that you can apply them easily. For example, Heading style turns bold and underline on, and Body Text style turns them off. WordStar comes with several predefined paragraph styles, and you can edit them and create additional ones.

When you create a new document, the default style, Body Text, is in effect until you select a different style. You can change the default style at the WINSTALL Set Basic Editing Defaults menu or by using WSCHANGE (DAFB).

Follow these steps to select a paragraph style:

1. Choose Style→Select Paragraph Style, or use the ^OFS classic command. Or, you can use the Alt+0 (zero) macro as a shortcut.
2. In the Select Paragraph Style dialog box, select the style you want.
3. Press F10 or choose OK.

WordStar inserts a paragraph style tag in the text, and subsequent text is formatted in that style until you select another style. If necessary, choose Utilities→Reformat→Rest of Document or use the ^QU classic command.

The style bar shows the current paragraph style. You can change the paragraph style using a mouse by clicking the style name.

For more information on paragraph styles, see "Define Paragraph Styles" and "Manage Paragraph Styles" in this chapter.

PREDEFINED PARAGRAPH STYLES

WordStar comes with nine predefined paragraph styles that you can select. The following table describes them.

STYLE	DESCRIPTION
Body Text	Sets all the paragraph style options for the text you use most often.
Hanging Indent 1	Starts the first line of a paragraph at the left margin, and indents subsequent lines to the first tab stop. This style is useful for outlines and bulleted or numbered lists.
Hanging Indent 2	Starts the first line of a paragraph at the first tab stop, and indents subsequent lines to the second tab stop. If you use Hanging Indent 1 for the first level of an outline, you can use Hanging Indent 2 for the next level.
Hanging Indent 3	Starts the first line of a paragraph at the second tab stop, and indents subsequent lines to the third tab stop.
Heading	Turns on bold and underline.
Manuscript	Indents the first line of a paragraph, and double-spaces text.
Paragraph Indent	Indents the first line of a paragraph.
Quotation	Indents both left and right margins one inch.
Title	Uses a larger font (if available), centers the text, and turns on bold.

RETURN TO PREVIOUS STYLE

***Pull-down:* ALT + S, R**
***Classic:* ^OFP**

Returns to the paragraph style that was in effect before the current one.

When you choose this command, WordStar inserts a tag for the previous paragraph style, and subsequent paragraphs use that style. This command is useful when you want to switch back and forth between two styles.

DEFINE PARAGRAPH STYLE

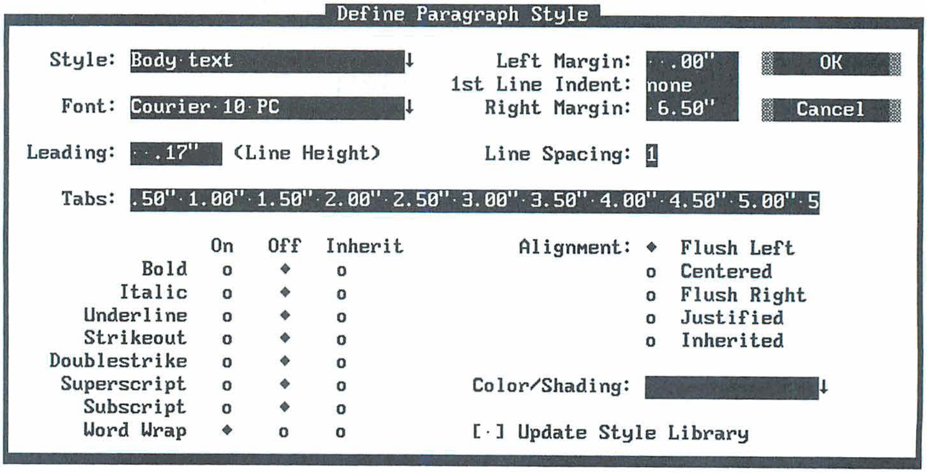
Pull-down: ***ALT + S, D***
Classic: ***^OFD***

Allows you to create a new paragraph style or edit an existing one.

Paragraph styles contain layout settings for text. You can use paragraph styles to change several layout settings at once, and to store groups of settings that you use often, so that you can apply them easily. For example, the Heading style turns bold and underline on, and the Body Text style turns them off. WordStar comes with several predefined paragraph styles, and you can edit them and create additional ones.

Follow these steps to define a paragraph style:

1. Choose Style→Define Paragraph Style, or use the ^OFD classic command.
2. In the Define Paragraph Style dialog box, change any options you want. The options are described below these steps.
3. Press F10 or choose OK to save the paragraph style.



Define Paragraph Style

Style: Body text ↓
Font: Courier 10 PC ↓
Leading: .17" (Line Height)
Left Margin: .00"
1st Line Indent: none
Right Margin: 6.50"
Line Spacing: 1
Tabs: .50" 1.00" 1.50" 2.00" 2.50" 3.00" 3.50" 4.00" 4.50" 5.00" 5

	On	Off	Inherit
Bold	○	●	○
Italic	○	●	○
Underline	○	●	○
Strikeout	○	●	○
Doublestrike	○	●	○
Superscript	○	●	○
Subscript	○	●	○
Word Wrap	●	○	○

Alignment:
● Flush Left
○ Centered
○ Flush Right
○ Justified
○ Inherited

Color/Shading: ↓

[ ] Update Style Library

Note: For settings that are measured in inches, you can specify a different unit of measurement by typing the symbol after the number: **r** for ruler units (columns), **p** or **pt** for points (1/72 inch), or **c** or **cm** for centimeters. For example, you can set the line height to 13 points by typing **13p**.

Style The name of the current paragraph style is displayed here. You can select a different style from the list, or type a name for a new style. You can press the Spacebar and move to the next option to start with the current settings in the document. Then, return to the Style option to name the new style.

Font To change the font, select a font from the list. If you choose a scalable font, be sure to specify the point size or pitch. If you don't want the font in a document to change when you apply the style (the style "inherits" the font from the preceding text), clear this option.

Leading (Line Height) To change the leading (line height), type the height you want. You can type the value in inches; for example, type **1/6** for 1/6 inch to set the 6 lines per inch standard line height. You can also specify another unit of measurement; for example, type **12p** to set the leading to 12 points.

Tabs You can set up to 32 tab stops. Separate them with spaces, and type the tab locations in inches. For example, to set tabs at 1 inch and 2.5 inches, type **1 2.5**. You can specify another unit of measurement; for example, to set tabs in columns 5 and 10, type **5r 10r**. For a decimal tab, type # before the number. To clear all tabs, press ^Y. If you don't want to change the tabs in a document when you apply the style, clear this option.

Left Margin Set a left margin if you want text with this style to have a particular left margin. Specify the margin in inches or use another unit of measurement. You can use the Left Margin setting together with the First Line Indent option to set a "hanging" indent, which is useful for numbered or bulleted lists. For example, if you set the left margin to .3" and the first line indent to 0", the first line of each paragraph will "hang out" to the left of the rest of the paragraph.

1st Line Indent Set a first line indent if you want the first line of each paragraph to have a different indentation than the rest of the paragraph. You can use this setting to indent the first line of each paragraph, or for a hanging indent as described in the previous paragraph. Specify the margin in inches or use another unit of measurement. For example, to set a .2 inch indent, type **.2**.

Right Margin Set a right margin if you want text with this style to have a particular right margin. Specify the margin in inches or use another unit of measurement. For example, to set a 5.25 inch indent, type **5.25**.

Line Spacing The default is 1 for single-spaced text. Type **2**, for example, if you want double-spaced text. If you don't want to change the spacing in a document when you apply the style, clear this option.

On/Off/Inherit Options You can select On, Off, or Inherit for any of these options. For example, for a heading style, you might want to set Bold and Italic both to On. If you select Inherit, text with this style has whatever setting is current in the file before the style tag. When the cursor is at one of these options, you can press the Plus (+) sign for on, the Minus (–) sign for off, or 0 (zero) for inherit.

Alignment You can select Flush Left (the default) for ragged right text, Centered to center each line, Flush Right to align text at the right margin but not at the left, or Justified for right-justified text. If you don't want to change the alignment in a document when you apply the style, select Inherited.

Color/Shading To change the color or shade, select a color or shade from the list. If you don't want the color or shade in a document to change when you apply the style, delete the entry and leave this option blank.

Update Style Library Select this check box if you want to save the style to the style library as well as in the document.

Note: Inherited style settings and settings that change the line height do not apply to headers, footers, or footnotes.

For more information on the paragraph style options, see the following sections:

TOPIC	**SEE**
Choosing a style	"Select Paragraph Style" in this chapter
Reverting to the previous style	"Manage Paragraph Styles" in this chapter
The style library	"Manage Paragraph Styles" in this chapter
Margins and tabs	"Ruler Line" and "Page Layout" in this chapter
Fonts	"Font" in this chapter

TOPIC	**SEE**
Boldface	"Bold" in this chapter
Italic	"Italic" in this chapter
Underline	"Underline" in this chapter
Double strike, strikeout, subscript, and superscript	"Other" in this chapter
Justification, centering, line height, line spacing, and word wrap	"Alignment and Spacing" in "Editing Screen Layout Menu"

WORKING WITH PARAGRAPH STYLES

When you begin a document, the default style, Body Text, is in effect until you choose another style. You can change the default style at the WINSTALL Set Basic Editing Defaults menu or using WSCHANGE (DAFB).

To change to a new style, choose Select Paragraph Style (or ^OFS), described in this chapter. To remove a style, move the cursor to the style tag, and press Del or ^G.

You can change individual settings within text that uses a style. For example, you can make text bold or change the font.

DOCUMENT STYLES AND THE STYLE LIBRARY

The nine predefined paragraph styles are stored in the style library. Styles in the style library are available for any document. When you use a style from the library, WordStar makes a copy of that style and stores it with the document. The copy in the document is called a document style.

When you create or edit a style, it is saved as a document style, which means that it is available for use in the current document. When you save the style, you can also save it to the style library by selecting the Update Style Library check box. You can also save a document style to the library by choosing Style→Manage Paragraph Styles→Copy Style to Library, or using the ^OFO classic command. You can also rename styles and delete library styles. See "Manage Paragraph Styles" in this chapter.

You can keep generic styles in the library and customize them for each document. You can also add customized document styles to the library to make them available for other documents.

If a document style and a library style have the same name but different settings, when you look at the style, the document settings are displayed, and the name in the styles list has an asterisk after it. If you want to use the library style in the document, rename the library style.

To keep your file from getting too large, WordStar deletes unused document styles when you save the file. If you've customized a document style but haven't used it in the document, you can keep it by saving it to the library. To delete a document style, just delete all occurrences of the style tag in the document.

Note: If you copy text that contains paragraph style tags from one document (or note) into another document, and a document style used in the text doesn't exist in the new document, the style tags change to show only question marks. You can then specify a style that exists in the new document.

CHANGING DEFAULT EDITING SETTINGS

Your default paragraph style determines the default editing settings, for example, margins and line height. Unless you change the default paragraph style in WSCHANGE (DAFB), it is Body Text.

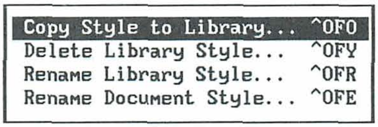
To change default settings using paragraph styles, choose Style→Define Paragraph Style or use the ^OFD classic command. Choose the default paragraph style, enter your changes in the Define Paragraph Style dialog box, and close the dialog box. Then choose Style→Manage Paragraph Styles→Copy Style to Library (or use ^OFO) to copy that style to the library. Whenever you create a new document, the new settings are in effect.

WSCHANGE also includes options to change the default editing settings. However, when your default paragraph style is in the paragraph style library (Body Text is in the style library as a default), settings changed in WSCHANGE do not take effect. If you want WSCHANGE changes to take effect, you can change the default paragraph style to a style that does not exist or is not in the style library, or you can delete the library version of your default style and not create another one.

MANAGE PARAGRAPH STYLES

***Pull-down:* ALT + S, M**
***Classic:* ^OF**

Copies, deletes, and renames paragraph styles.


Copy Style to Library... ^OFO
Delete Library Style... ^OFY
Rename Library Style... ^OFR
Rename Document Style... ^OFE

These commands allow you to copy a document style to the style library, delete a library style, and rename a library or document style.

COPY STYLE TO LIBRARY

***Pull-down:* ALT + S, M, C**
***Classic:* ^OFO**

Copies a document paragraph style to the style library.

Use this command when you create a paragraph style that you want to have available for other documents, or when you modify a paragraph style and want to save the changes to the library. Follow these steps:

1. Choose Style→Manage Paragraph Styles→Copy Style to Library, or use the ^OFO classic command.
2. In the Copy Style to Library dialog box, select the style to copy.
3. If you want to give the library style a different name, specify the name.
4. Press F10 or choose OK to copy the paragraph style.

For more information, see "Document Styles and the Style Library" in "Define Paragraph Style" in this chapter.

DELETE STYLE FROM LIBRARY

Pull-down: ALT + S, M, D
Classic: ^OFY

Deletes a paragraph style from the style library.

Follow these steps to delete a library style:

1 Choose Style→Manage Paragraph Styles→Delete Style from Library, or use the ^OFY classic command.

2 In the Delete Library Style dialog box, select the style to delete.

3 Press F10 or choose OK to delete the style.

For more information, see "Document Styles and the Style Library" in "Define Paragraph Style" in this chapter.

Note: To delete a document style, simply delete all occurrences of the style tag for that style from the document.

RENAME LIBRARY STYLE

Pull-down: ALT + S, M, R
Classic: ^OFR

Renames a paragraph style in the style library.

Follow these steps to rename a library style:

1 Choose Style→Manage Paragraph Styles→Rename Library Style, or use the ^OFR classic command.

2 In the Rename Library Style dialog box, select the style to rename.

3 Specify the new name for the style.

4 Press F10 or choose OK to rename the style.

For more information, see "Document Styles and the Style Library" in "Define Paragraph Style" in this chapter.

RENAME DOCUMENT STYLE

Pull-down: ALT + S, M, E
Classic: ^OFE

Renames a document paragraph style.

Follow these steps to rename a document style:

1. Choose Style→Manage Paragraph Styles→Rename Document Style, or use the ^OFE classic command.
2. In the Rename Document Style dialog box, select the style to rename.
3. Specify the new name for the style.
4. Press F10 or choose OK to rename the style.

For more information, see "Document Styles and the Style Library" in "Define Paragraph Style" in this chapter.

CONVERT CASE

Pull-down: ALT + S, C

Converts all the letters in a block to lowercase or uppercase, or all the letters to lowercase except for the first letter of every sentence.

Choose one of the following commands from the Convert Case menu.

PULL-DOWN COMMAND	CLASSIC COMMAND	DESCRIPTION
Uppercase	^K"	Converts the marked block to all uppercase letters.
Lowercase	^K'	Converts the marked block to all lowercase letters.
Sentence case	^K.	Capitalizes the first letter following a period, question mark, or exclamation point and a space, and converts all other letters to lowercase, except for the letter "I" when it appears by itself.

Note: If you use the classic commands, do not hold down the Ctrl key when you press the second character of the command (", ', or .).

For information on blocks, see "Mark Block Beginning" and "Mark Block End" in "Editing Screen Edit Menu."

SETTINGS

***Pull-down:* ALT + S, E**

Changes settings for continuous underline and strikeout character.

CONTINUOUS UNDERLINE

Turns on and off underlining of spaces between underlined words.

Underlined text is marked using the Style→Underline or the ^PS classic command. Usually, spaces between underlined words are underlined when you print. This command allows you to turn this underlining on and off. Follow these steps:

1. Place the cursor where you want continuous underlining to end.
2. Choose Style→Settings.
3. In the Settings dialog box, clear the Continuous Underline check box to turn off continuous underlining.
4. Press F10 or choose OK.

WordStar inserts the **.ul off** dot command into the text. You can get the same result by typing the dot command.

When continuous underline is on, spaces are underlined when you print, but they do not appear underlined onscreen, even in Preview.

To start underlining spaces, place the cursor where you want the underlining to start, choose Style→Settings, and select the Continuous Underline check box.

WordStar inserts the **.ul on** dot command into the text. You can get the same result by typing the dot command.

To change the default setting for continuous underline, use WSCHANGE (BCE).

CHARACTER FOR STRIKEOUT

Changes the character used to strike out text.

The character used to strike out text (using Style→Other→Strikeout, or ^PX) is normally a hyphen (–). Follow these steps to change the strikeout character:

1. Place the cursor where you want the new character to take effect (generally at the beginning of the document).
2. Choose Style→Settings.
3. In the Settings dialog box, select Character for Strikeout.
4. Type the character to use for strikeout.
5. Press F10 or choose OK.

WordStar inserts the **.xx** dot command followed by the new character. For example, **.xx/** changes the character to the slash. You can get the same result by typing the dot command.

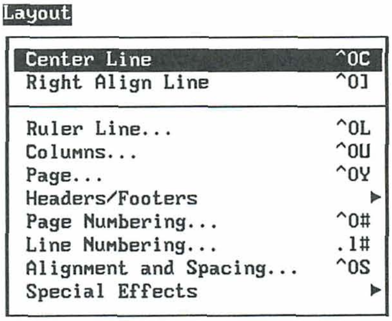
Whenever you subsequently use strikeout in the document (Style→Other→Strikeout, or ^PX), the new character overprints the text.

To permanently change the character used for strikeout, use WSCHANGE (BCI).

CHAPTER 11

EDITING SCREEN LAYOUT MENU

The Layout menu includes commands for setting up the layout of your document. It includes page size, margins, tabs, columns, headers, footers, page and line numbering, alignment, spacing, and other layout elements.


Layout
Center Line ^OC
Right Align Line ^O]
Ruler Line... ^OL
Columns... ^OU
Page... ^OY
Headers/Footers ▶
Page Numbering... ^O#
Line Numbering... .l#
Alignment and Spacing... ^OS
Special Effects ▶

CENTER LINE

Pull-down: ALT + L, C
Classic: ^OC

Centers the current line of text.

When you choose this command, WordStar centers all of the characters on the line within the current margins. Spaces before and after the text are ignored. If you later change the margins and reformat the text, centering is adjusted for the new margins.

To delete the centering, place the cursor at the left margin of the line and press Del or ^G.

For more information on centering text, see "Define Paragraph Style" in "Editing Screen Style Menu" and "Alignment and Spacing" in this chapter.

RIGHT ALIGN LINE

Pull-down: ALT + L, I
Classic: ^O]

Aligns the current line of text at the right margin.

Use this command to align one line of text flush right (aligned at the right margin) instead of at the left margin. When text is right-aligned, the left margin is ragged.

You can position a longer section of text flush right using Layout→Alignment and Spacing (^OS) or paragraph styles. See "Alignment and Spacing" in this chapter and "Define Paragraph Style" in "Editing Screen Style Menu."

RULER LINE

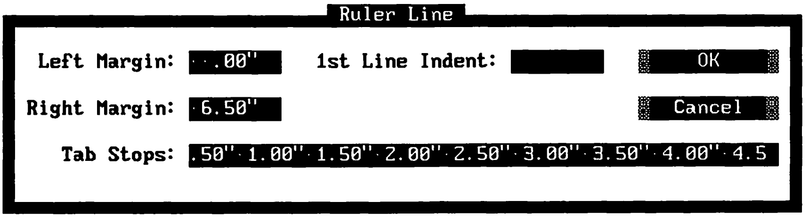
Pull-down: ALT + L, R
Classic: ^OL

Changes settings for left, right, and paragraph margins, and for tabs.

The ruler line at the top of the screen shows the settings for left, right, and paragraph margins, tabs, decimal tabs, and temporary indents. For a complete description of the ruler line, see "WordStar Basics."

To change the ruler line settings, follow these steps:

1. Place the cursor in the text where you want the changes to begin.
2. Choose Layout→Ruler Line, or press the ^OL classic command.
3. In the Ruler Line dialog box, type the settings you want. You can set margins and tabs to .01 inch accuracy; for example, the right margin setting can be 5.25". You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (columns), **p** or **pt** for points (1/72 inch), or **c** or **cm** for centimeters.



Left Margin: .00"

1st Line Indent:

Right Margin: 6.50"

Tab Stops: .50" 1.00" 1.50" 2.00" 2.50" 3.00" 3.50" 4.00" 4.5

The options in this dialog box are described below.

Left and Right Margins The left and right margins are the text boundaries. You can set the left margin to any value between 0 and 25.4 inches, and the right margin between 1 and 36 inches. You must leave at least .2 inch between the left and right margins.

First Line Indent Set a first line indent if you want the first line of each paragraph to have a different indentation than the rest of the paragraph. You can use this setting to indent the first line of each paragraph or for a hanging indent that is good for bulleted or numbered lists. For example, to set a .2 inch indent, type **.2**, or to set a 3-column indent, type **3r**.

Tab Stops You can set as many tab stops as you want. Tab stops allow you to align columns of text by the first character you type after tabbing. Type the tab locations, separating them with spaces. For example, to set tabs at 1 inch and 2.5 inches, type **1 2.5**.

You can also set decimal tabs, which allow you to align the decimal points in a column of numbers. The decimal points (or the space at the end of the number) line up at the decimal tab location. Type **#** before the tab location to set a decimal tab, for example, type **#3** to set a decimal tab at 3 inches. The example below shows a column aligned using a decimal tab.

```
     1234.56
 $432,697
        .99
       1.414679
3,429,733.0
```

4 After you change the options you want, press F10 or choose OK.

WordStar inserts a dot command in your text for each setting you've changed. These commands are **.lm** for Left Margin, **.rm** for Right Margin, **.pm** for First Line Indent, and **.tb** for tab stops, each followed by the appropriate setting number or numbers in inches. You can get the same result by typing the dot command in the text. When you type the dot command, you can use the same units of measurement you use in the dialog box (you must type **i**, **in**, or **"** if you use inches). When you type the dot command, you can also use the Plus (+) sign or Minus (–) sign to move a margin a specified distance from the current margin. For example, **.lm +.5"** sets the left margin .5" to the right of the current margin. With this setting, if you change the original left margin, all indented text maintains the same relationship to the margin.

To change a setting, just delete the old setting in the dot command and type the new one. To delete a setting, delete the dot command line.

TIP *You can specify all the ruler line settings with paragraph styles.*

See also "Define Paragraph Style" in this chapter and "The Ruler Line" in "The Edit Screen" in "WordStar Basics."

You can also insert a ruler line into your document with the **.rr** dot command using any of these three methods:

- Type **.rr** followed by the new ruler line, using the characters shown below.

CHARACTER	MEANING
L	left margin
R	right margin
P	paragraph margin (first line indent)

CHARACTER	MEANING
!	tab stops
#	decimal tabs
–	columns (.1") between margins and tabs

To set the left margin at 0, type a hyphen immediately after the command; don't type the L. To set the left margin at .1 inch or .2 inch, use an overprinted line (see "Special Effects" in this chapter) after the dot command, and type the **L** in the left margin location.

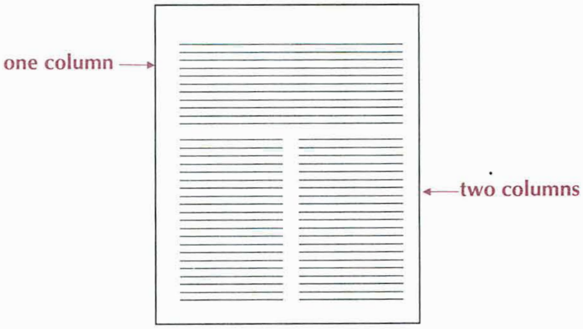
- Press **^OO** to insert a **.rr** dot command with the current ruler line settings. You can then edit the settings. (The left margin must be .3" or greater.)

- Use the **.rr** dot command to use a predefined ruler line. Three ruler lines are predefined; **.rr0** uses the default margins and tabs, **.rr1** indents the left and right margins .5" from the standard margins, and **.rr2** gives a .5" hanging indent. You can define ruler lines 0-9 using WSCHANGE (DAE).

COLUMNS

***Pull-down:* ALT + L, O**
***Classic:* ^OU**

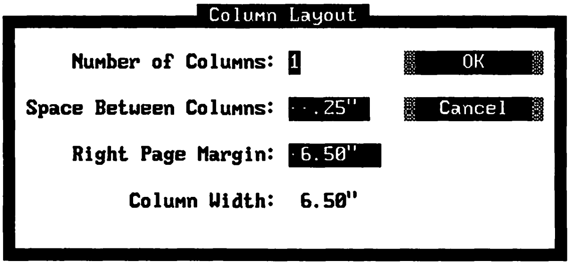
Sets up multiple columns or returns to single-column text.



This command sets up newspaper-style columns. The text starts in the first *column*, and when that column is filled, the text wraps to the next column. When you fill the last column on the page, the text wraps to the next page. When you add or delete text and reformat the document, WordStar adjusts the text in the columns.

1 Choose Layout→Columns, or use the ^OU classic command.

2 In the Column Layout dialog box, type the settings you want. You can set margins and column widths to .01 inch accuracy; for example, the right page margin setting can be 7.25". You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (columns), **p** or **pt** for points (1/72 inch), or **c** or **cm** for centimeters.



Number of Columns: 1
Space Between Columns: .25"
Right Page Margin: 6.50"
Column Width: 6.50"

The options in this dialog box are described below.

Number of Columns Enter the number of columns you want, from 1 to 8.

Space Between Columns Enter the width for the "gutter" between the columns.

Right Page Margin Enter the rightmost edge where text will be printed on the line (not the width of a column).

Column Width WordStar calculates the width of each column from your entries for the number of columns, space between columns, and right margin and displays it here.

3 After you change the options you want, press F10 or choose OK.

WordStar inserts dot commands in your text for your settings. These commands are **.co** for Number of Columns and **.rm** for Column Width (right margin for the column), each followed by the appropriate setting number or numbers. The Space Between Columns setting is included in the **.co** command. For example,

.co4, .2" gives you four columns of text with .2" between columns. You can get the same result by typing the dot commands in the text. When you type the dot command, you can use the same units of measurement you use in the dialog box (you must type **i**, **in**, or **"** if you use inches).

To change a setting, just delete the old setting in the dot command and type the new one. To delete a setting, delete the dot command line.

Note: If the left margin setting is greater than 0, WordStar adds the left margin to the space between columns. For example, if the left margin is set to 1 inch and the space between columns is set to .2 inch, the space between columns will be 1.2 inches. To indent the leftmost column only, change the page offset instead of the left margin (see "Margins" in "Page" in this chapter).

One column symbol (a triple horizontal bar) appears at the beginning of each line in the first column, two column symbols in the second column, and so on. The columns are not shown next to each other on the screen. You can see how they look using View→Preview or the ^OP classic command.

The column break (end of each column) appears onscreen as a double line with a *C* in the flag column. If you want to end a column before the bottom of the page, use Insert→Column Break (or **.cb**). If you want to keep several lines together in a column, use Layout→Special Effects→Keep Lines Together in Column (or **.cc**). For more information, see "Column Break" in "Editing Screen Insert Menu" and "Keep Lines Together in Column" in "Special Effects" in this chapter.

To turn off columns and resume regular page layout, choose Columns and set the number of columns to 1. Be sure to adjust the right margin as necessary. WordStar inserts a page break and the appropriate dot command. To change existing columns to regular page layout, remove the **.co** dot command line and any related commands, and reformat the text.

Any footnotes in columns become endnotes.

If you change the top or bottom margin when you set columns, the **.mt** or **.mb** command must be above the **.co** command for it to take effect on the same page.

PAGE

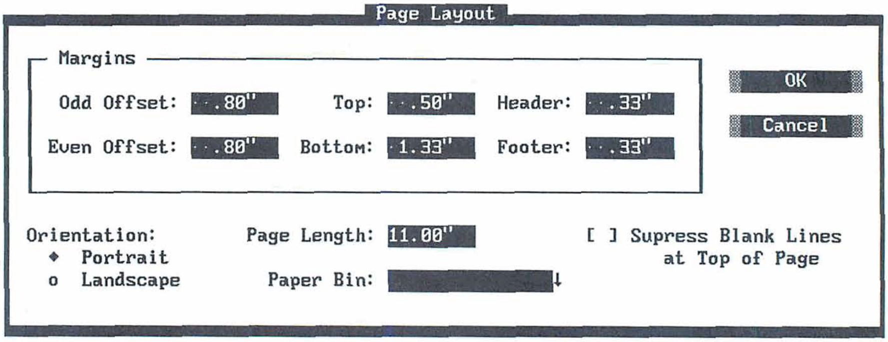
Pull-down: ***ALT + L, P***
Classic: ***^OY***

Changes settings for margins, orientation, page length, paper bin, and suppressing blank lines at the top of the page.

Use this command to determine how your text is printed on the page. Follow these steps:

1. Choose Layout→Page, or use the ^OY classic command.

2. In the Page Layout dialog box, enter the settings you want. The options are described below these steps.



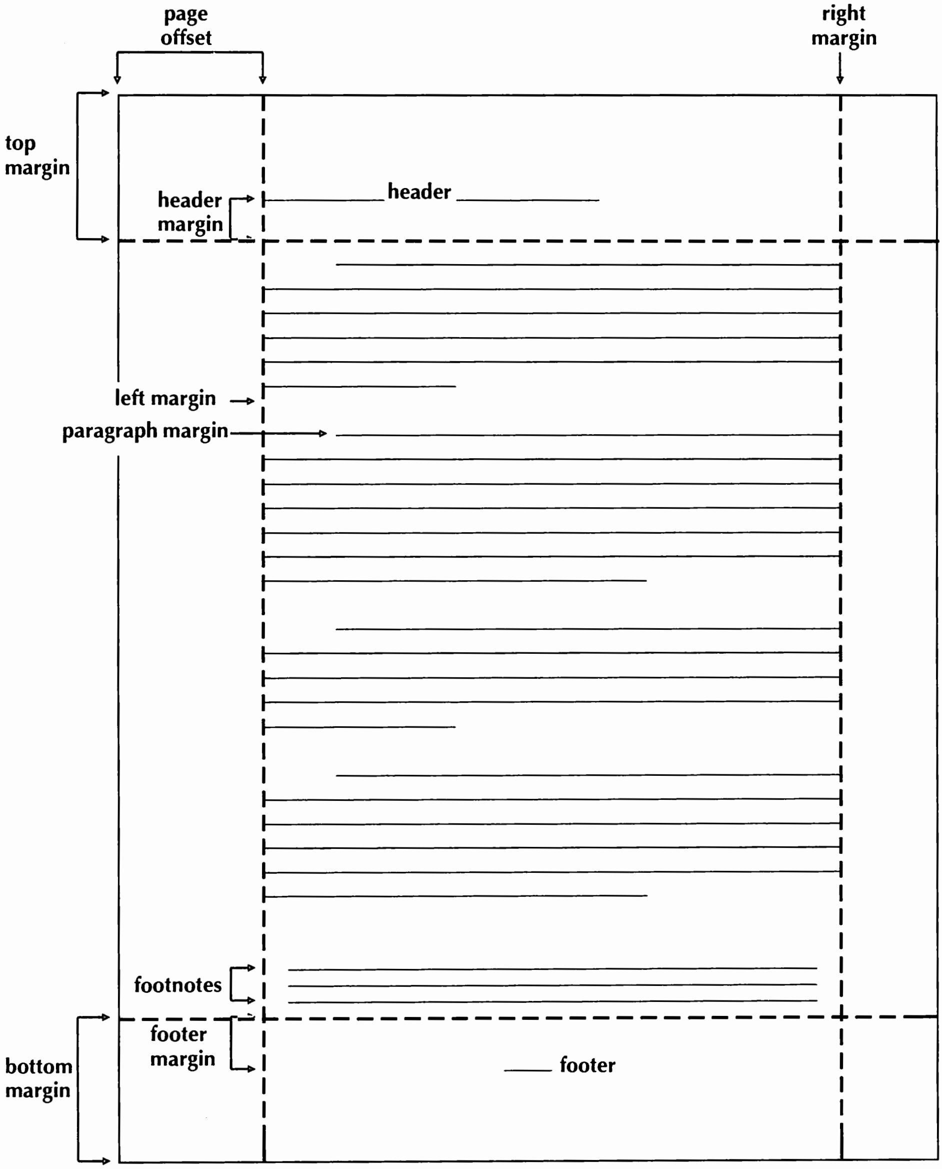
```
                              Page Layout
  Margins
   Odd Offset:   .80"       Top:   .50"     Header:   .33"
  Even Offset:   .80"    Bottom:  1.33"     Footer:   .33"

 Orientation:        Page Length: 11.00"        [ ] Supress Blank Lines
   ◆  Portrait                                          at Top of Page
   o  Landscape        Paper Bin:               ↓
```

Note: You can change the defaults for most of these settings in WSCHANGE (DAA).

3. After you change the options you want, press F10 or choose OK.

MARGINS

The margin settings in the Page Layout dialog box specify the limits of the text area on the printed page. The following illustration shows how these margins and the left and right margins affect the page layout. (You can set the left and right margins using either paragraph styles or Layout→Ruler Line.)


page offset
right margin
top margin
header margin
header
left margin
paragraph margin
footnotes
footer margin
footer
bottom margin

For each option you want to change, type the new setting. You can set the margins to .01 inch accuracy; for example, the top margin setting can be 1.25". You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (columns for horizontal settings or lines for vertical settings), **p** or **pt** for points (1/72 inch), or **c** or **cm** for centimeters.

When you close the Page Layout dialog box, WordStar inserts a dot command in your text for each setting you've changed. These commands are **.poo** and **.poe** for Odd and Even Page Offset, **.mt** and **.mb** for Top and Bottom Margins, and **.hm** and **.fm** for Header and Footer Margins, each followed by the corresponding setting in inches. You can get the same result by typing the dot command in the text. When you type the dot command, you can use the same units of measurement you use in the dialog box (you must type **i**, **in**, or " if you use inches).

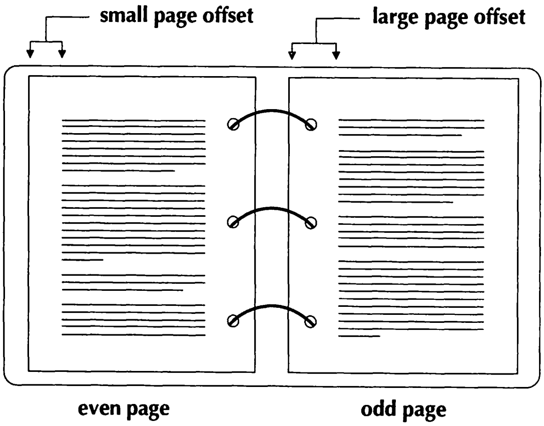
To change a setting, just delete the old setting in the dot command and type the new one. To delete a setting, delete the dot command line.

Each type of margin is described in more detail below.

PAGE OFFSET

The page offset is the amount of space between the left edge of the paper and column 1 of the text. The default page offset is .8 inch. If you want to print closer to the left edge of the paper, you can make the page offset smaller.

For some documents, you may want to set different page offsets for odd and even pages. For example, if you plan to put the pages in a binder, you can use a bigger page offset on odd pages to leave room for the binder holes. For example, you could set the odd page offset to 1 inch and the even page offset to .5 inch.



The page offset and left margin settings together determine the distance between the edge of the page and the text. In other words, if the page offset is .8 inch, and you set the left margin to .2 inch, the text is printed 1 inch from the edge of the page.

TOP AND BOTTOM MARGINS

The top and bottom margins define the space between the text and the top and bottom of the paper. On an 8.5 x 11-inch page, if the top margin is .33 inches and the bottom margin is 1.33 inches, the space left for text is 9.33 inches.

Headers and footers are printed above and below the top and bottom margins, so you need to leave enough room for them in the margins. See "Header and Footer Margins" below.

To work correctly, the top and bottom margin commands must be placed at the top of the page, before any blank lines or text.

HEADER AND FOOTER MARGINS

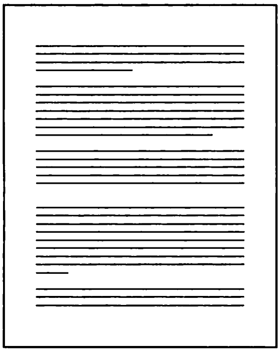
The header margin is the space between the last header line and the first line of text. The header and the header margin must fit into the top margin. If they are larger, the text may not be printed correctly.

The footer margin is the space between the last line of text (on a full page) and the first footer line. The footer plus the footer margin must fit in the bottom margin so that the text is printed correctly.

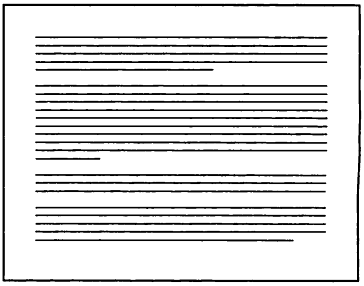
See also "Headers/Footers" in this chapter.

ORIENTATION

On printers that have this capability, you can choose portrait (the default) or landscape orientation. In landscape orientation, text is printed lengthwise on the page, as shown in the following illustration.



portrait



landscape

When you use landscape text, be sure to change the right margin (in the Ruler Line dialog box, or the **.rm** dot command) and page length (in this dialog box, or the **.pl** dot command) accordingly. For 8.5 x 11-inch paper, set the right margin to 9.6 inches and the page length to 8.5 inches. Remember to return to the original settings when you return to portrait mode.

If you specify centered page numbers in landscape text and they are not printed correctly, be sure the dot command **.pc 0** is at the beginning of the document.

When you change the orientation, WordStar inserts the dot command **.pr or=l** for landscape or **.pr or=p** for portrait. You can get the same result by typing the dot command, exactly as shown here.

You can't combine landscape and portrait modes on the same page.

Page Length

Page length is the total length of the paper. WordStar is set up for 8.5 x 11-inch paper. If you use paper of a different size, change the page length setting. For example, type **14** to set the page length to 14 inches for legal-size paper. You can set the page length to .01 inch accuracy. You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (lines), **p** or **pt** for points (1/72 inch), or **c** or **cm** for centimeters.

If you change this setting, when you close the Page Layout dialog box, WordStar inserts the **.pl** dot command in your text, followed by the page length you specified. You can get the same result by typing the dot command in the text. When you type the dot command, you can use the same units of measurement you use in the dialog box (you must type **i**, **in**, or **"** if you use inches).

If you change the page length setting, be sure to do so at the top of the page, before any blank lines or text.

PAPER BIN

If the sheet feeder for your printer has more than one paper bin, you can choose this option to specify the bin to use. For example, if you keep letterhead paper in bin 1 and plain paper in bin 2, you can choose bin 1 at the top of page 1 and bin 2 at the top of page 2. You must change this setting at the top of the page, before any blank lines or text. Select Paper Bin and select the bin from the list.

When you change the bin, WordStar inserts the **.bn** dot command followed by the number of the bin. You can get the same result by typing the dot command.

Note: Be sure you installed your sheet feeder when you installed your printer. If your sheet feeder isn't on the menu, use PDFEDIT to enter the sheet feeder codes into your PDF (see "Using PDFEDIT" in the *Installing and Customizing* booklet).

SUPPRESS BLANK LINES AT TOP OF PAGE

When blank lines fall at the top of the page, they can create uneven top margins throughout the printed document. Select this check box to suppress blank lines when they fall at the top of a page. For all subsequent text, blank lines that fall on the top of a page are shown above the page break, and are suppressed when the document is printed. If you have Command Tags display set to display soft spaces, the suppressed line is displayed as a line full of soft spaces. To stop suppressing blank lines, clear this option.

When you select or clear this option, the dot command **.sb on** or **.sb off** is inserted in the text. You can get the same result by typing the dot command.

WordStar always suppresses soft blank lines at the top of a page when they are created by a line spacing greater than one (for example, double spacing).

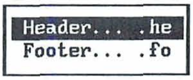
The default for suppressing blank lines is off. You can change it to on using WSCHANGE (DAAK).

HEADERS/FOOTERS

***Pull-down:* ALT + L, H**

Inserts a header or footer into the document.

When you choose Headers/Footers, the following menu appears.



HEADER

***Pull-down:* ALT + L, H, H**
***Classic:* .HE**

Inserts a header into the document.

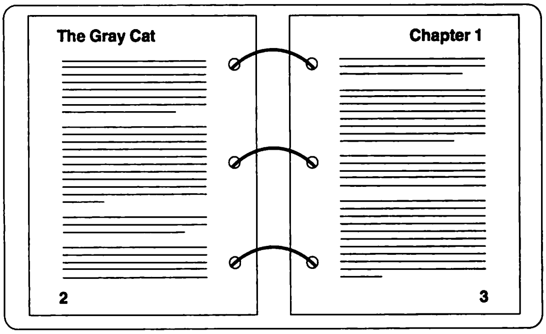
A header is text that is printed at the top of every page. You can use it to print information such as document title, author, date, and page numbers. Follow these steps to insert a header:

1. Put the cursor at the top of the first page you want the header printed on (before any blank lines or text).
2. Choose Layout→Headers/Footers→Header.
3. In the Header dialog box, select the number of lines you want in the header. A header can have from one to five lines.
4. Select whether you want this header for all pages, odd pages only, or even pages only. (To insert different headers for odd and even pages, use Header twice, once for each.)
5. Press F10 or choose OK. WordStar inserts one or more header dot commands into the file.
6. Type the text you want after the dot command for each line of the header. For guidelines on entering the text, see "Entering Header and Footer Text" below.

The header dot commands are **.h1** (or **.he**) for the first line, and **.h2**, **.h3**, **.h4**, and **.h5** for the other lines. If you specify odd or even pages, the letter o or e follows the number in the dot command, without any spaces. You can get the same result by typing the dot command in the text.

For example, with the following header dot commands, "Chapter 1" will be printed at the top of every odd page and "The Gray Cat" will be printed at the top of every even page, as shown in the illustration. Note that the odd header is right-aligned on the page; for information on right-aligning a header, see "Entering Header and Footer Text" below.

```
.h1o                     Chapter 1
.h1e The Gray Cat
```



To delete a header, delete the header dot command line or lines. To stop using a header for subsequent pages, insert the same dot command that began it, without any text.

For information on the header margin, which affects the placement of a header on the page, see "Margins" in "Page Layout" in this chapter.

ENTERING HEADER AND FOOTER TEXT

Follow these guidelines when typing text for a header or footer:

- Be sure to leave a space between the dot command and the text. If you leave more than one space, the header or footer will be indented by that number of spaces.
- To include the page number in a header or footer, use the # character. For example, **.f1 Page #** is printed as Page 1 on the first page. To print the # character itself rather than the page number, precede it with a backslash.

For example, **.h1 Draft \#2** is printed as Draft #2. To include a backslash, use two backslashes.

- You can use print styles such as bold and underlining in headers and footers. The marked text is not highlighted on the screen, but it is printed correctly. Styles in headers or footers do not affect text in the rest of the document, nor do styles in the rest of the document affect headers or footers.
- Each header or footer is printed in the default font unless you specify a different font in the dot command line.
- To right align a header or footer, you can either use a paragraph style or use this method: Start on a new line (if you inserted the dot command from the Header or Footer dialog box, make a note of the dot command, and delete the dot command line). Choose Layout→Right Align Line, or press ^O]. Type the text of the header or footer and press Enter. Then move the cursor up to the line that contains the text and type the appropriate dot command, for example, **.h1o** (don't press Enter).
- To have some text in one header or footer line flush left and some flush right, type the text you want flush left after the dot command and press Enter. Then choose Layout→Right Align Line, or press ^O], and type the text you want flush right. The flush right text is now a line below the dot command line. Move the cursor to the beginning of the current line (press ^QS or use the cursor movement keys), and press Backspace to remove the hard return. Now all the text is on the same line as the dot command and aligned at the margins.
- To put a blank line between two header or footer lines, specify a header or footer for that line and put two blank spaces (press the Spacebar twice) after the dot command.
- To align proportional text in inches in a header or footer, start on a new line. (If you inserted the dot command from the Header or Footer dialog box, delete the dot command line, but remember the dot command.) Type the text so that you can line it up correctly. Then type the dot command at the beginning of the line.
- The number of lines in a header plus the header margin (set in Layout→Page or using the **.hm** dot command) must be less than or equal to the top margin (set in Layout→Page or using the **.mt** dot command) for the page to be printed correctly.

- You can use View→Preview or the ^OP classic command to see how headers and footers will look when printed.
- If your headers and footers aren't printed correctly and displayed correctly in Preview, you may need to increase the size of the header/footer buffer in WSCHANGE (CC2C). Try doubling the default size. Proportional fonts, extended characters, or a lot of text in headers or footers, may cause you to run out of buffer space.

FOOTER

***Pull-down:* ALT + L, H, F**
***Classic:* .FO**

Inserts a footer into the document.

A footer is text that is printed at the bottom of every page. You can use it to print information such as document title, author, date, and page numbers.

As a default footer, WordStar prints the page number, centered. Follow these steps to insert a footer:

1. Put the cursor anywhere on the first page where you want the footer printed.
2. Choose Layout→Headers/Footers→Footer.
3. In the Footer dialog box, select the number of lines you want in the footer. A footer can have from one to five lines.
4. Select whether you want this footer for all pages, odd pages only, or even pages only. (To insert different footers for odd and even pages, use Footer twice, once for each.)
5. Press F10 or choose OK. WordStar inserts one or more footer dot commands into the file.
6. Type the text you want after the dot command for each line of the footer. For guidelines on entering the text, see "Entering Header and Footer Text" in "Header" above.

The footer dot commands are **.f1** (or **.fo**) for the first line, and **.f2**, **.f3**, **.f4**, and **.f5** for the other lines. If you specify odd or even pages, the letter o or e follows the number in the dot command, without any spaces, for example, **.foe *text***. You can get the same result by typing the dot command in the text.

To delete a footer, delete the footer dot command line or lines. To turn off a footer for subsequent pages, insert the same dot command that began it, without any text.

For information on the footer margin, which affects the placement of a footer on the page, see "Margins" in "Page Layout" in this chapter.

See also "Page Numbering" in this chapter.

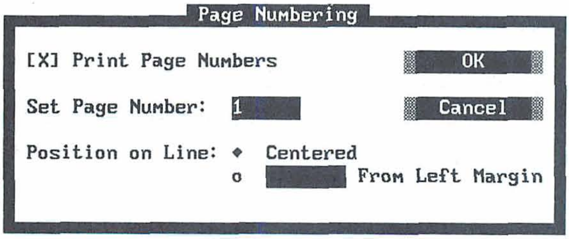
PAGE NUMBERING

***Pull-down:* ALT + L, N**
***Classic:* ^O#**

Sets whether page numbers are printed at the bottom of the page, their position on the line, and the number used.

As a default WordStar prints the page number, centered, on the bottom of each page unless you insert a different footer. Follow these steps to change page numbering:

1. Put the cursor at the top of the first page where you want the page number printed (before any blank lines or text).
2. Choose Layout→Page Numbering.
3. In the Page Numbering dialog box, change any options you want. The options are described below.



[X] Print Page Numbers

Set Page Number: 1

Position on Line: ● Centered
○ From Left Margin

Print Page Numbers Clear this option if you don't want page numbers to be printed. Select it if you want to resume printing page numbers.

Set Page Number This option sets the number that is printed on the current page. WordStar restarts consecutive numbering at the specified number. If you previously suppressed printing of page numbers, specifying a number turns it back on. This option is useful, for example, if a document is contained in several files and you want page numbers to continue consecutively from one file to the next, or if you want to restart page numbers at 1 after a table of contents.

Position on Line Select Centered (the default) or type the position in inches for the page number. For example, type **1.5** to print page numbers at 1.5" from the left margin. You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (columns), **c** or **cm** for centimeters, or **p** or **pt** for points (1/72 inch).

4 Press F10 or choose OK.

When you close the Page Numbering dialog box, WordStar inserts a dot command in your text for each setting you've changed. The command for Set Page Number is **.pn**, followed by the page number. The command for Position on Line is **.pc**, followed by the corresponding setting (in inches unless you specify otherwise, or 0 for centered). Print Page Numbers inserts **.op** to omit page numbers or **.pg** to resume printing page numbers. You can get the same result by typing the dot commands in the text. When you type the **.pc** dot command, you must type **i**, **in**, or **"** if your setting is in inches.

To change a setting, just delete the old setting in the dot command and type the new one. To delete a setting, delete the dot command line.

Note: Page numbers are printed in the default font. To use another font, insert a footer. See "Headers/Footers" in this chapter.

LINE NUMBERING

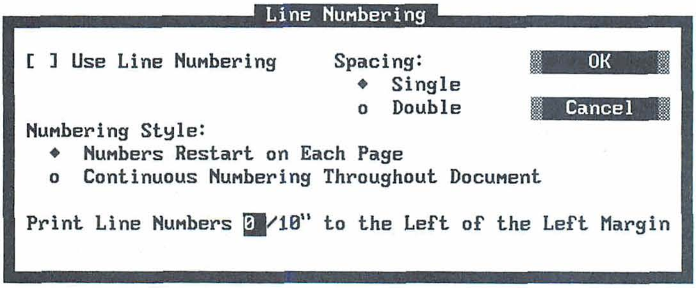
Pull-down: ***ALT + L, L***
Classic: ***.L#***

Starts line numbering and sets line numbering options.

You can print line numbers in the left margin of your document, as on legal pleading paper. Line numbers do not appear onscreen; they appear only on the printed page and when you use View→Preview (or ^OP). With line numbers, vertical lines are printed at the left and right of the text.

Follow these steps to start line numbering:

1. Put the cursor at the top of the first page where you want the line numbering (before any blank lines or text).
2. Choose Layout→Line Numbering.
3. In the Line Numbering dialog box, change any options you want. The options are described below.



☐ Use Line Numbering

Spacing:
● Single
○ Double

Numbering Style:
● Numbers Restart on Each Page
○ Continuous Numbering Throughout Document

Print Line Numbers 0/10" to the Left of the Left Margin

Use Line Numbering Select this box to turn on line numbering, or clear it to turn it off.

Spacing You can select single spacing (the default) or double spacing.

Numbering Style You can either have numbers restart at 1 on each page (the default), or have continuous numbering throughout the document.

Print Line Numbers As a default, line numbers are printed 3 columns to the left of the vertical line at the left of the text. You can type a different distance.

4 Press F10 or choose OK.

When you close the Line Numbering dialog box, WordStar inserts the **.l#** dot command in your text, followed by your settings in the format **.l#** ***style spacing distance***. The style is **p** for restart on each page or **d** for continuous numbering, and there is no space between the **p** or **d** and the spacing number. For example, **l# d2 4** turns on line numbers that print continuously throughout the document, double-spaced, four columns to the left of column 1. You can get the same result by typing the dot command in your text. When you type the distance, type it in columns.

TIP *Turning on line numbering may change the line height. You may need to specify the line height in the document using the Alignment and Spacing command or the* ***.lh*** *dot command. See "Alignment and Spacing" in this chapter.*

If the vertical lines are not printed correctly, or if you want to change the characters used to print them, you can change the characters in WSCHANGE (DBJ). You can also change several other line numbering settings using WSCHANGE (DBJ), including the default distance between the numbers and the text and the line numbering font.

With page printers, you may need to increase the page offset or print the line numbers closer to the text because of the "dead space" at the margins of the paper where the printer doesn't print.

To print a document with both line numbers and footnotes or endnotes, you must use the same line height for the document and the notes.

ALIGNMENT AND SPACING

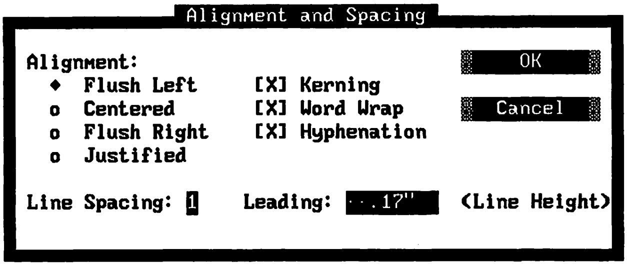
Pull-down: ***ALT + L, A***
Classic: ***^OS***

Sets alignment, kerning, word wrap, hyphenation, line spacing, and line height.

Follow these steps to change alignment and spacing settings:

1 Choose Layout→Alignment and Spacing, or use the ^OS classic command.

2 In the Alignment and Spacing dialog box, change any of the options you want. The options are described below these steps.



```
                  Alignment and Spacing
Alignment:                                        OK
  ◆  Flush Left     [X] Kerning
  o  Centered       [X] Word Wrap               Cancel
  o  Flush Right    [X] Hyphenation
  o  Justified

Line Spacing: 1   Leading: ··.17"    <Line Height>
```

3 Press F10 or choose OK.

You can change several defaults for alignment and spacing using WSCHANGE (DBC).

ALIGNMENT

Flush left text (the default) is lined up at the left margin, with a ragged right margin. In centered text, each line is centered within the margins. (To center single lines, you can use Center Line. See "Center Line" in this chapter.) Flush right text is aligned at the right margin, with a ragged left margin. Justified text is aligned at both the left and right margins; WordStar adds spaces as needed so that all the lines extend to the right margin.

When you change the alignment setting, WordStar inserts a dot command in your file. The commands are **.oj off** for flush left text, **.ojr** for flush right text, **.oj on** for justified text, and **.ojc** for centered. You can get the same result by typing the dot command.

You can also change the alignment by clicking the appropriate button on the Style bar: L, C, R, or J for Flush Left, Centered, Flush Right, or Justified. The button for the alignment setting that is in effect is highlighted.

LINE SPACING

You can print your text single-spaced (the default), double-spaced, triple-spaced, and so on. Type **1** for single spacing (no blank lines between lines of text), **2** for double spacing (one blank line between lines of text), and so on.

When you change the line spacing setting, WordStar inserts the **.ls** dot command, followed by the spacing number, into the text. For example, the **.ls 2** command starts double spacing. You can get the same result by typing the dot command.

If you change the line spacing for existing text, use Utilities→Reformat or ^B or ^QU to reformat the text to reflect the new spacing.

Changing the line height (leading) can give the same effect as changing the line spacing, and is often preferable. For example, both **.lh 16** (line height 16/48 inch) and **.ls 2** (double spacing, using the default line height of 1/6, or 8/48, inch) give you a double-spaced printout. But with the line height command, you don't see the extra blank lines on the page, so you can see more of the text while you edit. Also, when you use line spacing, the blank lines become part of the file, so the file takes up more disk space. With either method, WordStar adjusts the page breaks accordingly and shows the correct page breaks onscreen.

If you change both line height and line spacing, the blank lines added for line spacing are at the specified line height; for example, if you enter both **.ls 2** and **.lh 16**, the text is quadruple-spaced (but appears double-spaced on the screen).

For more information, see "Leading" below.

KERNING

When kerning is selected (the default), WordStar adjusts the space between certain pairs of printed characters. (You can add or edit kerning information using PDFEDIT.) The example below shows how kerning eliminates gaps and gives an even look to pairs of letters.

Kerning On: TA Ta Tc Td Te To T, LT LV LW LY Ly WA Wa W.
Kerning Off: TA Ta Tc Td Te To T, LT LV LW LY Ly WA Wa W.

When you change the kerning setting, WordStar inserts the **.kr on** or **.kr off** dot command into the text. You can get the same result by typing the dot command.

Note: Kerning is available only for certain laser printers with scalable fonts. Kerning is not supported for some extended characters, including some letters with accent marks or umlauts. Kerning works only with characters that are not remapped in the Composed Characters Table or the Character Translation Table in PDFEDIT.

WORD WRAP

When word wrap is on (the default), WordStar automatically moves the cursor to a new line when you type past the right margin. You press Enter only to mark the end of a paragraph. Use this option to turn off word wrap permanently for a section of a file. It also disables justification and automatic reformatting of the text. You might, for example, turn word wrap off at the beginning of a columnar table to be sure it isn't reformatted in later editing sessions, and turn it back on at the end of the table. You can also turn word wrap off and on temporarily while editing. See "Editing Settings" in "Editing Screen Edit Menu."

When you change the word wrap setting, WordStar inserts the **.aw on** or **.aw off** dot command into the text. You can get the same result by typing the dot command.

HYPHENATION

When hyphenation is on (the default), WordStar hyphenates words at the ends of lines when aligning and reformatting text. These hyphens are called soft hyphens because they're printed only when a word breaks at the end of a line. Soft hyphens that are not at the end of a line disappear when Command Tags display is off. If hyphenation is turned off, and subsequent alignment moves a soft hyphen away from the end of the line, it's displayed as an equal sign (=) but not printed.

When you change the hyphenation setting, WordStar inserts the **.hy on** or **.hy off** dot command into the text. You can get the same result by typing the dot command.

If you turn hyphenation off for text that already includes hyphenated words, those words are still hyphenated. If you don't want them hyphenated, delete the hyphens.

You can change the way WordStar hyphenates words and the default setting for hyphenation using WSCHANGE (DBCD and DBCC).

Note: Hyphens you type into the text are hard hyphens, because they are always printed as you typed them. You can enter a soft hyphen to hyphenate a word only if it falls at the end of a line using Layout→Special Effects→Optional Hyphen, or the ^OE classic command. For more information on soft hyphens, see "Optional Hyphen" in "Special Effects" in this chapter.

LEADING (LINE HEIGHT)

The leading, or line height, is the distance between lines of print. It is measured from the bottom of one line of text to the bottom of the following line.

WordStar has both absolute leading and automatic leading. With absolute leading, you set a specific line height value, and lines are equally spaced at that height until you change the setting. With automatic leading, WordStar chooses the line height for your font, and changes the line height automatically whenever you change fonts or font size. Both types of leading are discussed below.

To change the line height, type the height you want. Type **a** or **auto** for automatic line height, or the absolute value you want. You can type the value in inches; for example, type **1/6** for 1/6 inch, for the 6 lines per inch standard line height (the default). You can specify another unit of measurement by typing the symbol after the number: **p** or **pt** for points (1/72 inch) or **c** or **cm** for centimeters. For example, you can set the line height to 12 points by typing **12p**.

When you change the line height setting, WordStar inserts the **.lh** dot command, followed by the value in inches, into the text. For example, **.lh 13p** sets the line height to 13 points, and **.lh a** sets it to automatic. You can get the same result by typing the dot command. When you type the dot command, you can use the same units of measurement you use in the dialog box (you must type **i**, **in**, or " if you use inches). You can also type the dot command in 48ths of an inch. For example, **.lh 8** is 8/48 inch, or the standard 6 lines per inch, and **.lh 16** is 16/48 inch, or 3 lines per inch (double-spaced).

With automatic leading, WordStar determines the line height by the built-in leading for each font. If the font size varies on a single line of text, WordStar bases the line height on the largest font in the line. If you use large fonts, you can change to a smaller font just before blank lines to prevent spaces between paragraphs from being too large. With printers other than page printers, all single-high fonts are set to 12 points (6 lines per inch), double-high fonts are set to 24 points (3 lines per inch), and triple-high fonts are set to 36 points (2 lines per inch).

If a printer can't move in the specified increments, WordStar uses the closest line height available on the printer.

Changing the line height affects the number of lines that can be printed on a page. The display changes to show where the new page breaks fall, but the line height on the screen does not change. To see how the line height will look when printed, use View→Preview, or ^OP.

You can also set the line height using paragraph styles, and you can change the default line height by changing the line height in the Body Text paragraph style. For more information, see "Define Paragraph Style" in this chapter.

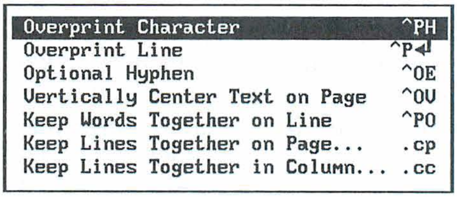
For more information, see "Line Spacing" above.

SPECIAL EFFECTS

***Pull-down:* ALT + L, E**

Overprints lines or characters, inserts an optional hyphen, centers text vertically on the page, and keeps text together on lines or pages or in columns.

When you choose Special Effects, the following menu appears.


Overprint Character ^PH
Overprint Line ^P↵
Optional Hyphen ^OE
Vertically Center Text on Page ^OV
Keep Words Together on Line ^PO
Keep Lines Together on Page... .cp
Keep Lines Together in Column... .cc

OVERPRINT CHARACTER

***Pull-down:* ALT + L, E, C**
***Classic:* ^PH**

Prints a character over the previous one.

This command allows you to create special characters by printing two characters in the same space. Use these steps:

1. Place the cursor in the space after the character to be printed over.
2. Choose Layout→Special Effects→Overprint Character, or use the ^PH classic command. The ^H tag appears in the text.

3 Type the character to be printed over the previous one. You can then continue typing.

To overprint more than two characters, use this command again before each additional character.

TIP If you frequently overprint with the same characters, you can use WSCHANGE (DBBF) to have WordStar automatically overprint the second character on the previous character whenever you type it. This can be useful, for example, with an accent mark.

OVERPRINT LINE

***Pull-down:* ALT + L, E, L**
***Classic:* ^P↵**

Prints a line of text over the previous one.

When you use this command, two complete lines of text are printed on top of each other. Follow these steps:

1 Type the first line of text. Don't let the line wrap to the line below, and don't press Enter.

2 Choose Layout→Special Effects→Overprint Line, or use the ^P↵ classic command. A hyphen appears in the flag column.

3 Type the second line, and end it by pressing Enter.

To overprint more than two lines, use this command again before each additional line.

OPTIONAL HYPHEN

***Pull-down:* ALT + L, E, H**
***Classic:* ^OE**

Inserts a soft hyphen.

Use this command to hyphenate a word when automatic hyphenation is off or to change the location of a hyphen. If the word extends past the right margin, WordStar hyphenates it at the location you specified. (If hyphenation inserted a soft hyphen elsewhere in the word, delete it.)

The hyphens inserted with this command are called soft hyphens because they're printed only when a word breaks at the end of a line. Soft hyphens that are not at the end of a line disappear when Command Tags display is off. If hyphenation is turned off, and subsequent alignment moves a soft hyphen away from the end of the line, it's displayed as an equal sign (=) but not printed.

When you use this command in the middle of a word, a soft hyphen is also inserted at the beginning of the word. If you want to prevent a word from being hyphenated, just use this command at the beginning of the word. If the word contains any other soft hyphens, delete them.

You can turn automatic hyphenation on and off using the Hyphenation option in the Alignment and Spacing dialog box, or the **.hy on/off** dot command. See "Alignment and Spacing" in this chapter.

VERTICALLY CENTER TEXT ON PAGE

***Pull-down:* ALT + L, E, V**
***Classic:* ^OV**

Centers text vertically on the page.

When you use this command, the text from the cursor to the next page break is centered vertically in the remaining space on the page. Any blank lines following the text are ignored. Carriage returns are added above the text to center it. A page break is inserted at the end of the text, if one isn't already there.

When you center a page that is not the only page of a document, be sure to insert a page break before the page you are centering (if another page is before it) and after the page (if another page is after it).

KEEP WORDS TOGETHER ON LINE

***Pull-down:* ALT + L, E, K**
***Classic:* ^PO**

Keeps two words together on the same line.

To keep two words together on the same line, use this command instead of pressing the Spacebar between the words. This command inserts a binding space, which is shown on the screen as ■ when Command Tags display is on. A phrase that uses binding spaces instead of regular spaces is treated as one word when WordStar aligns and reformats text.

KEEP LINES TOGETHER ON PAGE

Pull-down: ALT + L, E, P
Classic: .CP

Keeps a certain number of lines from being split by a page break.

Follow these steps to keep lines together on the same page:

1. Place the cursor on the first line you want to keep together.
2. Choose Layout→Special Effects→Keep Lines Together on Page.
3. In the Keep Lines Together on Page dialog box, type the number of lines you want to keep together.
4. Press Enter or F10 or choose OK.

WordStar inserts the **.cp** dot command in your file, followed by the number of lines to keep together. You can get the same result by typing the dot command.

For example, the **.cp 5** command keeps the subsequent 5 lines together. If there isn't enough room for all five lines to be printed on the page, all five lines move to the next page.

You must insert this command at the beginning of a paragraph, because the dot command must come after a hard carriage return.

Don't change the line height between a **.cp** command and the end of the text you want to keep together.

KEEP LINES TOGETHER IN COLUMN

Pull-down: ALT + L, E, O
Classic: .CC

Keeps a certain number of lines from being split by a column break.

Follow these steps to keep lines together in the same column.

1. Place the cursor on the first line you want to keep together.
2. Choose Layout→Special Effects→Keep Lines Together in Column.

3 In the Keep Lines Together in Column dialog box, type the number of lines you want to keep together.

4 Press Enter or F10 or choose OK.

WordStar inserts the **.cc** dot command in your file, followed by the number of lines to keep together. You can get the same result by typing the dot command. For example, the **.cc 5** command keeps the subsequent 5 lines together. If there isn't enough room for all five lines to be printed in the column, all five lines move to the next column.

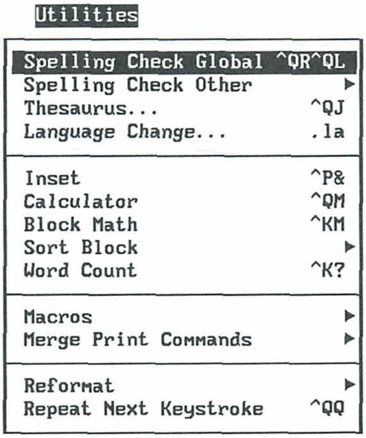
You must insert this command at the beginning of a paragraph, because the dot command must come after a hard carriage return.

Don't change the line height between a **.cc** command and the end of the text to keep together.

CHAPTER 12

EDITING SCREEN UTILITIES MENU

The Utilities menu includes commands for checking spelling, using the Thesaurus, starting the Inset graphics program, using the WordStar math functions, sorting blocks, counting characters, reformatting text, and repeating a command. It also includes the WordStar macro system and merge printing commands.


Utilities
Spelling Check Global ^QR^QL
Spelling Check Other ▶
Thesaurus... ^QJ
Language Change... .la
Inset ^P&
Calculator ^QM
Block Math ^KM
Sort Block ▶
Word Count ^K?
Macros ▶
Merge Print Commands ▶
Reformat ▶
Repeat Next Keystroke ^QQ

SPELLING CHECK GLOBAL

***Pull-down:* ALT + U, S**
***Classic:* ^QR^QL**

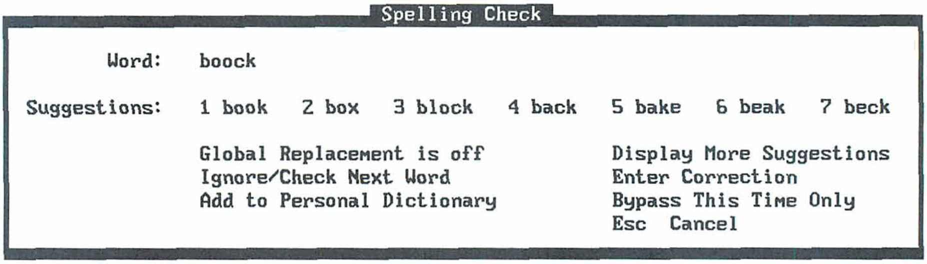
Checks the spelling of all the words in the document.

You can use Spelling Check Global to check the spelling in your documents and to check for double words, such as *the the*. Words in notes and dot commands aren't checked. Follow these steps:

1 Choose Utilities→Spelling Check Global.

WordStar goes to the beginning of the document and then checks each word against its dictionary. If the word is not in the main dictionary, WordStar checks the personal dictionary. (For more information, see "The Spelling Dictionaries" in this chapter.)

If WordStar finds a word that is not in the dictionaries, or a double word, it displays the word and suggestions for how to correct it in the Spelling Check dialog box.



```
                              Spelling Check

       Word:   boock

Suggestions:   1 book   2 box   3 block   4 back   5 bake   6 beak   7 beck

               Global Replacement is off            Display More Suggestions
               Ignore/Check Next Word               Enter Correction
               Add to Personal Dictionary           Bypass This Time Only
                                                    Esc  Cancel
```

Suggestions come from the main dictionary and your personal dictionary. The suggestions match the original word as closely as possible. For example, if the original word is capitalized and plural, the suggestions are capitalized and plural.

If there are more suggestions than fit on the screen, the **Display More Suggestions** option appears. Choose it to see the additional suggestions.

2 If you want to use one of the suggestions, press the number of that suggestion. The corrected word replaces the misspelled word in your file, and the text around it is reformatted if necessary.

The **Global Replacement** option turns global replacement on and off. The default is off. Turn it on if you want to use the correction (which you either choose from the list or type using Enter Correction) throughout the file.

If you don't want to use any of the suggestions, choose one of the options. The options are described below.

Ignore/Check Next Word Ignores the word and goes to the next word. The word is ignored throughout the file.

Add to Personal Dictionary Adds the word to your personal dictionary. Once you add the word to the personal dictionary, WordStar doesn't stop at it again.

Enter Correction Lets you type a replacement word. Type the word in the Spelling Correction dialog box, and press F10 or choose OK. WordStar enters the word you typed in the text, and checks its spelling.

Bypass This Time Only Bypasses this occurrence of the word but stops at subsequent occurrences.

Esc Cancel Stops the spelling check before the end of the document.

3 After you choose one of the options, WordStar checks for the next word that is not in its dictionaries. Continue entering an option for each word that WordStar displays. When you are finished, WordStar shows the number of words checked. Press F10 or choose Continue to return to editing.

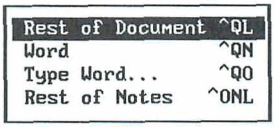
If you run a spelling check, and then open a second window, use Preview, or run a DOS command, WordStar forgets any words to be ignored or corrected throughout the document. You need to instruct WordStar again to ignore or correct those words.

SPELLING CHECK OTHER

Pull-down: ALT + U, O

Checks the spelling of your text.

You can use Spelling Check Other to check the spelling in your documents and to check for double words, such as *the the*.


Rest of Document ^QL
Word ^QN
Type Word... ^QO
Rest of Notes ^ONL

REST OF DOCUMENT

Pull-down: ALT + U, O, R
Classic: ^QL

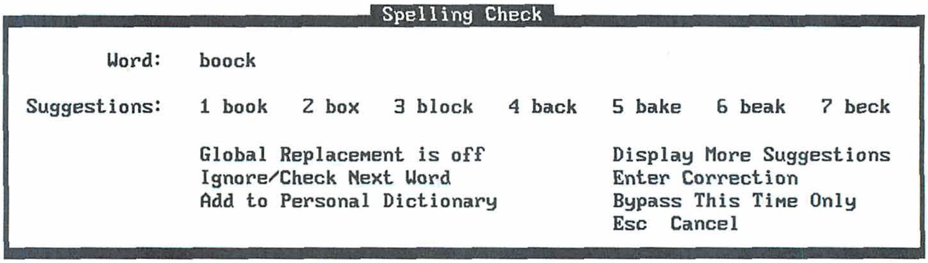
Checks spelling of all the words in the rest of the document.

When you choose Rest of Document, the spelling check begins at the current cursor position and goes to the end of the file. To check the whole document, move the cursor to the beginning of the document before starting the spelling check. Words in notes and dot commands aren't checked. Follow these steps:

1 Choose Utilities→Spelling Check Other→Rest of Document, or use the ^QL classic command.

WordStar checks each word against its dictionary. If the word is not in the main dictionary, WordStar checks the personal dictionary. (For more information, see "The Spelling Dictionaries" in this section.)

If WordStar finds a word that is not in the dictionaries, or a double word, it displays the word and suggestions for how to correct it in the Spelling Check dialog box.


Spelling Check

Word: boock

Suggestions: 1 book 2 box 3 block 4 back 5 bake 6 beak 7 beck

Global Replacement is off
Ignore/Check Next Word
Add to Personal Dictionary
Display More Suggestions
Enter Correction
Bypass This Time Only
Esc Cancel

Suggestions come from the main dictionary and your personal dictionary. The suggestions match the original word as closely as possible. For example, if the original word is capitalized and plural, the suggestions are capitalized and plural.

If there are more suggestions than fit on the screen, the **Display More Suggestions** option appears. Choose it to see the additional suggestions.

2 If you want to use one of the suggestions, press the number of that suggestion. The corrected word replaces the misspelled word in your file, and the text around it is reformatted if necessary.

The **Global Replacement** option turns global replacement on and off. The default is off. Turn it on if you want to use the correction (which you either choose from the list or type using Enter Correction) throughout the file.

If you don't want to use any of the suggestions, choose one of the options. The options are described below.

Ignore/Check Next Word Ignores the word and goes to the next word. The word is ignored throughout the file.

Add to Personal Dictionary Adds the word to your personal dictionary. Once you add the word to the personal dictionary, WordStar doesn't stop at it again.

Enter Correction Lets you type a replacement word. Type the word in the Spelling Correction dialog box, and press F10 or choose OK. WordStar enters the word you typed in the text, and checks its spelling.

Bypass This Time Only Bypasses this occurrence of the word but stops at subsequent occurrences.

Esc Cancel Stops the spelling check before the end of the document.

3 After you choose one of the options, WordStar checks for the next word that is not in its dictionaries. Continue entering an option for each word that WordStar displays. When you are finished, WordStar shows the number of words checked. Press F10 or choose Continue to return to editing.

If you run a spelling check, and then open a second window, use Preview, or run a DOS command, WordStar forgets any words to be ignored or corrected throughout the document. You need to instruct WordStar again to ignore or correct those words.

WORD

***Pull-down:* ALT + U, O, W**
***Classic:* ^QN**

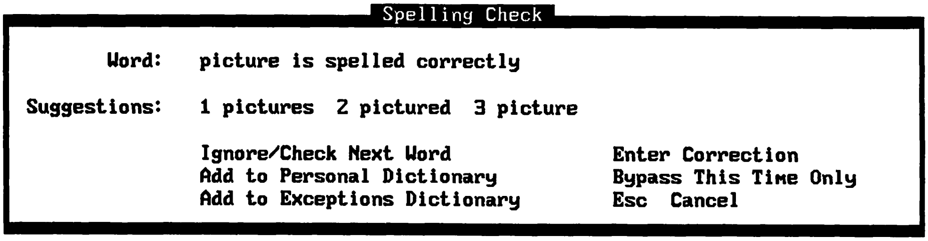
Checks spelling of the word at the cursor.

You can use this command to check a single word or a short series of words, or to add words to your exceptions dictionary (described in "The Spelling Dictionaries" in this section).

1. Place the cursor on the word to check.
2. Choose Utilities→Spelling Check Other→Word, or use the ^QN classic command.

   WordStar checks the word against its dictionary. If the word is not in the main dictionary, WordStar checks the personal dictionary. (For more information, see "The Spelling Dictionaries" in this section.)

   If the word is not in the dictionaries, it displays the word and suggestions for how to correct it in the Spelling Check dialog box.



```
                              Spelling Check
        Word:   picture is spelled correctly

 Suggestions:   1 pictures  2 pictured  3 picture

                Ignore/Check Next Word           Enter Correction
                Add to Personal Dictionary       Bypass This Time Only
                Add to Exceptions Dictionary     Esc  Cancel
```

Suggestions come from the main dictionary and your personal dictionary. The suggestions match the original word as closely as possible. For example, if the original word is capitalized and plural, the suggestions are capitalized and plural.

If there are more suggestions than fit on the screen, the **Display More Suggestions** option appears. Choose it to see the additional suggestions.

3 If you want to use one of the suggestions, press the number of that suggestion. The corrected word replaces the misspelled word in your file, and the text around it is reformatted if necessary.

If you don't want to use any of the suggestions, choose one of the options. The options are described below.

Ignore/Check Next Word Ignores the word and goes to the next word. The word is ignored in any subsequent spelling checks in this editing session.

Add to Personal Dictionary Adds the word to your personal dictionary. Once you add the word to the personal dictionary, WordStar doesn't flag it as misspelled again.

Add to Exceptions Dictionary Adds the word to the exceptions dictionary, so that it will be flagged during spelling checks even though it is a valid word. This option appears only for correctly spelled words. The exceptions dictionary is described in "The Spelling Dictionaries" in this section.

Enter Correction Lets you type a replacement word. Type the word in the Spelling Correction dialog box, and press F10 or choose OK. WordStar enters the word you typed in the text.

Bypass This Time Only Bypasses this occurrence of the word but stops at occurrences in subsequent spelling checks in this editing session. WordStar moves to the next word in the text and checks it.

Esc Cancel Stops the spelling check.

WordStar can also show you the definitions of correctly spelled words. Definitions are not shown as a default, because they use up memory, which makes the spell checker slower. You can turn definitions on in WSCHANGE (CCC).

TYPE WORD

***Pull-down:* ALT + U, O, T**
***Classic:* ^QO**

Checks spelling of any word you type.

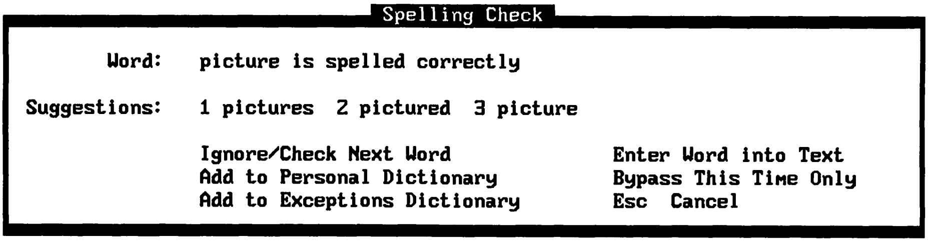
You can use this command to check the spelling of a word that is not in your document, or to add words to your exceptions dictionary (described in "The Spelling Dictionaries" in this section).

1 Choose Utilities→Spelling Check Other→Type Word, or use the ^QO classic command.

2 In the dialog box, type the word to check.

WordStar checks the word against its dictionary. If the word is not in the main dictionary, WordStar checks the personal dictionary. (For more information, see "The Spelling Dictionaries" in this section.)

If the word is not in the dictionaries, WordStar displays suggestions for how to correct it in the Spelling Check dialog box.



```
                              Spelling Check

         Word:   picture is spelled correctly

  Suggestions:   1 pictures  2 pictured  3 picture

                 Ignore/Check Next Word             Enter Word into Text
                 Add to Personal Dictionary         Bypass This Time Only
                 Add to Exceptions Dictionary       Esc  Cancel
```

Suggestions come from the main dictionary and your personal dictionary. The suggestions match the original word as closely as possible. For example, if the original word is capitalized and plural, the suggestions are capitalized and plural.

If there are more suggestions than fit on the screen, the **Display More Suggestions** option appears. Choose it to see the additional suggestions.

3 If you want to insert one of the suggestions in your text, press the number of that suggestion. The word is inserted in your file, and the text around it is reformatted if necessary. If you don't want to use any of the suggestions, choose one of the options. The options are described below.

Ignore/Check New Word Ignores the word and lets you type another word to check. The word is ignored in any subsequent spelling checks in this editing session.

Add to Personal Dictionary Adds the word to your personal dictionary. Once you add the word to the personal dictionary, WordStar doesn't stop at it again.

Add to Exceptions Dictionary Adds the word to the exceptions dictionary, so that it will be flagged during spelling checks even though it is a valid word. This option appears only for correctly spelled words. The exceptions dictionary is described in "The Spelling Dictionaries" in this section.

Enter Word into Text Inserts the word in your text at the current cursor location.

Esc Cancel Stops the spelling check.

WordStar can also show you the definitions of correctly spelled words. Definitions are not shown as a default, because they use up memory, which makes the spell checker slower. You can turn definitions on in WSCHANGE (CCC).

REST OF NOTES

***Pull-down:* ALT + U, O, N**
***Classic:* ^ONL**

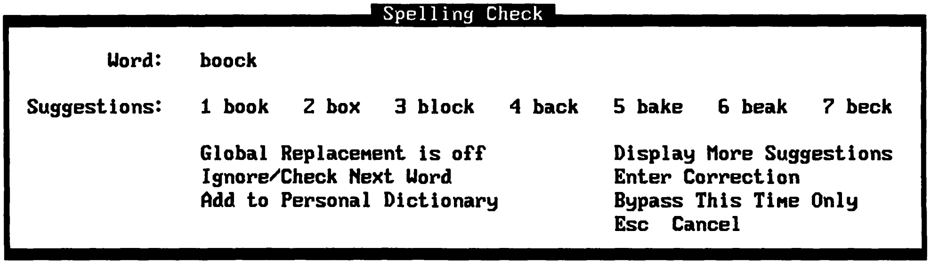
Checks spelling in all the notes (footnotes, endnotes, annotations, and comments) from the cursor position to the end of the document.

Because notes often contain proper names, WordStar ignores them during a normal spelling check. Use this command to check just the text in notes, starting at the cursor position. If you want to use a special personal dictionary for the notes, see "The Personal Dictionary" in this section.

1 Choose Utilities→Spelling Check Other→Rest of Notes, or use the ^ONL classic command.

WordStar checks each word against its dictionary. If the word is not in the main dictionary, WordStar checks the personal dictionary. (For more information, see "The Spelling Dictionaries" in this section.)

If WordStar finds a word that is not in the dictionaries, or a double word, it displays the word and suggestions for how to correct it in the Spelling Check dialog box.



```
                              Spelling Check

       Word:    boock

Suggestions:    1 book   2 box   3 block   4 back   5 bake   6 beak   7 beck

                Global Replacement is off           Display More Suggestions
                Ignore/Check Next Word              Enter Correction
                Add to Personal Dictionary          Bypass This Time Only
                                                    Esc  Cancel
```

Suggestions come from the main dictionary and your personal dictionary. The suggestions match the original word as closely as possible. For example, if the original word is capitalized and plural, the suggestions are capitalized and plural.

If there are more suggestions than fit on the screen, the **Display More Suggestions** option appears. Choose it to see the additional suggestions.

2 If you want to use one of the suggestions, press the number of that suggestion. The corrected word replaces the misspelled word in the note, and the text around it is reformatted if necessary.

The **Global Replacement** option turns global replacement on and off. The default is off. Turn it on if you want to use the correction (which you either choose from the list or type using Enter Correction) throughout the file.

If you don't want to use any of the suggestions, choose one of the options. The options are described below.

Ignore/Check Next Word Ignores the word and goes to the next word. The word is ignored throughout the notes.

Add to Personal Dictionary Adds the word to your personal dictionary. Once you add the word to the personal dictionary, WordStar doesn't stop at it again.

Enter Correction Lets you type a replacement word. Type the word in the Spelling Correction dialog box, and press F10 or choose OK. WordStar enters the word you typed in the text.

Bypass This Time Only Bypasses this occurrence of the word but stops at subsequent occurrences.

Esc Cancel Stops the spelling check.

3 After you choose one of the options, WordStar checks for the next word that is not in its dictionaries. Continue entering an option for each word that WordStar displays. When you are finished, WordStar shows the number of words checked. Press F10 or choose Continue to return to editing.

If you run a spelling check, and then open a second window, use Preview, or run a DOS command, WordStar forgets any words to be ignored or corrected throughout the document. You need to instruct WordStar again to ignore or correct those words.

THE SPELLING DICTIONARIES

WordStar uses spelling dictionaries to determine which words to flag as misspelled and to give suggestions for spelling corrections. Besides the main dictionary, you can also use several special dictionaries, which are described below.

THE PERSONAL DICTIONARY

The personal dictionary contains words you use that are not in the main dictionary, for example, proper names and technical terms.

Any time you run a spelling check, you can add a word to the personal dictionary by selecting Add to Personal Dictionary. You can also edit the personal dictionary as a nondocument, and add, change, or delete words, or block insert words from another file (for example, names from a data file). Make sure each word is on a separate line. Be sure to save the dictionary file when you finish editing.

If you want to add many words to the personal dictionary, you may want to create a number of smaller dictionaries, organized according to the kinds of documents you work with, rather than one large one. A large personal dictionary can slow down the spelling checker.

If you have more than one personal dictionary, use WSCHANGE (DCAEF) to tell WordStar to prompt you for the name of the personal dictionary when you run a spelling check. When you're prompted for a personal dictionary name, you can choose an existing personal dictionary or type a new name to create a new personal dictionary. Any words you add during a spelling check are added to the personal dictionary you specify.

THE EXCEPTIONS DICTIONARY

The exceptions dictionary contains words that you want flagged, even though they may be valid words. For example, you may want the word "fro" to be flagged because you occasionally type "fro" instead of "for." If you add "fro" to your exceptions dictionary, WordStar always flags that word so you can determine if it is correct.

You can add a word to the exceptions dictionary when you use Word (^QN) or Type Word (^QO). Select Add to Exceptions Dictionary (which appears only if the word is spelled correctly).

You can add, change, or delete words from your exceptions dictionary by using WordStar to edit the dictionary as a nondocument file. Make sure each word is on a separate line. Be sure to save the file when you finish editing.

OTHER DICTIONARIES

International dictionaries and medical and legal dictionaries for use with WordStar are available separately.

With the dictionary for each language, you can hyphenate and check spelling in that language. WordStar checks spelling and hyphenation for the current language only. The default language is American English. You can change the current language within a document by using Utilities→Language Change or the **.la** dot command with the appropriate code, and you can change the default language in WSCHANGE (DCGK). For more information, see "Language Change" in this chapter.

Medical and legal dictionaries are available in some languages. They contain the WordStar standard dictionary as well as specialized terms. Instructions for installing and using the special dictionaries are included in the dictionary package.

THESAURUS

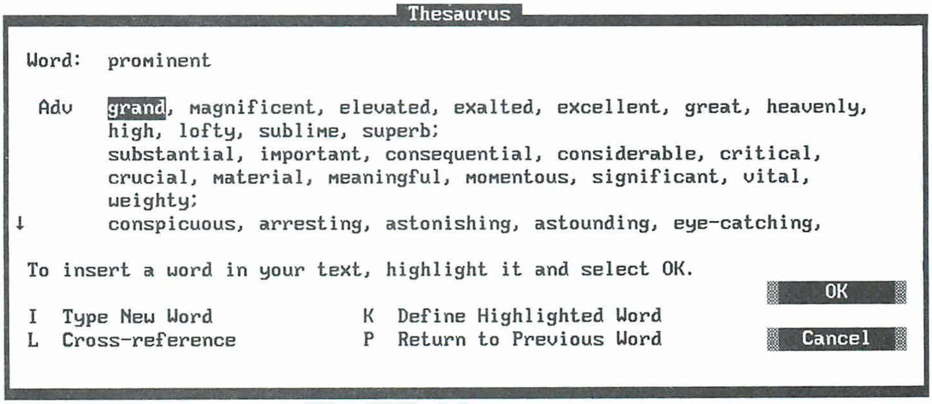
***Pull-down:* ALT + U, T**
***Classic:* ^QJ**

Displays synonyms for words in your text or words you type.

To display synonyms for a word in the document, place the cursor on that word. (If you want to type in a word, the cursor location doesn't matter.) Then follow these steps:

1 Choose Utilities→Thesaurus, or use the ^QJ classic command.

2 The Thesaurus dialog box displays synonyms for the word at the cursor. Synonyms are grouped according to definition and part of speech. The most commonly used synonyms are listed first. If all the synonyms don't fit on the screen, scroll or move the cursor past the bottom line to display the next synonyms.



```
                              Thesaurus

 Word:  prominent

  Adv   grand, magnificent, elevated, exalted, excellent, great, heavenly,
        high, lofty, sublime, superb;
        substantial, important, consequential, considerable, critical,
        crucial, material, meaningful, momentous, significant, vital,
        weighty;
↓       conspicuous, arresting, astonishing, astounding, eye-catching,

 To insert a word in your text, highlight it and select OK.
                                                                 OK
 I  Type New Word                K  Define Highlighted Word
 L  Cross-reference              P  Return to Previous Word    Cancel
```

3 If you want to replace the original word in the text with one of the synonyms, move the cursor to the synonym you want and press Enter. The text around the word is reformatted if necessary.

If you don't want to use any of the synonyms to replace the original word, choose the option you want, or press Esc or choose Cancel to exit the thesaurus. The options are described below.

I Type New Word When you choose this option, type a word to check for synonyms, then press F10 or choose OK.

L Cross-reference Displays a list of synonyms for the synonym at the cursor. You can then move the cursor to the synonym you want and insert it in the document, or you can choose Return to Previous Word or press P to return to the previous screen.

K Define Highlighted Word Displays the definition for the currently highlighted word. You can move the highlighting to the original word in quotes at the upper-left of the menu. You can press I to type another word, N to see the next definition of the word, or P to see the previous definition. Press Esc or choose Cancel to return to the synonym screen.

P Return to Previous Word Returns to the synonyms for the previous word you checked for synonyms in this session of using the thesaurus. This option works only if you have already requested synonyms for another word in this session.

Usually, the word you want is among the synonyms displayed by the thesaurus. If WordStar cannot find the word you request, it looks up synonyms for the root word. If it can't find the word or the root word, it displays a list of the closest words alphabetically, with the cursor on the word closest to the one you requested. You can press Enter to look up synonyms for that word, or you can move the cursor to another word and press Enter.

International thesauruses come with the dictionaries in language packs that are available for use with WordStar. With these thesauruses, you can check synonyms for words in various languages. The default language is American English. You can change the current language within a document using Utilities→Language Change, or the **.la** dot command with the appropriate code, and you can change the default language in WSCHANGE (DCGK). For more information, see "Language Change" in this chapter.

LANGUAGE CHANGE

***Pull-down:* ALT + U, L**
***Classic:* .LA**

Changes the language used for spelling checks, hyphenation, and the thesaurus.

WordStar checks spelling and hyphenation and looks up synonyms for the current language only. The default language is American English. You can change the default language in WSCHANGE (DCGK).

If you have purchased language packs for other languages, follow these steps to change the language in a document:

1. Choose Utilities→Language Change.
2. In the Language Change dialog box, type the code for the language you want. The codes are listed in the documentation that comes with the language packs and in the IBM DOS manual.
3. Press F10 or choose OK.

WordStar inserts the **.la** dot command, followed by the language code, into the document. You can get the same result by typing the dot command.

Once you specify a language, you can check spelling, hyphenate, and use the thesaurus as you normally would.

INSET

***Pull-down:* ALT + U, I**
***Classic:* ^P&**

Starts the Inset graphics program.

The Inset program allows you to capture graphics from other programs and to create and edit graphics. You can then insert the graphics into your WordStar documents.

You must install the Inset program through WordStar (using WSSETUP or the WINSTALL **Add or remove a feature** option) and set up Inset (using the Inset Setup program) before you can use the Inset command.

When you choose Utilities→Inset or use the ^P& classic command, WordStar loads Inset into memory if it is not already loaded, and starts Inset. The Inset Main Menu appears, and you can use any of the Inset commands.

Note: Each time WordStar loads Inset, it must clear memory. The Ignore and Global Replace lists, which are generated when you check spelling, are erased from memory.

For complete information about Inset, see the "Inset" section of the *Companion Programs* manual. For information about inserting a graphic into a document, see "Graphic" in "Editing Screen Insert Menu."

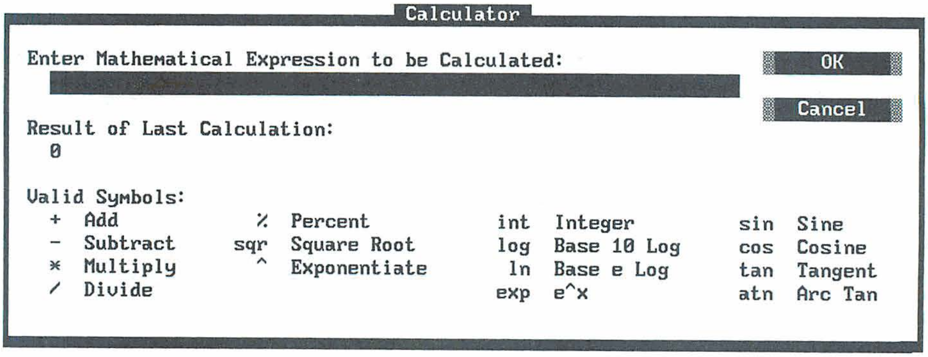
CALCULATOR

Pull-down: ALT + U, C
Classic: ^QM

Evaluates a mathematical expression that you type.

The onscreen calculator provides addition, subtraction, division, multiplication, and exponential operations. It also provides natural and common logarithms, square root, integer, and trigonometric functions. Follow these steps to use the onscreen calculator:

1 Choose Utilities→Calculator, or use the ^QM classic command.



```
Enter Mathematical Expression to be Calculated:

Result of Last Calculation:
  0

Valid Symbols:
  +  Add          %  Percent        int  Integer       sin  Sine
  -  Subtract   sqr  Square Root    log  Base 10 Log   cos  Cosine
  *  Multiply     ^  Exponentiate    ln  Base e Log    tan  Tangent
  /  Divide                         exp  e^x           atn  Arc Tan
```

2 In the Calculator dialog box, type the expression you want to evaluate and press Enter or choose OK. (Do not type an equal sign at the end of the expression.) You can use ^R to reenter the previous expression so that you can edit and recalculate it. More information about notation is given after these steps.

WordStar displays the answer as Result of Last Calculation.

3 If you want to evaluate another expression, type it in the dialog box. When you finish using the calculator, press Enter or Esc or choose OK or Cancel.

After you return to editing, you can insert the result of the last expression (or the expression itself) into your text at the cursor position by choosing Insert→Other Value, and then Last Math Result, Last Math Expression, or Last Math as Dollar. The corresponding classic commands are ^M= (result), ^M# (expression), and ^M$ (result as dollar amount). For more information, see "Variable" in "Editing Screen Insert Menu."

When entering an expression, keep these points in mind:

- Expressions are normally evaluated from left to right, except that exponentiation takes precedence over multiplication and division, which take precedence over addition and subtraction. You can change the order in which WordStar performs operations by using parentheses ( ) to enclose operations that are to be done first. Be sure to use beginning and end parentheses for each of these operations. For example:

  500*.001*(((.001+1)^180)/(((.001+1)^180)-1))

  WordStar always performs the operation within the innermost set of parentheses first. WordStar uses its normal order of precedence when performing the operations within parentheses. You can nest up to 32 pairs of parentheses; however, the equation can become too complicated for WordStar before that level is reached. If an equation is too complicated, an error message appears.

- You can use scientific notation to enter a long number. For example, 1.23e25 represents the number 12300000000000000000000000. Answers have a maximum precision of 12 digits. If an answer is longer, WordStar gives the closest answer it can, using scientific notation. The largest number WordStar can work with is 1e63. The smallest number is 1e-63, which is written out as a decimal point followed by 62 zeros and a 1. (WordStar uses 14-digit BCD floating-point math internally.)

- The trigonometric functions sine, cosine, tangent, and arc tangent work with angles in degrees. For example, to find the sine of 45 degrees, type **sin(45)**. Do not type a space before the opening parenthesis.

For information about performing calculations on merge printed variables, see "Set Variable to Math Result" in "Merge Print Commands" in this chapter.

BLOCK MATH

***Pull-down:* ALT + U, B**
***Classic:* ^KM**

Performs calculator functions in the currently marked block.

With block math, you can perform mathematical functions that are indicated in a marked block. Follow these steps:

1. Mark the beginning and end of the block (Edit→Mark Block Beginning and Edit→Mark Block End, or ^KB and ^KK). Be sure the block contains all the numbers you want included in the calculation and no extra numbers or operators. If you're adding a column of numbers, you may want to use Column Block Mode (Edit→Editing Settings→Column Block Mode, or ^KN). Rules for entering numbers and operators are given after these steps.

2. Choose Utilities→Block Math, or use the ^KM classic command.

   The result of the calculation is displayed in the Block Math dialog box.

3. Press F10 or choose Continue to return to editing.

After you return to editing, you can insert the block math result into your text at the cursor position by choosing Insert→Other Value→Last Math Result or Last Math as Dollar. The corresponding classic commands are ^M= (result) and ^M$ (result as dollar amount). For more information, see "Variable" in "Editing Screen Insert Menu."

WordStar uses the following rules to determine whether the digits it encounters in a marked block are part of a number:

- A number is any set of digits (the characters 0-9).
- A negative number is indicated with a minus sign (–) or parentheses ( ). Any number within parentheses is considered negative.
- A period is considered a decimal point when the character immediately after it is a digit.
- The letter e surrounded by digits is considered a scientific notation; for example, 2e25 means $2 * 10^{25}$.
- The maximum number of digits in a number is 30.
- A percent sign (%) indicates a percentage.

Parentheses and square brackets show precedence in mathematical operations. Answers have a maximum precision of 12 digits. If the answer is longer, WordStar gives the closest answer it can, using scientific notation. Numbers in dot command lines are ignored.

See also "Calculator" in this chapter.

SORT BLOCK

***Pull-down:* ALT + U, K**
***Classic:* ^KZ**

Sorts text in the marked block in alphabetic and numeric order.

Follow these steps to sort text:

1. Mark the block you want to sort (Edit→Mark Block Beginning and Edit→Mark Block End, or ^KB and ^KK). Be sure that the leftmost marked characters on each line are the ones you want to use for the sort. If necessary, change to Column Block Mode (Edit→Editing Settings→Column Block Mode, or ^KN). For example, if you want to sort an address list by zip code, turn column mode on and mark the zip code column as a block.

(The entire lines are moved when they're sorted, not just the portion of the line in the block.)

2 Choose Utilities→Sort Block, or use the ^KZ classic command.

3 Choose Ascending (or press A) or Descending (or press D) for the sort order.

WordStar sorts the lines in the marked block and puts them in the new order.

Lines are sorted based on the following sort order: first spaces, then symbols, then numbers, and then letters.

When you sort numbers aligned with a decimal tab, be sure the smaller numbers have leading zeros. For example, if the largest number is 100, numbers 1 and 10 should be 001 and 010.

TIP *If your line spacing setting is greater than 1, change it to 1 before you sort to avoid sorting all the blank lines.*

For information on sorting MailList data files, see "MailList" in the *Companion Programs* manual.

WORD/CHARACTER COUNT

***Pull-down:* ALT + U, W**
***Classic:* ^K?**

Counts the words and bytes in the marked block or in the entire document.

Use this command to get a count of words and bytes in the currently marked block or, if no block is marked, in the entire file.

The Status screen also shows a count in bytes from the beginning of the file to the current cursor position. Choose File→Status or use the ^O? classic command to display the Status screen.

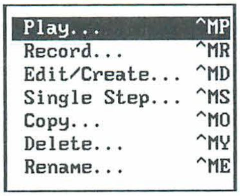
MACROS

***Pull-down:* ALT + U, M**
***Classic:* ^M**

Records, creates, edits, or runs a macro that enters a longer series of text and commands.

The WordStar macro capabilities allow you to use a few keystrokes to enter a series of keystrokes and commands. For example, you can create a macro so that each time you type Alt+W, the word "WordStar" is inserted in your text. Or a macro can change the order of two words (mark the first word as a block, move the cursor to the end of the next word, and move the block).

When you choose Macros, the following menu appears.



You can create a macro in either of two ways:

- Use Record, or the ^MR classic command, to record keystrokes. This is the easier way to create a macro. WordStar records commands and keystrokes as you enter them. When you are finished, WordStar compiles them into a macro file that contains all the appropriate macro commands.
- Use Edit/Create, or the ^MD classic command, to enter macro commands into a file that you edit like a nondocument. To use this command, you need to know the WordStar macro language. This language allows you to create macros that are too complex to record with the Record command. For example, you can have a macro repeat a certain action as many times as needed each time you run the macro. The example in "The Macro Language" in this section enters a bullet character and waits for you to type text, then repeats that sequence after the end of each paragraph; the macro stops and returns you to editing when you finish your bulleted list.

If you need to write a macro that is too complex to record, you can first record a simpler macro that contains commands and keystrokes that can be recorded, then use Edit/Create to add the macro language for the rest of the macro. You can also copy a macro and edit it to create a similar one, and you can copy blocks of macro commands from one macro file to another.

After you create a macro, you can use Single Step, or the ^MS classic command, to play it back step by step to identify any problems.

To execute a macro, you can either use a hot key, or use Play, or the ^MP classic command. You can stop the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.) You can change the Esc keystroke or add another key to stop a macro in WSCHANGE (DCDC and DCDD).

You can also copy, rename, and delete macros using commands on the Macros menu.

TIP *You can set up a macro to run a series of commands that you frequently use when you start WordStar. Then you can run the macro immediately when you start WordStar by typing* **ws /m*macroname***. *For example, you can set up a macro named LETTER to change to the C:\CUSTOMER directory, open a new file, and read in a file of boilerplate text and formatting. Then, any time you want to start WordStar and start a new letter, type* **ws /mletter**. *If you want to start WordStar, open a file, and then run a macro, type the filename before the* **/m** *option.*

WORKING WITH MACROS

MACRO HOT KEYS

You can execute a macro by pressing a single key or key combination called a hot key. You can assign a hot key to a macro when you create it. Eighty-two hot keys are available:

- The function keys F2 through F9, and F11 and F12. (F1 and F10 are reserved for help and closing dialog boxes.)
- The function keys F1 through F12 combined with the Shift key.
- The function keys F1 through F12 combined with the Ctrl key.

- The function keys F1 through F12 combined with the Alt key.
- The Alt key combined with the letters A-Z and the digits 0-9.

Keep these points in mind about macro hot keys:

- The Alt key combined with the letters F, E, V, I, S, L, U, and H access the WordStar pull-down menus. If you use any of these keystrokes as hot keys, you can't use them for those menus. (You can still display the menus using a mouse or using the Right and Left Arrow keys in the menu bar.)
- You don't have to assign a hot key to each macro. If a macro is not assigned a hot key, you can run the macro using Macros→Play (or the ^MP classic command).
- If you want to assign a hot key to a macro that doesn't have one, or change the hot key assigned to a macro, use Macros→Rename, or ^ME. Don't use Macros→Record (^MR); it will erase the macro and create a new one.
- WordStar comes with predefined macros for the function key hot keys and several other hot keys. These macros are listed in Appendix D, "Function Keys and Other Macros." You can define new macros for these keys if you want, using Record (^MR) or Edit/Create (^MD).

MACRO FILES AND DIRECTORIES

Each macro is stored as a file, with the name you gave it while recording or editing and the .WSM extension.

CAUTION *When you record, create, or edit a macro and save it, WordStar compiles the macro, adding executable code. Macro files appear to be nondocuments (ASCII files) when you edit them, but they contain other information. You must edit them with Macros→Create/Edit (or ^MD) to get usable macros.*

On most systems, all the macro files are stored in one directory. The default macro directory name is WS\MACROS; you can change it with WSCHANGE (CD2G).

PLAY

***Pull-down:* ALT + U, M, P**
***Classic:* ^MP**

Executes a macro.

You can execute a macro either using a hot key or using this command. For an explanation on using hot keys, see "Macro Hot Keys" in this section.

Follow these steps to play a macro:

1 Choose Utilities→Macros→Play, or use the ^MP classic command.

2 In the Play Macro dialog box, specify the macro to play. You can choose the macro either by name or hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3 Press F10 or choose OK.

WordStar executes all the commands and enters all the text specified in the macro. Generally, menus and dialog boxes are not displayed unless you need to enter input.

You can stop the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.)

RECORD

***Pull-down:* ALT + U, M, R**
***Classic:* ^MR**

Records a series of keystrokes and stores them as a macro that you can execute.

You can create a macro by choosing Record and then pressing all the keystrokes that you want in the macro. Follow these steps:

1 Choose Utilities→Macros→Record, or use the ^MR classic command.

2 In the Record Macro dialog box, type the name you want to give the macro. If the macro name is already in use, confirm that you want to redefine the macro or give it another name.

3 Specify the hot key that will execute the macro. You can press the Down Arrow key and scroll through the list to see which hot keys are available. If the hot key you specify is already in use, confirm that you want to reassign the hot key or specify another hot key. If you don't want to assign a hot key to the macro, you can skip this step.

4 Type a description of the macro to remind you what it does and help you find it in the list. The description can be up to 48 characters long. If you don't want to give a description for the macro, you can skip this step.

5 Press F10 or choose OK.

6 Enter all the keystrokes you want in the macro. Enter them in the same way you want them played back when you run the macro.

You may need the macro to pause when you run it so that you can enter information such as a filename. At any place you want the macro to pause, press Alt+Hyphen. Then type any number of keystrokes as an example of the input. Press Alt+Hyphen again to end the pause, and continue entering the macro keystrokes. When you execute the macro, it pauses at that point for input and continues after you press Alt+Hyphen. (You can change the Alt+Hyphen keystroke to another keystroke using WSCHANGE (DCDB).)

Note: Mouse actions and clicks are not recorded in macros and do not work while you are recording a macro; you must use the keyboard.

7 When you finish entering the keystrokes, press Alt+= (hold down the Alt key and press =). (You can change the Alt+= keystroke to another keystroke using WSCHANGE (DCDA).)

WordStar records and compiles the macro. If you want to make adjustments to the macro, you can either record it again or edit it using Macros→Edit/Create, or the ^MD classic command.

EDIT/CREATE

Pull-down: ALT + U, M, E
Classic: ^MD

Creates and modifies a macro that contains keystrokes and commands that you enter.

Each macro consists of a series of WordStar commands and functions. You edit a macro using the same commands you use for editing a nondocument file. Follow these steps:

Note: You cannot edit a macro if you already have two editing windows open.

1. Choose Utilities→Macros→Edit/Create, or use the ^MD classic command.

2. In the Edit/Create Macro dialog box, specify the macro name.

   When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3. If you're creating a new macro, specify the hot key that will execute the macro. You can press the Down Arrow key and scroll through the list to see which hot keys are available. If the hot key you specify is already in use, confirm that you want to reassign the hot key or specify another hot key. If you don't want to assign a hot key to the macro, you can skip this step.

4. Type a description of the macro to remind you of what it does and to help you find it in the list. The description can be up to 48 characters long. If you don't want to give a description for the macro, you can skip this step.

5. Press F10 or choose OK. WordStar opens a full-screen editing window for the macro.

6. Type the text of the macro or make any editing changes. For information about what you can enter, see "The Macro Language" in this section. When you edit a macro, you can use the commands used for editing nondocuments.

   TIP You may want to periodically use File→Save (^KS) to save your changes while editing.

7 When you finish, save the macro using File→Save and Close (^KD).

WordStar compiles the macro. If it finds any syntax errors or other errors, they are entered into the macro file. You must edit the macro again to correct the errors.

Errors in a macro file are noted by a message describing the error, followed by the line of the macro that contains the error, with a caret (^) below the line pointing to the location of the error.

TIP The Alt+D hot key is preassigned to a macro that goes to the next error message in a macro file. This is helpful when you edit macros to fix errors.

If you want to copy a block of text from one macro into another, start from the Opening screen rather than the Editing screen. Choose Macros→Edit/Create (or ^MD), and then choose File→Open/Switch (or ^OK). Then copy the block between the windows in the same way you would while editing a document.

SINGLE STEP

Pull-down: ***ALT + U, M, S***
Classic: ***^MS***

Plays back a macro one step at a time to locate errors.

After you create or edit a macro, you can play it back step by step to identify any problems. This command is helpful when a macro doesn't work exactly as you expect it to. Follow these steps:

1 Choose Utilities→Macros→Single Step, or use the ^MS classic command.

2 In the Single Step dialog box, specify the macro to play. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3 Press F10 or choose OK.

WordStar executes the first command or keystroke in the macro, and pauses.

4. Press the Spacebar to continue to the next command, function, or keystroke. Continue in this manner until the macro finishes. You can stop running the macro by pressing Esc or ^Break. (When a macro is paused for input, you must use ^Break.)

COPY

***Pull-down:* ALT + U, M, C**
***Classic:* ^MO**

Copies a macro.

If you want to create a macro similar to another one, you can copy the first macro and edit the copy. You can also make copies of macros so that several people can use them on their computers. Follow these steps:

1. Choose Utilities→Macros→Copy, or use the ^MO classic command.

2. In the Copy Macro dialog box, specify the macro to copy.

   You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.

3. Specify the macro name for the new copy. Type the path with the name if necessary. If the name is already in use, confirm that you want to overwrite the current macro.

4. Press F10 or choose OK to copy the macro.

The copied macro has the same description as the original, but is not assigned a hot key. You can assign a hot key and description when you edit the macro, or you can use Rename Macro (or the ^ME classic command).

DELETE

Pull-down: ALT + U, M, D
Classic: ^MY

Deletes a macro.

Follow these steps to delete a macro:

1. Choose Utilities→Macros→Delete, or use the ^MY classic command.
2. In the Delete Macro dialog box, specify the macro to delete. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.
3. Press F10 or choose OK to delete the macro, and confirm the deletion.

RENAME

Pull-down: ALT + U, M, N
Classic: ^ME

Renames a macro.

You can use this command to rename a macro, assign a new hot key, or add or edit a description. Follow these steps:

1. Choose Utilities→Macros→Rename, or use the ^ME classic command.
2. In the Rename Macro dialog box, specify the macro to rename. You can specify the macro either by name or by hot key. When you press the Down Arrow key and scroll through the list of macros, the description for the highlighted macro appears in the dialog box.
3. Specify the new macro name, hot key, and/or description. If the name or hot key is already in use, confirm that you want to overwrite the current assignment.
4. Press F10 or choose OK to rename the macro.

THE MACRO LANGUAGE

WordStar macros are written and recorded in a BASIC-like language.

Each macro consists of one or more subroutines. A subroutine is a series of statements. The MAIN subroutine is required, and you can use as many other subroutines as you like.

Each statement is a command or function and, if required, its arguments. A statement can have a modifying clause. Each statement can have a label to identify it.

Commands generally control the flow of execution, by specifying which statement to execute next. Some commands are Call, GoTo, Return, Stop, and PlayMacro.

Functions perform specific tasks. Some functions are Key, SetHelpLevel, Insert, and PauseForInput. The Key function is the most important function because it supplies keystrokes to WordStar as if they were typed at the keyboard.

The macro language is described in detail in the following sections. To see more examples, you can look at the macro files that came with WordStar. Unless you've changed directory names, they are in the \WS\MACROS directory. These macros are for the function keys and several other hot keys, and are listed in Appendix D.

MACRO STRUCTURE

A very simple macro is shown below.

```
Sub MAIN
Key("Good morning!{Enter}")
End Sub
```

This macro types **Good morning!** into a document and starts a new line. The macro has three lines. The first line says that the subroutine MAIN begins here, and the last line ends the subroutine.

The second line in the macro is a statement that consists of a single Key( ) function and its argument, the keystroke string **Good morning!{Enter}**. Arguments for functions are always enclosed in parentheses. Keystroke strings are always enclosed in quotation marks. {Enter} signifies the Enter key.

The following example shows a macro for writing a bulleted list. A complete explanation follows the macro. After the explanation of the example, all the macro functions, commands, and other elements are described in detail.

```
REM     This macro is for creating bulleted lists.

Sub MAIN

AutoRestore(ON) : Insert(ON) : CmdTags(OFF)
SetHelpLevel(4) : HideDots(ON)

Key ("{Ctrl+O}FSHanging indent 1{Enter}")
Call Times12
ListLoop: Key ("   •{Tab}")
          PauseForInput("{Enter}", 'Enter the text.')
            IfException
            NCM: Goto ListDone  'User entered nothing
            End IfException
          Key ("{Enter}")
          GoTo ListLoop
ListDone: Key ("{Ctrl+Q}{Del}")
          Key ("{Ctrl+O}FP")
Stop
End Sub

Sub Times12
Key ("{Ctrl+P}=Times 12{Enter}")
Return
End Sub
```

This macro is composed of two subroutines, MAIN and Times12. MAIN has the instructions for entering the bulleted list, and Times12 changes fonts.

The macro has two comments to remind the user what the macro is doing. They are the REM line at the beginning of the macro and the comment "User entered nothing," which describes the situation in which that line takes effect.

At the beginning of the MAIN subroutine are statements that use the AutoRestore, Insert, CmdTags, SetHelpLevel, and HideDots functions to set those five editor states.

The first Key function selects the Hanging Indent 1 paragraph style. Notice that it contains all the keystrokes to choose this style, using the ^OFS classic command.

Next, the Call command runs the Times12 subroutine, which uses a Key statement to change to the Times 12 font. After the font change, the Return command returns to MAIN. Instead of having this subroutine, you could put the Key statement directly in the MAIN subroutine. However, you might want to use this subroutine often in a macro, and it is convenient to be able to call it at several places.

ListLoop is a label. A label marks a location so that you can go to it from elsewhere in the subroutine to run the subsequent instructions. In this case, the label allows a macro to return to the same location a number of times, creating a "loop." The Key statement types two spaces and then the bullet character and a tab. The PauseForInput function causes the macro to wait while the user enters the text that goes next to the bullet, displaying the message *Enter the text.* After entering the text, the user presses Enter, the input termination character. If the user enters text and presses Enter, the IfException is ignored, and the next Key statement presses Enter to go to the next line. Then the GoTo command moves back to the ListLoop label to repeat the procedure for entering another bullet and text.

The three lines beginning with IfException are an IfException clause. An IfException clause tells the macro what to do if it does not receive the expected user input. The IfException signifies the beginning of the clause and the EndIfException signifies the end. NCM (No Cursor Movement) is the type of exception. The NCM line tells the macro that if the user doesn't enter anything before pressing Enter (after the bullet character is entered), the macro should go to the label InputDone. This clause provides the way to end the bulleted list after the user enters the text for the last bullet.

All the indentation in the macro is optional; it is used to make the macro easy to read. After the ListLoop label, the Key statement could be on the same line or the next line, and all the following lines could begin at the left margin.

At the ListDone label, there are two Key statements. The first deletes everything on the line to the left of the cursor using the ^QDel classic command. This removes the last bullet that was inserted, for which there was no text. The last statement reverts to the paragraph style that was in effect above the bulleted list, using the ^OFP classic command. At this point, the macro is finished, and the user returns to editing.

Note that this macro uses classic commands. You can instead use the pull-down menu Alt key combinations for the same commands.

Also note that you can put several statements on a single line by separating statements with a colon (:). You can put spaces or tabs before and after the colon, but they are not required. For example, the first two lines under Sub MAIN in the example above contain five statements.

SUBROUTINES

The format of a subroutine is

```
Sub name
statements
End Sub
```

A subroutine name must begin with a letter and can contain up to 31 characters. The characters must be letters, digits, and the underline character, (_).

Each macro must include the MAIN subroutine, and it is always executed first. You can use additional subroutines to execute the same groups of statements in several locations within a macro; you can enter a subroutine once and call it each time it's needed.

Each statement in a macro must be within a subroutine. Subroutines are separate; a subroutine can call other subroutines, but one subroutine cannot be within another in the text of a macro. Only the MAIN subroutine is executed automatically; you must call any other subroutine to execute it.

Use the Call command to call the subroutine at each location you want to use it. See "Commands" in this section.

THE KEY( ) FUNCTION

The Key( ) function is the most important component of a macro. It specifies the keystrokes that the macro enters. It is in the following format:

```
Key ("keystroke string")
```

The keystroke string must be enclosed in quotation marks. The string can include text and special keys such as direction keys and WordStar commands. A simple Key command with text only is

```
Key ("Sincerely yours,")
```

This command types the phrase **Sincerely yours,**.

Special keys are generally enclosed in braces, for example, {Enter} and {PgDn}. A complete list of special keys is in Appendix C, "Macro Keystrokes." Braces are also used with key combinations, for example, {Alt+F1} and {Ctrl+P}. The following Key command opens a document named KNOX.DOC:

```
Key("{Alt+F}Dknox.doc{Enter}")
```

The following rules apply to special keys and key combinations:

- Upper- and lowercase letters are treated the same; for example, ALT is the same as Alt.
- The caret symbol (^) can be used for the Ctrl key. Braces are not required when this symbol is used. For example, ^C (not enclosed in braces) is equivalent to {Ctrl+C}.
- You can also enter control characters in a macro by pressing ^P and then the control character. For example, if you press ^P^C (hold down the control key, press P and then C, then release the control key), ^C appears in the macro.
- For key combinations, you can use the Plus (+) sign, a space, or a hyphen (–). For example, {Alt+F7}, {Alt F7}, and {Alt-F7} are equivalent.

- An extended ASCII character can be entered by holding down the Alt key and pressing the appropriate number keys on the numeric keypad. For example, pressing Alt+156 puts the £ symbol in the macro.
- To enter an actual ", { , }, or ^, double the character; type " ", { { , } }, or ^^.

For any dialog box option with a check box, you can enter the commands to move to that option, then enter a plus sign (+) for on, a minus sign (–) for off, or 0 for inherit (in paragraph styles). For example, the following Key( ) function goes to the Alignment and Spacing dialog box using the ^OS classic command and turns hyphenation on:

```
Key("^OSh+")
```

For more information about entering keystrokes, see Appendix C, "Macro Keystrokes."

OTHER FUNCTIONS

You can use several other functions besides the Key( ) function in WordStar macros.

The following two functions allow the macro to pause for user input.

PauseForInput(*"input termination key", 'message text'*) Pauses macro execution so the user can enter text. The input termination key is the keystroke that causes macro execution to resume. It must be enclosed in quotation marks. The termination key is optional if you don't include a message; if you don't specify a keystroke, Alt+Hyphen is used.

The message text is the message you want displayed while paused for input. It must be enclosed in apostrophes. It is optional; if you don't specify a message, *Paused. Press {ALT+–} to continue* appears. To enter an apostrophe in the message text, double the character; type ' '. If you include a message, the input termination key is required in the PauseForInput statement. If you use a termination key other than the default, be sure to include a message that gives the name of the key; otherwise, the person running the macro won't know what to do.

When you record a macro, Alt+Hyphen is used as the input termination key, unless you change the default key using WSCHANGE (DCDB).

PauseForKey( ) Pauses macro execution so the user can enter a single keystroke (for example, Y or N). As soon as the user presses a key, macro execution resumes.

The remaining functions set editing conditions for playing back the macro. These editing conditions can affect how the commands in the macro work. When you create a macro, it's best to use these functions unless you're sure the editing conditions won't affect macro execution. For example, if a macro is written assuming that insert is on, and it is run in overtype mode, text could be lost. If a macro is run at a different help level than it is written for, different menus and dialog boxes may appear, and some of the commands in the macro may not work correctly.

SetHelpLevel(1/2/3/4) Sets the help level in use for macro execution.

Insert(ON/OFF) Sets Insert mode to on or off for macro execution.

CmdTags(ON/OFF) Sets Command Tags display (or ^OD) on or off for macro execution.

HideDots(ON/OFF) Sets display of dot commands on or off for macro execution.

ColMode(ON/OFF) Sets column block mode on or off for macro execution.

ColReplace(ON/OFF) Sets column replace mode on or off for macro execution.

AutoRestore(ON/OFF) After the macro finishes running, restores the editor conditions that were in effect when the macro started. This function is turned on whenever a macro is recorded.

SingleStep(ON/OFF) Allows you to Single Step through a selected portion of a macro.

When you record a macro, WordStar automatically inserts all these functions, with the current settings, into the macro file. For example, recording a simple macro to type **Good morning!** produces this macro file:

```
Sub MAIN
   SetHelpLevel(4)
   Insert(ON)
   CmdTags(OFF)
   HideDots(ON)
   ColMode(OFF)
   ColReplace(OFF)
   AutoRestore(ON)
   Key("Good morning!{Enter}")
End Sub
```

COMMANDS

You can use the following commands to control the flow of the macro execution.

Call *subroutine* Executes the named subroutine in the current macro. When the subroutine is completed, macro execution returns to the statement after the Call statement, unless the subroutine includes the Stop command.

PlayMacro *'macro'* Executes another macro. The macro name must be enclosed in apostrophes. Include a path with the macro name if necessary. Do not include the .WSM extension. To enter an apostrophe in the macro name or path, double the character; type ' '. When the macro is completed, execution returns to the statement after the PlayMacro statement in the original macro, unless the other macro includes the Stop command.

ChainMacro *'macro'* Executes another macro. The macro name must be enclosed in apostrophes. Include a path with the macro name if necessary. Do not include the .WSM extension. To enter an apostrophe in the macro name or path, double the character; type ' '. When the macro is completed, execution does not return to the original macro unless the ChainMacro command was invoked from a subroutine other than Main. In this case, execution returns to the subroutine that called the subroutine containing the ChainMacro command.

Stop Terminates the macro.

Return Stops the current subroutine and returns to either the calling subroutine or the calling macro. If there is no calling subroutine or macro, the macro is terminated.

GoTo *label* Goes to the named label, executes it, and continues from that location. The label must be within the same subroutine as the GoTo command.

A label is a name that identifies a statement or location in a macro. You can use a label to go to a specific location in the macro, and to repeat a set of instructions in a loop. A label name must begin with a letter and can contain up to 31 characters, which must be letters, digits, and the underline character (_). It must end with a colon (:).

THE IFEXCEPTION CLAUSE

When you run the macro and it enters the keystrokes in the Key function, additional user input may be required before the macro can go on to the next function. For example, if you run a macro with the command to insert the file JOE.DOC, **Key("{Alt+I}Fjoe.doc{Enter}")**, and the JOE.DOC file doesn't exist, a message is displayed that requires user input. This is called an exception condition, and is handled using the IfException clause.

You can follow any Key command with an IfException clause. The IfException clause handles these three types of exception conditions:

- **User acknowledgement required (ACK)** This condition occurs when WordStar issues a message in response to a command issued by the macro, and the user needs to press a key to acknowledge it. For example, after a spelling check WordStar displays the number of words checked, and you must press F10 or choose OK to continue.

- **User clarification required (QRY)** This condition occurs when WordStar displays a dialog box in response to a command issued by the macro, and the user needs to enter information or choose one of several options. For example, if the macro inserts a file and gives a filename that doesn't exist, you need to type the correct filename or close the dialog box. When you record a macro, ACK conditions are included when appropriate.

- **No cursor movement (NCM)** If the macro repeats a cursor movement command such as PgUp or PgDn indefinitely, this condition occurs when the cursor reaches the beginning or end of the file or line. This condition also occurs when no user input is received before the input termination key is pressed after a PauseForInput statement.

The IfException clause has the following format:

```
IfException
    [ACK:
    statements]
    [QRY:
    statements]
    [NCM:
    statements]
    [DEF:
    statements]
End IfException
```

The ACK, QRY, and NCM subclauses handle the three conditions described above, and the DEF statement gives the default exception processing for ACK and QRY conditions. At least one of these subclauses must be defined in each IfException clause. The IfException, End IfException, and each subclause must begin on a new line. You can use spaces or tabs to indent the subclauses if you want.

If one of the three exception conditions occurs when the macro is run, the IfException clause becomes active. If the subclause for the type of exception is defined, WordStar executes the statements in that subclause. Otherwise, if the exception is an ACK or QRY type and the DEF clause is defined, WordStar executes the statements in the DEF subclause.

If no IfException clause is present in an ACK or QRY condition, or if an appropriate subclause is not defined, the macro displays a message and waits for user input for the dialog box or message on the screen. When appropriate input is entered, the macro resumes. If no IfException clause is present in an NCM condition, the condition is ignored and the macro proceeds.

When you record a macro, ACK and QRY (but not NCM) IfException clauses are automatically inserted when exception conditions are encountered.

The following example shows the use of ACK:

```
Sub Main
Key("{Ctrl+Q}A")
Key("wonderful{Tab}"})
Key("excellent{Tab}")
Key("MG")
Key("{F10}")
   IfException
   ACK: Key("{Esc}")
   End IfException
End Sub
```

This macro uses the ^QA classic command. In the Find and Replace dialog box, it instructs WordStar to replace "wonderful" with "excellent" using the G (Entire File/Global) and M (Maintain Case) options. Then it issues the F10 keystroke to close the dialog box and start the Find and Replace operation. During this operation, the macro pauses at each instance of "wonderful" for the user to press Y or N for the replacement. When the operation is complete, the *All replacements complete* message triggers the ACK IfException, which supplies the Esc keystroke to clear the message from the screen and resume editing.

The following example shows the use of QRY:

```
Sub Main
Key("{Ctrl+P}=")
Key("Times 10{Enter}")
   IfException
   QRY: Key("{Esc}")
        Key("Courier 12{Enter}")
   End IfException
End Sub
```

This macro uses the ^P= classic command to choose a font. In the Font dialog box, it chooses Times 10. If the Times 10 font isn't available, the error message triggers the QRY IfException, which supplies the Esc keystroke to remove the message from the screen, then chooses the Courier 12 font.

For an example of using NCM, see "Macro Structure."

TIP *When a macro changes options in a dialog box, use separate Key statements for each option. That way, you can use IfException clauses to* *correct problems with each option (for example, if the macro chooses a font or paragraph style that isn't available in the document).*

COMMENTS

You can enter comments in a macro file in several ways:

- Use REM at the beginning of a line. All text following the REM on that line is comment. The REM can be preceded by tabs and spaces.
- Use an apostrophe (') at the end of a statement line. All text following the apostrophe on that line is comment.
- Start a comment anywhere in the macro with a slash and an asterisk (/*), and end it anywhere with an asterisk and a slash (*/). This type of comment can be as many lines long as you like.

MERGE PRINT COMMANDS

***Pull-down:* ALT + U, P**

Enters commands and variable information in order to print personalized form letters and other documents.

Merge printing is the process of inserting information into a document while it's being printed. You can use merge printing for form letters, mailing labels, invoices, contracts, reports, and any other standard document that requires you to "fill in the blanks."

When you print a document with merge print commands, be sure that the print option Interpret Merge Variables is selected (the default). If you want to print the document with the variable names showing in the text, and ignore the merge print commands, clear this option.

WORKING WITH MERGE PRINTING

To merge print, you need a master document that contains both the text of the document and the instructions for inserting the merged information. The merged information can come from a data file such as a mailing list, or from the keyboard at print time, or you can specify it at the beginning of the document.

This section gives general information on data files, variables, and master documents. For information about specific commands, see the sections on those commands.

DATA FILES

A data file is a nondocument (ASCII) file that contains information that can be inserted into a master document for merge printing. You can create data files using MailList™ (on the Additional menu at the Opening screen) or using WordStar in nondocument mode. You can also use data files from dBase, Lotus 1-2-3, or Symphony, and you can use comma-delimited ASCII files from any program that creates them.

A data file consists of a series of records. Each record consists of several fields, or items of information. For example, a mailing list has one record for each person, and each record has a field for the name, a field for the address, and fields for city, state, and zip code.

To create a data file, open a nondocument file, and type your information. Keep the following points in mind:

- Make sure that the fields are in the same order in all records, and that all records have the same number of fields.
- Separate fields with commas or carriage returns. If a field contains a comma, enclose the entire field in quotation marks.
- If a field is empty (you have no information for it in this record), indicate the blank field with a comma.
- You can enter blank spaces at the beginning and end of any fields; they are ignored when you use the data file for merge printing. Do not use dot commands in a data file.

CAUTION *The rules above are very important. If you enter any records incorrectly, you will get incorrect results when you print.*

The following example shows a data file with three records. Each record has seven fields: last name, first name, first address line, second address line, city, state, and zip code. Note that in the first and second records, the blank second address line is shown with a comma, and in the second record, the first name field is enclosed in quotation marks because it contains commas.

```
Long,Lynette,702 Rosemund Place,,Sebastopol,CA,95472
Praskin,"Alan, Laurie, & Elena",25 Oak St.,,Salem,MA,01976
Jaffe,Joe,1120 25th Ave.,Suite 155,San Diego,CA,90010
```

If a field contains both a comma and quotation marks, you can either double the quotation marks or use apostrophes to enclose the field, as shown in these examples:

```
'Thomas "Bud" Nash, Jr.'
"Thomas ""Bud"" Nash, Jr."
```

You can use another character, such as the asterisk (*), instead of the comma as the data separator. Use WSCHANGE (DCEA) to change the default data separator for all data files. In individual master documents, you can change the data separator using the **.df** command. First create the data file using the data separator character you want. Normally **.df** is followed by the filename. If the file uses a different data separator than the default, follow the filename with a comma and the data separator. For example, to use the / character as the data separator for the data file MAILING.LST, use the command **.df MAILING.LST, /**. The rules given above for commas apply to any data separator character.

VARIABLES

Variable data is information that changes from one copy of the document to another. You assign a name to each variable, and use variable names in master documents wherever you want to insert the variable data. When you print, WordStar inserts the specific information for each copy of the document. The information can come from a data file, from the keyboard at print time, or from within the document.

To include a variable in a master document, at the location where you want to insert the variable data, type the variable name with ampersands (&) before and after it. For example, to insert the contents of the name field from your mailing list, type **&name&**. You can put a variable within a paragraph or on a line by itself.

Keep these points in mind when you type variable names:

- A variable name can contain up to 39 characters.
- You can use uppercase and lowercase letters interchangeably, and you can put a space between the name and the ampersands. For example, &address&, &ADDRess&, and & address & are all the same to WordStar.

- You can use any punctuation except commas, spaces, and ampersands. To use two words in a variable name, use a hyphen (–) or underline character (_) instead of a space, for example, &first-name&.
- A variable name must match exactly the corresponding name in the merge print command at the top of the document. If WordStar finds no data for a variable name (if there is no corresponding name in a **.rv**, **.av**, or **.sv** command or if the name is misspelled in either place), the variable name is printed with ampersands, as it appears on the screen.
- There are eight predefined variables for the current date, time, page, line, filename, drive, directory, and path. Data for these variables is supplied by WordStar when you print; you need to enter only the variable name. For more information, see "Variable" in "Editing Screen Insert Menu."
- You can include formatting information with a variable by inserting a slash and the name of a format you've predefined. See "Variable Formatting" and "Variable Number Formatting" in this section.

When you print a master document, if the data file contains no information for a variable, WordStar doesn't print anything in the document. For example, if the document contains the text &name& &title&, and one person in the list doesn't have a title, WordStar prints just the name. However, if a variable is the only text on a line, the line probably also contains a carriage return. In this case, if there is no data for the variable, the printout includes a blank line. To avoid leaving a blank line, use the /o option at the end of the variable name. (This is the letter "o," either uppercase or lowercase.) For /o to work, the variable name must be alone on the line in the master document.

For example, it's common for some addresses in mailing lists to have more lines than others. The /o option allows you to use an extra address line where needed without having a blank line for shorter addresses. The example below shows an address specified with variable names without the /o option, and how it is printed for one mailing list record.

```
&full-name&           Mary Burton
&addr1&               72 Live Oak Dr.
&addr2&
&city&, &state& &zip&  Novato, CA 95390
```

The next example shows how the same record is printed using the /o option.

```
&full-name&             Mary Burton
&addr1&                 72 Live Oak Dr.
&addr2/o&               Novato, CA 95390
&city&, &state& &zip&
```

MASTER DOCUMENTS

A master document contains text, variable names, and merge print commands. It can be, for example, a form letter, a contract, or an invoice. You create a master document as you do any document. Put the merge print commands to define the data file (if you're using one) and to define the variable names at the beginning of the document, and use the variable names in the text wherever you want to insert the data.

Note: If you use a data file created with MailList, don't enter the merge print commands in the master document. Just choose Insert→File (or use ^KR) and insert the MAILLIST.DOT file from your MailList directory (usually WS\OPTIONS). This file includes the appropriate commands for using a MailList data file. Check the **.df** command and change the data file name or add a path to it if necessary.

A simple master document is shown below.

```
.op
.df address.dta
.rv
first,last,mr-ms,address1,address2,city,state,zip,class
&first& &last&
&address1&
&address2/o&
&city&, &state&  &zip&

Dear &mr-ms& &last&,

Thank you very much for joining our summer series as a
&class&.  We look forward to seeing you at our
performances this year.  We will be sending you more
information soon.

Sincerely,

Lila Kaufman
Subscription Director
.pa
```

The **.op** command omits the page number from the letter. The **.df** command names the ADDRESS.DTA file as the data file to use. The **.rv** command gives variable names for each of the fields in each record in that data file. The next four lines use the variable names to insert each person's name and address in the letter.

IMPORTANT You must end each master document with a page break, which must include a carriage return, so that each copy of the document starts printing on a new page.

If the first record in the data file is this:

```
Long,Lynette,Ms,72 Heath Rd.,,Sebastopol,CA,95472,Patron
```

then the first letter printed using this master document would look like this:

```
Lynette Long
72 Heath Rd.
Sebastopol, CA  95472

Dear Ms Long,

Thank you very much for joining our summer series as a
Patron.  We look forward to seeing you at our performances
this year.  We will be sending you more information soon.

Sincerely,

Lila Kaufman
Subscription Director
```

Note: You can replace variables with up to 4,000 characters of data in each master document.

PRINT TIME REFORMATTING

A master document includes variable names that are replaced by actual data when the document is printed. The data may be different lengths in each copy of the document, so the length of lines changes as data is inserted. WordStar normally aligns each document at print time to format the text around the data, using the margins and line spacing that are in effect at that point in the document.

The example below shows, first, text from a master document and then actual printed text for one copy of the document. The data in the printed document is longer than the variable names in the master document. WordStar reformatted the text as it printed so it stayed within the margins.

```
This contract is entered into on the &day& day of &month&,
&year&, between &party1& and &party2&.

This contract is entered into on the twenty-seventh day of
September, 1988, between Roberta Kachinsky and Anna Marie
Casini.
```

*TIP Reformatting may change page breaks. Use Layout→Alignment and Spacing→Keep Lines Together on Page (or **.cp**) if you want to keep certain lines of text together on the same page.*

If you are printing data that may extend beyond the text margins, and you don't want those lines to wrap, you can type the **.pf** dot command in your text. The command **.pf on** aligns every paragraph in the rest of the document, **.pf off** turns print time reformatting off, and **.pf dis** (the default setting) aligns paragraphs at WordStar's discretion, meaning that WordStar reformats only the paragraphs where data has been inserted in a variable, from the variable to the end of the paragraph. (Alternately, you can use choose Layout→Alignment and Spacing→Word Wrap, and turn off Word Wrap for that section of the file, or use the **.aw on/off** dot command.)

DATA FILE

***Pull-down:* ALT + U, P, D**
***Classic:* .DF**

Gives the name of a data file to use for merge printing.

Follow these steps to specify the data file to use.

1. Choose Utilities→Merge Print Commands→Data File.
2. In the Merge Print Data File dialog box, specify the name of the data file. Be sure to specify the path with the filename.
3. Press F10 or choose OK.

WordStar inserts the **.df** dot command followed by the name of the data file, for example, **.df address.dta**. You can get the same result by typing the dot command.

If you use a data file created with MailList, don't use the Data File command or type the **.df** command in the master document. Instead, use Insert→File (or ^KR) and insert the MAILLIST.DOT file from your MailList directory (usually WS\OPTIONS). This file includes the appropriate commands for using a MailList data file. Check the **.df** command and change the data file name or add a path to it if necessary. (If you usually use the same data file, you can edit MAILLIST.DOT if necessary so that it contains the correct filename and path.)

You can also use **.df** to tell WordStar that the data file uses a character other than the comma as the data separator. Using another data separator may be useful if your data contains many commas. For example, if the data file STAR.DTA uses the asterisk (*) as the data separator, you would edit the **.df** command to read

```
.df star.dta,*
```

You can use the change (or c) option to indicate that you need to change disks while printing in order to access the data file. For example, type **.df b:wslist.dta change** to say that the data file named WSLIST.DTA will be on drive B, but it's not there now. When you print, WordStar pauses printing and asks you to change the disk before it reads the data file.

You can use dBASE, Lotus 1-2-3, Symphony, or Quattro files as data files. For more information, see "Using Data Files from Other Programs" later in this section.

NAME VARIABLES

***Pull-down:* ALT + U, P, N**
***Classic:* .RV**

Names the variable fields in a data file.

This command tells WordStar the variable names for the fields in your data file.

*IMPORTANT The Data File (**.df**) and Name Variables (**.rv**) commands are always used together in a master document, and Data File must come first.*

Follow these steps to name the variables:

1 Choose Utilities→Merge Print Commands→Name Variable.

2 In the Name Variables for Merge Printing dialog box, type the variable names for all the fields in the data file, in the same order in which they appear in each data file record. Even if data from a field is not used in a form document, you must name the field. (You must also be sure that all records in the data file have the same number of fields.)

3 Press F10 or choose OK.

WordStar inserts the **.rv** dot command followed by the variable names. You can get the same result by typing the dot command.

The example below tells WordStar to read the data from the ADDRESS.DTA file and use it to replace the name, address1, address2, city, state, and zip code variables.

```
.df address.dta
.rv name,address1,address2,city,state,zip
```

When you merge print, WordStar keeps putting data in copies of the form document until all the data is read from the data file.

Note: If you use a data file created with MailList, don't use Name Variable or type the **.rv** command in the master document. Instead, use Insert→File (or ^KR) and insert the MAILLIST.DOT file from your MailList directory (usually WS\OPTIONS). This file includes **.rv** commands that contain all the MailList variable names in the correct order. For more information, see the "MailList" section of the *Companion Programs* manual.

You can use more than one **.rv** command to refer to the same data file. For example, the two **.rv** commands below have the same effect as the one in the previous example.

```
.rv name,address1,address2
.rv city,state,zip
```

IMPORTANT *If the **.rv** command and the data file records don't correspond exactly, WordStar reads the wrong data. This happens because WordStar counts the number of variable names in the **.rv** command and then reads that many fields. Because fields can be separated either by commas or carriage returns, WordStar reads fields from the next line (or record) if there aren't enough fields in the current line (or record).*

If you want to use only the first few fields from each record, you can use the * character. After the *, specify all the fields up to the last field you want to include. For example, if each record in your data file contains 15 fields, but you want to use only items from the first, second, and fifth fields, type **.rv* name1, name2, name3, name4, name5**. When you print the file, WordStar reads only the first five fields in each record, then goes to the next line. (**.rv*** works with comma-delimited data files; it doesn't work with data files that use a hard return to separate each field.)

Note: If you use more than one **.rv*** command in a master document to read several records, be sure to give each variable a different name. For example, if you have a data file that lists the sales for each month, you could print a report listing sales for the quarter by using a separate **.rv*** command for each month in the quarter:

```
.rv* distA1,distB1,distC1
.rv* distA2,distB2,distC2
.rv* distA3,distB3,distC3
```

SET VARIABLE

***Pull-down:* ALT + U, P, S**
***Classic:* .SV**

Sets a variable name to a specific value.

This command allows you to include in a master document the data to replace a variable. It is useful in documents where a frequently-used word changes from copy to copy of the document. Follow these steps:

1. Choose Utilities→Merge Print Commands→Set Variable.
2. In the Set Variables for Merge Printing dialog box, specify the variable name(s) and the corresponding data. You can set up to five variables at a time. (To set more variables, choose this command again.)

3 Press F10 or choose OK.

WordStar inserts the **.sv** dot command followed by the variable name, an equal sign, and the data. You can get the same result by typing the dot command.

For example, you might have a contract between two people, referred to in the master contract as party1 and party2. Each time you print the contract, you want to use new names. At the beginning of the document, enter two Set Variable (**.sv**) commands. Each time you need a new contract, edit the master document to enter the appropriate names. For one contract, the commands might read

```
.sv party1=Roberta Kachinsky
.sv party2=Anna Marie Casini
```

WordStar ignores any spaces after the comma or equal sign. If you want to include leading or trailing spaces in data, enclose the variable in quotation marks or apostrophes. In the example below, there are four blank spaces before the name, so four spaces will be inserted at the beginning of the data.

```
.sv company="    Medcom, Inc."
```

SET VARIABLE TO MATH RESULT

***Pull-down:* ALT + U, P, V**
***Classic:* .MA**

Sets the value for a variable to the result of a mathematical expression, which can include values from other variables.

You can use this command to perform calculations while you are merge printing. It lets you define a variable in terms of an expression that uses information from other variables. For example, you could total the dollar amounts of a customer's monthly purchases and insert a different total for each customer. Follow these steps:

1 Choose Utilities→Merge Print Commands→Set Variable to Math Result.

2 In the Set Variable to Math Result dialog box, specify the variable name.

3 Type the expression to calculate. The expression is written like expressions used with the onscreen calculator, except that you can use merge print variables. The valid symbols are shown on the screen.

4 Press F10 or choose OK.

WordStar inserts the **.ma** dot command in the format **.ma *variable=expression***. You can get the same result by typing the dot command.

For example, the merge print variable that contains the total amount of a customer's purchases could be calculated during merge printing by using the dot command shown below.

```
.ma total=&item1&+&item2&+&item3&+&item4&
```

Notice that the merge print variables to the right of the comma (or equal sign) are surrounded by ampersands (&), while the variable to the left of the comma (or equal sign) is not. This is because the ampersands mean "substitute the data here."

When you print, WordStar reads data for the variables item1, item2, item3, and item4 from a data file, adds them, and inserts the total in the text as the data for the total variable. You can then go on to use the total variable in another expression. The example shown below adds sales tax to the total to get the grand total.

```
.ma grandtotal=&total&*.0725+&total&
```

IMPORTANT *When you use Set Variable to Math Result, you must be sure that any variables you put in the expression are defined earlier in the file. In the example above, the variables &item1&, &item2&, &item3&, and &item4& are defined either in a data file (using Data File (**.df**) and Name Variable (**.rv**)), or using Set Variable (**.sv**) or Ask for Variable (**.av**).*

ASK FOR VARIABLE

Pull-down: ***ALT + U, P, A***
Classic: ***.AV***

Stops printing and asks for a variable value each time the document is printed.

This command tells WordStar to pause during printing and ask you for the data to use to replace a variable. Each time you print the file, you specify the data and WordStar fills it in wherever the variable occurs in the file. It is useful for documents such as contracts; for example, you can type a name once at the beginning of printing, and it is inserted in all the appropriate places. Follow these steps:

1. Choose Utilities→Merge Print Commands→Ask for Variable.
2. In the Ask for Variable dialog box, specify the variable name.
3. When you print a file with an Ask for Variable command, a prompt asks for the data to insert. If you don't type a prompt in the dialog box, the variable name followed by a question mark is used. For example, if you type **amount** for the variable name and don't type a prompt, when you print the file, the prompt *AMOUNT?* is displayed.

   If you want a different prompt, type it in the dialog box. For example, if you type **Enter the amount of the invoice**, that prompt is displayed instead of *AMOUNT?*
4. Press F10 or choose OK.

WordStar inserts the **.av** dot command followed by the prompt if you entered one (enclosed in quotation marks and followed by a comma) and the variable name. You can get the same results by typing the dot command. The example below shows the **.av** command without a prompt:

```
.av name
```

The following example shows the **.av** dot command with a prompt:

```
.av "Type the full name of the client:   ",name
```

If you use quotation marks within the prompt, the prompt is enclosed in apostrophes:

```
.av 'Enter the "Schedule B" rate:   ',rate
```

During background printing, when WordStar encounters the **.av** command, it displays the *Print wait* message in the status line. To display the Printing screen so that you can see the prompt and enter the data for the variable, choose File→Print or press P at the Opening screen or ^KP while editing.

When using this command, keep these points in mind:

- A prompt and its answer cannot be more than one line long because the cursor stops when it reaches the right edge of the screen. This limits the size of answers, so if you want to leave room for longer answers, keep your prompts short.
- For a long prompt, use the Display Message (**.dm**) command to display the prompt message, then use the Ask for Variable command with no message or a short message.
- When you type a prompt, it's best to leave one or more spaces after the last word and before the closing quotation mark. That way, when you type the data, it won't start in the next column after the prompt.

IF

Pull-down: ***ALT + U, P, I***
Classic: ***.IF***

Enters a specific condition that must be true for WordStar to print the text between this command and the End If command.

Conditional merge print commands in WordStar allow you to use the same master document to produce letters that contain customized information, depending on conditions you set. For instance, you can use one master document and one data file to generate letters that contain one of four customized paragraphs, depending on where the recipient lives. The three conditional merge print commands are If, End If, and Else. They insert the dot commands **.if**, **.ei**, and **.el**. For each If command, you must use a corresponding End If command. For more information, see "Else," "End If," and "Using Conditional Commands" in this section.

WordStar determines if a condition is met by comparing one item with another. The items can be variables (data items from a data file or defined in the file or at print time) or constants (items that never change). For example, you can send letters only to clients who purchased more than $1000 worth of merchandise, or only to clients who live in Tennessee. Typically, one item is a variable and the other is a constant, but you can use any combination.

WordStar can compare items to determine whether they are the same (for text) or equal (for numbers), or if one comes before or after the other in alphabetical or numerical order. You tell WordStar how to compare items by using one of the following symbols, called operators.

ALPHABETICAL		**NUMERICAL**	
=	is the same as	#=	is equal to
<	comes before	#>	is greater than
>	comes after	#<	is less than
<=	comes before or is the same as	#>=	is greater than or equal to
>=	comes after or is the same as	#<=	is less than or equal to
<>	is not the same as	#<>	is not equal to

Follow these steps to enter an If condition.

1. Choose Utilities→Merge Print Commands→If.

2. In the If dialog box, specify the two items and the operator for the condition. Several examples are shown below these steps.

3. Press F10 or choose OK.

WordStar inserts the **.if** dot command followed by the condition to evaluate, in the format **.if *item1 operator item2***. You can get the same result by typing the dot command.

A condition to be evaluated with the **.if** command is generally in this format:

```
.if item1 operator item2
```

The following example compares a variable to a constant (the most common type of comparison).

```
.if &class& = patron
```

In this example, the condition is met if the data item for the variable CLASS is patron.

The operators that begin with the # symbol are used with numbers rather than with words. It is possible for either number item being compared to contain nonnumeric characters, but before WordStar proceeds with the comparison, it removes all the nonnumeric characters except for the minus sign (–) and the period (.).

Numerically, the following items are equal because WordStar ignores all nonnumerals.

```
12.45
$12.45
abc1d2.dcs45
```

If each of these three items is in the &amt& field, and you use the following dot command, all three items meet the condition.

```
.if &amt& #= 12.45
```

However, if you use the operator without the # symbol, only the first item would meet the condition because numerals are considered to be alphabetic characters that come before A. Generally, it is best to use the operators with the # symbol when comparing numbers.

You can also compare one variable with another, as in the examples below.

```
.if &VAR1& > &VAR2&
.if &VAR1& #> &VAR2&
```

The condition in the first example is met if the data for VAR1 comes after the data for VAR2 in alphabetical order. In the second example, the condition is met if the number in VAR1 is greater than the number in VAR2.

Normally, WordStar ignores any spaces that come between the operator and the following item. The following commands are equivalent.

```
.if &class&=patron
.if   &class&   =           patron
```

For two items to be the same (=), they must have exactly the same characters (differences in uppercase and lowercase are ignored). If you know that a data item from a data file has spaces in front of the letters, you need to include the leading spaces in the comparison. To include spaces, enclose both the variable and the constant in quotation marks (or apostrophes). Thus, the condition shown below will be met only if the data in &class& is patron preceded by eight spaces.

```
.if "&class&" =   "            patron"
```

To use quotation marks in the constant along with leading spaces, enclose the entire item in apostrophes. To use an apostrophe in the constant along with leading spaces, enclose the entire item in quotation marks, as in the example below.

```
.if "&class&" =   "            patron's"
```

You cannot have quotation marks, apostrophes, and leading spaces in the same constant. If the constant has no leading spaces, you can use quotation marks and apostrophes freely anywhere.

Words are compared in alphabetical order. The word "cat" comes before the word "catalog" in alphabetical order, so the following conditions are true:

```
.if cat < catalog
.if catalog > cat
```

In alphabetical order, numbers come before the letter A. For example, the following condition is true:

```
.if 2 < apple
```

You can also specify a variable name for just the first item, as in the example below.

```
.if &class&
```

Notice that there is no operator. The condition is met if the data for &class& is not zero and not blank.

When you use an If condition, the dot command is followed by the action to be taken when the condition is true. If there is text after the dot command, that text will be printed only if the condition is true. If there is another dot command after the **.if** command, the new dot command will be performed if the condition is true. To indicate the end of the conditional text or commands, use End If (**.ei**).

ELSE

***Pull-down:* ALT + U, P, L**
***Classic:* .EL**

Prints the text between this command and the End If only if the If condition is not true.

When you choose Else, WordStar inserts the **.el** dot command in your text. You can get the same result by typing the dot command.

For more information, see "Using Conditional Commands" in this section.

END IF

***Pull-down:* ALT + U, P, E**
***Classic:* .EI**

Resumes regular printing after an If condition.

Each If condition you enter must have a corresponding End If command.

When you choose End If, WordStar inserts the **.ei** dot command in your text. You can get the same result by typing the dot command.

For more information, see "If" and "Using Conditional Commands" in this section.

USING CONDITIONAL COMMANDS

You can use conditional commands for a variety of purposes. The following sections give some guidelines.

WHAT COMES BETWEEN IF AND END IF?

Almost anything can come between an If (**.if**) command and its corresponding End If (**.ei**). In the following example, a paragraph of text is printed in the letter when the condition specified in the **.if** command is true.

```
.if &class& = sponsor
Thank you for joining our summer season as a Corporate
Sponsor.  Your company name will be prominently listed on
our programs and brochures.  We also hope that you'll join
us for our special opening night reception with the actors
and director.
.ei
.if &class& = patron
Thank you for joining our summer season.  As a Patron, you
are invited to attend our special opening night reception
with the actors and director.
.ei
```

If the addressee is a sponsor, the first paragraph will be printed in the document. If the addressee is a patron, the second paragraph will be printed.

You can also insert text from other files; for example, a retailer could include free delivery information only for customers within certain zip codes.

TIP *You can keep conditional paragraphs you use often in their own files, and easily insert them into different master documents.*

USING ELSE CONDITIONS

The previous example uses two If commands to take advantage of two possible conditions (that is, if the variable &class& is sponsor or if it's patron). You can combine these two Ifs into one.

In other words, if the data for the variable &class& is benefactor, insert a paragraph about benefactors' privileges, or else insert the paragraph about the reception. The command for the "or else" is Else (**.el**).

Notice that the meaning of this example is slightly different than the meaning of the previous one. The second paragraph will be inserted if the variable is anything other than benefactor, for example, if it's subscriber or if the data is missing.

```
.if &class& = benefactor
Thank you for joining our summer season as a Benefactor.
Your name will be prominently listed on our programs and
brochures.  We also hope that you'll join us for our
special opening night reception with the actors and
director.
.el
Thank you for joining our summer season.  We hope you will
attend our special opening night reception with the actors
and director.
.ei
```

NESTED .IF COMMANDS

You can use conditional merge print commands to have WordStar choose among three or more alternatives by nesting the commands. For example, you might want to have a special paragraph in your letters to Benefactors, a special paragraph to Patrons, and a general paragraph to all the other subscribers on your list. So your conditions are:

If the data for the variable &class& is benefactor, insert the file BENEFACT.DOC; or else, if the data is patron, insert the file PATRON.DOC; or else, insert the file SUBSCRIB.DOC.

The commands for these conditions are shown below.

```
.if &class& = benefactor
.fi benefact.doc
.el
.if &class& = patron
.fi patron.doc
.el
.fi subscrib.doc
.ei
.ei
```

Every **if** command must have a corresponding **.ei** command. The **.if** command may or may not have a corresponding **.el** command.

TIP *When you type nested conditional commands, you may want to indent each nested condition. Indenting can make it easier to work with nested Ifs. However, if you indent, you must delete the indents before you print, because all dot commands must begin in column 1. The example below shows how the commands shown above appear with indenting. Note that each column begins with the* ***.if*** *command and ends with the* ***.ei*** *command.*

```
.if &class& = benefactor
.fi benefact.doc
.el
  .if &class& = patron
  .fi patron.doc
  .el
    .fi subscrib.doc
  .ei
.ei
```

The example below shows another way to use nested If commands. You want to send a letter to everyone on your list who lives in St. Louis, Missouri, except the people who live around the University of Missouri. Zip codes in St. Louis range from 63101 to 63199, and the zip code for the university is 63121. You would create a command file with the following conditional merge print commands.

```
.if &zip& #<= 63199
.if &zip& #>= 63101
.if &zip& #<> 63121
.fi letter.doc
.ei
.ei
.ei
```

The first **.if** command eliminates zip codes greater than 63199, and the second eliminates codes less than 63101. The third **.if** eliminates the 63121 zip code. Only zip codes that meet all three conditions generate letters. All others are ignored.

GO TO TOP OF DOCUMENT

Pull-down: **ALT + U, P, T**
Classic: **.GO T**

Resumes printing at the beginning of the document.

When you choose Go to Top of Document, WordStar inserts the **.go top** dot command in your document. You can get the same result by typing the dot command.

When WordStar encounters this command while printing, it skips the rest of the text in the file and goes to the beginning of the file before it resumes printing. This can be useful with conditional commands when you want some of the text in a document printed for certain people only.

For more information, see "Go to Bottom of Document."

GO TO BOTTOM OF DOCUMENT

Pull-down: **ALT + U, P, B**
Classic: **.GO B**

Resumes printing at the end of the document.

When you choose Go to Bottom of Document, WordStar inserts the **.go bottom** dot command in your document. You can get the same result by typing the dot command.

When WordStar encounters this command while printing, it skips to the end of the file before it resumes printing. This can be useful with conditional commands when you want some of the text in a document printed for certain people only. In the following example, if the data for the variable &play& is not Hamlet, the rest of the text in the current document is not printed in the current letter, and WordStar skips to the bottom of the file before printing again.

```
.if &play& <> Hamlet
.go bottom
.ei
```

Note that when you use this command, it ends printing unless you are merge printing using a data file. The **.df** and **.rv** commands cause WordStar to start printing another copy of the document until all the data in the data file is used.

CLEAR SCREEN WHILE PRINTING

Pull-down: ALT + U, P, C
Classic: .CS

Clears the Printing screen during printing and (optionally) displays a message.

This command is useful for displaying a message that explains what's going on while you're printing. It clears the Printing screen of previous messages, then displays a message if you included one. Follow these steps:

1. Choose Utilities→Merge Print Commands→Clear Screen While Printing.
2. In the Clear Screen While Printing dialog box, type the message to display when the screen is cleared. If you don't want a message, don't type anything.
3. Press F10 or choose OK.

WordStar inserts the **.cs** dot command into your file followed by the message if there is one. You can get the same result by typing the dot command in the file.

You can use this command together with Display Message, described below, which displays a message without clearing the screen. These two commands allow you to

- Keep track of how much of a document has been printed
- Display the data that's being inserted into merge print variables
- Give reminders and instructions to the person doing the printing

For example, the command **.cs Now printing letter to &name&.** clears the screen and displays the contents of the data for the &name& variable in each letter printed. If your list is sorted alphabetically by name, it's easy to see how much of the list you've already printed.

IMPORTANT *If you are printing in the background, when WordStar encounters a* ***.cs*** *command, the message Print Wait appears in the title bar. To display the Printing screen, choose File→Print, or use the P classic command at the Opening screen or the ^KP classic command while editing.*

DISPLAY MESSAGE

***Pull-down:* ALT + U, P, M**
***Classic:* .DM**

Displays a message at the Printing screen during printing.

This command is useful for displaying a message that explains what's going on while you're printing. Follow these steps:

1. Choose Utilities→Merge Print Commands→Display Message.
2. In the Display Message dialog box, type the message to display.
3. Press F10 or choose OK.

WordStar inserts the **.dm** dot command into your file followed by the message. You can get the same result by typing the dot command in the file.

You can use this command together with Clear Screen While Printing (**.cs**), described above, and other merge print commands. These two commands allow you to

- Keep track of how much of a document has been printed
- Display the data that's being inserted into merge print variables
- Give reminders and instructions to the person doing the printing

For example, the following command in a form letter keeps you informed of your progress printing the data file.

```
.dm The letter to &first& &last& is now being printed.
```

The following example shows how you can use this command in merge printing when you have a long question or answer.

```
.cs Type the data for "union name" after the question mark.
.av "? ",union-name
.dm Thank you.
```

During printing, when WordStar encounters the **.cs** command it clears the screen and displays

```
Type the data for "union name" after the question mark.
?
```

After you type the data and press Enter, it displays

```
Thank you.
```

IMPORTANT *Remember that these messages are displayed on the Printing screen, and not during background printing. To display the Printing screen, choose File→Print, or use the P classic command at the Opening screen or the ^KP classic command while editing.*

PRINT FILE N TIMES

***Pull-down:* ALT + U, P, R**
***Classic:* .RP**

Prints multiple copies of a file.

You can print more than one copy of a file in one printing session. In most cases, the best way to print multiple copies is to use the Number of Copies option in the Print dialog box.

The Print File n Times command is useful if you always want the file printed a certain number of times, or if you want to print multiple copies of a file that is nested or chained in another file. Start on the first line of the file and follow these steps:

1. Choose Utilities→Merge Print Commands→Print File n Times.
2. In the Print File n Times dialog box, type the number of times you want to print the file.
3. Press F10 or choose OK.

WordStar inserts the **.rp** dot command followed by the number of times to print the file, for example, **.rp 5**. You can get the same result by typing the dot command.

Don't use this command in a master document that uses a data file. When you use the **.df** and **.rv** commands to use a data file, WordStar automatically prints copies for all the records in the file. If you want to print multiple copies of each version of the document, use the Number of Copies option in the Print dialog box.

ADVANCED MERGE PRINTING

USING DATA FILES FROM OTHER PROGRAMS

You can use files from Lotus 1-2-3 (all versions previous to 3), Symphony, Quattro, dBASE II, dBASE III, dBASE III+, and dBASE IV as data files for merge printing. For example, you can print reports from your current data, use one of these programs as a mailing list manager, compile reference lists for footnotes and bibliographies, or print invoices based on the data.

To specify a spreadsheet or database file, use Merge Print Commands→Data File or type **.df *filename*** in the master document as you would for any data file, using the database or spreadsheet filename. WordStar treats the rows and cells in a spreadsheet as records and fields, respectively.

Note: For WordStar to know that a file is a database or spreadsheet, the file must have the usual extension for that type of file. For example, a dBASE file must have the .DBF extension.

INSERTING A SPREADSHEET When you use a spreadsheet as a data file, WordStar ordinarily uses the entire spreadsheet (or the spreadsheet in the MAIN window for Symphony). You can specify a different range or window by typing the information with the filename in the Data File command. For example, the following command specifies the range H3 to T33 and window 2: **.df *filename* 4, h3...t33, 2**. Use these rules:

- You can specify the range by using range names or cell numbers. If you use cell numbers, you can type an asterisk to represent the last cell in the worksheet; for example, **A3..*** specifies a range from A3 to the end of the worksheet.

- If you want to specify just a window, type two commas before the window number, for example, **.df filename,,2**.

- If you specify a Symphony worksheet and don't specify a window, WordStar looks for the MAIN window. If you've deleted or renamed this window, be sure to specify a different window name.

- If the data file is on a separate disk and you want WordStar to prompt you to insert the disk at print time, use the change or c option. Type the c after the filename and before the range or window, for example, **.df filename c, h3..t33**. Don't type a comma before the c.

After the Data File command, use Merge Print Commands→Name Variables, or **.rv**. You can name the variables as for any data file, or you can use selected columns, rows, or cells from the worksheet. To specify columns, type a dollar sign (**$**) in front of each column letter; for example, to use only information from columns C, J, and M, the command should read **.rv $C,$J,$M**. If you're using a column-major (vertically based) worksheet, specify the selected rows, for example, **.rv $1,$5,$7,$25**. You can't select both columns and rows in the same command.

When specifying columns or rows, you can also specify a cell, for example, **.rv $C,$J,$K,$T$33**. This is useful if your worksheet contains a constant, such as an hourly wage or a unit price, that you want to use in all the form letters.

Note: When you type the variable names in your master document, be sure to include the dollar sign before the row and before the column, for example, **&$J&** or **&$T$33&**.

When merge printing from a spreadsheet, WordStar goes to a new record after each **.rv** command. If you use more than one **.rv** command to list all the variable names in a record, use the plus sign (**.rv+**) to tell WordStar not to go to a new record after that command:

```
.rv+ $A,$B,$C
.rv $D,$E
```

INSERTING A DATABASE If you specify a dBASE data file, when you use Merge Print Commands→Name Variables, or **.rv**, just type an asterisk (*) and don't type any variable names. The command should read **.rv***. WordStar automatically picks up all the dBASE names for the fields. Be sure the variables in the text of the master document match the dBASE field names.

TIP *To quickly insert a list of the dBASE field names for reference, move the cursor to column 1 and type* ***.ig*** *to create a comment line. Choose Insert→File or press ^KR, and type the name of the dBASE file followed by /f to insert only the field names (for example,* ***address.dbf/f****).*

dBASE III Plus lets you create memo fields of unlimited length. You can name a memo field as a variable and thus include a customized sentence or paragraph in each letter at print time.

VARIABLE FORMATTING

Variable formatting allows you close control of the appearance of your form documents, especially those that use merge print variables in tables or charts.

For variable formatting, you must first define formats for variables. Use Merge Print Commands→Set Variable, or **.sv**, to define each format as shown below. You can then include any format with any variable in the master document. After the variable name, but before the closing ampersand, type a slash (/) and the format name. For example, if you define a format named 6 and you want to use it with the name variable, type **&name/6&** when you enter the variable in the master document.

You cannot use variable formatting and the /o option with the same variable.

The sample **.sv** command below defines the format named 6. You can either type this command, or choose Set Variable and specify 6 for the variable name and the 20 L's for the data.

```
.sv 6=LLLLLLLLLLLLLLLLLLLL
```

After the **.sv** comes the format name (6), followed by either an equal sign or a comma, then the format definition. You can use any digit or letter (except the letter "o") as a format name. WordStar does not distinguish between uppercase and lowercase letters in format names.

The number of characters in a format definition sets the number of spaces in the format. Each character in the definition represents one character space. In the example above, the format is 20 spaces wide because there are 20 L's. So the total number of spaces and characters used to replace the variable in the form document is 20.

The first letter in a format definition sets how the data will be aligned within the format. It is either L, R, or C. L means that data is to be inserted into the format flush left. R means that data is to be inserted flush right. C means that data is to be centered. Again, WordStar does not distinguish between uppercase and lowercase letters. If the format definition does not begin with one of these characters, WordStar assumes that the format is for numbers. See "Variable Number Formatting" in this section.

If a data item is longer than the format, WordStar truncates the data item. If the field is flush left or centered, WordStar truncates any data left over at the right end of the data item. If the field is right aligned, WordStar truncates from the left end of the data item.

If the first character is L, each L in the format definition will be replaced with data or, if there is no data for the corresponding position, with a space. If the first character is R or C, each R or C is replaced with data or space when you print the file.

Any character (including a space) that is different from the first character ir the field format definition is printed literally even if there is data for that position. For example, if the format is LLXL and the data item is 1234, WordStar prints 12X4. The X is different from the L, so it is printed literally.

This process is called masking because characters in the format definition mask out characters in the data item. The most common masking character is the space. You can use spaces in a format definition to the left of the first L or R in the definition. (Any other character used to mask can't be the first character in the format definition.) In order to include leading spaces in the format definition, you must enclose the definition in apostrophes or quotation marks. In the example below, there are two spaces between the initial quotation mark and the first L.

```
.sv 6="  LLLL"
```

If the data is 1234, the variable in the form document is replaced with:

```
(two spaces)34(two spaces)
```

The leading spaces in the format definition mask out the first two characters of the data item. The last two L's in the format definition are replaced with spaces because the field is six characters long and the data is only four characters long.

Masking works only with left- and right-aligned fields. When C is the first character in the definition, characters other than C are inserted into the data but do not replace any characters in the data.

VARIABLE NUMBER FORMATTING

You can use variable formatting to control the appearance of numeric data items that replace variables in your form documents. You can read the numeric data from a data file or use Set Variable to Math Result, or **.ma**, to calculate numbers during merge printing.

First, you must define formats for numeric variables. Use Merge Print Commands→Set Variable, or **.sv**, to define each format as shown below. You can then include any format with any variable in the master document. After the variable name, but before the closing ampersand, type a slash (/) and the format name. For example, if you define a format named 3 and you want to use it with the amount variable, type **&amount/3&** when you enter the variable in the master document.

The sample **.sv** command below defines the format named 3. You can either type this command, or choose Set Variable and specify 3 for the variable name and $$,$$$.99 for the data.

```
.sv 3=$$,$$$.99
```

After the **.sv** comes the format name (3), followed by either an equal sign or a comma, then the format definition. You can use any digit or letter (except the letter "o") as a format name. WordStar does not distinguish between uppercase and lowercase letters in format names.

The number of characters in a format definition sets the number of spaces in the format. Each character in the definition represents one character space. In the example above, the format is nine spaces wide because there are nine characters. So, the total number of spaces and characters used to replace the variable in the form document will be nine.

Numbers are always right aligned in their formats. Several different symbols are used in number formats to specify what to do with any extra spaces at the left of the format (for example, print zeros or print spaces) and where to put decimal points and commas.

The chart below shows characters you can use in a number format and how they work.

CHARACTER	**DESCRIPTION**
9	Substitutes a digit here. If there is no digit in the data item for this position, substitutes a zero. For example, if you use the format 99999.99, the data 74.97 prints as 00074.97.
Z	Substitutes a digit here. If there is no digit in the data item for this position, or if the digit is a leading zero, substitutes a space. For example, if you use the format ZZZZZ.ZZ, the data 74.97 prints as (three spaces)74.97.
*	Substitutes a digit here. If there is no digit in the data item for this position, or if the digit is a leading zero, substitutes an asterisk (or a zero after the decimal point). For example, if you use the format *****.**, the data 74.97 prints as ***74.97 and the data 74 prints as ***74.00.
$	Substitutes a digit here if the digit is not a leading zero; otherwise, substitutes a space. Places a dollar sign to the left of the first digit. For example, if you use the format $$$$$.99, the data 74.97 prints as (two spaces)$74.97. Note that in this example, you can only use numbers up to 9999.99. In other words, with the $, you must have one more character in your number format than the largest number you expect to have as data.
–	Substitutes a digit here if the digit is not a leading zero; otherwise, substitutes a space. Places a minus sign directly before the first digit if the number is negative. For example, if you use the format –$$$$$.99, the data –24.41 prints as (two spaces)–$24.41. As with the $, be sure to leave enough spaces in the format for the largest number you expect to have plus the minus sign and the $ if you use it.

CHARACTER	DESCRIPTION
.	Puts the decimal point here. If the data has more decimal places than the format, the data is truncated (the extra digits are not printed). For example, if you use the format 9999.999, the data 4.7885 prints as 0004.788. If the data does not include a decimal point, the whole number is printed to the left of the decimal point. For example, with the same format, the data 1111 prints as 1111.000.
,	Puts a comma here. For example, if you use the format 99,999, the data 7497 prints as 07,497 and the data 74 prints as 00,074.
( )	Puts parentheses around a number if it is negative; otherwise, substitutes spaces. The parentheses must be the first and last characters in the format definition. For example, if you use the format (****.99), the data –74.97 prints as (two spaces)(74.97). As with the $ and –, be sure to leave enough spaces in the format for the largest number you expect to have plus the parentheses and the $ if you also use it. For example, for the data 112345.67 to print correctly as a dollar amount, the format must have six characters within the parentheses before the decimal point. The shortest format for this example is ($$$$$$.99).

The characters above are the only characters you can use in a number format. If you use other characters, the results are unreliable.

If data is longer than the format specified for it (except for extra digits after the decimal point), WordStar prints a series of question marks the width of the format in the form document.

REFORMAT

Pull-down: ***ALT + U, R***

Aligns text to the current margins and tabs.

WordStar aligns new text to the current margins and tabs, but it does not automatically realign existing text after you change margins, tabs, or fonts unless you edit that text. Use the Reformat commands to reformat existing text.

REST OF DOCUMENT

***Pull-down:* ALT + U, R, R**
***Classic:* ^QU**

Reformats from the line that contains the cursor to the end of the document.

To reformat the rest of the document, move the cursor to the first line of text that you want to reformat, then choose Utilities→Reformat→Rest of Document, or use the ^QU classic command.

WordStar reformats the rest of the document, showing the progress on the screen. You can stop reformatting by pressing ^U.

When you plan to reformat a document, you can mark certain sections of text, such as tables or charts, that you do not want to align. Choose Layout→Alignment and Spacing and set Word Wrap to off, and then back to on after the section, or use the **.aw off/on** dot command. For more information, see "Alignment and Spacing" in "Editing Screen Layout Menu."

PARAGRAPH

***Pull-down:* ALT + U, R, P**
***Classic:* ^B**

Reformats from the line that contains the cursor to the end of the paragraph.

To reformat a paragraph, move the cursor to the first line of text that you want to reformat, then choose Utilities→Reformat→Paragraph, or use the ^B classic command.

REST OF NOTES

***Pull-down:* ALT + U, R, N**
***Classic:* ^ONU**

Reformats all notes from the cursor location to the end of the document.

This command reformats all the footnotes, endnotes, annotations, and comments in the rest of the document. Start before the first note that you want to reformat, then choose Utilities→ Reformat→Rest of Notes, or use the ^ONU classic command.

WordStar reformats the rest of the notes. You can stop reformatting by pressing ^U.

REPEAT NEXT KEYSTROKE

Pull-down: ALT + U, E
Classic: ^QQ

Continuously repeats a single-letter command or character.

To start a repeat operation, choose Utilities→Repeat Next Keystroke, or use the ^QQ classic command, and then type the command or character to repeat. To stop repeating, press any key.

You can use this command for a repetitive task such as scrolling screen by screen to the end of the file (choose Repeat Next Keystroke and press ^C, or press ^QQ^C).

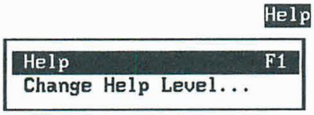
Be sure to press the Ctrl key to repeat a command. For example, with this command, ^C scrolls down screen by screen; C repeats the character C.

To vary the speed of the repetition, use the number keys at the top of the keyboard. Press **0** for the fastest repetition, **9** for the slowest, or a number between 0 and 9 for the speed you want. Press the number key after you press the command or character to repeat.

CHAPTER 13

EDITING SCREEN HELP MENU

Use the commands on the Help menu to get onscreen help for WordStar commands and options, and to change the way WordStar displays menus and prompts.



HELP

Pull-down: ***ALT + H, H***
Classic: ***F1***

Displays help.

You can get onscreen help for every WordStar command and for each option in a dialog box.

If you are using pull-down menus, when you choose Help from the Help menu, you get an overview of WordStar help. To get help for a specific command, highlight it on the menu and press F1. To get help in a dialog box, press F1.

If you are using classic menus, press F1 at the Opening Menu or at the editing screen, and then press the command you want help with. To get help in a dialog box, press F1.

CHANGE HELP LEVEL

***Pull-down:* ALT + H, C**
***Classic:* F1 F1**

Changes which menus and prompts are displayed.

The help level determines whether you see classic menus or pull-down menus, and allows you to turn off the display of menus and confirmation prompts altogether if you are using classic commands.

The classic menus take up one third of most screens, so turning them off by changing from help level 3 to help level 2 allows you to see considerably more of a document while you edit. Even when menus are not displayed, you can still use the commands.

Follow these steps to change the help level:

1. If you are using pull-down menus, choose Help→Change Help Level. If you are using classic menus, press F1 F1.
2. Choose the help level you want.

HELP LEVEL	**DESCRIPTION**
4	Pull-down menu names are displayed on the menu bar at the top of the screen. To see a menu, hold down the Alt key and press the first letter of the menu name. All prompts are displayed. This is the default setting.
3	All classic menus and prompts are displayed.
2	The classic Edit Menu is not displayed, but prompts are displayed. This gives a full-screen display of the document. Other classic menus are displayed if you pause after pressing the menu letter (^K, ^O, ^P, ^Q).

HELP LEVEL	DESCRIPTION
1	No menus are displayed during editing unless you ask for help. Dialog boxes asking you to confirm a response are not used either.
0	Menus are not displayed unless you ask for help. Confirmation dialog boxes are not displayed. You can move, copy, and delete hidden blocks.

3 Press F10 or choose OK.

At help levels 2 and below, you can display the classic Edit Menu by pressing F1.

You can change the default help level at the WINSTALL Set Basic Editing Defaults menu or using WSCHANGE (DBAA).

APPENDIX A

ERROR MESSAGES

This appendix lists error messages that may appear on your screen as you work with WordStar. Messages are listed alphabetically. Each explanation includes a suggested solution for the problem. On the screen, most error messages include a Continue button. Choosing Continue or pressing Esc clears the error message from the screen but does not correct the error.

The words filename and macroname when underlined here are substitutes for the actual name that WordStar displays in the message.

A filename is required.

Type a filename to continue with the command, or press Esc to cancel.

A word is too long to fit within the margins.

A word in the paragraph you just aligned is too long to fit between the margins. Unless you hyphenate the word, it will print past the right margin.

Arithmetic error.

Something in your ^QM or **.ma** expression produced an invalid result, for example, division by zero, the square root of a negative number, or a non-numeric variable.

Background printing is turned off.

Either background printing is turned off in WSCHANGE or your computer has insufficient memory. Finish editing the file you're in, and then print the file from the Opening screen.

Can't change the file you are now editing.

Finish editing and close the file you're currently working in before you try to protect it, rename it, or copy over it.

Can't change file. Disk may be write protected.

Copy the file to a disk or directory that is not write protected. If the file is on a floppy disk, remove the write-protect tab. Then try again.

Can't change windows. You must save or abandon the current note window to return to editing the main file.

You must save or abandon the current note window to return to editing the first file.

Can't check spelling. Possible reasons:

- ***Wrong version of dictionary***
- ***No personal dictionary***
- ***Not enough memory for personal dictionary***

Make sure you're using the dictionary that came with this version of WordStar. If you're using a personal dictionary, make sure there is enough memory set aside for it in WSCHANGE. Check your CONFIG.SYS file to make sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

Can't create footnotes or annotations in columns. Note converted to endnote.

Footnotes and annotations are converted to endnotes when your text has more than one column.

Can't create subdirectory.

The name of the subdirectory you're trying to create may already be used as a filename or a subdirectory name. Use a different subdirectory name.

Can't create temporary or output file.

WordStar can't create the temporary or print-to-disk file. Make sure there is enough room on your disk. Then check your CONFIG.SYS file to make sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

Can't delete a protected file.

Try the Protect/Unprotect command on the Opening screen File Menu or use the Classic command C. Also, delete any copies of the file that have the extension .A, .B, or .G. You can't delete a file in a protected directory. To delete a file on a protected floppy disk, remove the write-protect tab from the disk.

Can't delete the file you're printing.

You tried to delete a file that is printing in the background or printing to disk. Wait until WordStar is finished printing this file, and then delete it.

Can't delete filename. Disk may be write protected, or file may be protected. Retry or skip this file?

The disk or directory that contains the file might be write protected. If the file is on a floppy disk, remove the write-protect tab.

This error can occur when you're deleting many files at once and one of the files is protected.

To try again to delete this file, select Retry or type **R**. To move to the next file, select Skip or type **S**.

Can't display graphic image.

Preview cannot display a graphic image in this file for one of three reasons. It may be too large or complex to be converted for display, in which case it will probably be printed properly. It may not be a valid .PIX file, in which case it cannot be printed by WordStar without conversion. Or it may be a text mode .PIX file (a screen capture of a text screen), which can be printed but not displayed.

Can't edit temporary files ($ in file extension).

You cannot edit the temporary files that WordStar uses while editing. These file extensions include .A, .B, .G, .H, .$AW, $BW, and so on. If you want to edit the file, and you're sure that your edit won't create problems, rename the file or copy it to a new file before you edit.

Can't evaluate that expression. Check it for correctness.

WordStar can't interpret the math expression as it's entered. Correct the expression and try it again.

Can't execute command. Your computer may not have enough memory.

The operating system is unable to run a DOS command because not enough memory is available. Exit WordStar before running the command.

Can't find filename.

Make sure the WordStar program files are in the WordStar (usually WS) directory. If they're in a different directory, use WSCHANGE to change the path to your WordStar files.

Can't find COMMAND.COM. Check the boot (system) disk.

WordStar can't find the DOS program COMMAND.COM to run your DOS command. WordStar looks on the drive from which you first booted your system and on the default drive. You can change the default drive with WSCHANGE.

Can't find file on disk.

Be sure you typed the filename correctly. Include the path if the file isn't on the current drive or directory.

Can't find macro macroname.

The macro that is running has called a nonexistent macro.

Can't find that file. Create a new one?

You typed a new filename. If you want to create a new file, choose OK. If you want to edit an existing file, choose Cancel, and type the correct filename. If the file is on a different drive or directory, type the drive letter or directory path before typing the filename.

Can't find the file filename.

Make sure the WordStar program files are in the WordStar (usually WS) directory. If they are in a different directory, use WSCHANGE to change the path to your WordStar files.

Can't insert a password-protected worksheet.

You tried to insert a spreadsheet program worksheet that is password-protected. You must remove the protection before you can insert the worksheet.

Can't insert a compressed worksheet.

You tried to insert a spreadsheet program worksheet that has been compressed. WordStar does not accept compressed worksheets.

Can't load GRFPIX.EXE.

You can't display graphics because WordStar can't load the GRFPIX.EXE program. Make sure there is enough memory available. Check your CONFIG.SYS file to be sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

Can't load Inset. Possible reasons:

- ***Not enough memory***
- ***IN.SET not found***
- ***SETUP.COM not found***
- ***Inset not installed***

Be sure Inset is installed on your computer and that you've run the Inset Setup program. Make sure there is enough memory on your computer. Check your CONFIG.SYS file to be sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

Can't move to undefined marker.

Use ^K, followed by a number from 0 to 9, to set the marker before trying to move to it. You can also choose the Edit→Set Marker command.

Can't open a window while background printing is in progress and Inset is loaded. You can open a window when printing is complete.

There's not enough memory to open a window because background printing is active and Inset is loaded. When printing is complete, try again to open a window.

Can't print. PDF or driver files not found.

Make sure the printer description file (PDF) and the necessary driver overlay files (DRIVERn.OVR) are in the WordStar directory.

Can't print. Prologue file not found.

WordStar can't find the PostScript initialization file WSPROL.PS. Be sure the printer description file (PDF) for your PostScript printer and the necessary drivers are in the WordStar directory.

Can't rename a protected file.

The file you are trying to rename, or the directory it's in, is protected. Before you can rename a protected file, unprotect it. Then try again.

Can't rename file.

There are two possible reasons for this message:

- You specified a drive letter for a new file that is different from the drive where the original file is located. If you want the file on another drive, copy it to that drive.
- The operating system won't let WordStar rename the file. The name you chose is probably already being used by a directory, a hidden file, or another system file. Choose a different filename.

Can't run macros in second copy of WordStar.

When a second copy of WordStar is loaded using Run DOS Command, macros do not function in the second copy.

Can't save file until printing is finished.

You tried to save a file that is currently being used by background printing (for merge printing or printing to disk, for example). Wait until WordStar is finished printing this file, and then save it.

Can't sort long line.

A line of text selected to sort is longer than 4000 characters. Shorten the long line and try the sort again.

Can't store results. Disk full or filetype conflict.

WordStar can't create the index (.IDX) or table of contents (.TOC) file because your disk is full or your file uses the extension .IDX or .TOC. Create room on your disk by moving or deleting files, or rename the current file with a different extension.

Can't update dictionary. Disk may be full, protected, not in drive, or does not exist.

WordStar is unable to add the word you requested to the personal dictionary (PERSONAL.DCT). You can delete words to make room or increase memory for the dictionary in WSCHANGE. Also, make sure that PERSONAL.DCT hasn't been opened in WordStar in document mode. If it has, reopen it as a WordStar nondocument and save it.

Change the extension for the original text file.

The default file extension for a table of contents is .TOC. Change the file extension to .TOC.

Converted file must have .PIX extension.

When you insert a graphic file, it must have the .PIX filename extension. Check that the filename is specified correctly and try again. Also, it's possible that the Inset graphic file, which normally has the .PIX extension, has been renamed.

Cursor is not on a note.

The note command you are using requires that the cursor be on the note. Move the cursor to the note and try again.

Disk full error.

Your disk is full. You need to make space on your disk by deleting files or moving them to other disks. If you were creating fax files, the fax files may be incomplete.

Disk I/O error.

DOS has encountered an input/output error. Try the DOS CHKDSK command to see if you can repair the error, or refer to your DOS manual.

Duplicate file prefix.

The first five characters of a fax filename must be unique. Check the fax directory to see if there are files with the same five-character prefix. Choose a fax filename with a unique name or delete existing fax files that are no longer needed.

Either the personal or the exceptions dictionary is full. Increase the memory for the dictionaries or open a window on the personal dictionary or the exceptions dictionary and remove some words.

You can increase the memory for the dictionaries in WSCHANGE or delete some words in the dictionary being used.

End of block is at or before start of block.

The beginning block marker must precede the end block marker in your text. In column block mode, the beginning block marker must also be to the left of the end block marker.

End of block is not below and to right of start of block.

The block markers do not mark a valid column. Set the beginning block marker in the upper-left corner and the ending marker in the lower-right corner of the column block.

Enter new name for macro.

When you rename an existing macro, the New Macro Name option cannot be blank. Type the new name for the macro and continue.

Expression is too complex.

Your math expression is too complicated for WordStar to handle. Rewrite it in several smaller expressions.

File access denied by DOS. Check subdirectory and device names.

DOS is preventing you from opening a file because the file has the same name as a subdirectory or DOS device. Rename the file and try again.

File creation error.

WordStar cannot create a file. It might be because a disk is full, a root directory is full, or a disk is write-protected. Check the CONFIG.SYS file to make sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

File error. The disk may be full, or there was a disk write error, or CONFIG.SYS file lacks the line FILES=20 (for DOS version 2.x) or FILES=30 (for DOS version 3.0 and above).

If necessary, delete files to make room. You may want to copy one or more files to another disk before deleting them. Check your CONFIG.SYS file to make sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try increasing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

File is currently in use.

The file you're trying to edit is being used for printing to an output file. Wait for printing to finish and try again.

File write error.

You cannot write to the specified file. The disk might be full, write protected, or damaged.

If you're using WordStar in a local area network (LAN) environment, check that you've specified a valid drive and directory for fax files and Preview work files in WSCHANGE.

Function argument error in macro.

A macro function argument is missing, too long, or of the wrong data type. Edit the macro.

Global replacement word list is full.

To clear the buffer, stop the spelling check (noting how far you got) and save the file. Then reopen the file, move to the spot where you left off, and begin the spelling check there.

Help messages are not available. Either WordStar was unable to find the WSHELP.OVR file, or you have used WSCHANGE to turn help off and make WordStar memory-resident.

Make sure the WSHELP.OVR file is on your disk. Also make sure help is turned on in WSCHANGE.

Hidden block. Press ^KH and try again.

You're trying to copy, move, or delete text that contains hidden block markers. Press ^KH or choose View→Block Highlighting to make the markers reappear, and then try again.

Hyphenation disabled or not enough memory.

Either hyphenation is turned off in WSCHANGE or there's not enough memory available on your computer. Check your CONFIG.SYS file to make sure it contains a FILES=30 statement (add it if it's not there). If it does, you might try changing it to FILES=40. If you use WordStar to change CONFIG.SYS, be sure to open it as a nondocument file. If you change your CONFIG.SYS file, remember to reboot your computer afterward.

Ignore word list is full.

To clear the buffer, stop the spelling check (noting how far you got) and save the file. Then reopen the file, move to the spot where you left off, and begin the spelling check there.

Insufficient memory for background printing.

Wait until you finish editing, and then print the file from the Opening screen.

Invalid expression.

A value requires a length in columns, inches, points, or centimeters. Reenter the information.

Invalid macro file.

The macro file has been damaged and it needs to be recompiled. To recompile a macro, choose Utilities→Macros→Edit/Create, or press ^MD. When you save the macro, it is recompiled. Then try running it again.

Invalid or missing external graphics driver program.

You requested that WordStar load an external graphics driver to interface Preview with your monitor. The graphics drivers are files with a .WGD extension and are specified in the CRT.TYPE= line in FONTID.CTL. The name was typed incorrectly, the driver file can't be found, or the driver is incorrect for your monitor.

Use WordStar to edit FONTID.CTL as a nondocument file to correct the CRT.TYPE= line. If you're not using an external graphics driver, select the number for your monitor from the list of drivers in the FONTID.CTL file. If it still doesn't work, try reinstalling FONTID.CTL. For more information about the FONTID.CTL file, see the *Installing and Customizing* booklet.

Left margin is greater than right margin.

Set the margins of your document so that the left margin is to the left of the right margin.

Macro interrupted by user.

The macro that was running was interrupted when you pressed Esc or ^Break.

Macro is write protected.

You can't edit the macro because it's write-protected. If the file is protected, unprotect it by choosing File→Protect/Unprotect, or press ^KC. If the directory is protected, copy the macro to a disk or directory that is not write protected. If the macro is on a floppy disk, remove the write-protect tab.

Macro not found.

Check the names and hot keys of existing macros in the list in the Play Macro dialog box to be sure you've specified the correct macro name or pressed the correct hot key for the macro you want to run.

Macro stack overflow.

There are too many PlayMacro commands or Call subroutines without Returns in the macro that is running. Edit the macro and run it again. If it's a long macro, try breaking it into two shorter macros.

Macro stopped. Unable to execute specified command in this context.

Macro playback stops when the specified function cannot be executed at the time it's invoked. For example, the help level cannot be set in Preview. Edit the macro to eliminate the error.

Mismatched parentheses.

The number of opening parentheses does not match the number of closing parentheses. Check your expression and correct it.

Must have graphics display to run Preview.

Your monitor may not support graphics. It's also possible that the graphics driver program is invalid or missing. Make sure the CRT.TYPE= line in the FONTID.CTL file correctly specifies the type of monitor you have. For more information about the FONTID.CTL file, see the *Installing and Customizing* booklet.

New file already exists.

You're trying to create a file that already exists. Choose File→Open and type a new filename.

No block defined yet or doing copy/move in wrong window.

Define both the beginning and end of the block before you copy it, move it, or write it to disk. Also, be sure you're in the target window before you copy or move a block between windows.

No disk in drive or not a valid DOS drive.

DOS can't find the disk drive you specified. For more information, see your DOS manual.

No fonts defined in the FONTID.CTL file.

Check the FONTID.CTL file for font entries (screen font files have a .WSF extension). Font entries are usually found at the end of the FONTID.CTL file, and each entry begins with two numbers and an equal sign, for example, 01=, 02=. There should be at least one font entry in FONTID.CTL. If the file's empty, use COPYWS to copy the file again using the original WordStar disks. For more information, see the *Installing and Customizing* booklet.

No numbers in the block to add or subtract.

Before you use block math, be sure to mark the block correctly. You can't use block math if there are no numbers in the block you've marked.

No second window or not enough memory.

No second window is open. You may not have enough available memory to open the window.

Not a valid directory path.

The path you entered is misspelled, incomplete, or doesn't exist on the specified drive. Enter the correct path.

Not a valid fax filename.

Be sure the fax filename is typed correctly. A fax filename starts with five characters, followed by three numbers that represent the page number at which the fax will begin. The file extension is always .PCX. Make sure the first five characters are unique for each fax filename.

Not a valid filename.

Type the filename correctly. Include a drive letter or directory path if the file is not on the current drive or directory. A filename can have up to eight characters and an optional three-character extension. Type a period between the name and the extension. Don't use spaces between characters. For more information about filenames, see the *Reference* manual.

Not a valid worksheet range.

The range you specified in the spreadsheet program worksheet doesn't exist. Check the worksheet and reenter the range.

Not a valid worksheet window.

The window you specified in the spreadsheet program worksheet doesn't exist. Check the worksheet and reenter the window information.

Not enough memory to continue.

Your computer has enough available memory to start WordStar, but not enough to create necessary buffers and to load printer information. If you have memory-resident programs running, exit them before you start WordStar again.

Not enough memory to print.

WordStar loads either the default printer description file (PDF) or the one you named at the *Printer name* prompt. Either the PDF is not valid or there is not enough memory available to hold both the PDF and the driver overlay file.

Make sure you specify a valid printer name and that the PDF is on your disk. Be sure the path in WSCHANGE is set correctly, and check for the necessary driver overlay file. If you're trying to print while editing a document, try closing the document and printing from the Opening screen. To check WordStar memory usage, choose File→Status or press **?** at the Opening screen. If you are running a memory-resident program with WordStar, exit WordStar, and exit the other program before you start WordStar again.

Not enough memory to run program.

Your computer has enough available memory to start WordStar, but not enough to create necessary buffers or to run Preview. Additional memory may be required to display a graphic image. Press any key and Preview continues without displaying all graphics. To obtain more memory, you may need to exit WordStar. If you have other memory-resident programs running, exit them before you start WordStar again.

Not in the directory.

The printer, font, range, window, or color you specified is not available. Choose one that is listed in the directory on the screen.

Please type a valid macro name.

You must specify an existing macro name.

Save your work before printing this file.

When using background printing for the file you are currently editing, WordStar prints the version of the file that you most recently saved. The latest changes to this file have not been saved. To save the changes choose File→Save, or press ^KS. Then print the file.

Second window is in use, or there is insufficient memory to edit note.

Either you are trying to create a note when you have two windows open, or there is not enough memory to create the note. You may need to exit WordStar, remove memory-resident programs, and start WordStar again. For information about changing the amount of memory used by WordStar, see the *Installing and Customizing* booklet.

Spelling checker disabled or not enough memory.

Either the spelling checker is turned off in WSCHANGE or there's not enough available memory. You may need to exit WordStar, remove memory-resident programs, and start WordStar again. For information about changing the amount of memory used by WordStar, see the *Installing and Customizing* booklet.

Start past end of document.

When you entered the range of pages for a fax file creation, the first page number in the range was beyond the end of the document. These pages and any subsequent requests for pages will not be included in the fax file. You can choose the View option in the fax dialog box (or Preview) to determine the correct range of pages. Remember to specify physical page numbers, not renumbered ones. Then try again.

That drive is not on the list of legal drives.

Type a legal drive letter. You can add drives to the list of legal drives in WINSTALL or WSCHANGE. When typing a filename, be sure to follow the drive letter with a colon.

That drive is write protected.

Copy the file to a drive or disk that is not write protected, or remove write protection from the drive (with a floppy disk, remove the write-protection tab).

That file is being edited. Temporary files with the same name exist. You can look at the file but you can't change it. (You can only look at a portion of large files.) Look at the protected file?

The current directory contains one or more files with the same name as the one you specified, but with the extension .A, .B, or .G.

This condition occurs primarily on LAN systems. Another user may be working with the file you want to edit, or may be editing another file with the same name but a different extension. (The temporary files for the two files would have identical filenames.) The temporary file(s) could be left over from a previous editing session that was aborted by a system failure.

Select OK to view the protected file. If you want to edit the file, wait until the other person is done. If no one else is editing the file, check for the temporary files and erase them. If this condition occurred because two files have the same name but have different extensions, change one of the filenames or move one of the files to a different directory.

That file is not a column (line lengths vary). You can:
- ***Insert the entire file.***
- ***Insert the file up to the point where it starts to vary.***
- ***Insert the file up to the point where it starts to vary and highlight it (for easy deletion). Which option (1/2/3)?***

When you use column block mode, WordStar assumes that a file you import is a file with text in columns, that is, that all lines are the same length. To continue, choose one of the three options.

The block is too large to be restored later. Delete anyway?

The block of text is so large that you won't be able to restore it using the Undo command. Erase the text only if you are sure you won't want to restore it. You can change the size of the unerase buffer in WSCHANGE.

Thesaurus disabled or not enough memory.

Either the thesaurus is turned off in WSCHANGE or there's not enough memory available on your disk. You may need to exit WordStar, remove memory-resident programs, and restart WordStar.

Too much space between columns, or too many columns.

You can have up to 8 columns in a WordStar document. Be sure the total amount of space between the columns is not greater than the right margin. If it is, either reset the margins or change the gutter values. Then try again.

Unable to check spelling while background printing is in progress and Inset is loaded. Restart spelling check after printing is finished.

There's not enough memory to check spelling and print at the same time. Wait until printing is complete before you restart spelling check.

Up to 32 tabs will be saved.

You've set more tab settings than WordStar can save. Clear some of the tab settings.

User cancelled fax creation.

You pressed the Esc key during the fax file creation and the fax file is incomplete. Delete the fax file and try creating it again, or use the SHOWPCX.EXE program to view the contents of the file before transmitting it.

Wrong version filename.

This file is from a previous release of WordStar. If you have files from a previous release that you no longer use, erase the old program files.

You must use the Inset that comes with WordStar.

You're using a version of Inset that did not come with your WordStar program. You must install the version of Inset that is included with WordStar.

APPENDIX **B**

ASCII CONVERSION CHARTS

This appendix consists of three charts. The first chart lists decimal, hexadecimal, mnemonic, control code, and ASCII characters for characters 0-31. The second chart lists the characters 32-255 for code page 437. The third chart lists the characters 32-255 for code page 850.

DEC	HEX	MNEM	CTRL	CHAR
000	00	NUL	^@	
001	01	SOH	^A	☺
002	02	STX	^B	☻
003	03	ETX	^C	♥
004	04	EOT	^D	♦
005	05	ENQ	^E	♣
006	06	ACK	^F	♠
007	07	BEL	^G	•
008	08	BS	^H	◘
009	09	HT	^I	○
010	0A	LF	^J	◙
011	0B	VT	^K	♂
012	0C	FF	^L	♀
013	0D	CR	^M	♪
014	0E	SO	^N	♫
015	0F	SI	^O	☼
016	10	PLE	^P	►
017	11	DC1	^Q	◄
018	12	DC2	^R	↕
019	13	DC3	^S	‼
020	14	DC4	^T	¶
021	15	NAK	^U	§
022	16	SYN	^V	▬
023	17	ETB	^W	↨
024	18	CAN	^X	↑
025	19	EM	^Y	↓
026	1A	SUB	^Z	→
027	1B	ESC	^[	←
028	1C	FS	^\	∟
029	1D	GS	^]	↔
030	1E	RS	^^	▲
031	1F	US	^_	▼

Key: **Dec** = Decimal **Hex** = Hexadecimal **Mnem** = Mnemonic **Ctrl** = Control code **Char** = ASCII character

CODE PAGE 437

DEC	HEX	CHAR
032	20	
033	21	!
034	22	"
035	23	#
036	24	$
037	25	%
038	26	&
039	27	'
040	28	(
041	29	)
042	2A	*
043	2B	+
044	2C	,
045	2D	-
046	2E	.
047	2F	/
048	30	0
049	31	1
050	32	2
051	33	3
052	34	4
053	35	5
054	36	6
055	37	7
056	38	8
057	39	9
058	3A	:
059	3B	;
060	3C	<
061	3D	=
062	3E	>
063	3F	?
064	40	@
065	41	A
066	42	B
067	43	C
068	44	D
069	45	E
070	46	F
071	47	G
072	48	H
073	49	I
074	4A	J
075	4B	K
076	4C	L
077	4D	M
078	4E	N
079	4F	O
080	50	P
081	51	Q
082	52	R
083	53	S
084	54	T
085	55	U
086	56	V
087	57	W
088	58	X
089	59	Y
090	5A	Z
091	5B	[
092	5C	\
093	5D	]
094	5E	^
095	5F	_
096	60	`
097	61	a
098	62	b
099	63	c
100	64	d
101	65	e
102	66	f
103	67	g
104	68	h
105	69	i
106	6A	j
107	6B	k
108	6C	l
109	6D	m
110	6E	n
111	6F	o
112	70	p
113	71	q
114	72	r
115	73	s
116	74	t
117	75	u
118	76	v
119	77	w
120	78	x
121	79	y
122	7A	z
123	7B	{
124	7C	|
125	7D	}
126	7E	~
127	7F	n/a
128	80	Ç
129	81	ü
130	82	é
131	83	â
132	84	ä
133	85	à
134	86	å
135	87	ç
136	88	ê
137	89	ë
138	8A	è
139	8B	ï
140	8C	î
141	8D	ì
142	8E	Ä

DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
143	8F	Å	181	B5	╡	219	DB	█
144	90	É	182	B6	╢	220	DC	▄
145	91	æ	183	B7	╖	221	DD	▌
146	92	Æ	184	B8	╕	222	DE	▐
147	93	ô	185	B9	╣	223	DF	▀
148	94	ö	186	BA	║	224	E0	α
149	95	ò	187	BB	╗	225	E1	β
150	96	û	188	BC	╝	226	E2	Γ
151	97	ù	189	BD	╜	227	E3	π
152	98	ÿ	190	BE	╛	228	E4	Σ
153	99	Ö	191	BF	┐	229	E5	σ
154	9A	Ü	192	C0	└	230	E6	μ
155	9B	¢	193	C1	┴	231	E7	τ
156	9C	£	194	C2	┬	232	E8	Φ
157	9D	¥	195	C3	├	233	E9	Θ
158	9E	₧	196	C4	─	234	EA	Ω
159	9F	ƒ	197	C5	┼	235	EB	δ
160	A0	á	198	C6	╞	236	EC	∞
161	A1	í	199	C7	╟	237	ED	φ
162	A2	ó	200	C8	╚	238	EE	ε
163	A3	ú	201	C9	╔	239	EF	∩
164	A4	ñ	202	CA	╩	240	F0	≡
165	A5	Ñ	203	CB	╦	241	F1	±
166	A6	ª	204	CC	╠	242	F2	≥
167	A7	º	205	CD	═	243	F3	≤
168	A8	¿	206	CE	╬	244	F4	⌠
169	A9	⌐	207	CF	╧	245	F5	⌡
170	AA	¬	208	D0	╨	246	F6	÷
171	AB	½	209	D1	╤	247	F7	≈
172	AC	¼	210	D2	╥	248	F8	°
173	AD	¡	211	D3	╙	249	F9	•
174	AE	«	212	D4	╘	250	FA	·
175	AF	»	213	D5	╒	251	FB	√
176	B0		214	D6	╓	252	FC	η
177	B1	▒	215	D7	╫	253	FD	²
178	B2	▓	216	D8	╪	254	FE	■
179	B3	│	217	D9	┘	255	FF	
180	B4	┤	218	DA	┌			

CODE PAGE 850

DEC	HEX	CHAR
032	20	
033	21	!
034	22	"
035	23	#
036	24	$
037	25	%
038	26	&
039	27	'
040	28	(
041	29	)
042	2A	*
043	2B	+
044	2C	,
045	2D	-
046	2E	.
047	2F	/
048	30	0
049	31	1
050	32	2
051	33	3
052	34	4
053	35	5
054	36	6
055	37	7
056	38	8
057	39	9
058	3A	:
059	3B	;
060	3C	<
061	3D	=
062	3E	>
063	3F	?
064	40	@
065	41	A
066	42	B
067	43	C
068	44	D
069	45	E
070	46	F
071	47	G
072	48	H
073	49	I
074	4A	J
075	4B	K
076	4C	L
077	4D	M
078	4E	N
079	4F	O
080	50	P
081	51	Q
082	52	R
083	53	S
084	54	T
085	55	U
086	56	V
087	57	W
088	58	X
089	59	Y
090	5A	Z
091	5B	[
092	5C	\
093	5D	]
094	5E	^
095	5F	_
096	60	`
097	61	a
098	62	b
099	63	c
100	64	d
101	65	e
102	66	f
103	67	g
104	68	h
105	69	i
106	6A	j
107	6B	k
108	6C	l
109	6D	m
110	6E	n
111	6F	o
112	70	p
113	71	q
114	72	r
115	73	s
116	74	t
117	75	u
118	76	v
119	77	w
120	78	x
121	79	y
122	7A	z
123	7B	{
124	7C	|
125	7D	}
126	7E	~
127	7F	n/a
128	80	Ç
129	81	ü
130	82	é
131	83	â
132	84	ä
133	85	à
134	86	å
135	87	ç
136	88	ê
137	89	ë
138	8A	è
139	8B	ï
140	8C	î
141	8D	ì
142	8E	Ä

DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
143	8F	Å	181	B5	Á	219	DB	█
144	90	É	182	B6	Â	220	DC	▄
145	91	æ	183	B7	À	221	DD	¦
146	92	Æ	184	B8	©	222	DE	Ì
147	93	ô	185	B9	╣	223	DF	▀
148	94	ö	186	BA	║	224	E0	Ó
149	95	ò	187	BB	╗	225	E1	ß
150	96	û	188	BC	╝	226	E2	Ô
151	97	ù	189	BD	¢	227	E3	Ò
152	98	ÿ	190	BE	¥	228	E4	õ
153	99	Ö	191	BF	┐	229	E5	Õ
154	9A	Ü	192	C0	└	230	E6	µ
155	9B	ø	193	C1	┴	231	E7	þ
156	9C	£	194	C2	┬	232	E8	Þ
157	9D	Ø	195	C3	├	233	E9	Ú
158	9E	×	196	C4	─	234	EA	Û
159	9F	ƒ	197	C5	┼	235	EB	Ù
160	A0	á	198	C6	ã	236	EC	ý
161	A1	í	199	C7	Ã	237	ED	Ý
162	A2	ó	200	C8	╚	238	EE	¯
163	A3	ú	201	C9	╔	239	EF	´
164	A4	ñ	202	CA	╩	240	F0	-
165	A5	Ñ	203	CB	╦	241	F1	±
166	A6	ª	204	CC	╠	242	F2	‗
167	A7	º	205	CD	═	243	F3	¾
168	A8	¿	206	CE	╬	244	F4	¶
169	A9	®	207	CF	¤	245	F5	§
170	AA	¬	208	D0	ð	246	F6	÷
171	AB	½	209	D1	Ð	247	F7	¸
172	AC	¼	210	D2	Ê	248	F8	°
173	AD	¡	211	D3	Ë	249	F9	¨
174	AE	«	212	D4	È	250	FA	·
175	AF	»	213	D5	ı	251	FB	¹
176	B0		214	D6	Í	252	FC	³
177	B1	▒	215	D7	Î	253	FD	²
178	B2	▓	216	D8	Ï	254	FE	■
179	B3	│	217	D9	┘	255	FF	n/a
180	B4	┤	218	DA	┌			

APPENDIX C

MACRO KEYSTROKES

This appendix describes the keystroke conventions used for the WordStar macro system, and provides a table of all the keystrokes that the macro system recognizes. For more information about macros, see "Macros" in "Utilities Menu."

THE KEY( ) FUNCTION

The Key( ) macro function provides keystrokes to the application. The argument of Key( ) is a keystroke string. For example, "Good Morning!{Enter}" is a valid keystroke string, and to have it typed into WordStar you'd include the statement KEY("Good Morning!{Enter}") in a macro. For guidelines for entering keystrokes in the Key( ) function, see "The Macro Language" in "Macros" in "Editing Screen Utilities Menu."

TYPES OF KEYSTROKES

A keystroke is defined as the act of either pressing a single key or pressing a number of keys at the same time. Keystrokes generate codes that are interpreted in one of two ways:

- A keystroke can be an alphanumeric character, a punctuation mark, or symbol such as **A**, **;**, or ‡. These are all called characters.
- A keystroke can be a command to perform an action such as delete a character, move the cursor up one line, or start a new line. These keystrokes are called application defined keystrokes.

The Key( ) function provides both types of keystrokes. The first type of keystroke is represented in the keystroke string by simply entering the character. The second type of keystroke is represented by a description as shown in the table. Generally, the keystroke description is the same as the one that appears on the key cap on the US keyboard. It is usually enclosed in braces ({ }). (To enter an actual { or }, you double the character, for example, { { .)

A keyboard may contain more than one key that has the same general meaning. To differentiate between keys with similar meanings, the following conventions are used:

- Characters and descriptions enclosed in square brackets represent keys on the numeric key pad, for example, [Enter]. Some of these keys are only available on enhanced keyboards.
- Descriptions enclosed in parentheses represent the cursor and edit pad keys on enhanced keyboards, for example, (UP) and (Del).

Combining these conventions leads to keystroke descriptions like {Enter}, {[Enter]}, and {(UP)}.

SHIFTED KEY DESCRIPTIONS

Keyboards have three types of keys that can be used with other keys, the Shift key, the Control key (Ctrl), and the Alt key. Some non-US keyboards also have a fourth key, the right Alt key (AltGr), which is used to generate additional alphanumeric symbols. These keys are represented in macros enclosed in braces with the accompanying key, for example, {Ctrl C}, {Alt A}, and {Shift F1}.

For alphabetic characters, punctuation marks, and other symbols, don't indicate the Shift key required to generate the keystroke; just enter the character as you normally would. For example, {Shift a} does not produce A. This is also true for the AltGr shift key, which is used to generate characters, not instructions. For example, on a German keyboard, don't represent / as {AltGr ß}.

KEYSTROKES IN RECORDED MACROS

When a recorded macro is translated into a macro source file, keystrokes from enhanced keyboards are translated into the equivalent keystrokes from unenhanced keyboards. For example, {(UP)} becomes {UP}. The same is true for numbers and symbols on the numeric keypad; for example, {[1]} becomes 1.

If a specific keystroke is required, you can edit the macro and enter the extended or numeric keypad description. When the macro is compiled, the indicated scan code and character combination are used.

Note: When you execute a macro, it provides keystrokes to WordStar in the same general way that the BIOS keyboard i/o service does. WordStar often performs additional processing on a keystroke prior to acting on it. For example, if you press ^K^Q while recording (without taking your finger off of the control key before pressing Q), the macro file shows {CTRL K}{CTRL Q}. During playback, the WordStar editor takes the same action as if the source file contained {CTRL K}Q.

KEYSTROKES NOT IN THE TABLE

The table in this appendix shows the standard keystrokes based on the US keyboard in code page 437. Other keyboards and code pages can produce different keystroke codes. When a recorded macro is translated into a macro source file, all recognizable codes are translated into US keyboard equivalents. These equivalents may be particular keys or extended characters.

To enter a specific keystroke not in the table, enter it in *{xxx,yyy}* format, where *xxx* is the high byte and *yyy* is the low byte of the decimal value of the code.

Any unrecognized keystroke code is translated into this same format when a recording is translated into source code.

THE WORDSTAR MACRO US KEYSTROKE TABLE

The following table shows the valid keystrokes for WordStar macros.

- The first column of the table shows the character or description associated with each keystroke.
- The second column shows the hexadecimal value of the code returned by BIOS Interrupt 16H for each keystroke. This is called the keystroke code. The high byte is usually called the scan code, and the low byte is usually called the ASCII code. For text and punctuation keystrokes, the ASCII code (low byte) is the number associated with the character.
- The third column shows the decimal values of the high and low byte of the keystroke code.
- The fourth column indicates if the particular keystroke is available only on an enhanced keyboard. It also shows keystrokes that are specific to WordStar.

The last part of the table includes all the extended characters (those with decimal codes 1 to 31 and 128 to 255). The characters shown in the table are those displayed on the screen for the IBM symbol set for code page 437. (If you're using a different code page, different characters are displayed on the screen. The characters that are printed depend on the symbol set for the font you use for printing.) You can enter extended characters in several ways. For more information, see "Extended Character" in "Insert Menu."

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
{BACKTAB}	0F 00	015 000	
{BKSP}	0E 08	014 008	
{DEL}	53 00	083 000	
{(DEL)}	53 E0	083 224	Enhanced keyboard
{DOWN}	50 00	080 000	
{(DOWN)}	50 E0	080 224	Enhanced keyboard
{END}	4F 00	079 000	
{(END)}	4F E0	079 224	Enhanced keyboard
{ENTER}	1C 0D	028 013	
{[ENTER]}	E0 0D	224 013	Enhanced keyboard
{ESC}	01 1B	001 027	
{HOME}	47 00	071 000	
{(HOME)}	47 E0	071 224	Enhanced keyboard
{INSERT}	52 00	082 000	
{(INSERT)}	52 E0	082 224	Enhanced keyboard
{LEFT}	4B 00	075 000	
{(LEFT)}	4B E0	075 224	Enhanced keyboard
{PGDN}	51 00	081 000	
{(PGDN)}	51 E0	081 224	Enhanced keyboard
{PGUP}	49 00	073 000	
{(PGUP)}	49 E0	073 224	Enhanced keyboard
{RIGHT}	4D 00	077 000	
{(RIGHT)}	4D E0	077 224	Enhanced keyboard
{TAB}	0F 09	015 009	
{([5])}	4C 00	076 000	Enhanced keyboard
{UP}	48 00	072 000	
{(UP)}	48 E0	072 224	Enhanced keyboard
space	39 20	057 032	
!	02 21	002 033	
“	28 22	040 034	
#	04 23	004 035	
$	05 24	005 036	
%	06 25	006 037	
&	08 26	008 038	
’	28 27	040 039	
(	0A 28	010 040	
)	0B 29	011 041	
*	09 2A	009 042	
{[*]}	37 2A	055 042	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
+	0D 2B	013 043	
{[+]}	4E 2B	078 043	
,	33 2C	051 044	
-	0C 2D	012 045	
{[-]}	4A 2D	074 045	
.	34 2E	052 046	
{[.]}	53 2E	083 046	
/	35 2F	053 047	
{[/]}	E0 2F	224 047	Enhanced keyboard
:	27 3A	039 058	
;	27 3B	039 059	
<	33 3C	051 060	
=	0D 3D	013 061	
>	34 3E	052 062	
?	35 3F	053 063	
@	03 40	003 064	
[	1A 5B	026 091	
\	2B 5C	043 092	
]	1B 5D	027 093	
^	07 5E	007 094	
_	0C 5F	012 095	
‘	29 60	041 096	
{	1A 7B	026 123	
|	2B 7C	043 124	
}	1B 7D	027 125	
~	29 7E	041 126	
n/a	00 7F	000 127	
0	0B 30	011 048	
{[0]}	52 30	082 048	
1	02 31	002 049	
{[1]}	4F 31	079 049	
2	03 32	003 050	
{[2]}	50 32	080 050	
3	04 33	004 051	
{[3]}	51 33	081 051	
4	05 34	005 052	
{[4]}	4B 34	075 052	
5	06 35	006 053	
{[5]}	4C 35	076 053	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
6	07 36	007 054	
{[6]}	4D 36	077 054	
7	08 37	008 055	
{[7]}	47 37	071 055	
8	09 38	009 056	
{[8]}	48 38	072 056	
9	0A 39	010 057	
{[9]}	49 39	073 057	
A	1E 41	030 065	
B	30 42	048 066	
C	2E 43	046 067	
D	20 44	032 068	
E	12 45	018 069	
F	21 46	033 070	
G	22 47	034 071	
H	23 48	035 072	
I	17 49	023 073	
J	24 4A	036 074	
K	25 4B	037 075	
L	26 4C	038 076	
M	32 4D	050 077	
N	31 4E	049 078	
O	18 4F	024 079	
P	19 50	025 080	
Q	10 51	016 081	
R	13 52	019 082	
S	1F 53	031 083	
T	14 54	020 084	
U	16 55	022 085	
V	2F 56	047 086	
W	11 57	017 087	
X	2D 58	045 088	
Y	15 59	021 089	
Z	2C 5A	044 090	
a	1E 61	030 097	
b	30 62	048 098	
c	2E 63	046 099	
d	20 64	032 100	
e	12 65	018 101	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
f	21 66	033 102	
g	22 67	034 103	
h	23 68	035 104	
i	17 69	023 105	
j	24 6A	036 106	
k	25 6B	037 107	
l	26 6C	038 108	
m	32 6D	050 109	
n	31 6E	049 110	
o	18 6F	024 111	
p	19 70	025 112	
q	10 71	016 113	
r	13 72	019 114	
s	1F 73	031 115	
t	14 74	020 116	
u	16 75	022 117	
v	2F 76	047 118	
w	11 77	017 119	
x	2D 78	045 120	
y	15 79	021 121	
z	2C 7A	044 122	
{CTRL+BKSP}	0E 7F	014 127	
{CTRL+BREAK}	00 00	000 000	
{CTRL+DEL}	93 00	147 000	Enhanced keyboard
{CTRL+(DEL)}	93 E0	147 224	Enhanced keyboard
{CTRL+DOWN}	91 00	145 000	Enhanced keyboard
{CTRL+(DOWN)}	91 E0	145 224	Enhanced keyboard
{CTRL+END}	75 00	117 000	
{CTRL+(END)}	75 E0	117 224	Enhanced keyboard
{CTRL+ENTER}	1C 0A	028 010	
{CTRL+[ENTER]}	E0 0A	224 010	Enhanced keyboard
{CTRL+HOME}	77 00	119 000	
{CTRL+(HOME)}	77 E0	119 224	Enhanced keyboard
{CTRL+INSERT}	92 00	146 000	Enhanced keyboard
{CTRL+(INSERT)}	92 E0	146 224	Enhanced keyboard
{CTRL+LEFT}	73 00	115 000	
{CTRL+(LEFT)}	73 E0	115 224	Enhanced keyboard
{CTRL+PGDN}	76 00	118 000	
{CTRL+(PGDN)}	76 E0	118 224	Enhanced keyboard

KEYSTROKE DESCRIPTION	**HEX**	**DECIMAL**	**NOTE**
{CTRL+PGUP}	84 00	132 000	
{CTRL+(PGUP)}	84 E0	132 224	Enhanced keyboard
{CTRL+PRTSC}	72 00	114 000	
{CTRL+RIGHT}	74 00	116 000	
{CTRL+(RIGHT)}	74 E0	116 224	Enhanced keyboard
{CTRL+TAB}	94 00	148 000	Enhanced keyboard
{CTRL+UP}	8D 00	141 000	Enhanced keyboard
{CTRL+(UP)}	8D E0	141 224	Enhanced keyboard
{CTRL+’}	C1 00	193 000	WordStar keystroke
{CTRL+[*]}	96 00	150 000	Enhanced keyboard
{CTRL+[+]}	90 00	144 000	Enhanced keyboard
{CTRL+,}	C3 00	195 000	WordStar keystroke
{CTRL+-}	0C 1F	012 031	
{CTRL+[-]}	8E 00	142 000	Enhanced keyboard
{CTRL+.}	C4 00	196 000	WordStar keystroke
{CTRL+/}	C5 00	197 000	WordStar keystroke
{CTRL+[/]}	95 00	149 000	Enhanced keyboard
{CTRL+;}	C2 00	194 000	WordStar keystroke
{CTRL+[}	1A 1B	026 027	
{CTRL+\}	2B 1C	043 028	
{CTRL+]}	1B 1D	027 029	
{CTRL+‘}	C0 00	192 000	WordStar keystroke
{CTRL+0}	CD 00	205 000	WordStar keystroke
{CTRL+1}	C6 00	198 000	WordStar keystroke
{CTRL+2}	03 00	003 000	
{CTRL+3}	C7 00	199 000	WordStar keystroke
{CTRL+4}	C8 00	200 000	WordStar keystroke
{CTRL+5}	C9 00	201 000	WordStar keystroke
{CTRL+[5]}	8F 00	143 000	Enhanced keyboard
{CTRL+6}	07 1E	007 030	
{CTRL+7}	CA 00	202 000	WordStar keystroke
{CTRL+8}	CB 00	203 000	WordStar keystroke
{CTRL+9}	CC 00	204 000	WordStar keystroke
{CTRL+A}	1E 01	030 001	
{CTRL+B}	30 02	048 002	
{CTRL+C}	2E 03	046 003	
{CTRL+D}	20 04	032 004	
{CTRL+E}	12 05	018 005	
{CTRL+F}	21 06	033 006	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
{CTRL+G}	22 07	034 007	
{CTRL+H}	23 08	035 008	
{CTRL+I}	17 09	023 009	
{CTRL+J}	24 0A	036 010	
{CTRL+K}	25 0B	037 011	
{CTRL+L}	26 0C	038 012	
{CTRL+M}	32 0D	050 013	
{CTRL+N}	31 0E	049 014	
{CTRL+O}	18 0F	024 015	
{CTRL+P}	19 10	025 016	
{CTRL+Q}	10 11	016 017	
{CTRL+R}	13 12	019 018	
{CTRL+S}	1F 13	031 019	
{CTRL+T}	14 14	020 020	
{CTRL+U}	16 15	022 021	
{CTRL+V}	2F 16	047 022	
{CTRL+W}	11 17	017 023	
{CTRL+X}	2D 18	045 024	
{CTRL+Y}	15 19	021 025	
{CTRL+Z}	2C 1A	044 026	
{ALT+BKSP}	0E 00	014 000	Enhanced keyboard
{ALT+(DEL)}	A3 00	163 000	Enhanced keyboard
{ALT+(DOWN)}	A0 00	160 000	Enhanced keyboard
{ALT+(END)}	9F 00	159 000	Enhanced keyboard
{ALT+ENTER}	1C 00	028 000	Enhanced keyboard
{ALT+[ENTER]}	A6 00	166 000	Enhanced keyboard
{ALT+ESC}	01 00	001 000	Enhanced keyboard
{ALT+(HOME)}	97 00	151 000	Enhanced keyboard
{ALT+(INSERT)}	A2 00	162 000	Enhanced keyboard
{ALT+(LEFT)}	9B 00	155 000	Enhanced keyboard
{ALT+(PGDN)}	A1 00	161 000	Enhanced keyboard
{ALT+(PGUP)}	99 00	153 000	Enhanced keyboard
{ALT+(RIGHT)}	9D 00	157 000	Enhanced keyboard
{ALT+TAB}	A5 00	165 000	Enhanced keyboard
{ALT+(UP)}	98 00	152 000	Enhanced keyboard
{ALT+'}	28 00	040 000	Enhanced keyboard
{ALT+[*]}	37 00	055 000	Enhanced keyboard
{ALT+[+]}	4E 00	078 000	Enhanced keyboard
{ALT+,}	33 00	051 000	Enhanced keyboard

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
{ALT+-}	82 00	130 000	
{ALT+[-]}	4A 00	074 000	Enhanced keyboard
{ALT+.}	34 00	052 000	Enhanced keyboard
{ALT+/}	35 00	053 000	Enhanced keyboard
{ALT+[/]}	A4 00	164 000	Enhanced keyboard
{ALT+;}	27 00	039 000	Enhanced keyboard
{ALT+=}	83 00	131 000	
{ALT+[}	1A 00	026 000	Enhanced keyboard
{ALT+\}	2B 00	043 000	Enhanced keyboard
{ALT+]}	1B 00	027 000	Enhanced keyboard
{ALT+‘}	29 00	041 000	Enhanced keyboard
{ALT+0}	81 00	129 000	
{ALT+1}	78 00	120 000	
{ALT+2}	79 00	121 000	
{ALT+3}	7A 00	122 000	
{ALT+4}	7B 00	123 000	
{ALT+5}	7C 00	124 000	
{ALT+6}	7D 00	125 000	
{ALT+7}	7E 00	126 000	
{ALT+8}	7F 00	127 000	
{ALT+9}	80 00	128 000	
{ALT+A}	1E 00	030 000	
{ALT+B}	30 00	048 000	
{ALT+C}	2E 00	046 000	
{ALT+D}	20 00	032 000	
{ALT+E}	12 00	018 000	
{ALT+F}	21 00	033 000	
{ALT+G}	22 00	034 000	
{ALT+H}	23 00	035 000	
{ALT+I}	17 00	023 000	
{ALT+J}	24 00	036 000	
{ALT+K}	25 00	037 000	
{ALT+L}	26 00	038 000	
{ALT+M}	32 00	050 000	
{ALT+N}	31 00	049 000	
{ALT+O}	18 00	024 000	
{ALT+P}	19 00	025 000	
{ALT+Q}	10 00	016 000	
{ALT+R}	13 00	019 000	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
{ALT+S}	1F 00	031 000	
{ALT+T}	14 00	020 000	
{ALT+U}	16 00	022 000	
{ALT+V}	2F 00	047 000	
{ALT+W}	11 00	017 000	
{ALT+X}	2D 00	045 000	
{ALT+Y}	15 00	021 000	
{ALT+Z}	2C 00	044 000	
{F1}	3B 00	059 000	
{F2}	3C 00	060 000	
{F3}	3D 00	061 000	
{F4}	3E 00	062 000	
{F5}	3F 00	063 000	
{F6}	40 00	064 000	
{F7}	41 00	065 000	
{F8}	42 00	066 000	
{F9}	43 00	067 000	
{F10}	44 00	068 000	
{F11}	85 00	133 000	Enhanced keyboard
{F12}	86 00	134 000	Enhanced keyboard
{SHIFT+F1}	54 00	084 000	
{SHIFT+F2}	55 00	085 000	
{SHIFT+F3}	56 00	086 000	
{SHIFT+F4}	57 00	087 000	
{SHIFT+F5}	58 00	088 000	
{SHIFT+F6}	59 00	089 000	
{SHIFT+F7}	5A 00	090 000	
{SHIFT+F8}	5B 00	091 000	
{SHIFT+F9}	5C 00	092 000	
{SHIFT+F10}	5D 00	093 000	
{SHIFT+F11}	87 00	135 000	Enhanced keyboard
{SHIFT+F12}	88 00	136 000	Enhanced keyboard
{CTRL+F1}	5E 00	094 000	
{CTRL+F2}	5F 00	095 000	
{CTRL+F3}	60 00	096 000	
{CTRL+F4}	61 00	097 000	
{CTRL+F5}	62 00	098 000	
{CTRL+F6}	63 00	099 000	
{CTRL+F7}	64 00	100 000	

KEYSTROKE DESCRIPTION	HEX	DECIMAL	NOTE
{CTRL+F8}	65 00	101 000	
{CTRL+F9}	66 00	102 000	
{CTRL+F10}	67 00	103 000	
{CTRL+F11}	89 00	137 000	Enhanced keyboard
{CTRL+F12}	8A 00	138 000	Enhanced keyboard
{ALT+F1}	68 00	104 000	
{ALT+F2}	69 00	105 000	
{ALT+F3}	6A 00	106 000	
{ALT+F4}	6B 00	107 000	
{ALT+F5}	6C 00	108 000	
{ALT+F6}	6D 00	109 000	
[ALT+F7}	6E 00	110 000	
{ALT+F8}	6F 00	111 000	
{ALT+F9}	70 00	112 000	
{ALT+F10}	71 00	113 000	
{ALT+F11}	8B 00	139 000	Enhanced keyboard
{ALT+F12}	8C 00	140 000	Enhanced keyboard

EXTENDED CHARACTERS

CHARACTER	HEX	DEC
☺	00 01	000 001
☻	00 02	000 002
♥	00 03	000 003
♦	00 04	000 004
♣	00 05	000 005
♠	00 06	000 006
•	00 07	000 007
◘	00 08	000 008
○	00 09	000 009
◙	00 0A	000 010
♂	00 0B	000 011
♀	00 0C	000 012
♪	00 0D	000 013
♫	00 0E	000 014
☼	00 0F	000 015
►	00 10	000 016
◄	00 11	000 017
↕	00 12	000 018
‼	00 13	000 019

CHARACTER	HEX	DECIMAL	NOTE
¶	00 14	000 020	
§	00 15	000 021	
▬	00 16	000 022	
↨	00 17	000 023	
↑	00 18	000 024	
↓	00 19	000 025	
→	00 1A	000 026	
←	00 1B	000 027	
∟	00 1C	000 028	
↔	00 1D	000 029	
▲	00 1E	000 030	
▼	00 1F	000 031	
Ç	00 80	000 128	
ü	00 81	000 129	
é	00 82	000 130	
â	00 83	000 131	
ä	00 84	000 132	
à	00 85	000 133	
å	00 86	000 134	
ç	00 87	000 135	
ê	00 88	000 136	
ë	00 89	000 137	
è	00 8A	000 138	
ï	00 8B	000 139	
î	00 8C	000 140	
ì	00 8D	000 141	
Ä	00 8E	000 142	
Å	00 8F	000 143	
É	00 90	000 144	
æ	00 91	000 145	
Æ	00 92	000 146	
ô	00 93	000 147	
ö	00 94	000 148	
ò	00 95	000 149	
û	00 96	000 150	
ù	00 97	000 151	
ÿ	00 98	000 152	
Ö	00 99	000 153	
Ü	00 9A	000 154	

CHARACTER	HEX	DECIMAL	NOTE
¢	00 9B	000 155	
£	00 9C	000 156	
¥	00 9D	000 157	
₧	00 9E	000 158	
ƒ	00 9F	000 159	
á	00 A0	000 160	
í	00 A1	000 161	
ó	00 A2	000 162	
ú	00 A3	000 163	
ñ	00 A4	000 164	
Ñ	00 A5	000 165	
ª	00 A6	000 166	
º	00 A7	000 167	
¿	00 A8	000 168	
⌐	00 A9	000 169	
¬	00 AA	000 170	
½	00 AB	000 171	
¼	00 AC	000 172	
¡	00 AD	000 173	
«	00 AE	000 174	
»	00 AF	000 175	
	00 B0	000 176	
▒	00 B1	000 177	
▓	00 B2	000 178	
│	00 B3	000 179	
┤	00 B4	000 180	
╡	00 B5	000 181	
╢	00 B6	000 182	
╖	00 B7	000 183	
╕	00 B8	000 184	
╣	00 B9	000 185	
║	00 BA	000 186	
╗	00 BB	000 187	
╝	00 BC	000 188	
╜	00 BD	000 189	
╛	00 BE	000 190	
┐	00 BF	000 191	
└	00 C0	000 192	
┴	00 C1	000 193	

CHARACTER	HEX	DECIMAL	NOTE
┬	00 C2	000 194	
├	00 C3	000 195	
─	00 C4	000 196	
┼	00 C5	000 197	
╞	00 C6	000 198	
╟	00 C7	000 199	
╚	00 C8	000 200	
╔	00 C9	000 201	
╩	00 CA	000 202	
╦	00 CB	000 203	
╠	00 CC	000 204	
═	00 CD	000 205	
╬	00 CE	000 206	
╧	00 CF	000 207	
╨	00 D0	000 208	
╤	00 D1	000 209	
╥	00 D2	000 210	
╙	00 D3	000 211	
╘	00 D4	000 212	
╒	00 D5	000 213	
╓	00 D6	000 214	
╫	00 D7	000 215	
╪	00 D8	000 216	
┘	00 D9	000 217	
┌	00 DA	000 218	
█	00 DB	000 219	
▄	00 DC	000 220	
▌	00 DD	000 221	
▐	00 DE	000 222	
▀	00 DF	000 223	
α	00 E0	000 224	
β	00 E1	000 225	
Γ	00 E2	000 226	
π	00 E3	000 227	
Σ	00 E4	000 228	
σ	00 E5	000 229	
μ	00 E6	000 230	
τ	00 E7	000 231	
Φ	00 E8	000 232	

CHARACTER	**HEX**	**DECIMAL**	**NOTE**
Θ	00 E9	000 233	
Ω	00 EA	000 234	
δ	00 EB	000 235	
∞	00 EC	000 236	
φ	00 ED	000 237	
ε	00 EE	000 238	
∩	00 EF	000 239	
≡	00 F0	000 240	
±	00 F1	000 241	
≥	00 F2	000 242	
≤	00 F3	000 243	
⌠	00 F4	000 244	
⌡	00 F5	000 245	
÷	00 F6	000 246	
≈	00 F7	000 247	
°	00 F8	000 248	
•	00 F9	000 249	
·	00 FA	000 250	
√	00 FB	000 251	
η	00 FC	000 252	
²	00 FD	000 253	
■	00 FE	000 254	
	00 FF	000 255	

APPENDIX D

FUNCTION KEYS AND OTHER MACROS

You can use the function keys, which are usually labeled **F1**, **F2**, **F3**, and so on, to execute the most frequently used WordStar commands with a single keystroke.

Each function key is set to issue four different commands, depending on whether you use the function key by itself or while holding down one of these keys: Shift, Ctrl, or Alt.

The commands issued by the function keys are preprogrammed macros created with the WordStar macro commands. You can change the function key assignments by choosing Utilities→Macros and then Record, Edit/Create, or Rename, or using the classic command ^MR, ^MD, or ^ME. For information about working with macros, see "Macros" in "Utilities."

All the function key assignments are shown in the following table.

In addition to the function keys, several other preprogrammed macros are supplied with WordStar. These keys are also listed in the table. Several other macros that are not included in the table are also preprogrammed as examples.

FUNCTION KEY	**CLASSIC COMMAND**	**PULL-DOWN COMMAND OR FUNCTION**
F1		
F1	F1	Help →Help (this key cannot be reprogrammed)
Shift+F1	^OD	View→Command Tags
Ctrl+F1	^QF	Edit→Find
Alt+F1	│	Inserts box-drawing character
F2		
F2	^U	Edit→Undo
Shift+F2	^OC	Layout→Center Line
Ctrl+F2	^QA	Edit→Find and Replace
Alt+F2	─	Inserts box-drawing character
F3		
F3	^PS	Style→Underline
Shift+F3	^QR^QL	Utilities→Spelling Check Global
Ctrl+F3	^L	Edit→Next Find
Alt+F3	┌	Inserts box-drawing character
F4		
F4	^PB	Style→Bold
Shift+F4	^QN	Utilities→Spelling Check Other→Word
Ctrl+F4	^QI	Edit→Go to Page
Alt+F4	┐	Inserts box-drawing character
F5		
F5	^Y	Edit→Delete→Line
Shift+F5	^KY	Edit→Delete→Block
Ctrl+F5	^QS.LM^N	Inserts **.lm** command on its own line
Alt+F5	└	Inserts box-drawing character
F6		
F6	^T	Edit→Delete→Word
Shift+F6	^KH	View→Block Highlighting
Ctrl+F6	^QS.RM^N	Inserts **.rm** command on its own line
Alt+F6	┘	Inserts box-drawing character
F7		
F7	^B^QP	Utilities→Reformat→Paragraph, then Edit →Go to Other→Previous Position
Shift+F7	^KV	Edit→Move→Block
Ctrl+F7	^QS.PM6↵	Inserts **.pm6** command and a carriage return
Alt+F7	┬	Inserts box-drawing character

FUNCTION KEY	**CLASSIC COMMAND**	**PULL-DOWN COMMAND OR FUNCTION**
F8		
F8	^QS^OO	Inserts the **.rr** command with current ruler line settings above the current line
Shift+F8	^KC	Edit→Copy→Block
Ctrl+F8	^QS.PA↵	Insert→Page Break
Alt+F8	┴	Inserts box-drawing character
F9		
F9	^KS	File→Save
Shift+F9	^KB	Edit→Mark Block Beginning
Ctrl+F9	^QS	Moves the cursor to beginning of the line
Alt+F9	├	Inserts box-drawing character
F10		
F10	^KD	File→Save and Close (this key cannot be reprogrammed)
Shift+F10	^KK	Edit→Mark Block End
Ctrl+F10	^QD	Moves the cursor to the end of the line
Alt+F10	┤	Inserts box-drawing character
Alt+0	^OFS	Style→Select Paragraph Style
Alt+1	^OP	View→Preview
Alt+D	n/a	Find next compiler error for editing macros
Alt+M	n/a	Enters a memo boilerplate
Alt+T	n/a	Enters a To Do list boilerplate
Alt+B	n/a	Bulleted List
Alt+N	n/a	Numbered list

SUBJECT INDEX

Note: This "Subject Index" is the first of two indexes in this manual. The second index ("Command Index") follows this index and contains Pull-down commands, Classic Opening and Editing Screen commands, and dot commands.

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NOTES

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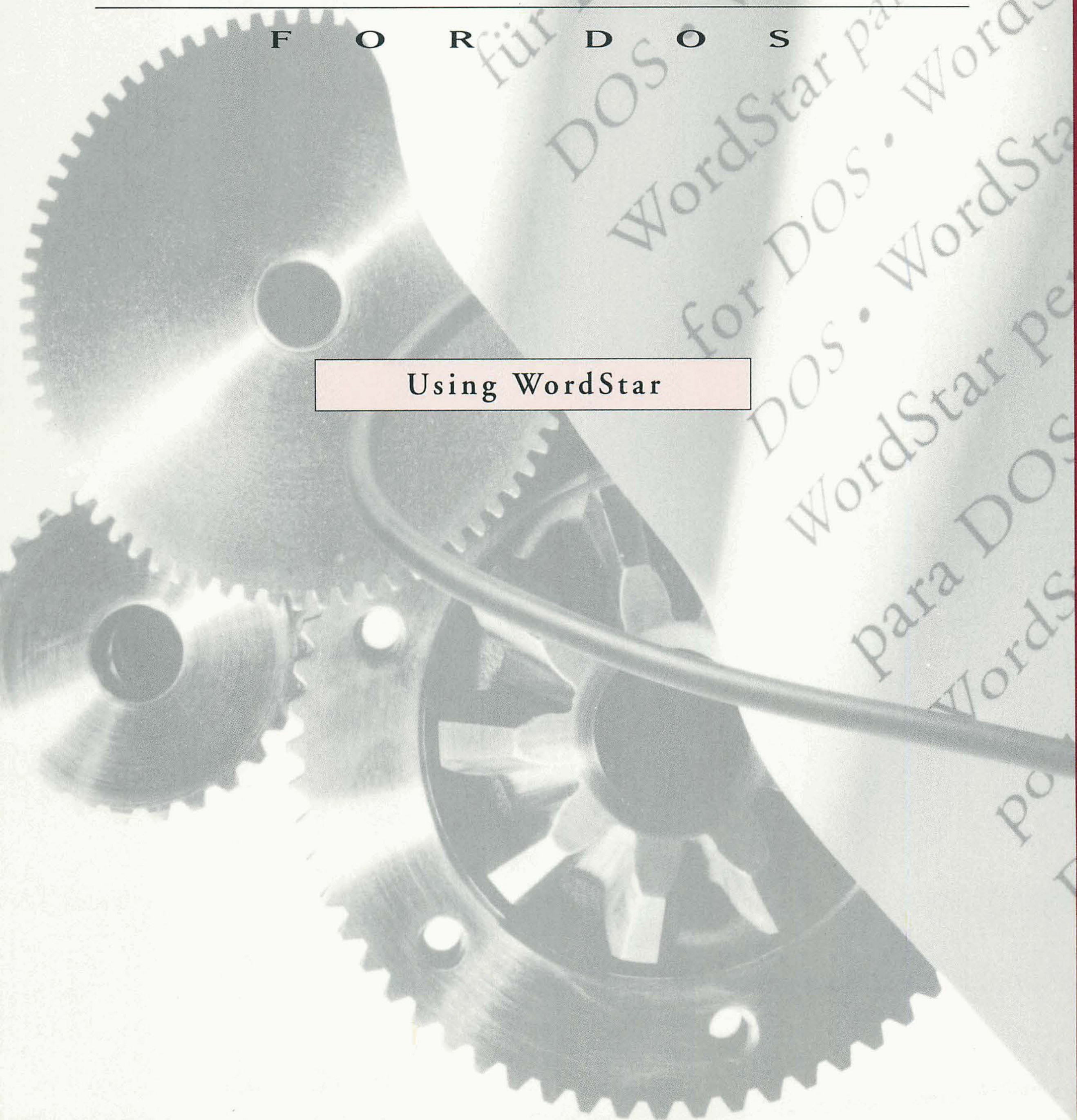
FOR DOS



Using WordStar

WORDSTAR®

FOR DOS

Using WordStar

Version 7.0

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CHAPTER 1

BEFORE YOU BEGIN

This section describes the organization and conventions used in this manual. It also presents an overview of the WordStar menus, commands, cursor movement, and mouse support. It is recommended that you review this information before you begin using WordStar.

The instructions in *Using WordStar* assume that you haven't changed any of the original WordStar settings and that you're using pull-down menus (help level 4). If you need to reinstate the original settings, see "Setting Basic Editing Defaults" in the *Installing and Customizing* booklet.

HOW TO USE THIS MANUAL

This manual contains step-by-step instructions for learning and using WordStar. Chapter 2 covers WordStar basics. Chapters 3–9 present common word processing tasks and the procedures to complete these tasks. Chapter 10 covers aspects of printing, such as how to change printers and how to set up a file to print envelopes. Chapter 11 tells how to use MailList™ to create a mailing list that is used to print form letters. Chapters 12–15 tell you how to use merge printing to perform some special word processing tasks.

Sample files are included for use with this manual or during practice sessions. The sample files are listed below.

SAMPLE FILENAME	**DESCRIPTION**
LIST.DOC	Memo
SHAKE.DOC	Text document
MAILING.DOC	Merge print document
PLAYBILL.DOC	Brochure
PLAYS.DOC	List
REVIEW.DOC	Newsletter in two columns
SPELL.DOC	Document for spelling corrections

Note: If you want to use a sample file more than once, be sure to close the file and abandon your changes when you finish working.

CONVENTIONS

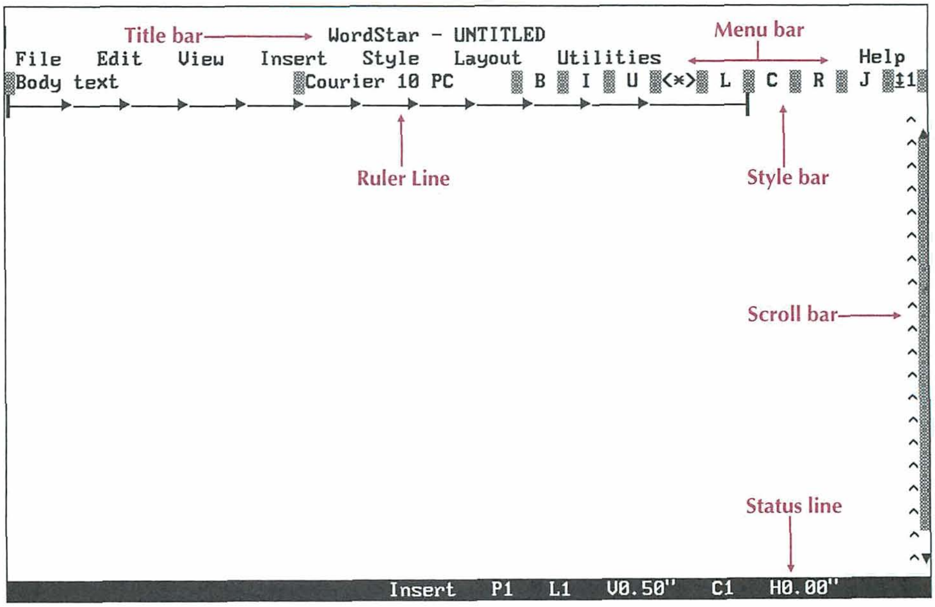
The terminology and keyboard conventions described below are used in this manual.

TERMINOLOGY

Pull-down menus	One of two complete sets of menus featured in WordStar.
Classic menus	The original set of menus in WordStar.
Dialog box	Contains options for carrying out a command.
Dot command	Performs functions mostly related to printing. Sometimes WordStar inserts a dot command into a document when you make a choice in a dialog box. You can also type a dot command directly into a document. A dot command begins with a period, is on a line by itself, and takes up no real space in a document. The period must be in column 1 of the line followed by the two-letter or three-letter code and whatever text or setting is required.

EDITING SCREEN TERMINOLOGY

Title bar	Located at the top of the screen. Shows the name of the file being edited, messages, and prompts.
Menu bar	Located on the second line of the screen, below the title bar. The menu bar displays the names of pull-down menus.
Style bar	Located above the ruler line at the top of the screen. The style bar contains information about current settings as well as mouse buttons that turn some print enhancements on or off.
Ruler line	Shows current margins and tab settings.
Status line	Located at the bottom of the screen when you're editing a file. It shows the cursor location, messages, and block markers.
Scroll bar	Areas on the screen in which you can use a mouse to move around in a document. The vertical scroll bar is located at the right side of the editing area.


Title bar
WordStar - UNTITLED
Menu bar
File Edit View Insert Style Layout Utilities Help
Body text Courier 10 PC B I U <*> L C R J ‡1
Ruler Line
Style bar
Scroll bar
Status line
Insert P1 L1 V0.50" C1 H0.00"

KEYBOARD CONVENTIONS

This manual uses several conventions to describe commands you enter from the keyboard.

Alt+*KEY* means hold down the Alt key and press another key.

Alt+*KEY1,KEY2* means hold down the Alt key while you press *KEY1*. Then, you can release the Alt key or keep it depressed and press *KEY2*.

^*KEY* means hold down the Ctrl (^) key while you press the key assigned to the command.

^*KEY1KEY2* means hold down the Ctrl (^) key while you press the the first key and then press the second key. (It doesn't matter whether or not you are still pressing the Ctrl key when you press the second key.)

The arrow symbol (→) points to the next item you choose on a pull-down menu or in a dialog box. For example, File→Copy means choose the File menu and then choose the Copy command on the menu. Following the menu commands, the equivalent key commands are shown in parentheses, for example, (Alt+F,C).

USING THE MENUS AND DIALOG BOXES

This section explains how to use pull-down menus, classic menus, dialog boxes, and onscreen help.

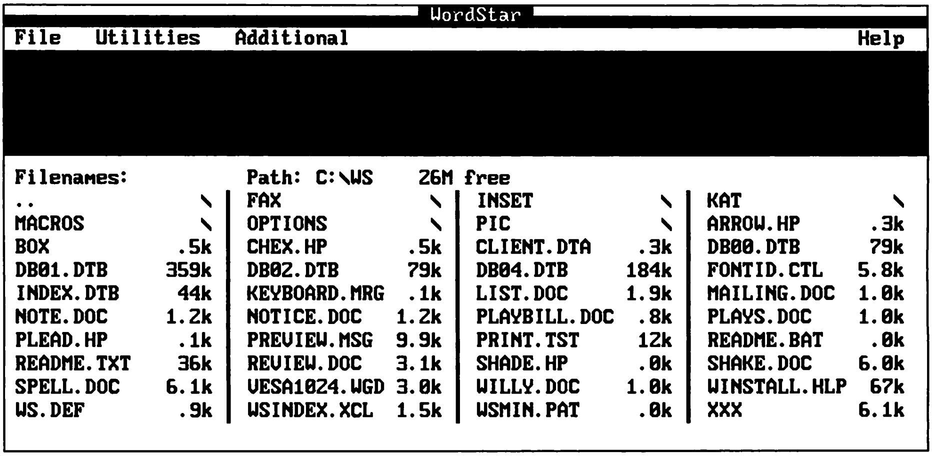
PULL-DOWN MENUS AND CLASSIC MENUS

WordStar has two complete sets of menus. They are pull-down menus and classic menus. The menu choices on both sets of menus perform the same tasks, but use different keystrokes. The classic menus are designed for touch typists or power users who don't want to take their fingers from the home row of the keyboard. The pull-down menus are designed according to SAA standards.

This manual presents the pull-down menu choices and the equivalent keyboard commands. Occasionally, commands from the classic menus are recommended, if they require fewer keystrokes.

PULL-DOWN MENUS

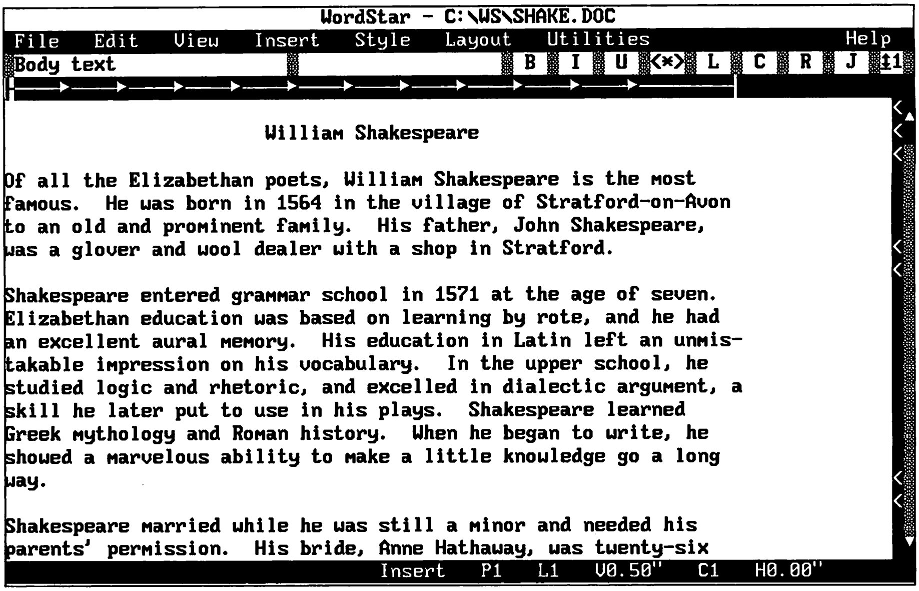
The help level setting determines which menus WordStar displays. When the help level is set at 4, the default setting, you'll see the pull-down menu bar at the top of the Opening and Editing screens. This bar displays the pull-down menus available at that screen.



```
Filenames:              Path: C:\WS    26M free
..                 \ | FAX              \ | INSET            \ | KAT               \
MACROS             \ | OPTIONS          \ | PIC              \ | ARROW.HP        .3k
BOX              .5k | CHEX.HP        .5k | CLIENT.DTA     .3k | DB00.DTB        79k
DB01.DTB        359k | DB02.DTB       79k | DB04.DTB      184k | FONTID.CTL     5.8k
INDEX.DTB        44k | KEYBOARD.MRG   .1k | LIST.DOC      1.9k | MAILING.DOC    1.0k
NOTE.DOC        1.2k | NOTICE.DOC    1.2k | PLAYBILL.DOC   .8k | PLAYS.DOC      1.0k
PLEAD.HP         .1k | PREVIEW.MSG   9.9k | PRINT.TST      12k | README.BAT      .0k
README.TXT       36k | REVIEW.DOC    3.1k | SHADE.HP       .0k | SHAKE.DOC      6.0k
SPELL.DOC       6.1k | VESA1024.WGD  3.0k | WILLY.DOC     1.0k | WINSTALL.HLP    67k
WS.DEF           .9k | WSINDEX.XCL   1.5k | WSMIN.PAT      .0k | XXX            6.1k
```

To display a menu at the Opening screen in help level 4, press the first letter of the menu name or, if you have a mouse, click the name. You can move between menus using the Right and Left Arrow keys, the ^S and ^D commands, or a mouse. To choose an item on a menu, press the highlighted or underlined character (depending on what type of monitor you have) or click the item.

When you open a file, the Editing screen appears.

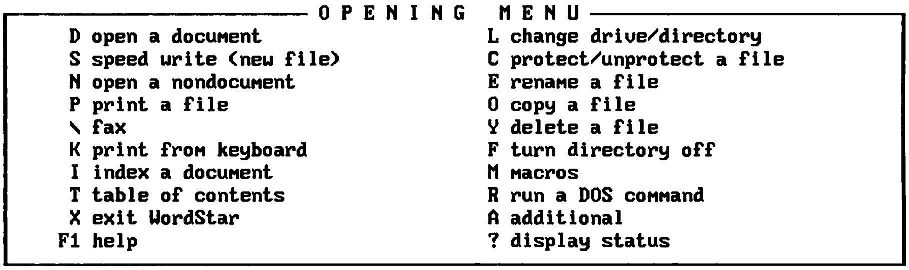


```
                     WordStar - C:\WS\SHAKE.DOC
 File   Edit   View   Insert   Style   Layout   Utilities          Help
Body text                                      B  I  U <*> L  C  R  J ±1

                    William Shakespeare

Of all the Elizabethan poets, William Shakespeare is the most
famous.  He was born in 1564 in the village of Stratford-on-Avon
to an old and prominent family.  His father, John Shakespeare,
was a glover and wool dealer with a shop in Stratford.

Shakespeare entered grammar school in 1571 at the age of seven.
Elizabethan education was based on learning by rote, and he had
an excellent aural memory.  His education in Latin left an unmis-
takable impression on his vocabulary.  In the upper school, he
studied logic and rhetoric, and excelled in dialectic argument, a
skill he later put to use in his plays.  Shakespeare learned
Greek mythology and Roman history.  When he began to write, he
showed a marvelous ability to make a little knowledge go a long
way.

Shakespeare married while he was still a minor and needed his
parents' permission.  His bride, Anne Hathaway, was twenty-six
                          Insert   P1   L1   V0.50"   C1   H0.00"
```

To display a menu from the Editing screen, press Alt and the first letter of a menu. When the menu appears, choose an item by pressing the highlighted or underlined character (depending on what type of monitor you have) or by clicking the item.

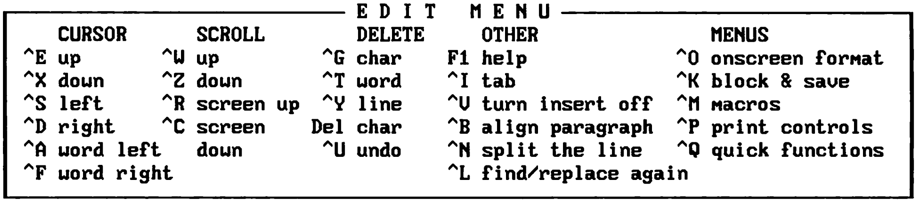
CLASSIC MENUS

When the help level is set at 0, 1, 2, or 3, the classic Opening Menu appears when you start WordStar. It lists commands for operations such as editing, printing, and deleting files. For example, the command for opening a document file is D.



```
----------------------------- O P E N I N G   M E N U -----------------
      D open a document                L change drive/directory
      S speed write (new file)         C protect/unprotect a file
      N open a nondocument             E rename a file
      P print a file                   O copy a file
      \ fax                            Y delete a file
      K print from keyboard            F turn directory off
      I index a document               M macros
      T table of contents              R run a DOS command
      X exit WordStar                  A additional
     F1 help                           ? display status
```

When you open a file at help levels 2 or 3, the classic Edit Menu appears. (In help levels 0 and 1 menus are not displayed during editing.) The Edit Menu contains basic editing commands, including the commands to display the other classic menus.



```
                           E D I T   M E N U
   CURSOR       SCROLL        DELETE     OTHER                 MENUS
^E up        ^W up          ^G char    F1 help             ^O onscreen format
^X down      ^Z down        ^T word    ^I tab              ^K block & save
^S left      ^R screen up   ^Y line    ^V turn insert off  ^M macros
^D right     ^C screen     Del char    ^B align paragraph  ^P print controls
^A word left    down        ^U undo    ^N split the line   ^Q quick functions
^F word right                          ^L find/replace again
```

To see the classic menus in help levels 2, 3, or 4, hold down the Ctrl key and press the command for the menu you want. You can choose any item on the menu by pressing the appropriate letter.

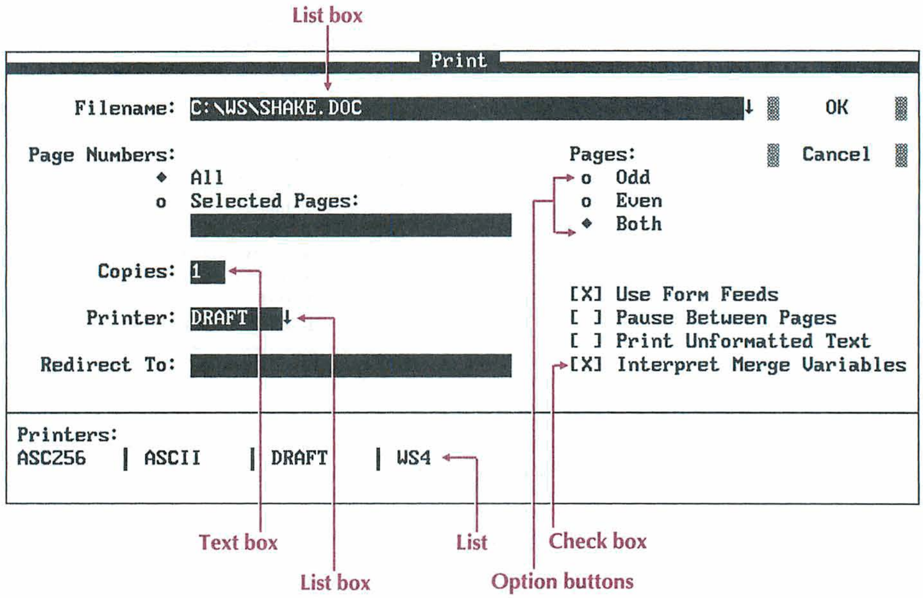
USING CLASSIC COMMANDS AT PULL-DOWN MENUS

Some people like to see classic commands displayed at pull-down menus. As a default, classic commands are shown next to the corresponding pull-down commands on the pull-down menus. If you prefer to turn off the display of the classic commands, press Alt+V,S. Then, in the Screen Settings dialog box, turn off the setting for Classic Commands on Pull-down Menus. Classic commands work even when they're not displayed.

DIALOG BOXES

When WordStar needs more information to carry out a command, a dialog box appears. Each dialog box contains one or more areas where you fill in information or select settings.

The example following is the Print dialog box.



Filename: C:\WS\SHAKE.DOC

Page Numbers:
◆ All
○ Selected Pages:

Copies: 1

Printer: DRAFT

Redirect To:

Pages:
○ Odd
○ Even
◆ Both

☒ Use Form Feeds
☐ Pause Between Pages
☐ Print Unformatted Text
☒ Interpret Merge Variables

Printers:
ASC256 | ASCII | DRAFT | WS4

In a dialog box, you press the Tab key to move forward and Shift+Tab to move backward. To move directly to an option and select it, press Alt and the key for the highlighted or underlined character for that option. However, if the cursor is not in a text box, you can press the key for the highlighted or underlined character without pressing the Alt key.

To change settings in a dialog box, use these procedures:

- In a list box, type a name, or press the Down Arrow key to move to the list and then use the Arrow keys to select a name from the list. You can use the ^R (Repeat) command to repeat the information you entered most recently.
- To select an option button, move to the button for the setting you want. A diamond shape indicates a selection. If you change your mind, you can press Alt and the highlighted or underlined character or use the Up or Down Arrow keys to move to another option button.

- To turn a check box setting on or off, move to the option and press the Spacebar. To select the item directly, press the key for the highlighted or underlined character. An X in the brackets indicates that the setting is on. To clear the check box and turn the setting off, move to the check box and press the Spacebar or press the key for the highlighted or underlined character again.

- When you select an option with a text box, you can type the appropriate information, for example, the number of copies to print. (Some text boxes may not be long enough for the information you need to type; in this case, when you get to the end of the box, the information you typed scrolls to the left and you can keep typing.)

To save the settings and close a dialog box, you can press F10 or, if you have a mouse, choose OK. (This manual specifies using F10 to close a dialog box, but ^K and Enter are equally acceptable.) To cancel your choices, press Esc or, if you have a mouse, choose Cancel.

HELP

Onscreen help is available for every command in WordStar. To get help at a pull-down menu, press F1 or choose the Help command on the Help menu.

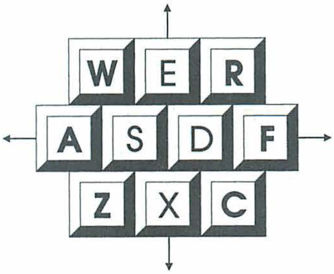
To get help at a classic menu, press F1 and then the command for which you want help. To see a list of dot commands press F1 and type a period (.).

MOVING THE CURSOR AND SCROLLING

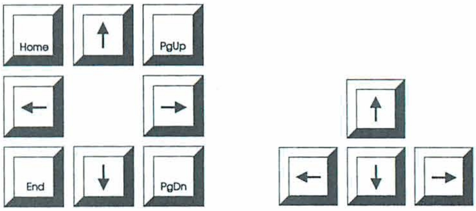
To move the cursor, you can use the direction keys located on the numeric keypad to the right of the regular keyboard or you can use WordStar commands. (For information about using a mouse to move around in a document, see "Using a Mouse.") The direction keys include the arrow keys, the PgUp and PgDn keys, and the Home and End keys.

The WordStar commands that move the cursor comprise what is called the *cursor diamond,* because of the location of the keys on the keyboard.

CURSOR DIAMOND



DIRECTION KEYS



TO MOVE THE CURSOR	PRESS
Up one line	^E or ↑
Down one line	^X or ↓
Left one character	^S or ←
Right one character	^D or →
Left one word	^A or ^←
Right one word	^F or ^→

Scrolling allows you to move another portion of the text onto the screen, either vertically or horizontally.

TO SCROLL	PRESS
Up one line	^W or ^PgUp
Down one line	^Z or ^PgDn
To previous screen	^R or PgUp
To next screen	^C or PgDn

USING A MOUSE

In WordStar, the *mouse pointer* appears on the screen as a rectangle. It appears when you have a mouse installed on your computer. The pointer does not appear in the companion programs except for Inset®. You can switch between the mouse and keyboard at any time.

If you would rather not use a mouse in WordStar, you can turn off mouse support in the customization program WSCHANGE.

MOUSE CONVENTIONS IN WORDSTAR

Click means to point to an item and press the left mouse button.

Double-click means to point to an item and press the left mouse button twice.

Drag means to hold down the left mouse button while you move the mouse, and then release the button.

Ctrl+Click means hold down the Ctrl key and press the left mouse button.

Shift+Click means hold down the Shift key and press the left mouse button.

Ctrl+Shift+Click means to hold down the Ctrl key and press the Shift key and the left mouse button.

MOVING THE CURSOR AND SCROLLING WITH A MOUSE

The vertical scroll bar, located along the right side of the screen, is for moving the cursor forward and backward in a document. The vertical scroll bar contains a *slider box* that indicates the relative position of the cursor in the file.

TO SCROLL TO	DO THIS IN VERTICAL SCROLL BAR
Previous line	Click the up arrow
Next line	Click the down arrow
Previous screen	Click above the slider box
Next screen	Click below the slider box
Beginning of a document	Drag the slider box to the top of the scroll bar
End of a document	Drag the slider box to the bottom of the scroll bar
Approximate page	Drag the slider box to the relative position in the file

WORDSTAR MOUSE SHORTCUTS

Following are some mouse shortcuts.

TO DO THIS	USE THIS MOUSE SHORTCUT
Change drive/directory	Double-click the directory name
Open document	Double-click the document name
Close a document	Double-click the Close File button in the title bar
Go to page	Click the page number in the status line
Switch windows	Click in the window
Change style	Click the style name in the style bar
Change font	Click the font name in the style bar
Select settings on style bar	Click the button for the setting you want

CHAPTER 2

LEARNING THE BASICS

Before beginning the tasks in this chapter, you'll find it helpful to read "Before You Begin." It contains important information that will make it easier for you to learn and practice the basics of word processing with WordStar.

In this chapter you'll learn how to

- ☐ Start WordStar
- ☐ Create a File
- ☐ Edit a Document
- ☐ Name and Save a File
- ☐ Print a File

When you finish this chapter, you'll be ready to apply these skills to your own tasks.

STARTING WORDSTAR

In word processing, each document is kept in a file on a disk. You'll follow the same steps each time you write or edit with WordStar.

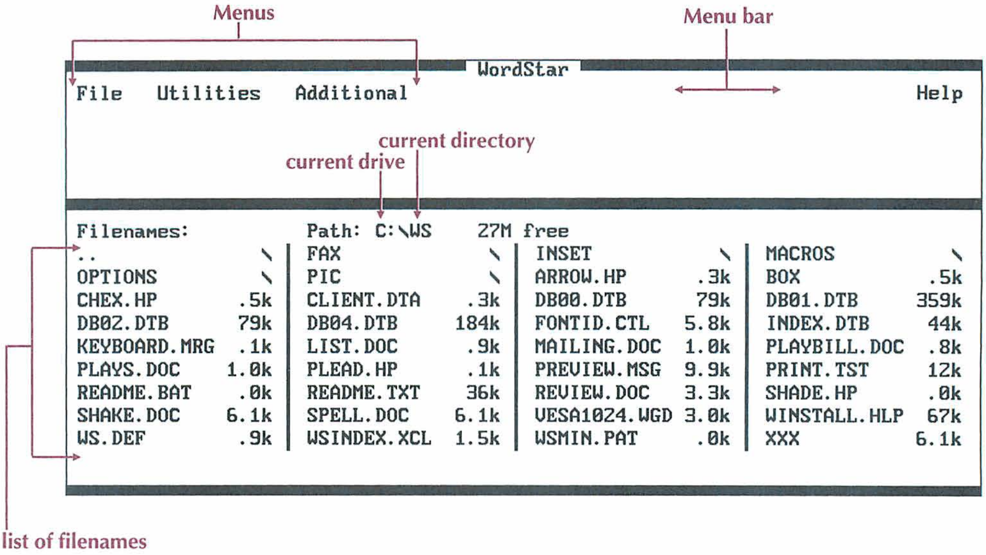
To start WordStar:

1. Look at the DOS prompt to be sure you're in the directory that contains your WordStar program files (usually WS). If you're not, type **cd\ws** and press the Enter key. (If you copied your WordStar program files to another directory during installation, type **cd** and the name of that directory and press Enter.)
2. Type **ws** and press Enter.

When you are using WordStar, onscreen help is always available. To get immediate help with what you're doing, press the F1 key.

THE OPENING SCREEN

Each time you start WordStar, you see the Opening screen.



```
Filenames:                    Path: C:\WS      27M free
..                  \     FAX                 \   INSET               \   MACROS              \
OPTIONS             \     PIC                 \   ARROW.HP          .3k   BOX                .5k
CHEX.HP           .5k     CLIENT.DTA        .3k   DB00.DTB          79k   DB01.DTB          359k
DB02.DTB          79k     DB04.DTB         184k   FONTID.CTL       5.8k   INDEX.DTB          44k
KEYBOARD.MRG      .1k     LIST.DOC          .9k   MAILING.DOC      1.0k   PLAYBILL.DOC       .8k
PLAYS.DOC        1.0k     PLEAD.HP          .1k   PREVIEW.MSG      9.9k   PRINT.TST          12k
README.BAT        .0k     README.TXT        36k   REVIEW.DOC       3.3k   SHADE.HP           .0k
SHAKE.DOC        6.1k     SPELL.DOC        6.1k   VESA1024.WGD     3.0k   WINSTALL.HLP       67k
WS.DEF            .9k     WSINDEX.XCL      1.5k   WSMIN.PAT         .0k   XXX               6.1k
```

The menu bar contains the names of the menus you can choose—File, Utilities, Additional, and Help. Each menu lists commands for performing word processing tasks. To perform a task, you choose a menu and then choose the command that will perform the task.

Also on the Opening screen is a directory of filenames. This directory lists the files contained in the current directory on the current drive.

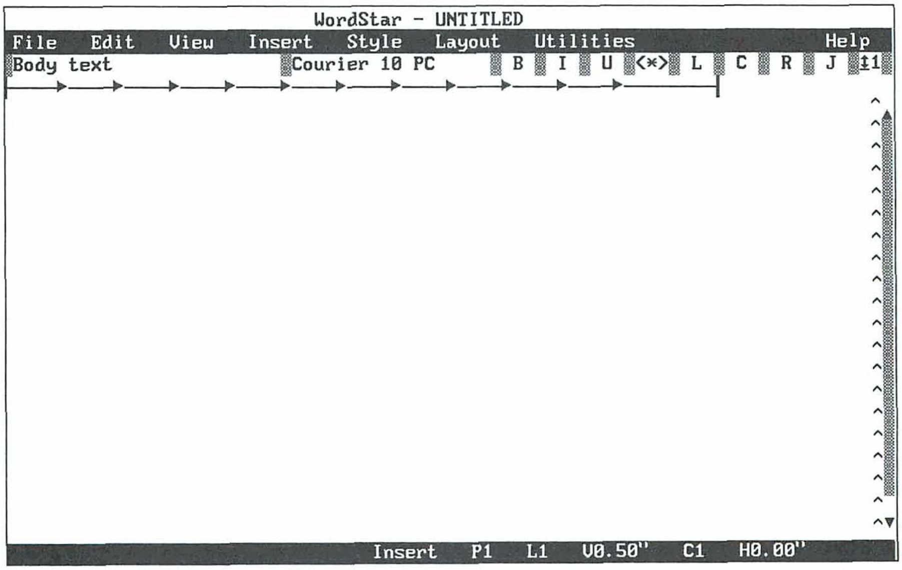
CREATING A FILE

In this chapter, you open a new file, type some text, and then practice editing. To create a file, first choose the File menu from the Opening screen. Then, from the File menu, you can create a file.

Note: In the following steps, the arrow symbol (→) points to the next item you should choose on a pull-down menu or in a dialog box. For example, File→New means choose the File menu and then choose the New command.

1 At the Opening screen choose File→New or press (F,W) to open a new file.

2 Notice that WordStar displays the Editing screen.


WordStar - UNTITLED
File
Edit
View
Insert
Style
Layout
Utilities
Help
Body text
Courier 10 PC
B
I
U
<*>
L
C
R
J
‡1
Insert
P1
L1
V0.50"
C1
H0.00"

The menu bar at the top of the screen contains other menus from which you can select word processing tasks.

TYPING TEXT

When the Editing screen appears, you're ready to type. Before you begin, you need to know a few things about word processing.

- The cursor marks your place in the text so you always know where you are typing on the page.
- You can move the cursor by pressing the direction keys. The direction keys include the arrow keys, the PgUp and PgDn keys, and the Home and End keys.
- When you come to the end of a line, WordStar automatically *wraps* the text to the next line.
- Press the Enter key twice to start a new paragraph. If you press Enter by mistake, just press the Backspace key. The cursor moves back to the previous location.

Now type the following text. (Line lengths may not be the same on your screen.)

> Tryouts for "The Merry Wives of Windsor" will begin on Thursday. If you're interested in reading for one of the principal roles, please sign your name on the sheet posted backstage. No guest actors have been signed for the production, so all roles will be filled by members of the company.
>
> "Merry Wives" will be the tenth anniversary season opener for the Theatre in the Park series and will be staged at MacPherson Park Amphitheater. The production is underwritten by the Morris Corporation, and all proceeds will go to the Boys and Girls Clubs. Club members will be admitted free. Following the performance, a fund-raising gala will be held at the Pavilion, and members of the cast and crew will be honored guests.

```
This open-air production presents extra challenges such as
uncertain weather conditions and background noise, but
similar productions in the past have been received
enthusiastically by audiences and reviewers.
```

You'll use the text you typed in the remaining sections of this chapter. If you made any typing errors, you can correct them later when you learn editing skills. If you've made so many errors that you want to start over, choose File→Close (Alt+F,C) at the Editing screen. At the Close File dialog box, press A. WordStar returns you to the Opening screen where you can start again.

EDITING A FILE

You've now learned how to start WordStar, create a file, and type text. But the real power of word processing is editing. With the WordStar editing commands, you can correct typos, change wording, insert or delete words, and much more.

MOVING AROUND IN A DOCUMENT

In "Before you Begin" you learned that WordStar has several different ways to move the cursor in a document. One way is to use the WordStar cursor diamond commands below. (Hold down the Ctrl key and press the letter.)

- ^D (moves the cursor right one character)
- ^S (moves the cursor left one character)
- ^F (moves the cursor right one word)
- ^A (moves the cursor left one word)

Remember, you can also move the cursor by pressing any of the direction keys.

In addition to using the cursor diamond or the direction keys, you can make quick moves in your document by using the Go to Other command on the Edit menu.

To practice moving around in your document, follow the steps below. The "Merry Wives" file should be displaying on your screen.

1 Choose Edit→Go to Other→Document Beginning (Alt+E,O,D) to move the cursor back to the beginning of the document.

   You can use the shortcut ^End to move to the end of a document.

2 Choose Edit→Go to Other→Document End (Alt+E,O,O) to move the cursor to the end of the document.

   You can also use the shortcut ^Home to move to the beginning of a document.

TIP *If you are editing a long document, you can press P at the Edit Menu (or click Go to Page) and enter a page number. WordStar moves the cursor to the top of the page you request.*

INSERTING TEXT

Before inserting text, look at the status line at the bottom of the screen to see if Insert mode is on or off. You'll see *Insert* or *Ins-off.* When Insert is on, text is inserted at the cursor location. When Insert is off, text is typed directly over existing text. WordStar comes with Insert on. To turn Insert off or back on, press the Insert key. Insert should be on to complete the following steps.

1 In the second paragraph of the "Merry Wives" text, move the cursor to the "a" in "anniversary" and type **annual** and press the Spacebar once.

2 Move the cursor to the end of the document. Press Enter twice to start a new paragraph, and type **Plan now to attend.**

DELETING TEXT

You can delete individual characters and words or entire lines in WordStar. To delete a character, press the Del or Backspace key. To delete a word or a line, follow these steps:

DELETING A WORD

1 Move the cursor to the "a" in "annual."

2 Choose Edit→Delete→Word (Alt+E,D,W).

The word "annual" is deleted.

DELETING A LINE

1 Move the cursor to the last line of the text.

2 Choose Edit→Delete→Line (Alt+E,D,L).

The line of text is erased.

You've probably noticed that classic menu commands appear on the pull-down menus. A few classic commands provide shortcuts. Two of these shortcuts are ^T (delete a word) and ^Y (delete a line). If you prefer, you can use the classic commands. Classic commands generally take fewer keystrokes than pull-down commands.

RESTORING TEXT

Another handy feature of WordStar is the Undo command. It restores text that you delete by mistake. To see how it works, delete a line of text and then restore it.

1 Move the cursor to the beginning of the third paragraph.

2 This time press the shortcut classic command ^Y to delete the line.

3 Choose Edit→Undo (Alt+E,U) to restore the line.

The deleted line is back in the text. Single characters erased with the Del key or the Backspace key cannot be restored with Undo.

TIP *You can also restore text with the shortcut classic command ^U.*

MOVING TEXT

Moving text in a document is easy when you mark the text as a block.

MARKING A BLOCK OF TEXT

First you mark the beginning and the end of the text you want to move.

1. Move the cursor to the first word in the document "Merry Wives."
2. Choose Edit→Mark Block Beginning (Alt+E,B).
3. Move the cursor to the end of the first paragraph.
4. Choose Edit→Mark Block End (Alt+E,E).

   The block of text is highlighted.

MOVING A BLOCK OF TEXT

Now you can move the text to a different place in the document.

1. Move the cursor to the end of the document.
2. Choose Edit→Move→Block (Alt+E,V,B) to move the block.

   The entire paragraph moves to the new location.

3. Move the cursor to the beginning of the document where the paragraph was originally located.
4. Repeat step 2 to move the paragraph back to its original location.

REMOVING THE BLOCK HIGHLIGHTING

You can remove the highlighting from a block of text by following these steps:

1. Choose View→Block Highlighting (Alt+V,B).
2. Notice that the block of text is no longer highlighted.

ADDING BOLD EMPHASIS

You can add special printing effects, such as bold or italic, to text.

1. In the first paragraph of the "Merry Wives" text, move the cursor to the first quotation mark in "The Merry Wives of Windsor."
2. Choose Style→Bold (Alt+S,B) to begin bold.
3. Move the cursor to the space following the second quotation mark and repeat step 2. The entire title is now bold.

VIEWING COMMAND TAGS

When you tell WordStar to insert a special printing effect, command tags appear on the screen where you turn the special effect on and off. For example, when you add bold to text, the WordStar command tag ^B appears on either side of the bold text. You can turn the command tags display off so you can see more clearly what your document looks like.

1. Choose View→Command Tags (Alt+V,C).

   Notice that the print command tags are no longer visible; however, the commands are still in effect.

   TIP You can use the shortcut classic command ^OD to turn the command tags display on or off.

2. Repeat step 1, or use ^OD, to turn the command tags display back on.

NAMING AND SAVING A DOCUMENT

When you create a new document with File→New (F,W), you give the file a name when you save it. Once a file is named and saved, you can retrieve it at any time to read or edit it.

A filename can contain from one to eight characters, including letters and numbers. You can also add a filename extension to the eight-character name. A file extension is a period followed by three characters.

Now name and save your "Merry Wives" document.

1 Choose File→Save and Close (Alt+F,L).

The Save As dialog box appears.

2 Type **notice.doc** in the Filename box.

3 Press F10 or choose OK to close the dialog box.

You have typed, edited, named, and saved the document.

The filename NOTICE.DOC is now listed in the directory display.

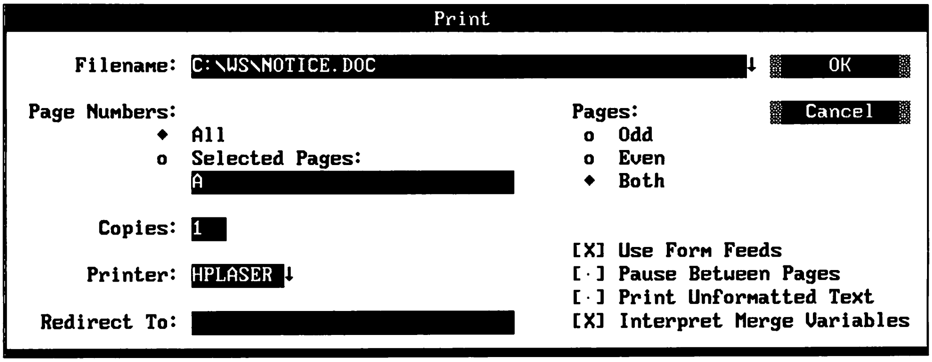
TIP *When you create a filename, think of a name that will remind you of the contents of your document. For example, if you are writing a letter to a client named Smith, you might name your file SMITHLTR. The extension could be a date reminder. If you wrote the letter on June 16, the entire filename could be SMITHLTR.616. You can use the numbers 1–9 for January through September and the letters O, N, and D for October, November, and December.*

PRINTING A DOCUMENT

If you have installed a printer, you can print your document. Now you'll print NOTICE.DOC.

1 At the Opening screen, choose File→Print (F,P).

The Print dialog box appears. This is where you tell the printer what to print and how to print it. Most of the time you won't need to change any of the information shown.


Print

Filename: C:\WS\NOTICE.DOC

Page Numbers:
◆ All
○ Selected Pages: A

Copies: 1

Printer: HPLASER

Redirect To:

Pages:
○ Odd
○ Even
◆ Both

[X] Use Form Feeds
[·] Pause Between Pages
[·] Print Unformatted Text
[X] Interpret Merge Variables

NOTICE.DOC is the file you just saved and want to print.

2 Press F10 or choose OK to begin printing the file.

OPENING AN EXISTING FILE

To open the NOTICE.DOC file, follow these steps:

1 At the Opening screen choose File→Open Document (F,D).

The Open dialog box appears.

2 Type **notice.doc** and press F10 or choose OK. You see the **NOTICE.DOC** file on the Editing screen.

TIP *Besides typing the name of the file that you want to open, you can select the file in other ways. If you have a mouse, click on the filename in the list of files. Or use the direction keys to move the cursor to the filename and press Enter.*

3 Choose File→Save and Close (Alt+F,L) to save any editing changes and close the file.

REVIEWING THE BASICS

You've covered the basics of word processing. For most word processing tasks you follow these steps:

1. Start WordStar.
2. Create or open a file.
3. Type or edit text.
4. Name and save the file.
5. Print the file.

Now you are ready to move on to the next chapter and learn how to format your documents. If you want to stop here and leave WordStar, choose File→Exit WordStar (F,X).

CHAPTER 3

FORMATTING WITH PARAGRAPH STYLES

In this chapter, you'll learn about

- ☐ Using Paragraph Styles to Format a Document
- ☐ Selecting Paragraph Styles
- ☐ Preparing a List with a Hanging Indent
- ☐ Viewing Style Settings
- ☐ Previewing a Document

Formatting determines how a document will look when it's printed. The easiest way to format a document in WordStar is to use paragraph styles.

In this chapter, you'll learn how to use the paragraph styles that come with WordStar. After you format and edit a document, you'll preview the printed file.

USING PARAGRAPH STYLES

A paragraph style stores layout settings such as margins, tabs, line spacing, and font changes. When you select a paragraph style, all the text settings contained in that style are inserted into your document.

SELECTING THE TITLE STYLE

All WordStar documents use the Body Text style until you specify another style. The Body Text style contains the default WordStar settings for margins, tabs, line height, and so on. Body Text sets a left margin of 0 inches and a right margin of 6.5 inches, and starts the first line at the left margin.

In the following steps, you'll choose another style to change the look of a memo.

1. Open the file LIST.DOC.

   If you need help, see "Opening an Existing File" in the "Learning the Basics" chapter.

   You'll use the Title paragraph style to center the word "MEMO," make it bold, and give it a larger font.

2. With the cursor on the first letter of "MEMO," choose Style→Select Paragraph Style (Alt+S,S).

3. When the list of styles appears, select the Title style. You can either type **Title** or move the highlighting to Title. Press F10 or choose OK. If you have a mouse you can double-click Title.

The Title style command tag is inserted at the cursor location. The style bar shows that Title is the current paragraph style. The text is now bold, centered, and prints in a larger font.

SELECTING BODY TEXT

You want the text after "MEMO" to return to the default Body Text settings.

1. Move the cursor to the beginning of the line below "MEMO."

2. Choose Style→Select Paragraph Style (Alt+S,S) to select a paragraph style.

   TIP If you have a mouse, you can click on the style name in the style bar to select a new paragraph style.

3. When the list of styles appears, select the Body Text style. You can type **Body Text** or move the highlighting to Body Text. Press F10 or choose OK. If you have a mouse, you can double-click Body Text.

The text following the Body Text command tag is no longer highlighted because bold is turned off. The original text settings are now in effect.

PREPARING A LIST WITH HANGING INDENT 1

To practice using the Hanging Indent 1 paragraph style, you'll prepare a list of props for the "Merry Wives of Windsor." The Hanging Indent 1 style formats text for a numbered list. The numbers are typed at a left margin of 0 inches and the text wraps at a left margin of .5 inch.

1. Move the cursor one line below the sentence that begins "Please prepare the props..."

2. Choose Style→Select Paragraph Style (Alt+S,S).

3. When the list of styles appears, select Hanging Indent 1. Press F10 or choose OK. The Hanging Indent 1 command tag is inserted into the text area.

4. Press Enter to move the cursor down one line.

5. Type **1.** and press the Tab key. The number is typed at the left margin of 0 inches. The Tab key indents the cursor to .5 inch.

6. Type the following text:

   ```
   Small rustic table and three rustic chairs to be placed on
   a slightly raised platform stage right.  The scene is set
   on the street outside the tavern.
   ```

   The text wraps to a .5 inch left margin.

7 Press Enter twice. Type **2.** and press the Tab key.

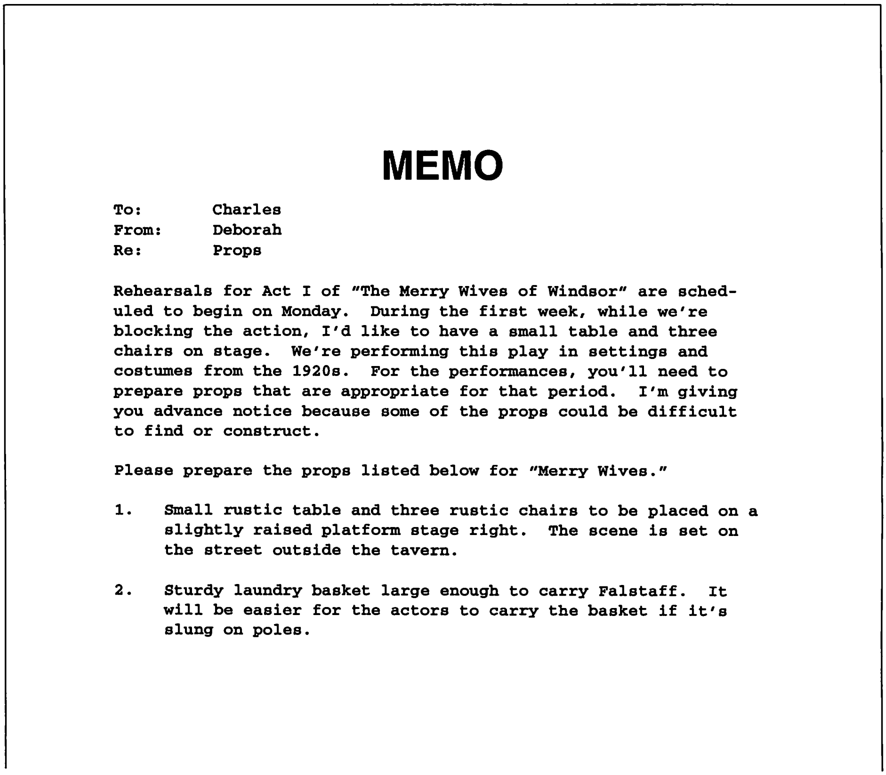
8 Type the following text:

```
Sturdy laundry basket large enough to carry Falstaff.  It
will be easier for the actors to carry the basket if it's
slung on poles.
```

In the list, the numbers are typed at the 0-inch first line indent. When the text wraps, it wraps at the .5 inch margin.

Note: Two other styles, Hanging Indent 2 and Hanging Indent 3, format text in a similar way. Hanging Indent 2 formats the first line of a paragraph at .5 inch and subsequent lines at 1 inch. Hanging Indent 3 indents at 1 inch and 1.5 inches.

This is how your document will look when you print it.



MEMO

To: **Charles**
From: **Deborah**
Re: **Props**

Rehearsals for Act I of "The Merry Wives of Windsor" are scheduled to begin on Monday. During the first week, while we're blocking the action, I'd like to have a small table and three chairs on stage. We're performing this play in settings and costumes from the 1920s. For the performances, you'll need to prepare props that are appropriate for that period. I'm giving you advance notice because some of the props could be difficult to find or construct.

Please prepare the props listed below for "Merry Wives."

1. **Small rustic table and three rustic chairs to be placed on a slightly raised platform stage right. The scene is set on the street outside the tavern.**

2. **Sturdy laundry basket large enough to carry Falstaff. It will be easier for the actors to carry the basket if it's slung on poles.**

VIEWING STYLE SETTINGS

You can look at the settings of any style.

1. Move the cursor to the line below the Hanging Indent 1 style command tag.
2. Choose Style→Define Paragraph Style (Alt+S,D) to view the settings of a paragraph style.

   You see the settings for the style currently in effect, which is Hanging Indent 1. Notice that the left margin is set at .5 inch and the first line indent (first line of each paragraph) is set at 0 inches.
3. Press Esc to close the Define Paragraph Style dialog box.
4. Move the cursor so that it immediately follows the Body Text command tag.
5. Repeat step 2 to choose Define Paragraph Style.

   The WordStar default settings are in effect. For example, bold is off, centering is off, and the default font is used.
6. Press Esc to close the dialog box.
7. Move the cursor to immediately follow the Title style tag. Repeat step 2 to view the style settings. The Title style is centered and bold. Also, if you have a large font, it will be used.
8. Press Esc to close the dialog box.

PREVIEWING A DOCUMENT

You can see how the printed list will look by using the Preview command.

1 Choose View→Preview (Alt+V,P) to choose Preview.

   TIP *You can also use* Alt+1 *to choose Preview.*

   A preview of the printed page appears. The title is bold, centered, and in a larger font. The numbered list is indented.

2 Choose View→2 to magnify the page to twice its size.

3 Use the direction keys to move the view to other parts of the page.

4 Try some of the other commands in Preview.

5 When you're finished, choose Exit→Original page to exit Preview and return to the page where you started Preview.

   TIP *Preview is useful if you have a long document. You can preview several pages and return to your original cursor location. You can also press Esc to return to the original page. In Preview, if you choose Exit→Current page, you return to edit the page that you're currently previewing.*

Follow the steps below to close the file.

1 Choose File→Close (Alt+F,C) to close the file without saving it.

2 In the Close File dialog box, press A to select Abandon.

   The file is closed without saving the changes and you're returned to the Opening screen.

The next chapter, "Editing Paragraph Styles," contains information about creating and editing paragraph styles.

CHAPTER 4

EDITING PARAGRAPH STYLES

In this chapter you'll learn about

- ❑ Storing Paragraph Styles
- ❑ Creating Paragraph Styles
- ❑ Editing Paragraph Styles
- ❑ Inheriting Style Settings

In the chapter "Formatting with Paragraph Styles" you learned how to select paragraph styles and apply them to your text. In this chapter, you'll learn how WordStar stores paragraph styles, how to create and change styles, and how to inherit style settings.

HOW PARAGRAPH STYLES ARE STORED

Before you learn how to create and change paragraph styles, you need to understand how they are stored. Paragraph styles are stored in two places—in the style library and with the document using the styles. Styles stored in the library are called *library styles*. Styles stored with the document are called *document styles*.

A library style can be selected in any document. (The predefined styles you used in Chapter 2 are examples of library styles.) A document style can be used only in the document in which it is stored. When you choose a library style, WordStar inserts a copy of that style into your document. The inserted style stays with that document; the library style is still available for use in other documents.

In the following chapters, you'll create a style and save it as both a document style and a library style. Then you'll change the style and save the changes to the document style only. You'll then have two versions of the style: the original library version and a document version that is slightly different.

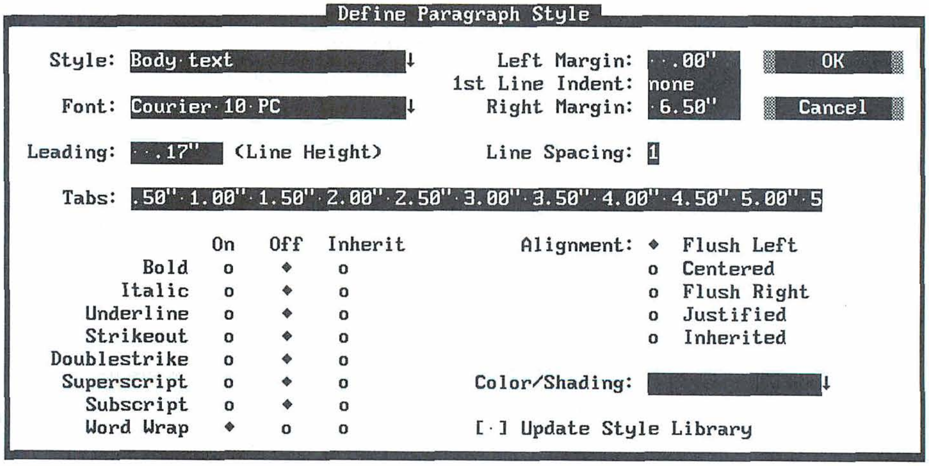
CREATING PARAGRAPH STYLES

Paragraph styles are helpful in creating customized documents. A resume is an example of a customized document that requires special formatting.

Follow these steps to create a paragraph style that can be used in a resume:

1 At the Opening screen, choose File→New (Alt+F,W) to open a new file.

2 Choose Style→Define Paragraph Style (Alt+S,D) to create a paragraph style.



```
                          Define Paragraph Style
   Style: Body·text          ↓        Left Margin: ··.00"      OK
                                 1st Line Indent: none
    Font: Courier·10·PC      ↓       Right Margin: ·6.50"    Cancel

 Leading: ··.17"  (Line Height)      Line Spacing: 1

    Tabs: .50"·1.00"·1.50"·2.00"·2.50"·3.00"·3.50"·4.00"·4.50"·5.00"·5

                On   Off  Inherit        Alignment: ◆  Flush Left
         Bold   o     ◆     o                       o  Centered
       Italic   o     ◆     o                       o  Flush Right
    Underline   o     ◆     o                       o  Justified
    Strikeout   o     ◆     o                       o  Inherited
  Doublestrike  o     ◆     o
   Superscript  o     ◆     o       Color/Shading:              ↓
     Subscript  o     ◆     o
     Word Wrap  ◆     o     o       [·] Update Style Library
```

3 In the Style box, type **Name and Address**.

4 Change any other settings that you want. For example, you might want to select a larger font to make the text stand out or bold or center your name and address.

Note: You can use the Tab key to move between options in a dialog box, or you can press the Alt key and the key for the underlined or highlighted character in the option name. For example, press Alt+U to move to the Underline box in the Define Paragraph Style dialog box. If the cursor is at an option button or check box, you can just press the key for the underlined or highlighted character without pressing the Alt key.

5 Press Alt+Y to update the style library.

6 Press F10 or choose OK to save the new style.

WordStar saves the style in both the document and the style library. The new style is now available for any WordStar document.

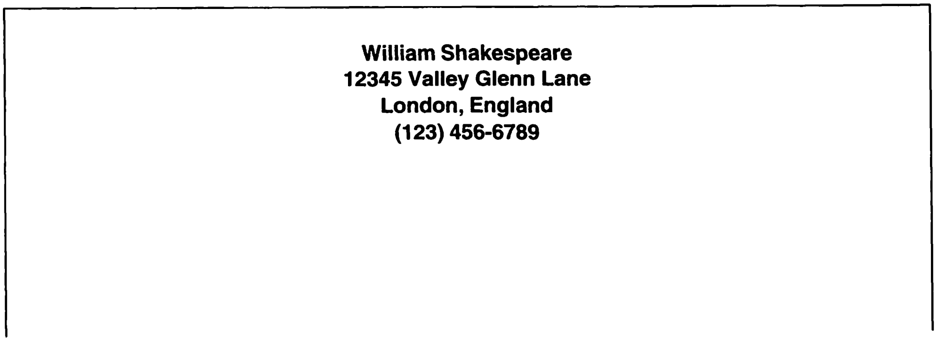
Follow these steps to use the new style in your document:

1 Choose Style→Select Paragraph Style (Alt+S,S).

2 Select the new style.

WordStar inserts the Name and Address style tag into your document.

3 Type the text for your name, address, and phone number. The new style settings will be in effect when you print your document.



William Shakespeare
12345 Valley Glenn Lane
London, England
(123) 456-6789

EDITING PARAGRAPH STYLES

You can change the settings in an existing paragraph style by editing that style. For instance, if you want different settings in the Heading style, you can change them and then save the style. The new settings will be in effect when you select the Heading style for your document.

In this section, you'll change an existing style to create a style for a heading in a resume.

Follow the steps below to change the settings in the Heading style and then save the style to the document. Later, if you decide you want to use the style in other documents, you can copy the style to the library.

1. Choose Style→Define Paragraph Style (Alt+S,D). The settings for the current style appear in the dialog box.
2. Select the Heading style.
3. Change any style settings that you want for your resume heading. For example, the current Heading style turns on both bold and underline. You may want to use bold and turn off underline.
4. Press F10 or choose OK to save the new settings.

   This style will be saved in the document, but not in the library because you did not select the Update Style Library check box.

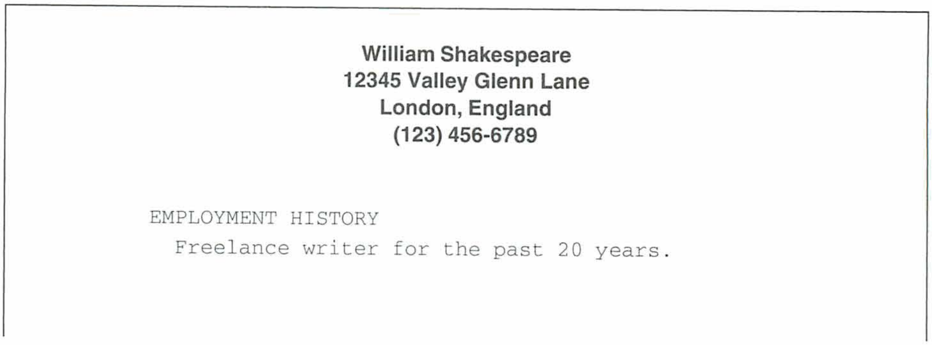
   You now have two versions of the Heading style—your document version and the original library version. If you turned off underline, the document version has no underlining. However, the library version keeps the original underlining.

Now you can insert the new heading style into your document.

1. Choose Style→Select Paragraph Style (Alt+S,S) to select a style.
2. Select Heading.

   The Heading style is inserted into your document.

3 Type the heading **EMPLOYMENT HISTORY**.



William Shakespeare
12345 Valley Glenn Lane
London, England
(123) 456-6789

EMPLOYMENT HISTORY
Freelance writer for the past 20 years.

4 Save the file.

As you create your own library of paragraph styles, you'll find that paragraph styles make formatting easy and help maintain consistency in document formats. You may decide, for example, that you want to use the new document style, Heading, for other resumes. You could then save that style to the library and use it again.

INHERITING STYLE SETTINGS

Each paragraph style contains its own settings for margins, fonts, and so on. When you insert or select a style, all of its settings override the previous style settings.

WordStar has a feature that allows you to use or inherit settings from previous styles. For example, if you want to use the same font throughout a document, you select a font for the style now in effect at the beginning of the document. Then, each time you add another style to the document, you clear the Font box for that style. The styles with blank font boxes inherit the font from the first style.

In the following steps, you'll create a style that contains a new font. Next, you'll insert the style into your document. Finally, you'll create and select a style that inherits a font.

1. Open a file that contains at least two paragraphs of text, for example, the sample file SHAKE.DOC.
2. With the cursor at the beginning of the file, choose Style→Define Paragraph Style (Alt+S,D).

   The settings for the Body Text style appear.
3. Press the Tab key to move to the Font box.
4. Select a font that you want to appear throughout the document.
5. Press F10 or choose OK to save the style to the document (but not to the library).
6. Choose Style→Select Paragraph Style (Alt+S,S) and select the Body Text style.

   The Body Text style with the new font is now in effect at the beginning of the document.

You want your next style to inherit the font from Body Text.

1. Move the cursor to the beginning of the second paragraph.
2. Choose Style→Define Paragraph Style (Alt+S,D) and select the Paragraph Indent style.
3. Press the Tab key to move to the Font box.
4. Press the Spacebar to clear the Font box.

   Note: When a paragraph style option is blank, it inherits settings from the previous style. You can select the Inherit option for some style settings. For example, Bold has three option buttons—On, Off, and Inherit.
5. Save the style to the document but not to the library.
6. Choose Style→Select Paragraph Style (Alt+S,S) and select the Paragraph Indent style.

   The style is inserted into the document.

The Paragraph Indent style inherits the font from Body Text. The second paragraph is reformatted with the new style settings.

Any subsequent paragraphs need to be reformatted with the new font size.

1 Choose Utilities→Reformat→Rest of Document (Alt+U,R,R).

TIP *You can also reformat with the shortcut classic command ^QU.*

Now you can preview the document to be sure it's been reformatted.

2 Choose View→Preview (Alt+V,P) to preview the printed page. The entire document will be displayed (and printed) with the new font from Body Text.

3 Press Esc to exit Preview.

4 Close the file.

If you want to close the file and save your changes, choose File→Save and Close (Alt+F,L). If you want to close the file without saving your changes, choose File→Close (Alt+F,C). In the Close File dialog box press A to abandon changes.

CHAPTER 5

WORKING WITH BLOCKS OF TEXT

In this chapter, you'll learn about

- ☐ Copying a Block to Another File
- ☐ Copying Text Between Windows
- ☐ Copying Text To and From the Clipboard
- ☐ Converting Text to Uppercase

In this chapter, you learn how to copy a block from one file to another, how to use the Microsoft Windows Clipboard to copy and move blocks, and how to convert text in a block from lowercase to uppercase.

COPYING A BLOCK TO ANOTHER FILE

You may want to copy part or all of a file to another file. You can mark the text as a block and then copy it to a new or existing file. The original document still contains the block of text that was copied.

To copy a block of text to another file, follow these steps:

1. Open an existing WordStar file.
2. Mark a block of text to copy.
3. Choose Edit→Copy→To Another File (Alt+E,C,A).
4. Type a new filename and press F10 or choose OK.

   The block is copied to a new file. Now, by using windows you can easily copy the text to a file that you're editing.

5. Close the file.

The next section describes how to copy blocks of text between windows.

EDITING IN WORDSTAR WINDOWS

While you're editing one file in WordStar, you can open another file at the same time. The screen splits and you can see both documents on the screen at the same time. This is handy for editing two documents because you can move text between them. You can also split the screen to look at two different parts in the same document.

In this section you'll open one file, then open another file and work with both files at the same time.

OPENING TWO WINDOWS

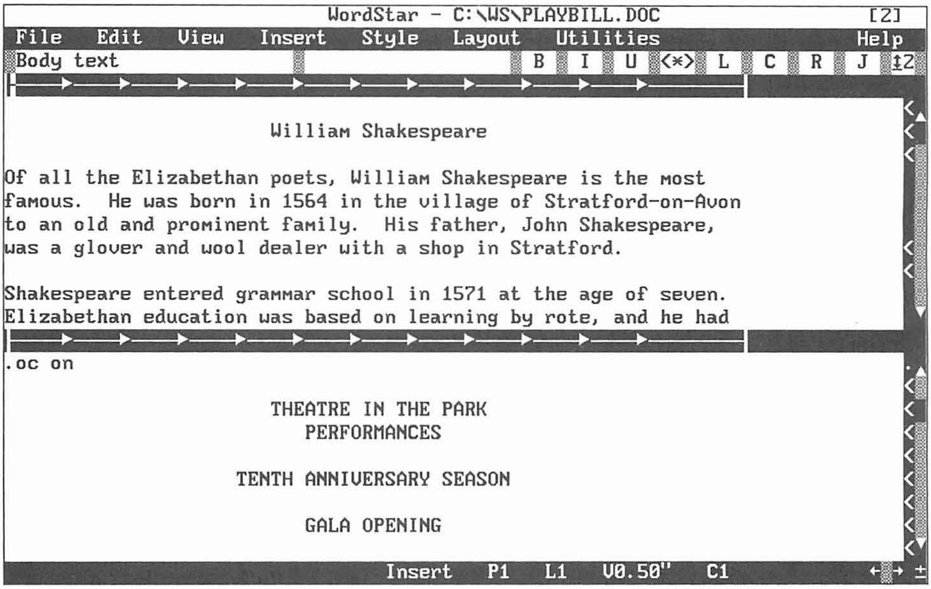
1. At the Opening screen, choose File→Open Document (F,D) and open an existing document.

2 At the Editing screen, choose File→Open/Switch (Alt+F,W).

If your computer doesn't have enough memory to open a second window, an error message appears.

3 In the Open Document dialog box, select another file to open. Press F10 or choose OK.

Your screen looks like this:



```
                    William Shakespeare

Of all the Elizabethan poets, William Shakespeare is the most
famous.  He was born in 1564 in the village of Stratford-on-Avon
to an old and prominent family.  His father, John Shakespeare,
was a glover and wool dealer with a shop in Stratford.

Shakespeare entered grammar school in 1571 at the age of seven.
Elizabethan education was based on learning by rote, and he had
```

```
.oc on

                    THEATRE IN THE PARK
                       PERFORMANCES

                  TENTH ANNIVERSARY SEASON

                       GALA OPENING
```

Notice that the ruler line for the second file separates the two windows. The number *2* in the title bar indicates that the cursor rests in the second window. Although you can see both documents, you can edit only the document in the window with the cursor.

4 Choose File→Open/Switch (Alt+F,W) to move the cursor to the other window.

Now the cursor is in the other window. You can edit text in this file. The status line, style bar, and title bar apply to this window.

TIP *If you have a mouse, you can click in either window to move the cursor to that window.*

COPYING TEXT FROM ONE WINDOW TO ANOTHER

You can copy or move a block of text from one window to another.

1. Mark a block of text in one of the windows.
2. Choose File→Open/Switch Window (Alt+F,W) to move the cursor into the other window.
3. Move the cursor to where you want to copy the block.
4. Choose Edit→Copy→Block from Other Window (Alt+E,C,O) to copy the block from the other window.

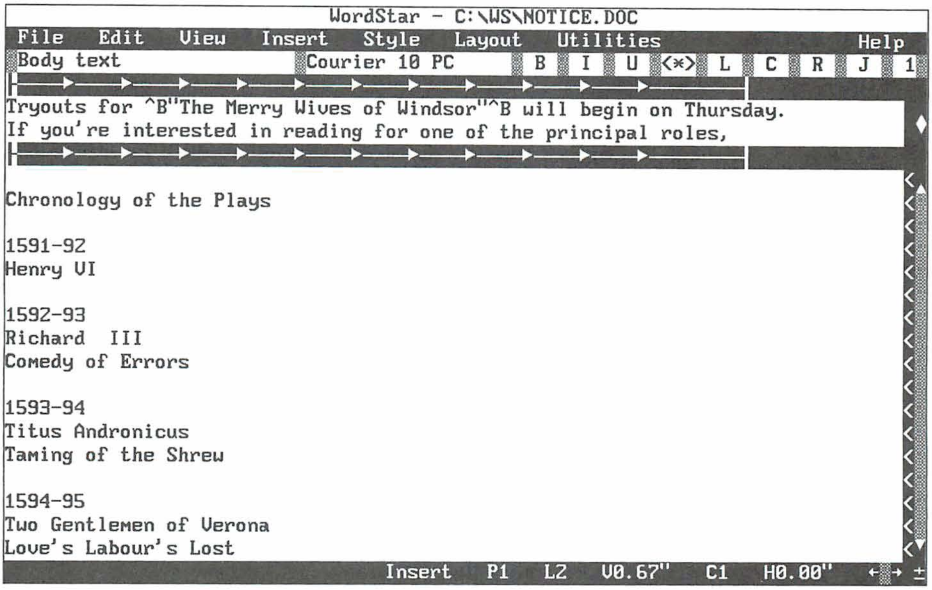
   The block is copied at the cursor location. Any text that was at the cursor location now follows the block.

CHANGING THE SIZE OF THE CURRENT WINDOW

You can change the size of the current window (the window containing the cursor). Follow the steps below to reduce the size of the window.

1. Choose View→Change Window Size (Alt+V,W).
2. In the Change Window Size dialog box, press the Down Arrow key to select Lines.
3. Type **3** to change the window to three lines (the ruler line is considered one line). Press F10 or choose OK.

   The windows now look like this:


WordStar - C:\WS\NOTICE.DOC
File
Edit
View
Insert
Style
Layout
Utilities
Help
Body text
Courier 10 PC
B
I
U
<*>
L
C
R
J
1
Insert
P1
L2
V0.67"
C1
H0.00"

```
Tryouts for ^B"The Merry Wives of Windsor"^B will begin on Thursday.
If you're interested in reading for one of the principal roles,
```

```
Chronology of the Plays

1591-92
Henry VI

1592-93
Richard  III
Comedy of Errors

1593-94
Titus Andronicus
Taming of the Shrew

1594-95
Two Gentlemen of Verona
Love's Labour's Lost
```

Note: If you choose Full Screen in the Change Window Size dialog box, the current window takes over the whole screen. When you move the cursor between windows, the screen changes from one document to the other. The title bar shows the name of the file you're working in.

CLOSING THE WINDOW

When you want to return to the Opening screen, you close the windows one at a time. (You don't need to save any changes to the current files.)

Use the following steps to close the window where the cursor is located.

1. Choose File→Close (Alt+F,C).

   The Close File dialog box appears.

2. Press A to close the file without saving it.

   You've closed the window and the cursor is in the second file.

3. Repeat steps 1 and 2 to close the file without saving it.

COPYING A BLOCK TO AND FROM THE CLIPBOARD

If you are running WordStar in Microsoft Windows, you can use the Windows Clipboard to copy or move text from WordStar to another software program. When text is copied from WordStar, it's converted to ASCII format (the WordStar control characters and dot commands are stripped from the text).

You can also copy text from another program to WordStar. Only ASCII text can be copied from the Clipboard into WordStar. If the Clipboard contains graphic images or an unrecognizable format, WordStar warns you that the text can't be copied.

You can copy to and from the Clipboard only when Windows is running in enhanced mode on a 386-based system.

In the following steps, you copy text from WordStar to the Clipboard, and then from the Clipboard to another program.

1. Start WordStar in Microsoft Windows using 386 enhanced mode.
2. Open an existing WordStar file.
3. Mark a block of text to be copied to a file in another program.
4. Choose Edit→Copy→To Windows Clipboard (Alt+E,C,T) to copy the block to the Windows Clipboard.
5. Close the file.
6. Start a word processing program that accepts ASCII text from the Windows Clipboard.
7. Open the file to which you want to paste the WordStar text.
8. Paste the WordStar text from the Clipboard.

   The WordStar text is now inserted into the other file.

Now you'll copy text from the current file to the Clipboard. Then copy the text from the Clipboard into a WordStar file.

1 Copy text to the Clipboard.

2 Close the file and exit the program.

3 Start WordStar and open a file.

4 Move the cursor to where you want to copy the text from the Clipboard.

5 Choose Edit→Copy→From Windows Clipboard (Alt+E,C,F).

   The text from the other word processing program is copied into your WordStar file.

6 Close the WordStar file. If you don't want to save the changes, abandon the file.

CONVERTING A BLOCK TO UPPERCASE

You may decide that you want to change all the letters in a block to uppercase or lowercase. Instead of retyping all the text, you can convert it with a WordStar command. In the steps that follow, you'll convert some text from lowercase to uppercase.

1 Open a file that contains lowercase letters.

2 Mark the block of lowercase text that you want to convert. If you need help in marking a block, see the chapter "Learning the Basics."

3 Choose Style→Convert Case→Uppercase (Alt+S,C,U) to convert to uppercase.

   All the text in the block is now uppercase.

4 Close the file. If you don't want to save the changes, abandon the file.

CHAPTER 6

EDITING A LONG DOCUMENT

In this chapter you'll learn about

☐ Headers and Footers

☐ Using Footnotes

☐ Setting Margins

☐ Finding Text

☐ Checking Spelling

☐ Finding Synonyms

WordStar has features that are especially helpful for creating and editing long documents. In this chapter you'll be introduced to these features.

HEADERS AND FOOTERS

Headers are special lines of text printed at the top of every page; footers are special lines of text printed at the bottom of every page. Headers and footers can include page numbers and other information such as a chapter title.

The command for a header is Layout→Headers/Footers→Header (Alt+L,H,H). The command for a footer is Layout→Headers/Footers→Footer (Alt+L,H,F). This chapter does not contain steps for creating a header because, except for the command, you follow the same steps to create a header as you do to create a footer.

In the following steps, you'll create a footer containing a chapter name and page number.

1. Open the file SHAKE.DOC.
2. With the cursor at the beginning of the file, choose Layout→Headers/Footers→Footer (Alt+L,H,F).

   The Footer dialog box appears.
3. Press the Spacebar to select a one-line footer.
4. Press F10 or choose OK.

   WordStar inserts the dot command **.f1** for a one-line footer.
5. Type **Chapter 1**.
6. Use the Spacebar or Tab key to move the cursor further to the right of the footer text.
7. Type **Page #**.

   When you print the document, the page number will appear in place of the # symbol.

Now you can view the footer with Preview.

1 Choose View→Preview (Alt+V,P).

Notice the footer at the bottom of the page.

2 Press PgDn to move to the next page. The footer appears on each page and gives the correct page number.

3 Press Esc to exit Preview.

4 Close and abandon the file.

TIP A footer can contain up to five lines. If you want a footer with more than one line of text, you need to enter another footer command. WordStar will print the footer on each page. If you want a footer only on odd or only on even pages, you select the appropriate option in the Footer dialog box.

USING FOOTNOTES

With WordStar you can create footnotes, endnotes, and annotations. Footnotes are automatically ordered and printed at the bottom of the page where the references occur.

In the following steps, you create a footnote.

1 Open the file SHAKE.DOC.

2 Move the cursor to the end of the first paragraph (after "Stratford").

3 Choose Insert→Note→Footnote (Alt+I,N,F).

4 Type the following text:

```
For more information on John Shakespeare, see The Families
of Famous Playwrights by Henry Drummer.
```

5 Choose File→Save and Close (Alt+F,L) to save the note.

You're back at the Editing screen. With View Command Tags on, the first few words of the footnote appear in brackets. With Command Tags off, references to footnotes (numbers beginning with 1) appear in the text.

Now use Preview to see how the printed footnote will look.

1 Choose View→Preview (Alt+V,P).

The footnote appears at the bottom of the page.

2 Press Esc to exit Preview.

3 Close the file and abandon your changes.

To remove a footnote, delete its reference (number, letter, or symbol) or delete the command tag. If you delete a reference accidentally, you can restore it with the Undo command. The classic command for Undo is ^U.

SETTING MARGINS

You can set left and right margins, first line indent, and tab stops using the Ruler Line dialog box.

LEFT AND RIGHT MARGINS

In this exercise, you'll change the left and right margins. When you change the margins in a document, the new settings override the previous margins set by paragraph styles or dot commands.

1 Choose File→New (F,W) to open a new file.

2 Type some text that wraps to the next line and uses the default left and right margins. Press Enter at the end of the text.

3 Choose Layout→Ruler Line (Alt+L,R).

The left margin is set at 0 inches and the right margin is set at 6.5 inches. The cursor is in the Left Margin box.

4 Type **.5** for the left margin.

WordStar adds the " symbol for inches. For example, if you type .5, the dot command **.lm .5"** is inserted into the document. If you need more information about dot commands, see "Before You Begin."

5 Press Alt+R to move to the Right Margin box.

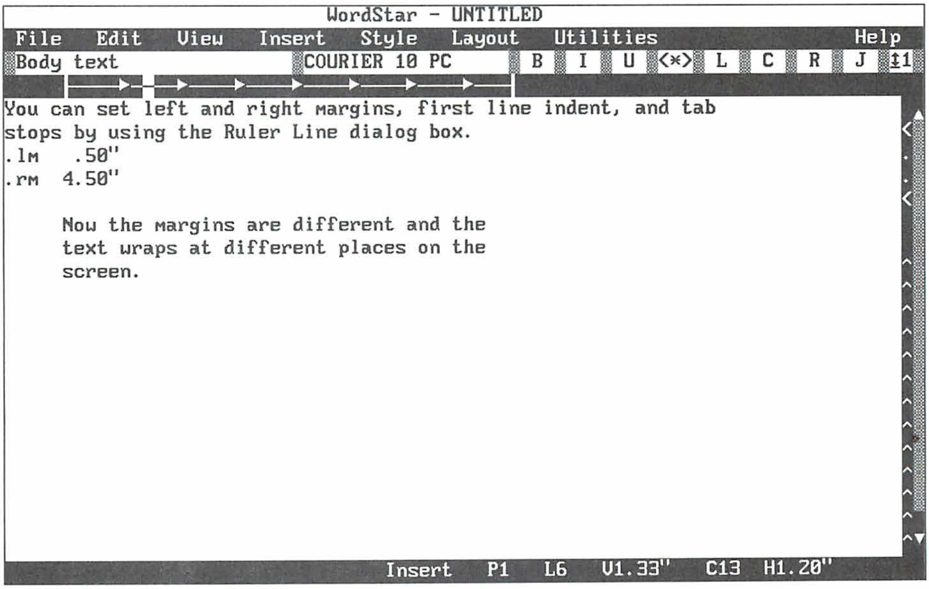
6 Type **4.5** for the right margin.

7 Press F10 or choose OK to save your changes.

WordStar inserts dot commands for the left (**.lm**) and right (**.rm**) margins.

8 Type some text below the dot commands and notice that it wraps at the new margins.

Your screen should look like this:


WordStar - UNTITLED
File
Edit
View
Insert
Style
Layout
Utilities
Help
Body text
COURIER 10 PC
B
I
U
<*>
L
C
R
J
±1
Insert
P1
L6
V1.33"
C13
H1.20"

```
You can set left and right margins, first line indent, and tab
stops by using the Ruler Line dialog box.
.lm   .50"
.rm  4.50"

     Now the margins are different and the
     text wraps at different places on the
     screen.
```

9 Close and abandon the file.

TOP AND BOTTOM MARGINS

In the next steps, you'll change the top and bottom margins, using Preview to see the before and after effects.

1 Open SHAKE.DOC.

2 Choose View→Preview (Alt+V,P) and notice the default top and bottom margins of the printed page. The default top margin is .5 inch and the default bottom margin is 1.5 inches.

3 Press Esc to exit Preview.

4 Choose Layout→Page (Alt+L,P).

The Page Layout dialog box appears.

5 Press Alt+T to move to the Top Margin box.

6 Type **1.5** for the top margin.

7 Press Alt+B to move to the Bottom Margin box.

8 Type **.5** for the bottom margin.

9 Press F10 or choose OK to save your changes.

Now view the document with the new top and bottom margins in Preview.

1 Choose View→Preview (Alt+V,P). The new top and bottom margins appear.

2 Press Esc to exit Preview.

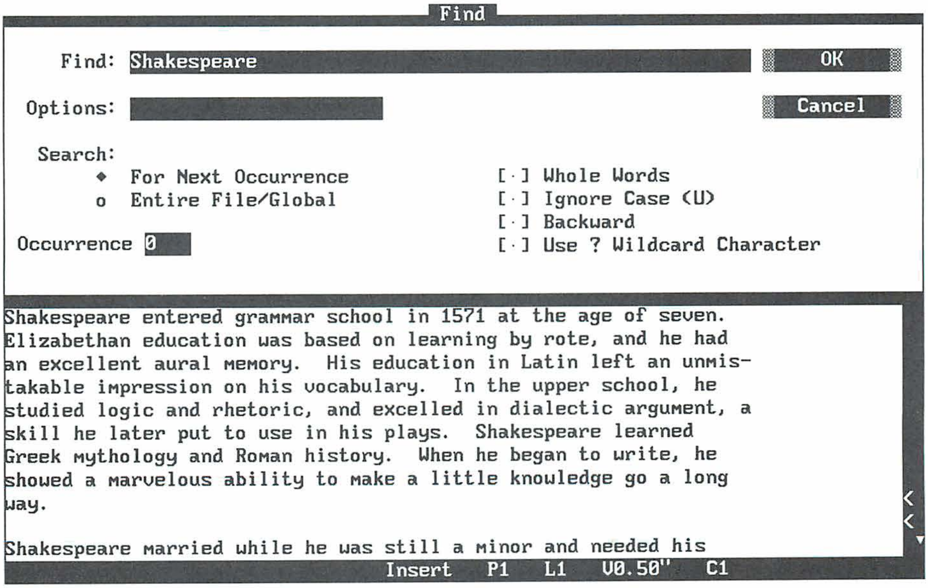
3 Close the file and abandon your changes.

FINDING TEXT

WordStar can find up to 68 characters of text, including individual words, groups of words, numbers, and symbols. Locating words or phrases can be helpful when you're editing or when you want to find a particular place in a large document.

Use the following steps to ask WordStar to find some text.

1. Open SHAKE.DOC.
2. Choose Edit→Find (Alt+E,F).
3. In the Find dialog box, type **Shakespeare** as the text to find.



Find: Shakespeare

Options:

Search:

◆ For Next Occurrence

○ Entire File/Global

Occurrence 0

[·] Whole Words

[·] Ignore Case (U)

[·] Backward

[·] Use ? Wildcard Character

```
Shakespeare entered grammar school in 1571 at the age of seven.
Elizabethan education was based on learning by rote, and he had
an excellent aural memory.  His education in Latin left an unmis-
takable impression on his vocabulary.  In the upper school, he
studied logic and rhetoric, and excelled in dialectic argument, a
skill he later put to use in his plays.  Shakespeare learned
Greek mythology and Roman history.  When he began to write, he
showed a marvelous ability to make a little knowledge go a long
way.

Shakespeare married while he was still a minor and needed his
                                   Insert   P1   L1   V0.50"   C1
```

4. Press F10 or choose OK.

   The cursor moves to the first occurrence of *Shakespeare*.

FINDING THE NEXT OCCURRENCE

You can also ask WordStar to find the next occurrence of the text.

1. Choose Edit→Next Find (Alt+E,X).

   The cursor moves to the next occurrence of "Shakespeare."

   TIP *You can also use the shortcut classic command ^L to locate the next occurrence of text.*

2. Press ^L to locate the next occurrence of text. Continue to press ^L until you reach the end of the file.

FINDING AND REPLACING TEXT

WordStar can find text and replace it with other text. This is helpful when you want to change every occurrence of a word or phrase.

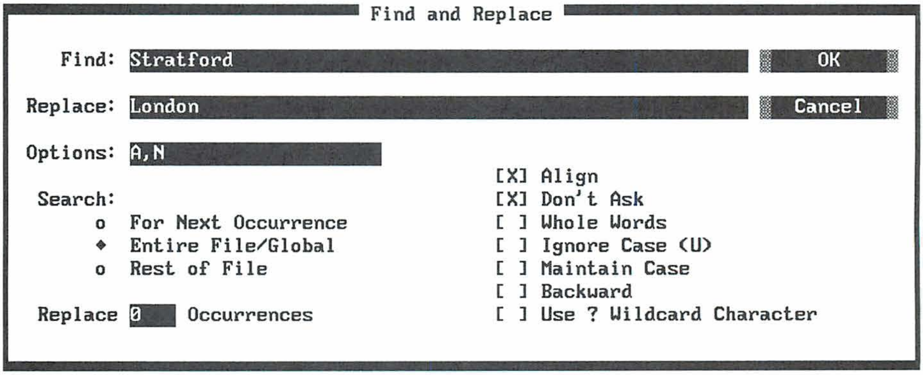
1. Choose Edit→Find and Replace (Alt+E,R).
2. In the Find box, type **Stratford** and press the Tab key.
3. In the Replace box, type **London** and press the Tab key. The cursor moves to the Options box.

In the following steps, you'll tell WordStar to replace all occurrences of "Stratford" with "London." You'll also tell WordStar not to ask for confirmation every time it finds "Stratford."

1. Press Alt+G to search the entire file.

   The cursor moves to the check box and the option is selected.

2. Press Alt+N to check Don't Ask (replaces without asking).



Find: Stratford

Replace: London

Options: A,N

Search:
- ○ For Next Occurrence
- ● Entire File/Global
- ○ Rest of File

Replace 0 Occurrences

- ☒ Align
- ☒ Don't Ask
- ☐ Whole Words
- ☐ Ignore Case (U)
- ☐ Maintain Case
- ☐ Backward
- ☐ Use ? Wildcard Character

3 Press F10 or choose OK.

All occurrences of "London" are replaced with "Stratford."

4 When WordStar reaches the end of the file, press Esc.

5 Close the file and abandon your changes.

You can use the find feature in a variety of ways. In addition to forward or backward searches and manual or automatic replacements, WordStar can search for parts of words, for specific case (upper- or lowercase), and more.

CHECKING SPELLING

WordStar can find and correct misspellings and typos. The spelling check feature checks the spelling of an entire document, the rest of a document beginning at the current cursor location, or a single word. In this section, you'll learn how to check the spelling of an entire document.

WordStar checks the spelling against a large dictionary, which was copied onto your hard disk when you installed WordStar.

You have another dictionary called the personal dictionary. As you use the spelling checker, you can add to your personal dictionary those names and words that aren't in the main dictionary. WordStar checks spelling against both dictionaries.

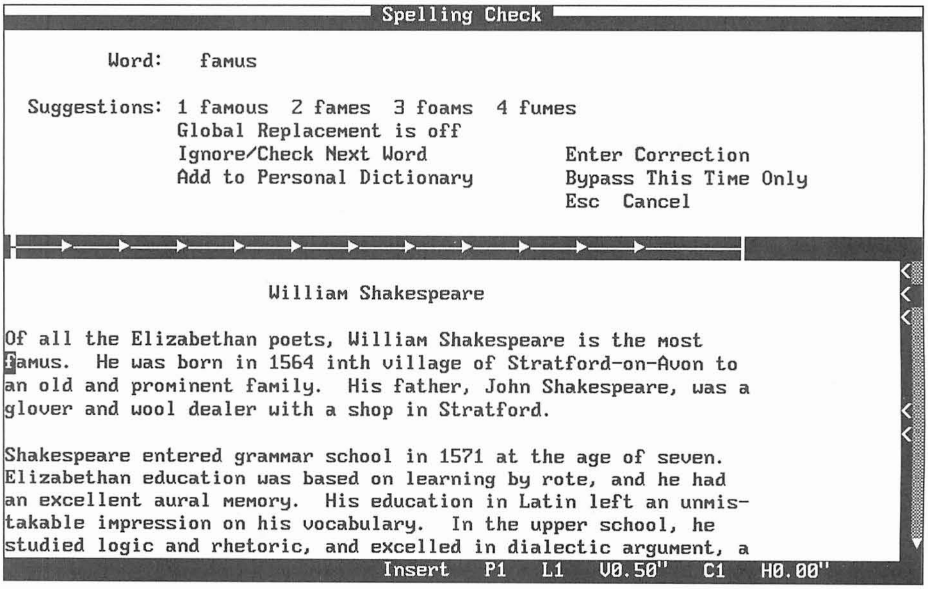
CHECKING THE SPELLING OF AN ENTIRE DOCUMENT

Follow the steps below to run a spelling check.

1 Open the file SPELL.DOC.

2 Choose Utilities→Spelling Check Global (Alt+U,S).

The cursor stops on the first misspelled word, "famus." WordStar offers correct spelling suggestions.



```
                              Spelling Check

        Word:   famus

  Suggestions: 1 famous  2 fames  3 foams  4 fumes
               Global Replacement is off
               Ignore/Check Next Word            Enter Correction
               Add to Personal Dictionary        Bypass This Time Only
                                                 Esc  Cancel

                      William Shakespeare

Of all the Elizabethan poets, William Shakespeare is the most
famus.  He was born in 1564 inth village of Stratford-on-Avon to
an old and prominent family.  His father, John Shakespeare, was a
glover and wool dealer with a shop in Stratford.

Shakespeare entered grammar school in 1571 at the age of seven.
Elizabethan education was based on learning by rote, and he had
an excellent aural memory.  His education in Latin left an unmis-
takable impression on his vocabulary.  In the upper school, he
studied logic and rhetoric, and excelled in dialectic argument, a
                             Insert   P1   L1   V0.50"   C1   H0.00"
```

3 Press 1 to replace the incorrect word with the correct spelling.

WordStar stops at the next misspelled word, "inth."

4 None of the suggested words are appropriate so press E to enter a correction.

5 Type **in the** in the Spelling Correction dialog box. Press F10 or choose OK.

The speller stops at the next misspelled word, "glover."

The spelling checker stops on words that aren't in the main dictionary. Sometimes these words are spelled correctly (like "glover") but aren't common enough to be in the dictionary. You can add such words to your personal dictionary so the spelling checker doesn't stop on them in the future.

6 Press A to add "glover" to the personal dictionary.

The next time WordStar comes across this word, it will not be flagged as misspelled.

WordStar stops on the next misspelled word, "Susanna."

7 Press I to ignore "Susanna" and then press I again to ignore "Hamnet."

"Susanna" and "Hamnet" will be ignored throughout the rest of the file. WordStar stops on the next misspelled word, "Lucrece."

8 Press M to see additional suggestions.

When all suggestions have been displayed, WordStar returns to the first group of suggestions.

9 Press Esc to stop the spelling check. You can do this at any time during a spelling check.

WordStar displays the number of words checked.

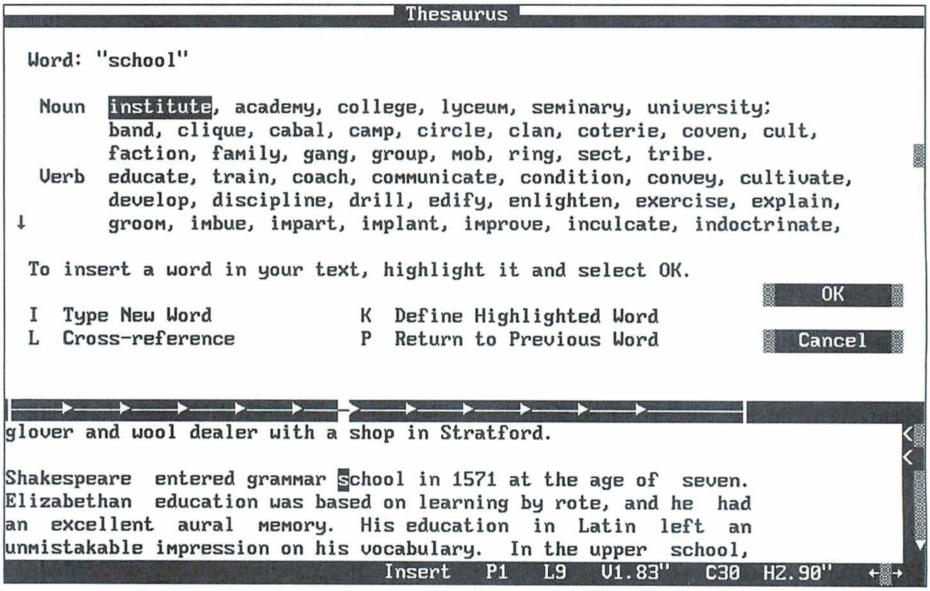
10 Press Esc to return to the document.

USING THE THESAURUS

As you write or edit, the thesaurus can help you find the exact word you want.

Practice using the thesaurus in the file SPELL.DOC.

1. Move the cursor to a word for which you want to see synonyms.
2. Choose Utilities→Thesaurus (Alt+U,T). The synonyms are displayed.



```
                                Thesaurus
 Word: "school"

  Noun  institute, academy, college, lyceum, seminary, university;
        band, clique, cabal, camp, circle, clan, coterie, coven, cult,
        faction, family, gang, group, mob, ring, sect, tribe.
  Verb  educate, train, coach, communicate, condition, convey, cultivate,
        develop, discipline, drill, edify, enlighten, exercise, explain,
↓       groom, imbue, impart, implant, improve, inculcate, indoctrinate,

 To insert a word in your text, highlight it and select OK.
                                                              OK
 I  Type New Word               K  Define Highlighted Word
 L  Cross-reference             P  Return to Previous Word    Cancel

glover and wool dealer with a shop in Stratford.

Shakespeare  entered grammar school in 1571 at the age of  seven.
Elizabethan  education was based on learning by rote, and he  had
an  excellent  aural  memory.  His education  in  Latin  left  an
unmistakable impression on his vocabulary.  In the upper  school,
                              Insert   P1   L9   V1.83"   C30   H2.90"
```

3. Select one of the synonyms. Press F10 or choose OK.

   The synonym replaces the original text.

Try some of the other thesaurus functions.

1. Type **separate** and leave the cursor on that word.
2. Choose Utilities→Thesaurus (Alt+U,T).

Note that the synonyms are listed by parts of speech.

3. Press the Down Arrow several times to move through the list. Press the Up Arrow to move back to the original word in the list.
4. Press K to see a definition for "separate."
5. Press Esc to return to the synonyms.
6. Move the cursor to one of the synonyms and press K to see the definition of the synonym.
7. Press Esc twice to return to the document.
8. Close and abandon the file.

CHAPTER 7

EDITING A NEWSLETTER

In this chapter you'll learn about

☐ Newspaper-style Columns

☐ Previewing Columns

Newspaper-style columns allow you to create newsletters. You can set up a document in newspaper-style columns so that text wraps continuously from the end of one column to the beginning of the next.

CREATING NEWSPAPER-STYLE COLUMNS

To set up a document with newspaper-style columns, follow the steps below.

1. Open the sample file SHAKE.DOC.
2. Move the cursor to the beginning of the first paragraph.
3. Choose Layout→Columns (Alt+L,O) to see the Column Layout dialog box.

4 Type the number of columns you want, for example, **2** or **3**.

Use the default .25" for Space Between Columns and the default 6.5" for the Right Page margin. At the bottom of the dialog box, WordStar calculates the width of the column for you.

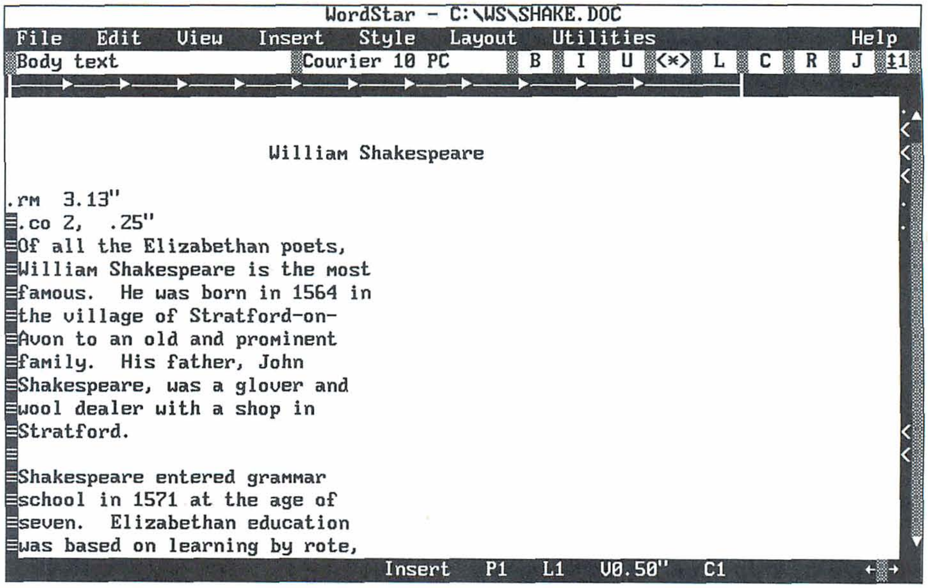
5 Press F10 or choose OK to close the dialog box.

The column commands are inserted into the document.

6 Choose Utilities→Reformat→Rest of Document (Alt+U,R,R) to reformat the text to the new margins.

TIP *You can also use the classic command ^QU to reformat text.*

Return to the beginning of your document—it should look like this:


WordStar - C:\WS\SHAKE.DOC
File Edit View Insert Style Layout Utilities Help
Body text
Courier 10 PC
B I U <*> L C R J ‡1
Insert P1 L1 V0.50" C1

```
              William Shakespeare

.rm  3.13"
.co 2,  .25"
Of all the Elizabethan poets,
William Shakespeare is the most
famous.  He was born in 1564 in
the village of Stratford-on-
Avon to an old and prominent
family.  His father, John
Shakespeare, was a glover and
wool dealer with a shop in
Stratford.

Shakespeare entered grammar
school in 1571 at the age of
seven.  Elizabethan education
was based on learning by rote,
```

The columns don't appear side by side on the screen. To see how the text will look when it's printed, use Preview.

1 Choose View→Preview (Alt+V,P) to see the newspaper-style columns side by side.

2 Use PgDn to move to page 2.

The columns appear throughout the document.

3 Press Esc to exit Preview.

USING PARAGRAPH STYLES IN COLUMNS

Paragraph styles are useful for formatting columns. However, you need to remember to inherit (leave blank) the right margin setting. Some predefined styles, such as Body Text, have a right margin of 6.5 inches. This setting would not be correct for newspaper-style columns. However, if you inherit the right margin created when you set up the columns, the correct column margins are maintained.

For more information about inheriting paragraph style settings, see the chapter on "Creating and Editing Paragraph Styles."

In the steps below, you'll create and use a paragraph style with newspaper-style columns. The style will contain a paragraph indent.

1 In the file SHAKE.DOC, move the cursor to the beginning of the first paragraph in newspaper-style columns. Make sure the cursor is positioned after the column commands.

2 Choose Style→Define Paragraph Style (Alt+S,D) to define a paragraph style.

3 Choose Body Text.

4 Type **Newspaper Indent** for the name of the new style.

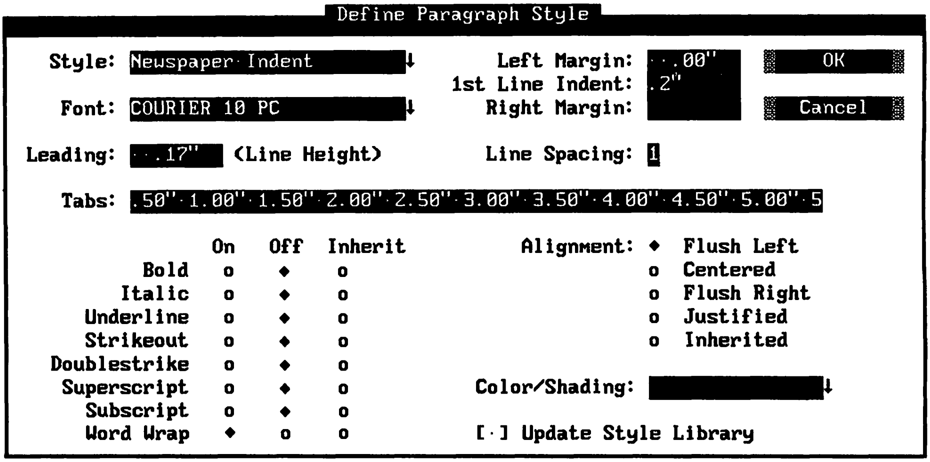
5 Press Alt+1 to move the cursor to the First Line Indent box.

6 Type **.2** for the first line indent.

7 Press the Tab key to move to the Right Margin box.

8 Press the Spacebar or ^Y to clear the Right Margin box.

Your screen should look like this:



```
                         Define Paragraph Style

   Style: Newspaper·Indent      ↓       Left Margin: ··.00"     OK
                                    1st Line Indent: .2"
    Font: COURIER 10 PC         ↓      Right Margin:          Cancel

 Leading: ··.17"   (Line Height)       Line Spacing: 1

    Tabs: .50"·1.00"·1.50"·2.00"·2.50"·3.00"·3.50"·4.00"·4.50"·5.00"·5

                 On   Off  Inherit         Alignment: ◆ Flush Left
          Bold   o    ◆    o                          o Centered
        Italic   o    ◆    o                          o Flush Right
     Underline   o    ◆    o                          o Justified
     Strikeout   o    ◆    o                          o Inherited
  Doublestrike   o    ◆    o
   Superscript   o    ◆    o           Color/Shading:              ↓
     Subscript   o    ◆    o
     Word Wrap   ◆    o    o           [·] Update Style Library
```

9 Press F10 or choose OK to save the style.

The style is saved to the document but is not saved to the library.

In the following steps, you'll insert the new paragraph style. The right margin is inherited and the new first line indent takes effect.

1 Choose Style→Select Paragraph Style (Alt+S,S) to select a style.

2 Select the new style, Newspaper Indent.

The paragraph is indented and inherits the right margin for newspaper-style columns. To indent subsequent paragraphs, you need to reformat the rest of the document with ^QU.

3 Close and abandon the file.

CHAPTER 8

USING MACROS TO EDIT

In this chapter you'll learn about

- ❑ Recording a Macro
- ❑ Playing a Macro
- ❑ Editing a Macro
- ❑ Creating a Macro

Macros help you automate word processing tasks. They can be used to type frequently used text or to execute a sequence of commands. You create a macro by recording and saving your keystrokes. When you play the macro, the keystrokes that you recorded are carried out. You can edit the macros to correct any errors or customize them.

RECORDING A MACRO

When you record a macro, WordStar captures and saves the keystrokes in a macro file. When you press the hot key you assign to the macro, the macro executes the keystrokes that you saved.

Follow the steps below to record a macro that saves the current file, opens a window on another file, and sizes the window. You'll call the macro "Window."

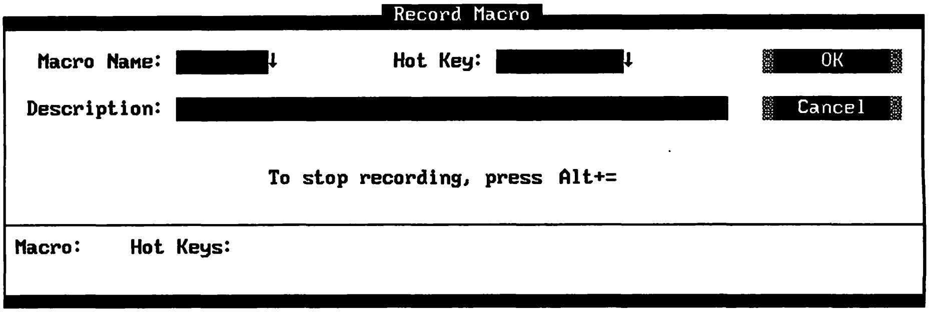
1. Choose File→Open Document (F,D) and name the file MACRO.DOC.

2. Type the sample text below:

```
WordStar stores each macro as a file, with the name you
gave it while recording or editing and the .WSM extension.
```

3. Choose Utilities→Macros→Record (Alt+U,M,R) to record a macro.

   The Record Macro dialog box appears.



4. In the Macro Name box, type **window**.

   Note: When you name a macro, use a name that will help you identify it. You can use up to eight characters. WordStar assigns the .WSM extension to the filename.

5. Press the Tab key.

   The cursor moves to the Hot Key box. Now you'll assign the single key or combination of keys for running the macro. For more information about hot key assignments, see the *Reference* manual.

6. Press the Down Arrow to choose a hot key from the list of available hot keys.

7. In the Hot Key list, move the cursor to Alt+W and press Enter.

Alt+W appears in the Hot Key box and the cursor moves to the Description box.

8 In the Description box, type a description of the macro. Type **Save file-Open window-Size window.**

You can use as many as 48 characters, including spaces, for a macro description.

Now that you've named and described the macro, you're ready to record the keystrokes.

9 Press F10 or choose OK to begin recording keystrokes.

(Ignore the *End Recording* message at the top of the screen.)

Now you'll record the following sequence of keystrokes for the macro:

1 Press Alt+F,S to save the file MACRO.DOC.

2 Press Alt+F,W to open a window on a second file.

The Open Document dialog box appears.

3 Press Alt+Hyphen (hold down the Alt key while you press the hyphen key) to insert a pause for input command into the macro. When you play back the macro later, the macro will pause while you enter a filename.

4 Type **REVIEW.DOC** for the second filename.

5 Press Alt+hyphen to end the pause for input.

The macro resumes recording.

6 Press F10 or choose OK to open REVIEW.DOC.

7 Press Alt+V,W to size the window.

8 In the Change Window Size dialog box, press F to make each window use the full screen. Press F10 or choose OK to close the dialog box.

Each window now uses the full screen.

9 Press Alt+Equal (hold down the Alt key while you press the Equal key) to stop recording.

10 Close and abandon REVIEW.DOC. Then close and abandon MACRO.DOC.

You now have a macro that saves a file, opens a second window, and sizes the window to fill the entire screen.

PLAYING A MACRO

When you *play* a macro, the commands recorded in the macro are carried out. You can play a macro by using a menu command or the assigned hot key. In the following section, you'll play the WINDOW macro by using the hot key you assigned.

1 Open the MACRO.DOC file.

2 Press Alt+W to play the WINDOW macro. When the Open Document dialog box appears, the macro pauses for input.

3 Type a filename for the second window and press Alt+Hyphen to end the pause for input. The second window is opened and sized.

4 Close and abandon both files.

EDITING A MACRO

After you record a macro, you may want to change it. WordStar has a macro language that you can use to edit a macro.

Follow these steps to edit a macro:

1 At the Opening screen, choose Utilities→Macros→Edit/Create (U,M,E).

The Edit/Create Macro dialog box appears.

2 In the Macro Name box, type **window**.

3 Press F10 or choose OK to edit the macro.

The WINDOW macro (WINDOW.WSM) is opened.

In every macro file, you'll see the command "Sub MAIN" which is a subroutine. A subroutine is a collection of statements that are invoked by the Sub command. Each macro must contain the Sub MAIN subroutine.

Subroutines usually contain key functions. A key function tells the macro which keys to play back. The format for a key function is:

```
Key("key stroke string")
```

In the Window macro, you'll see these key functions near the end of the file.

```
KEY ("{F10}{Alt+V}w")
KEY ("f")
```

The first key function above displays the Change Window Size dialog box. The second key function changes the window size to full screen.

In the following steps, you'll put a comment at the beginning of the WINDOW.WSM file to provide descriptive information about the macro. A comment is a statement for you to read but is not a command for the macro to execute.

1 At the beginning of line 1, type this text:

```
rem  Saves current file, opens and sizes second window.
```

2 Press Enter.

In the following steps, you'll change a key function so that the window takes up only five lines instead of the full screen.

The key function looks like this:

```
KEY ("f")
```

1 Move the cursor to the "f" in the key function.

2 Delete the "f" and type **L5**.

3 Choose File→Save and Close (Alt+F,L) to save the macro.

4 Open a file and the WINDOW macro to see the changes you just made. (If you need help, see "Playing a Macro" in this chapter.)

  If WordStar finds errors, it returns you to the macro file to correct them.

CREATING A MACRO WITH THE MACRO LANGUAGE

In this chapter, you've created a macro by recording your keystrokes. Now you'll create a macro using the macro language.

In the following steps, you'll create a macro that runs a spelling check, saves your document, and then runs Preview.

1 At the Opening screen, choose Utilities→Macros→Edit/Create (U,M,E).

2 Assign a macro name, for example, SPELL. WordStar gives the file a .WSM extension.

3 Assign a hot key such as Alt+3 and type a description.

4 Press F10 or choose OK to open the macro.

  WordStar opens the new macro.

5 On line 1, type this text:

```
rem  Runs spelling check, saves file, runs Preview.
```

6 Press Enter.

7 Type **Sub MAIN** and press Enter. This marks the beginning of the main subroutine.

8 On the next two lines, type the sample statements shown below. (You can type these statements in all lowercase; the case used below is for readability only.)

Note: "AutoRestore(ON)" is an example of a statement. When there is more than one statement on a line, the statements must be separated by colons. When you type statements, separate them with a space, a colon, and another space.

```
AutoRestore(ON) : SetHelpLevel(4) : Insert(ON)
CmdTags(OFF) : HideDots(ON) : ColMode(OFF) :
ColReplace(OFF)
```

9 Press Enter.

The statements establish these settings:

AutoRestore(ON) Restores original settings after the macro plays.

SetHelpLevel(4) Sets the help level at 4.

Insert(ON) Allows characters to be inserted into existing text instead of overwriting text.

CmdTags(OFF) Turns off the display of command tags.

HideDots(ON) Turns off the display of dot commands.

ColMode(OFF) Turns column mode off. This is the default for marking blocks.

ColReplace(OFF) Turns off column replace. This is the default for moving and copying blocks.

In the following steps, you'll type two key functions and some exception conditions:

The first key function that you'll type is:

```
Key("{Alt+U}S")
```

1. Type **Key("** to begin the Key function. Every Key function begins with **("** and ends with **")**.
2. Type **{Alt+U}S** to move the cursor to the beginning of the file and start the spelling check.
3. Type **")** to end the function. Press Enter to move to the next line. Press the Tab key to indent the line.
4. Type **IfException** and press Enter.

   When a spelling check is complete, WordStar displays a message giving the word count. This is an exception condition. When a macro encounters an exception condition, you can have the macro pause while you provide required input or you can tell the macro to provide the input. To have the macro provide input, you add an IfException clause to your macro statement. In the following steps, you tell the macro to issue an Escape when the word count message is displayed.

5. On the next line under "IfException" type **ACK: Key("{Esc}")** and press Enter.

   The ACK clause issues an Escape key command when the spelling check message appears.

6. To end the IfException clause type **End IfException** and press Enter.
7. Type **Key("{Alt+F}S")** and press Enter. This key function saves the file.
8. Type **Key("{Alt+V}P")** and press Enter. This key function runs Preview.

9 Type **End Sub** to end the subroutine and press Enter.

When your macro is finished, it will look like this:

```
rem  Runs spelling check, saves file, runs Preview
Sub MAIN
AutoRestore(ON) : SetHelpLevel(4) : Insert(ON) :
CmdTags(OFF)
HideDots(ON) : ColMode(OFF) : ColReplace(OFF)
Key("{Alt+U}S")
           IfException
           ACK: Key("{Esc}")
End IfException
Key("{Alt+F}S")
Key("{Alt+V}P")
End Sub
```

10 Save the macro and then play it in a document.

CHAPTER 9

USING WORDSTAR WITH OTHER FILE FORMATS

In this chapter you'll learn about

☐ Creating Fax Files

☐ Converting Graphics Files to .PIX Format

The Fax feature allows you to create fax files from WordStar documents and to send the files without printing them first or using a fax machine. First you create a .PCX graphics file for each page you want to fax. Then, you can use a fax board and fax software to transmit the files. If your fax board doesn't support .PCX files, you need to convert the files. Most fax software provides a conversion utility.

WordStar can insert graphics into your document. If the graphics file is not in .PIX format, WordStar converts the file for you. You can choose certain settings, such as the height and width of the graphic, when you convert the file.

CREATING FAX FILES

Although you can use any printer description file (PDF) to format a document for fax transmission, you get the best appearing fonts when you format the document for a laser printer. If you don't have a laser printer, you can use the FAX.PDF file that comes with WordStar.

To complete the following steps, you need a document to fax. Assign a laser printer (PDF) file or FAX.PDF to the document. For more information on using PDFs, see the "Printing" chapter.

CREATING FAX FILES AT THE OPENING SCREEN

In the following steps, you'll create a fax file from the Opening screen. (You can also create fax files from the Editing screen and from inside Preview.)

1. At the Opening screen, choose File→Fax (F,F).

2. In the Fax dialog box, type the name of the WordStar document to fax.

3. Press Alt+N (or the Tab key) to move the cursor to the Name of Fax File. Type five characters that describe your file, for example, **chart**.

   WordStar adds three numbers to indicate the page sequence. WordStar also adds the extension .PCX to the filename. For example, if you type **chart** for the filename and choose to create fax files for pages 3, 5, and 6, the filenames will be CHART001.PCX, CHART002.PCX, and CHART003.PCX. WordStar creates a file for each page.

4. Press the Tab key to move to the Fax Page Numbers option and select the pages to fax. To fax all pages, press Alt+A. To print selected pages, press Alt+S, and type the page numbers. You can select multiple ranges and discontinuous pages.

   Note: The page numbers refer to the physical position of the page in the document. Any page numbering commands you may have entered will be ignored.

5. Move the cursor to the Resolution options and select the resolution for your fax.

The resolution setting should match the setting in your fax board software. Resolution can be set to Low, High, or Special 300 dots per inch (dpi). Low resolution is 200 x 100 dpi. High resolution, the default, is 200 x 200 dpi. The 300 dpi option is provided for fax drivers that use this resolution. (The 9-Pin Dot Matrix and 24-Pin Dot Matrix options are not used for creating fax files.)

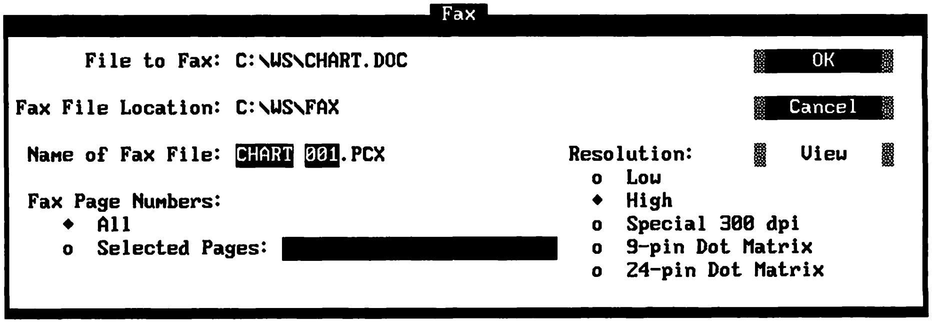
6 Choose the View button to view the file and verify the pages to fax.

Page one of your document appears. All the options on the Preview menus are available. You can preview any part of the file.

7 To determine the resolution of the fax printout, check the Preview display at 4x zoom (View menu).

8 Press Esc to return to the Fax dialog box.

The Fax dialog box should look like this:



File to Fax: C:\WS\CHART.DOC

Fax File Location: C:\WS\FAX

Name of Fax File: CHART 001.PCX

Fax Page Numbers:
◆ All
○ Selected Pages:

Resolution:
○ Low
◆ High
○ Special 300 dpi
○ 9-pin Dot Matrix
○ 24-pin Dot Matrix

9 Press F10 or choose OK to create fax files.

As the fax file is being created for each page, a view of the entire page displays in Preview. The name of the file being created appears at the top of the Preview screen. When all the required fax files have been created, WordStar returns you to the Opening screen.

10 Exit WordStar.

VIEWING FAX FILES OUTSIDE WORDSTAR

You can view fax files without starting WordStar. The first time you create a fax file, WordStar makes a FAX directory off the directory containing the FONTID.CTL file (usually the WS directory). All .PCX files are placed in this FAX directory. If you want to view files before you fax them, you can use the program SHOWPCX.

Follow the steps below to view a fax file at the DOS prompt.

1. Be sure you're logged on to the directory containing your WordStar files (usually WS).

2. Type **showpcx fax\*filename*** (you don't need to type the .PCX extension), and press Enter to view your fax file.

   If you want to review the document, use the direction keys to move around the page. Use the plus and minus keys on the numeric keypad to change magnification.

3. Press Esc to return to the DOS prompt.

You can now send your fax files using your fax software.

The .PCX files created by WordStar are large files, averaging 100K each. To create additional disk space, you can delete fax files that you no longer need. When you create fax files, screen fonts (.CRT files) are also created. To delete .CRT files, you can run the DELCRT program. For more information on DELCRT, see the *Reference* manual.

CONVERTING GRAPHICS FILES TO .PIX FORMAT

WordStar can add graphics files to your documents. If your file is not in .PIX format, WordStar offers several options for converting the file.

For the following steps you'll need a graphics file that's in a format other than .PIX. You can use the sample graphics file WSILOGO.PCX.

If you haven't already installed Inset or Graphics Conversion, install them using the Add or Remove a Feature option on the WINSTALL menu. Follow the setup instructions in the "Inset" section of *Companion Programs*.

1 Start WordStar and open the file PLAYBILL.DOC or MAILING.DOC.

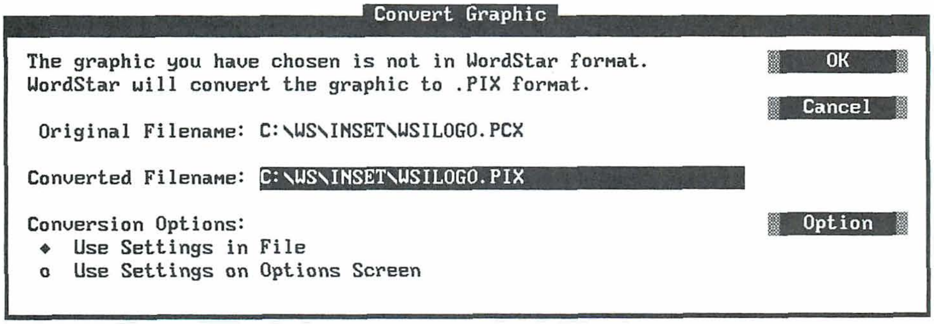
2 Move the cursor to where you want the graphic to appear.

3 Choose Insert→Graphic (Alt+I,G) to insert a graphic.

The Insert Graphic dialog box appears.

4 Type **\ws\inset\wsilogo.pcx**. Press F10 or choose OK.

The Convert Graphic dialog box appears. The name of the graphics file appears in the Original Filename box. The converted filename is the same as the original filename except for the .PIX extension.



```
The graphic you have chosen is not in WordStar format.
WordStar will convert the graphic to .PIX format.

 Original Filename: C:\WS\INSET\WSILOGO.PCX

Converted Filename: C:\WS\INSET\WSILOGO.PIX

Conversion Options:
 ◆ Use Settings in File
 ○ Use Settings on Options Screen
```

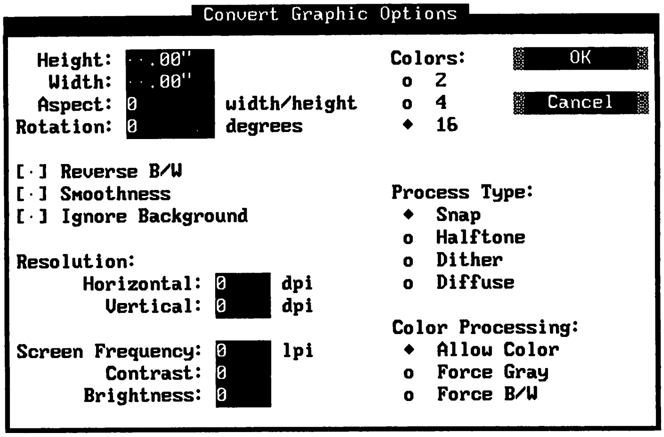
5 Press the Tab key to accept the current name, or type a new name for the converted file and press the Tab key.

Before you convert the file you should review the conversion settings and change them as needed. Follow these steps to view/change the conversion options:

1 In the Convert Graphic dialog box, press the Down Arrow or ^X to select Use Settings on Options Screen.

2 Press O to choose Option.

The Convert Graphic Options dialog box displays.



```
 Height:   .00"                   Colors:
  Width:   .00"                   o 2
 Aspect: 0       width/height     o 4
Rotation: 0      degrees          ◆ 16

[·] Reverse B/W
[·] Smoothness                    Process Type:
[·] Ignore Background             ◆ Snap
                                  o Halftone
Resolution:                       o Dither
      Horizontal: 0   dpi         o Diffuse
        Vertical: 0   dpi
                                  Color Processing:
Screen Frequency: 0   lpi         ◆ Allow Color
        Contrast: 0               o Force Gray
      Brightness: 0               o Force B/W
```

Notice the Height, Width, and Aspect boxes in the Convert Graphic Options dialog box. These options are related. Specifying any two of the three values determines the third. Aspect (ratio) is defined as the width of a graphic divided by its height. Aspect ratios are indicated as decimal values.

3 Type values in the Height and Width boxes and the Aspect ratio will automatically be calculated. You won't see the calculation on the screen. Or, you can accept all values by pressing the Tab key.

For most conversions, you can use the default settings for the remaining options in the Convert Graphic Options dialog box.

4 Press F10 or choose OK to save your selections and return to the Convert Graphic dialog box.

5 In the Convert Graphic dialog box, press F10 or choose OK to convert the graphic and insert it into the document.

The graphic is converted to a .PIX file and inserted into your document. The settings you selected in the Convert Graphic Options dialog box are saved in the TOPIX.SET file. The next time you use this dialog box, the settings will reflect your changes.

You can use Preview to see how the graphic will look on the printed page.

6 Close and abandon the file.

CHAPTER 10

PRINTING

In this chapter you'll learn about

☐ Setting Up Your Printer

☐ Changing Printers and Fonts

☐ Printing a Standard Business Envelope

☐ Using Laser Printers and Other Page Printers

This chapter presents some basic information about printing in WordStar.

SETTING UP YOUR PRINTER

There are two types of ports—parallel and serial—for connecting your printer to your computer. With a parallel port connection, the printer receives all eight bits of character codes at the same instant over eight wires. With a serial port, bits are sent one at a time over fewer wires. Printers are connected by cables to the ports located at the back of the computer. When you install a printer in WordStar, you need to specify which port your printer is connected to. LPT ports are parallel ports and COM ports are serial ports. The default port in WordStar is LPT1.

If you have a serial connection, make sure your AUTOEXEC.BAT file contains the correct mode statement. The mode statement should look like this:

```
mode com1:9600,n,8,1,p
```

If necessary, replace "com1" with the correct port number for your system, and replace "9600" with the baud rate your printer is set for. For more information, see the manual that came with your printer.

CHANGING PRINTERS AND FONTS

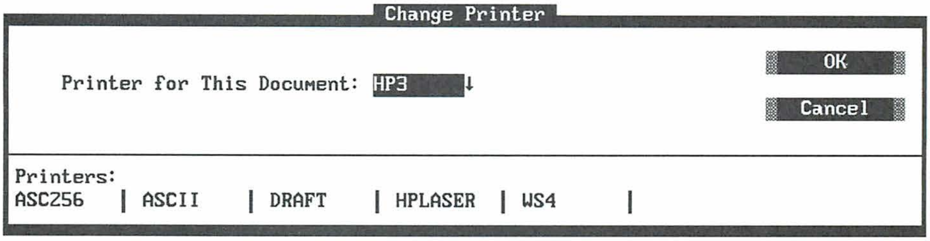
When you install a printer, you specify the name of your printer, the fonts to use, and the computer port. WordStar creates a printer description file (PDF) with this information. You assign a name to the PDF; for example, if you have a laser printer, you might call it LASER. WordStar adds the extension .PDF, so the printer description filename would be LASER.PDF. When you create a document, the PDF for your default printer is assigned to that document. For more information about installing printers, see the *Installing and Customizing* booklet.

CHANGING PRINTERS

If you installed more than one printer to work with WordStar, and you want to print with a different printer, you can change the printer assigned to a document.

To use a different printer than the one assigned to your document, follow these steps:

1. Open a file.
2. Choose File→Change Printer (Alt+F,H).



```
Printer for This Document: HP3

Printers:
ASC256     | ASCII      | DRAFT      | HPLASER  | WS4        |
```

In the Change Printer dialog box, WordStar displays the name of the printer assigned to this document and a list of the installed printers.

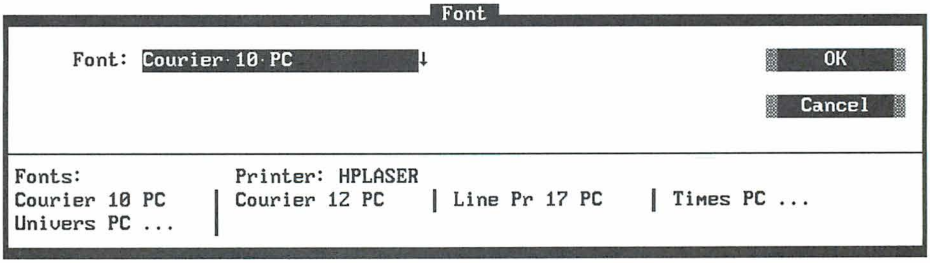
3 Select a printer from the list.

4 Press F10 or choose OK to close the dialog box.

CHANGING FONTS

You can display a list of fonts that are available for the current printer. You can then change fonts by following these steps:

1 Choose Style→Font (Alt+S,F).



```
Font: Courier 10 PC

Fonts:              Printer: HPLASER
Courier 10 PC     | Courier 12 PC    | Line Pr 17 PC    | Times PC ...
Univers PC ...    |
```

You see the name of the current printer as well as the font now in effect. The other available fonts are listed.

2 Select one of the fonts and close the dialog box.

The font tag appears in the text area. Text will reformat in the paragraph containing the font tag. Subsequent paragraphs affected by the new font need to be reformatted.

3 Choose Utilities→Reformat→Rest of Document (Alt+U,R,R). The rest of the paragraphs are reformatted. The font tag is in effect until another font tag is inserted.

TIP *You can also use the classic command ^QU to reformat text.*

Follow these steps to see how the document will look when printed:

1 Choose View→Preview (Alt+V,P) to view the page with the new fonts.

2 Press Esc to exit Preview.

3 Close and abandon the file.

For more information about fonts, see "Using Fonts With WordStar" in this chapter.

PRINTING A STANDARD BUSINESS ENVELOPE

You can print envelopes by setting a shorter page length and special margins. The format in the example below is suitable for a standard 9.5 x 4-inch business envelope, printed 10 characters per inch. It is designed for printers such as dot matrix and daisy wheel printers that are nonlaser and nonpage printers.

To create a standard format for envelopes, follow these steps:

1 Open a new file.

2 Choose Layout→Page (Alt+L,P) to see the Page Layout dialog box.

3 Specify the following settings for the envelopes:

Odd page offset	4.00"
Even page offset	4.00"
Top margin	2.00"
Bottom margin	0.00"
Page length	4.00"

4. Choose Layout→Page Numbering→Print Page Numbers (Alt+L,N,P) to omit page numbers from the envelope. Press F10 or choose OK.

5. Save and name the envelope format file.

If you use different sizes of envelopes, you can create individual formats using different margin and tab settings. You can store each format in a separate file. Then, when you want to print an envelope, you insert the appropriate format file following the last page of your letter.

Follow these steps to insert an envelope format file so you can print the envelope immediately after you print a letter:

1. Open an existing file (letter) or use the sample file MAILING.DOC.

2. Choose Edit→Go to Other→Document End (Alt+E,O,O) to go to the end of the file.

   If your file has headers or footers, complete step 3. If not, move to step 4. (If you're using MAILING.DOC which has no headers or footers, you can move to step 4.)

3. Choose Layout→Headers/Footers (Alt+L,H). Select the same header or footer commands that exist in your letter.

   You add no text to the new headers and footers and they cancel your previous headers or footers. You don't want the headers or footers to print on the envelope.

4. With the cursor at the end of the file, choose Insert→Page Break (Alt+I,P) to insert a page break. Your envelope format will follow the page break.

5. Just below the page break, choose Insert→File (Alt+I,F).

6. Type the name of the envelope file that you created in the previous section. Press F10 or choose OK.

   The envelope file is inserted at the end of the document.

7. Beginning in line 1, column 1, immediately below the dot commands for the envelope, type the name and address for the envelope.
8. Save the file.
9. When you print the file, select the print option Pause Between Pages so you can insert an envelope in the printer at the appropriate time.

If you have a laser printer, WordStar provides special envelope files. HP-ENV.LST is for the HP LaserJet, the LaserJet Plus, and other printers that feed envelopes from the right side of the printer tray. HP2-ENV.LST is for the HP LaserJet series II and III and other printers that feed envelopes from the center of the manual feed tray. For more information on these files, see the "MailList" section of the *Companion Programs* manual.

ABOUT LASER PRINTERS AND OTHER PAGE PRINTERS

Page printers print a page all at once rather than one character or line at a time as nonpage printers do. Laser printers are page printers. Following are some terms that may be useful to know if you have a page printer:

PROPORTIONAL AND NONPROPORTIONAL FONTS

A nonproportional font has fixed spacing, that is, every letter takes up the same amount of space. A proportional font has proportional spacing, that is, some characters are wider and take up more space than others. Text printed with a nonproportional font has an inconsistent appearance, with gaps between some of the letters. Text printed with a proportional font is spaced more consistently on the page. Some examples of the two types of fonts are shown below.

NONPROPORTIONAL	**PROPORTIONAL**
`mmmmmmmm`	mmmmmmmm
`iiiiiiii`	iiiiiii

TYPE SIZES

The size of a font is measured in points, for example, Times Roman 10-point. There are approximately 72 points in an inch. Font height is measured from the lowest *descender* (for example, the bottom of the letter "p") to the highest *ascender* (the top of a capital letter) including a small amount of extra space.

For long sections of text 9-, 10-, and 11-point fonts are the easiest to read.

SERIF AND SANS SERIF

Serifs are the small lines that cross the main strokes of a letter. An example of a serif typeface is **Times Roman**; an example of a sans (without) serif typeface is **Helvetica**. Note that Helvetica has only the strokes required to define the letter, while Times-Roman has extra little lines.

Most typographers feel that serif type is easier to read in long paragraphs of text because there are more lines defining each letter. Sans serif type is used for headings or short paragraphs. Because sans serif type looks more modern, it is often used for technical documents.

TYPE FAMILIES AND TYPEFACES

A *type family*, *font family*, or *typeface* is a type design, like Times Roman or Helvetica. It's best to limit yourself to two or three type families per document. Be careful when you mix type families on a page. Some typefaces look better together than others. Generally speaking, a serif and sans serif typeface or two sans serif typefaces look better on a page than two serif typefaces.

Each type family contains several variations within it, for example, roman (upright, regular weight), **bold**, and *italic*. Bold and italic are difficult to read in long sections of text, but are good for adding emphasis to particular words or phrases.

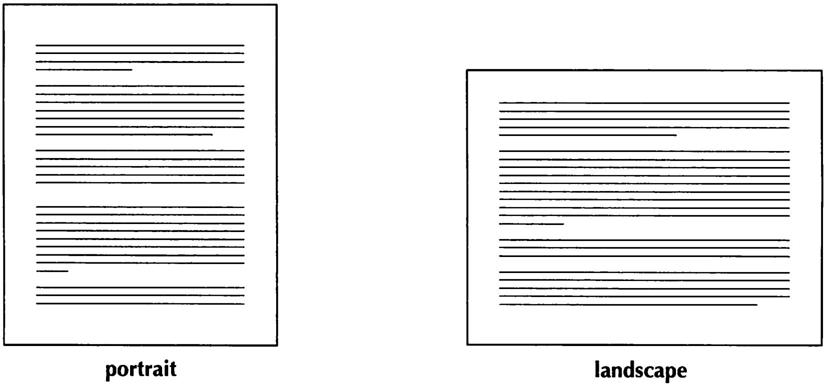
SYMBOL SET

A symbol set is a set of characters that a font contains but that may not appear on your keyboard. The actual characters available depend on your computer and your printer. A character must be included in the symbol set of the font you're using or it won't print. Symbol sets may contain international characters or line and box drawing characters.

ORIENTATION

Orientation refers to the position of text on the page. Portrait-mode orientation prints text across the width of the page; landscape-mode orientation prints text across the length of the page. Landscape orientation is available only with page printers.

USING FONTS WITH WORDSTAR



Many fonts are available for page printers. Fonts fall into three categories: internal, cartridge, and soft.

- **Internal fonts** Every page printer has at least one internal font. Information about internal fonts is stored permanently in the printer's memory. Most of these fonts are nonproportional, portrait-mode fonts. They are always available to the printer.

  Unless you replace the internal fonts with other choices (when you install your printer), these fonts are available when you press **^P=** at the WordStar editing screen.

- **Cartridge fonts** You can purchase cartridges that contain extra fonts. To use a cartridge font, you must insert the appropriate cartridge into the printer.

  To use a cartridge font with WordStar, you specify the fonts on that cartridge when you install WordStar. If you purchase the cartridge later, you use the PRCHANGE option in WINSTALL to install the cartridge. If the cartridge fonts are HP LaserJet scalable fonts, use the LSRFONTS option.

- **Soft fonts** Soft fonts are contained on floppy disks. To use these fonts, you must download them, or send the font information from the disk to the printer.

  You include soft font choices in your WordStar printer description file (PDF). You add soft fonts to a PDF using the PRCHANGE option. Some soft fonts are supplied with WordStar. You can install these fonts when you install your printer. For soft fonts that aren't listed in PRCHANGE, use the LSRFONTS option to add the fonts to the customized database. Then use PRCHANGE to add the fonts to a PDF. The fonts must be downloaded to the printer.

  For more information on downloading fonts, see the *Installing and Customizing* booklet.

BITMAPPED AND SCALABLE FONTS

All fonts are either bitmapped or scalable.

- **Bitmapped fonts** Bitmapped fonts hold the characteristics for the size of each letter in an individual bitmap, or blueprint, which indicates to the printer where to place every dot of ink. Because printers store bitmapped fonts in memory, they are ready to use quickly and require a minimum of software instructions.

- **Scalable fonts** Scalable fonts are sets of instructions that tell a utility, known as a *font generator*, how to create a specific bitmapped font. Because one scalable font can generate a variety of point sizes, type widths, or even italic, a scalable font is an economical option for someone who needs a large selection of fonts.

CHAPTER 11

USING MAILLIST TO PRINT FORM LETTERS

In this chapter you'll learn about

- ❑ Creating a Mailing List
- ❑ Editing a Mailing List
- ❑ Creating a Form Letter
- ❑ Printing Form Letters

WordStar has a feature called MailList that lets you store names, addresses, and other information in a data file or mailing list. You can use merge printing commands to insert information from the mailing list into a form letter. Also, you can print the mailing list onto labels and envelopes. For more information on the variety of tasks that you can complete with MailList, see the *Companion Programs* manual.

CREATING A MAILING LIST

To create a mailing list in MailList, follow these steps:

1. At the Opening screen, choose Additional→MailList (A,M).

   The MailList Menu appears.

2. Press C to choose a data file. (A mailing list is kept in a file called a data file.)

3. Type **customer.dta** and press Enter to create a data file.

4. Press A to add records to the data file. A record is the information about one person on the mailing list.

   The data entry form appears on the screen. Each area for entering information on the form is called a field. The cursor is at the Record Number field.

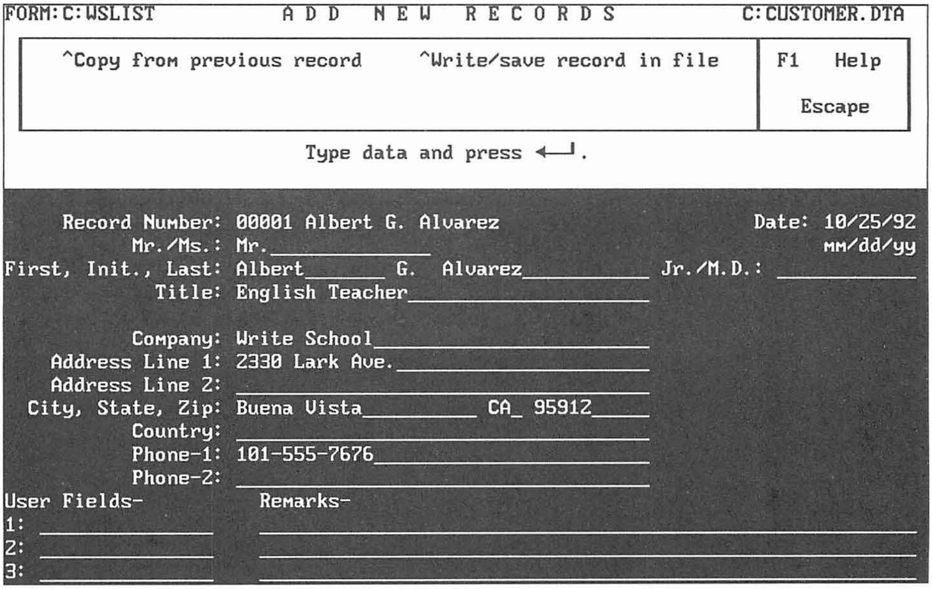
5. Type 1 and then press Enter. You've assigned the number 1 to the first record.

   The cursor moves to the *Date* field.

6. Type **102592** and press Enter.

   The date appears as 10/25/92.

7. Fill in the rest of the form so that it looks like the following screen.



```
FORM:C:WSLIST            A D D   N E W   R E C O R D S            C:CUSTOMER.DTA
  ^Copy from previous record     ^Write/save record in file    F1   Help

                                                                 Escape
                          Type data and press ←┘.

     Record Number: 00001 Albert G. Alvarez                         Date: 10/25/92
           Mr./Ms.: Mr.___________                                        mm/dd/yy
First, Init., Last: Albert______ G.  Alvarez__________  Jr./M.D.: ____________
             Title: English Teacher___________________

           Company: Write School______________________
    Address Line 1: 2330 Lark Ave.____________________
    Address Line 2: __________________________________
  City, State, Zip: Buena Vista_________  CA_ 95912____
           Country: __________________________________
           Phone-1: 101-555-7676______________________
           Phone-2: __________________________________
User Fields-            Remarks-
1: _______________      __________________________________________________________
2: _______________      __________________________________________________________
3: _______________      __________________________________________________________
```

If you don't need to fill in a field, press Enter to skip to the next field. If you make a typing error, you can erase characters with the Backspace key or the Del key. You can move the cursor around the form using the commands listed below:

TO MOVE	PRESS
Left one character	^S or ←
Right one character	^D or →
To the previous field	^A or ^ ←
To the next field	^F or ^ →
To the top (first) field	^T or Home
To the last field	^L or End

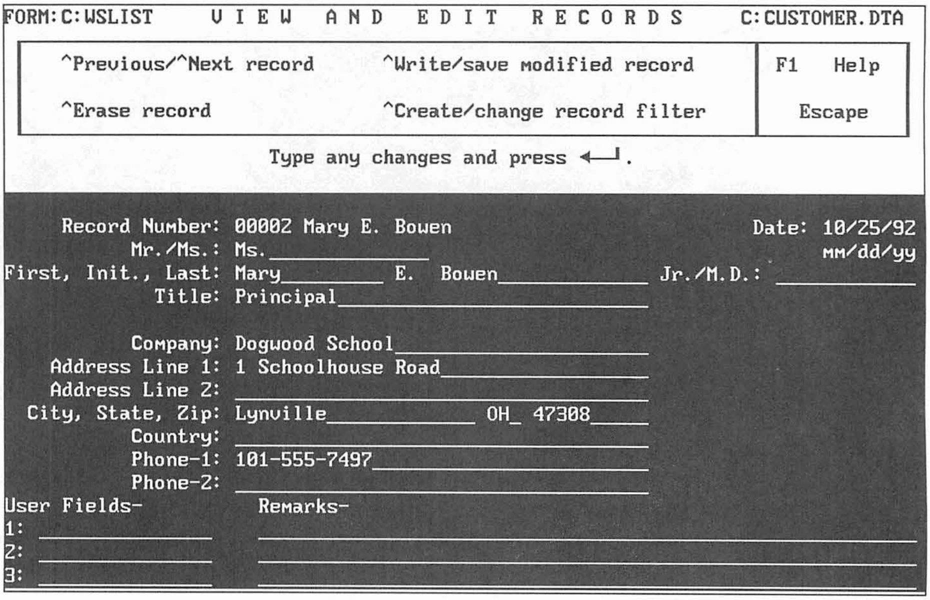
8 Check to make sure you typed everything correctly in the form.

9 Press ^W to save this information in the data file.

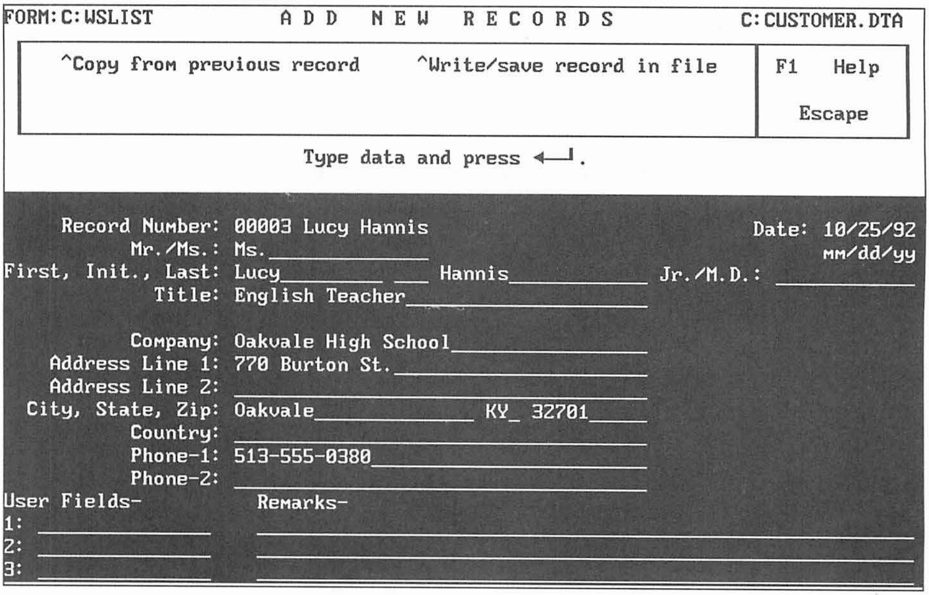
10 Press Enter to save the record.

Now you'll add two more records to the data file.

1 For each record, repeat steps 4–10, substituting the information shown below:



```
FORM:C:WSLIST      V I E W   A N D   E D I T   R E C O R D S      C:CUSTOMER.DTA
    ^Previous/^Next record        ^Write/save modified record      F1   Help
    ^Erase record                 ^Create/change record filter       Escape
                         Type any changes and press ←┘.

     Record Number: 00002 Mary E. Bowen                          Date: 10/25/92
           Mr./Ms.: Ms._____________                                   mm/dd/yy
First, Init., Last: Mary_________ E.  Bowen_____________  Jr./M.D.: ___________
             Title: Principal___________________________

           Company: Dogwood School______________________
    Address Line 1: 1 Schoolhouse Road__________________
    Address Line 2: ____________________________________
  City, State, Zip: Lynville_____________ OH_ 47308_____
           Country: ____________________________________
           Phone-1: 101-555-7497________________________
           Phone-2: ____________________________________
User Fields-          Remarks-
1: ______________     _________________________________________________________
2: ______________     _________________________________________________________
3: ______________     _________________________________________________________
```



```
FORM:C:WSLIST         A D D   N E W   R E C O R D S               C:CUSTOMER.DTA
    ^Copy from previous record     ^Write/save record in file      F1   Help
                                                                     Escape
                           Type data and press ←┘.

     Record Number: 00003 Lucy Hannis                            Date: 10/25/92
           Mr./Ms.: Ms._____________                                   mm/dd/yy
First, Init., Last: Lucy_________ ___ Hannis____________  Jr./M.D.: ___________
             Title: English Teacher_____________________

           Company: Oakvale High School_________________
    Address Line 1: 770 Burton St.______________________
    Address Line 2: ____________________________________
  City, State, Zip: Oakvale______________ KY_ 32701_____
           Country: ____________________________________
           Phone-1: 513-555-0380________________________
           Phone-2: ____________________________________
User Fields-          Remarks-
1: ______________     _________________________________________________________
2: ______________     _________________________________________________________
3: ______________     _________________________________________________________
```

2 When you finish typing and saving all three records, press Esc.

The MailList menu appears.

You now have information about three customers in your mailing list.

EDITING A MAILING LIST

Once you've added records to a mailing list, you can look at them and make changes at any time. Follow these steps to look through your records and make a correction.

1 At the MailList menu, press V to view and edit records.

The first record appears on your screen.

2 Press ^N to see the next record.

3 Press ^P to see the previous record.

4 Press ^P again.

A message says that you're at the beginning of the file.

5 Press Esc to go to the end of the file.

6 Correct Ms. Hannis's name to Ms. Harris. Use the same commands to move the cursor as you did while adding records.

7 Press ^W to save the updated record.

8 Press Enter to save the data.

9 Press Esc.

10 Press Q to exit MailList.

CREATING A FORM LETTER

You're now ready to write a letter to each customer on the mailing list. You'll create this letter, called a form letter, with WordStar and use merge printing commands to insert names and addresses from the mailing list.

Start at the WordStar Opening screen.

1. Open a new file.
2. Choose Insert→File (Alt+I,F). Select the file MAILLIST.DOT. (Include a path for the MAILLIST.DOT file. It's in the same directory as your MailList program files, usually WS\OPTIONS.)

   MAILLIST.DOT contains the dot commands you need in a form letter.
3. Move the cursor to the line beginning with **.df**.

   The **.df** dot command defines the data file as WSLIST.DTA. (WSLIST.DTA is the WordStar default file for a main mailing list.) You want to use CUSTOMER.DTA, the data file you created.
4. Delete WSLIST.DTA and type **\ws\options\customer.dta**. (Substitute the correct directory names. MailList creates the data files in the directory that contains the MailList program files, usually WS\OPTIONS.)

   Notice that the next four lines begin with **.rv**. The words in these lines are names that correspond to the fields on the mailing list form. You'll use these names in the letter where you want to insert data from the mailing list file.
5. Move the cursor to the blank line above the line which reads *(Type text and variable names here.)* Press ^Y twice to delete this line and the line that follows so they don't appear in the letter.
6. Type the following letter.

```
Theatre in the Park
50 Main St.
Franklin, CA 93701

November 15, 1992

&full-name&
&company&
&addr1&
&city&, &state& &zip&

Dear &Mr-Ms& &last&:

It's time to renew your subscription for the Theatre in
the Park summer series.  Your seat from last season will
be reserved for you unless you notify us that you wish to
change it.

If you know others at &company& who might be interested in
Theatre in the Park, please ask them to contact us for
more information.

Sincerely,

Sam Hergen
```

7 When you're finished, check your work.

All the words enclosed in ampersands (&) are called *variable names*. Use variable names wherever you want to insert information from the data file. Variable names must match the corresponding names in the **.rv** dot commands.

8 Be sure that all the text is above **.pa**, the dot command that tells WordStar to start a new page.

9 Save the file and name it THEATRE.DOC.

PRINTING FORM LETTERS WITH THE MAILING LIST

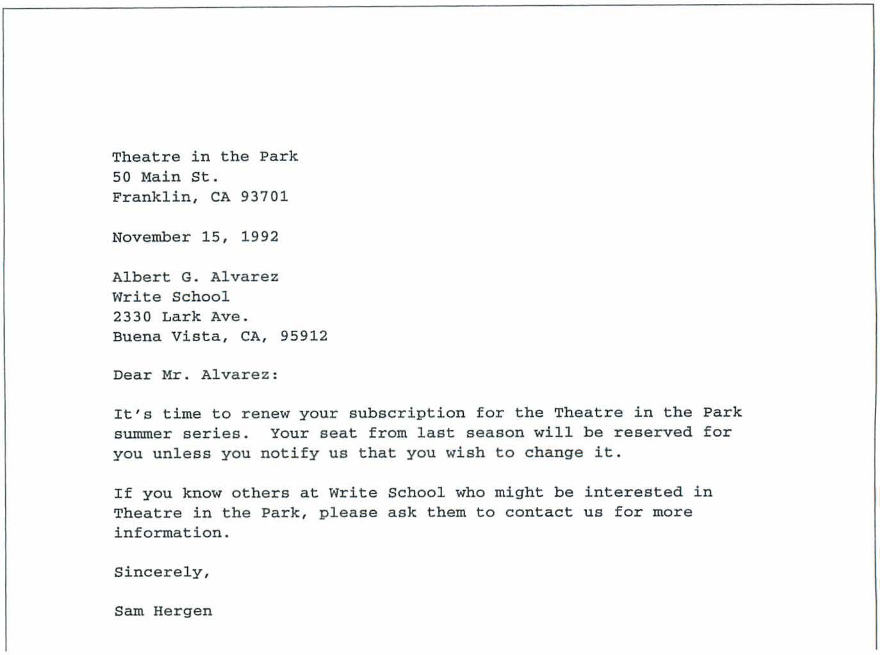
Now you'll print three letters using your mailing list and the original form letter.

1. Be sure your printer is on and ready.
2. At the Opening screen, choose File→Print (F,P).

   Note: In the Print dialog box, Interpret Merge Variables is selected by default. This means the merge print commands in your document will be interpreted by WordStar at print time.
3. Select THEATRE.DOC as the file to print. Press F10 or choose OK to start printing.

Three letters are printed, one to each person on the mailing list. The first letter looks like this:

Now that you've created a mailing list and a form letter and used them together to print individual letters, you've learned the basics of MailList and merge printing.



Theatre in the Park
50 Main St.
Franklin, CA 93701

November 15, 1992

Albert G. Alvarez
Write School
2330 Lark Ave.
Buena Vista, CA, 95912

Dear Mr. Alvarez:

It's time to renew your subscription for the Theatre in the Park summer series. Your seat from last season will be reserved for you unless you notify us that you wish to change it.

If you know others at Write School who might be interested in Theatre in the Park, please ask them to contact us for more information.

Sincerely,

Sam Hergen

CHAPTER 12

MERGE PRINTING WITH DATA FILES FROM OTHER PROGRAMS

In this chapter you'll learn about

☐ Printing Envelopes for a Mass Mailing

☐ Printing Three-Across Mailing Labels

When you use MailList to create your data file, you can easily print labels, envelopes, and form letters for mass mailings. If you have a laser printer or page printer, you can use the .LST files supplied by MailList to print envelopes or labels. For more information, see the "MailList" section in the *Companion Programs* manual.

This chapter contains procedures for printing envelopes and labels using a data file created by a program other than MailList (the file must contain names and addresses). You can use a data file created by dBASE, Lotus 1-2-3 (WordStar supports versions prior to release 3), or any program that creates a comma-delimited ASCII data file. If you have a dBASE IV file with memo fields, convert it to a dBASE III file.

MERGE PRINTING ENVELOPES FOR A MASS MAILING

You can use information from a mailing list or data file (other than a MailList file) to print envelopes. Follow the steps in the procedure below to create a master document, or file, for printing standard envelopes. The settings in this procedure work for most nonlaser or nonpage printers.

1. At the Opening screen, open a new document file.

2. Choose Layout→Page Numbering (Alt+L,N). In the Page Numbering dialog box, clear the Print Page Numbers check box. This turns off page numbering. Press F10 or choose OK.

   WordStar inserts the dot command **.op** to turn page numbering off.

3. Choose Utilities→Merge Print Commands→Data File (Alt+U,P,D) to select the data file. Type the name of the data file you want to use. Press F10 or choose OK.

   WordStar inserts the dot command **.df** with the filename.

4. Choose Utilities→Merge Print Commands→Name Variables (Alt+U,P,N). Type the variable names. For example, type the following variables. When you finish, press F10 or choose OK.

   ```
   Mr-Ms,name,address1,address2,address3
   ```

   WordStar inserts the **.rv** command with the variable names. Your file should look similar to this:

   ```
   .df client.dta
   .rv Mr-Ms,name,address1,address2,address3
   ```

5. Choose Utilities→Merge Print Commands→Ask for Variable (Alt+U,P,A). The Ask for Variable dialog box appears. For Variable Name, type **x**. For Prompt, type **Put envelope in printer. Press Enter when ready.** Press F10 or choose OK.

WordStar inserts this **.av** command:

```
.av "Put envelope in printer.  Press Enter when ready.",x
```

The **.av** command makes the printer pause before it prints each envelope so you can insert a new envelope. (In this dot command, disregard the ",x" variable; it's a trick to make your printer pause and doesn't affect your file.)

6 Choose Utilities→Merge Print Commands→Clear Screen While Printing (Alt+U,P,C). In the dialog box that appears, you can use the Message box to type a message for Wordstar to display after clearing the screen, or you can leave the Message box blank. Press F10 or choose OK.

The **.cs** command is used when you print the envelopes. It clears the screen after you respond to the **.av** message. If you entered a message in the dialog box, WordStar displays that message after clearing the screen.

7 Choose Layout→Page (Alt+L,P). The Page Layout dialog box appears. Specify the following settings for a standard 9.5 x 4-inch envelope. When you finish typing the settings, press F10 or choose OK.

Odd page offset	4.00"
Even page offset	4.00"
Top margin	2.00"
Bottom margin	0.00"
Page length	4.00"

8 On the line following the last dot command, type these sample variables to be used when printing the names and addresses from the data file:

```
&name&
&address1/o&
&address2/o&
&address3/o&
```

The /o option omits the blank space between lines when there is no data for one of the address lines.

9 Choose Insert→Page Break (Alt+I,P) to insert a **.pa** command. This command starts the address for a new envelope.

Now your envelope file should look like this:

```
.op
.df client.dta
.rv Mr-Ms,name,address1,address2,address3
.av "Put envelope in printer.  Press Enter when ready.",x
.cs
.poo 4.00"
.poe 4.00"
.mt 2.00"
.mb 0.00"
.pl 4.00"
&name&
&address1/o&
&address2/o&
&address3/o&
.pa
```

10 Save and print this file. WordStar uses your data file to print envelopes.

PRINTING ENVELOPES

If you have a laser printer, instead of using the file alone, you can print envelopes using the HP-ENV.LST or HP2-ENV.LST file. HP-ENV.LST is for the HP LaserJet, LaserJet Plus, and other printers that feed envelopes from the right side of the printer tray. HP2-ENV.LST is for the HP LaserJet series II and III and other printers that feed envelopes from the center of the manual feed tray. The HP-ENV.LST and HP2-ENV.LST files are in the directory containing the WordStar program files (usually WS).

When you choose one of these files to print envelopes, be sure the Interpret Merge Variables check box is selected and the Use Form Feeds check box is clear in the Print dialog box.

Using one of these files, you can print an envelope for each record in your data file. When printing pauses, read the message, insert an envelope, and press Enter to continue. After you press Enter, the **.cs** command in the file clears the screen.

MERGE PRINTING THREE-ACROSS MAILING LABELS

In the procedure below, you'll set up a format for merge printing names and addresses from a data file (other than a MailList file) onto mailing labels. The procedure uses a data file with five fields: name, street address, city, state, and zip code. The commands used in the procedure are appropriate for 3.5 x 15/16-inch, three-across labels printed with 10 characters per inch and 6 lines of text per inch. The procedure will work with most nonlaser or nonpage printers.

Note: If you're using a data file created with MailList, you don't need to use the procedure below to print labels. Instead, use the .LST files that come with MailList. For more information, see the "MailList" section in the Companion Programs manual.

1. At the Opening screen, open a new file.

2. Choose Layout→Page (Alt+L,P). In the Page Layout dialog box, specify these settings (when you finish, press F10 or choose OK):

Odd page offset	2.00"
Even page offset	2.00"
Top margin	0.00"
Bottom margin	0.00"
Page length	1.00"

   Note: The page length is set to 1 inch so that each row of labels is considered to be a page.

3. Choose Layout→Page Numbering (Alt+L,N). Clear the Print Page Numbers check box to turn page numbering off. Press F10 or choose OK.

   WordStar inserts **.op** to turn page numbering off.

4. On the line following the last dot command in the file, type **.pf off** to turn print-time formatting off and press Enter.

5 Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the Variable box, type **L**. In the Data box, type **L** 30 times. Press F10 or choose OK.

WordStar inserts this dot command:

`.sv L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL` (the command has 30 L's)

This command sets up a format that aligns the variable data and limits the length of the data (when printed) to 30 characters. (Additional characters aren't printed.)

6 Choose Utilities→Merge Print Commands→Data File (Alt+U,P,D) so you can select the data file. Type the name of the data file, for example, type **label.dta**. Press F10 or choose OK.

7 Choose Utilities→Merge Print Commands→Name Variables (Alt+U,P,N). In the Variables box, type **name1,address1,city1,state1,zip1**. Press F10 or choose OK.

8 Repeat step 7, but in the Variables box, type **name2,address2,city2,state2,zip2**

9 Repeat step 7 again, but in the Variables box, type **name3,address3,city3,state3,zip3**

The commands you entered in steps 6–9 appear onscreen as follows:

```
.df label.dta
.rv name1,address1,city1,state1,zip1
.rv name2,address2,city2,state2,zip2
.rv name3,address3,city3,state3,zip3
```

10 Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the first Variable box, type **cityline1**. In the Data box, type **&city1&, &state1& &zip1&**

In the next Variable box, type **cityline2**. In the Data box, type **&city2&, &state2& &zip2&**

In the next Variable box, type **cityline3**. In the Data box, type **&city3&, &state3& &zip3&**

11. Press F10 or choose OK.

    WordStar inserts these **.sv** commands:

    ```
    .sv cityline1=&city1&, &state1& &zip1&
    .sv cityline2=&city2&, &state2& &zip2&
    .sv cityline3=&city3&, &state3& &zip3&
    ```

12. Type the variables for the labels. Type 5 spaces between each variable on each line. The spaces will position the printer at the left side of the next label. For example, type this:

    ```
    &name1/L&     &name2/L&     &name3/L&
    &address1/L&     &address2/L&     &address3/L&
    &cityline1/L&     &cityline2/L&     &cityline3/L&
    ```

13. Choose Insert→Page Break (Alt+I,P) to insert a page break before the next set of three-across labels.

Your file should now look like this:

```
.poo 2.00"
.poe 2.00"
.mt 0
.mb 0
.pl 1.00"
.op
.pf off
.sv L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLL
.df label.dta
.rv name1,address1,city1,state1,zip1
.rv name2,address2,city2,state2,zip2
.rv name3,address3,city3,state3,zip3
.sv cityline1=&city1&, &state1& &zip1&
.sv cityline2=&city2&, &state2& &zip2&
.sv cityline3=&city3&, &state3& &zip3&
&name1/L&     &name2/L&     &name3/L&
&address1/L&     &address2/L&     &address3/L&
&cityline1/L&     &cityline2/L&     &cityline3/L&
.pa
```

AVOIDING BLANK LINES ON LABELS

Some mailing addresses consist of a city, state, and zip code, but no street address. For example, in the row of three-across labels below, the middle label for Roland Tums has no street address—the street address line is blank.

```
Franz Reichsman     Roland Tums            Rebecca Fies
125 Healing Street                         54321 Dolphin Drive
Marlboro, VT 05301  Tinyhamlet, MO 64423   Santa Fe, NM 85102
```

The middle label would look better if the city, state, and zip code appeared on the second line, like this:

```
Roland Tums
Tinyhamlet, MO 64423
```

In a letter, you can use the /o option to omit a line that contains no data for a variable. However, the /o option doesn't work for three-across mailing labels because the variable data for all three labels is on the same line. You can solve this blank line problem by using conditional dot commands that ask WordStar to check for missing data in a particular variable.

For example, a mailing list record usually consists of a name, street address, city, state, and zip code. The variable data that is most likely to be missing is the street address. When Wordstar reads all the variables in a data file for a row of labels, it checks for missing street addresses. If WordStar finds a missing street address, it moves the name1 information from the first line to the street address space on the second line. This leaves the blank line at the top of the label instead of in the middle. Then the row of labels looks like this:

```
Franz Reichsman                            Rebecca Fies
125 Healing Street  Roland Tums            54321 Dolphin Drive
Marlboro, VT 05301  Tinyhamlet, MO 64423   Santa Fe, NM 85102
```

Follow the steps below to insert a conditional command so WordStar will check each address in your mailing list:

1. Move the cursor to the line above the first line of label text.

2. Choose Utilities→Merge Print Commands→If (Alt+U,P,I) so you can insert the first conditional command. In the Variable Name box, type **&address1&**. Press F10 or choose OK.

   WordStar inserts a **.if** command in the file. The **.if** command tells WordStar to check the data contained in the variable that is surrounded by ampersands.

3. On the line below the **.if** command insert a blank line, with the cursor on the blank line, type **.sv address1,&name1&** and press Enter.

   WordStar inserts a **.sv** command in the file. The **.sv** command tells WordStar to move the name1 data into the address1 variable (the data is now the same for both name1 and address1).

4. On the next line, type **.sv name1.** This **.sv** command tells WordStar to delete the name1 variable and leave the field blank.

5. On the next line, choose Utilities→Merge Print Commands→End If (Alt+U,P,E) to end the condition.

6. Repeat steps 2–5 for the remaining two lines of variables. When you finish, the file on the screen should look like this:

```
.if &address1&=
.sv address1,&name1&
.sv name1
.ei
.if &address2&=
.sv address2,&name2&
.sv name2
.ei
.if &address3&=
.sv address3,&name3&
.sv name3
.ei
```

When an address field is blank, WordStar moves the name field information to the address field and leaves the name field blank. When all three address variables contain data, WordStar ignores the **.if** commands.

Note: If two or more variables are missing, use additional **.if** commands as needed.

7 Close and save the file.

PRINTING THE LABELS

When you print the label file, it uses the names and addresses contained in the data file you named in step 6 under "Merge Printing Three-Across Labels." When you choose the Print command, and the Print dialog box appears, check to be sure the Use Form Feeds check box is clear. Do not use form feeds when you print this file. Also, check that the Interpret Merge Variables check box is selected.

TIP *You might want to create a dummy data file containing three names and addresses that you can print just before printing your real data file. That way, you can check the position of the labels in the printer and make the necessary adjustments.*

CHAPTER 13

CREATING CONTRACTS

In this chapter you'll learn to

- ☐ Create a library of standard paragraphs for a contract
- ☐ Create a master document for a contract

CREATING A LIBRARY OF STANDARD PARAGRAPHS

In your business documents, you probably use some standard paragraphs over and over. Rather than retyping these paragraphs each time, you can create a library of paragraphs to add to your documents whenever you need them. The following example shows how to create two standard paragraph files for a lease agreement. You can substitute names and text as appropriate for your business.

Create the first standard paragraph file:

1. Open a new document and give it a descriptive name, such as LEASEOP.AGR.

2 Type this text in the file:

```
The leased stage props are available for sale from Stage
Props, Inc., if the lessee decides to keep them after the
lease period.
```

3 Save and close the file.

Now create the second standard paragraph file:

1 Open another document file and name it PROBLEMS.PAR.

2 Type this text in the file:

```
Because of past problems with late return of props, the
lessee agrees to pay a fee of $10.00 per day per prop
after the agreed date if the props are not returned on
time.
```

3 Save and close the file.

TIP *If you use many standard paragraphs in your work, you may want to store all the paragraph files in the same directory so they're easy to find.*

CREATING A CONTRACT

Now you'll use the standard paragraphs in the master document that you create for the contract. The master document will contain variables instead of actual names. When you print the master document, WordStar asks you what names you want to use in the document and substitutes that information for the variables. You can substitute different information in each contract.

In the steps below, you'll create the master document for a props lease contract. Start by typing the text of the contract.

1 Open a new file and name it LEASE.CTR.

2 Type this text in your document:

```
                    Lease Agreement

This form shall constitute a formal agreement between
&lessee& (the lessee) and Stage Props, Inc. (the lessor).
Under the terms of this agreement, the lessee agrees to
the following conditions:

&lessee& will receive, on loan, the &prop& for a
theatrical performance.

&lessee& agrees to be responsible for the &prop&'s safe
return to Stage Props, Inc., in good condition, with
allowances for normal wear and tear.
```

Notice the ampersands at the beginning and end of each occurrence of "lessee" and "prop." The ampersands tell WordStar that the word is a variable.

Now you'll add clauses to the contract by drawing on your library of standard paragraphs. In the steps below, you'll use conditional commands that tell WordStar to print the text in PROBLEMS.PAR only when a specific condition is met for the lessee. You'll have WordStar ask you at print time whether the lessee has caused problems in the past and to print PROBLEMS.PAR only if you answer "yes."

1 At the end of the LEASE.CTR file, choose Utilities→Merge Print Commands→Ask for Variable (Alt+U,P,A). In the Variable Name box, type **problem**. In the Prompt box, type **Has this account been a problem?** Press F10 or choose OK.

WordStar inserts a **.av** command into the file. When you print the file, WordStar pauses at the **.av** command and asks *Has this account been a problem?* You can answer **Y** (for yes) or **N** (for no).

2 Choose Utilities→Merge Print Commands→If (Alt+U,P,I). In the Variable Name box type **&problem&**. In the Constant box type **Y**. From the Operator (Alphabetical) options, select = same as. Press F10 or choose OK.

The command **.if &problem& = Y** inserted into the lease document tells WordStar to follow the next instruction only if you answered Yes to the *PROBLEM?* prompt.

3 Choose Insert→File at Print Time (Alt+I,L). In the Filename box, type **PROBLEMS.PAR** to insert the problems paragraph. Press F10 or choose OK.

4 Choose Utilities→Merge Print Commands→End If (Alt+U,P,E) to tell WordStar this is the end of the condition.

WordStar inserts the **.ei** command into the file.

Finally, you'll tell WordStar to ask you at print time for the name of the lessee and the type of props being leased.

1 Move your cursor to line 1, column 1 of the document.

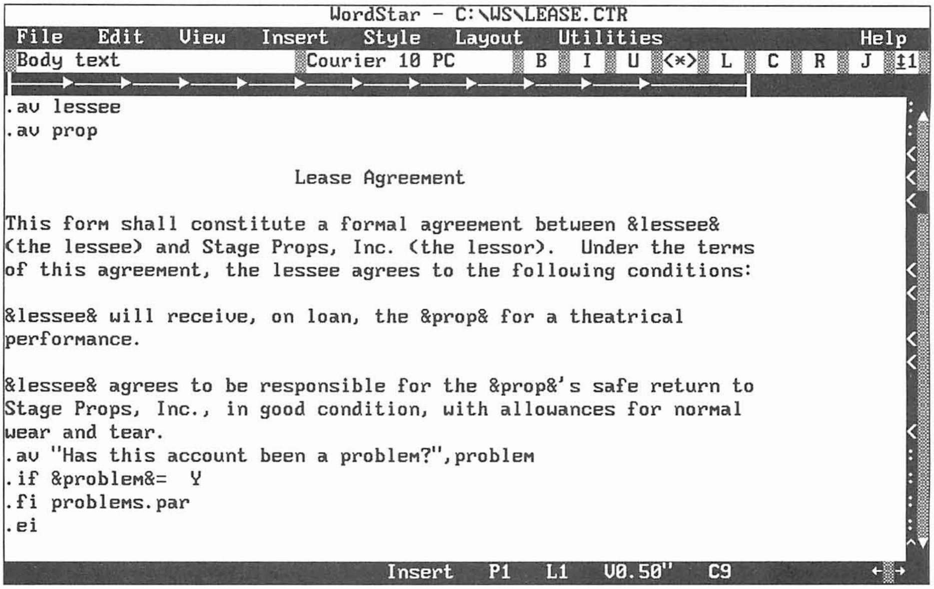
2 Choose Utilities→Merge Print Commands→Ask for Variable (Alt+U,P,A). In the Variable Name box, type **lessee**. Press F10 or choose OK.

WordStar inserts the command **.av lessee**. When you print the LEASE.CTR file, WordStar pauses at this command and asks *LESSEE?* You type the name of the lessee.

3 Choose Utilities→Merge Print Commands→Ask for Variable (Alt+U,P,A). In the Variable Name box, type **prop**. Press F10 or choose OK.

WordStar inserts the command **.av prop**. When you print the file, WordStar pauses at this command and asks *PROP?* You type the prop being leased.

Your document should now look like this on the screen:


WordStar - C:\WS\LEASE.CTR
File
Edit
View
Insert
Style
Layout
Utilities
Help
Body text
Courier 10 PC
B
I
U
<*>
L
C
R
J
±1
Insert
P1
L1
V0.50"
C9

```
.av lessee
.av prop

                         Lease Agreement

This form shall constitute a formal agreement between &lessee&
(the lessee) and Stage Props, Inc. (the lessor).  Under the terms
of this agreement, the lessee agrees to the following conditions:

&lessee& will receive, on loan, the &prop& for a theatrical
performance.

&lessee& agrees to be responsible for the &prop&'s safe return to
Stage Props, Inc., in good condition, with allowances for normal
wear and tear.
.av "Has this account been a problem?",problem
.if &problem&=  Y
.fi problems.par
.ei
```

5 Save and close the file.

Each time you print LEASE.CTR, WordStar asks for the name of the lessee and the prop being leased. The responses are inserted in place of the &lessee& and &props& variables. WordStar then asks about problems. If you answer "yes" to the *PROBLEM?* prompt, WordStar inserts the problems paragraph (PROBLEMS.PAR).

Note: When you print this file, be sure that Interpret Merge Variables is selected in the Print dialog box so WordStar will interpret the merge print commands at print time.

CHAPTER 14

CALCULATING BILLING DATA

In this chapter you'll learn about

- ☐ Preparing a Billing with Data from dBASE or Lotus
- ☐ Math Capabilities at Print Time
- ☐ Variable Number and Text Formatting
- ☐ Using Conditional Statements and Paragraphs

Preparing a billing involves combining text and data. You need the customer's name and address and the amount due. You may also need other specialized information, such as which regional office the customer should contact if he or she has any questions. You may also have individualized notes to add to certain customers' letters.

WordStar imports information from many database programs. You can add data about a particular customer without editing the file each time. You can even have WordStar figure the total due when you print the document.

The steps in this chapter specify using a dBASE III file. To follow the instructions exactly, you'll need a dBASE III file containing customers' names, addresses, and account data. If you use another program, adapt the instructions as necessary.

Note: If you're using a dBASE IV file with memo fields, use dBASE to convert it to a dBASE III file. WordStar handles the dBASE III format more easily.

CREATING A BILLING DOCUMENT

In the following steps, you'll create a form letter to serve as a billing. WordStar fills in the blanks at print time to create an individual billing for each customer.

1. Open a new file and name it BILLING.DOC.

2. Choose Utilities→Merge Print Commands→Data File (Alt+U,P,D). Type the name of the dBASE file containing your customer information. Include the complete path to the file. Press F10 or choose OK.

   WordStar inserts the dot command **.df** into the file.

3. Choose Utilities→Merge Print Commands→Name Variables (Alt+U,P,N). In the Variables box type * to use all of the predefined field names in your dBASE file as WordStar variables. If you prefer, you can type the variable names yourself in the same order as they appear in the data file. Press F10 or choose OK.

   WordStar inserts the dot command **.rv** into the file.

4. Choose Layout→Page Numbering (Alt+L,N) to display the Page Numbering dialog box. Clear the Print Page Numbers check box. This turns off page numbering. Press F10 or choose OK.

   WordStar inserts the dot command **.op** into the file.

TYPING TEXT AND VARIABLES

In the next steps, you type the text and variables for your billing.

Ampersands (&) around text indicate a variable. Variables are replaced by actual data at print time. You add the /o option to the customer address fields to ensure that lines won't be left blank if some customers don't have a second address line.

The &@& date variable is a system variable—the information for that variable is inserted from your computer's memory. If the date device in your computer is set correctly, the correct date replaces this variable when the billing is printed. The date needs more space than the variable does, so remember to leave enough room.

1. Type the text for your billing using the following example. If necessary, use your dBASE variable names instead of those shown in the example.

```
&Mr-Ms& &full-name&
&addr1/o&
&addr2/o&
&city&, &state& &zip&                                         &@&

Dear &Mr-Ms& &full-name&:

Per your last order:
&units1& &equip1& at &costper1& =
&units2& &equip2& at &costper2& =
&units3& &equip3& at &costper3& =
                     Total due

Sincerely,

Mr. Baxter
Baxter and Associates
```

2. Choose Insert→Page Break (Alt+I,P) to insert a page break.

   WordStar inserts the dot command **.pa** at the end of the text.

DETERMINING TOTALS AT PRINT TIME

Now that you've typed the text for your billing, you can use the WordStar math features to calculate the subtotals and the grand total due. When you print the file, WordStar makes these calculations for each billing.

CALCULATING THE SUBTOTALS

1 Move the cursor to the **.op** command. The cursor should be in column 1.

2 Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **total1**. In the Mathematical Expression to be Calculated box, type **&units1& * &costper1&**. Press F10 or choose OK.

WordStar inserts the following command:

```
.ma total1 = &units1& * &costper1&
```

The **.ma** command determines the subtotal.

3 Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **total2**. In the Mathematical Expression to be Calculated box, type **&units2& * &costper2&**. Press F10 or choose OK.

4 Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **total3**. In the Mathematical Expression to be Calculated box, type **&units3& * &costper3&**. Press F10 or choose OK.

The **.ma** commands should look like this:

```
.ma total1 = &units1& * &costper1&
.ma total2 = &units2& * &costper2&
.ma total3 = &units3& * &costper3&
```

The **.ma** command creates new variables, total1, total2, and total3, which represent the subtotals for each item ordered.

5 Move the cursor to the space following the first equal sign (=) in the text of the letter.

6 Press the Spacebar and type **&total1&**.

7 Move to the space following the next equal sign (=) , press the Spacebar and type **&total2&**. Do the same for the third subtotal and type **&total3&**.

CALCULATING THE GRAND TOTAL

You can add another **.ma** command to find the grand total due. WordStar prints this amount on the line that represents the total due.

1 Move the cursor to the **.op** command.

2 Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **gtotal**. In the Mathematical Expression box, type **&total1& + &total2& + &total3&**. Press F10.

The following command appears in your file:

```
.ma gtotal = &total1& + &total2& + &total3&
```

3 Move the cursor to the space following the words "Total due."

4 Press the Spacebar and type **&gtotal&**.

Your text should look like this:

```
Total due &gtotal&
```

VARIABLE NUMBER FORMATTING

Now you'll add some commands to tell WordStar how to print the numbers to be inserted at print time.

1 Move the cursor to the **.op** command.

2 Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the Variable box, type **1**. In the Data box, type **($$$,$$$.99)**. Press F10 or choose OK.

The following command appears in your file:

```
.sv 1=($$$,$$$.99)
```

This format tells WordStar to put a dollar sign in front of variables with the /1 parameter (see step 3 below). If the number is more than 999, a comma is inserted after the thousands place. If the number is less than 1,000, the dollar sign is preceded by spaces. If the number is less than zero (for instance, if the customer has a credit), the number is in parentheses.

3 Add the /1 parameter to each variable in the text that represents a dollar amount. In your file, these are the three &costper& variables, three &total& variables, and the &gtotal& variable. For example, the &total1& variable now looks like this:

```
&total1/1&
```

VARIABLE TEXT FORMATTING

You can control the format of variables that print as text. In the following steps you'll left-align the &equip& variables you typed in the text.

1 In your file, move the cursor to the **.op** command

2 Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the Variable box, type **2**. In the Data box, type **L** 15 times. Press F10 or choose OK.

The following command appears in your file:

```
.sv 2=LLLLLLLLLLLLLLL.
```

(There are 15 L's.)

This command tells WordStar to allow 15 spaces for the name of each kind of equipment purchased. The equipment name aligns at the left margin. If the equipment name is less than 15 characters long, WordStar adds as many spaces as necessary to fill the 15-character space.

3 Move the cursor to the &equip& variables in your text. Add the **/2** parameter to each one. The &equip1& variable now looks like this:

```
&equip1/2&
```

USING CONDITIONAL STATEMENTS

Sometimes the information you send to customers varies, depending on where they live, the amount of their balance, or the date of the billing. In the following steps, you'll add a paragraph called a *conditional paragraph,* that tells customers which regional branch of your company to contact, based on the customer's address.

Follow these steps to add a conditional paragraph:

1. Move the cursor to the blank line above the word "Sincerely."

2. Choose Utilities→Merge Print Commands→If (Alt+U,P,I). In the Variable Name box, type **&state&**. In the Constant box, type **CA**. From the Operator (Alphabetical) options, select = same as. Press F10 or choose OK.

   The following command appears in your file:

   ```
   .if &state&=  CA
   ```

   The **.if** command tells WordStar to use the Western Regional Office paragraph (see step 3) for customers living in CA (California).

3. Press Enter after the **.if** command and type the paragraph containing the Western Regional Office. For example, type

   ```
   If you have questions about your billing, contact Gabriel
   Grace at our Western Regional Office, 12 San Pablo Road,
   San Rafael, CA 94903.
   ```

4. Move the cursor to the next line. Choose Utilities→Merge Print Commands→Else (Alt+U,P,L) to specify the paragraph to print if the customer lives in a state other than California.

   The **.el** command appears in your file.

5. Type the paragraph to use for the other customers. For example, type

```
If you have questions about your billing, contact Morgan
J. Robinson at our Main Office, 1201 27th Street,
Rockaway, NY 11691.
```

6. On the next line, choose Utilities→Merge Print Commands→End If (Alt+U,P,E) to end the condition.

Now, every customer in California will receive a billing containing the Western Regional Office address. Other customers will receive a billing containing the Main Office address.

CONDITIONAL PARAGRAPHS BASED ON THE BALANCE DUE

You may want your billing to include an announcement of a special offer or sale. In the following example, you'll add a paragraph announcing a discount for customers. The size of the discount will depend on the balance due.

Customers who owe the most receive the biggest discount. You'll add a conditional statement offering a 15% discount to customers whose balance is more than $300.00.

1. Move the cursor to the line just above "Sincerely," (create a blank line if necessary).

2. Choose Utilities→Merge Print Commands→If (Alt+U,P,I). In the Variable Name box, type **&gtotal&**. In the Constant box, type **300.00**. From the Operator (Numerical) options, select # greater than. Press F10 or choose OK.

   This command appears in the file:

   ```
   .if &gtotal& #> 300.00
   ```

3. Type the paragraph offering the 15% discount. For example, on the next line type

```
Because you're such a good customer, we're offering a
special 15% discount on all merchandise for the next
month.  Take advantage of this special offer to stock up
on all your equipment needs.
```

Now tell WordStar to offer a 10% discount to the customers whose balance is less than $300.00 but more than $200.00.

1. Choose Utilities→Merge Print Commands→Else (Alt+U,P,L).
2. Choose Utilities→Merge Print Commands→If (Alt+U,P,I). In the Variable Name box, type **&gtotal&**. In the Constant box, type **200.00**. From the Operator (Numerical) options, select # greater than. Press F10 or choose OK.
3. Type the paragraph offering the 10% discount.

```
We're grateful for your patronage, and we're offering you
a special 10% discount on all merchandise for the next
month.  Take advantage of this special offer to stock up
on all your equipment needs.
```

Now you'll type a paragraph for customers who don't earn a discount.

1. Choose Utilities→Merge Print Commands→Else (Alt+U,P,L). This tells WordStar to print the next paragraph if the previous conditions aren't met.

   WordStar inserts the **.el** command.

2. On the line following the **.el** command, type **Thank you for shopping with us.** and press Enter.

Now you'll end the conditions by inserting two **.ei** commands.

1. Choose Utilities→Merge Print Commands→End If (Alt+U,P,E).

   WordStar inserts the first **.ei** command.

2. Repeat step 1 to insert another **.ei** dot command.

SKIPPING RECORDS IN THE DATA FILE

You don't want to bill customers who have no balance due. You can avoid printing a bill for these customers by using the following technique.

1. Move the cursor to the **.op** command.
2. Choose Utilities→Merge Print Commands→If (Alt+U,P,I). In the Variable Name box, type **&gtotal&**. In the Constant box, type **0**. From the Operator (Numerical) options, select #> greater than. Press F10 or choose OK.
3. Choose Edit→Go to Other→Document End (Alt+E,O,O) to move the cursor to the end of the document (after the page break).
4. Choose Utilities→Merge Print Commands→Else (Alt+U,P,L).

   WordStar inserts the **.el** command into the file.
5. On the next line, choose Utilities→Merge Print Commands→Display Message (Alt+U,P,M). In the Message box, type **&full-name& has no balance due. No billing will be printed.** Press F10 or choose OK.

   WordStar inserts a **.dm** command followed by the message you just typed.

   When WordStar finds a customer who has no balance due, it displays this message onscreen and doesn't print a billing.
6. Choose Utilities→Merge Print Commands→End If (Alt+U,P,E) to end the conditional statement.

INCLUDING DBASE III MEMO FIELDS

The dBASE III and dBASE III Plus programs have a memo field feature that allows you to make extensive notes about each record in your data file. If you want to include the dBASE notes for each customer, follow these steps:

1 Move the cursor to the place in your billing where you want WordStar to print the memo field.

  In this example, the memo field is called NOTE, so the variable for that field is &note& (the variable name must always match the field name).

2 Type **&note&** in your file. The entire memo field will print at the &note& variable.

THE BILLING DOCUMENT

Now that you've completed the steps in this chapter, your billing document looks like this:

```
.df c:\dbase\customers.dbf
.rv*
.ma total1=&units1& * &costper1&
.ma total2=&units2& * &costper2&
.ma total3=&units3& * &costper3&
.ma gtotal=&total1& + &total2& + &total3&
.sv 1=($$$,$$$.99)
.sv 2=LLLLLLLLLLLLLL
.if &gtotal& #> 0
.op
&Mr-Ms& &full-name&
&addr1/0&
&addr2/0&
&city&, &state& &zip&                                         &@&

Dear &Mr-Ms& &full-name&:

Per your last order:
&units1& &equip1/2& at &costper1/1& = &total1/1&
&units2& &equip2/2& at &costper2/1& = &total2/1&
&units3& &equip3/2& at &costper3/1& = &total3/1&
                        Total due     &gtotal/1&
.if &state&=CA
If you have questions about your billing, contact Gabriel
Grace at our Western Regional Office, 12 San Pablo Road,
San Rafael, CA, 94903.
.el
```

```
If you have questions about your billing, contact Morgan
J. Robinson at our Main Office, 1201 27th Street,
Rockaway, NY 11691.
.ei
.if &gtotal& #> 300.00
Because you're such a good customer, we're offering a
special 15% discount on all merchandise for the next
month.  Take advantage of this special offer to stock up
on all your equipment needs.
.el
.if &gtotal& #> 200.00
We're grateful for your patronage, and we're offering you
a special 10% discount on all merchandise for the next
month.  Take advantage of this special offer to stock up
on all your equipment needs.
.el
Thank you for shopping with us.
.ei
.ei
Sincerely,

Mr. Baxter
Baxter and Associates
&note&
.pa
.el
.dm &full-name& has no balance due.  No billing will be
printed.
.ei
```

When you save and print the file, a copy of the billing is printed for each customer with a balance due. If the customer lives in California, the paragraph about the regional office is printed. Otherwise, the paragraph about the main office is printed. If the customer has a balance due of $300.00 or more, a 15% discount is offered. If the customer has a balance between $200.00 and $300.00, a 10% discount is offered. If no balance is due, no billing is printed, and you see a message onscreen to that effect.

CHAPTER **15**

MAKING LOAN AND INTEREST CALCULATIONS

If you're involved in calculating percentages and equations, you'll find the WordStar print-time math capabilities helpful. This chapter shows how to figure the amount of interest a customer will pay on a large purchase, and what the monthly payments will be. The example is set up as a merge print document so the letter can go out to a group of customers.

SETTING UP THE MERGE PRINTING PARAMETERS

You start the document by giving the commands to set up the page design.

1. Open a new document file.
2. Choose Layout→Page Numbering (Alt+L,N) to display the Page Numbering dialog box. Clear the Print Page Numbers check box. Press F10 or choose OK.

   WordStar inserts the dot command **.op** to omit page numbers, since this is the only page of the letter.

3. Choose Utilities→Merge Print Commands→Data File (Alt+U,P,D). Type the name of the data file. Press F10 or choose OK.

   WordStar inserts the **.df** command.

4. Choose Utilities→Merge Print Commands→Name Variables (Alt+U,P,N). Type the name of each variable in your data file; separate the variable with a comma. Do not type ampersands in the dialog box.

   The data file must include variables for the amount of the purchase or loan, the interest rate being charged, and the total number of payments (the length of the loan). In this example, the variables are

`&purch&`	`amount of purchase`
`&int&`	`interest rate`
`&numpay&`	`number of payments`

WordStar inserts a **.rv** command for the variables.

CALCULATING MONTHLY PAYMENTS

When you know the amount being financed, the interest rate, and the terms of purchase, you can use the following equation to determine the monthly payment.

$$P = A * i * (i + 1)^{n}/((i + 1)^{n-1})$$

In the equation

P is the amount of each payment.

A is the amount being financed.

i is the interest rate. To find the interest per payment, **i** is divided by the number of payments per year and must be converted from a percentage to a decimal.

n is the total number of payments. For example, monthly payments for 14 years total 168 payments.

Follow these steps to have WordStar calculate the payment amount.

1. Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **i**. In the Mathematical Expression box, type **&int&/1200**. Press F10 or choose OK.

   WordStar inserts the following command into your file:

   ```
   .ma i=&int&/1200
   ```

   This command converts the interest rate from a percentage amount to a decimal figure.

2. Choose Utilities→Merge Print Commands→Set Variable to Math Result (Alt+U,P,V). In the Variable Name box, type **P**. In the Mathematical Expression to Be Calculated box, type this:

   ```
   &purch& * &i& * ((&i&+1)^&numpay&)/(((&i&+1)^&numpay&)-1)
   ```

   Press F10 or choose OK.

   WordStar inserts the following command into your file:

   ```
   .ma P=&purch& * &i& * ((&i&+1)^&numpay&)/(((&i&+1)^&numpay&)-1)
   ```

   This command determines the amount of the monthly payment.

SETTING VARIABLE FORMATS

Next you'll determine the format for the variables that contain numeric values.

1. Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S).

2. In the Variable box, type **a**.

3. In the Data box, type **$$$,$$$.99**. Press F10 or choose OK.

   The following command is inserted into your file:

   ```
   .sv a=$$$,$$$.99
   ```

WordStar will put a dollar sign in front of the number and a comma after the thousands place.

Next, you'll tell WordStar which variables to print with the dollar sign format.

1. Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the Variable box, type **purch**. In the Data box, type **&purch/a&**. Press F10 or choose OK.

   WordStar inserts the following command into your file:

   ```
   .sv purch=&purch/a&
   ```

2. Choose Utilities→Merge Print Commands→Set Variable (Alt+U,P,S). In the Variable box, type **P**. In the Data box, type **&P/a&**. Press F10 or choose OK.

   WordStar inserts the following command into your file:

   ```
   .sv P=&P/a&
   ```

TYPING YOUR LETTER

After you define the variables and create the equations, type the letter to your customers.

Start by typing the name, address, and salutation, using the variable names in the **.rv** commands at the beginning of the file.

Note: If there is no data in certain fields, use the /o option to avoid blank lines.

1. Type this:

   ```
   &Mr-Ms& &name&
   &addr1/o&
   &addr2/o&
   &city&, &state& &zip&

   Dear &Mr-Ms& &name&,
   ```

2 Type the text for the letter. Use the new &P& and &i& variables you created with the **.ma** commands.

```
Recently, you purchased &item& from our company.  The
total purchase price of &item& was &purch&.  This letter
is to confirm the interest rate and payment schedule for
your purchase.

The interest rate for your purchase is &i&%.  This works
out to &numpay& payments of &P& each.

If you have any questions, please contact me at our main
office.

Sincerely,


Mr. Perry, Credit Manager
```

3 Choose Insert→Page Break (Alt+I,P) to insert a page break.

WordStar inserts **.pa** into the document.

Your letter looks similar to this.

```
.op
.df finance.dta
.rv Mr-Ms,name,addr1,addr2,city,state,zip
.rv item,purch,int,numpay
.ma i=&int&/1200
.ma P=&purch&*&i&*((&i&+1)^&numpay&)/(((&i&+1)^&numpay&)-1)
.sv a=$$$,$$$.99
.sv purch=&purch/a&
.sv P=&P/a&
&Mr-Ms& &name&
&addr1/o&
&addr2/o&
&city&, &state& &zip&

Dear &Mr-Ms& &name&,

Recently, you purchased &item& from our company.  The
total purchase price of &item& was &purch&.  This letter
is to confirm the interest rate and payment schedule for
your purchase.
```

```
The interest rate for your purchase is &i&%.  This works
out to &numpay& payments of &P& each.

If you have any questions, please contact me at our main
office.

Sincerely,


Mr. Perry, Credit Manager
.pa
```

When you print this form letter, WordStar calculates the monthly payments and interest rates for all the customers in your data file.

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WORDSTAR®

A1-C2010

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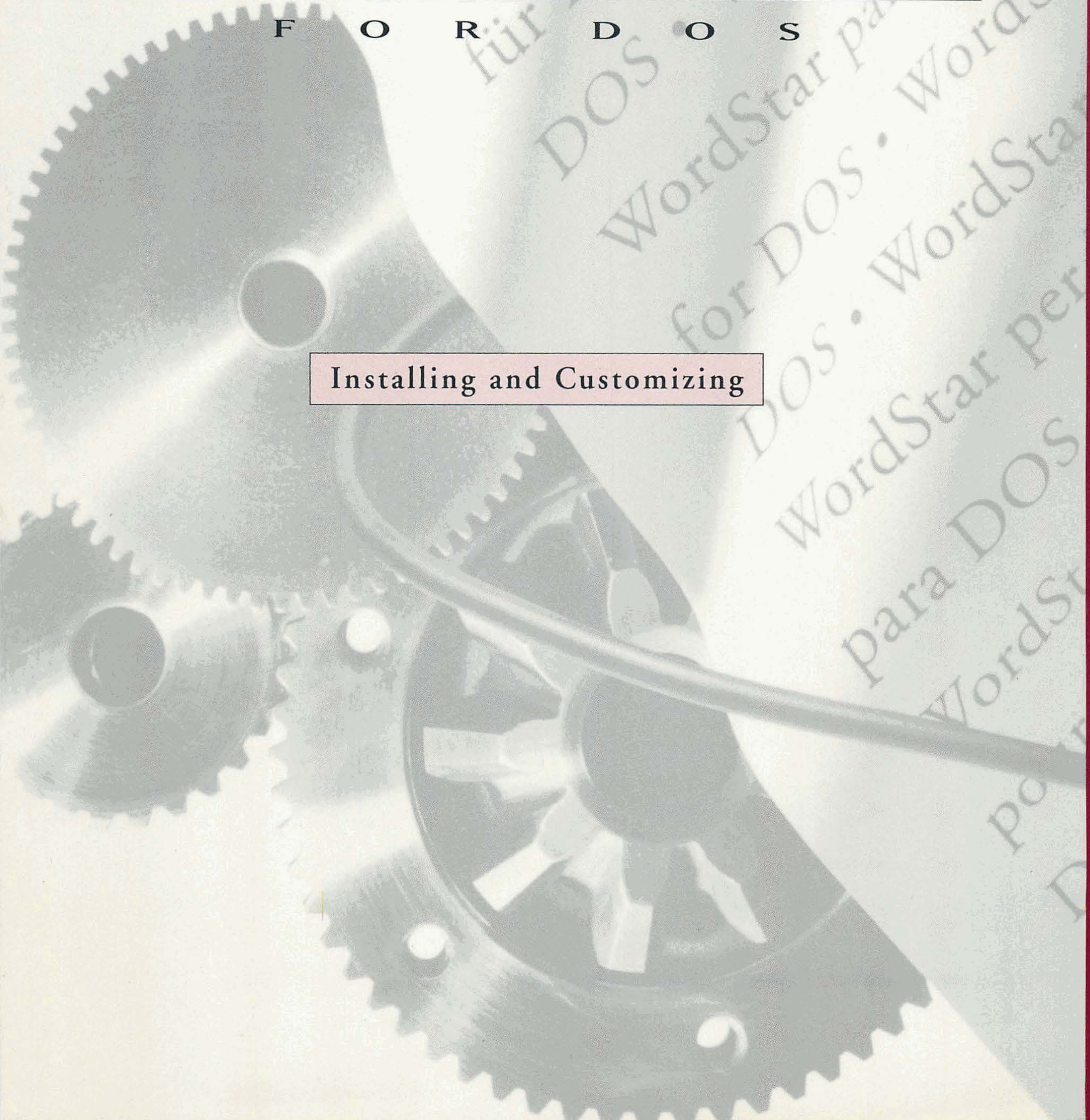
FOR DOS

Installing and Customizing



WORDSTAR®

FOR DOS

Installing and Customizing

Version 7.0

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INTRODUCTION

If you're upgrading from a previous release or revision of WordStar, be sure to read the booklet "Upgrading from a Previous Release" before you install WordStar 7.0.

This booklet includes the following sections:

- ☐ "Installing WordStar" tells you how to install WordStar. This section also tells you how to start and exit WordStar, how to view the README file, and how to decompress a single file from the compressed program disks in your package.
- ☐ "Customizing WordStar" tells you how to modify your printer installation and WordStar settings to suit your particular needs. This section includes a list of the paths you can take in WSCHANGE (the WordStar customizing option) to change various settings in WordStar.
- ☐ "Advanced Customizing" provides more advanced procedures for customizing WordStar, such as fine-tuning Preview, patching WordStar, and using the PDFEDIT option. Only advanced WordStar users should use these procedures.

CHAPTER 1

INSTALLING WORDSTAR

This section tells you how to install WordStar using WSSETUP, the WordStar setup program. You'll need the disks that came in your WordStar package. Then follow the instructions below to install WordStar.

USING WSSETUP

Most hard disk computers have a floppy disk drive named A and a hard disk drive named C. If your drives are named differently, make the appropriate substitutions in the instructions below.

1. Turn on your computer.
2. When C appears on the screen, put the Installation disk in drive A.
3. Type **a:** and press Enter.
4. Type **wssetup** and press Enter. As you install WordStar, read the instructions on the screen.

5 You may be asked if you want to modify the CONFIG.SYS file. If so, follow the onscreen instructions to modify the file, and be sure to reboot your computer. When you finish, restart WSSETUP by following steps 2, 3, and 4 above. If you are not asked to modify the CONFIG.SYS file, go to step 6.

6 At the Serial Number screen, type the serial number for your copy of WordStar. Press **F10** to continue.

7 At the Disk Drive Names screen, press **F10** to install WordStar in the WS directory on drive C.

8 At the Add or Remove a Feature screen, copy your disks. WordStar, Dictionaries, and Preview are already marked with a plus sign (+) for copying. These features contain the main program files for word processing. Highlight and mark any other features you want. Press the **PgDn** key to see the complete list. Be sure to mark Printer Data Files and choose the printer(s) you're going to install.

Note: When a feature is followed by three dots, it means you can copy all options or selected options. If a feature is already marked with a +, press Enter to see the options.

When you finish marking features, press **F10** to start copying, and follow the onscreen instructions for inserting disks.

9 Install your monitor and choose the default colors for your type of monitor. If you have a monochrome graphics monitor or if your monitor doesn't display underlined characters, choose the alternate monochrome display option.

10 Install your printer. You can install one printer in WSSETUP. That printer becomes your default printer, the one assigned to print your documents. (If you have other printers, you can install them later.) When you name your printer description file (PDF) at the Installed Printer Menu, choose a name that suits your printer. Don't choose ASCII, ASC256, DRAFT, or WS4.

For more information about printer installation, see "Installing a Printer" in the "Customizing WordStar" section of this booklet.

When you finish installing your printer and you're back at the Installed Printer Menu, press **F10** to save your PDF.

11 At the Summary screen, read the information and press **F10** to return to DOS. Remove Disk 1 from drive A.

When the DOS prompt appears, you can start WordStar.

Later on, you may decide to add more features, change WordStar settings, or install another printer. To make additional changes to WordStar, use WINSTALL, the WordStar program that contains options for additional installation and customization. For more information about WINSTALL, see "Customizing WordStar" in this booklet.

STARTING AND EXITING WORDSTAR

Once you've installed WordStar, here's how to start and exit the program each time you want to use it:

1 Turn on your computer.

2 Log on to the directory containing your WordStar files. For example, if WordStar is in the WS directory, type **cd\ws** and press Enter.

3 Type **ws** and press Enter.

4 Press **F** to see the File Menu and begin using WordStar.

5 When you want to exit WordStar, go back to the Opening screen and press **X**.

If you have any problems starting WordStar, see "Modifying the CONFIG.SYS File" below.

MODIFYING THE CONFIG.SYS FILE

THE FILES= STATEMENT

During WSSETUP, WordStar checks the FILES= statement in your CONFIG.SYS file to see if it is correct for your DOS version and WordStar. If the FILES= statement needs to be changed, WSSETUP asks if you want the CONFIG.SYS file to be modified. If you respond "No" to that question, you'll have to go into the CONFIG.SYS file and make the changes yourself.

WSSETUP may continue to prompt you to modify the CONFIG.SYS file, even though the FILES= statement is correct for your DOS version. This happens when memory-resident programs or other items in your AUTOEXEC.BAT file don't leave WordStar enough room to run correctly.

To solve this problem:

- If you have DOS 3.0 or later, increase the FILES= statement in increments of five (rebooting after each increment) until the CONFIG.SYS prompt no longer appears when you run WSSETUP. Probably one increase will be enough. A second option is to remove any memory-resident programs from your AUTOEXEC.BAT file.
- If you have DOS 2.*n* or earlier, FILES=20 is the maximum that can be stated in the CONFIG.SYS file. If the CONFIG.SYS prompt continues to appear, even though you have a FILES=20 statement, remove all memory-resident programs from your AUTOEXEC.BAT file. (In a normal DOS 2.*n* environment, FILES=20 is enough to run WordStar properly.)

If you want to bypass the FILES= check in WSSETUP, type **wssetup /z** at the DOS prompt and press Enter. Then WSSETUP will run without verifying your FILES= statement. This method is recommended only if you're sure the FILES= statement is adequate for your needs.

THE STACKS= STATEMENT

If you get a DOS error message like *Stack Overflow* or *Divide Overflow*, and you're using DOS 3.2 or later, try adding STACKS=20,256 to your CONFIG.SYS file.

INSTALLING COMPANION PROGRAMS

If you want to add a companion program such as MailList™ or Star Exchange, you can use the Add or remove a feature option in WINSTALL. For more information, see "Add or remove a feature" under "The WINSTALL Menu" in "Customizing WordStar."

USING COPYWS TO DECOMPRESS A SINGLE FILE

The disks in your WordStar package are compressed. If you need to replace a single file, you can decompress the file from the appropriate compressed disk. To decompress and copy a single file from a compressed disk, follow the instructions below.

1. Insert Disk 1 from your WordStar package into drive A. Log on to drive A.
2. At the A prompt, type **copyws a: c:\ws *filename***, where *filename* is the name of the file you want to decompress, and press Enter. The program tells you what disk to insert.
3. Follow the onscreen instructions.

README—FOR THE LATEST INFORMATION

The README file contains information about WordStar that became available after the manuals were printed. To view README, make sure you're in the WordStar directory. Type **readme.bat** and press Enter. Use regular WordStar commands to move around in or print the README file.

CHAPTER 2

CUSTOMIZING WORDSTAR

After you install WordStar, you can customize it by changing some of its settings to suit your particular needs. For example, you might want to change the colors displayed in WordStar, or change the printer port selection for your printer.

You used WSSETUP to install WordStar. To customize WordStar, you use WINSTALL. WINSTALL offers options for customizing WordStar and installing additional features.

To find the information you need to customize WordStar using WINSTALL, see the chart on the next page.

FINDING INFORMATION IN THIS SECTION

The following chart shows some of the items you can change in WINSTALL, and which sections in this chapter to refer to for instructions.

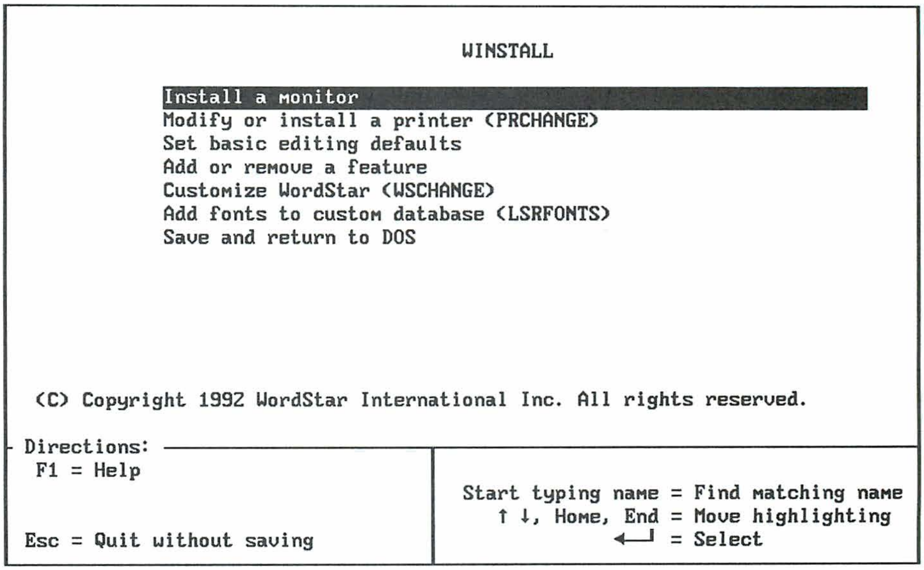
TOPIC	WHERE TO FIND IT
AUTOEXEC.BAT file	Setting Basic Editing Defaults
Color settings	Changing WordStar Settings in WSCHANGE
CONFIG.SYS file	Setting Basic Editing Defaults
Converting files	Adding or Removing a Feature
Custom printer code	Installing a Printer
Default printer	Setting Basic Editing Defaults
Dialog boxes (Enter key)	Setting Basic Editing Defaults
Directory (initial logged)	Setting Basic Editing Defaults
Disk drives	Changing WordStar Settings in WSCHANGE
Downloading fonts	Customizing Your Printer in PRCHANGE
Fonts	Customizing Your Printer in PRCHANGE
Graphics	Adding or Removing a Feature
Help level	Setting Basic Editing Defaults
Inset®	Adding or Removing a Feature
MailList	Adding or Removing a Feature
Margins	Changing WordStar Settings in WSCHANGE
Memory usage	Managing Your Computer's Memory
Monitor	Installing a Monitor
Paragraph style (default)	Setting Basic Editing Defaults
Pathing	Changing WordStar Settings in WSCHANGE
Pause between pages	Customizing Your Printer in PRCHANGE
PDFs	Installing a Printer
Preview screen fonts	Customizing Your Printer
Printer drivers	Installing a Printer
Printer port	Installing a Printer
RAM usage	Changing WordStar Settings in WSCHANGE
Screen size	Changing WordStar Settings in WSCHANGE
Sheet feeders	Installing a Printer
Star Exchange	Adding or Removing a Feature
Tabs	Changing WordStar Settings in WSCHANGE
WordStar settings	Changing WordStar Settings in WSCHANGE

STARTING WINSTALL

To customize WordStar, you use WINSTALL. To start WINSTALL, log on to your WordStar directory (usually WS). Type **winstall** and press Enter. You see the WINSTALL Menu.

If the monitor display in WINSTALL isn't clear, exit the program, type **winstall /m** at the DOS prompt, and press Enter.

THE WINSTALL MENU



```
                                 WINSTALL

              Install a monitor
              Modify or install a printer (PRCHANGE)
              Set basic editing defaults
              Add or remove a feature
              Customize WordStar (WSCHANGE)
              Add fonts to custom database (LSRFONTS)
              Save and return to DOS

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 Directions:
  F1 = Help
                                Start typing name = Find matching name
                                   ↑ ↓, Home, End = Move highlighting
 Esc = Quit without saving                      ↵ = Select
```

The WINSTALL Menu offers the choices shown below.

- **Install a monitor** You installed your monitor when you installed WordStar. You can use this option to change the type of monitor you installed. See "Installing a Monitor."

- **Modify or install a printer (PRCHANGE)** You installed a printer when you installed WordStar. Use this option to customize how your printer works with WordStar or to install or customize additional printers. See "Installing a Printer."

- **Set basic editing defaults** This option allows you to set some basic defaults for WordStar. See "Setting Basic Editing Defaults."
- **Add or remove a feature** When you installed WordStar, you had the opportunity to add or remove features such as ProFinder™, Star Exchange, and MailList. You can use this option at any time to add or remove various features to suit your needs. See "Adding or Removing a Feature."
- **Customize WordStar (WSCHANGE)** You can use this option to change many WordStar settings, such as the default help level, the colors on a color monitor, and the directory paths to different WordStar files. See "Changing WordStar Settings in WSCHANGE."
- **Add fonts to custom database (LSRFONTS)** If you have a laser printer, and you have fonts that are not listed on the font menus in PRCHANGE, first you'll need to use the LSRFONTS option to build a custom font database. Then you'll use PRCHANGE to add the fonts to your PDF. See "Adding Custom Fonts" in "Adding Fonts to a PDF."

Each option on the WINSTALL Menu is described in detail below.

INSTALLING A MONITOR

You installed a monitor when you installed WordStar. Use the WINSTALL **Install a monitor** option if you want to change your monitor installation.

The monitor options are shown below. If you don't know what kind of monitor you have, choose the first option, **IBM PC/Compatible**. If you see snow on the screen or experience problems while editing in WordStar, install your monitor as the third option, **IBM PC ROM/Compatible**. The monitor options are

- **IBM PC/Compatible (includes EGA and VGA)** A standard IBM PC or compatible color or monochrome monitor that uses video RAM directly. This installation provides the fastest display.
- **IBM PC CGA/Compatible** An IBM PC or compatible monitor that uses CGA video RAM directly. This installation removes most snow from the screen.

- **IBM PC ROM/Compatible** This installation is for monitors that are less than 100 percent IBM compatible. It removes snow from the screen, but provides the slowest display.
- **IBM PC EGA with 43 lines** This monitor choice displays 43 lines onscreen while editing in WordStar and then reverts to the usual 25 lines when you exit WordStar.
- **IBM PC VGA with 50 lines** This monitor choice displays 50 lines onscreen while editing in WordStar and then reverts to the usual 25 lines when you exit WordStar.

For most types of monitors, you can choose an option that includes onscreen underlining. Choose one of those options only if your monitor supports onscreen underlining.

After you make your monitor selection, you can choose screen colors. If you want WordStar to display in monochrome, choose **Use standard monochrome display** if your monitor displays underlined characters or **Use alternate monochrome display (includes most laptops)** if your monitor does not display underlined characters. If you want WordStar to display in the preset colors, choose **Use standard color display**. If you want to customize the colors displayed in WordStar, use WSCHANGE.

SETTING BASIC EDITING DEFAULTS

Use the WINSTALL **Set basic editing defaults** option if you want to change some of the basic WordStar editing defaults. The following items are listed on the menu:

- **Help level** This option allows you to change the default menu display level. The default level is 4, pull-down menus.
- **Default paragraph style** A paragraph style sets the default font, margins, tabs, line height, line spacing, justification, and print attributes to be used in your documents. The default paragraph style is Body Text. Use this option if you want to change the default.

- **Initial logged directory** With this option, you can change the drive and directory WordStar logs on to each time you start the program. If you work in a particular drive and directory most of the time, you can have WordStar log on to that drive and directory.

- **Default printer** The first printer you install in WordStar is the default printer. If you have installed more than one printer, you can use this option to change the default. The default printer should be the printer you use the most.

- **Enter key in dialog boxes** You can use this option to choose the way you want the Enter key to work in dialog boxes. The Enter key can close the dialog box (the default) or move from one option to the next.

- **Check CONFIG.SYS file** When you choose this option, WordStar checks your CONFIG.SYS file to make sure it is correct for your DOS version and WordStar. It must contain the line FILES=30 (for DOS 3.0 or later) or FILES=20 (for DOS 2.*n* or earlier) for WordStar to function properly. If the FILES= statement is not set to the correct value, WordStar will modify the file and save your current CONFIG.SYS file as CONFIG.OLD. Remember to reboot your computer after the CONFIG.SYS file is modified.

- **Modify AUTOEXEC.BAT file** When you choose this option, WordStar modifies your AUTOEXEC.BAT file to include the WordStar directory name in the path. Remember to reboot your computer after the AUTOEXEC.BAT file is modified.

ADDING OR REMOVING A FEATURE

You can use this WINSTALL option at any time to add or remove various WordStar features, such as Star Exchange, MailList, or TelMerge®.

To add a feature, move the highlighting to the feature to be added and type + (plus sign). When you finish marking the features you want to add, press F10. Insert the disk that is requested and press F10.

If you want to change the directory or subdirectory to which a highlighted feature is copied, press F3. Type a new name and press Enter. WordStar creates the directory for you.

If you want to remove a feature, first rename any user-modifiable files used for that feature or move them to a different directory. For example, before you remove MailList, be sure to rename or move the .DTA files. WordStar does not delete your document files, PDFs, or WSCHANGE setting files when you remove a feature. However, if a directory is empty after a feature has been removed, WordStar removes the empty directory.

To remove a feature, move the highlighting to the feature to be removed and type a minus sign (–). When you finish indicating changes, press F10.

When a feature has been added, the plus sign (+) on the screen changes to a small square (▪). When a feature has been removed, no mark appears.

If you copy or delete WordStar features at the DOS prompt instead of using WINSTALL, the changes are not reflected on the Add or Remove a Feature screen.

INSTALLING A PRINTER

You probably installed a printer when you installed WordStar. The following instructions describe how to install a new or additional printer.

When you install a printer, information about that printer is copied to a file called a printer description file (PDF). When you print a document, WordStar gets the printer information it needs from the PDF. For example, the PDF tells WordStar what fonts are available for your printer. Every time you install a printer, you create another PDF. You can install as many printers as you want, and you can have multiple PDFs for the same printer. For example, you might put the fonts you use for proposals in one PDF and the fonts you use for memos in another.

To install a printer, choose **Modify or install a printer (PRCHANGE)** from the WINSTALL Menu (or type **prchange** at the system prompt and press Enter). At the Installed Printer Menu, type a name for the PDF and press Enter. Use a name that describes the printer you're installing, for example, EPSON (don't choose an existing PDF name).

At the Printer Type Menu, choose the type of printer you have (see the table below).

MENU CHOICE	**CHOOSE FOR**
HP LaserJets and compatibles	HP LaserJet and compatible printers
Other lasers	Other laser printers
PostScript lasers	Laser printers with PostScript capability
HP DeskJets and compatibles	HP DeskJet or DeskJet Plus and compatible printers
Others A-D (includes generic)	Other printers starting with the letters A-D, and generic printers (such as CUSTOM and SIMPLE)
Others E-N	Other printers starting with the letters E-N
Others O-R	Other printers starting with the letters O-R
Others S-Z	Other printers starting with the letters S-Z
Extra database	Use this with supplementary disks supplied by WordStar

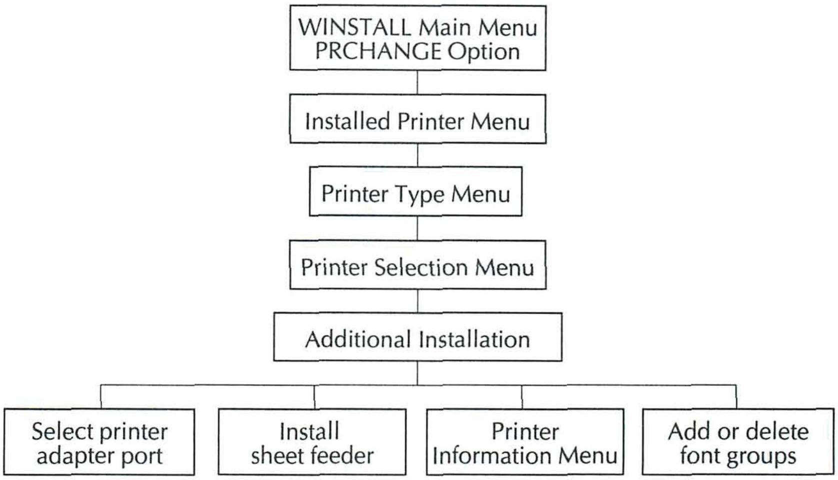
Note: If you didn't install the Printer Data feature when you installed WordStar, you're prompted to insert the appropriate disk or type the drive and directory where the Printer Data is located. Insert the requested disk and type the drive letter, or type the directory path, and press F10.

The Printer Selection Menu appears. Move the highlighting to the name of your printer, or type the first letter of the printer name to move through the list to printers that begin with that letter. Press Enter to install the printer.

Note: If your printer isn't listed on the Printer Selection Menu, see **The printer isn't on the Printer Selection Menu** under "Troubleshooting Printer Problems."

After installing a printer, you can use the Additional Installation Menu to specify your printer port, install a sheet feeder, or add or delete fonts. The following diagram shows the choices on the Additional Installation Menu.

CREATING A PDF


WINSTALL Main Menu
PRCHANGE Option
Installed Printer Menu
Printer Type Menu
Printer Selection Menu
Additional Installation
Select printer adapter port
Install sheet feeder
Printer Information Menu
Add or delete font groups

TIP *After you install a printer, go to the Printer Information Menu to view, print, or save information about the printer you installed. This information may help you take advantage of your printer's capabilities.*

When you finish installing your printer, choose **Return to Installed Printer Menu**. At the prompt *Do you want the printer you installed to be your default printer?* type **Y** or **N**.

Note: The first printer you install is your default printer. Each time you install another printer, a prompt asks if you want the new printer to be your default. The default printer (PDF) is assigned to each document you create and determines what fonts you can choose when you edit a document. You can assign a printer other than the default printer to a document when you edit the document.

At the Installed Printer Menu, press F10 to return to the WINSTALL Menu. Or, if you want to install another printer, type the name of a new PDF and press Enter.

TIP You can print the PRINT.TST file to see how WordStar uses the features of your printer. For example, if your printer supports color, print the PRINT.TST file to see how the colors print. If your printer is a PostScript printer, print the PSPRINT.TST file.

Now that you've installed a printer, you may not need to read any further. However, if you want more information about any of the items listed below, see "Customizing Your Printer in PRCHANGE."

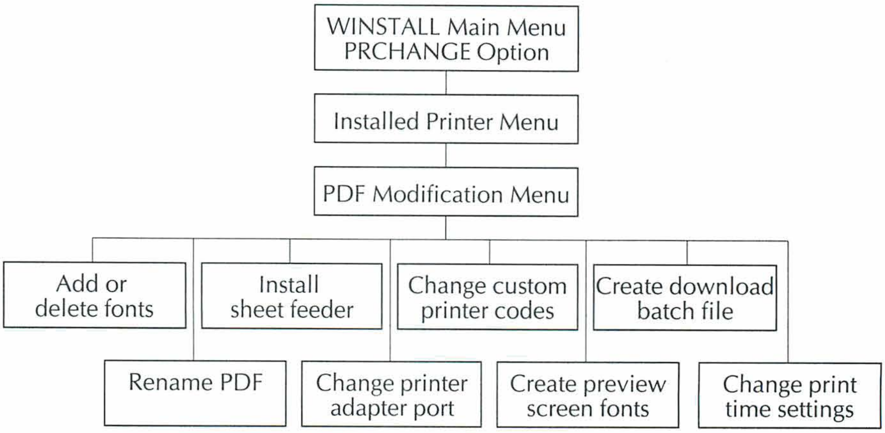
- Adding cartridge fonts
- Adding downloadable soft fonts or making batch files to download soft fonts
- Creating preview screen fonts
- Choosing internal fonts
- Installing sheet feeders or special paper-handling capabilities
- Changing the printer port
- Using printer features that WordStar doesn't support

Note: If you have any printing problems, see "Troubleshooting Printer Problems."

CUSTOMIZING YOUR PRINTER IN PRCHANGE

After you choose a printer and create a PDF in WordStar, you can modify (or customize) that PDF at any time using the PRCHANGE option in WINSTALL. The following diagram shows the choices you have for modifying a PDF.

MODIFYING A PDF


WINSTALL Main Menu
PRCHANGE Option
Installed Printer Menu
PDF Modification Menu
Add or delete fonts
Install sheet feeder
Change custom printer codes
Create download batch file
Rename PDF
Change printer adapter port
Create preview screen fonts
Change print time settings

MODIFYING A PDF

To modify a PDF, choose **Modify or install a printer (PRCHANGE)** from the WINSTALL Menu, or type **prchange** at the system prompt and press Enter. At the Installed Printer Menu, move the highlighting to the PDF you want to modify and press Enter. (If the PDF is in another directory, type the path and press Enter. Then choose the PDF.) If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the Printer Data on your hard disk . When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.

The options on the PDF Modification Menu are described below.

Add or delete fonts When you choose this option, WordStar displays a list of fonts currently in the PDF and asks if you want to change them. You can add or delete fonts as needed; for example, your printer may have additional cartridge or soft (downloaded) fonts that you want to add. (The fonts in a PDF are listed on the screen when you select a font in WordStar.)

When you add fonts, keep these points in mind:

- If many fonts are available for your printer, add only the fonts and sizes that you plan to use. Otherwise, the PDF may become too large for you to add more fonts, and the list of fonts that is displayed in WordStar will be very long. You can always add fonts later, or create another PDF for the same printer and use different fonts.

- The font list displayed when you're adding cartridge or soft fonts shows all the font groups that are available for your printer; however, you may not have purchased or installed all of them. If you add fonts that your printer doesn't have, and then try to use them in a document, your printer will use a substitute font.

When you choose to change fonts, the Add or Delete Fonts menu appears. The types of fonts listed on the Add or Delete Fonts menu are described below. For step-by-step instructions on how to add them, see "Adding Fonts to a PDF" in this section.

- **Cartridge fonts** are contained on cartridges that you insert into slots on your printer. WordStar supports most cartridges made by printer manufacturers. If your cartridge is not listed on the Add Cartridges screen, it might work like one or more of the other cartridges on the list. You can also contact the manufacturer of the cartridge to see if special PDFs or custom printer databases have been developed for WordStar.

- **Internal fonts** come preinstalled in the printer. Most printers have only one internal font group, but some printers, such as the HP DeskJet, have many. You may want to add only some of them to the PDF.

- **Soft fonts** must be downloaded (copied from a disk) to your printer before you can use them. The number of fonts you can download depends on the size of the font files, the amount of memory in your printer, and the number of soft fonts the printer allows. Use this option only for printers other than HP LaserJets, PostScript printers, Xerox 4045, and IBM 4019 and 4029 printers. For these printers, and for other soft fonts that aren't listed on the Add Soft Fonts screen, you need to create a custom database and then use the **Fonts from custom database** option (see "Adding Custom Fonts" in this section).

- **Fonts from custom database** are cartridge and soft fonts that are not listed on the Add Cartridge Fonts or Add Soft Fonts screens. You can add fonts to the custom database for HP LaserJet and compatible printers, PostScript printers, Xerox 4045 printers, and IBM 4019 and 4029 printers. See "Adding Custom Fonts" in this section.

When you finish adding fonts, WordStar asks if you want to change font families. Within each font family, you can assign different fonts for bold, italic, bold-italic, superscript, subscript, or graphics. For example, you may want to assign a smaller font for subscript and superscript (smaller subscripts and superscripts are automatic on scalable font printers).

Rename current PDF Choose this option to rename a PDF. For example, if you have two laser printers, you might want to assign names such as LASER1 and LASER2 to distinguish one from the other.

Modify sheet feeder You can change the sheet feeder specified in a PDF. (For many printers, the default sheet feeder or tray is automatically installed and you can change from one tray to another by choosing Layout→Page and specifying the Paper Bin or by using the **.bn** command.)

Note: Most sheet feeders need special page length and margin settings to work correctly. If you install a sheet feeder, check the Printer Information screen to see the sheet feeder requirements for your printer.

Change printer adapter port WordStar assumes your printer is connected to the LPT1 port at the back of your computer. If your printer is connected to a different port, use this option to identify it. You can also use this option to change printer protocol or background print speed, or to specify a user-defined device or disk.

If you change to a serial port (COM1 or COM2), you need to enter the correct MODE command at the DOS prompt before printing. For more information, see "Troubleshooting Printer Problems."

Change custom printer code You can customize the commands **^PF**, **^PG**, **^PQ**, **^PW**, **^PE**, and **^PR** (or Insert→Custom Printer Code→1-6) to perform special functions on your printer. For example, if your printer has a half-speed mode, you can customize one of these commands to insert the code for half speed. Refer to your printer manual for the codes for your printer. Enter the code in ASCII (see the "ASCII Conversion Charts" in Appendix B of the *Reference* manual). You can type up to 73 characters in each code. Then, when you use the command in a document, WordStar inserts the code. For more information, see "Custom Printer Code" and "Change Printer Codes" in "Editing Screen Insert Menu" in the *Reference* manual.

For some printers, the custom printer codes have already been customized to perform special functions. Check the Printer Information screen for your printer to see any preprogrammed codes.

You can use custom printer codes to send an ASCII (nondocument) file containing printer codes to your printer. Choose the custom printer code command to modify, and then type **%F"filename"** as the code. Be sure to capitalize the **F** and include the quotation marks. The filename should include a drive and directory if the filename isn't in the WordStar directory (usually WS). When you're editing in WordStar, you can add a program file to your document by choosing Insert→Custom Printer Code→Other, or pressing ^P!, and then typing the filename. If you have a laser printer, see "Notes on Laser Printers" in this section for more information.

Note: You can enter a file with codes for all printers except the special-use PDFs ASCII, ASC256, PRVIEW, and XTRACT.

Create preview screen fonts Screen fonts are used for Preview and for creating fax files. They correspond to HP LaserJet or compatible soft fonts, and are used in Preview only if you are using those fonts in your document. (If you don't have soft fonts, you can create fax files using the .WSF files supplied with WordStar.) WordStar translates most printer fonts to screen (or fax) fonts so you can see your document onscreen exactly as it will be printed, and so that you can send faxes using those fonts.

When you choose this option, you are prompted for the location of your font files. WordStar scans the PDF for unique typefaces, and then looks at the FONTID.CTL file. At the end of FONTID.CTL is a list of existing screen font (.WSF) files. A new .WSF file is created for each unique typeface that is not listed in FONTID.CTL.

Note: Fonts larger than 72 points are displayed as 72-point fonts in Preview. However, the spacing is correct.

Note: If you are using fonts from a custom database with Preview, make sure they appear after the 16 standard typefaces on the list of typefaces in the FONTID.CTL file. Otherwise, the correct font may not be shown in Preview. Whenever you change the list of fonts in FONTID.CTL, be sure to delete the line that begins with VER=.

If you want to create Preview fonts for scalable fonts, use a font generation program such as Type Director 2.0 to create one bitmapped (presized) font, in one size and symbol set, for each font you want to preview. If you're not sure which size to create, choose 12-point. If you're not sure which symbol set to create, choose USASCII. Then, for each font you want to preview, type **dispfont** and the name of the font file, and press Enter. (After you finish creating preview screen fonts, you can delete the bitmapped font files you created.)

For more information on Preview, see "Fine-tuning Preview" in "Advanced Customizing."

Create download batch file You can create a batch file that will download the soft fonts in a PDF to your printer. Just type a name for the batch file, or choose an existing batch file, and press Enter. When you choose this option, you are prompted for the location of your font files.

TIP *To download the fonts to your printer, log on to the drive or directory where the batch file is located and type the name of the batch file. If you get the message* Bad command or filename, *make sure the file PECHO.COM is in the same directory as the batch file. If you share the printer with other users, be sure no one else is using the printer when you download fonts.*

Change print-time settings Use this option to change the default settings for form feeds and to pause between pages.

Return to Installed Printer Menu Choose this option when you finish modifying a PDF. At the Installed Printer Menu, you can install another printer, choose another PDF to modify, or press F10 to return to the WINSTALL Menu or the DOS prompt.

DELETING A PDF

To delete a PDF, use the DOS DEL command to remove the PDF file. Log on to the directory containing WordStar (usually WS), type **del filename.pdf**, and press Enter.

ADDING FONTS TO A PDF

The following pages contain step-by-step procedures for adding fonts to a PDF. If you need help at any time in PRCHANGE, press **F1**.

ADDING CARTRIDGE FONTS OR INTERNAL FONTS

The following procedure describes how to add any internal fonts and most cartridge fonts to a PDF. If a cartridge is not listed on the Add Cartridges screen (in step 6), you may need to treat it the same as a custom font (see "Adding Custom Fonts").

1. At the WINSTALL Main Menu, choose **Modify or install a printer (PRCHANGE)**.

2. At the Installed Printer Menu, choose the PDF you want to add fonts to.

3. If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.

4. When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.

5. At the PDF Modification Menu, choose **Add or delete fonts**.

6. At the Current Fonts in PDF Menu, type **Y**.

7. At the Add or Delete Fonts Menu, choose **Add cartridge fonts** or **Add internal fonts**. Then follow the instructions below for the type of fonts you're adding.

   Cartridge fonts At the Add Cartridges screen, move the highlighting to each cartridge you want to add, and press Enter to mark it. When you finish marking cartridges, press **F10** to add them to your PDF.

   Note: Some cartridges have choices for different symbol sets. For example, Roman 8 (R8) cartridges have R8 and R8 IBM Emulation choices. If you aren't sure which you want to install, choose **R8 IBM Emulation**.

Internal fonts At the Add Internal Font Groups screen, move the highlighting to each font group you want to add, and press Enter to mark it. When you finish marking font groups, press **F10** to add them to your PDF.

8 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.

9 At the Add or Delete Fonts Menu, choose **Return to previous menu**. At the PDF Modification Menu, choose **Return to Installed Printer Menu**. At the Installed Printer Menu, press **F10** to return to the WINSTALL Menu.

Note: Be sure to insert the correct cartridge in the printer before you print with this PDF.

ADDING SOFT FONTS

The following procedure describes how to add soft fonts to a PDF for printers other than HP LaserJets and compatibles, PostScript printers, Xerox 4045, and IBM 4019 and 4029 printers. To add soft fonts for these printers, or fonts that are not listed on the Add Soft Fonts screen (in step 7 below), you must use a custom font database (see "Adding Custom Fonts").

1 At the WINSTALL Main Menu, choose **Modify or install a printer (PRCHANGE)**.

2 At the Installed Printer Menu, choose the PDF you want to add fonts to.

3 If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.

4 When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.

5 At the PDF Modification Menu, choose **Add or delete fonts**.

6 At the Current Fonts in PDF Menu, type **Y**.

7 At the Add or Delete Fonts Menu, choose **Add soft fonts**.

8 At the Add Soft Fonts Menu, move the highlighting to each font group you want to add, and press Enter to mark it. When you finish marking font groups, press **F10** to add the marked font groups to your PDF.

Note: Some soft fonts have choices for different symbol sets. For example, Roman 8 (R8) soft fonts have R8 and R8 IBM Emulation choices. If you aren't sure which one you want, choose **R8 IBM Emulation**.

9 At the Available Typefaces Menu, move the highlighting to each typeface you want to add, press Enter to mark each one, and press **F10** to add the marked typefaces to your PDF.

10 At the Available Type Sizes Menu, move the highlighting to each type size you want to add, press Enter to mark each one, and press **F10** to add the marked type sizes to your PDF.

11 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.

12 At the Add or Delete Fonts Menu, choose **Return to previous menu**. You're asked if you want to create screen fonts. If you don't create screen fonts, WordStar uses the default Times Roman and Helvetica screen fonts in Preview. Type **Y** and follow the prompts to create screen fonts for Preview, or type **N** to return to the PDF Modification Menu.

13 At the PDF Modification Menu, choose **Return to Installed Printer Menu**. At the Installed Printer Menu, press **F10** to return to the WINSTALL Menu.

Note: Be sure to download the correct fonts to the printer before you print with this PDF. You can create a downloading batch file in PRCHANGE, or you can use a downloading program supplied with your fonts.

ADDING CUSTOM FONTS

Custom fonts include soft fonts for PostScript, HP LaserJet and compatibles, Xerox 4045, and IBM 4019 and 4029 printers, and cartridge fonts not listed on the Add Cartridge Fonts screen. The steps below show what you need to do to use custom fonts with WordStar and where to find information for each step.

1. Create the fonts (if you use a font generator program like Type Director), or have the required files on your disk. The types of files you may need are described after these steps. For more information, see the documentation for your fonts.
2. Use the LSRFONTS option in WINSTALL to add the fonts to the custom font database. For more information, read the rest of this section. (The custom font data is stored in .DTU files. If you already have .DTU files from WordStar 6.0, you don't need to create new ones. However, if you have earlier .DTU files, you'll have to create new ones.)
3. Use the PRCHANGE option to add the fonts from the database to a PDF. For more information, read the rest of this section.
4. Download the fonts to the printer or insert the cartridge into the printer. For more information, see the vendor documentation for your fonts.
5. In WordStar, attach the correct PDF to the document. For more information, see "Change Printer" in "Editing Screen File Menu" in the *Reference* manual.
6. Choose the fonts you want to use in the appropriate locations in the document. For more information, see "Font" in "Editing Screen Style Menu" in the *Reference* manual.

When you add fonts to the custom database, you may be prompted for the location of your font files, .AFM files, or AutoFont support files.

- **Font files** are either on purchased floppy disks or created by a font generator program.
- **.AFM files** are included with PostScript fonts. (PostScript internal fonts are included in a PostScript PDF when it is created.)
- AutoFont support files for scalable soft fonts can be created when you create the fonts. In Type Director, choose **Environment**. Then choose or create an AutoFont Support application. Choose **Utilities**, and then choose **Application Utility**. Under Active Application, choose **AutoFont Support**. To create the AutoFont support files, press **F1**.

ADDING FONTS TO THE CUSTOM FONT DATABASE Follow the steps below to add fonts for a laser printer, including HP LaserJet or compatibles, PostScript printers, IBM 4019 and 4029, and Xerox 4045. If you need help at any time in LSRFONTS, press **F1**.

1. At the WINSTALL Main Menu, choose **Add fonts to custom database (LSRFONTS)**, or type **lsrfonts** at the DOS prompt and press Enter.

   Note: If the monitor display isn't clear, exit the program, type **lsrfonts /m** at the DOS prompt, and press Enter. The program will use a monochrome display.

2. At the Add Fonts to Custom Database menu, choose the type of fonts you want to add.

3. Type the name of the drive or directory where your font files, .AFM files, .TFM files, or .MTR files are located and press the **F10** key.

4. At the Available Fonts Menu, move the highlighting and press Enter to mark each font you want to use. Press **F2** if you want to change the menu name of the highlighted font. (The menu name is the name that appears when you select a font in WordStar.)

   Note: To see fonts in a different directory, press **F8**. Then type + and the directory name.

5. Press **F10** to add the marked fonts to the database.

   If you're creating a custom font database for the first time, or if your database is not in the current directory or on the DOS path, you are prompted for the location of the custom font database. Type the drive and directory location of the database, and press Enter.

   Note: If .DTU files are on the DOS path, the font information you just entered is stored in the .DTU file that comes first on the path. If you have old .DTU files from a release of WordStar previous to 6.0, be sure you don't add the font information to those .DTU files; the resulting file may be unusable in either version.

If you have an HP LaserJet III or compatible printer with cartridge fonts, you're prompted to choose a symbol set as each font is added to the database. Press Enter to mark the symbol sets you want, and press **F10** to add the marked symbol sets. If you're not sure which symbol set to use, choose **PC: PC-8**.

At the message *Do you want to remap the symbol set?* choose No to access the symbol set on your printer even when it doesn't match the screen symbol set. If you choose Yes, the printed characters will emulate the screen characters as closely as possible.

6 At the prompt to name the font group you just created, press Enter to use the current system date and time as the font group name, or type a more descriptive name (for example, **Tms Rmn 10-18** or **Tms & Helv**), and press Enter.

7 At the Add Custom Laser Fonts to Database Menu, choose **Return to WINSTALL Menu** to quit, or repeat steps 2 through 6 to add more font groups.

Now you've added font information to the custom database. Next you'll use PRCHANGE to copy to your PDF the font information from the database you just created. The fonts will appear on the font list when you select a font in WordStar.

ADDING CUSTOM DATABASE FONTS TO A PDF Follow the steps below to add the custom database fonts to a PDF.

1 At the WINSTALL Menu, choose **Modify or install a printer (PRCHANGE)**.

2 At the Installed Printer Menu, choose the PDF you want to add fonts to.

3 If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.

4 When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.

5 At the PDF Modification Menu, choose **Add or delete fonts**.

6 At the Current Fonts in PDF Menu, type **Y**.

7 At the Add or Delete Fonts Menu, choose **Add fonts from custom database**.

If your custom font database is not in the current directory or on the DOS path, you're prompted for its location.

8 At the Add Soft or Custom Fonts Menu, move the highlighting and press Enter to mark each font group you want to add, or press **F4** to mark all the font groups listed. When you finish marking font groups, press **F10**.

9 At the Available Typefaces Menu, move the highlighting and press Enter to mark each typeface you want to add, or press **F4** to mark all the typefaces listed. When you finish marking typefaces, press **F10**.

10 At the Available Type Sizes Menu, move the highlighting and press Enter to mark each type size you want to add, or press **F4** to mark all the type sizes listed. If you are adding scalable fonts, you don't need to choose sizes; just choose the font. When you finish marking type sizes, press **F10** to add the marked fonts to your PDF.

11 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.

12 At the Add or Delete Fonts Menu, choose **Return to previous menu**. At the PDF Modification Menu, choose **Return to Installed Printer Menu**.

13 At the Installed Printer Menu, press **F10**. At the WINSTALL Menu, choose **Save and return to DOS**.

Note: Be sure to download the correct fonts to the printer before printing with this PDF. You can create a download batch file in PRCHANGE, or you can use a downloading program supplied with your fonts or purchased separately.

NOTES ON LASER PRINTERS

To install a laser printer, choose the appropriate type of printer from the Printer Type Menu. Then choose your printer from the Printer Selection Menu. For more information, see "Installing a Printer." For information on adding fonts for the printer, see "Adding Fonts to a PDF" in this chapter. If you have any problems with your printer, see "Troubleshooting Printer Problems."

SETTING MARGINS

Most laser printers can't print in areas close to the edges of the page, so if you change margins in a document, always leave at least .5 inch of blank space in the top and bottom margins in addition to the space needed for a header or footer.

USING PRINTER-LANGUAGE PROGRAM FILES

You can create program files in your printer's language for special printer features or for printing special graphics, such as page borders or a company logo. For example, you can create PostScript files for a PostScript printer, or PCL files for a LaserJet or compatible printer. When you use a printer program file with a WordStar document, the printer codes in the file are sent to the printer, and the text or graphics are added to your page. You can modify the program files by editing them in nondocument mode.

To insert a program file into a WordStar document, choose Insert→Custom Printer Code→Other, or press ^P!. In the Custom Printer Code dialog box, type **%F"*filename*"**—*be sure to capitalize the* ***F*** *and include the quotation marks.* (The *filename* is the name of the program file; it can include a drive and directory.) For the characters to display onscreen, type a descriptive name that will help you remember what the file does, for example, **squarebullet**.

TIP *You can put the name in angle brackets so it looks like a command tag on the screen rather than regular text, for example,* ***<squarebullet>****.*

If you want to program the custom printer commands to access your own program files, see **Change custom printer codes** under "Modifying a PDF" in this section. You can then use Insert→Custom Printer Code and the appropriate number (or ^PF, ^PG, ^PQ, ^PW, ^PE, or ^PR) to insert the code whenever you want to use it.

OVERPRINTING A PAGE

Occasionally you may want to print two pages of text or graphics superimposed on each other. For example, if you have a border that you want to place around the page of text, it may be easier to treat the border and text as separate pages while you're editing them.

On many laser printers, including HP LaserJets and compatibles and PostScript printers, you can overprint two or more pages using the **.xl 00** (two zeros) command.

Normally, WordStar sends a form feed at the end of each page. The **.xl** command sets the form feed command sent to the printer, and the setting of 00 sends nothing. Type **.xl 00** on a line by itself on the first page you want to overprint. Since no form feeds are sent to the printer, subsequent pages are overprinted. To stop overprinting, type **.xl 0C** on a line by itself on the first page you don't want overprinted.

Don't use any **.bn** commands (or change the Paper Bin setting in Layout→Page) in the same document as the **.xl 00** command. The **.bn** command issues its own form feeds, so the **.xl 00** can't take effect.

If you have trouble overprinting pages, and the **.xl 00** command is at the top of a page, move it lower on the page (below some text).

HP LASERJET AND COMPATIBLE PRINTERS

USING THE SAMPLE HP PROGRAM FILES

You can create your own printer program files for printing special graphics. See "Using Printer-Language Program Files" in this section. You can also use the four sample HP program files that are included with WordStar.

SAMPLE PROGRAM FILE	DESCRIPTION
CHEX.HP	Prints a checkerboard at the top of the page
PLEAD.HP	Prints legal pleading lines without the numbers
SHADE.HP	Prints a 15 percent gray background on the page
ARROW.HP	Prints an arrow at the cursor position

USING CODE PAGES

Code pages are onscreen character sets. WordStar supports code pages 437 (United States) and 850 (Multilingual). The characters in code page 437 and code page 850 are listed in the *Reference* manual in Appendix B, "ASCII Conversion Charts."

You can use DOS (versions 3.3 and later) to set a code page to change the characters that are displayed onscreen (for more information, see your DOS manual). You can change the default code page for WordStar in WSCHANGE (DCGL). When you set WordStar to use code page 850, WordStar recognizes the code page 850 characters in sorting, case conversion, spelling checks, and cursor movement, and displays those characters in Preview.

You can use code page 850 with HP LaserJet and compatible printers and with IBM printers. For a LaserJet or compatible printer, use fonts with the appropriate symbol set, or create soft fonts with the appropriate symbol set using a font generation program. For LaserJet III or compatible cartridge fonts, use LSRFONTS to read the AutoFont support files that come with the cartridge. For an IBM printer, use the instructions in your DOS manual for setting up a printer for code page 850.

If you want to see the code page 850 characters in Preview, see "Fine-tuning Preview" in "Advanced Customizing."

POSTSCRIPT PRINTERS

WordStar comes with several files with the .PS filename extension for use with PostScript printers. Make sure these files are in your WordStar directory. If you didn't add them when you installed WordStar, you can use the **Add or remove a feature** option in WINSTALL to copy the files to your hard disk.

For printers that are connected to a serial port, WordStar works with either DTR or XON/XOFF protocol (the default is DTR). If your printer uses XON/XOFF protocol, use PRCHANGE and choose Change printer adapter port, and then Printer protocol selection to change it. If you have any problems, see **The printer isn't printing** under "Troubleshooting Printer Problems."

To use legal-size paper, edit the WSPROL.PS file in nondocument mode, and change the value for the /pgsize variable from 11 inches to 14 inches. To print in landscape mode, select Landscape in the Layout→Page (or ^OY) dialog box during editing.

The **Postscript Generic (PS:2Up)** choice on the Printer Selection Menu is good for printing small booklets or program listings. Using landscape mode, it prints two side-by-side pages on each sheet of paper. The fonts on the page are reduced to 65 percent of their usual size. You can use a PostScript 2Up PDF only with 8.5 x 11-inch (letter-size) paper.

USING THE SAMPLE POSTSCRIPT PROGRAM FILES

You can print the PSPRINT.TST file to see how you can use many PostScript features with WordStar.

You can also create your own PostScript program files for printing special graphics. See "Using Printer-Language Program Files" in this section. You can also use the four sample PostScript program files that come with WordStar. The following list shows the sample PostScript program files and the custom printer commands you use to add them to a document.

SAMPLE PROGRAM FILE	PRINT COMMAND	DESCRIPTION
LETTER.PS	^PQ	Prints an easily-modified sample letterhead
BORDER.PS	^PW	Prints a border around the current page
LOGO.PS	^PE	Prints a sample logo
BOX.PS	^PR	Prints a double box with its upper-left corner at the cursor position

EDITING THE BOX.PS FILE To change the size of the box in the BOX.PS file, choose Insert→Custom Printer Code→Other (or use ^P!) to insert the file into your document. When WordStar prompts you for the characters to send to the printer, type the variables you want to change (see the table below) and then type **%F"box.ps"**—*be sure to capitalize the* ***F*** *and include the quotation marks.* For example, to get a box 2 inches wide by 3 inches high, type this:

/bw 2 inch def /bh 3 inch def %F"box.ps"

If you don't want the nested box, set /bg to 0 (zero). Be sure to type the settings correctly; mistakes may cause printing errors.

VARIABLE	MEANING	DEFAULT VALUE
/bw *n* inch def	box width	4 inches
/bh *n* inch def	box height	4 inches
/bt *n* def	box-edge thickness	1.5 points
/bg *n* def	gap between nested boxes	3 points

CREATING YOUR OWN POSTSCRIPT PROGRAM FILES

If you create your own PostScript program files, include a "save" command at the beginning of each file and a "restore" command at the end to preserve the original state of the printer after the commands have been executed. (To see a sample, look at the PostScript program files that come with WordStar.) If you use a "showpage" command in a PostScript file, WordStar breaks the page at that command at print time.

TROUBLESHOOTING PRINTING PROBLEMS

This section offers solutions to the most common printer problems.

The printer isn't printing.

- Make sure the printer is plugged in, turned on, and has paper. If your printer has an online or select switch, make sure it's set for online. If the printer is on a network, you may need to link to it before you can use it. Check with your system administrator for details.

- If you have a serial printer, make sure the correct mode statement is in your AUTOEXEC.BAT file. The mode statement should look like this: **mode com1:9600,n,8,1,p**. If necessary, replace "com1" with the correct port number for your system, and replace "9600" with the baud rate your printer is set for. (See your printer manual for more information.)

- Make sure you specified the correct printer port when you installed your printer for WordStar. Printers are connected by cables to ports at the back of the computer. You need to tell WordStar which port your printer is connected to (the default is LPT1). Use PRCHANGE to make sure you specified the correct port.

- If your printer has an auto-switch program to switch between emulations such as PostScript and HP, and that program requires that one emulation is addressed as LPT1 and the other as LPT2, be sure the correct port is specified in the PDF.

- If you specified the correct printer port, check the cable between the computer and the printer. If the cable isn't firmly connected, or if it isn't working properly, your printer can't print.

  Follow these steps to test the cable and connections:

  1. Make sure your printer is set for nonproportional printing.

  2. Log on to the drive or directory where the DOS DEBUG program is located (usually your DOS directory). At the prompt, type **debug** and press Enter. The DEBUG prompt (a dash) appears onscreen.

  3. Press **^P** to establish a connection between the screen and the printer. After you press **^P**, everything on the screen is sent to the printer.

  4. At the DEBUG prompt, type **D100 1000** and press Enter. If the printer is connected properly, it begins printing. The printer cannot print as fast as the characters appear onscreen, so after a short time, the screen will stop filling while the printer catches up. If you want to stop the debug display, press **^C**.

  5. To stop your printer, press **^P** again. Then type **Q** and press Enter to exit DEBUG. Turn your printer off and then on again to clear the buffer. (If you have a page printer, be sure to do a form feed before you turn off the printer so that the last page is printed.)

Look at the printer output. The DEBUG output should appear in columns of numbers and letters. If the columns are misaligned (indicating missing letters) or incomplete, your printer is not working properly. Contact your printer dealer for help.

- If the output is printed correctly, but the printer still won't print with WordStar, the problem may be in the way that WordStar sends information to the printer. Start WordStar and press **P** to print a document. In the Print dialog box, type the name of the document. In the *Redirect To* box, type the name of the port your printer is connected to; for example, **lpt1** or **com1** (do not type a colon after the name of the port). If the document prints, use PRCHANGE to specify that port as a user-defined device.

- If the printer still doesn't print, use WSCHANGE to turn off the printer busy test (on the Printer Busy Handshaking Menu), or use PRCHANGE and choose **PRN** as the default port for the printer.

  TIP *If you use either of the above methods, and editing slows down when you print in the background, use PRCHANGE to set the background print speed to the speed of your printer. See* ***The printer prints fine for a while, then output becomes garbled*** *in this section.*

- If you have a PostScript printer, be sure that WordStar and the printer are using the same protocol. To change the protocol, use PRCHANGE, and choose Change printer adapter port, and then Printer protocol selection. If you are using DTR but previously changed from another protocol, copy SETDTR.PS to the correct port for your printer. For example, if your printer is connected to COM1, type **copy setdtr.ps com1.**

The printer isn't listed on the Printer Selection Menu.

Check your printer manual to see if it works like another printer. Many laser printers work like the HP LaserJet, many daisy wheel printers work like the Diablo 630, and many dot matrix printers work like the Epson FX-80 or the IBM PC Graphics printer. If your printer works like another printer, choose that printer from the menu. If your printer doesn't work like another printer, choose Typewriter (if your printer can backspace) or Draft (if it can't). These are generic printers that work fairly well with almost any printer. The DRAFT PDF has been created for you, so you don't need to install that printer. To install Typewriter, choose **Others A-G (includes generic)** at the Printer Type Menu. Then choose **Typewr** at the Printer Selection Menu.

Printed output is garbled.

If your output is garbled, you may have the wrong printer assigned to the document, or the cable between your printer and computer may be bad. To see which printer is assigned to the document, open the document and choose the command to change printers (File→Change Printers, or ^P?). If the wrong printer is assigned, choose the correct one. If you have more than one printer, make sure you specified the correct port for each one. For information on checking the printer port and testing the cable and connections, see **The printer isn't printing** in this section.

The printer prints fine for a while, then output becomes garbled.

This problem usually occurs because your printer can't accept information as fast as WordStar sends it. Use PRCHANGE to set the background print speed to the speed of your printer. For a daisy wheel printer, set the speed to 20; for any other type of printer, set the speed to 100. To change print speed in PRCHANGE, choose Change printer adapter port at the PDF Modification Menu, choose Printer protocol selection at the Change Printer Adapter Port Menu, and choose Background print speed in CPS at the Printer Protocol Selection Menu. Alternately, if your printer is connected to a parallel port, you can try typing **mode lpt1,,p** at the DOS prompt before starting WordStar. This command sets the printer into infinite retry state.

WordStar displays the message **Print Wait**.

This message does not indicate a problem. It lets you know that printing has paused for some reason, for example, you may have added a pause printing command to the file, or your printer may be out of paper. Display the Printing screen to see why the printer paused. Follow the onscreen instructions to start or abandon printing, as you prefer.

WordStar displays the message **Printer may not be ready**.

Be sure the printer is turned on, has paper, and is online. If the printer is ready, you may have specified the wrong port when you installed the printer. Printers are connected by cables to ports at the back of your computer. A computer has more than one port, so you need to tell WordStar which port your printer is connected to (the default is LPT1). Use PRCHANGE to see if you specified the correct port for the printer.

***WordStar displays the message* You've selected too many fonts. Please start again and select fewer fonts.**

Return to the Installed Printer Menu, choose the PDF again, and add fewer fonts. The number of fonts you can add is limited by memory and disk space on the computer and the size of the fonts you're trying to add. You may need to make more than one PDF for different groups of fonts.

The wrong fonts appear in the printed document.

When editing, you choose fonts from a list of fonts available for the printer assigned to your document. If you print the document on a printer other than the one assigned to your document, WordStar chooses the closest available font on that printer. If you print the document on the assigned printer, and you don't get the fonts you specified, check the items below.

- If your printer uses downloaded fonts, remember to download the fonts each time the printer is turned off and then on again.

- If you are trying to use downloadable fonts, make sure your printer has enough memory for the fonts you download.

- If you specified the downloaded fonts as temporary, and then reset the printer, the fonts have been cleared from your printer's memory. Download the fonts again as permanent fonts.

- Make sure you didn't use a dot command in your document to turn letter quality or proportional spacing on or off.

- The memory limitations of your printer may affect the number of fonts that can be printed on one page.

- If you're working on a network, another user may have downloaded fonts, overwriting yours. To avoid this problem, network users should devise a system for downloading and clearing fonts.

- The network may not be able to download all the fonts you specified. Some networks have a "hold" command that waits until you unlink from the printer before downloading fonts.

Text creeps up or down on successive pages.

WordStar uses form feeds to advance the paper. If your printer can't accept a form feed command, clear the Use Form Feeds check box in the Print dialog box. You can change the default for this option in PRCHANGE. If changing the setting doesn't work, change the form feed switch on your printer—if the switch is off, turn it on; if it's on, turn it off. Laser printers and other printers with sheet feeders must use form feeds to advance the paper and may need special page length and margin settings. If you use nonstandard paper, such as labels, form feeds must be turned off.

TIP *Before printing a document that is longer than one page, be sure the paper is properly positioned and ready to print on line 1. On some printers, you need to set the top-of-form switch from the front panel. You may need to turn the printer off and on again to clear the buffer. Do not rotate the printer platen to adjust the top of the form. Check your printer manual for more information.*

On an HP LaserJet printer, the spacing of the letters is wrong.

- If the spacing is only slightly off, you may not be getting the correct font. If you have a soft font with the same name as the internal or cartridge font you want, the soft font choices override the internal or cartridge font choices. Poor spacing can result. To use the internal or cartridge version of the font, delete the soft font from the printer's memory.

- You may have used the same font with more than one symbol set in the PDF. See **Internal fonts** under "Adding Cartridge Fonts or Internal Fonts" in this chapter.

- You may not have reformatted your document after changing printers or fonts.

- If you have an extreme spacing problem where some letters are printed on top of each other and others are spread out across the page, you may have chosen a font your printer doesn't have, and your printer may have chosen a font with different spacing.

  When a LaserJet looks for a matching font, it also tries to match the symbol set. For example, if you request a Times Roman 10 font with the ROMAN8 symbol set, the printer won't use a Times Roman 10 font with the USASCII symbol set. Instead, it tries to find a font, such as the Line Printer font, that has the ROMAN8 symbol set. (See your printer manual for more information.)

On a PostScript printer, you get a time-out error if you begin printing on page 30 or above.

Change the amount of time your printer waits before it sends the error message. Edit the WSPROL.PS file and add this line toward the beginning of the file: **statusdict /waittimeout 600 put.** This sets the wait time-out to 600 seconds (the maximum setting). The default setting is 30 seconds. To turn off the wait time-out, set it to zero.

TIP *To print error messages when problems occur, copy the file EHANDLER.PS to your printer; for example, if your printer is connected to COM1, type* ***copy ehandler.ps com1****.*

MANAGING YOUR COMPUTER'S MEMORY

USING EMS

If you have expanded memory (EMS), WordStar can use it to run faster and provide more functionality. For example, if you have two windows open, you have enough memory to start Inset only if WordStar is using EMS. WordStar detects EMS and uses it as needed.

You can use WSCHANGE (CC2G) to change the amount of EMS WordStar uses. The default is 16 pages of 16K each. If you have more EMS that you don't plan to use while running WordStar, you can try increasing this amount to make WordStar run faster.

INCREASING AVAILABLE MEMORY

If your computer doesn't have enough memory for you to use all of the WordStar features, and you want WordStar to use the minimum amount of memory, try applying the WSMIN.PAT file as described below.

1. Log on to the WordStar directory (usually WS), type **wschange ws**, and press Enter.

2. Choose E (Patching) and then A (Auto-patcher).

3. Type **wsmin.pat** and press Enter.

4. When you see the message "Patching complete," press any key to return to the Patching Menu. Then press ^X and Y to exit from WSCHANGE.

If this procedure doesn't free up enough memory for the features you want to use, try one or more of the following suggestions:

- Turn off background printing in WSCHANGE (BDCA).

- If you don't need automatic hyphenation, turn the hyphenator memory off in WSCHANGE (CCB). This saves about 60K of RAM.

- Run the Inset SETUP program, choose Q (Version), and choose Small. Press F10 to save your changes. This saves about 15K of RAM when you use Inset. If you want to edit graphics, load Inset from DOS by typing **inset/f.**

CHANGING WORDSTAR SETTINGS IN WSCHANGE

You can customize the way WordStar works by using the WSCHANGE option in WINSTALL. You can customize dozens of WordStar settings—from margins to the colors on your screen—so that the program always looks and acts the way you want it to. Although you can change many settings for a particular document while you're editing in WordStar, using WSCHANGE to change the settings affects all the documents you create. The settings you choose remain in effect until you change them in WSCHANGE or in the default paragraph style (see "Manage Paragraph Styles" in "Editing Screen Style Menu" in the *Reference* manual).

To use WSCHANGE, choose **Customize WordStar (WSCHANGE)** at the WINSTALL Menu, or type **wschange ws** at the system prompt, and press Enter.

Note: If you just type **wschange** and press Enter, the copyright screen appears. You're prompted for the .EXE file to change and the .EXE file to save changes to. If you haven't changed the name of your WS.EXE file, type **ws** and press Enter at both prompts.

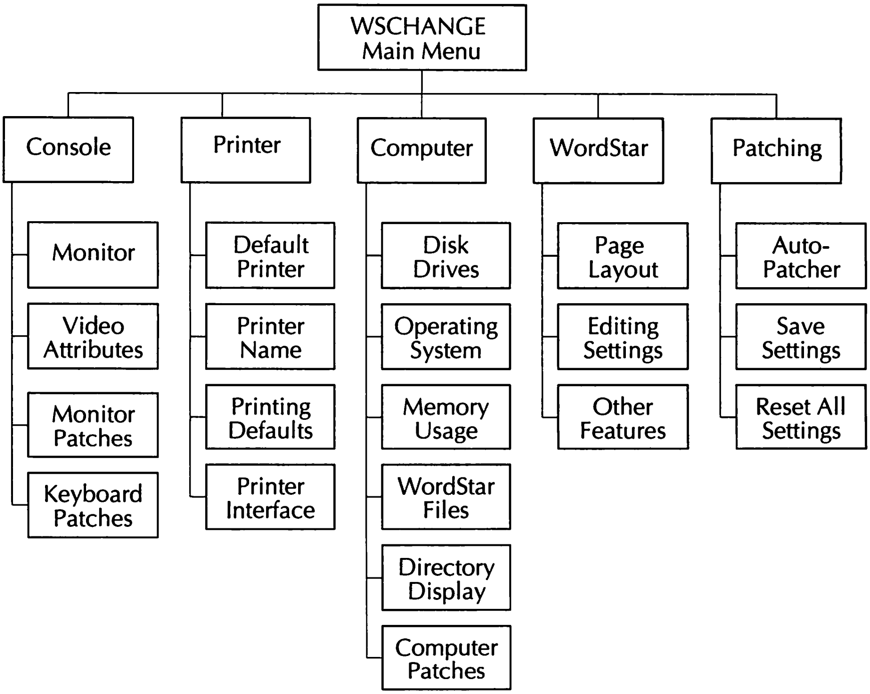
The WSCHANGE Main Menu appears.

WSCHANGE MENU STRUCTURE

As you can see by looking at the WSCHANGE Main Menu, WSCHANGE is organized in categories to help you find the settings you want to change. To change a setting, you go through a series of menus until you reach the one that has the item you want to change. You press the letter for that item and type the new setting.

WSCHANGE has extensive online help that explains most menu choices. If you have questions about a menu selection, press **F1** for help.

The menu structure of WSCHANGE is shown below.


WSCHANGE Main Menu
Console
Monitor
Video Attributes
Monitor Patches
Keyboard Patches
Printer
Default Printer
Printer Name
Printing Defaults
Printer Interface
Computer
Disk Drives
Operating System
Memory Usage
WordStar Files
Directory Display
Computer Patches
WordStar
Page Layout
Editing Settings
Other Features
Patching
Auto-Patcher
Save Settings
Reset All Settings

GETTING AROUND IN WSCHANGE

The chart on the following pages shows the path from the WSCHANGE Main Menu to most items in WSCHANGE.

Using the chart is the easiest way to find an item in WSCHANGE. For example, if you want to change the top margin setting, first find "Top margin" on the chart. Then, beginning at the WSCHANGE Main Menu, press the letters shown (**DAAB**) for the path. Type the new setting and press Enter. Follow the onscreen instructions to save the change.

TIP *Press ^X at any menu to save your changes and leave WSCHANGE, or you can press ^C to leave WSCHANGE without saving any changes.*

In the chart below, some entries in the SETTING column are followed by one or more numbers. These numbers refer to notes that appear at the end of this section. In the DEFAULT column, the comment "N/A" means there is no default for the item. The comment "See screen display" means the default is an onscreen character that can't be reproduced for this chart, or that the default is too long for the chart.

SETTING	**PATH**	**DEFAULT**
Alignment [1]	DBC	N/A
Alternate font [2]	BCH	No font name
Auto backspace characters	DBBF	None
Auto-align	DBCE	ON
Auto-backup [3]	DCGI	0
Auto-hyphenation	DBCC	ON
Auto-patcher	EA	N/A
Automatic leading, 120% of text size	BCL	OFF
Automatically fill out last record	DBHG	ON
Background printing (concurrent)	BDCA	ON
Backup file type	CD5D	BAK
Backup files when saving	CD6D	ON
Beep if printer wait condition	BDCB	ON
Beginning block marker	DBDC	<B>
Bidirectional printing	BCB	ON
Binding space character	DBA3C	(See screen display)
Blank lines suppression	DAAK	OFF
Blocks	DBD	N/A
Bottom margin	DAAC	1.33"

SETTING	PATH	DEFAULT
Buffer size for various features	CC	N/A
Busy test for output to printer	BDAA	ON
"Can't find that file" prompt	DBA2J	ON
Character conversion patches	DCF	N/A
Character for line numbering, left margin	DBJE	(See screen display)
Character for line numbering, right margin	DBJG	(See screen display)
Character width [1]	BCG	No font name
Characters before auto-hyphenation	DBCD	5
Characters, international table	DCGM	OFF
Characters, maximum unerased	DBEA	500
Check for double word	DCAJ	ON
Classic commands at Opening pull-downs	DBH2A	ON
Classic commands displayed on pull-downs	DBAK	ON
Code page default	DCGL	437
Color display alternate palette [1]	ABC	N/A
Color display alternate palette [2]	ABD	N/A
Color display default	ABB	N/A
Colors, save color settings in file	ACD	N/A
Colors, select individually	ABA	(See screen display)
Column break character	DBA4D	C
Column character, snaking	DBA3D	(See screen display)
Column mode	DBDA	OFF
Column replace mode	DBDB	OFF
Command tags display	DBAB	ON
Computer patches	CF	N/A
Concurrent printing	BDCA	ON
Continuous underlining	BCE	OFF
Copy auto-patch settings	EA	N/A
Cursor movement delay	ACBA	N/A
Cursor movement style, vertical	DBH2C	0
Cursor movement, hardware	CBCE	ON
Cursor sizes for all other monitors	ACF	N/A
Cursor sizes for monochrome monitors	ACE	N/A
Cursor stays in column 1 at marker	DBHD	ON
Cursor wrap on pull-down menus	DBA2F	ON
Data item separator	DCEA	,
Date format for &@& variable	DCEC	3 1, 4 (month day, year)
Date format for insert today's date	DCDG	3 1, 4 (month day, year)
Decimal point	DBFK	.
Decimal tab stops [4]	DACB	None
Default printer [2]	BA	Current default
Default search path 1 [5]	CDAA	\WS

SETTING	PATH	DEFAULT
Default search path 2 [5]	CDAB	\WS
Default search path 3 [5]	CDAC	\WS
Default search path 4 [5]	CDAD	\WS\INSET
Default search path 5 [5]	CDAE	\WS\OPTIONS
Default search path 6 [5]	CDAF	\WS\OPTIONS
Default search path 7 [5]	CDAG	\WS\INSET
Default search path 8 [5]	CDAH	\WS
Default search path 9 [5]	CDAI	\WS\FAX
Default search path 10 [5]	CDA2A	\WS\CONVERT
Default search path 11 [5]	CDA2B	\WS\MACROS
Default search path 12 [5]	CDA2C	\WS
Default search path 13 [5]	CDA2D	\WS
Default search path 14 [5]	CDA2E	\WS
Default search path 15 [5]	CDA2F	\WS
Default search path 16 [5]	CDA2G	\WS
Definitions during spelling session	CCC	OFF
Del erases left (not at cursor)	DBHC	OFF
Delay disk access if typing	CAB	0
Delay value for auto align	DBCF	500
Delay, longest (sign-on)	DCGB	2000
Delay, medium (menus)	DCGC	1000
Delay, short (document align)	DCGD	200
Dialog boxes, Enter moves from field to field	DBH2D	OFF
Dialog boxes, update field from list	DBH2	See screen display
Dictionary (main) name/location [5, 6]	DCAB	SPLMN000.DCT (U/2)
Dictionary usage	DCAE	N/A
Directory display [7]	CEA	ON
Directory, display file size	CEG	ON
Directory, display files at filename prompts	CEI	ON
Directory, display in alphabetical order	CEB	ON
Directory, file types excluded from	CEC	(See screen display)
Directory, filenames that are displayed	CED	????????.???
Directory, initial log-on	CEE	None
Directory, show files with changing drive/dir.	CEH	OFF
Directory, show path with filename	DBA2E	ON
Disk access pause	DBBE	0
Disk drives, valid	CAA	(All drives valid)
Disk space, display remaining	CEF	ON
Dispatch table	CDE	WSDSPCH.OVR(U/1)
Document mode, status line filler character	DBA2C	" " (blank)
Dollar format for inserted numbers	DCDI	--,---,---,---.99
Dot command at start of page	DBA4G	1
Dot command character	DBA4F	.
Dot command display	DBAE	ON

SETTING	**PATH**	**DEFAULT**
Dot commands automatically put into file	DBH2B	ON
Dot leader character	DBA3F	.
Edit screen, help level	DBAA	4
Editing screen, return to old	DBH2F	OFF
Editor, memory allocated for	CCJ	64K
EMS, amount used	CC2G	16 pages
End of line character	DBA4K	@
End of file character[8]	DBA3J	^
Ending block marker	DBDD	<K>
Endnote buffer size	DAD2H	2 records
Endnote file type	DAD2G	E
Endnote font[2]	DAD2AA	No font name
Endnote reference mark in note, attributes	DAD2DA	0
Endnote reference mark in note, lead char.	DAD2DB	(
Endnote reference mark in note, trail char.	DAD2DC	)
Endnote reference mark in text, attributes	DAD2CA	32
Endnote reference mark in text, lead char.	DAD2CB	^@
Endnote reference mark in text, trail char.	DAD2CC	^@
Endnote repeating character table	DAD2B	#@
Endnote tag type	DAD2E	3
Endnote VMI between notes	DAD2FA	240
Endnote VMI for each endnote line	DAD2FB	240
Endnote, default color to use	DAD2AC	0
Endnote, default ruler to use	DAD2AB	0
Enter moves from field to field in dialog box	DBH2D	OFF
Erasing and cursor type ahead	DBED	OFF
Esc acts like ^R and ↵	DBHF	OFF
Exceptions dictionary file[5]	CD4D	EXCEPT.DCT(U/2)
Exit WSCHANGE and save changes	^XY	N/A
Exit WSCHANGE without saving changes	^C	N/A
Fast typing display pause	DBBC	50
Fast typing page/line/column delay	DBBD	75
Fax file name and path	CD4I	????????.PCX(U/9)
File directory display	CEA	ON
File sizes, display	CEG	ON
Filenames	CD	N/A
Find and replace default options	DBGA	None
Flag column display	DBAC	ON
Font menu definitions, number of	CC2C	100
Font family member definitions, number of	CC2D	20
Font size unit of measure	DAGD	Points
Font, alternate[2]	BCH	No font name

SETTING	**PATH**	**DEFAULT**
Font, default (normal character) [1, 5]	BCG	No font name
Font, for endnotes [2]	DAD2AA	No font name
Font, for footnotes [2]	DADAA	No font name
Font, for line numbers	DBJA	No font name
Font, normal character [1, 5]	BCG	No font name
FONTID.CTL for Preview, location of [5]	CDH	FONTID.CTL(U/3)
Footer and header buffer size	CC2A	4096 bytes
Footer margin	DAAE	0.33"
Footer, page number position	DABB	Center
Footnote buffer size	CC2E	8 records
Footnote continuation text	DADG	...Continued...
Footnote file type	DADK	F
Footnote font [2]	DADAA	No font name
Footnote position	DADH	0
Footnote reference mark in note, attribute	DADDA	0
Footnote reference mark in note, lead char.	DADDB	^@
Footnote reference mark in note, trail char.	DADDC	.
Footnote reference mark in text, attribute	DADCA	32
Footnote reference mark in text, lead char.	DADCB	^@
Footnote reference mark in text, trail char.	DADCC	^@
Footnote repeating character table	DADB	*~
Footnote separator	DADF	--------------------
Footnote tag type, restart on each page	DADEB	0
Footnote tag type, type of reference mark	DADEA	3
Footnote, default color to use	DADAC	0
Footnote, default ruler to use	DADAB	0
Footnote, running format	DADI	8
Footnote, VMI between notes	DADJA	240
Footnote, VMI between sep. line/first note	DADJD	240
Footnote, VMI between text/separator line	DADJC	240
Footnote, VMI for each footnote line	DADJB	240
Form feed character	DBA4B	F
General exclusion list file for Indexer [5]	DCCA	WSINDEX.XCL(U/1)
Go to top of page with ^QI	DCGJ	OFF
Graphics conversion file	CD3B	TOPIX.EXE(U/7)
Graphics conversion settings file	CD3C	TOPIX.SET(U/7)
Graphics files directory display	CD3D	????????.???(U/4)
Graphics files file extension	CD3E	.PIX
Hard return ending character	DBA3G	<
Hardware cursor movement	CBCE	ON
Header and footer size	CC2A	4096 bytes
Header margin	DAAD	0.33"

SETTING	PATH	DEFAULT
Headers and footers	DAB	N/A
Height, line [1]	BCJ	240
Help level	DBAA	4
Help overlay file [5]	CDC	WSHELP.OVR(U/1)
HMI units for ruler line	DBA2G	180
Horizontal unit of measure	DAGA	Inches
Hyphenation	DBCC	ON
Hyphenation index file [5, 6]	CD5C	HYPIN000.DCT(U/1)
Hyphenation overlay file [5]	CD5A	WSHYP000.OVR(U/1)
Hyphenation, main data file [5]	CD5B	HYPMN000.DCT(U/1)
Hyphenator memory on/off	CCB	ON
IBM compatible ROM BIOS	CBCA	ON
IBM counter/timer for beeping	CBCB	ON
Index every word	DCCB	OFF
Indexer exclusion list file [5]	CD2E	WSINDEX.XCL(U/1)
Initial directory log-on	CEE	None
Insert characters	DBBB	ON
Inset program file for print-time loading [5]	CD3A	INSET.EXE(U/4)
Inset, load at print-time	BC2C	ON
INT 1C timer interrupt	CBCD	ON
International characters table	DCGM	OFF
International dictionary file [5, 6]	CD4E	SPLIN000.DCT(U/2)
Justification [1]	DBCA	OFF
Kerning	BC2B	ON
Keyboard repeat rates [9]	ADA	N/A
Language default	DCGK	1
Language, display on status line	DBA2D	OFF
Leading (line height) [1]	BCJ	240
Leading, automatic, 120% of text size	BCL	OFF
Left margin [1]	DAAH	0.00"
Left margin for line number	DBJD	0.70"
Letter quality printing [1]	BCC	DIS
Line feed character	DBA4A	J
Line height (leading) [1]	BCJ	240
Line height unit of measure	DAGC	Inches
Line numbering font	DBJA	No font name
Line numbering, continuous	DBJB	OFF
Line numbering, left margin character for	DBJE	(See screen display)
Line numbering, right margin character for	DBJG	(See screen display)
Line numbering, left margin for	DBJD	0.70"

SETTING	**PATH**	**DEFAULT**
Line numbering, right margin for	DBJF	7.40"
Line numbering, space between number/character	DBJH	0.30"
Line spacing[1]	DBCB	1
Line spacing between line numbers	DBJC	0
Log on to directory in file list	CEJ	OFF
Log-on directory, initial	CEE	None
Long busy time-out	BDAB	0
Long line character	DBA3I	+
Longest delay (sign-on)	DCGB	2000
Lotus international characters	DBBH	OFF
Macro compiler error messages	DCDF	OFF
Macro file, compiler[5]	CD2H	WSC.EXE(U/1)
Macro file, decompiler[5]	CD2I	WSD.EXE(U/1)
Macro file, hot key list[5]	CD2F	WSHOTKEY.OVR(U/1)
Macro files and path[5]	CD2G	????????.WSM(U/11)
Macros	DCD	N/A
Macros, dollar format for numbers	DCDI	--,---,---,---.99
Macros, format for today's date	DCDG	3 1, 4 (month day, year)
Macros, format for today's time	DCDH	B:C D (hh:mm am/pm)
Macros, hot key buffer size	CCG	4 (896 bytes)
Macros, pause for input key	DCDB	Alt+-
Macros, stop at any time	DCDD	Ctrl+Break
Macros, stop during playback key	DCDC	Esc
Macros, stop recording key	DCDA	Alt+=
MailList from Additional menu[5]	CD3H	WSLIST.COM(U/6)
Main spelling buffer	CCD	N/A
Main spelling dictionary file[5,6]	CD4B	SPLMN000.DCT(U/2)
Margins for endnotes	DAD2AB	0 (default ruler)
Margins for footnotes	DADAB	0 (default ruler)
Margins, page size and	DAA	N/A
Maximum characters unerased	DBEA	500
Measurements, units of	DAG	N/A
Medium delay (menus)	DCGC	1000
Memory usage	CC	N/A
Memory usage, EMS	CC2G	16 pages
Menu level	DBAA	4
Merge print dot command character	DBA4H	:
Merge print memory	CC2b	4K
Merge printing	DCE	N/A
Messages and menus buffer	CCF	4 records
Messages and menus file[5]	CDD	WSMSGS.OVR(U/1)
Microjustification	BCD	DIS

SETTING	PATH	DEFAULT
Monitor name	AAB	N/A
Monitor patches	AC	N/A
Monitor selection	AAA	N/A
Monitor, IBM PC CGA compatible	AAAB	N/A
Monitor, IBM PC compatible, incl. EGA & VGA	AAAA	N/A
Monitor, IBM PC EGA with 43 lines	AAAD	N/A
Monitor, IBM PC ROM compatible	AAAC	N/A
Monitor, IBM PC VGA with 50 lines	AAAE	N/A
Monochrome display default	ABF	N/A
Monochrome graphics display default	ABE	N/A
Mouse, delay before horizontal scroll	DCHG	300
Mouse, delay before vertical scroll	DCHH	300
Mouse, horizontal motion sensitivity	DCHC	15
Mouse, horizontal move before scroll	DCHE	20
Mouse for left hand	DCHB	OFF
Mouse support	DCH	N/A
Mouse support on/off	DCHA	ON
Mouse, vertical motion sensitivity	DCHD	15
Mouse, vertical move before scroll	DCHF	15
Multi-user or network system	CBB	OFF
Near letter quality printing [1]	BCC	DIS
Newspaper column file type	CD5H	D
No extra soft lines at paragraph end	DBHE	OFF
Nondocument, command line default	DCBA	OFF
Nondocument, print as default	BCA	OFF
Nondocument, status line filler character	DBA2CB	" " (blank)
Nondocument, tabs/auto-indent by file type	DCBD	(See screen display)
Nondocument, ^B and ^QU strip MSB	DCBC	ON
Normal (default) character font [1, 5]	BCG	No font name
Notes (footnotes/endnotes)	DAD	N/A
Outline style numbering	DBIC	OFF
Overprint line character	DBA3K	-
Page break character	DBA4C	P
Page break divider character	DBA3B	–
Page length	DAAA	11.00"
Page number	DABA	ON
Page number, initial	DABC	1
Page number, position	DABB	Center
Page offset on even pages	DAAF	0.80"
Page offset on odd pages	DAAG	0.80"

SETTING	PATH	DEFAULT
Paragraph ending character	DBA3G	<
Paragraph margin [1]	DAAJ	(none)
Paragraph numbering separator at end	DBIB	OFF
Paragraph numbering style	DBIA	1.1.1.1.1.1.1.1
Paragraph numbering, outline style	DBIC	OFF
Paragraph style, default	DAFB	Body Text
Paragraph styles library file [5]	DAFA	WSSTYLE.OVR(U/1)
Paragraph styles temporary file extension	DAFC	G
Path settings, save	CD6E	N/A
Paths, default search	CDA	N/A
Personal dictionary file [5]	DCAD	PERSONAL.DCT(U/2)
Personal dictionary memory	DCAG	2K
Personal dictionary, always prompt for	DCAEC	OFF
Preview file [5]	CDF	PREVIEW.OVR(U/3)
Preview work files [5]	CDG	????????.CRT(U/3)
Print control (command tags) display	DBAB	ON
Print from keyboard template file [5]	CD2D	KEYBOARD.MRG(U/1)
Print nondocument as default	BCA	OFF
Print page numbers	BC2A	ON
Print Wait, beep for	BDCB	ON
Printer busy test	BDAA	ON
Printer character input subroutine	BDBF	N/A
Printer character output subroutine	BDBD	N/A
Printer description files [5]	CD2B	????????.PDF(U/1)
Printer initialization subroutine	BDBA	N/A
Printer input status subroutine	BDBE	N/A
Printer long busy time-out	BDAB	0
Printer output status subroutine	BDBC	N/A
Printer overlay files [5]	CD2A	????????.OVR(U/1)
Printer patch area	BDBG	N/A
Printer uninitialization subroutine	BDBB	N/A
Printer, choose a default printer	BA	DRAFT
Printer, choose name for sign-on screen	BB	Draft Printer
Printing defaults	BC	N/A
Printing, background printing (concurrent)	BDCA	ON
Printing, busy test for output to printer	BDAA	ON
Printing, long busy time-out	BDAB	0
Prompt "Can't find that file"	DBA2J	ON
Prompt "Return to WordStar"	DBA2I	ON
Proportional spacing	BCF	DIS
Pull-downs, turn cursor wrap on/off	DBA2F	ON

SETTING	PATH	DEFAULT
RAM resident, WordStar	CCA	OFF
RAM, put characters directly in video RAM	CBCC	ON
Reset all settings	EC	N/A
"Return to WordStar" prompt	DBA2I	ON
Reverse bright/dim	ACCC	N/A
Right margin [1]	DAAI	6.50"
Right margin for line number	DBJF	7.40"
ROM BIOS, IBM compatible	CBCA	ON
Ruler line, 1st stored	DAEB	Quotation
Ruler line, 2nd stored	DAEC	Hanging Indent 1
Ruler line, 3rd stored	DAED	Undefined
Ruler line, 4th stored	DAEE	Undefined
Ruler line, 5th stored	DAEF	Undefined
Ruler line, 6th stored	DAEG	Undefined
Ruler line, 7th stored	DAEH	Undefined
Ruler line, 8th stored	DAEI	Undefined
Ruler line, 9th stored	DAEJ	Undefined
Ruler line, default [1]	DAEA	Body text
Ruler line display	DBAH	ON
Run a DOS command prompt	DBA2I	ON
Save all settings in file	EB	N/A
Save color settings in file	ACD	N/A
Save path settings in file	CD6E	N/A
Save WSCHANGE changes and exit	^XY	N/A
Screen colors, alternate color palette 1	ABC	N/A
Screen colors, alternate color palette 2	ABD	N/A
Screen colors, color display default	ABB	N/A
Screen colors, monochrome display alternate	ABE	N/A
Screen colors, monochrome display default	ABF	N/A
Screen colors, reset to shipped default	ABGD	N/A
Screen colors, select individually	ABA	(See screen display)
Screen height	AACA	25
Screen size, horizontal scroll width	AACC	20
Screen width	AACB	80
Scroll bar display	DBAJ	ON
Scroll speed	DBBG	3
Separator between data items	DCEA	,
Short delay (doc align)	DCGD	200
Sign-on message	DCGA	None
Single user system	CBA	N/A
Smallest word checked	DCAH	2
Snaking column character	DBA3D	(See screen display)
Soft return ending character	DBA3H	" " (blank)

SETTING	**PATH**	**DEFAULT**
Soft space character	DBA3A	(See screen display)
Soft space display	DBAD	OFF
Sort order for block sort	DCFC	N/A
Special characters, patching	ACA	N/A
Spelling check defaults	DCA	N/A
Spelling check options	DCA2	N/A
Spelling checker overlay [5, 6]	DCAA	WSSPL000.OVR(U/2)
Spelling, "Words checked" prompt	DCAL	ON
Spelling, main buffer	DCAF	65535
Spelling, watch progress of spelling check	DCAK	OFF
Status line display	DBAI	ON
Status line, display language	DBA2D	OFF
Status line filler character, document mode	DBA2CA	(blank)
Status line filler character, nondocument mode	DBA2CB	(blank)
Status line location	DBA2B	BOTTOM
Stored ruler lines	DAE	N/A
Strikeout character	BCI	-
Style bar display	DBAG	ON
Style bar location	DBA2A	TOP
Subscript/superscript roll	BCK	90
Suppress blank lines	DAAK	OFF
Suppressed blank line character	DBA4J	(See screen display)
Tab stops, decimal [1, 4]	DACB	None
Tab stops, regular [1, 4]	DACA	(See screen display)
Tabs and auto-indent by file type (nondoc.)	DCBD	(See screen display)
TelMerge from Additional menu [5]	CD3F	TELMERGE.EXE(U/5)
TelMerge system file	CD3G	TELMERGE.SYS(U/5)
Temporary block file type	CD5G	C
Temporary text file type, backward editing	CD5F	B
Temporary text file type, forward editing	CD5E	A
Text spillover	CCG	0
Thesaurus definitions overlay [5, 6]	CD4H	DEFIN000.DCT(U/2)
Thesaurus dictionary file [5, 6]	CD4G	THESR000.DCT(U/2)
Thesaurus overlay file [5, 6]	CD4F	WSTHS000.OVR(U/2)
Thousands number separator	DBFJ	,
Time format for &!& variable	DCED	B:C D (hh:mm am/pm)
Time format for insert current time	DCDH	B:C D (hh:mm am/pm)
Title bar display	DBAF	ON
Top margin	DAAB	0.50"
Turn "Can't find that file" on/off	DBA2J	ON
Turn "Return to WordStar" on/off	DBA2I	ON

SETTING	PATH	DEFAULT
Turn "Words checked" message on/off	DCAL	ON
Turn cursor wrap on pull-downs on/off	DBA2F	ON
Turn spelling check on/off	DCAI	ON
Type ahead buffer flush control	ADB	OFF
Underline blanks	BCE	OFF
Unerase buffer	CCI	500 bytes
Unerase single character erasures	DBEB	OFF
Unit for all measurements	DAGE	(Mixed)
Unknown dot command character	DBA4I	?
Valid disk drives	CAA	(All drives valid)
Variable name indicator	DCEB	&
Vertical cursor movement	DBH2C	0
Vertical unit of measure	DAGB	Inches
Video attribute subroutine	ACCA	N/A
Video attributes	AB	N/A
Video RAM, put characters directly in	CBCC	ON
VMI units for line height	DBA2H	240
Watch progress of spelling check	DCAK	OFF
Watch progress of ^QU alignment	DBCG	OFF
Window prompt for document/nondocument	DCGG	OFF
Window separator character	DBA4E	W
Window, size of other	DCGH	128
Word wrap at right margin [1]	DBBA	ON
"Words checked" message	DCAL	ON
WordStar compatibility	DBH	N/A
WordStar files	CD	N/A
^6 hard to soft carriage return/auto-align	DBHB	OFF
^B and ^QU strip MSB in nondocument	DCBC	ON
^H moves left (not erase left)	DBHA	OFF
^N split line (or hard return to soft)	DCGF	ON
^QI goes to top of page	DCGJ	OFF
^QU, watch progress of ^QU alignment	DBCG	OFF
^QX goes to right side of screen	DBHH	ON

WSCHANGE CHART NOTES

[1] This setting should be changed in the default paragraph style (usually Body Text).

[2] If you change the default printer or the default setting for the normal character, alternate character, endnote, footnote, or line numbering font, your PDFs must be in the main WordStar directory (usually WS). Otherwise, WSCHANGE can't find them.

[3] Auto-backup works only with IBM computers that have a ROM BIOS date of 11/85 or later.

[4] When you set tabs in WSCHANGE, be sure to set them in ascending order (2", 4", 6"). If you set them in descending order (6", 4", 2"), they won't take effect.

[5] The default search paths shown assume you installed WordStar with WSSETUP and didn't change the directory names.

[6] Some spelling, thesaurus, and hyphenation filenames contain "000." The actual filenames on your WordStar disks have "001" in the filename. The "000" in WSCHANGE tells WordStar that multiple languages can be used. The "001" in the filenames on disk tells WordStar you're using the American English (as opposed to British English) version of those files. (If "001" were used in WSCHANGE, you would be able to use only the American English version of the spelling, thesaurus, and hyphenation files.)

[7] Turning the directory display off in WSCHANGE does not affect help level 4 (pull-down menus). The directory is always displayed at help level 4.

[8] When you set WordStar not to pad out the last record of your file with ^Z (SETEOF), only nondocument files are affected. In document files, WordStar always pads out the last record.

[9] The keyboard repeat rates work only with IBM computers that have a ROM BIOS date of 11/85 or later.

CHAPTER 3

ADVANCED CUSTOMIZING

This section includes instructions for

- ☐ Fine-tuning Preview to Display Fonts
- ☐ Patching WordStar Manually and Using the Auto-patcher
- ☐ Setting Paths for WordStar Files
- ☐ Advanced Customizing of PDFs

FINE-TUNING PREVIEW

Preview works correctly on most computers. However, if you have trouble getting it to work properly on your computer, or if you want to improve the display, you can make several adjustments. For example, you can specify a different type of monitor, change the page size, or adjust the screen fonts. To make these adjustments, you edit a configuration file in WordStar named FONTID.CTL.

CAUTION *Before you edit FONTID.CTL, make a copy of the original file. Then if you make any errors, you can use the original file.*

EDITING THE FONTID.CTL FILE

Preview uses the FONTID.CTL file to get information about these items:

- Type of graphics card being used
- Aspect ratio of the monitor display
- Grid type used in the display
- Page size being previewed
- Background color of the page
- Size of the top and left offsets for nonprinting areas of the page
- Resolution for fax files
- Screen fonts (.WSF files) installed

The above items are preset in WordStar; however, you can change any of them. To change a setting in the FONTID.CTL file, you edit that file as a nondocument file in WordStar. The FONTID.CTL file is maintained by the PRCHANGE, DISPFONT, and Preview programs. However, if you need to edit the file, keep the following points in mind:

- You must edit FONTID.CTL as a *nondocument* file.
- After you edit FONTID.CTL and save the file, you must exit WordStar for your changes to take effect.
- If you delete a font entry from the table in FONTID.CTL, you can no longer preview that font.
- Invalid font entries, or those that have no corresponding .WSF files, will be removed from FONTID.CTL. If you delete a .WSF file, the corresponding entry is removed from FONTID.CTL.

CHANGING THE PREVIEW DISPLAY

SPECIFYING A MONITOR In the FONTID.CTL file, the Display Adapter Type is defined by the line CRT_TYPE=*n*. If *n* is blank, the monitor type is selected automatically. In the monitor list, adapters marked with NA must be selected manually. For example, the Cirrus VGA 16-color adapter looks like this in the file:

; NA 8 = 800 X 600 CIRRUS VGA (16 COLOR)

To choose that adapter, you would type **8** as the code after CRT_TYPE=.

If your monitor isn't supported for Preview (see the "Printers and Monitors List"), try using 0 (monochrome) or 1 (color) as the monitor code. Also, check with the monitor manufacturer to see if a special WordStar graphics driver file is available. If you have a WordStar graphics driver file for your monitor, type the filename after CRT_TYPE=.

CAUTION *When you change the monitor type, run Preview before you make changes to any files. The wrong monitor type could hang up the system and lose data.*

If you're using a monochrome VGA card, and you get a blank screen after you exit Preview, type **mode bw80** at the system prompt. (The DOS MODE.COM file must be on your path.)

If you have a laptop with a VGA LCD display (monochrome) and you want to improve your display, try the VGA MONO selection.

Note: If your graphics adaptor card is SUPERVGA and will run at 1024x768, check the manual to see if it has a VESA Bios driver. This driver remains in memory and supports a standard interface. With the VESA driver loaded, specify CRT_TYPE= VESA1024.WGD. This should support your SUPERVGA in high resolution 1024x768 mode.

ADJUSTING THE ASPECT RATIO You can change the Aspect Ratio to make the horizontal and vertical inches equal in the Preview display. To see the Aspect Ratio, press **O** and then **G** to turn the Grid option on. See if the horizontal and vertical grid marks are about the same. If they aren't, edit FONTID.CTL and type a positive or negative number after ASPECT= (for example, -10) to adjust the horizontal grid marks. Positive values make the grids wider, while negative values make the grids narrower.

USING DIFFERENT GRID TYPES You can choose from five different grid types by editing the GRID_TYPE= line in FONTID.CTL.

1 = Pica Grid (6 dots per inch)
2 = Inch Grid (10 dots per inch)
3 = Inch Grid (4 dots per inch)
4 = Centimeter Grid (2 dots per centimeter)
5 = Centimeter Grid (5 dots per centimeter)

After GRID_TYPE=, type a number from **1** to **5**. The *dots per inch* are the reference dots you see in Preview when Grid is on, and not the printed dots per inch. Unless you change it, the Grid Type is 2 (10 dots per inch).

DISPLAYING DIFFERENT PAGE SIZES You can change the display page size by editing the PAGE= line in FONTID.CTL. After PAGE=, type the horizontal inch measurement, an "X," and the vertical inch measurement. For example, to preview a document on legal size paper, you would type **8.5X14**. FONTID.CTL includes a few PAGE= comment lines (preceded by semicolons) for standard page sizes other than the default letter size. To use one of the standard page sizes listed, remove the semicolon from the PAGE= line you want to use. Then add a semicolon preceding PAGE=8.5X11.

Preview switches between portrait and landscape pages using the default setting PAGE=8.5X11.

Note: If you prefer, you can use commas as decimal points when you type the page size.

CHANGING THE BACKGROUND COLOR You can change the background color of the previewed page by editing the PAPER_COLOR= line in FONTID.CTL. After PAPER_COLOR=, type a number from **0** (black) to **15** (white). The colors may vary from monitor to monitor. Remember that black text isn't visible against a black page.

REVERSING COLORS If you're using a laptop or any other monitor that reverses colors, Preview displays white text on a black background. To return to the normal display of black text on a white background, type 1 after INVERSE=.

SETTING THE TOP AND LEFT OFFSETS You can set an offset in decipoints (one decipoint = 1/720 inch) to allow for the areas of the page. If you set the top and left offsets to 180, Preview adds .25 inch to the top margin and page offset values. The default offsets are 0. If you change printers, you may have to change the offsets manually.

Note: Top and left offsets also affect the alignment of text on fax pages.

CHANGING THE RESOLUTION FOR FAX FILES Most fax machines have a resolution of 200 dots per inch (dpi) horizontally. The vertical resolution is either 200 (high) or 100 (low) dpi. Send fax files in the same resolution in which they were created.

WordStar's fax file output supports both high and low resolutions. The default output resolution in FONTID.CTL is high, represented by the statement FAX_RES=1. The statement for low resolution is FAX_RES=0. The statement for 300x300 dots per inch is FAX_RES=2. The setting that you choose needs to be supported by your fax machine. The high resolution produces better-looking fax output. Phone line charges are less for normal resolution but the fax output isn't as satisfactory.

When you request fax files from either the Opening screen or the Editing screen, you enter the resolution in the Fax dialog box. The settings in the Fax dialog box override settings in FONTID.CTL. However, when you create fax files from within Preview, WordStar uses the FAX_RES setting in FONTID.CTL.

You can select settings in FONTID.CTL that allow you to create .PCX files in the correct resolution for dot matrix printers. These are not fax files. The statement for a 9-pin dot matrix printer is FAX_RES=3. The statement for a 24-pin dot matrix printer is FAX_RES=4.

Note: You need to obtain a utility (not supplied by WordStar) to print the .PCX files for the 9-pin and 24-pin dot matrix printers.

ADJUSTING THE SCREEN FONT DISPLAY

When you create screen fonts (.WSF files) in PRCHANGE or the DISPFONT program, information about each font is stored in the FONTID.CTL file. Preview cannot display a typestyle unless it's in FONTID.CTL. If WordStar can't find the font, it displays the best match it can find.

WordStar supplies four groups of screen font (.WSF) files. The files are used when WordStar can't find a better match for your font. The four groups are named as follows:

NAME	CHARACTERISTICS
COURIER	Fixed pitch serif font for typefaces like Courier and Prestige Elite
NPSHLV	Fixed pitch sans serif font for typefaces like Line Printer and Gothic
UNIVERS	Proportional sans serif font for typefaces like Helvetica and Triumvirate
TIMES	Proportional serif font for typefaces like Times Roman and Century Schoolbook

Each screen font group above includes four files for regular (1), italic (2), bold (3), and bold-italic (4) fonts.

When you create a screen font in PRCHANGE or DISPFONT, the font is assigned a seven-character name; for example, **0512USR.WSF**, where

05	HP Typeface ID number (05 = Times Roman)
12	Point size
US	Symbol set (US = USASCII)
R	Weight/style (R=Regular, B=Bold, I=Italic, J=Bold-Italic)
.WSF	WordStar Screen Font

The font section of FONTID.CTL uses this format for screen fonts:

01= UNIVERS1,180 093 C034 341

FILENAME OR #	REPRESENTS
01	Sequence number
UNIVERS1	Screen font filename (.WSF)
180	Height (1/720 inch, or point size x 10)
093	Average character width (1/720 inch)
C034	Key for typeface and characteristics
341	HP symbol set number

Note: If you add a font to FONTID.CTL manually, you need to enter only the sequence number and the screen font filename. Preview calculates the other values.

HOW PREVIEW SELECTS SCREEN FONTS

Preview needs only one size of each screen font to display that font in any size (size is not a selection criterion as it is in printers). Preview chooses which font to display based on the following priorities:

- Math/Symbols/Text (850 or 437) symbol set
- Proportional/Fixed
- Specific typestyle
- PC-850/PC-8 (code page 437) symbol set
- Italic/Upright
- Bold/Normal weight
- Serif/Sans serif/Display/Script

If Preview finds more than one "best match," WordStar uses the one that appears last in the FONTID.CTL file. FONTID.CTL does not contain duplicates unless you force them (see "Making Screen Fonts").

MAKING SCREEN FONTS

To make the best looking Preview display, create screen fonts from the same fonts you'll use for printing. Otherwise, the screen fonts may look slightly different than the printed fonts. The symbol set should be either PC-8 or PC-850 since WordStar maps those symbol sets to the fonts in your printer. You can use the USASCII symbol set if you want to achieve smaller font files or to allow greater resolution of screen fonts. This symbol set, however, does not display extended characters.

MAKING SCREEN FONTS AUTOMATICALLY When you install soft fonts, you use LSRFONTS to create a custom font database containing the fonts you want to preview. Then you use PRCHANGE to install the custom fonts in your PDF. (See "Adding Custom Fonts" in "Customizing WordStar" in this booklet.)

After you add the fonts to your PDF, you'll see the prompt *Do you want to create screen fonts? Y/N.* If you press **Y**, PRCHANGE scans all the fonts in your PDF and makes the necessary screen fonts.

When adding screen fonts, keep these points in mind:

- Only one screen font is needed for each typeface/attributes/symbol set combination because Preview scales the screen font to the correct size. Larger fonts make better-looking screen fonts, but they also take up more disk space than smaller fonts. Start with 18-point fonts, and then try larger or smaller fonts, depending on whether you want better resolution or more disk space. For the USASCII symbol set, 30 points produces optimum results.

- The size limit for .WSF files is 48K, and the limit for the largest single character in a font is 4K. If either limit is exceeded, the .WSF file will not be created. If you can, use smaller soft fonts to build the screen fonts.

- Symbol sets in the same group are considered duplicates, but PC-8 and PC-850 symbol sets override other symbol sets in the same group.

- Only bitmapped (HP LaserJet series II and compatible) soft fonts can be used to create screen fonts. Scalable (HP LaserJet III and compatible) and compressed (HP LaserJet IIP and compatible) fonts will not work. If you use Type Director or another soft font generator to create soft fonts, set up the program to make soft fonts for HP LaserJet Series II and compatible printers. First create an 18-point font, and then create a screen font from it by running DISPFONT.

- If you don't think your font was added to FONTID.CTL, or if the screen font doesn't match the printed font, try creating the font manually.

MAKING SCREEN FONTS MANUALLY If you make screen fonts in PRCHANGE, and you do not like the screen font size selected, you can force DISPFONT to make the screen font in another size.

To make a screen font, log on to the directory where FONTID.CTL and the *.WSF files are located (usually WS). Make sure your path includes the directory where DISPFONT.COM and DISPFONT.OVR are located (usually WS). Type **dispfont *fontname***, where *fontname* is the name of the soft font file (including the path, if needed), and press Enter. (You can use a wild-card specification to enter filenames, for example, *.SFP.) DISPFONT creates a .WSF file (a screen font) and displays the filename or displays an error message telling you why it can't create the screen font. Each time DISPFONT creates a screen font, it updates the FONTID.CTL file.

DISPFONT doesn't normally create a duplicate font, but if you want to force creation of a duplicate font, type **dispfont *fontname* f** and press Enter. You may want to force a duplicate font if, for example, a screen font was originally created in a very small point size and you want better resolution. The "f" for "force" works with wild-card characters, but you need to be careful. If you type **dispfont *.sfp f** you may add a lot of duplicates into your FONTID.CTL table. The FONTID.CTL table should not really go beyond 60 entries, and fills up at 99 entries.

CAUTION *Duplicate screen fonts may just be different symbol sets belonging to the same group, for example, Courier 10 PC and Courier 10 US. ASCII and PC-8 are considered equivalent, but PC-8 is preferred because it includes more characters. If you override a PC-8 font with an ASCII font, you can't display the entire character set.*

ADDING EXISTING SCREEN FONTS

If you want to add screen fonts (.WSF files) that are stored on a floppy disk or in a network directory, you can use DISPFONT to copy the font into the current directory. Type **dispfont *drive/directory filename*** and press Enter. For instance, to add all the screen fonts on a floppy disk located in drive A, type **dispfont a:*.wsf** and press Enter. (Be sure to include the location of the font files, or the screen fonts will be added twice.) The DISPFONT program copies the screen font files from the floppy disk to the current directory and updates FONTID.CTL.

TROUBLESHOOTING SCREEN FONT PROBLEMS

The problems described below may occur when you create screen fonts.

YOU ADD A NEW FONT AND EVERYTHING DISPLAYS IN THAT FONT If this occurs, the fonts in your PDF may not match the default screen fonts. When Preview doesn't find an exact match, it looks for the closest match. If it finds more than one "closest match," it uses the last one in the list in FONTID.CTL. When you add fonts, those fonts are last in the list and are used before any of the default fonts. Edit FONTID.CTL and move the last font to the top of the font list. Then carefully renumber the list, starting with sequence number 01. Delete the VER= line, save the file, and then exit WordStar and restart it. If there are gaps or duplicate numbers in the font list, the list will be renumbered when you start Preview.

For example, if all the fonts in your PDF are Roman-8, and you add one special Roman-8 screen font, Preview may choose the new font for all fonts since it is the only one that has the correct symbol set. You can either make screen fonts from your Roman-8 fonts or build a PDF that uses the PC-8 (the default) symbol set for all the other fonts. Making fonts with the correct typeface number usually helps, even if the symbol set is wrong.

CRT FILES ARE FILLING UP YOUR HARD DISK CRT files are created for each size of each font you display. They are not deleted automatically except when the "VER=" line in FONTID.CTL is removed. However, you can remove CRT files at any time, and Preview rebuilds them as needed. Log on to the directory where Preview keeps its files (usually WS); this directory has one or more subdirectories with .CRT extensions. Make sure the directory with DELCRT.EXE is on your DOS path, and type **delcrt** and press Enter. (If you need to, specify the path; for example, **c:\ws\delcrt**.) DELCRT searches for files and subdirectories with the .CRT extension and deletes them.

CREATING SCREEN FONTS FOR FAX FILES

Preview creates fax images similar to the way it creates screen images. It may help you to think of the fax machine as a 200 dpi printer. You want to get the best looking print quality using the output from Preview. To achieve the best looking fax fonts, just as in Preview, you start with the best original fonts. WordStar starts with HP LaserJet bitmapped fonts and converts them to compressed .WSF files. Only one size of each typeface is required. Preview scales the fonts at display time to match the size of type desired and the size and shape of your graphics screen.

Your WordStar package contains a selection of screen fonts. These fonts adequately display smaller point sizes. For larger point sizes, you can produce much better fonts by starting with larger original fonts.

SELECTING A SYMBOL SET

The symbol set that you use affects the font size. The USASCII set has much smaller font files. We recommend that you use the USASCII symbol set if you don't require international characters and line and box symbols in your documents.

Note: Preview cannot handle a screen font over 48K or a scaled bitmap over 64K.

The following chart shows the quality of fonts produced from various point sizes and symbol sets. The results were obtained from a Compugraphics CG TIMES Bold font.

FAX FONT SIZE	**10 PT. ORIG. PC-8**	**18 PT. ORIG. PC-8**	**30 PT. ORIG. USASCII**
10 pt.	Good	Excellent	Excellent
12 pt.	Good	Excellent	Excellent
18 pt.	Fair	Excellent	Excellent
24 pt.	Fair	Excellent	Excellent
30 pt.	Fair	Fair	Excellent
40 pt.	Poor	Fair	Excellent
50 pt.	Poor	Fair	Fair
60 pt.	Poor	Poor	Fair
72 pt.	Very Poor	Poor	Fair

The recommended original fonts to use for fax files are 18-point, PC-8 symbol set, or 30-point, USASCII.

Note: The PC-850 symbol set has the same size .WSF files as the PC-8 symbol set, because the number of characters in the symbol sets is the same. Legal has the same size .WSF files as USASCII.

USING DISPFONT TO CREATE FONTS

You create screen fonts for Preview using the utility DISPFONT. DISPFONT takes an HP LaserJet bitmapped, portrait font, and converts it into a WordStar Screen Font (.WSF) file. If you have a LaserJet II or III printer, you probably already have several downloadable bitmapped soft fonts. If you are using a special font that you purchased, like Old English or a script font, you can probably use it with DISPFONT. For more information on the DISPFONT program, see the previous section in this chapter called "Adjusting the Screen Font Display."

Note: Currently, DISPFONT only converts HP LaserJet fonts. If you don't have any soft fonts, you can contact WordStar for a disk of USASCII screen fonts at 30 points. These are for CG-Times and Univers fonts.

LASERJET SERIES II SOFT FONTS

Use the following steps to create screen fonts for LaserJet Series II soft fonts.

1. Determine the largest point size available from your soft fonts (around 30-point for USASCII or 18-point for PC-8).

2. Log on to the directory where the FONTID.CTL resides (usually WS).

3. Type **dispfont \*fontpath*\fontname f** and press Enter.

   For example, type **dispfont c:\myfonts\tr300rpn.usp f**. The "f" in this command means "force duplicate creation." DISPFONT overwrites a similar font that exists in a smaller size. When you type the command, DISPFONT creates a screen font file (.WSF) and an entry in the FONTID.CTL file.

LASERJET III SCALABLE FONTS AND LASERJET II-P COMPRESSED FONTS

DISPFONT cannot directly read the LaserJet III scalable fonts and LaserJet II-P compressed fonts. Use Type Director or some other font-scaling program to create LaserJet Series II soft fonts in portrait orientation, in the desired symbol set, and at the recommended point size (see the previous section "Selecting a Symbol Set"). Then use DISPFONT to create screen fonts using the information described in the previous section "LaserJet Series II Soft Fonts."

CARTRIDGE AND INTERNAL FONTS

To Preview or fax cartridge or internal fonts, you need to use a bitmapped version of the same (or close to the same) font. Many cartridges come with machine-readable bitmapped versions on disk. If you can get the bitmapped fonts into HP LaserJet II format, you can use them to create screen fonts. Otherwise, you may be able to use a standard font (like Times) which closely approximates other fonts such as Century Schoolbook.

NON-HP PRINTER FONTS

If you purchased scalable fonts from a vendor and installed them for your printer, see if the font scaler program can also make HP LaserJet II fonts (most scaler programs can do this). After you create the HP LaserJet II fonts, follow the instructions in the above section "LaserJet Series II Soft Fonts."

ADOBE FONT FOUNDRY

DISPFONT needs HP LaserJet bitmapped fonts to create screen files. If you have PostScript fonts, you can use the Adobe Font Foundry program to build bitmapped font data from your PostScript fonts. We recommend building an HP bitmapped font of 14 to 18 points using the USASCII symbol set. The larger the point size, the more disk space the font requires but the resolution is better. For instructions on how to use the Adobe Font Foundry software, see the *Adobe Type Library, User Guide.*

PATCHING WORDSTAR

When you *patch* WordStar, you customize it by editing the program codes. Instead of answering prompts and letting WSCHANGE make the changes for you, you enter the hexadecimal codes yourself. You can patch any item in the user area of the WS.EXE program file. You'll find a listing of the contents of the user area in the PATCH.LST file. The pages that follow describe the user area and the PATCH.LST file, and give instructions for using patching menus and the WordStar auto-patcher.

CAUTION *Patching is a very technical procedure and is recommended for advanced users only. Mistakes in patching can have far-reaching effects on WordStar, so be sure to make a copy of the WS.EXE program file before you begin. That way, if your patches don't work as expected, you can go back to your original version.*

Be careful when using patches from a previous version of WordStar. Patches that refer to data addresses may have disastrous results in WordStar because the data has been moved. However, patches that refer to user area labels may work because most labels haven't been changed. Do not read in any patch files without checking the PATCH.LST file first. (For more information about patching from previous versions of WordStar, see the booklet Upgrading from a Previous Release *and the section in this chapter called "Transferring Customizations Using the Auto-patcher.")*

ABOUT THE USER AREA

All WS.EXE customizations are made in the user area of the WS.EXE file. The user area is made up of many small sections, each of which affects a certain part of the program. Many sections have identifying labels; for example, LGLDRV refers to the legal disk drives section and HITE refers to the screen height section.

Each section in the user area contains data (some sections have only one data item); the label is associated with the first data item. Each data item has its own address, that is, a consecutive hex number, based on the location of the data. An address may change if the data is moved between releases of WordStar; however, labels always refer to specific data and they move with that data.

ABOUT THE PATCH.LST FILE

You'll find PATCHLST.EXE in the directory containing your WordStar files (usually WS). To decompress the file, log on to the WordStar directory, type **patchlst**, and press Enter. PATCHLST.EXE decompresses to the file PATCH.LST.

Before you make any changes to PATCH.LST, print the file and determine what areas you want to change. PATCH.LST has a large right margin, so either print it in a small font or print it sideways on the page (if your printer allows).

Remember that PATCH.LST is just a readable copy of the user area; the user area itself is part of the WS.EXE program file.

The user area combines program code and English words. The following chart shows the part of the user area listing; it doesn't necessarily contain correct addresses or default settings.

```
0F30   FF   iniedt   db   TRUE   Right justification
0F31                 db   TRUE   Word wrap when typing
0F32                 db   TRUE   Insert on
0F33                 db   TRUE   Print codes displayed
```

In the example above, the text (to the right) describes the function of the section. The address (on the far left) indicates where the data appears in the user area. The addresses are in ascending order and appear as hexadecimal numbers. If a line has more than one data item, the next address is incremented accordingly.

Sometimes a label is shown next to the address. When you patch WordStar, you can specify either the label or the address. The label applies only to the first data item in a section; subsequent data items don't have labels. You can use labels such as INIEDT+1 and INIEDT+2 to refer to the subsequent data items.

DB (define byte) or DW (define word) on each line is the assembler directive that defines the data; for example, DB 3 means to define a byte containing the number three, and DW 1 means to define a word containing the number one. A *word* is a data item with two bytes (16 bits) stored in two successive bytes, with the low-order byte first; for example, DW 12EFH means to store the hex word 12EF in the two bytes. The first byte contains EF and the next byte contains 12.

The data that follows DB or DW can be (1) a number, (2) TRUE or FALSE, (3) a string, or (4) DUP (duplicated). TRUE is the same as hex FF (equal to ON); FALSE is the same as hex 00 (equal to OFF).

A string is several characters for which ASCII codes are stored in successive bytes. Strings in the user area listing are surrounded by single quotes; for example, the string 'ABC' is stored in three bytes as hex 41, 42, and 43 (the ASCII codes for A, B, and C, respectively).

If DUP follows DB or DW, it means the value in parentheses is to be duplicated several times; for example, 10 DUP (0) means the value zero is to be duplicated ten times. At the end of each line in the user area listing is a comment that describes the data. Usually these comments provide the most technical information about the data.

USING PATCHING MENUS

To patch changes in the user area, begin at the WSCHANGE Main Menu. Type the letters for your menu selections until you get to the patching menu you want. Choose an item from the menu or press the equal sign = to go to any other location in the user area.

If you press =, you're prompted for an address or label from the user area. It's best to use labels because addresses can change from one version of WordStar to another. (You can also use label calculations such as LGLDRV+1.)

Once you specify what area to patch, WSCHANGE displays the address, the current value (in hex) for the 16 bytes beginning at that address, and their ASCII equivalents, as shown in the following example:

```
0575 C3 90 90 C3 BE A6 06 2E 8A 04 E3 4E 8A E0 8A 36 ..........N...6
```

WSCHANGE displays 16 bytes of information at a time, regardless of the size of the data item. After you change the sixteenth byte, the next 16 bytes appear. If the data is only 6 bytes long, you'll see those 6 bytes plus 10 bytes from the next data item. The address at the left of the screen is for the first 16 bytes on the screen.

To the right of the address, the bytes are shown as hexadecimal numbers. Beyond those are the ASCII equivalents for the bytes. (If a byte is not in the range of hex 20 to 7E, it is not a displayable character and it appears as a dot.)

The cursor is located at the first digit of the first byte at the address shown. To change the byte at the cursor, type any of the patch commands shown below.

COMMAND	**PURPOSE**
' (single quote)	Changes the value of the digit pair at the cursor to that of any ASCII character. Type a single quote (') and the ASCII character, for example, **'A**. WSCHANGE translates this into the proper hex equivalent (in this case, 41h).
0-9, A-F	Changes the hex value. Each hex digit must be either a number or a letter between A and F.
. (period)	Redisplays the line showing any changes you've made.
↵ (Enter)	Leaves the byte above the cursor unchanged and advances to the next byte.
X	Saves your changes and returns to the menu.
Backspace or ^H	Corrects typing errors.
^C	Cancels your changes and exits WSCHANGE.
^X	Saves your changes and exits WSCHANGE.

CREATING AND EDITING PATCH FILES

If you want to transfer your changes to another copy of WordStar, you can use the WordStar auto-patcher (instructions appear in this section). If you don't want to use the auto-patcher, you can create and edit the patch files yourself.

A patch file is a nondocument file that lists the starting location for the patch and the hexadecimal codes to be entered at that location. Use nondocument mode in WordStar to create or edit a patch file.

Here's an example of a patch file that patches 16 bytes in the user area. The patch starts at the label INILOG, which is the initial directory log-on setting. The log-on directory is changed to C:\WS\LETTERS:

```
INILOG=0D,43,3A,5C,57,53,5C,4C,45,54
=54,45,52,53,00,00
```

The label INILOG followed by an equal sign (=) indicates where the patch starts. You can also use an address calculation, such as INILOG+5, or a hex address. The first byte, 0D, tells how long the string is. Notice that the second line in the above example begins with an equal sign rather than an address. This signifies a continuation of the previous line. The auto-patcher can only handle lines that are shorter than 128 characters, so use this method to break up long patches. The hex value for each byte follows the equal sign.

Add strings to the file by surrounding them with either single or double quotes as shown in the following example:

```
INITID='Special test version',0D,0A,00
TRMINI=FF,ERASCR,ERASCR/100
```

WordStar evaluates the values between the commas and to the right of the equal sign as byte values. They are always evaluated as modulo 256. However, all arithmetic is done with words (16-bit values) and all numbers are assumed to be hexadecimal. Calculations are evaluated strictly from left to right and parentheses cannot be used.

You can use these operators in calculations:

+ (add)
– (subtract)
* (multiply)
/ (divide)
| (and)
^ (or)

For more information on patching specific areas of the program, see the PATCH.LST file.

USING THE UDATE LABEL

If you patch any of the following labels from WordStar 7.0, you should place a UDATE label on the first line of the patch file:

BFRSIZ
CFFILE
DDFILE
DEFPTH
DSTKSZ
EMSMEM
EXFILE
EXTKB
FNFILE
HDFILE
HIFILE
HPFILE
HYFILE
IDFILE
INIEDT
ISFILE
IXFILE
KBFILE
KBXLAT
LNGCOD
MDFILE
MEMFLG
MLFILE
MORPAT
MSFILE
NOTYPE
NWFLG
PDFFILE
PRFILE
PVFILE
PVWFILE
SCMARK
SPFILE
STFILE
TDFILE
THFILE
TMFILE
UDATE
UDFILE
VCOLOR
VIDATT
WRKTYP

A patch file created by the auto-patcher in WordStar 7.0 includes a product release date (UDATE) on the first line of the file; patch files from previous versions of WordStar don't have a release date. If a patch file (created either manually or by the auto-patcher) has no date on the first line, WSCHANGE determines that you're upgrading and won't patch the labels in this list. The labels that are listed have changed significantly from earlier versions of WordStar and patching from an earlier version would cause problems in the current program.

To find the correct UDATE code for your patch file, look for UDATE at the end of the file PATCH.LST. The label that you type in the patch file should look similar to this and contain the correct hex code:

```
UDATE=db,##,##,##
```

Note: If your patch file from an earlier version of WordStar has the labels WID, UDMEM, or SPLMEM, they are patched as the new labels WIDE, UDCMEM, and SPMMEM.

TRANSFERRING CUSTOMIZATIONS USING THE AUTO-PATCHER

You can use the WordStar auto-patcher to transfer customizations from one copy of WordStar to another. This is useful if you're upgrading to a new release of WordStar or if you want to trade customizations with another WordStar user.

To transfer customizations, you first save the customizations to a patch file, then you edit the patch file (if necessary), and then transfer (patch) the customizations to the program file you want to customize.

WordStar can determine if you're using a patch file from a previous version of WordStar. A patch file created by WSCHANGE in the current version of WordStar includes a product release date on the first line of the file; patch files from previous versions of WordStar don't have a release date. If your patch file has no date, WSCHANGE determines that you're upgrading and won't patch specific labels. For a list of these labels, see the previous section in this booklet called "Using the Udate Label."

SAVING YOUR CUSTOMIZATIONS

Follow the steps below to save the customizations in your current version of WordStar.

1. At the WSCHANGE Main Menu, press **E** (Patching).

   Note: Other choices are available in WSCHANGE for saving screen color and path settings.

2. At the Patching Menu, press **B** (Save settings) and type a filename for the patch file to which you want your customizations saved.

3. Type **Y** to save the entire user area, or type **N** and specify the label for the information you want to save.

4. Press **^X** and then **Y** to save your changes and exit WSCHANGE.

COPYING THE PATCH FILE

Now, copy the patch file to your WordStar program file.

1. At the WSCHANGE Main Menu, press **E** (Patching).

2 At the Patching Menu, press **A** (Auto-patcher), type the name of the patch file you want to copy, and press Enter. You can specify a drive and path in the patch filename.

3 Press any key to return to the Patching Menu, and press **^X** and then **Y** to save your changes and exit WSCHANGE.

WORDSTAR AND ITS PATHS

When WSSETUP is run to install WordStar, most files go into the WordStar directory (usually WS). Some features are installed in separate directories and certain paths are set for the files. These features and their default paths are shown below. *WORDSTAR FILES* lists the files that WordStar accesses on the path. No files are listed next to ProFinder since WordStar doesn't access ProFinder files.

FEATURE	**PATH**	**WORDSTAR FILES**
WordStar	\WS	WSHELP.OVR, WSMSGS.OVR, WSDSPCH.OVR, WSSTYLE.OVR, WSHOTKEY.OVR, WSC.EXE, WSD.EXE
Preview	\WS	PREVIEW.OVR, *.CRT, FONTID.CTL
Dictionaries	\WS	WSSPL000.OVR, SPLMN000.DCT, PERSONAL.DCT, EXCEPT.DCT, SPLIN000.DCT, WSTHS000.OVR, THESR000.DCT, DEFIN000.DCT
Macros	\WS\MACROS	*.WSM
Fax	\WS\FAX	*.PCX
PostScript	\WS	WSPROL.PS, WSPROL2.PS
Inset	\WS\INSET	INSET.EXE
Graphics Conversion	\WS\INSET	TOPIX.EXE, TOPIX.SET
MailList	\WS\OPTIONS	WSLIST.COM

FEATURES	**PATH**	**WORDSTAR FILE**
ProFinder	\WS\OPTIONS	None
TelMerge	\WS\OPTIONS	TELMERGE.EXE, TELMERGE.SYS
Star Exchange	\WS\CONVERT	CONVERT.EXE

Some features are grouped together and given different path numbers, even though the paths may be the same:

FEATURE	**PATH**
Program and other files not mentioned below	Path 1 (\WS)
Dictionaries (not overlays)	Path 2 (\WS)
Preview	Path 3 (\WS)
Inset	Path 4 (\WS\INSET)
TelMerge	Path 5 (\WS\OPTIONS)
MailList	Path 6 (\WS\OPTIONS)
Graphics conversion	Path 7 (\WS\INSET)
PostScript	Path 8 (\WS)
Fax	Path 9 (\WS\FAX)
Star Exchange	Path 10 (\WS\CONVERT)
Macros	Path 11 (\WS\MACROS)

When you run Inset, either when printing or by choosing Utilities→Inset (Alt+U,I) at the Editing screen, WordStar changes to the drive and directory specified in path 4, loads Inset, and returns to the original drive and directory. The same path is used when you select pix files (*.PIX) by choosing Insert→Graphic (Alt+I,G) at the Editing screen. This method is also used when you convert graphics, use macros, or run TelMerge, MailList, or Star Exchange from the Opening screen.

PRIMARY AND SECONDARY PATHS

In WSCHANGE you can specify primary and secondary paths for all WordStar files. WordStar looks first for files on the primary path and then searches the secondary path. Primary and secondary paths are very useful if you're running WordStar in a network environment.

When you install WordStar as a single user, WordStar assigns all files to secondary paths. As a result, you can set up a customized directory and specify a primary path for the files on that directory. WordStar searches for files in your customized directory before it searches the secondary path.

SPECIFYING PRIMARY AND SECONDARY PATHS

Follow the steps below to specify primary and secondary paths in WSCHANGE.

1. At the WSCHANGE Main Menu, press **C** (Computer) then **D** (WordStar files).

   The primary and secondary paths are shown in parentheses following the WordStar filenames. In the example below, the primary path is "U" and the secondary path is "3." "U" means uninstalled—no path is assigned.

   ```
   F  Preview file..........................PREVIEW.OVR (U/3)
   ```

   Note: You can examine or change the default paths by pressing **A** at WordStar Files Menu #1.

2. At the WordStar Files Menu, press the command for the file whose path you want to change.

   For example, at the WordStar Files Menu #2, press **G** to change the primary and secondary paths for the macro description files (*.WSM).

3. At the filename prompt, type a new filename or press Enter if you want to accept the current filename.

4. At the primary path menu, choose the primary path or press **X** to continue without changing.

5. At the secondary path menu, choose the secondary path or press **X** to continue without changing.

6. Press **^X** and then **Y** to save your changes and exit WSCHANGE.

USING PDFEDIT

You can use PDFEDIT to create custom PDFs for printers that WordStar doesn't support, or to make changes to PDFs for supported printers (for example, to add a sheet feeder that WordStar doesn't support).

When you use PDFEDIT, you'll type the codes your printer uses for print enhancements. Check your printer manual very carefully for the correct code sequences.

CAUTION *PDFEDIT is an extremely technical program that should be used only by very experienced printer users. Before you begin working in PDFEDIT, make copies of the PDFs you plan to edit. Then, if you make a mistake, you can restore your original PDFs.*

To use PDFEDIT, you must have installed a printer and created a PDF. You can install a printer similar to yours and modify the PDF to fit your printer, or you can install for CUSTOM or SIMPLE to create a generic CUSTOM or SIMPLE PDF.

To start PDFEDIT, follow the steps below for your type of computer.

1. Log on to your WordStar directory (usually WS).
2. Type **pdfedit** and press Enter.
3. At the first screen, press any key to continue.
4. Move the highlighting to the PDF you want to modify and press Enter. You'll see the PDF Editor Main Menu.

Note: If the display in PDFEDIT isn't clear, exit the program and type **pdfedit /m** and press Enter. The program will use a monochrome display.

If you need help at any time in PDFEDIT, press **F1**.

ENTERING PRINTER CODES

You can enter codes in most areas of PDFEDIT using ASCII control code notation. Control code notation uses a caret (^) followed by a character for the first 32 values (00-1F hex). To convert hex or decimal values to ASCII, see the "ASCII Conversion Charts" in the *Reference* manual.

EDITING CUSTOM AND SIMPLE PDFS

Before you can customize a CUSTOM or SIMPLE PDF, you must use PRCHANGE to create it. Choose CUSTOM or SIMPLE from the Printer Selection Menu.

The SIMPLE PDF really is simple. As it encounters print codes in the text, it sends the control sequence you defined for that code to the printer. SIMPLE makes one pass through the line from left to right. On some printers, interactions may occur between the various print controls, so if the SIMPLE PDF doesn't produce the results you want, try the CUSTOM PDF.

The CUSTOM PDF is more sophisticated than the SIMPLE PDF in that it usually compensates for a missing control sequence. For example, if you don't define control sequences for turning bold on and off, the CUSTOM PDF will overstrike the line several times, but the SIMPLE PDF won't print bold at all.

GETTING AROUND IN PDFEDIT

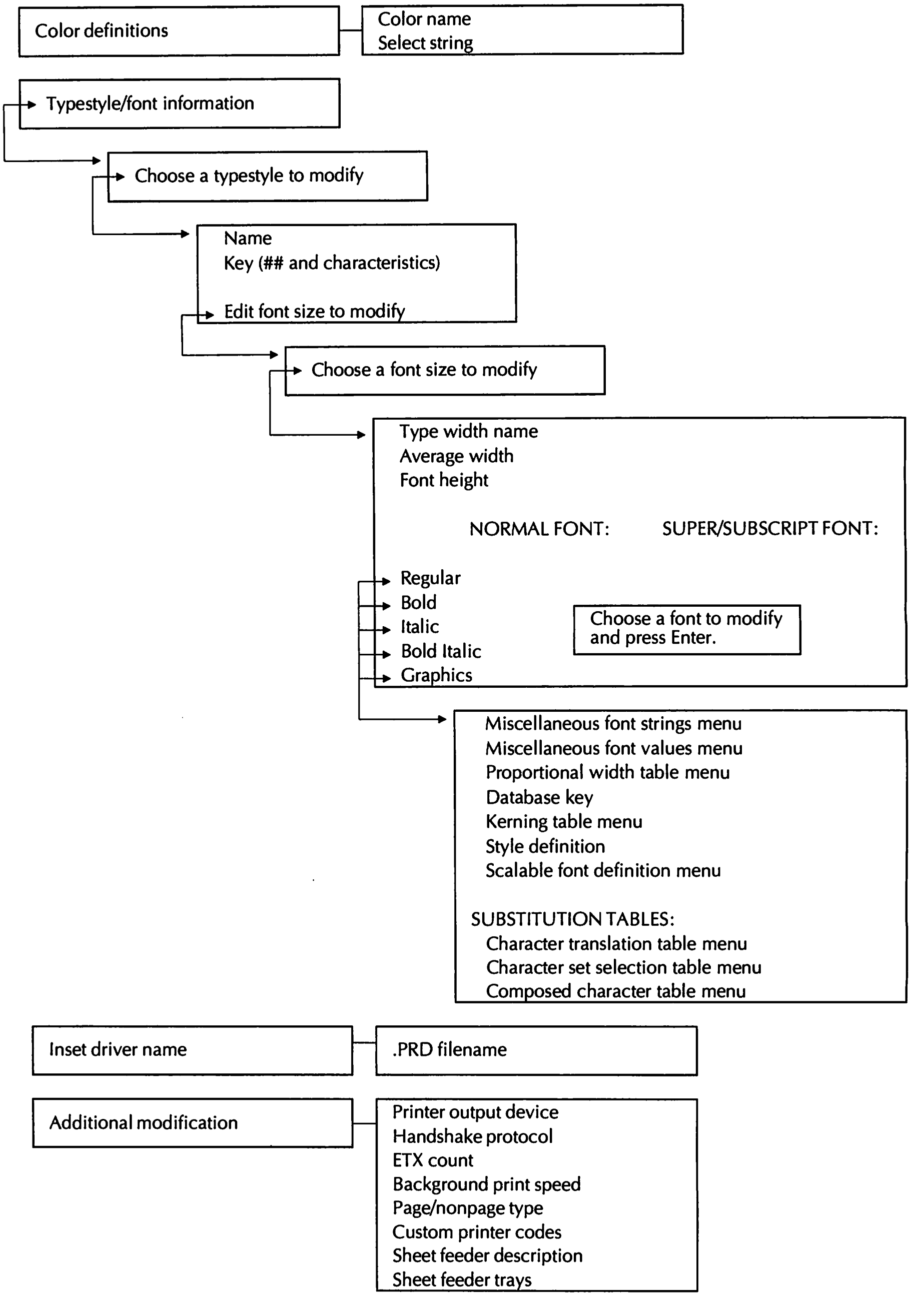
PDFEDIT lets you customize many areas of a PDF. If you're modifying a PDF that already works with your printer, just change the items you want to adjust.

The chart on the next two pages shows the menu structure of PDFEDIT.

PDFEDIT MENU STRUCTURE

- Print ID information
  - (Do not change)
- Vertical positioning
  - Relative (down/up) positioning
  - VMI definition
  - Absolute vertical positioning
  - Page length definition
  - Vertical positioning type
  - Vertical points per inch
- Horizontal positioning
  - Relative (left/right) positioning
  - Intercharacter space positioning
  - HMI positioning
  - Absolute positioning
  - Graphics positioning
  - Horizontal dots per inch
  - Directional movement strings
- Control strings
  - (Menu 1)
    - Portrait orientation
    - Landscape orientation
    - Form feed string
    - Carriage return/line feed string
    - Carriage return only string
    - Job init string
    - Doc init string
  - (Menu 2)
    - Doc de-init string
    - Job de-init string
    - Quit job string
    - Off-line (pause) string
    - Delay before job init/dnit/quit strings
    - Delay after job init/dnit/quit strings
    - Printer delay wait delay
- Attribute control
  - (Menu 1)
    - Superscript
    - Subscript
    - Bold
    - Underline
    - Double strike
  - (Menu 2)
    - Strikeout
    - Italic
    - Double underscore
    - Overscore
    - End of line mask
- Miscellaneous control
  - Number of strikes for emulated bold
  - Number of strikes for emulated double strike
  - Microjustification value
  - Microjustification type
  - Underscore emulation character
  - Double underscore character
  - Character alignment type
  - Form feed type
  - Pause between pages

PDFEDIT MENU STRUCTURE (Continued)


Color definitions
Color name
Select string
Typestyle/font information
Choose a typestyle to modify
Name
Key (## and characteristics)
Edit font size to modify
Choose a font size to modify
Type width name
Average width
Font height
NORMAL FONT:
SUPER/SUBSCRIPT FONT:
Regular
Bold
Italic
Bold Italic
Graphics
Choose a font to modify and press Enter.
Miscellaneous font strings menu
Miscellaneous font values menu
Proportional width table menu
Database key
Kerning table menu
Style definition
Scalable font definition menu
SUBSTITUTION TABLES:
Character translation table menu
Character set selection table menu
Composed character table menu
Inset driver name
.PRD filename
Additional modification
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Handshake protocol
ETX count
Background print speed
Page/nonpage type
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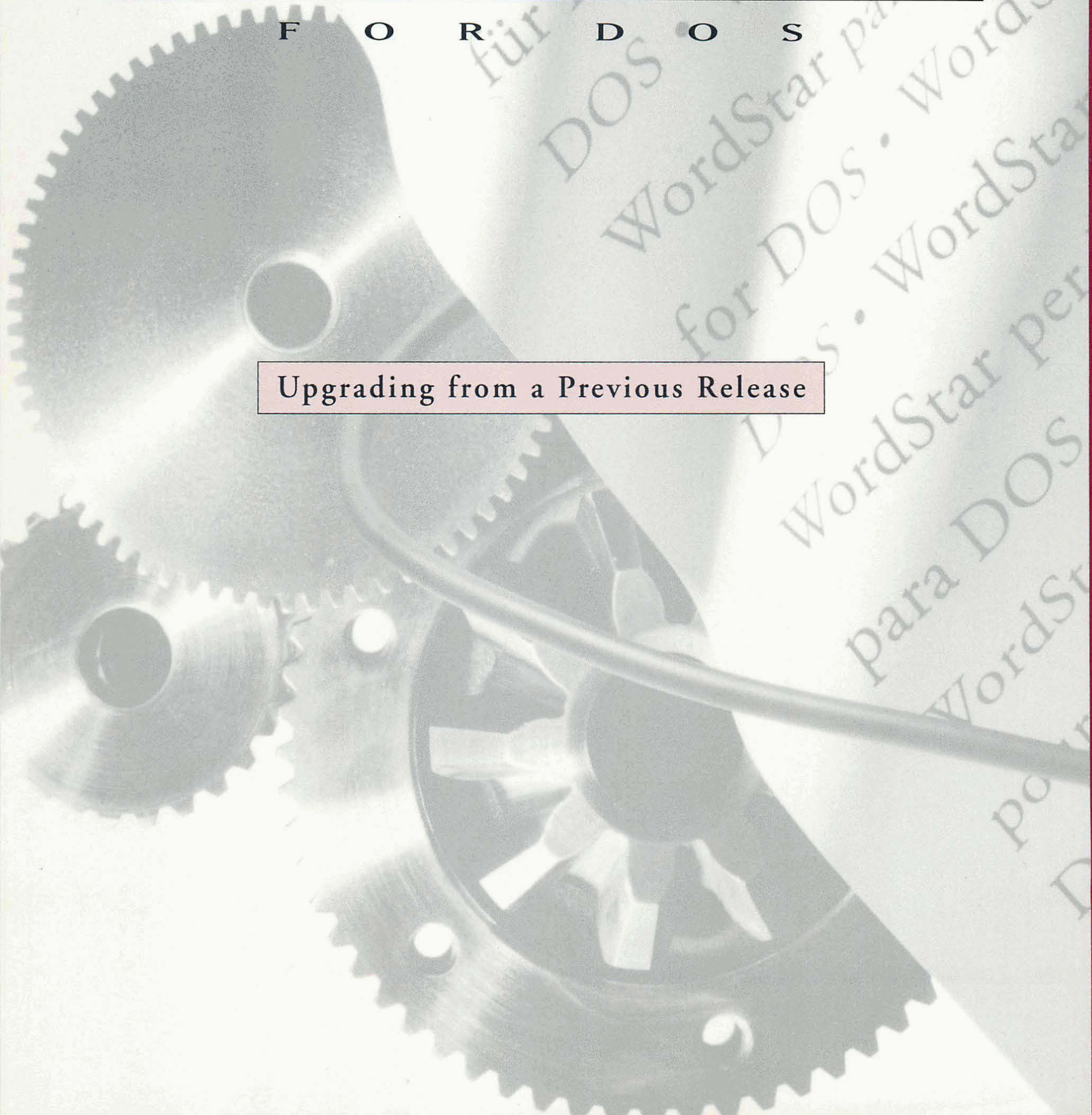
WORDSTAR®

A1-C2000

WORDSTAR®

FOR DOS



Upgrading from a Previous Release

WORDSTAR®

FOR DOS

Upgrading from a Previous Release

Version 7.0

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UPGRADING

This booklet is for users who are upgrading from a previous version of WordStar. It describes what to do before installing WordStar 7.0, gives brief installation instructions, and tells you how to transfer customizations from a previous version of WordStar. It also includes a description of some of the new features and other improvements in WordStar.

IMPORTANT *The disks in your WordStar package are compressed. These disks must be decompressed before you can run WordStar. Use the WSSETUP program, which decompresses and copies the files, to install WordStar.*

BEFORE YOU INSTALL WORDSTAR 7.0

Before you install WordStar 7.0, you should save any user-modifiable files you customized in a previous version of WordStar. You can rename the files or move them to a different directory or to a floppy disk. The user-modifiable files are PERSONAL.DCT, EXCEPT.DCT, TELMERGE.SYS, WSSTYLE.OVR, WSINDEX.XCL, *.PIX, WSLIST.DTA, and any other MailList™ files you've modified. (Not all these files are available in versions of WordStar previous to 5.5.) If you've previously installed WordStar 7.0, be sure to move or copy any macro files you've modified (*.WSM). After you finish installing WordStar 7.0, you can copy the user-modifiable files you saved to your new WordStar directory.

You may want to save your old WSSHORT.OVR file. You can convert the shorthand macros in this file to WordStar 7.0 macros using the WS6MACRO utility described later in this booklet.

WordStar 7.0 generally recognizes printer PDFs from WordStar 6.0. However, color/shading choices have been improved for some printers, so you may want to reinstall your printer.

You may also want to save your old FONTID.CTL file to save information on how you configured Preview. If you installed custom screen fonts for Preview in your previous version of WordStar, you can find the .WSF filenames in the old FONTID.CTL. After you finish installation, run DISPFONT for each .WSF file to update the new FONTID.CTL so WordStar 7.0 can access the custom fonts. Start in the directory where DISPFONT is located (usually WS), and type **dispfont *fontname***, where *fontname* is the name of the .WSF file, including the full path. Repeat this procedure for each .WSF file. *Do not* run DISPFONT for the .WSFs provided with WordStar.

Before you use WordStar 7.0, run the DELCRT program to clear out Preview screen font files and directories.

Be sure to delete your old PDFEDIT.COM file. The new version is PDFEDIT.EXE, and you may not be able to access it if the old file remains on your disk. (PDFEDIT must be run from DOS now; it is not available in WINSTALL.)

The WordStar default directory name is WS; use this directory name if possible. If you want to keep your old WordStar program files, be sure they are in a directory with a different name (move them if necessary), so you won't overwrite any files you want to keep.

IMPORTANT *If you plan to use a patch file to transfer customizations from an earlier version of WordStar, see "Transferring Customizations" in this booklet.*

UPGRADING FROM WORDSTAR 5.5 OR EARLIER

If you're upgrading from a version earlier than WordStar 6.0, note these points:

- Your old personal dictionary is compatible with WordStar 7.0. However, it may contain words that are now found in the new, larger main dictionary. Duplicate words are unnecessary and can fill your personal dictionary quickly. You can build a new personal dictionary from your old one and eliminate duplicate words. First rename your old personal dictionary PERSONAL.OLD. Use WordStar 7.0 to run a spelling check on PERSONAL.OLD. Add the words flagged by WordStar to your new personal dictionary, PERSONAL.DCT. Now use PERSONAL.DCT as your new personal dictionary.

- It is recommended that you completely reinstall your printer using WordStar 7.0 to ensure that WordStar uses the correct fonts for printing and that you get the best performance from Preview. Even if your old PDFs work fine for editing and printing, they may not contain all the information Preview needs to select the correct font for screen display. You should rebuild the display fonts (.WSF files), custom fonts database files, and PDFs, using your original downloadable font files.

- If you intend to install Inset® in the same directory where you stored your old Inset program files, you need to delete the IN.SET file from the directory before you install Inset. Before using the new version of Inset, be sure to run the Inset Setup program.

INSTALLING WORDSTAR 7.0

To install WordStar 7.0, use the WSSETUP installation program. WSSETUP lets you decide which WordStar features to install, decompresses the disks, copies the files into the directories of your choice, and guides you through the installation of your monitor and printer. WSSETUP also defines search paths that allow WordStar to locate files more quickly. To run WSSETUP, put the Installation disk in drive A, log on to drive A, type **wssetup**, and press Enter.

For more information, see "Installing WordStar" in the *Installing and Customizing* booklet.

NEW FEATURES

The new features and other improvements in WordStar 7.0 are described below. For other information about other design and functionality changes, see README. For complete information on the new features, see the WordStar 7.0 *Reference* manual.

Macros WordStar has a new macro system, which includes the following capabilities:

- You can record a macro. Just press the keys for the commands and text you want to include in the macro. WordStar automatically compiles the macro and saves it in a macro file.
- You can use the BASIC-like macro language to create and edit macros to perform complex functions. And you can use the Single Step command to run a macro step by step for easy debugging.
- You can run a macro using a hot key or the Play command.

The old shorthand system using the Esc key is no longer used. The Esc key is now available for its standard function of cancelling or backing out of the current operation. The preprogrammed values that were inserted using the Esc key are now inserted using the Insert pull-down menu or the new ^M classic menu. For example, Esc@ previously inserted the current date; now, you can choose Insert →Today's Date Value or press ^M@ to insert the date. You can convert shorthand macros to WordStar 7.0 macros using the WS6MACRO utility; see "Converting Shorthand Macros" in this booklet.

The macro system is also used for all the function keys. The function keys work as they did in previous versions. You can change a function key assignment by editing or rerecording the macro.

The /m command line option runs a macro when you start WordStar. Previously, /[and /e were used to run a macro.

Integrated graphics conversion You can insert graphics from a number of programs directly into your documents. WordStar recognizes the filename extension when you select the file to insert. It then converts the graphic into a .PIX file and inserts the .PIX file. You can change several output file options for the conversion.

Fax support You can use a new command to create .PCX fax files, which you can send using your fax board and software. The fax output looks similar to output from the Hewlett-Packard LaserJet III printer.

Windows Clipboard support You can copy blocks of text up to 64K to and from the Microsoft Windows Clipboard.

Mouse support You can use a mouse to choose commands from pull-down menus, fill in dialog boxes, move around in your file, mark blocks, and change editing settings.

EMS support WordStar uses expanded memory (EMS), when it's available, to run faster and provide more functionality. You can set the level of EMS support using WSCHANGE (CC2G). When sufficient EMS is available, you can now run Preview, Inset, the thesaurus, or background printing when you have two windows open.

New screen design The new screen design features the following:

- Redesigned pull-down menus, which contain virtually all the WordStar commands, including dot commands. (The classic menus are unchanged except for the addition of new commands, and you can still enter classic commands and dot commands the way you've always entered them.)
- A new Editing screen, which includes a style bar with settings you can change using a mouse. It also includes a vertical scroll bar that shows your relative location in the document and lets you scroll with a mouse. You can remove or move several screen elements using WSCHANGE (DBA) or using View→Screen Settings, or ^OB. You can also use WSCHANGE (DBH2F) to change to the screen elements used in previous versions of WordStar.
- New dialog boxes that help you to set many options easily.
- Online help for each command and for each option in every dialog box.

Hide dot commands In addition to hiding command tags, ^OD, or View→Command Tags, now also turns the display of dot commands on and off. (You can set WordStar to always display dot commands using WSCHANGE (DBAE) or View→Screen Settings (^OB).)

Printing and merge printing You don't have to choose between printing and merge printing when you print a file. The Interpret Merge Variables print option is selected by default. To print a file and ignore the merge printing commands and variables, just turn the option off. The /m command line option to merge print when you start WordStar is no longer needed, because /p works for both printing and merge printing now; /m is now used to run a macro.

Write a block to ASCII file When you choose Edit→Copy→To Another File, or ^KW, you can choose to copy the block in ASCII format.

Re-mark or unmark a block The new Edit→Mark Previous Block command, or ^KU, marks the block that was marked before you marked the current one. You can use it to work with two blocks of text at once. The new ^K< command unmarks a block (rather than just hiding the markers).

Improved support for colors and shading When you choose Style→Other→Color/Shading, or ^P-, the list of colors or shades that appears shows the correct choices for your printer. In previous versions, the list showed the 16 standard colors even if the choices for your printer were different.

Preview improvements Preview supports more monitors and video modes, including monochrome monitors with inverse video. You can check the FONTID.CTL file for more information. The Preview screen fonts have a better appearance. Several monitors are no longer automatically selected. If the Preview display appears incorrect, edit the FONTID.CTL file to select the correct monitor.

Improved paper bin support When you choose Layout→Page, or ^OY, and select Paper Bin, the names of the paper bins supported by your printer are listed. Previously, you had to type the **.bn** command and remember the number for the bin. (The **.bn** commands still work as they did in previous versions if you prefer to type them.)

Go to a style tag Choose Edit→Go to Other → Style Tag, or press ^Q<, to go to the next paragraph style tag.

Support for many new printers WordStar supports over 550 printers. See the *Printers and Monitors List.* Scalable font support is available for IBM 4029, Ricoh 4150 Flex, and Epson ESC P-2 printers as well as those that were already supported: PostScript, HP LaserJet III, Canon LBP-4 and LBP-8/III, and OkiLaser 820 printers.

More WSCHANGE options Many new WSCHANGE options have been added, allowing users to customize even more WordStar settings than in previous versions. For example, you can now change automatic leading to 120% of the text size. Also, the default paths and filenames options in WSCHANGE are improved; you can specify the drive and directory together, and specify primary and secondary paths for files instead of one path.

TelMerge® improvements TelMerge supports the COM3 and COM4 ports on most systems.

Star Exchange™ improvements You can run Star Exchange from the WordStar Opening screen; choose Additional→Star Exchange or press AS. Star Exchange has several new capabilities and supports a number of additional file formats, including dBASE IV, Lotus 1-2-3 version 3.0, and Apple Macintosh format. If you're updating from a version previous to WordStar 6.0, note that you can now convert files without identifying the source word processor using the Auto Translate feature.

Additional improvements More improvements and changes include the following:

- Justification is now off as a default.
- When you change a tab stop setting from regular to decimal and vice versa, you no longer have to delete and reenter each tab for the change to take effect.
- When you move through a list (for example, a list of filenames), you can use the PgUp and PgDn keys to scroll through the list.
- The Enter key now closes a dialog box. You can set Enter to move from option to option in dialog boxes by choosing **Set basic editing options** in WINSTALL.
- When you open a second window on the same file, the version in the second window is protected so you don't accidentally overwrite your changes.
- Screen fonts for code page 850 and for PostScript are included with WordStar. You can use WSSETUP or the WINSTALL Add a Feature option to install them.
- You have more choices for setting onscreen colors. You can still choose the default colors and customize individual color assignments. You can also use and modify two custom color palettes, and you have two choices for monochrome monitors (depending on whether your monitor can display underlined words).

New features in WordStar 6.0 If you're upgrading from a version previous to WordStar 6.0, or from an early revision of WordStar 6.0, you'll be interested in these features that were added in WordStar 6.0:

- **Scalable font support** Instead of installing point sizes when you install a scalable font, you install the font once. Then, while editing in WordStar, you can specify any point size. Subscript and superscript text is scaled in relation to the size of the font you are using. You can create your own scalable fonts for HP LaserJet III and PostScript printers using Type Director 2.0 or other products that support Autofont technology or PostScript. You can also still use Type Director or Bitstream Fontware to create regular (bitmapped) fonts to use with WordStar.

- **Kerning** WordStar supports kerning on PostScript printers and on some HP LaserJet and compatible printers.

- **Expanded support for entering international characters** WordStar now includes a "dead key" method of composing characters for which there are no dedicated keys on your keyboard. This method provides an easy way to enter and display characters with accent marks, tildes, umlauts, and other diacritical marks into documents.

- **Code Page 850 support** When you install it to use code page 850, WordStar recognizes extended characters as parts of words when you move the cursor or run a spelling check. You can install screen fonts to display these characters. The code page 850 characters can be printed on any printer that supports the PC-850 symbol set.

- **Improvements to the spelling checker** The spelling checker offers suggestions from the personal dictionary; previously, suggestions came only from the main dictionary. You can create a spelling exceptions dictionary that contains correctly spelled words that you want to flag. For example, if you often type "fro" when you mean "for," you can add "fro" to your exceptions dictionary.

- **Support for international thesauruses** When you change the spelling check language (Utilities→Language Change, or **.la**), the thesaurus for the appropriate language is used. International dictionaries and thesauruses are available in language packs from WordStar.

- **Vertical cursor movement** You can control the way the cursor moves vertically in documents. Use WSCHANGE (DBHK) to choose one of three vertical cursor movement options.

- **Hyphenation** The **.hy on/off** command (Layout→Alignment and Spacing) allows you to turn hyphenation on and off for subsequent text.
- **Suppress blank lines** The **.sb on/off** command (Layout→Page) allows you to suppress printing of blank lines that fall at the top of a page.
- **Optional prompts** You can turn off some prompts in WSCHANGE: *Can't find that file. Create a new one?*, which appears when you choose a file to edit; the number of words checked at the end of a spelling check; and *Press any key to return to WordStar*, which appears after you run a DOS program.

CONVERTING SHORTHAND MACROS

To use your old shorthand macros, convert them to WordStar 7.0 macros using the WS6MACRO utility. Follow these steps:

1. Change to your new macros directory (usually WS\MACROS).
2. At the DOS prompt, type **ws6macro *shorthandfile***, and press Enter. For the *shorthandfile*, type the path and filename for your old WSSHORT.OVR file. (If you copy WSSHORT.OVR to the WS\MACROS directory, you don't have to include the filename and path.)

WS6MACRO converts your shorthand macros to new macros. The shorthand keystroke is used as the macro name (for example, ESC-E.WSM), and the shorthand description is used as the new macro description. No hot key is assigned to the macro. You can use Utilities→Macros→Rename (or ME at the Opening screen or ^ME at the Editing screen) to assign a hot key to each macro. For more information on working with macros, see "Macros" in "Editing Screen Utilities Menu" in the *Reference* manual.

Note: The WordStar ^M command inserted a carriage return in previous versions of WordStar; now it displays the Macros menu. In converted macros, any instances of ^M are changed to {Enter}. Also keep in mind that if a shorthand macro called another macro, you need to edit the new macro and replace the Esc key sequence with the appropriate keystrokes.

USING WORDSTAR DOCUMENTS FROM PREVIOUS VERSIONS

If you have documents and nondocuments from a previous version of WordStar, you can use those files with this version. However, if you reinstalled your printer when you installed WordStar 7.0, you may need to update your documents for the new PDF.

If your documents were created using WordStar 6.0, and you reinstalled your printer using the same PDF name, you don't need to update your documents unless the font selections for your printer have changed.

If your documents were created with a version previous to WordStar 6.0, follow these steps:

1. Open the document.
2. If the new PDF name is different from the old one, choose File→Change Printer or press ^P?, and select the new PDF.
3. To check the default font used, choose Style→Font or press ^P=. Change the font if necessary. If the document contains font tags, check them and repeat this step to make any necessary changes.
4. Choose Edit→Go to Other→Document Beginning.
5. Choose Utilities→Reformat→Rest of Document or press ^QU to reformat the document for the new printer and fonts.

When you use WordStar 7.0 to edit files created with a version previous to WordStar 5, you may need to modify some page layout dot commands. Prior to WordStar 5, the width of a column was determined by the size of the font. Now each column has a standard width of .1 inch. If you used dot commands to change margins or tabs (**.rm**, **.lm**, **.pm**, **.rr**, **.po**, or **.pc**), you need to modify these dot commands based on the new column width.

For example, if you used a small font, you may have set the right margin to 80 (**.rm80**) to have text extend 6.5 inches across the page. Now, you specify 65 columns or 6.5 inches (**.rm 65** or **.rm 6.5"**) for the same margin.

If your documents contain **.cw** commands to change fonts, these commands may not work as they did in earlier versions. Use Style→Font or ^P= to choose a font.

You can use WordStar 5, 5.5, or 6.0 to edit files created with WordStar 7.0, but you should avoid features that weren't available in those versions, such as (depending on the version) automatic leading, centimeters and points as units of measurement in dot commands, and paragraph styles. To edit a WordStar 7.0 document using WordStar 4, you must convert the document to WordStar 4 format. Print the document using WS4.PDF as the printer, and redirect the output to a file. Then edit the new file.

TRANSFERRING CUSTOMIZATIONS

The following information is for advanced WordStar users who want to use a patch file to transfer program customizations from a previous version (WordStar 4 or later) to this version. If you plan to change the settings manually in WSCHANGE, you don't need to read this information.

CAUTION *Because many labels have been changed or deleted, it is highly recommended that you install WordStar 7.0 and then manually customize the program in WSCHANGE instead of editing and transferring a patch file from an earlier WordStar version. However, if you're planning to transfer customizations, read the following instructions carefully.*

A patch file can be used to transfer customizations from a previous WordStar version to WordStar 7.0. You can create a patch file in nondocument mode (for advanced users only) or you can choose Save settings on the Patching Menu in WSCHANGE. The patch file lists the starting location for the program customization information and the information for that location. For more information about patching, see "Advanced Customizing" in the *Installing and Customizing* booklet.

Note: It's a good idea to make a copy of your patch file before editing it.

After you install WordStar 7.0, use the auto-patcher on the WSCHANGE Patching Menu to transfer the patch file to WordStar.

If the auto-patcher finds any of the following labels in your patch file, it ignores them; they are no longer used in WordStar 7.0. For explanations of each label, see the PATCH.LST file.

ALTRWD
BACKSP
BINDSP
BLDOFF
BLDON
BPRSPD
CASTBL
COMEXT
COMPOS
CRET
CRLF
DBLOFF
DBLON
DEFUSR
DLIST
EXTOFF
EXTON
FORMF
FUNDLY
FUNLAB
FUNTBL
GRPHMK
HALFLF
HFMAX
INIDOC
INIRLI
INIRLR
ITLOFF
ITLON
LANGS
LCHRMX
LETX
LRUSIZ
LSTDEV
LSTRED
LXOFF
NLQOFF
NLQON
NORMWD
OPNTBL
OVFILE
OVSIZE
PFFEED
PHRUB
PHSP
PPAUSE
PRMTBL
PSTSIZ
QDFILE
SHEET
SHTID
SPALGN
SPLMEM
SPMEM
SPROFF
SPRON
SPSIZE
STKOFF
STKON
STYSIZ
SUBOFF
SUBON
SVFILE
UDMEM
ULINI
ULUNI
UNDOFF
UNDON
UPRCTL
UPRE
UPRQ
UPRR
UPRW
YNCR

If the auto-patcher finds any of the following labels in your patch file, it ignores them unless your patch file was created with WordStar 7.0.

Note: A WordStar 7.0 patch file is identified by the UDATE label. For more information on UDATE, see "Advanced Customizing" in the *Installing and Customizing* booklet.

BFRSIZ
CFFILE
DDFILE
DEFPTH
DSTKSZ
EMSMEM
EXFILE
EXTKB
FNFILE
HDFILE
HIFILE
HPFILE
HYFILE
IDFILE
INIEDT
ISFILE
IXFILE
KBFILE
KBXLAT
LNGCOD
MDFILE
MEMFLG
MLFILE
MORPAT
MSFILE
NOTYPE
NWFLG
PDFFILE
PRFILE
PVFILE
PVWFILE
SCMARK
SPFILE
STFILE
TDFILE
THFILE
TMFILE
UDATE
UDFILE
VCOLOR
VIDATT
WRKTYP

If your patch file from an earlier version has the labels WID, UDMEM, or SPLMEM, they are patched as the new labels WIDE, UDCMEM, and SPMMEM.

NOTES

WORDSTAR®

WORDSTAR®

FOR DOS

PRINTERS AND MONITORS

Following is a list of the printers and monitors currently supported by WordStar. See README for any printer and monitor information that may have been received too late to be included in this list.

LIST OF PRINTERS

The following list includes all printers that appear on the Printer Selection Menu. For additional information on how your printer works with WordStar, refer to the Printer Information screen when you install your printer.

The Inset® column contains the name of the Inset driver. If you use Inset, be sure this driver is on your Program disk.

PRINTER	INSET
Generic Printers:	
ASC256 -Diskfile: 256 Char. Set	(null)
ASCII -Diskfile: 128 Char. Set	(null)
Autolf -Generic: Auto linefeed	(null)
Custom -Generic Modifiable	(null)
Draft -Generic: Non-backspacing	(null)
Prview -Diskfile: Formatted	(null)
Simple -Generic: Modifiable	(null)
Typewr -Generic: Backspacing	(null)
Xtract -Diskfile: MailMerge use	(null)
Acer AcerLaser IIIG (HP)	LJET LJET-L
AEG Olympia ESW 2000 D	(null)
AEG Olympia ESW 3000 K	(null)
AEG Olympia NP 30/60 (Epson)	EPSON
AEG Olympia NP 30/60 (IBM)	IBM
AEG Olympia NP 80-24E (Epson)	EPSON24
AEG Olympia NP 80-24E (IBM)	IBM
AEG Olympia NP 80/136 (Epson)	EPSON
AEG Olympia NP 80/136 (IBM)	IBM
AEG Olympia NP 80SE/136SE (Epson)	EPSON
AEG Olympia NP 80SE/136SE (IBM)	IBM
AEG Olympia NPC 136-24 (Epson)	EPSON24
AEG Olympia NPC 136-24 (IBM)	IBM
ALPS Allegro 24	EPSON24
ALPS ALQ200/300 (Epson FX)	EPSON
ALPS ALQ200/300 (Epson FX-IBM)	IBM
ALPS ALQ200/300 (Epson LQ)	EPSON24
ALPS ALQ224e/324e (24-pin)	EPSON24
ALPS ASP1000 (Epson)	EPSON
ALPS ASP1000 (IBM)	IBM
ALPS DMX800 (Epson)	EPSON
Alps LPX600 (HP)	LJET LJET-L
Alps LSX1600 (HP)	LJET LJET-L
ALPS P2000+ (Epson)	EPSON
ALPS P2000/2100 (Epson)	EPSON
ALPS P2000G/2100G (Epson)	EPSON
ALPS P2424C (24-pin)	EPSON24
Amstrad DMP4000	EPSON
Amstrad LQ3500/LQ5000	EPSON24
Apple Laserwriter (PS)	PS
AST TurboLaser	(null)
AT&T 470/471/475/476	NEC8023
AT&T 473/474	IBM
Brother 2024L (DP)	EPSON
Brother 2024L (WP)	(null)
Brother HJ-100	IBM
Brother HJ-770 (Mode 2)	DESKJET
Brother HL-4 (HP)	LJET LJET-L
Brother HL-4PS (HP)	LJET LJET-L
Brother HL-4PS (PS)	PS
Brother HL-4V (HP)	LJET LJET-L
Brother HL-8 Laser (HP)	LJET LJET-L

PRINTER	INSET
Brother HL-8e Laser (HP)	LJET LJET-L
Brother HL-8PS (HP)	LJET LJET-L
Brother HL-8PS (PS)	PS
Brother HL-8V (HP)	LJET LJET-L
Brother HR-1	(null)
Brother HR-10/-15/-25/-35	(null)
Brother HR-20/-40	(null)
Brother M-1109 (Epson)	EPSON
Brother M-1109 (IBM)	IBM
Brother M-1209 (Epson)	EPSON
Brother M-1224 L	EPSON24
Brother M-1309 (Epson)	EPSON
Brother M-1309 (IBM)	IBM
Brother M-1324 (Epson)	EPSON24
Brother M-1324 (IBM)	IBM
Brother M-1509 (Epson)	EPSON
Brother M-1509 (IBM)	IBM
Brother M-1709 (Epson)	EPSON
Brother M-1709 (IBM)	IBM
Brother M-1809/1909 (Epson)	EPSON
Brother M-1809/1909 (IBM)	IBM
Brother M-1818/1918	EPSON
Brother M-1824/1924 L	EPSON24
Brother M-2518	EPSON
Brother M-2524 L	EPSON24
Brother M-3524 L	EPSON24
Brother M-4018	EPSON
Brother Twinriter 5/6 (DP)	EPSON
Brother Twinriter 5/6 (WP)	(null)
Bull Compuprint 34/36 CQ	EPSON
Bull Compuprint 4/22-23 (Epson)	EPSON
Bull Compuprint 4/24 (Epson)	EPSON24
Bull Compuprint 4/40-41 (Epson)	EPSON
Bull Compuprint 4/62 (Epson)	EPSON
Bull Compuprint 4/64 (Epson)	EPSON
Bull Compuprint 4/68 (Epson)	EPSON
Bull Compuprint Laserpage 601 (HP)	LJET LJET-L
Bull Compuprint Laserpage 602 (HP)	LJET LJET-L
Bull Compuprint Laserpage 801 (HP)	LJET LJET-L
Bull VP-100 (HP)	LJET LJET-L
Bull VP-480	IBM
Bull VP-60 (HP)	LJET LJET-L
Bull VP-61 (HP)	LJET LJET-L
C.Itoh 1550/8510	NEC8023
C.Itoh 3500 Model 20	EPSON
C.Itoh 5000 (Epson)	EPSON
C.Itoh Jet-Setter II (HP)	LJET LJET-L
C.Itoh Starwriter F-10	(null)
Canon AP-Series ETW (Std)	(null)
Canon AP-Series ETW Deluxe	(null)
Canon BJ-10ex/BJ-5 (LQ)	EPSON24
Canon BJ-10e\BJ-10ex\BJ-5	IBM
Canon BJ-130 (CC 48/XL - IBM P)	IBM
Canon BJ-130E (IBM)	IBM
Canon BJ-300/330	IBM
Canon LBP-4	ISOCANON
Canon LBP-4 PLUS	ISOCANON
Canon LBP-8 A1/A2	ISOCANON
Canon LBP-8 II	ISOCANON
Canon LBP-8 III	ISOCANON
Canon LBP-8 III PLUS	ISOCANON

PRINTER	INSET
Canon LBP4 (PS-2 card)	PS
Canon LBP8-III (PS-1 card)	PS
CIE LIPS II (HP)	LJET LJET-L
Citizen 120-D Plus (Epson)	EPSON
Citizen 120-D/180-D (Epson)	EPSON
Citizen 180E (Epson)	EPSON
Citizen 180E (IBM)	IBM
Citizen 200GX/Fifteen	EPSON
Citizen GSX-130/140/145	EPSON24
Citizen GSX-140 Plus	EPSON24
Citizen HQP-40 (IBM)	EPSON24
Citizen HSP-500/550	EPSON
Citizen MSP-10/MSP-20	IBM
Citizen MSP-20/25/15E (Epson)	EPSON
Citizen MSP-20/25/15E (IBM)	IBM
Citizen MSP-50/55 (Epson)	EPSON
Citizen Overture 106 (HP)	LJET LJET-L
Citizen PN48 Notebook Printer	EPSON24
Citizen Premiere 35 (Diablo)	(null)
Citizen ProLaser 12 (HP)	LJET LJET-L
Citizen Swift 24	EPSON24
Citizen Swift 9	EPSON
Citizen Tribute 124/224 (Diablo)	(null)
Citizen Tribute 124/224 (Std)	TOSHIBA
Cordata LP-300	(null)
Cordata LP-300X	(null)
Dataproducts (PS)	PS
Dataproducts LZR 1230 (HP)	LJET LJET-L
Dataproducts LZR 650 (HP)	LJET LJET-L
Dataproducts LZR 960 (PS)	PS
Dataproducts Prism	PRISM
Dataproducts SPG 8010	PRISM
Dataproducts SPG 8050	PRISM
Datasouth PageWriter 8 laser	(null)
DEC 1150 (PS)	PS
DEC 2150 (PS)	PS
DEC 2250 (PS)	PS
DEC 3250 (PS)	PS
Destiny PageStyler (PS)	PS
Diablo 630	(null)
Diablo 630 (WP)	(null)
Diablo 630 ECS	(null)
Diablo D80IF Advantage (family 2)	(null)
Diablo D80IF Advantage (others)	(null)
Digital LA324 (DEC)	(null)
Digital LA324 (IBM)	IBM
Digital LA50 (DEC)	(null)
Digital LA70 (DEC)	(null)
Digital LA70 (IBM)	IBM
Digital LA75 Plus (DEC)	(null)
Digital LA75 Plus (IBM)	IBM
Digital Laser 1100 (DEC)	(null)
Digital laser 1100 (HP)	LJET LJET-L
Digital Laser 3200 (DEC)	(null)
Digital laser 3200 (HP)	LJET LJET-L
Digital LJ250 (DEC)	(null)
Digital LJ250 (HP)	PAINTJET
Digital LN03 (DEC)	(null)
Digital LN05 (DEC)	(null)
Digital LN06 (DEC)	(null)
EiconScript 100	PS

PRINTER	INSET
EiconScript LPA	PS
Epson Action Laser II (HP)	LJET LJET-L
Epson EPI-4000 (Epson LQ)	EPSON24
Epson EPI-4000 (HP)	LJET LJET-L
Epson EPJ-200 (GQ)	GQ3500
Epson EPL-4100 (GQ)	GQ3500
Epson EPL-4100 (HP)	LJET LJET-L
Epson EPL-6000 (HP)	LJET LJET-L
Epson EPL-7000/7500 (HP)	LJET LJET-L
Epson EPL-7100 Laser (GQ)	GQ3500
Epson EPL-7500 (PS)	PS
Epson FX-80/100	EPSON
Epson FX-85/185/286	EPSON
Epson FX-850/950/1050	EPSON
Epson FX-86e/286e/EX-800/1000	EPSON
Epson GQ-3500 Laser (GQ)	GQ3500
Epson GQ-5000 Laser (GQ)	GQ3500
Epson JX-80	EPSON
Epson LQ-1500 (V1.8)	EPSON24
Epson LQ-1500 (V2.0)	EPSON24
Epson LQ-2500	EPSON24
Epson LQ-500/510	EPSON24
Epson LQ-570/1070/870/1170	EPSON24
Epson LQ-800 ESC/P	EPSON24
Epson LQ-800/1000	EPSON24
Epson LQ-850/860/950/1050	EPSON24
Epson LQ/SQ-2550	EPSON24
Epson LX-80	EPSON
Epson LX-800/810	EPSON
Epson LX-86	EPSON
Epson MX-80/100	IBM
Epson RX-80/100	EPSON
Epson SQ-870/1170	EPSON24
Epson TLQ-4800	EPSON24
Facit B3350 (IBM)	IBM
Facit B3450	EPSON24
Fortis DM1310 (Epson)	EPSON
Fortis DM1310 (IBM)	IBM
Fortis DQ4110/4210/4215 (Epson)	EPSON24
Fortis DQ4110/4210/4215 (IBM)	IBM
Fujitsu DL-24 Plus series (C)	EPSON24
Fujitsu DL-series (DPL24I/C)	EPSON24
Fujitsu DX2300/2400 (F Type)	EPSON
Fujitsu DX2300/2400 (IBM P)	IBM
Genicom 3184 (IBM)	GENIBM
Glyphix Fonts - Generic (HP)	LJET LJET-L
Hermes H524 (L) (Olivetti)	IBM
Hermes HI 509/509L (IBM)	IBM
Hermes HJ 725 (HP)	DESKJET
Hermes HJ 750 (HP)	DESKJET
Hermes HJ 750S (HP)	DESKJET
Hewlett-Packard DeskJet	DESKJET
Hewlett-Packard DeskJet (Epson FX)	EPSON
Hewlett-Packard DeskJet 500/500C	DESKJET
Hewlett-Packard DeskJet PLUS	DESKJET
Hewlett-Packard LaserJet II	LJET LJET-L
Hewlett-Packard LaserJet IID	LJET LJET-L
Hewlett-Packard LaserJet III	LJET LJET-L
Hewlett-Packard LaserJet IIID	LJET LJET-L
Hewlett-Packard LaserJet IIIP	LJET LJET-L
Hewlett-Packard LaserJet IIISi	LJET LJET-L
Hewlett-Packard LaserJet IIP	LJET LJET-L
Hewlett-Packard LaserJet IIP plus	LJET LJET-L
Hewlett-Packard LaserJet Original	LJET LJET-L
Hewlett-Packard LaserJet Plus	LJET LJET-L
HP LaserJet IID cartridge (PS)	PS
HP LaserJet IIISi (PS)	PS
HP PaintJet	PAINTJET
HP PaintJet XL	PJETXL
HP QuietJet (IBM)	THINKJET
HP RuggedWriter 480 (Epson)	EPSON24
HP RuggedWriter 480 (HP)	LJET LJET-L
HP ThinkJet (HP)	(null)
HP ThinkJet (IBM)	THINKJET
IBM 2380/2381	IBM
IBM 2390/2391	IBM
IBM 3812 Pageprinter	IBM_3812
IBM 4019 (PS)	PS
IBM 4019/4019E (IBM PPDS)	(null)
IBM 4019/4019E/4029 (HP)	LJET LJET-L
IBM 4029 (HP PCL5)	LJET LJET-L
IBM 4029 (IBM PPDS)	(null)
IBM 4029 (PS)	PS
IBM 4216 (PS)	PS
IBM 4216-10 (HP)	LJET LJET-L
IBM 4226	IBM
IBM Color Graphics 5182	IBMCOLOR
IBM Color Jetprinter	(null)
IBM ExecJet	IBM
IBM PC Graphics Printer	IBM
IBM ProPrinter	IBM
IBM Proprinter 24P	IBM
IBM ProPrinter II and XL	IBM
IBM ProPrinter III/III XL	IBM
IBM ProPrinter X24/XL24/X24E/XL24E	IBM
IBM PS/1 Printer	IBM
IBM Quickwriter	IBMQUICK
IBM Quietwriter I/II	IBMQW
IBM Quietwriter III	IBMQW
IBM Wheelprinter 5216	(null)
IBM Wheelprinter E	(null)
JDL-750	JDL
Juki 6100	(null)
Juki 6300	(null)
Kodak Diconix 150 InkJet (Epson)	EPSON
Kodak Diconix 150 InkJet (IBM)	IBM
Kodak Diconix 150 Plus (Epson)	EPSON
Kodak Diconix 150 Plus (IBM)	IBM
Kodak Diconix 300 InkJet (Epson)	EPSON
Kodak Diconix Color 4 (330S)	PJETXL
Konica LP-3110 (HP)	LJET LJET-L
Kyocera (PS)	PS
Kyocera F-Series (HP)	LJET LJET-L
Kyocera Q-8010 (HP)	LJET LJET-L
Mannesmann Tally MT 730 (HP)	LJET LJET-L
Mannesmann Tally MT 735 (HP)	LJET LJET-L
Mannesmann Tally MT 905 (HP)	LJET LJET-L
Mannesmann Tally MT 906 (HP)	LJET LJET-L
Mannesmann Tally MT 906 (PS)	PS
Mannesmann Tally MT 910 (HP)	LJET LJET-L
Mannesmann Tally MT130/24 (Epson)	EPSON
Mannesmann Tally MT130/9 (Epson)	EPSON

PRINTER	INSET
Mannesmann Tally MT131/24 (Epson)	EPSON
Mannesmann Tally MT131/9 (Epson)	EPSON
Mannesmann Tally MT160/MT180	(null)
Mannesmann Tally MT222 (Epson)	EPSON24
Mannesmann Tally MT230/18 (Epson)	EPSON
Mannesmann Tally MT230/24 (Epson)	EPSON24
Mannesmann Tally MT230/9 (Epson)	EPSON
Mannesmann Tally MT290 (Std + IBM)	IBM
Mannesmann Tally MT330 (Epson)	EPSON24
Mannesmann Tally MT490 (Std + IBM)	IBM
Mannesmann Tally MT81 (Epson)	EPSON
Mannesmann Tally MT81 (IBM)	IBM
Mannesmann Tally MT82	EPSON24
Mannesmann Tally MT91	IBM
Mannesmann Tally Spirit 80	EPSON
MPI (IBM)	(null)
MPI 150/350	(null)
MPI Sprinter	(null)
NEC 8023A-C	C_ITOH
NEC 8023A-N	NEC8023
NEC 8027A	NEC8023
NEC LC800/866 Plus (Diablo)	(null)
NEC LC815	(null)
NEC LC850 (IBM)	IBM
NEC LC890 (PS)	PS
NEC P2/P3 -3 or -6	NEC6303
NEC P2200	EPSON24
NEC P2200XE/2 Plus	EPSON24
NEC P3200/3300/20/30	NECP5
NEC P5/5XL/6/7	NECP5
NEC P5300/6 Plus/7 Plus	NECP5
NEC P6200/6300/9300/60/70/90	EPSON24
NEC Silentwriter 2 290 (HP)	LJET LJET-L
NEC Silentwriter2 290 (PS)	PS
NEC Silentwriter2 90 (PS)	PS
NEC Spinwriter 2010/2030/8010	(null)
NEC Spinwriter 2015/3515/7715/8815	(null)
NEC Spinwriter 2050/3550/8850	(null)
NewGen TurboPS (PS)	PS
Oasys Silver Express (HP)	LJET LJET-L
Okidata Laserline 6 (HP)	LJET LJET-L
Okidata ML182/183	OKIDATA
Okidata ML182/183 (IBM)	IBM
Okidata ML192/193	OKIXCHR
Okidata ML192/193 (IBM)	IBM
Okidata ML292/293	OKIXCHR
Okidata ML292/293 (IBM)	IBM
Okidata ML320/321 (Epson)	EPSON
Okidata ML320/321 (IBM)	IBM
Okidata ML380	EPSON24
Okidata ML390/391 (Epson)	EPSON24
Okidata ML390/391 (IBM)	IBM
Okidata ML390/391 Plus (Epson)	EPSON24
Okidata ML390/391 Plus (IBM)	IBM
Okidata ML393/393C Personality H	(null)
Okidata ML393/393C Plus (Epson)	EPSON24H
Okidata ML393/393C Plus (IBM)	IBM
Okidata ML84 Step 2	(null)
Okidata ML84/92/93 (IBM)	IBM
Okidata ML92/93	OKIDATA
Okidata Okimate 20 (IBM)	IBM
Okidata OL400	LJET LJET-L
Okidata OL800/830/840 (HP)	LJET LJET-L
Okidata OL820	LJET LJET-L
Okidata OL830 (PS)	PS
Okidata OL840 (PS)	PS
Okidata Pacemark 2410	OKI2410
Okidata Pacemark 3410	OKI2410
Olivetti DM100 (Epson)	EPSON
Olivetti DM100 (IBM P)	IBM
Olivetti DM109 (Epson)	EPSON
Olivetti DM109 (IBM)	IBM
Olivetti DM124/124C (Epson)	EPSON24
Olivetti DM124C (Olivetti)	IBM
Olivetti DM250 (Epson)	EPSON
Olivetti DM282/292 (Epson)	EPSON
Olivetti DM282/292 (IBM)	IBM
Olivetti DM309 (L) (Olivetti)	IBM
Olivetti DM324 (L) (Olivetti)	IBM
Olivetti DM324 SL (Epson)	EPSON24
Olivetti DM324 SL (Olivetti)	IBM
Olivetti DM400 (Epson)	EPSON
Olivetti DM400 (IBM)	IBM
Olivetti DM624 (L) (Olivetti)	IBM
Olivetti DM704	IBMCOLOR
Olivetti DY (Series)	(null)
Olivetti JP 150 (HP)	DESKJET
Olivetti JP 350 (HP)	DESKJET
Olivetti JP 350S (HP)	DESKJET
Olivetti PG 108/PG 208 (HP)	LJET LJET-L
Olivetti PG 306 (HP)	LJET LJET-L
Olivetti PG 308 (HP)	LJET LJET-L
Olivetti PR2300	(null)
Olivetti TH760S	IBMQW
Olympia Laserstar 6 (Diablo)	(null)
OTC 850XL/560DL (Epson)	EPSON
OTC 850XL/560DL (IBM)	IBM
Pacific Page cartridge (PS)	PS
Packard Bell PB9815/9805 (HP)	LJET LJET-L
Panasonic KX-P1080i	IBM
Panasonic KX-P1090	IBM
Panasonic KX-P1091	IBM
Panasonic KX-P1091 (IBM)	IBM
Panasonic KX-P1091i/1092i	(null)
Panasonic KX-P1091i/1092i (IBM)	IBM
Panasonic KX-P1092	IBM
Panasonic KX-P1123 (Epson)	EPSON24
Panasonic KX-P1123 (IBM G)	IBM
Panasonic KX-P1124/1624 (Epson)	EPSON24
Panasonic KX-P1124/1624 (IBM G)	IBM
Panasonic KX-P1124i (Epson)	EPSON24
Panasonic KX-P1124i (IBM)	IBM
Panasonic KX-P1180/1191 (Epson)	EPSON
Panasonic KX-P1180/1191 (IBM)	IBM
Panasonic KX-P1524 (Diablo)	(null)
Panasonic KX-P1524 (Epson LQ)	(null)
Panasonic KX-P1524 (IBM)	IBM
Panasonic KX-P1592	(null)
Panasonic KX-P1595 (Diablo)	(null)
Panasonic KX-P1595 (IBM)	IBM
Panasonic KX-P1654/2624 (Epson)	EPSON24
Panasonic KX-P1654/2624 (IBM)	IBM

PRINTER	INSET
Panasonic KX-P1695 (IBM)	IBM
Panasonic KX-P1695 (Std)	EPSON
Panasonic KX-P4420 (HP)	LJET LJET-L
Panasonic KX-P4450 (HP)	LJET LJET-L
Panasonic KX-P4450i (HP)	LJET LJET-L
Panasonic KX-P4455 (HP)	LJET LJET-L
Panasonic KX-P4455 (PS)	PS
Philips 310 GP	ISOCANON
PostScript Generic (PS)	PS
PostScript Generic (PS:2Up)	PS
Primages JE-3000 Envelope Printer	(null)
Printronix L1012 Laser (HP)	LJET LJET-L
QMS Kiss	QMSKISS
QMS-PS 410 (HP)	LJET LJET-L
QMS-PS 410 (PS)	PS
Quadram QuadLaser	(null)
Qume Laser 10	(null)
Qume LetterPro 20 P	(null)
Qume Sprint 11+	(null)
Qume Sprint 11+ (WP)	(null)
Ricoh LP-1200 (HP)	LJET LJET-L
Ricoh LP-4150 FLEX	LJET LJET-L
Ricoh LP4080R	(null)
Ricoh LP6000	RICOH
Roland LP-1100 (HP)	LJET LJET-L
Roland PR-1012	IBM
Roland PR-1112/1250	(null)
Roland PR-1112/1250 (IBM)	IBM
Roland PR-1215	(null)
Roland PR-1550 (Diablo)	(null)
Roland PR-1550 (IBM)	IBM
Roland PR-2416 (Epson)	EPSON24
Roland PR-2416 (IBM G)	IBM
Roland PR-2418 (Epson)	EPSON24
Roland PR-2418 (IBM)	IBM
Roland PR-2450 (Diablo)	(null)
Roland PR-2450 (Epson LQ)	(null)
Roland PR-2450 (IBM)	IBM
Roland PR-2466 (Epson)	EPSON24
Roland PR-2466 (IBM)	IBM
Roland PR-9101/9104 (Epson)	EPSON
Roland PR-9101/9104 (IBM)	IBM
Roland PR-9606 (IBM)	IBM
Roland PR-9606 (Std)	EPSON
Seikosha LT-20 Laptop Printer	IBM
Seikosha SK-3000AI/3005AI (IBM)	IBM
Seikosha SK-3000AI/3005AI (Std)	EPSON
Seikosha SK-3005 Plus (IBM)	IBM
Seikosha SK-3005 Plus (Standard)	EPSON
Seikosha SL-230AI (Epson)	EPSON24
Seikosha SL-230AI (IBM)	IBM
Seikosha SL-80AI (IBM)	IBM
Seikosha SL-80AI (Std)	EPSON24
Seikosha SL-90A	EPSON24
Seikosha SP-1600AI (IBM)	IBM
Seikosha SP-1600AI (Std)	EPSON
Seikosha SP-2000 (IBM)	IBM
Seikosha SP-2000 (Std)	EPSON
Sharp JX-730	EPSON
Sharp JX-9500 (HP)	LJET LJET-L
Sharp JX-9500PS (HP)	LJET LJET-L

PRINTER	INSET
Sharp JX-9500PS (PS)	PS
Silver Reed EXP-500	(null)
Silver Reed EXP-550	(null)
Star Gemini 10X/15X	(null)
Star LaserPrinter 4 (HP)	LJET LJET-L
Star LaserPrinter 8 (HP)	LJET LJET-L
Star NB-15	EPSON24
Star NB-24-10/-15 (IBM P)	IBM
Star ND-10/15	(null)
Star NX-1000/1500 LC-10 (IBM)	IBM
Star NX-1000/1500 LC-10 (Star)	EPSON
Star NX-1020 LC-200 (IBM)	IBM
Star NX-1020 LC-200 (Std)	EPSON
Star NX-2400 LC 24-10/15 (IBM)	IBM
Star NX-2400 LC 24-10/15 (Std)	EPSON24
Star NX-2420 LC 24-200 (IBM)	IBM
Star NX-2420 LC 24-200 (Std)	EPSON24
Star NX-2430 LC 24-20 (IBM)	IBM
Star NX-2430 LC 24-20 (Std)	EPSON24
Star NX/NL/NP-10/-15	IBM
Star Radix-10/15	RADIX
Star SB-10	(null)
Star SD/SG/SR-10/15 (IBM)	IBM
Star SD/SG/SR-10/15 (Star)	IBM
Star StarJet SJ-48	EPSON24
Star StarJet SJ-48 (IBM)	IBM
Star StarPage (PS)	PS
Star StarScript (PS)	PS
Star XB-2410/15 XB 24-10/15 (IBM)	IBM
Star XB-2410/15 XB 24-10/15 (Std)	EPSON24
Star XB-2420/2425 XB 24-200 (Std)	EPSON24
Star XR-1000/1500 FR-10/15 (IBM)	IBM
Star XR-1000/1500 FR-10/15 (Star)	EPSON
Star XR-1020/1520 ZA-200/250 (IBM)	IBM
Star XR-1020/1520 ZA-200/250 (Std)	EPSON
Star ZL-10 (IBM)	IBM
Star ZL-10 (Star)	EPSON
Tandy CGP-220	(null)
Tandy DMP-130	(null)
Tandy DMP-130 (IBM)	(null)
Tandy DMP-200/500	(null)
Tandy DMP-2100	(null)
Tandy DMP-2100P (IBM)	(null)
Tandy DMP-2100P (Tandy)	(null)
Tandy DMP-2110	(null)
Tandy DMP-2110 (IBM)	(null)
Tandy DWP-230 (IBM)	(null)
Tandy DWP-230 (Tandy)	(null)
Texas Inst. TI850	IBM
Texas Inst. TI855/865	TI855
Texas Inst. TI857	TI855
TI 2015 Omnilaser (HP)	LJET LJET-L
TI 2115 (PS)	PS
TI Microlaser (HP)	LJET LJET-L
TI Microlaser (PS)	PS
Toshiba ExpressWriter 301 (Epson)	EPSON24
Toshiba ExpressWriter 301 (Tosh)	TOSHIBA
Toshiba ExpressWriter 311 (Epson)	EPSON24
Toshiba ExpressWriter 311 (IBM)	IBM
Toshiba ExpressWriter 311 (Tosh)	TOSHIBA
Toshiba P1340	TOSHIBA

PRINTER	INSET
Toshiba P1351	TOSHIBA
Toshiba P321/341	TOSHIBA
Toshiba P321/341SL (Tosh)	TOSHIBA
Toshiba P321SL/P341SL (IBM)	IBM
Toshiba P351	TOSHIBA
Toshiba P351SX (IBM)	IBM
Toshiba Pagelaser 12 (HP)	LJET LJET-L
Triumph Adler JPR 7825 (HP)	DESKJET
Triumph Adler JPR 7850 (HP)	DESKJET
Triumph Adler JPR 7850S (HP)	DESKJET
Triumph Adler MPR7292	IBM
Triumph Adler MPR7324/5 (Olivetti)	IBM
Unisys AP 1324 (Epson)	EPSON24
Unisys AP 1337/1339 (Epson)	EPSON24
Unisys AP 1337/1339 (IBM)	IBM
Unisys AP9206 (HP)	LJET LJET-L
Unisys AP9210 (HP)	LJET LJET-L
Unisys AP9210 (IBM PPDS)	(null)
Unisys AP9210 (PS)	PS
Wenger 8/1 LaserJet	LJET LJET-L
Xerox 4045 160 (Landscape)	X4045
Xerox 4045 160 (Portrait)	X4045
Xerox 4045 50/100/150 (Landscape)	X4045
Xerox 4045 50/100/150 (Portrait)	X4045
Xerox 4045 Model 160 (HP)	LJET LJET-L
Xerox 4045 Model 160 (PS)	PS

LIST OF MONITORS

The following chart lists the monitors supported by WordStar. All of these monitors can be installed by choosing IBM PC/Compatible during installation.

MONITOR	PREVIEW[1]	INSET[2]
Cirrus VGA (16 color)	YS	VGA
Compaq/Toshiba Plasma	Y	CGA
Cornerstone Dualpage	YS	HERC
Cornerstone Singlepage	YS	HERC
Cornerstone Vista 1600	Y	CGA
Everex Microenhancer EGA (640x480)	YS	CGA
Everex Microenhancer EVGA (800x600)	YS	VGA
Everex Mono (1024x352)	YS	HERC
Everex Mono (1024x704)	YS	HERC
Genius	Y	GENIUS
Genius2	YS	GENIUS
Genoa 6400 (mode 5FH)	YS	
Genoa Super VGA (mode 79H)	YS	VGA
Hercules Graphics Card	Y	HERC
IBM 8514/A and XGA	YS	VGA
IBM PC Mono and compatible	N	unusable*
IBM PC CGA and compatible	Y	CGA
IBM PC and ROM compatible	Y	CGA
IBM PC EGA Mono	YS	EGAMONO
IBM PC EGA and compatible	Y	
IBM PS/2 Model 30 (MCGA)	Y	
IBM VGA and compatible 50 lines	Y	
IBM VGA Mono	YS	
NEC Ultralite	YS	
Orchid VGA-Tseng Labs (mode 37H)	YS	
Paradise EGA2 Auto 480 (640x480)	YS	
Paradise VGA (800x600)	YS	
Super VGA "VESA" (800x600)	YS	
Super VGA "VESA" (1024x768)	YS	
WYSE 700		

[1] **PREVIEW**: **Y**=Supports Preview automatically. Many other monitors are supported in Preview using external drivers. Consult the manufacturer to see if a WordStar Preview driver is available. **YS**=You must specify your monitor in the FONTID.CTL file (see *Installing and Customizing* for information). **N**=Preview not available.

[2] **INSET:** Name of the Inset monitor choice. Choose this monitor when you install Inset.

*No graphics capability

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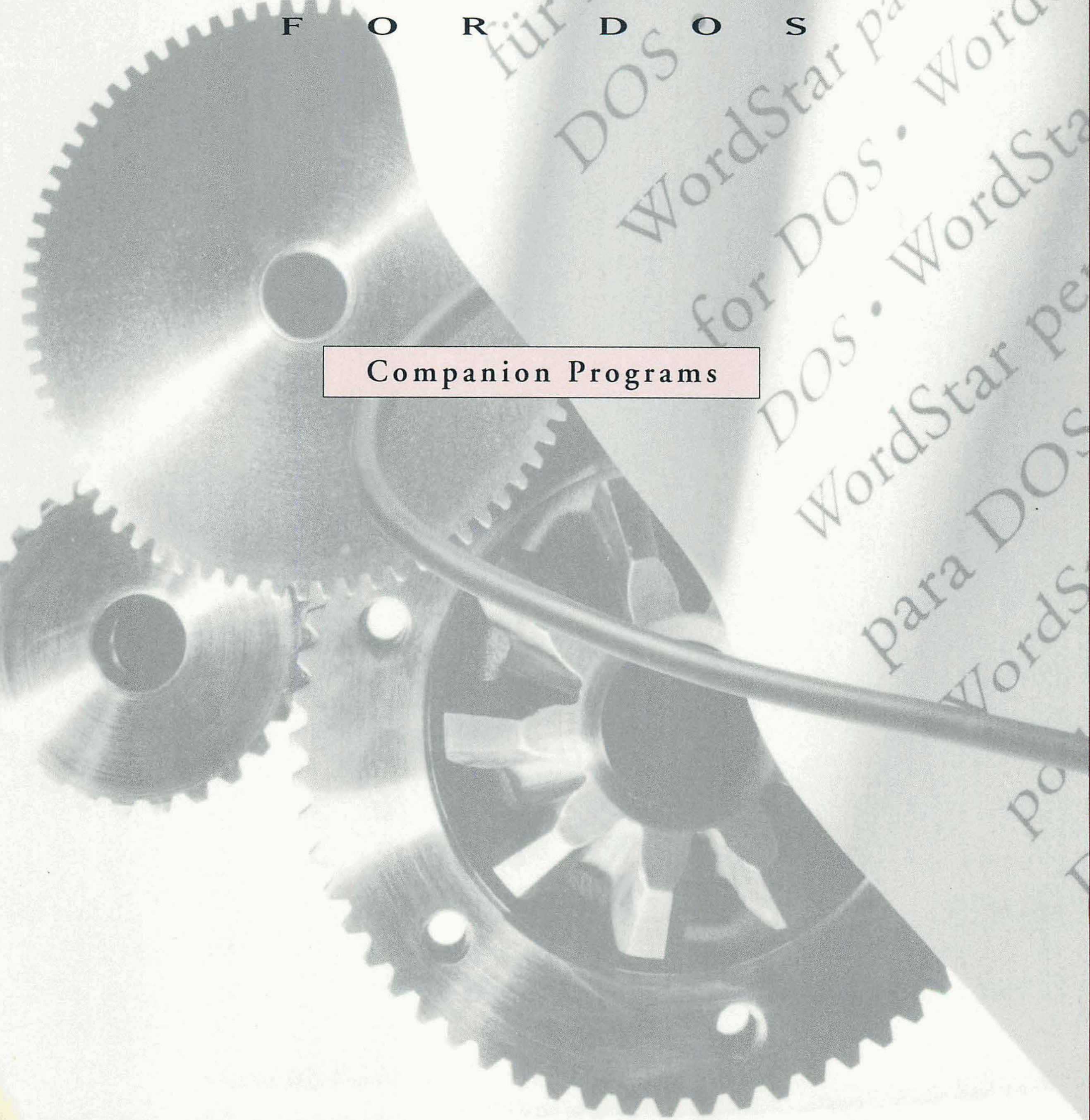
A1-C2060

WORDSTAR®

FOR DOS



Companion Programs

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Star Exchange
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TelMerge
PAGE TM-1

INSET®

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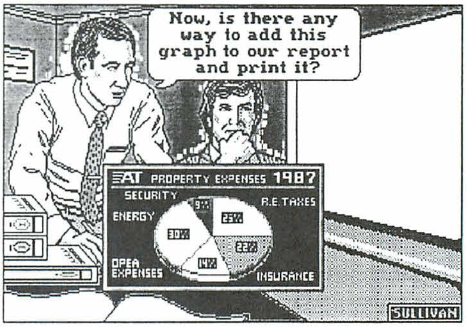
Getting Started

Introduction

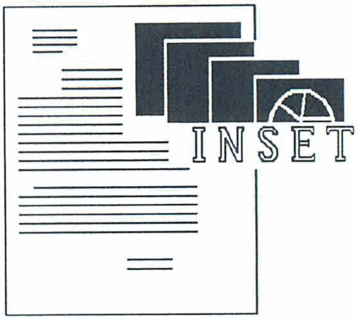
Inset, together with WordStar®, lets you produce documents with graphics and text printed on the same page. For example, you can

- Illustrate reports with charts and graphs
- Create your own graphics or edit others
- Use art from clip art libraries in your documents


Now, is there any way to add this graph to our report and print it?
AT PROPERTY EXPENSES 1987
SECURITY
R.E.TAXES
ENERGY
9%
25%
30%
22%
14%
OPEA EXPENSES
INSURANCE
SULLIVAN

Here's how Inset works. First, you display the graphic image you want to appear in your document. In a process similar to taking a snapshot and preserving an image on film, you *capture* the onscreen image and store it in a file.

Once the image is stored in a file, you can open a WordStar document and add a *pix tag* to insert the picture into the text. Then all you need to do is print your WordStar document for a picture-perfect page.



The Inset documentation is organized into the following chapters:

"Getting Started" tells you how to set up Inset for your system and shows the basics of how to use Inset.

"Learning Inset" guides you step by step through Inset's main features.

"Inset Reference" is an alphabetical guide that explains everything you can do with Inset.

"Changing the Setup Options" describes how to change several Inset settings.

"More About Inset" describes how to solve problems you may have while working with Inset, describes how to capture images from specific programs, and describes Inset macros.

Overview

Inset is a memory-resident program that you load into memory before you start working. Once Inset is loaded, you can activate it any time you need it. Just create your graphics using the graphics, spreadsheet, or other program you normally use. When you have the image displayed on the screen, you can use Inset to capture the image into a special *pix file* that you can use in your documents. You can also use Inset from the operating system or from within WordStar to create or modify an image.

To insert an image into a document, you place a *pix tag* in the text. When you print, the image is automatically inserted. You can also preview the text and graphics on the screen while editing your WordStar file.

To run Inset with WordStar, you need a computer with at least 512K of RAM for full WordStar functionality. You must also have a printer supported by Inset (see the *Printers and Monitors List*).

To take advantage of all the Inset capabilities, you need a graphics board in your computer. See "A Screen" in "Changing the Setup Options" for a list of graphics adapters you can use. If you have a monochrome monitor without a graphics adapter, you can't display graphics, so you can't capture or edit them. You can, however, capture graphs and charts created in text mode and insert them into your documents. You can also insert graphics captured on another monitor into a document and print them.

Installing Inset

Before you use Inset, you must install it and set it up for your monitor and printer. After you install and set up Inset, you can delete files you don't need to save space on your disk.

Installing

If you didn't install Inset when you installed WordStar, do so now. See the *Installing and Customizing* booklet for information on adding a feature. This procedure makes a directory for the Inset files. It also informs WordStar where the Inset files are located.

Setting Up Inset for Your System

You must set up Inset for your monitor and printer before you can use it. Follow these steps:

1. Log on to your Inset disk or directory.
2. Type **inset** and press ↵ to load Inset into your computer's memory. The first installation prompt appears on your screen.
3. Follow the instructions on the screen to choose your graphics board and printer. (If necessary, refer to the manuals that came with your equipment.) If you're not sure which graphics board to choose, see "A Screen" in "Changing the Setup Options." If you're not sure which printer to choose, see the *Printers and Monitors List.*

   After you make your choices, the Hardware Configuration Setup screen appears. You don't have to change any of these settings now; you can change them any time using the Setup program described in "Changing the Setup Options." However, if your printer is attached to a port other than LPT1, you can choose **F** now to change the port. See "F Port" in "Changing the Setup Options."
4. Press **F10** to save your choices and return to the operating system.

5 At the operating system prompt, type **ri** (for **r**emove **i**nset) and press ↵ to remove Inset from memory. (You need to load Inset again for your selections to take effect.)

Deleting Unnecessary Files

Deleting Extra Printer Files

Inset comes with a printer driver file for each printer it supports. You need only the drivers for the printers you use. To conserve disk space, you can remove all the extra printer driver files from your hard disk. (You'll still have all the files on your original Inset disk in case you make a mistake or get a new printer.)

To delete the extra files, log on to your Inset disk or directory and follow these steps:

1 First, find your Inset printer driver name(s). The driver names for all the printers are listed in the *Printers and Monitors List*. Find the name for each of your printers. All the Inset printer driver files have the extension .PRD. (These names are also shown on the Printer Driver Installation screen.)

2 Now you'll rename the printer driver you installed, and any others you want to save, with the extension .NEW. Type **ren *filename*.prd *filename*.new** and press ↵. (In place of ***filename***, type the name of your printer driver.) Repeat this step for any additional drivers you want to save.

3 Next you'll delete all the extra files with the extension .PRD. Log on to your Inset directory. Type **del *.prd** and press ↵.

4 Finally, you'll rename the files you saved with their original filenames. Type **ren *filename*.new *filename*.prd** and press ↵. (In place of ***filename***, type the name of your printer.) Repeat this step for any additional drivers you renamed in step 1. This command renames your printer file(s) exactly as before with the .PRD extension.

Deleting Other Files

Besides the extra printer driver files, you can also delete the following files:

- All screen drivers except the one(s) you use. To find the name of your screen driver, look at the selections for the "A Screen" option of the Setup program (see "Changing the Setup Options"). The screen driver names are the short names on the left, plus the .EXE filename extension. (Some .EXE files aren't screen drivers but are important parts of the program, so be careful deleting .EXE files.).

- Either I20F.EXE or I20S.EXE. I20F.EXE is the full version of Inset; I20S.EXE is the small version, which doesn't allow graphics editing. If you have a monochrome screen without graphics capabilities, or if you're sure you don't want to edit graphics, delete I20F.EXE; otherwise, delete I20S.EXE. You can also delete I20C.EXE, the capture-only version, if you don't plan to use it.

- If you don't plan to use Inset's help feature, you can delete INSET.HLP.

Using Inset

Loading and Starting Inset

To load and start Inset while you're editing a document with WordStar, use the Inset command on the Utilities menu (**Alt+U,I**), or use the **^P&** classic command. When you print a document that contains graphics, WordStar automatically loads Inset into memory for printing the graphics. After you exit Inset or finish printing graphics, WordStar automatically removes Inset from memory.

Before each work session in which you intend to capture an image, you must load Inset into your computer's memory. To load Inset, first log on to the Inset drive or directory. Then type **inset** and press ↵. A message on your screen says that Inset is loaded and shows your current hardware setup. After you load Inset, it stays in memory until you turn off or reboot your computer, or give the RI command to free it from memory.

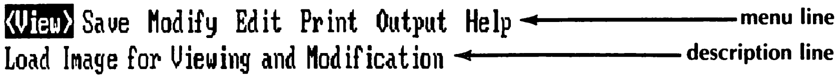
Once Inset is loaded for capturing images, you can start it in any directory, either from the operating system or while you're using any program. To start Inset, press the pop-up keys at the same time, and the Inset Main Menu pops up on the bottom two lines of the screen. The pop-up keys are usually **LShift** (the Shift key on the left side of the keyboard) and **Ctrl**.

To start Inset from within certain programs or using certain graphics boards, you may need to use the override pop-up keys, **Alt**, **LShift**, and **I**. (See **Pop-up keys** in "Inset Reference.")

Note: You can use the capture-only version of Inset for capturing images. This version takes up less memory than the full version. To load the capture-only version, type **inset /c** and press ↵.

The Inset Menus

You use Inset by choosing commands from the Inset menus. These menus are displayed on the bottom two lines of the screen. When you start Inset, the Main Menu appears.



```
<View> Save Modify Edit Print Output Help
Load Image for Viewing and Modification
```

The top line of each menu (the *menu line*) shows all the commands available. The current menu command is enclosed in angle brackets (<>) and highlighted.

The bottom line of each menu (the *description line*) either contains a description of the current command or shows the submenu accessed with the command.

The menus are in a tree structure, with the Main Menu as the base. The entire menu structure is shown on the following page.

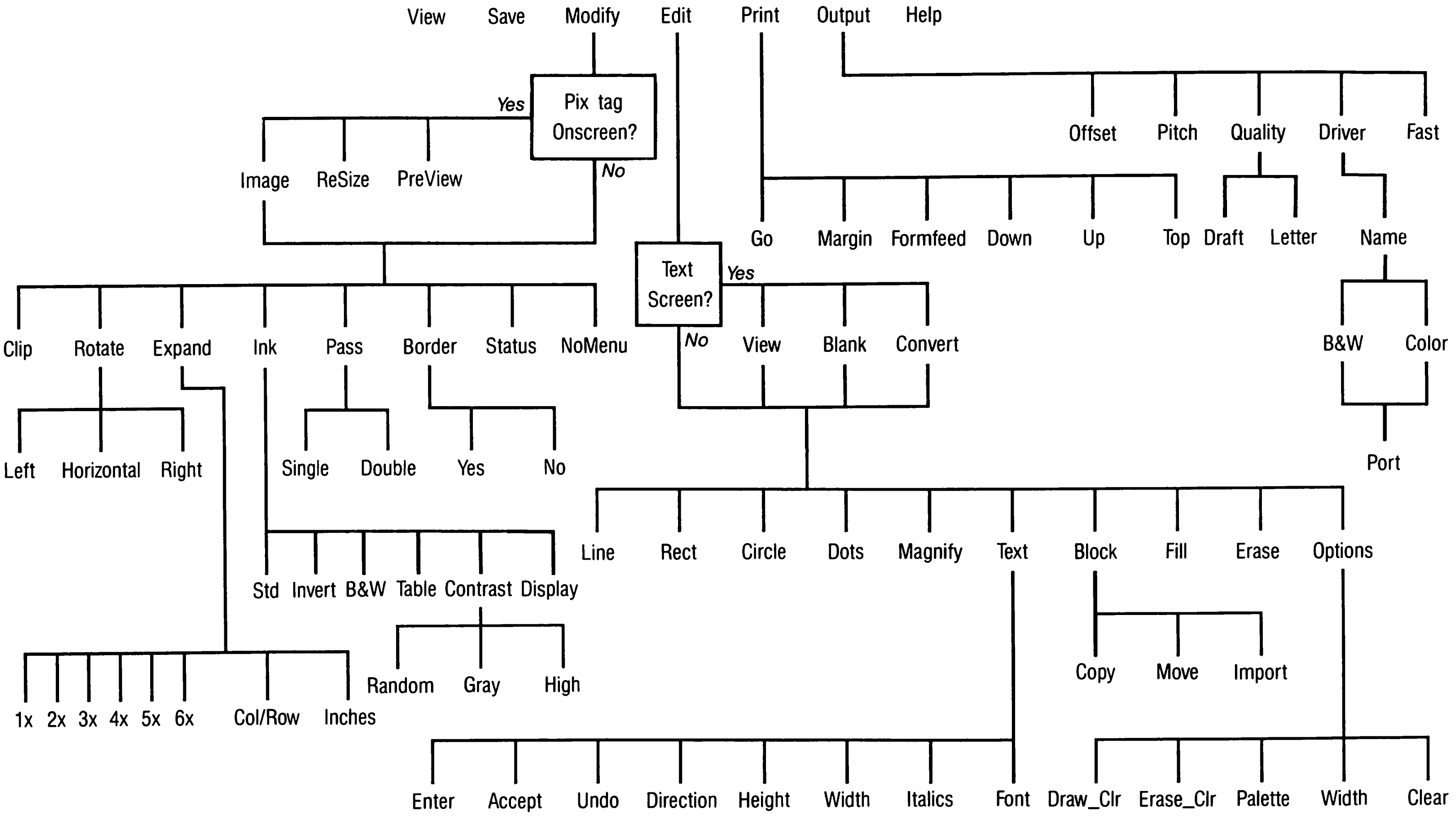
Choosing a Menu Command

There are two ways to choose an Inset menu command:

- Press the first letter of the command.
- Use the left or right arrow key to move the angle brackets to the command and press ↵. (You can also use a mouse to do this. See **Mouse** in "Inset Reference.")

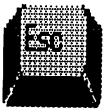
  TIP *If the cursor movement keys are disabled by the program that is currently running, you can use* ***^L*** *to move left and* ***^R*** *to move right.*

Inset Menu Map


View
Save
Modify
Edit
Print
Output
Help
Pix tag Onscreen?
Yes
No
Image
ReSize
PreView
Offset
Pitch
Quality
Driver
Fast
Go
Margin
Formfeed
Down
Up
Top
Draft
Letter
Name
Text Screen?
Yes
No
Clip
Rotate
Expand
Ink
Pass
Border
Status
NoMenu
View
Blank
Convert
B&W
Color
Left
Horizontal
Right
Single
Double
Yes
No
Port
Line
Rect
Circle
Dots
Magnify
Text
Block
Fill
Erase
Options
Std
Invert
B&W
Table
Contrast
Display
Random
Gray
High
Copy
Move
Import
1x
2x
3x
4x
5x
6x
Col/Row
Inches
Enter
Accept
Undo
Direction
Height
Width
Italics
Font
Draw_Clr
Erase_Clr
Palette
Width
Clear

Exiting Inset

To exit from an Inset menu or command prompt, press **Esc**. The previous menu appears. If you're at the Inset Main Menu, you exit and return to the operating system or to the program you started Inset from.



If you try to exit Inset after you edit or modify an image, a prompt asks you whether you want to save the modifications. You must answer yes or no before you can exit. This ensures that you don't accidentally lose your work.

Removing Inset from Memory

To remove Inset from memory, you must be sure that it is the last program loaded, including other memory-resident programs. Start from the operating system; you can't remove Inset from memory using the WordStar command to run a DOS command. Log on to the directory or disk where Inset is located. Type **ri** (for **r**emove **i**nset) and press ↵. A message tells you that Inset is freed from memory. (If Inset isn't the last program loaded, an error message appears. You must remove any program that was loaded after Inset before you can remove Inset.)

Note: When you start Inset from WordStar, you don't need to remove it from memory; WordStar removes it automatically. However, if you loaded Inset into memory before starting WordStar, WordStar does not remove Inset automatically, and you must use the **ri** command.

Inserting Graphics from Other Programs

You can insert graphics created using a number of other programs into your documents. When you insert a graphic file in another format, WordStar converts it to a .PIX file and inserts a pix tag that specifies the .PIX file.

Learning Inset

This chapter consists of two lessons. Before you begin these lessons, you should know how to use WordStar.

In Lesson 1, you'll capture an image and save it in a picture file. Next you'll clip the image and change its size. Then you'll add the image to a page of text and print the document with the graphics.

In Lesson 2, you'll look at some art that's included with Inset, and you'll clip, edit, and print a piece of art from a clip art file.

As you work through the lessons, you can get help at any screen by pressing the **F1** function key.

If you have a monochrome monitor without a graphics card, you can do Lesson 1 but not Lesson 2.

Lesson 1: Capturing, Modifying, and Inserting an Image

To print a graphic image in a document, you must first use Inset to capture the displayed image and store it in a picture file. Capturing an image is similar to taking a picture and preserving the image on film.

In this lesson, you'll capture a chart and make some changes to the captured image. Then you'll add the image to a page of text and print the document.

Loading Inset

If you haven't loaded Inset into your computer's memory, follow the steps below. (If you're already running WordStar, exit from it; don't use the command to run a DOS command.)

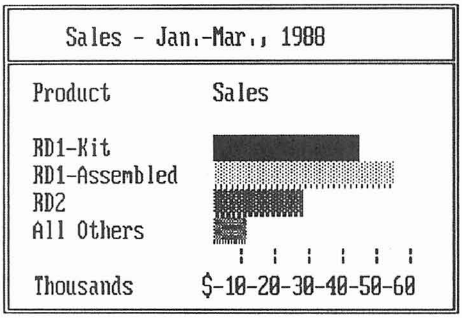
1 Change to the Inset directory.

2 Type **inset** and press ↵. Inset is loaded into memory.

Displaying the Image and Starting Inset

First you'll display the chart you're going to capture, then you'll start Inset.

1 Type **type chart** and press ↵. The chart shown below appears on the screen.



```
Sales - Jan.-Mar., 1988

Product            Sales

RD1-Kit
RD1-Assembled
RD2
All Others
                    ¦  ¦  ¦  ¦  ¦  ¦
Thousands         $-10-20-30-40-50-60
```

2 Hold down the **Shift** key on the left side of the keyboard and press the **Ctrl** key. These keys are called "pop-up" keys. You can tell that Inset is running when you see the Inset Main Menu pop up on the bottom of the screen.

Capturing the Image

You capture a screen image at the Inset Main Menu by saving it in a special picture file with a .PIX extension. This file is called a pix file.

Follow these steps to capture the displayed screen:

1 Press the right arrow key once to move the highlighting to **Save**. Then press ↵ to capture the displayed screen. (Or you can press **S**, the first letter of the command.) Inset prompts you for the name of the pix file.

2 Type **chart** and press ↵.

Inset saves the image in a file named CHART.PIX. (The .PIX extension is automatically added to the name you type.)

Now you've captured the image. Before you insert it into a WordStar document, you'll clip the image and change its size.

Modifying the Image

When you captured the image, you captured the whole screen. However, you want to insert only the chart into the document. The process of choosing a part of the image to use is called clipping.

Before you insert the chart in the document, you'll also change its size.

The Inset Main Menu should be on the screen. Follow the steps below to clip the captured image.

1 Choose **View**. (You can either move the highlighting to **View** and press ↵ or just press **V**.)

2 Type **chart** and press ↵. Inset clears the screen and displays the image. (If the page is still on your screen from when you captured it, you don't see the change.)

3 Choose **Modify**. (Either move the highlighting to **Modify** and press ↵ or just press **M**.)

4 At the Modify Menu, choose **Clip**.

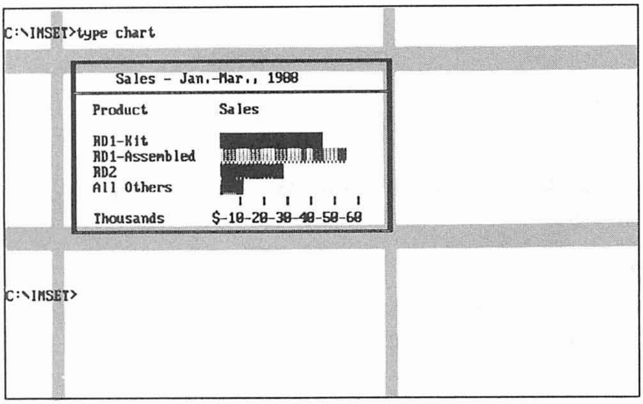
The "clip lines" appear around the entire image. Notice that the cursor is at the upper-left corner of the clip lines.

5 First, you'll choose the upper-left corner for clipping. Use the ↓ key to move the cursor down and the → key to move it to the right. You can use the **PgDn** key to move the cursor down and right at the same time. Notice that the top and left clip lines move with the cursor. Move the cursor to the left of the top-left corner of the chart. When the top clip line is covering the top border line of the chart and the left clip line is two columns to the left of the left border line, press ↵.

6 The cursor is now at the lower-right corner of the clip lines. Use the ↑ key to move the cursor up and the ← key to move the cursor to the left. You can use the **Home** key to move the cursor up and left at the same time. Move the cursor to the bottom-right corner of the chart's border. When the clip lines are covering the border lines as shown in the following illustration, press ↵.

TIP *You can hold down the Shift key while pressing the cursor keys to move the cursor more quickly.*

If you make a mistake and want to change the locations of the clip lines before you press ↵, press **Esc** to back up a step, then repeat steps 5 and 6.



```
C:\INSET>type chart
```

```
C:\INSET>
```

Next, you'll change the size of the image and save your changes. Follow these steps:

1. At the Modify Menu, choose **Expand**. This command allows you to set the size at which the image will be printed. For this lesson, you'll set the size to 2.8 inches by 1.5 inches.
2. At the Expand submenu, choose **Inches**.
3. At the *Enter Width:* prompt, type **2.8** and press ↵.
4. At the *Enter Aspect Ratio:* prompt, type **0** and press ↵. (This choice allows you to set the height in inches rather than as a ratio of the width.)
5. At the *Enter Height:* prompt, type **1.5** and press ↵.
6. Press **Esc** twice. Inset asks if you want to save the image with modifications.
7. Press **Y** to save the image, and press ↵ to accept the same filename. Inset returns you to the operating system.
8. Type **ri** and press ↵ to remove Inset from memory.

The pix file is now ready to be placed into text. Next you'll insert it into a WordStar document.

Inserting the Image into Text

To insert an image into text, you use the Inset command on the Insert menu (**Alt+I,G**) or the **^P*** classic command and type a pix tag where you want to place the image. The pix tag gives the name of the pix file that contains the image.

1. Start in your WordStar directory. Type **ws** and press ↵. Then log on to the Inset directory.
2. Choose the command to open a document, and choose the file named GRAPHICS.DOC. This file contains a short memo. Notice that the first lines of the memo are short. You'll insert the chart to the right of these lines.

3. Move the cursor to the end of the first line of the second paragraph (the space right after the word "the").
4. Choose Insert, Graphics (**Alt+I,G**) or press **^P***. WordStar prompts you for the name of the pix file.
5. Type **chart** and press ↵. Notice that you don't need to include the .PIX filename extension.

   WordStar inserts a pix tag that consists of the pix filename enclosed in brackets.
6. Choose Utilities, Inset (**Alt+U,I**) or press **^P&** to load and start Inset. If you entered the pix tag correctly, a box appears where the chart will be. The image's size in rows and columns appears next to the pix tag.

   Note: Because the CHART.PIX file was captured in text mode, you cannot preview the page with Preview on the View menu (**^OP**).
7. Press **Esc** to exit Inset.

Save the GRAPHICS.DOC file, then print it. Use the usual WordStar printing procedure. Your file is printed with the text and graphics.

Summary

In this lesson, you learned the basics of capturing an image, modifying it, and inserting it into text, and then printing the document with the inserted image.

When you're ready, continue to Lesson 2 to learn more about using Inset to clip and edit graphics.

Lesson 2: Editing a Graphic Image

Inset allows you to create new graphic images or edit existing ones. In this lesson, you'll look at some examples of graphics created or captured with Inset, then you'll clip, edit, and print one of the images.

Note: If you have a monochrome monitor without a graphics card, you can't display graphics so you can't do this lesson.

Looking at Drawings

1. Log on to the Inset drive or directory, type **inset**, and press ↵ to load Inset into memory.
2. Press **LShift-Ctrl** to start Inset. The Inset Main Menu appears.

3 Choose **View**. (Either use the cursor keys to move the highlighting to **View** and press ↵ or just press **V**.)

Inset prompts you for the name of the file to view.

4 Type * and press ↵. Look at the names that appear on the bottom line of the screen. These are the pix files that are supplied with Inset. They contain drawings that have already been captured with Inset.

5 Move the cursor to LOGOS1 and press ↵. The LOGOS1.PIX file appears on the screen. It contains several drawings. You can use any of these drawings (and the drawings in the other pix files) in your documents. SYMBOLS, LOGOS2, LEISURE, DINGBATS, and EGALOGOS contain groups of drawings similar to those in LOGOS1. BORDERS contains several long thin images that you can use as dividers or borders. The remaining files, PCMAN, PC, MAN, TEST, and EGACHART, are more examples of drawings captured by Inset.

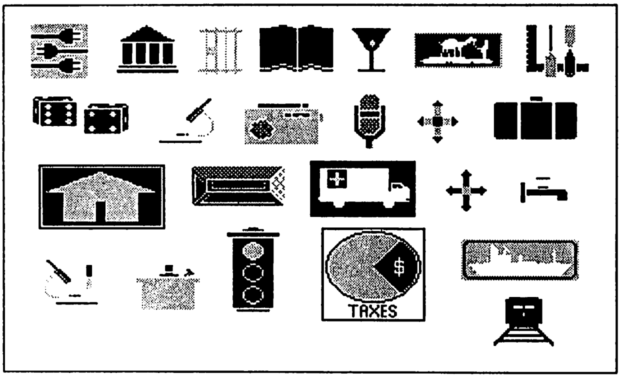
If you want, you can look at more of these files now. Choose **View**, and then press * and ↵ to display the list of files. Move the highlighting to the one you want to see and press ↵. (If you don't want to look at these drawings now, you can use the same procedure to view them later whenever you want.)

Note: EGALOGOS and EGACHART were created on a high-resolution color screen. If you look at these drawings without an EGA card, they may not be clear.

6 Choose **View** again.

7 Type **symbols** and press ↵.

The SYMBOLS.PIX file shown below appears on the screen. It contains various symbols that might be used in documents. In the rest of this lesson, you'll clip one symbol, copy it to its own file, and edit it.



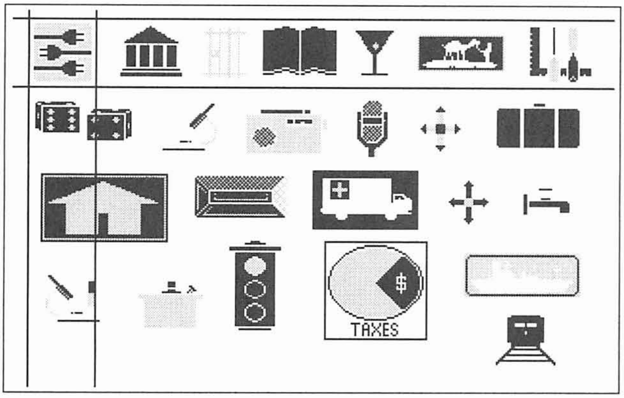
Clipping an Image

Use the following steps to clip the image of three electrical plugs in the upper-left corner of the screen:

1. Choose **Modify**.
2. At the Modify Menu, choose **Clip**.

   The clip lines appear around the entire image. The cursor is at the upper-left corner of the clip lines.
3. Choose the upper-left corner for clipping. Use the ↓, →, and **PgDn** keys to move the cursor slightly closer to the upper-left corner of the plugs drawing, as shown in the illustration below. The top and left clip lines move with the cursor. When the clip lines are where you want them, press ↵.
4. The cursor is now at the lower-right corner of the clip lines. Use the ↑, ←, and **Home** keys to move the cursor to a point near the lower-right corner of the plugs drawing, as shown in the illustration below. You can hold down the **Shift** key while pressing the cursor keys to move the cursor more quickly. When the clip lines frame the drawing as shown below, press ↵.

   If you make a mistake and want to change the locations of the clip lines before you press ↵, press **Esc** to back up a step, then repeat steps 3 and 4.



5. At the Modify Menu, press **Esc** to return to the Main Menu.
6. Choose **Save** to save the clip lines. Press ↵ to replace the original SYMBOLS.PIX with the image with clip lines.

Putting the Clipped Image into a File

The image you just clipped is going to be part of a letterhead. Use the following steps to start a file for the letterhead image:

1 At the Inset Main Menu, choose **Edit**.

2 Choose **Options**, then choose **Clear** to clear the screen.

3 Press ↵ to accept the default resolution for your screen. (For a CGA screen, this is medium resolution; for another screen, it may be different.)

4 Press **Esc** to return to the Edit Menu.

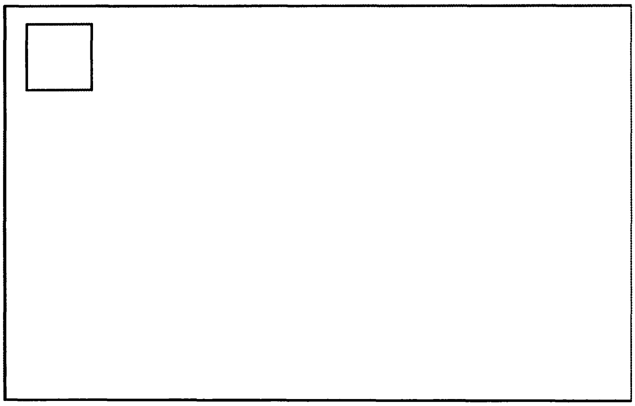
5 At the Edit Menu, choose **Block**.

6 Choose **Import**.

7 At the filename prompt, type **symbols** and press ↵.

A box appears on the screen. The box represents the clipped part of the SYMBOLS.PIX file, the plugs. The cursor is at the upper-left corner of the box.

8 Use the arrow keys to move the box to the left. Place the box in a location near the one shown below. Don't move it quite all the way to the edges of the screen.



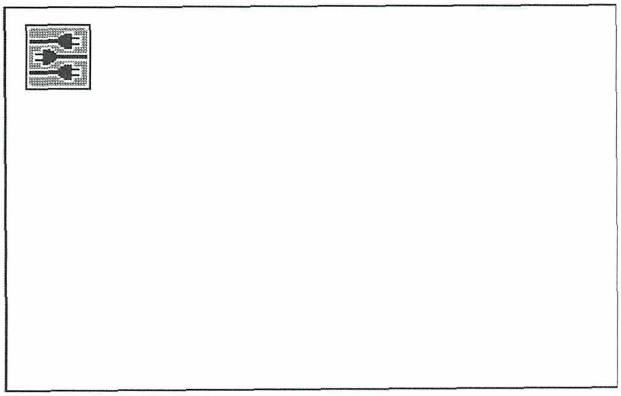
When the box is in the correct position, press ↵. The box disappears and the image of the plugs appears.

9 Press **Esc**. You are now at the Edit Menu.

Editing the Image

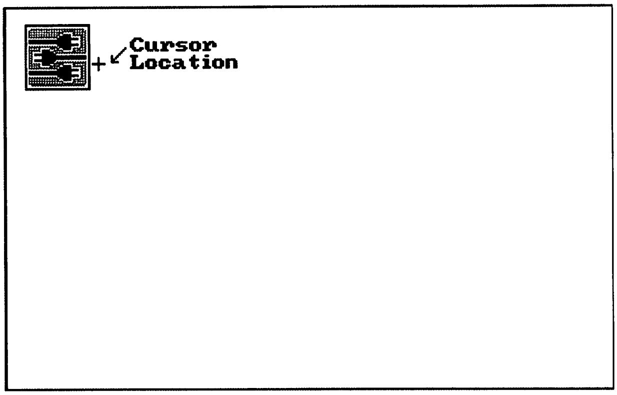
Now you can turn the image of the plugs into a letterhead. First you'll draw a rectangle around the plugs, next you'll add text, and then you'll save the edited image to a new pix file.

1. At the Edit Menu, choose **Rect**.
2. At the *Fill with pattern?* prompt, press ↵ to accept the default, No.
3. Move the cursor close to the upper-left corner of the drawing and press ↵.
4. Use the **PgDn** key to move the cursor. Notice the rectangle that moves with the cursor. Use the arrow keys to make the rectangle surround the plugs evenly. When the rectangle surrounds the plugs, press ↵.



5. Press **Esc** to return to the Edit Menu.
6. Choose **Text**.
7. Choose **Enter**.

8. Move the cursor to the right of the rectangle as shown below.



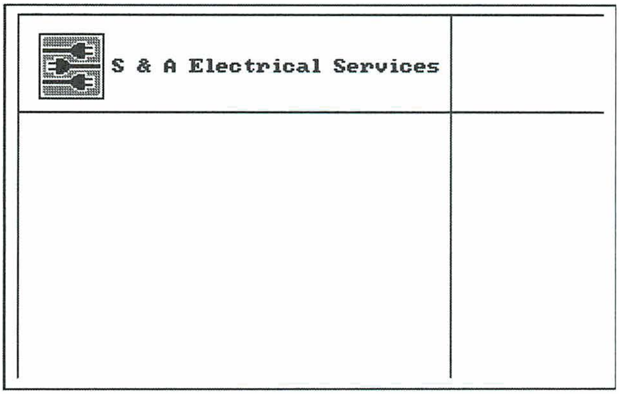
9. Type **S & A Electrical Services**. Don't press ↵. If you make a mistake, you can use the **Backspace** key to back up. If you want to adjust the position of the entire piece of text, use the cursor movement keys.
10. When you finish typing the text, press **Esc**.
11. Choose **Accept**. (If you want to erase the text and start it again, choose **Undo** instead and go back to step 7.)
12. Press **Esc** twice to return to the Main Menu.
13. Choose **Save**. At the prompt, type **logo** and press ↵. Inset saves the entire image with text to a new file named LOGO.PIX.

Modifying the Image

Next, you need to clip the image so that each time you insert it in a document, you won't insert all the extra blank space on the screen. The image may be printed in different sizes on different printers, so you'll set its size in inches. Then you'll save the modified image.

1. At the Main Menu, choose **Modify**.
2. Choose **Clip**.
3. The cursor, with the top and left clip lines, is at the upper-left corner of the screen. Press ↵ to accept this position as the upper-left corner of the clipped image.

4 Move the cursor with the bottom and right clip lines. Position the clip lines so they surround the image and text and leave a little extra space. Press ↵ when the clip lines are where you want them.



5 At the Modify Menu, choose **Expand**. This command allows you to set the size of the printed image.

6 Choose **Inches**.

7 At the *Enter Width:* prompt, type **5.5** and press ↵.

8 At the *Enter Aspect Ratio:* prompt, type **100** and press ↵. Any other number will alter the proportions of the printed image.

9 Press **Esc** to return to the Main Menu.

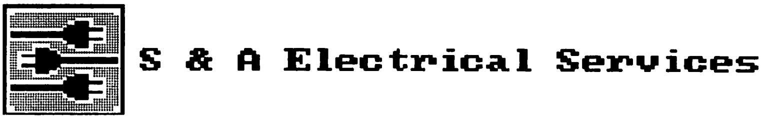
10 Choose **Save**.

11 At the filename prompt, press ↵ to accept the default filename, LOGO.PIX. Press ↵ again to replace the LOGO.PIX file you saved earlier with a new one containing the modifications.

Printing the Image

If your printer is set up, you can print the image now. You'll use the Inset printing command.

1. Choose **Print** at the Inset Main Menu.
2. Choose **Go**. In a few seconds, your printer prints the image. It should look like the one shown below. (The appearance of the printed image varies slightly for different printers.)



3. After printing is complete, the Inset Main Menu appears. Press **Esc** to exit.

Using the Image with WordStar

If you want, you can use what you've learned in these lessons to use the LOGO.PIX file with WordStar. You can open a new file, or make room in an old one, and insert a pix tag for LOGO.PIX.

Summary

In these lessons, you've learned the main Inset operations. You're ready to start capturing your own graphics and printing them in your letters, memos, newsletters, and other documents.

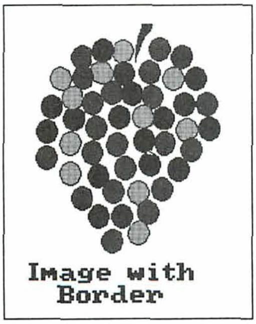
Any time you need to know more about Inset, use "Inset Reference." It contains complete instructions for everything you can do with Inset.

Inset Reference

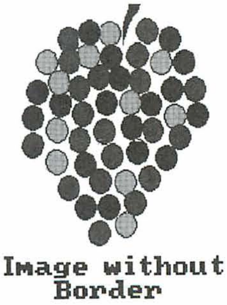
"Inset Reference" gives detailed explanations of the Inset features, functions, and commands. Topics are arranged in alphabetical order.

B

Borders



You can put a border around any image. The border is a rectangular box one dot wide. It is placed around the image when you print, but is not shown onscreen. The *actual border printed* is one dot outside the image's edges, which are defined by the clip lines specified with the Clip command. If the image is not clipped, its edges are the edges of the screen when the image is displayed.



When you insert an image into a document, the space left for the image takes into account the border width if you are using a border with the image. To add or delete a border, first choose **Modify** at the Inset Main Menu. Then choose **Border** at the Modify Menu. Inset displays two options, **Yes** and **No**. The current setting is highlighted. If you haven't used **Border** previously for this file, the current setting is the same as the setting in effect when you first saved the file. Choose **Yes** to print a border, or choose **No** to stop using a border.

When you add or delete a border, be sure to save the modification.

*TIP If you've inserted an image in a document, you can add or delete a border without displaying the image on your screen. While editing the document, display the pix tag for the image you want. Make sure it is the uppermost pix tag on the screen. Then start Inset and choose **Modify**. A box representing the image appears in the text, and a menu appears at the bottom of the screen. Choose **Image**. The Modify Menu appears. Choose **Border**. If you add or delete a border in this manner, your change is automatically saved; don't use the **Save** command.*

C

Capturing an image

You can capture any image you can display on the screen. The image may be created with a graphics program, with Inset, or with a spreadsheet program. You must use Inset to capture an image before you can use the image in a document. Each captured image is stored in a pix file with the .PIX filename extension.

To capture an image, use the **Save** command. First use your program to display the image on the screen. Then start Inset and choose **Save** at the Inset Main Menu. Inset asks you to enter the filename for the screen image. (If you've looked at a pix file since you loaded Inset, the name of the last file you saw is displayed as the default.) Type the filename you want to use and press ↵. Inset saves the file and returns you to the Main Menu.

When you type the filename, keep in mind the following rules:

- Include a drive letter or directory path if necessary. If you don't include the path, the file is saved in the current drive and directory (or the one chosen as the default pix file directory with the Setup program).
- You don't need to include the .PIX extension; Inset automatically adds it. You can also use the .SIG extension for a password-protected signature file (see **Signature files**). If you type an extension other than .PIX or .SIG, Inset substitutes .PIX.
- If you type a filename that is already in use, Inset asks if you want to replace the contents of that file with the image on the screen. Answer **R** (for **Replace**) to save the screen into the file, or **C** (for **Cancel**) if you don't want to replace the file. If you answer **C**, you are returned to the Main Menu, and you have to start the **Save** operation again.

The capture-only version of Inset is useful for capturing images if the regular version doesn't fit in your computer's memory. To load capture-only Inset, type **inset /c** and press ↵. When you start Inset, two options appear: **Screen** and **Printer**. **Screen** works like the Save command described above. **Printer** is for use only with the Hewlett-Packard LaserJet printer and the HiJaak program. It saves output to the printer in an .HPC file for use with HiJaak.

When you first capture an image into a pix file, the settings for the Modify Menu commands **Rotate**, **Expand**, **Ink**, **Pass**, and **Border** are the same settings as in the file you most recently saved. Before you save or print the new file, you may want to check these settings and change them as necessary, and you may also want to clip the image. You can quickly check the current settings for all these modifications by using the **Status** command on the Modify Menu. See **Modifying an image**.

Clip art

Clip art is a term used to describe a library of graphic images, which can contain logos, symbols, and other drawings. You can select, or clip, any of the images and use it in a document. Inset comes with several files of clip art: SYMBOLS.PIX, LOGOS1.PIX, LOGOS2.PIX, LEISURE.PIX, EGALOGOS.PIX, DINGBATS.PIX, and BORDERS.PIX.

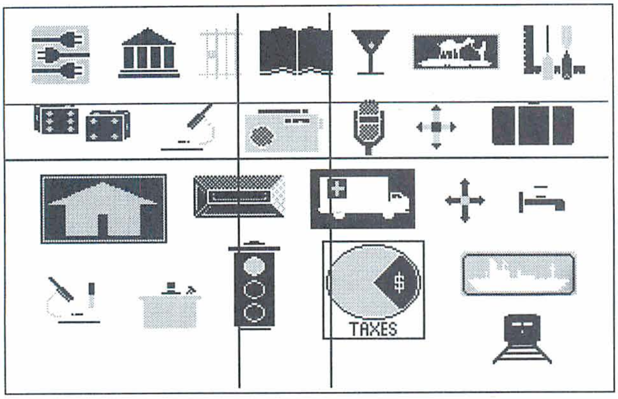
Clip art packages for specific graphics programs are commercially available. If you have a graphics program, you may already have some clip art files and additional clip art is probably available. As with any graphics, if you can display clip art on your screen, you can capture it with Inset and insert it in your documents. Keep in mind that with Inset, you capture one screen of graphics at a time. If a clip art file is larger than one screen, you'll need to capture it in several files, one screenful at a time.

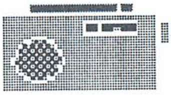
Note: The Inset clip art files were created on a color screen, and EGALOGOS.PIX was created on a high-resolution color screen. These files may appear unclear on a monochrome screen or, with EGALOGOS.PIX, on a medium-resolution color screen. However, you can still clip and print these images at their original resolution.

See **Clipping an image** and **Importing an image** for more information on how to use clip art.

Clipping an image

You can change the boundaries of an image with the **Clip** command. Only the area inside the boundaries is imported into other files, previewed, or printed. This area is always a rectangle, and it includes the area covered by the clip lines.





The illustration above shows a file of clip art with one drawing clipped. The illustration at the right shows how the clipped file looks when inserted in a document.

TIP By changing the boundaries of the rectangle, you can change the height, width, and amount of white space surrounding the picture on the page.

Before you clip an image, display the image on your screen and start Inset. Then use these steps:

1. Choose **Modify** at the Inset Main Menu.
2. Choose **Clip** at the Modify Menu. The menu disappears so you can see the entire image, and intersecting horizontal and vertical lines appear. The portion of the image between these clip lines is the image to be imported or printed. The cursor is at the upper-left corner of the clip lines.
3. Use the cursor movement keys to move the top and left clip lines to the positions you want. You can move these lines separately using the arrow keys or as a pair using the **Home** and **PgDn** keys. When both lines are in the positions you want, press ↵. The cursor moves to the lower-right corner of the clip lines.
4. Use the cursor movement keys to move the bottom and right clip lines to the positions you want, and press ↵. The Modify Menu reappears.

*TIP If you change your mind after setting the upper-left corner, press **Esc** to move the cursor from the lower-right corner back to the upper-left corner. Pressing **Esc** when the cursor is at the upper-left corner returns you to the Modify Menu.*

You can change an image's clip lines as often as you want. When you change the clip lines, be sure to save the modification.

Note: Dots on the image that are covered by the clip lines are considered part of the clipped image.

You can make a separate file that contains a portion of an existing pix file. This is useful, for example, if you expect to use one piece of art from a clip art library file often. There are two ways to save a clipped image in a separate file:

- Clip the existing pix file to include only the image you want. Then, when you're asked whether to save the file with modifications, answer yes and give it a different filename.
- Clip the pix file to include only the image you want, and save your modification, keeping the same filename. Return to the Main Menu, and choose **Edit** and **Blank**. Use **Block** and **Import** to insert the clipped image, then save it as a new file. This method allows you to change the size of the image. See also **Importing an image**.

Colors

If you have a color screen, you can capture, create, and edit graphics in color. You can choose the onscreen colors while you edit.

You can also choose the color or shade of gray that will be printed for each screen color. For more information, see **Printing with colors or shades of gray**. For information on printing with a color printer, see **Printers**.

When you draw graphics, you work with two colors, the Draw (primary) color and the Erase color, which is used as a secondary drawing color and used for erasing areas. See **Drawing** for information on how to switch between the Draw and Erase colors. You can choose the Draw and Erase colors from a palette of available colors.

On a CGA (color) screen, you can display up to four colors on the screen at a time. You can choose your Draw and Erase colors from the four colors on your current palette. You have the choice of six palettes of different color combinations.

On an EGA (high-resolution color) screen, you can display up to sixteen colors at a time. You can choose your Draw and Erase colors from all sixteen colors.

The Draw and Erase colors

Changing the Draw or Erase color doesn't affect any graphics that are already displayed. The new color is used only for new graphics that you draw.

Follow the procedure below to change the Draw color or the Erase color:

1. Display the Options submenu. You can either choose **Options** at the Edit Menu or, if you're already using an Edit Menu command for drawing, press **F2**. **F2** allows you to change the color while drawing without losing your place.
2. Choose **Draw_Clr** or **Erase_Clr**. Inset displays the choices you have for the color and prompts you to choose one. The current color is highlighted.

The actual colors displayed depend on your graphics board, screen mode, and current palette (see "The palette" below). On the CGA using medium resolution, four colors are available on each palette; using high resolution, only black and white are available. On the EGA in high-resolution color mode, sixteen colors are available.

Each of the sixteen EGA colors has several additional colors associated with it. When you highlight an EGA color, you can scroll through the associated colors using the up and down arrow keys. You can choose any of these colors by pressing ↲ when it is displayed.

3 Choose the color you want. After you choose the color, the Options submenu appears.

4 Press **Esc** to return to the Edit Menu or to editing, depending on where you were when you displayed the Options submenu.

Note: You can also use the **Draw_Clr** or **Erase_Clr** commands to change the background color (normally black). Move the cursor to 0, then use the up and down arrow keys to scroll through the available background colors. Choose one of these colors by pressing ↲ when the color is displayed.

The palette

A palette is a group of colors that can be shown on the screen at one time. The palette determines the colors you can use in your images for the Draw and Erase colors.

The number of palettes available and the colors in the palettes depend on your graphics board and screen mode. On the CGA using medium resolution, six palettes are available, each with four colors. If you have a black and white monitor, or if you're using the CGA in high-resolution mode, you have no choice of color combinations and can't use the **Palette** command. In this case, the palette is always two colors, black (0) and white (1).

The chart below shows the four palettes available with the CGA in medium resolution:

PALETTE	COLOR 0	COLOR 1	COLOR 2	COLOR 3
0	*	Green	Red	Yellow
1	*	Brt. Green	Brt. Red	Brt. Yellow
2	*	Cyan	Magenta	White
3	*	Brt. Cyan	Brt. Magenta	Brt. White
4	*	Cyan	Red	White
5	*	Brt. Cyan	Brt. Red	Brt. White

* Color 0 is the background color, generally black.

With CGA color mode, you can change from one palette to another. When you change palettes, all the colors on the screen change to correspond to the new palette. Follow the steps below to change from one palette to another.

1 Display the Options submenu. You can either choose **Options** at the Edit Menu or, if you're already using an Edit Menu command for drawing, press **F2**. **F2** allows you to change the color while drawing without losing your place.

2 Choose **Palette**. Inset displays the choices, with the current palette highlighted.

If you have an image onscreen, you can look at the different palettes available by using the arrow keys to move through the choices. As you highlight each palette number, the onscreen colors change to that palette's colors. You can see as many of the colors as are used in the image; if the current Draw, Erase, and Fill colors are not all the colors in the palette, or if the image doesn't include all the colors, you don't see all the palette's colors.

3 Choose the palette you want, and press **Esc** to return to the Options submenu. Notice that the onscreen image is now made up of the colors in the new palette.

4 Press **Esc** to return to the Edit Menu or to editing, depending on where you were when you displayed the Options submenu.

The chart below shows the colors in the EGA palette in high-resolution color mode. You can modify this palette using the **Display** command on the Ink submenu of the Modify Menu. When you do this, the onscreen colors change to reflect your changes.

0	Black	4	Red	8	Dark Gray	C	Light Red
1	Blue	5	Magenta	9	Light Blue	D	Light Magenta
2	Green	6	Brown	A	Light Green	E	Yellow
3	Cyan	7	Light Gray	B	Light Cyan	F	White

Converting a text screen to graphics

You can capture a screen that was created in text mode. However, you can't use WordStar page preview to display a page that contains the image and you can't use the Inset editing commands on the image unless you first convert the image to graphics mode.

To convert a text screen to graphics, first display the screen. Start Inset and choose **Edit** at the Main Menu. If the currently displayed screen is a text screen, three choices appear: **View**, **Blank**, and **Convert**. Choose **Convert**. Inset clears the screen, and contents of the screen reappear section by section in graphics mode. The Edit Menu appears at the bottom of the screen. You can now use Inset to edit the screen or to save it in a pix file.

Note: If your graphics board does not support high-resolution color, some color information may be lost.

For more information on text and graphics modes, see **Screen modes**.

Copying a block

When you're editing an image, you can copy a rectangular area, called a block, to another location on the screen.

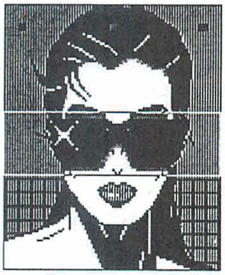
You can also copy a block from another pix file into your current graphics screen. See **Importing an image**.

When you copy a block, it replaces any graphics at its new location.

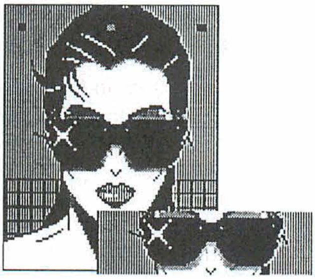
Before you copy a block of graphics, display the image and choose **Edit** at the Inset Main Menu. Then follow the steps below to mark and copy the block.

1. Choose **Block**.
2. At the Block submenu, choose **Copy**. The menu disappears so that you can define the block.
3. Move the cursor to the point you want to be one corner of the block and press ↵.
4. Move the cursor to the point you want to be the opposite corner and press ↵. Inset displays a border that shows you the defined area.

   Note: If you want to change the block borders before copying the block, press **Esc**. The marked block disappears, and you can mark both corners again.
5. Move the cursor to the point where you want to move the upper left corner of the copy of the block. Notice that a copy of the block border moves with the cursor to show you the new location. When the cursor is in the correct location, press ↵. The block is copied.



Marked block



Copied block

6. You can continue to move the cursor to make additional copies of the block; just press ↵ at the location for each copy.
7. When you're finished copying the block, press **Esc**. You can now mark another block to copy or press **Esc** again to return to the Block submenu. At the Block submenu, press **Esc** to return to the Edit Menu.

After you copy a block, be sure to save the modification before you exit Inset.

Creating an image

Inset allows you to create your own images. You can create an image with the Inset Edit Menu drawing commands or by importing an image from another pix file and, if you want, editing it.

To create a new graphic image, you first must clear the screen. Depending on where you start, you use one of two commands to clear the screen. Use **Blank** when the current screen is a text screen; for example, when you are starting Inset and don't have a pix file displayed. Use **Clear** when the screen is already in graphics mode; for example, when you are editing an image and want to quit without saving it and create a new image. Each of these commands is described below.

Note: You can't create an image if you've loaded the small version of Inset. (See "Q Version" in "Changing the Setup Options.") The small version is loaded automatically if you have a monochrome screen without graphics editing capabilities.

To clear a text screen, choose **Edit** at the Inset Main Menu. Three choices appear: **View**, **Blank**, and **Convert**. Choose **Blank**. A menu of the available screen resolutions appears, with the most recently chosen resolution highlighted. Choose the appropriate resolution (see "A Screen" in "Changing the Setup Options" if you need more information about your available resolutions). A blank screen appears, with the Edit Menu displayed at the bottom of the screen.

To clear a screen while you're editing without leaving editing mode, choose **Options** at the Edit Menu (or press **F2** while drawing). Choose **Clear** at the Options submenu. A menu of the available screen resolutions appears, with the most recently chosen resolution highlighted. Choose the appropriate resolution (see "A Screen" in "Changing the Setup Options" if you need more information about your available resolutions). A blank screen appears, with the Options submenu at the bottom of the screen. Press **Esc** to return to the Edit Menu.

CAUTION *Don't use the **Clear** command while you are editing an image if you want to save your changes to the image. When you use **Clear**, you can't save the current screen.*

Note: The **Clear** command does not explicitly change the current colors, but it may do so indirectly through palette changes. For example, if you move from a color mode to a monochrome mode and back, the default palette is used. If you were using a palette other than the default, the colors displayed are different. You need to choose the appropriate palette to return to the colors you were using. See **Colors**.

Once your screen is cleared, you can use the appropriate Edit Menu commands to create or import your graphics. For more information, see **Drawing**, **Editing graphics**, and **Importing an image**.

When you first create a pix file, the settings for the Modify Menu commands **Rotate**, **Expand**, **Ink**, **Pass**, and **Border** are the same settings as in the file you most recently saved. Before you save or print the new file, you may want to check these settings and change them as necessary, and you may also want to clip the image. You can quickly check the current settings for all these modifications using the **Status** command on the Modify Menu. See **Modifying an image**.

D

Displaying an image

Before you edit or clip an image in a pix file, you must display it on the screen.

To display the image in a pix file, choose **View** at the Inset Main Menu. Inset asks you to enter the filename of the image and displays the filename of the last file viewed or saved as the default. If you haven't viewed or saved any pix files since you loaded Inset, Inset displays a list of the .PIX files in the current directory (or the directory chosen as the default pix file directory with the Setup program).

Press ↵ to accept the default filename, move the cursor to the filename you want and press ↵, or type the filename you want and press ↵. The image appears on the screen. You can use any Inset commands to edit and modify the image.

TIP *If the directory contains more files than fit on the bottom line of the screen, you can use the left and right arrow keys to scroll horizontally through the additional filenames.*

Use the following guidelines for entering filenames:

- Include a drive letter or directory path if necessary. If you don't include the path, Inset looks for the file in the current drive and directory (or the one chosen as the default pix file directory with the Setup program).
- You don't need to include the .PIX extension; Inset adds it automatically. The only other extension allowed is .SIG. You can't view a file with any other extension.
- If you're not sure of a filename, you can use the wild-card characters * and ? to display a list of filenames. For example, to see the names of all the .PIX files in the current directory, press * and press ↵ (Inset adds the .PIX extension). To see all the pix filenames that begin with D and are in the \CHARTS directory, type **\charts\d*** and press ↵. To see all the pix filenames that begin with TEST and have two more characters, type **test??** and press ↵. Inset displays a list of matching filenames, and you can choose one of the files.
- If you need to edit a displayed filename, you can use the ←, →, **Del**, **Backspace**, **Home**, and **End** keys. Press ↵ when you're ready to enter the filename or press **Esc** to exit.

If the pix file you name was created with a higher-resolution screen mode than is available on your screen, a prompt tells you that screen conversion is required and asks if you want to proceed. If you answer yes, you must specify next what screen resolution you want it converted to (if you have a choice of resolutions on your system). Inset converts the file and displays it section by section in the new lower resolution.

If an image was created with a higher-resolution screen mode and you convert it to display it on your screen, you can use the Modify Menu commands for the image without losing the higher resolution. When you save the modified image using the image's original filename, Inset saves the new Modify settings to the original higher-resolution image.

*CAUTION Be careful making changes to an image you convert to lower resolution to display. If you choose **Edit**, a warning message appears. If you use any Edit Menu commands and save the image with the editing modifications, the new pix file will have lower resolution than the original one and will also print with lower resolution.*

If you choose a file with the .SIG extension, you must enter a password before you can view the file. Type the password and press ↵. If the password is incorrect, the image that appears is incorrect. (See **Signature files** for details on .SIG files.)

Note: If you choose **Edit** at the Main Menu and the current screen is not a graphics screen, the menu that appears contains the **View** command. You can choose **View** at this menu to view a file with the Edit Menu already displayed for editing.

*TIP While you're using an Inset Edit Menu command, you can **View** another file by pressing **F9**. However, when you display another file, you lose any modifications you have made to the first image, so use **F9** with caution.*

Drawing

With Inset, you can draw lines, rectangles, circles, and ovals, and you can draw with individual dots. You can draw within an existing image, or you can clear the screen and create a new image.

To start drawing on an existing image, display the image. Be sure you've already captured the image in a pix file. Then start Inset, choose **Edit**, choose **View**, and choose the file to view. The image appears with the Edit Menu.

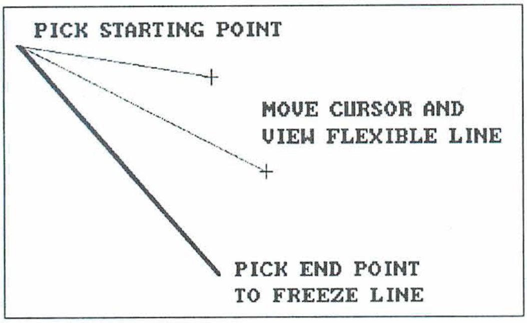
To create a new image, start Inset, choose **Edit**, choose **Blank**, and choose the screen mode you want to use. Inset clears the screen and displays the Edit Menu.

You can choose the colors and line widths you use for drawing, using the Options submenu commands. When you change colors or line width, the changes are in effect for all the Edit Menu drawing choices until you change them again. For more information on colors, see **Colors**. Line widths are explained later in this section.

Drawing lines

Follow these steps to draw lines:

1. Choose **Line** at the Edit Menu. The menu disappears.
2. Move the cursor to the point where you want to start the first line and press ↵.
3. Move the cursor to the point where you want the line to end. Notice that a flexible line is displayed to show you how the line will look. (This line is always white, no matter what color you're using.) When the cursor is in the correct position, press ↵.



4. Repeat this process for as many lines as you want to draw, then press **Esc** to return to the Edit Menu.

Lines are always drawn in the Draw color.

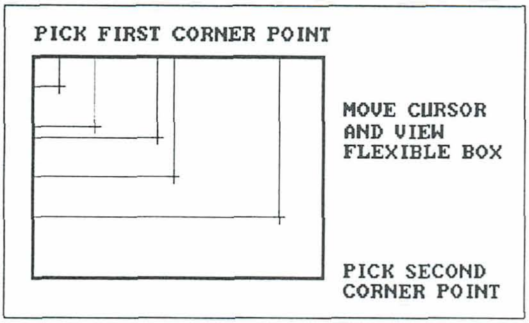
Drawing rectangles

Follow these steps to draw rectangles:

1. Choose **Rect** at the Edit Menu. Inset displays a prompt asking whether you want to fill the rectangle with a pattern.
2. If you don't want to fill the rectangle, choose **No**.

   If you want to fill the rectangle, choose **Yes**. Inset displays 16 choices of patterns. You can move the cursor between the choices to see a description of each pattern. Choose a pattern and press ↵. Inset prompts you to choose the primary and secondary (background) colors for the pattern. The default or current colors are bracketed. Choose the colors you want and press ↵.

3 Move the cursor to the point where you want one of the corners of the rectangle and press ↵.


PICK FIRST CORNER POINT

MOVE CURSOR
AND VIEW
FLEXIBLE BOX

PICK SECOND
CORNER POINT

4 Move the cursor to the point where you want the opposite corner of the rectangle. Notice that flexible lines are displayed to show you how the rectangle will look. (These lines are always white, no matter what color you're using.) When the cursor is in the correct position, press ↵.

5 Repeat this process for as many rectangles as you want, then press **Esc** to return to the Edit Menu.

Rectangles are always drawn in the Draw color.

Drawing circles and ovals

Follow these steps to draw circles and ovals:

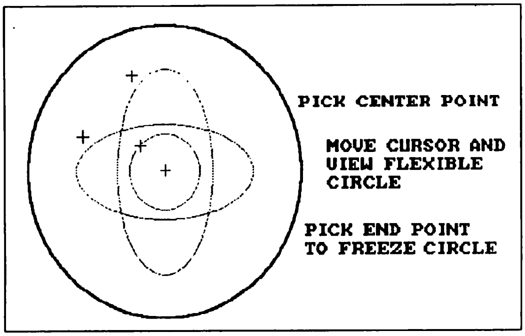
1 Choose **Circle** at the Edit Menu. Inset displays a prompt asking whether or not you want to fill the circle with a pattern.

2 If you don't want to fill the circle, choose **No**.

If you want to fill the circle, choose **Yes**. Inset displays 16 choices of patterns. You can move the cursor between the choices to see each pattern. When you choose a pattern, Inset prompts you to choose the primary and secondary colors for the pattern. (The default or current colors are highlighted.) Choose the colors you want and press ↵.

3 Move the cursor to the point where you want the center of the circle or the oval and press ↵.

4 Move the cursor to a point on the circle or oval. Notice that a circle or oval is displayed to show you how the final one will look. (This circle is always white, no matter what color you're using.) If the second point you chose is approximately the same distance horizontally and vertically from the center, the shape is a circle. If the horizontal and vertical distances are different, the shape is an oval. When the cursor is in the correct position, press ↲.

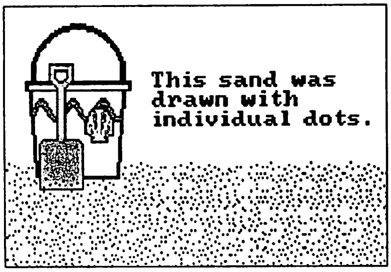

PICK CENTER POINT
MOVE CURSOR AND VIEW FLEXIBLE CIRCLE
PICK END POINT TO FREEZE CIRCLE

5 Repeat this process for as many circles as you want, then press **Esc** to return to the Edit Menu.

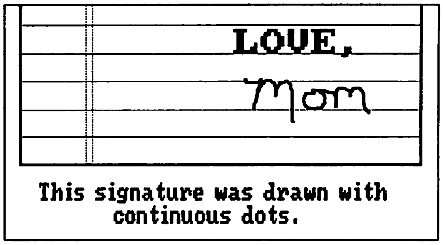
Circles are always drawn in the Draw color.

Drawing with dots

You can place individual dots on your graphics screen and you can draw continuously with a series of dots. The continuous drawing is especially useful with a mouse.



This sand was drawn with individual dots.



This signature was drawn with continuous dots.

A dot is the smallest unit of space you can use on a graphics screen. It is the same as a pixel and is actually a tiny square. The number of dots on a screen depends on your graphics board and current screen resolution. The dots you draw with the Edit Menu **Dots** command can be bigger than one dot, depending on the current width setting. For example, if the current width is 3, the dots you draw are small squares with sides three dots long.

Follow these steps to draw with dots:

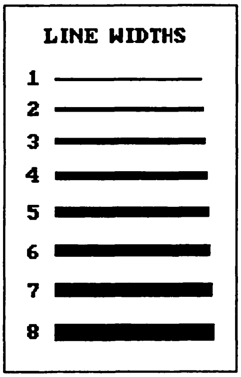
1. Choose **Dots** at the Edit Menu. The menu disappears.
2. Move the cursor to the point where you want the first dot. To enter a dot in the Draw color, press ↵. The dot appears at the point you chose. To enter a dot in the Erase color, press the **Spacebar**.

   To draw continuously in the Draw color, press +, then move the cursor wherever you want to draw. A continuous line of dots appears wherever you move the cursor. To change from continuous drawing to single dots, press + again. To draw continuously in the Erase color, press - (hyphen or minus sign). To change back to single dots, press - again.
3. When you're finished entering dots, press **Esc** to return to the Edit Menu.

If any of the dots you enter are out of place or if you want to change the color of some dots, you can use the **Magnify** command for detailed dot-by-dot editing. See **Magnifying an area**.

Changing the line width

You can change the size of the dot or line used to draw dots, lines, rectangles, and circles. Follow these steps:



1. Display the Options submenu. You can either choose **Options** at the Edit Menu or, if you're already using an Edit Menu command for drawing, press **F2**. **F2** allows you to change the width while drawing without losing your place.
2. Choose **Width**.

   Inset displays the eight available widths, **1** through **8**. The width is the number of screen dots in the line or dot. The default is **1**, which produces a line 1 dot wide. If you change it, for example, to **4**, a dot you enter with the **Dot** command is 4 dots tall and 4 dots wide, and a line is 4 dots wide.
3. Choose the width you want. After you choose the width, the Options submenu appears.
4. Press **Esc** to return to the Edit Menu or to editing, depending on where you were when you displayed the Options submenu.

When you draw with a line width other than **1**, the flexible line you see when you move the cursor is still one dot wide. After you press ↵ to accept the cursor position, the line, rectangle, or circle appears in the width you chose.

E

Editing graphics

Inset includes complete graphics editing functions. You can create your own images and edit existing images, including those created with other graphics programs.

The commands for editing are on the Inset Edit Menu. To display the Edit Menu, start Inset and choose **Edit**.

You can't use Inset to edit a text screen, so if you choose **Edit** when your screen is in text mode, Inset displays three choices: **View**, **Blank**, and **Convert**. You must use one of these commands to display a graphics screen. Once you display a graphics screen with one of these commands, the Edit Menu appears. See **Converting a text screen to graphics**, **Creating an image**, and **Displaying an image**, for further information.

The Edit Menu commands enable you to draw lines, rectangles, circles, and dots; view and edit a magnified section of an image; enter text; copy, move, and import blocks of graphics; fill an area; erase an area; and change your drawing colors and line width. For more information, see **Colors**, **Copying a block**, **Drawing**, **Erasing an area**, **Filling an area**, **Importing an image**, **Magnifying an area**, **Moving a block**, and **Text**.

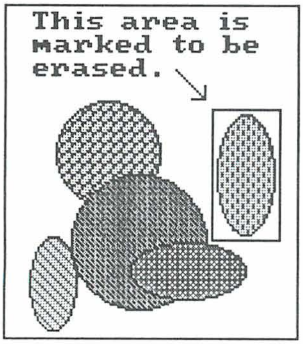
If you don't use Inset for editing, you can install the Small version of Inset, which has no editing capabilities. You can choose the Small version by changing a setup option. See "Q Version" in "Changing the Setup Options."

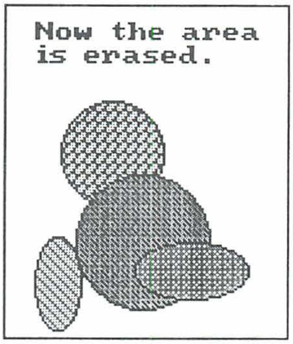
If you have a monochrome screen without graphics capabilities, you can't edit graphics.

Erasing an area

You can erase the graphics contained in a rectangular area of an image you're editing. Use the **Erase** command.

The **Erase** command fills the enclosed area in the Erase color. The default Erase color is black, your screen background. You can use the **Erase_Clr** command on the Options submenu of the Edit Menu to change the Erase color. See also **Colors**.





TIP *While you're erasing, you can change the Erase color quickly by pressing* ***F2,*** *choosing* ***Erase_Clr,*** *and choosing the new color.*

Before you use the **Erase** command, display the image and the Edit Menu. Then choose **Erase**. Move the cursor to one of the corners of the area to be erased and press ↵. Move the cursor to the opposite corner of the area to be erased. Notice that flexible lines are displayed to show you the area. When the cursor is in the correct position, press ↵. The area is erased.

Repeat this process for all the areas you want to erase, then press **Esc** to return to the Edit Menu. You can also erase graphics dot by dot by using the **Magnify** command and changing the dots to the background color. See **Magnifying an area**.

Exiting Inset

To exit Inset, press **Esc** at the Main Menu. The menu disappears and you're returned to where you were before you started Inset (WordStar, another program, or the operating system).

If you want to exit while at one of the other menus, first press **Esc** as many times as necessary to display the Main Menu.

If you've been editing an image and haven't saved your changes, Inset displays a prompt, and you must say whether you want to save the image with modifications.

Inset remains in memory after you exit, unless you loaded it with the WordStar command Utilities, Inset (**Alt+U,I**) or **^P&**. To remove Inset from memory, start from the DOS prompt in the directory or drive where the Inset files are located. At the DOS prompt, type **ri** (for **r**emove **i**nset) and press ↵. A message tells you that Inset is freed from memory.

Note: You can't remove Inset from memory if you've loaded any other memory-resident program since you loaded Inset. In this case, you must either remove the other program from memory before removing Inset or reboot your computer.

F

Filling an area

You can use Inset to fill an enclosed area of an image, or to fill the background around any enclosed areas. You can fill an area using any color available on your current palette (see **Colors**).

Before you fill an area, display the image on the screen and choose **Edit** to display the Edit Menu. Make sure the area you plan to fill is totally enclosed. Even a one-dot gap in the outline will cause the filling to leak outside the area. If you're not sure whether a gap exists, magnify the outline to make sure all the dots in the outline are adjacent to each other, either horizontally, vertically, or diagonally (see **Magnifying an area**).

Follow the steps below to fill the area:

1. Choose **Fill** at the Edit Menu. Inset displays the choices for the fill color.

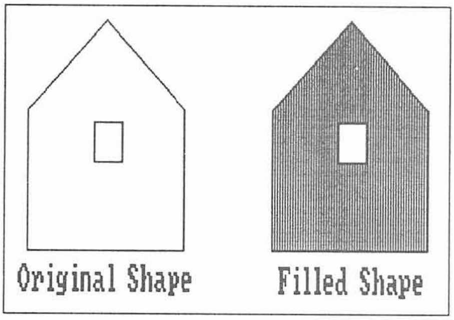
   Note: You can change the fill color only by choosing **Fill**; changing the Draw or Erase color has no effect on the Fill color.

2. Choose the color you want and press ↵. The menu disappears.
3. Move the cursor to a point on the line where you want the fill to start and press ↵. If you want to fill an enclosed area, make sure the cursor is within the area. If you want to fill outside an enclosed area, make sure the cursor is outside the area.

   Inset fills the area with the color you chose. It fills one line at a time, moving downward. If the area extends above where you started, it then starts to fill upward.

   If you want the filling to stop before the area is entirely filled, press ↵. If you use ↵ to stop the filling, the last line of the fill is considered a boundary line for subsequent fill operations.

4. After you finish filling, you can move the cursor to another location to fill, or you can press **Esc** to return to the Edit Menu.



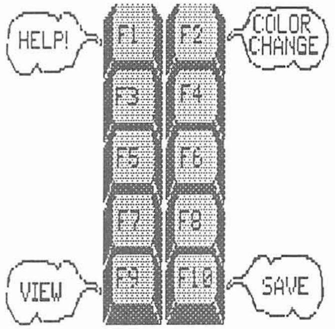
The **Fill** command allows you to fill an area only with a solid color. You can also fill rectangles and circles with patterns when you create them. See **Drawing**.

Fonts

When you use Inset to add text to an image, you have your choice of several fonts. See **Text**.

Function keys

Several function keys can make using Inset easier:



F1 Pressing **F1** while an Inset menu is on the screen displays help for the menu.

F2 While you're editing an image using an Inset Edit Menu command such as **Rectangle**, **Line**, or **Circle**, **F2** takes you to the Options submenu of the Edit Menu. You can change the Draw or Erase color, the color palette, or the line width, or you can clear the screen. When you're finished with your changes, press **Esc** to return to where you were before you pressed **F2**.

F9 While you're editing an image using an Inset Edit Menu command, **F9** allows you to quickly display another pix file. A prompts asks you to enter a filename. As soon as you name the file, the screen you were editing disappears, and the new file is displayed. *Be careful when you use F9:* you lose any changes you made to the original screen and didn't save. **F9** is useful for going back to the most recently saved version of a file, if you decide not to save the editing changes made since the last time you saved the file.

F10 While you're editing a graphics image using an Inset Edit Menu command, **F10** allows you to quickly save the current image. It's useful with **F9** for saving changes you want and discarding changes you don't want.

H

Help

For detailed help at any Inset menu, press **F1**. To display an overview of the Inset help system, choose **Help** at the Inset Main Menu.

Press any key to leave a help screen and return to the menu you started from.

I

Importing an image

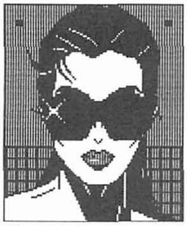
You can import (insert) part or all of another pix file into your current graphics screen. The image you import is called a block.

When you import a block, you give the filename of the pix file to import. The clipped area of the file is considered the block to import. This allows you to import only the part of the file you want.

An imported block replaces any graphics at its new location.

Before you import a block, make sure the clip lines in the pix file to import mark the portion of the file you want. (The area imported includes the area covered by the clip lines.) Next, display the file you want to import the block into, and choose **Edit** to display the Edit Menu. Then follow these steps:

1. Choose **Block**.
2. At the Block submenu, choose **Import**. Inset asks for the name of the file to import.
3. At the filename prompt, type the name of the file to import and press ↵. A box representing the image appears on the screen.
4. Use the arrow keys to move the box to the appropriate location.
5. If the box is the correct size, press ↵. The block is inserted.



Block to import

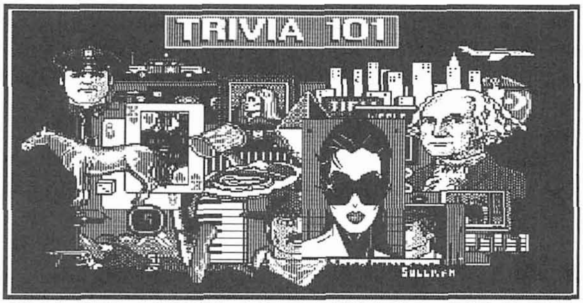


IMAGE WITH IMPORTED BLOCK

If you want to change the size of the image, press the **Spacebar** to set the location of the upper-left corner of the image. The cursor moves to the lower-right corner. Use the cursor movement keys to change the box so it is the correct size, then press ↵. Inset inserts the block.

Note: When you change the size of the block, you can change the proportions of the image. If you don't want to distort the image, be careful when changing the size.

6 You can press ↵ to import another block or press **Esc** to return to the Edit Menu.

After you import a block, be sure to save the modification.

If you import a pix file that was created with a different graphics board or screen mode, Inset automatically converts the image information to fit the current hardware and screen mode.

The **Block Import** command gives you easy access to clip art libraries and any other graphics you can capture or create with Inset. See Lesson 2 in "Learning Inset" for an example using clip art from the SYMBOLS.PIX file.

Inserting an image into a pix file

See **Importing an image**.

Inserting an image into text

Before you can insert an image into text, you must use Inset to capture the image into a pix file. See **Capturing an image**.

To insert an image into a WordStar document, first put the cursor where you want the upper-left corner of the image. Choose Insert, Graphic (**Alt+I,G**) or use the **^P*** classic command. WordStar prompts you for the name of the pix file and displays the names of the pix files in the Inset directory. Move the highlighting to the filename you want or type the filename and press ↵. Include a drive letter or directory path if the file is not in the Inset directory. You don't need to include the .PIX filename extension. WordStar places a pix tag in the text. The pix tag consists of the name of the pix file (including the path) enclosed in brackets. Three sample pix tags are shown below:

[\WS\INSET\MAP.PIX]

[\ws\art\chart2.PIX]

[b:newgraph.PIX]

When you use WordStar to print the document, each time WordStar finds a pix tag, it calls Inset to print the image.

Use the following guidelines to place the image correctly:

- If you want text next to the image, leave blank space where you want the image. You can use margin changes, tabs, and hard carriage returns to adjust the text.
- If you don't want text next to the image, insert enough blank lines to make space for the image.
- If you want the image superimposed on the text, just put the pix tag where you want the upper-left corner of the image.
- Be sure the entire image is contained on one page. If a page break falls in the middle of the image, move the pix tag or insert a page break before the pix tag.
- With non-page printers (including all dot matrix printers), you can insert only one image in the same horizontal space. If two pix tags are inserted so that both images are on any line, only the first image will be printed. With laser printers, Inset can print side-by-side images.

After you type the pix tag and adjust the text, it's a good idea to check the image placement with page preview in WordStar. If the image doesn't look the way you expect, you can start Inset and change the image. First make sure the entire pix tag is on the screen. If necessary, scroll the text so you can see the entire area where the image appears. Then choose Utilities, Inset (**Alt+U,I**) or use the **^P&** classic command to start Inset. The Inset Main Menu appears, and a box appears where the image is inserted. The image's size in rows and columns is shown with the pix tag at the top of the box. You can change the image in a number of ways, including its size. See **Modifying an image** and **Size**.

Note: The box on the screen may not be in exactly the same position relative to the text as it is in page preview. Differences can be caused by onscreen commands or proportionally spaced fonts.

If no image appears in page preview, check the pix tag. You may need to correct the filename or add a path. If a message tells you the file is improper and you can't preview the page, you probably captured the image in text mode. Before you can preview the page, you must use the Inset **Convert** command to convert the image to graphics mode. See **Converting a text screen to graphics**.

With some dot matrix and other non-page printers, the line height of the text next to an image may be changed when you print. With these printers, text next to images must have a line height of 6 lines per inch or multiples of that (3, 2, or 1 lines per inch). If you specify another line height, the closest available line height will be used.

M

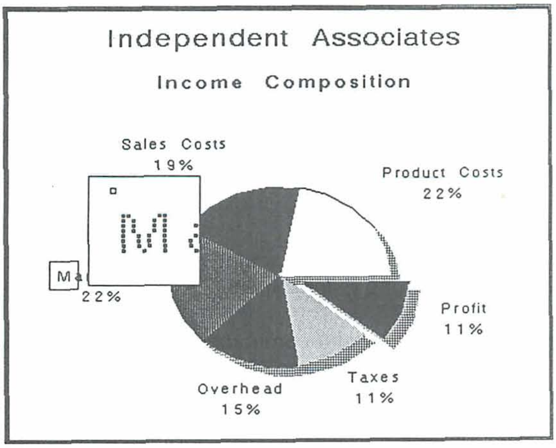
Magnifying an area

You can enlarge a section of your graphics image to examine or edit dot by dot. This capability allows you to make your image look exactly as you want it.

First, start Inset, display the image, and display the Edit Menu. Then use the following steps:

1 Choose **Magnify** at the Edit Menu. The menu disappears and a square 21 dots high by 21 dots wide appears.

2 Use the cursor movement keys to move the square to enclose the area you want to magnify, then press ↵. The area appears magnified on the screen, with each dot of the image clearly shown. The cursor is inside the magnified area so that you can edit it.



3 Make any changes you want. To change a dot to the current Draw color, place the cursor on the dot and press ↵. To change a dot to the current Erase color, place the cursor on the dot and press the **Spacebar**. To change every dot you place the cursor on to the Draw color, press **+**. To change back to single dots, press **+** again. To change every dot you place the cursor on to the Erase color, press **-** (hyphen or minus sign). To change back to single dots, press **-** again.

To delete dots, make sure the secondary color is the same as the background color (usually black), then use the **Spacebar** or the **-** key as described above.

You can change the current colors while editing a magnified area. Just press **F2** to display the Options submenu and choose **Draw_Clr** or **Erase_Clr**. (For more information, see **Colors**.)

4 When you're finished editing, press **Esc**. You can use the cursor movement keys to move the **Magnify** square to another location and press ↵ to magnify the area, or you can press **Esc** again to return to the Edit Menu.

Menus

The Inset commands are on menus. The Inset Main Menu pops up at the bottom of the screen each time you start Inset. You use the Main Menu to access any commands you need.

Some commands display submenus of other commands. The menus and submenus are in a tree structure, which is shown in "The Inset Menus" in "Getting Started." The most important submenus of the Main Menu are the Modify Menu and the Edit Menu. For more information about these menus, see **Editing graphics** and **Modifying an image**.

Each menu takes up the bottom two lines of the screen. The top line of each menu shows the commands you can choose. The bottom line shows a description of the highlighted command.

You can clear the Inset menus from the screen whenever you want to see the two bottom lines of an image. Choose **Modify** at the Main Menu, then choose **NoMenu**. The menu disappears. You can look at the image, but you can't use any commands. When you're finished looking at the image, press **Esc** or ↵ to return to the Modify Menu.

Modifying an image

There are two types of modifications you can make to an image, graphics editing changes and modifications for printing.

The graphics editing changes are visible on the screen and actually change the image. The editing changes are summarized under **Editing graphics**.

The modifications you can make with the Modify Menu commands affect how the image will be printed. They don't change the onscreen appearance of the image.

To display the Modify Menu, choose **Modify** at the Inset Main Menu.

If a pix tag is on the screen, Inset first displays a menu with three commands: **Image**, **ReSize**, and **PreView**. For an explanation of **ReSize**, see **Size**. For an explanation of **PreView**, see **Previewing**. If you choose **Image**, the Modify Menu appears. You can use the Modify Menu commands for the uppermost image on the screen.

The Modify Menu commands allow you to clip an image; rotate an image; change the size of an image; change the colors or shades of gray for the printed image; tell the printer to make two passes for the image; and add or delete a border around the image. All these modifications take effect when you print. Clipping also takes effect when you import the image into another file.

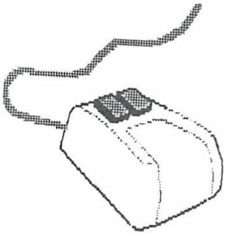
For more information on these commands, see **Clipping an image**, **Rotating an image**, **Size**, **Printing in colors or shades of gray**, **Printing**, and **Borders**.

Another Modify Menu command, **Status**, displays the current settings of these modifications. Use it if you want to check the status of the image.

The Modify Menu also contains the **NoMenu** command, which removes the menu from the screen until you press ↵ or **Esc**. This allows you to view the bottom of the image, which is usually covered by the Inset menus.

*TIP You can modify the image represented by an onscreen pix tag without displaying it. After you choose **Image** just choose the command you want to use. You can, for example, add a border or change the gray levels for printing. The only Modify Menu command you can't use like this is **Clip**, since you can't change the clip lines without displaying the image. When you modify an image in this manner, your change is automatically saved. Don't use the **Save** command to save a modification unless the image is on the screen.*

Mouse



If you have a mouse, you'll find that using it with Inset can increase your speed and your editing capabilities. Inset supports the use of the Microsoft, Logitech, Manager Mouse, Mouse Systems, or equivalent mouse. If you use a mouse, you must run your mouse driver before you load Inset.

After you start Inset, you can move the mouse horizontally to move to the menu selection you want. In menus and while editing graphics, the mouse buttons have the following functions:

left button: ↵
right button: **Esc**
middle button (three-button mouse only): **Spacebar**

Moving the mouse has the same effect as using the arrow keys to move the cursor. This feature is especially useful when drawing graphics with the **Dots** command (see **Drawing**).

Moving a block

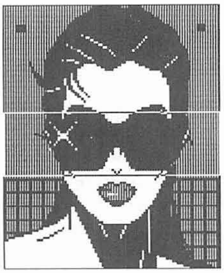
When you're editing an image, you can move a rectangular area, called a block, to another location on the screen.

When you move a block, it replaces any graphics at its new location.

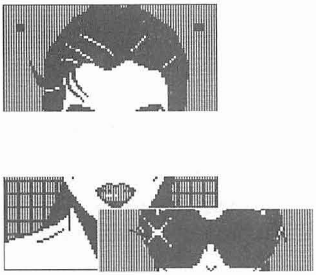
Before you move a block of graphics, display the image and choose **Edit** from the Inset Main Menu. Then follow the steps below to mark and move the block:

1. At the Block submenu, choose **Move**. The menu disappears so you can define the block.
2. Move the cursor to the point you want to be one corner of the block and press ↵.
3. Move the cursor to the point you want to be the opposite corner and press ↵. Inset displays a border that shows you the defined area.

   Note: If you want to change the block borders before moving the block, press **Esc**. The marked block disappears and you can mark both corners again.
4. Move the cursor to where you want to move the block. Notice that a copy of the block border moves with the cursor to show you the new location. When the cursor is in the correct location, press ↵. The block is moved.



Marked block



Moved block

5. If you want to adjust the location of the block, move the cursor to the new location and press ↵.
6. When you're finished moving the block, press **Esc**. You can now mark another block to move or press **Esc** again to return to the Block submenu. At the Block submenu, press **Esc** to return to the Edit Menu.

After you move a block, be sure to save the modification before you exit Inset.

O

Offsetting an image

Within a WordStar document, the position of an image is determined by the position of the pix tag. If you need to adjust the position, you can generally just move the pix tag.

If you're printing an image that isn't in a document, you can offset the image from the left edge of the paper by using the **Offset** command. Choose **Output** at the Inset Main Menu, then choose **Offset** at the Output submenu. Specify the page offset (the columns left blank at the left side of the page) you want to use for the image and press ↵.

*TIP The **Offset** command is useful if the image appears too far to the right or to the left when you print the screen. Assigning a negative offset moves the image to the left; assigning a positive offset moves the image to the right.*

P

Pitch

The Inset pitch setting determines the width of columns when you specify image size in columns. The default pitch is 10 characters per inch (CPI). This is standard for most printers. If you set the size of images in columns, or if you use column numbers to determine where to place pix tags, you need to make sure that the Inset pitch setting is the same as your printer pitch setting. For example, if an image's width is set to 24 columns and if the pitch is 10 CPI, the image will be 2.4 inches wide; if the pitch is 12 CPI, the image will be 2 inches wide.

You can set your usual pitch using the Inset Setup program. See "I Pitch" in "Changing the Setup Options." You can also change the pitch using the **Pitch** command. Choose **Output** at the Inset Main Menu, then choose **Pitch** at the Output submenu. Specify the pitch in characters per inch and press ↵.

Pix files

You must capture an image with the Inset **Save** command before you can use the image in a document. When you capture an image, the file you save it in is called a pix file. A pix file has the .PIX filename extension.

If you keep most or all of your pix files in one drive or directory, you can have Inset use that drive or directory as the default for viewing and saving pix files. If you haven't already viewed a file since loading Inset, when you choose **View**, a list of files in the default directory is displayed. When you save a file, it is saved in the default directory unless you type another path. If you don't name a default directory, files are viewed and saved in the current drive or directory. The pix files supplied with Inset are usually in the \WS\INSET directory, and WordStar displays the pix files in that directory when you use Insert, Graphic (**Alt+I,G**) or the **^P*** classic command to insert an image. You may want to use the \WS\INSET directory as the default. See "J Pix directory path" in "Changing the Setup Options."

You can password-protect a pix file. A password-protected pix file has the .SIG extension and is called a signature file. See **Signature files**.

Note: Pix files are stored in compressed format to conserve disk space. These files are not compatible with the BSAVE/BLOAD file dumps of screen memory used in BASIC and many other graphics packages. You must use Inset to load compressed pictures into programs that use the BLOAD format. However, Inset can read the BLOAD format files, so you don't need to convert all your files immediately for use in documents. Only Inset pix files contain information about rotation, size, or clipping, so you must save a file with Inset to include these modifications.

Pix tags

To insert an image into a document, you use the WordStar Insert, Graphic (**Alt+I,G**) or the **^P*** classic command, which inserts a pix tag in your text. The pix tag consists of the name of the pix file, including the drive letter or directory path, enclosed in brackets.

Note: You must use the Insert, Graphic (**Alt+I,G**) or the **^P*** classic command to enter a pix tag; you cannot type a pix tag directly into the text.

When you use WordStar to print the document, each time it finds a pix tag, it calls Inset to print the image at the location of the pix tag. The tag itself is not printed.

For more information, see **Inserting an image into text**.

Pixels

A pixel is the smallest unit of space available on a graphics screen. The number of pixels on a screen depends on the screen resolution. For example, with a color graphics adapter set to medium resolution, the screen is 320 pixels wide by 200 pixels high. For more information on screen resolution, see **Screen modes**.

When you use Inset to edit an image, you can change the screen pixel by pixel using the Edit Menu commands **Dots** and **Magnify**. See also **Drawing** and **Magnifying an Area**.

Pop-up keys

The pop-up keys (sometimes called *hot keys*) are two or three keys you press at the same time to start Inset. Generally, they are **LShift** and **Ctrl**; these are the keys you use to start Inset from your operating system and from many other programs. (The **LShift** key is the **Shift** key on the left side of the keyboard.) From within WordStar, you use Utilities, Inset (**Alt+U,I**) or the **^P&** classic command to start Inset.

Some programs don't tell Inset what screen mode is being used. So that you can use Inset in these programs, Inset can override the current screen mode and change it to the appropriate mode. The *override pop-up* keys, **Alt**, **LShift**, and **I**, tell Inset to change the screen mode. If you use **LShift-Ctrl** in a program and something happens, but the Inset Main Menu doesn't appear properly, you can try **Alt-LShift-I**. If **Alt-LShift-I** doesn't work the first time you press it, try using it several times in a row. When you try it several times, it rotates through the available screen modes, trying each mode in turn. When you find the correct mode, Inset saves it as the new default. (See also "B Screen Mode" in "Changing the Setup Options.")

If you prefer to use different keys for the pop-up keys or the override pop-up keys, you can change the pop-up keys. See "L Default Pop-up Keys" and "M Override Pop-up Keys" in "Changing the Setup Options."

See also **Printing**.

Previewing

After you insert an image into your text, you have two ways to preview the text and graphics on your screen, WordStar page preview and the Inset **PreView** command. With page preview, you can preview a full page; with the **PreView** command, you can preview the current screen of text and images.

If you use page preview, you cannot display a page that contains an image created in text mode. However, you can use the Inset **Convert** command to convert the text image to graphics mode so you can preview it. See **Screen modes** and **Converting a text screen to graphics**.

Note: The first time you preview an image with page preview, WordStar creates a file that contains information about the image. The file has the same filename as the pix file with the extension .WSG and is stored in your Inset directory. If you zoom in on the image, WordStar also creates a file for each zoom level. These files have the extension .Gn$, where n is a number indicating the zoom level, and are stored in the CRT directories created by page preview. The .WSG and .Gn$ files are used whenever you preview a page that contains that image. You can delete these files when you're finished with them to save disk space.

Before you use the Inset **PreView** command, be sure the entire image area is on the screen. Then choose Utilities, Inset (**Alt+U,I**) or the **^P&** classic command to start Inset. Inset displays a box to mark the image's location. (If the entire box isn't on the screen, exit Inset and scroll your display so the box will fit, and then start Inset again.) Then choose **Modify**.

Inset displays a menu with three commands: **Image**, **ReSize**, and **PreView**. Choose **PreView**. Inset clears the screen and redisplays it in graphics mode, one section at a time. After the screen is displayed with the pix tag, the actual image is inserted on the screen, one section at a time. For a black and white printer, the screen is shown in black and white, and the image is shown in the shades of gray that will be used for printing it.

When you're finished examining the screen, press any key to return to the menu. Press **Esc** twice to return to editing the document.

Printers

Most printers that work with WordStar also work with Inset. Inset has its own software, or printer driver, for working with each printer. When you install Inset, you choose the printer you most often use, indicate whether it's black and white or color, and indicate which port it's connected to. You can change these settings using the Inset Setup program.

When you print a document with graphics, WordStar uses the Inset printer driver that is associated with the WordStar PDF used for the document. Most printers you install for WordStar are preset to use the appropriate PDF. If a WordStar PDF is not associated with an Inset printer driver, the printer driver you chose with the Inset Setup program or **Driver** command (described below) is used. You can add or change an Inset printer driver for a PDF using PDFEDIT. For information on which Inset printer driver is used with your printer, see the *Printers and Monitors List.*

When you print graphics using the Inset **Print** command, Inset uses the printer driver you chose during installation or with the Setup program. You can change this driver before printing, using the **Driver** command. This command is useful if you use more than one printer for different purposes. Choose **Output** at the Main Menu and choose **Driver** at the Output submenu. Inset displays a prompt that shows the name of the current driver. Type the name of the printer driver you want and press ↵. For information on printer driver names, see "Deleting Unnecessary Printer Files" in "Getting Started." If you're not sure which driver to use with your printer, see the *Printers and Monitors List.*

At the next prompt, choose **B&W** for a black and white printer or **Color** for a color printer. At the prompt for the printer port, choose **1** for LPT1, **2** for LPT2, or **3** for LPT3. (If the printer is connected to a serial port, you must run the operating system's MODE command before using the **Driver** command. See "F Port" in "Changing the Setup Options.") After you choose the port, the Main Menu appears.

Printing

To print a WordStar document that contains one or more pix tags, use the WordStar print command. Answer the prompts in the usual manner. WordStar monitors all the output to the printer. When it detects a pix tag, WordStar calls Inset, which replaces each pix tag with the printing instructions for the image.

You can print the current screen in graphics mode using the commands on the Inset Print submenu. The screen can be a graphics screen or a text screen. The Print submenu includes commands for setting up your printer so that the printout is located correctly on the paper.

Choose **Print** at the Inset Main Menu. Inset displays a menu of six commands: **Go**, **Margin**, **Formfeed**, **Down**, **Up**, and **Top**. If you need to put the paper in the correct position before printing, use the appropriate menu commands. **Formfeed** immediately advances the paper in the printer to the top of the next page. **Down** sends a line feed to the printer (advances the paper one line). **Up** sends a reverse line feed to the printer (if the printer supports reverse line feeds). **Top** sets the printer so that it considers the current line to be the first line of a new page. **Margin** lets you set a distance (in tenths of an inch) from the left margin where the left edge of the images should be printed. When you're ready to print, choose **Go**. Inset prints the screen. If you want to stop printing before it's finished, press **Ctrl-Break**.

Note: Be sure your printer is online before you choose one of the Print commands. If nothing happens after 15 seconds, you should see an error message. Otherwise, check your printer and cable.

When you use the **Print** command to print a pix file, the file's settings for the Modify commands **Rotate**, **Expand**, **Ink**, **Pass**, and **Border** become the current settings for new files you capture or create.

The first time you print an image, Inset creates a *fast file* containing information that speeds up subsequent printings of the image. This file has the same filename as the pix file with the .FST extension and is in the same directory as the pix file. You can turn fast file creation off and on using the **Fast** command on the Output submenu or using the Setup program. When you edit and modify the image or change between draft and letter quality printing, Inset doesn't use the existing fast file for printing, but creates a new one. To save disk space, you can delete fast files you no longer need.

If you print in landscape mode, be sure to run the Inset Setup program and change the paper width setting to 132 columns. See "G Width" in "Changing the Setup Options."

When you print graphics, either with WordStar or with the Inset **Print** command, you can choose draft or letter quality, and you can print with either one or two printer passes. These capabilities are explained below. You can also choose the printed colors or shades of gray for each onscreen color; see **Printing with colors or shades of gray**.

Printing in letter or draft quality

With most printers, Inset can print with the highest available resolution, called letter quality printing, or it can print with a lower resolution, called draft quality printing.

TIP *Draft quality printing may take less time than letter quality, and you may want to use it for preliminary printouts.*

You can set the print quality using the Setup program. See "H Quality" in "Changing the Setup Options." You can also change the print quality setting using the **Quality** command. Choose **Output** at the Inset Main Menu and choose **Quality** at the Output submenu, then choose **Draft** or **Letter**. The new setting will be in effect for all printing until you change it again.

Printing in double-pass mode

If vertical lines are not straight when you print your graphics, using the **Pass** command may help.

Display the image on your screen. Choose **Modify** at the Inset Main Menu and choose **Pass** at the Modify Menu. Two options, Single and Double, appear. If you haven't used **Pass** previously for this file, the current setting is the same as the setting in effect when you first saved this file.

Choose **Single** to print the image in one pass. In this mode, each line of graphics prints once. Although this is the fastest method of printing, vertical lines may appear.

Choose **Double** to print each line of graphics twice. This produces a darker image and makes the passes line up correctly. While it is slower than the single-pass setting, you may find that printing two passes is necessary to produce high-quality graphics on your printer. (If your printer prints only in one direction, the double-pass setting has no effect.)

Note: If you've inserted an image in a document, you can choose double or single pass without displaying the image on your screen. While editing the document, display the text where the image is inserted. Make sure the image is the uppermost image on the screen and start Inset. A box representing the image appears in the text, and a menu appears at the bottom of the screen. Choose **Image**. The Modify Menu appears. Choose **Pass**. If you change the **Pass** setting in this manner, your change is automatically saved; don't use the **Save** command.

Printing with colors or shades of gray

You can control how each screen color is handled by your printer by using the **Ink** command. If you have a black and white printer, you can specify the shade of gray that will be printed for each color. If you have a color printer, you can specify colors.

Choose **Modify** at the Main Menu, and choose **Ink** at the Modify Menu. Inset displays six options: **Std**, **Invert**, **B&W**, **Table**, **Contrast**, and **Display**. You can set Ink to any of the first four options. If you haven't used **Ink** previously for this file, the current setting is the setting that was in effect when you first saved the file. The **Contrast** option, described below, lets you choose between three sets of shades of gray used for the other settings. The **Display** option, described in **Colors**, affects the onscreen colors. Choose the **Ink** option you want.

- **Std** (**Standard**) instructs Inset to print each color exactly as it appears on the screen or, for a black and white printer, in the standard gray levels, except that black prints as white and white prints as black. This means that a black screen background isn't printed, and white graphics are printed. **Standard** is also useful if you previously changed other **Ink** settings and want to reset them back to the original (default) colors.

- **Invert** is the same as **Standard** except that black prints as black and white prints as white. Be careful with this option, because a black background prints as black, and any portions of your onscreen graphics that are white aren't printed.
- **B&W** (**Black and White**) instructs Inset to print all colors except black as black and not to print black. If the image on the screen is on a black background, all the colors print as black and the background isn't printed.
- **Table** allows you to set each screen color to a printer gray level (or, for color printers, color). It is described below.

If you choose **Std**, **Invert**, or **B&W**, the Modify Menu reappears.

If you choose **Table**, Inset displays a menu of the colors on the palette used for the image. This menu has 2 colors for a monochrome image, 4 colors for a CGA color image, and 16 colors for an EGA image. You can choose and set as many colors as you want.

To choose a color, either use the cursor keys to move the highlighting to the color number and press ↵, or type the color number. For each color you choose, Inset displays a menu of the 16 gray levels (for black and white printers) or colors (for color printers). The menu choices are numbered **0** through **F** (hex code for 16). The bottom menu line shows the current gray level or color for this screen color. Gray levels are expressed in percentages. With a gray level of 50%, for example, half the dots in the image are printed. (There are three available sets of gray levels; you can change to another one using the **Contrast** command described below.)

You can move the highlighting among the choices to see the gray level or color each choice represents. Press ↵ at any choice to choose a new gray level or color. When you're finished setting colors, press **Esc** to return to the Ink submenu. Press **Esc** again to return to the Modify Menu. Be sure to save your modification with the image.

If you choose **Contrast**, Inset displays a menu with three choices: Random, Gray, and High. Gray is the default for graphics images. **Gray** is a set of gray scales with graduated percentages; the dots in these grays are very regular, printing as graduated shades of gray. **Random** is another set of gray scales, the ones used with previous versions of Inset. The dots in these grays form different patterns when printed. For example, both Random and Gray include a 12% gray value, but these two shades appear different when printed. Gray is the best choice for most graphic images, but Random sometimes gives interesting effects. **High** is the default contrast for text images. It has fewer shades and is good for images that look best with high contrast.

To change the contrast setting, move the highlighting to the choice you want and press ↵. The values used in the tables for **Std** and **Invert** change to the new contrast setting values.

The following table shows the possible screen colors, their Inset numbers, and their default gray levels for black and white printers for all three contrast settings.

	SCREEN		GRAY LEVELS	
NUMBER	COLOR	RANDOM	GRAY	HIGH
0	Black	0%	0%	0%
1	Blue	94%	88%	75%
2	Green	88%	81%	50%
3	Cyan	63%	75%	50%
4	Red	56%	68%	50%
5	Magenta	50%	62%	50%
6	Brown	38%	56%	25%
7	White	19%	50%	0%
8	Gray	87%	43%	100%
9	Lt. Blue	62%	36%	75%
A	Lt. Green	55%	31%	50%
B	Lt. Cyan	49%	25%	50%
C	Lt. Red/Pink	37%	18%	50%
D	Lt. Magenta	25%	12%	50%
E	Yellow	12%	6%	25%
F	White	100%	100%	100%

Note: If you've inserted an image in a document, you can change the colors or gray levels without displaying the image on your screen. While editing the document, display the text where the image is inserted. Make sure the pix tag for the image is the uppermost pix tag on the screen and start Inset. A box representing the image appears in the text, and a menu appears at the bottom of the screen. Choose **Image**. The Modify Menu appears. Choose **Ink**. If you change the **Ink** settings in this manner, your change is automatically saved; don't use the **Save** command.

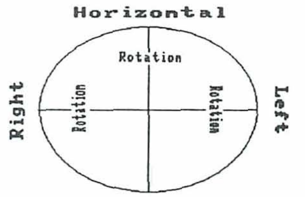
R

Rotating an image

You can rotate an image when it is printed. The rotation doesn't show on the screen, except when you preview the text and image using either page preview or the Inset **PreView** command.

To rotate an image, choose **Modify** at the Inset Main Menu. Choose **Rotate** at the Modify Menu. Inset displays a menu that contains the three orientations, **Left**, **Horizontal**, and **Right**. The current orientation is highlighted. If you haven't chosen a rotation previously for this file, the default is the same setting that was in effect when you first saved the file. **Horizontal** is the same orientation as on the screen. **Left** and **Right** cause the printed image to be rotated 90 degrees in the direction specified. Choose the orientation you want. The Modify Menu reappears.

The illustration at the right shows the three orientations.



T I P Rotating can be useful if you have a spreadsheet that is too wide for the printed page; it may fit sideways.

Note: If you've inserted an image in a document, you can change the rotation without displaying the image on your screen. While editing the document, display the text where the image is inserted. Make sure the image is the uppermost image on the screen and start Inset. A box representing the image appears in the text, and a menu appears at the bottom of the screen. Choose **Image**. The Modify Menu appears. Choose **Rotate**. If you change an image's rotation in this manner, your change is automatically saved; don't use the **Save** command.

S

Saving an image

Each time you edit or modify an onscreen image, you need to save your changes. After you finish making your changes, choose **Save** at the Inset Main Menu. Otherwise, when you try to exit Inset, answer yes to the prompt that asks if you want to save your modifications. In either case, you must then enter the filename for the image. Press ↵ to accept the default filename, or type another filename you want to use and press ↵. Include a drive letter or directory path if necessary. You don't need to include the .PIX extension; Inset automatically adds it. (You can use the .SIG extension to password-protect a file. See **Signature files**.)

If you use the same filename the file had before you changed it, Inset asks if you want to replace the contents of that file with the image on the screen. Answer **R** for **Replace** to replace the image in the file with the changed image, or **C** for **Cancel** if you don't want to replace the file. If you answer **C**, you are returned to the Main Menu, and you have to start the **Save** operation again.

Inset saves the file. You are returned to the Main Menu if you chose **Save**, or to the operating system or the program you were running if you saved the image while exiting Inset.

When you save a file, the file's settings for the Modify commands **Rotate**, **Expand**, **Ink**, **Pass**, and **Border** become the current settings for new files you capture or create.

*T I P You can easily save a file while you're using one of the Edit Menu commands. Just press **F10** and the filename prompt appears. It's a good idea to use **F10** after you make changes you want to keep and before you make further changes. Then, if you decide not to keep your later changes, it's easy to go back to the most recent version.*

*CAUTION Don't use the **Save** command unless the image is on the screen. When you modify an image when the image's pix tag is onscreen (but not the image itself), Inset automatically saves your modification with the same filename. If you use the **Save** command and the image was created in graphics mode, an error message appears and you can't save the file. However, if the image was created in text mode (for example, a spreadsheet) and you choose **Save**, then choose to replace the file, the text screen with the pix tag is saved as a pix file. In this case, you may lose your image by replacing the original pix file with the saved text screen.*

See also **Capturing an image**.

Screen modes

When you type words on your computer (in the operating system, WordStar, or another program), the screen is normally in *text mode*. In text mode, the screen is divided into areas the size of one character (on most screens, 80 columns and 24 rows). The computer comes with a set of predefined characters. You choose the characters to put on the screen by typing them on the keyboard.

Graphics programs, including the Inset editing functions, work with the screen in *graphics mode*. In graphics mode, the screen is divided into individual dots, or pixels. When you use Inset to edit an image, you change the screen dot by dot.

The actual number of dots on the screen varies for different screens and graphics adapters and is called the screen resolution. Your screen may always have the same resolution, or you may have several resolutions available. For example, the standard color graphics adapter (CGA) has two resolutions, medium for color graphics and high for black-and-white graphics. In medium resolution, the screen is 320 dots wide by 200 dots high; in high resolution, the screen is 640 dots wide and 200 dots high. For information about the resolutions available with other screen adapters, see "A Screen" in "Changing the Setup Options."

When Inset captures a graphic image, it stores the contents and color of each dot on the screen. If you try to display an image on a screen with lower resolution or fewer colors than the one on which it was captured, Inset must first convert the image to an available resolution.

You can capture a text screen with Inset, but you can't edit that screen or preview it with WordStar page preview unless you first convert it to graphics mode using the Inset **Convert** command. (See **Converting a text screen to graphics**.)

Signature files

You can password-protect a file when you save it by using the .SIG filename extension, which stands for signature file. A signature file can contain an image of your signature, which you can insert into letters and memos. Protecting the signature file with the .SIG extension prevents anyone from using your signature without your approval. You can password-protect any image; it doesn't have to be a signature. It just needs to have the .SIG filename extension.

The example at the right shows a signature file named JSMITH.SIG.

J. Smith

When you capture or save a file, if you type a filename with the .SIG extension, Inset prompts you for the password. Type a password of up to eight characters and press ↵. You don't see the password as you type it; X's are displayed instead. After you press ↵, Inset asks you to retype the password for verification. Retype the password and press ↵. If you type the password exactly as you did originally, Inset saves the image in a protected file, using your password as the key. If your verification is not correct, you can repeat the procedure.

To view or print a protected file, you must type the password. If anyone tries to view or print the file without using the correct password, the image will be unrecognizable.

See also **Capturing an image** and **Saving an image**.

Size

Inset provides two ways to change the size of your printed image, the **Expand** command and the **ReSize** command. You can use the **Expand** command to set a size in inches, in columns and rows, or relative to the screen size of the image. You can use **ReSize** to adjust the size (in columns and rows) of an image that is already inserted in a document.

The **Expand** and **ReSize** commands are described below. These commands allow you to change the size of the printed or previewed image. They have no effect on the size of the image when you display it on the screen.

The Expand command

You can use the **Expand** command when the image is displayed on the screen, or you can use it when you're using WordStar to edit a page that contains a pix tag (in this case, the image you want to change must be the uppermost pix tag on the screen).

To use **Expand**, start Inset and choose **Modify** at the Main Menu. (If you're editing a page with an image, start Inset and choose **Image**.) Choose **Expand** at the Modify Menu. Inset displays eight settings: **1x**, **2x**, **3x**, **4x**, **5x**, **6x**, **Col/Row**, and **Inches**. The current setting is highlighted. Choose the setting you want.

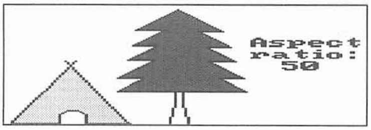
The **1x** through **6x** settings set the number of dots to print for each dot on the screen. For example, if you choose **2x**, each screen dot prints as two rows of two dots each, doubling the length and width of the printed image. If you use these settings, note that the size of the printed dot varies from printer to printer. Thus the same image with the same expansion setting is printed smaller on a printer with high resolution, such as a laser printer, than it is on a printer with low resolution, such as a dot matrix printer.

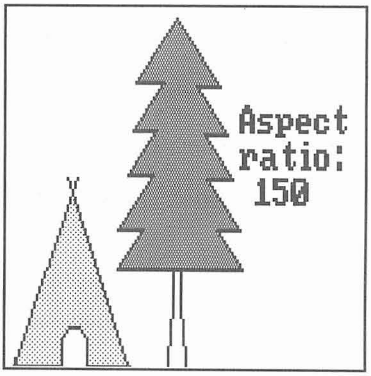
The **Col/Row** choice allows you to set the size in terms of text columns and rows, and the **Inches** choice allows you to set the size in inches. These two options are useful whenever you want to set an exact size for the printed image.

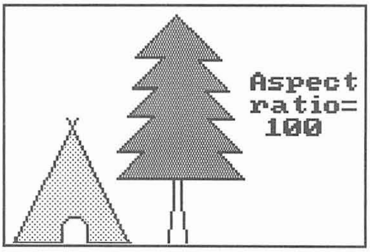
Note: If you set the size in columns, the column width is determined by the pitch; the default is 10 columns per inch. You can change the pitch with the Setup program or with the **Pitch** command on the Output submenu. See also **Pitch**.

If you choose **Col/Row** or **Inches**, a prompt asks for the width of the picture in columns or inches. Type the width you want and press ↵. The next prompt asks you for the aspect ratio.

The aspect ratio is the relationship of the vertical aspect of the image to its horizontal aspect. If you specify a number from **1** through **99**, the image will be compressed vertically when it is printed, so it is shorter than it is on the screen. The number **1** produces the shortest image, while with **99**, the compression is barely noticeable. If you choose **100**, the image will be printed on a 1-to-1 ratio. If you choose a number over 100, the image will be taller when printed, so that it appears elongated. Type the number you want and press ↵.







Instead of specifying an aspect ratio, you can specify exactly how long you want the image (in rows or inches, depending on your original choice). Just type **0** at the aspect ratio prompt and press ↵, then type the number of rows or inches and press ↵.

After you change the size of an onscreen image, be sure to save your modification before exiting Inset. If you use **Expand** without the image on the screen (that is, when the pix tag is onscreen), don't use the **Save** command; the change is automatically saved.

The ReSize command

The **ReSize** command allows you to modify an image to fill the space you want it to take up in your text. You can use **ReSize** only when you're using WordStar to edit a page that contains an inserted image, and only for the image represented by the uppermost pix tag on the screen.

To use **ReSize**, display the text on the screen. Make sure the image you want is the uppermost image on the screen and that the entire area left for the image is on the screen, and then start Inset. Inset displays a box that marks the image's location. (If the entire box isn't on the screen, you can exit Inset and scroll your display so the box will fit, then start Inset again.)

Inset displays a menu with three commands: **Image**, **ReSize**, and **PreView**. Choose **ReSize**. You have two choices, **Natural** and **Scale**. **Natural** allows you to adjust the image dimensions in multiples only; for example, you can make the image twice as wide or four times as high. **Scale** allows you to adjust the dimensions by rows and columns; it gives you more exact control over the size, but can cause distortion in the printed image, especially with color patterns. Choose either **Natural** or **Scale**.

Now you can adjust the size of the image. Use the up and down arrow keys to adjust the height, the left and right arrow keys to adjust the width, and the plus and minus keys next to the arrow keys to adjust the height and width at the same time. The size of the image box changes onscreen with your changes, and the row and column numbers next to the filename at the top of the box show the new dimensions in rows and columns. When the image is the size you want, press ↵. The new size is automatically saved with the image; don't use the **Save** command. Inset returns you to the menu. Press **Esc** twice to exit Inset.

T

Text

You can add text to a graphic image. Inset provides several text styles and sizes. To add text, start Inset, display the image, and choose **Edit**. Choose **Text** at the Edit Menu. Inset displays a submenu of commands you can use to add text to a graphics image and to modify the text. The submenu contains eight commands: **Enter**, **Accept**, **Undo**, **Direction**, **Height**, **Width**, **Italics**, and **Font**. Each of these commands is described below.

Note: The text you add to an image is in graphics mode; it doesn't match your printer's text characters. (See **Screen modes** for information on text mode and graphics mode.) You can use this contrast to call attention to the image accompanying the graphics text.

Enter

Use **Enter** to type the text you want. When you choose **Enter**, the menu disappears and a cursor appears. Use the arrow keys to move the cursor to where you want to begin typing, and type the text you want. You can use any characters on your keyboard. With any of the three ASCII fonts (see "Font" below), you can use characters from the ASCII extended character set by holding down the **Alt** key and typing the decimal value of the character you want. You can press ↵ to start a new line of text directly below the first character of the previous line. Pressing **Backspace** erases the previous character. You can use the arrow keys to move the entire block of text you typed since choosing **Enter**.

When you're finished entering text, press **Esc**. The text remains on the screen and the menu reappears. You can choose **Accept** to save the text as it is, **Undo** to erase the text, or any of the other **Text** commands to change the style of the text before saving it.

If you try to leave the Edit Menu while the screen contains text you haven't accepted, Inset prompts you to either accept or undo the text.

Note: When you enter text, the colors in which it appears onscreen are determined by the colors already onscreen. However, when you accept the text, it changes to the Draw color. When entering text, be sure the Draw color is different from the background color(s) on which you enter the text.

Accept

Use **Accept** when the text on the screen looks exactly the way you want. Just choose **Accept** from the Text submenu.

After you use **Accept**, the block of text you just entered is frozen. You can't change any characters or the text's direction, height, width, italics, or font. You can modify it only by using the graphics editing functions, such as **Magnify** and **Erase**.

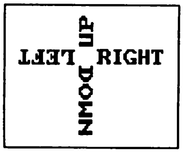
After you use **Accept**, you can use the other Text commands to enter and modify additional text. These commands affect only the current block of text that has not yet been accepted.

Undo

Use **Undo** to erase the current block of text (the text that you haven't yet accepted). Just choose Undo at the Text submenu. All the text disappears except text that you previously accepted.

Direction

You can change the orientation of the current block of text with the **Direction** command. When you choose **Direction**, Inset displays a submenu with four choices, **Right**, **Down**, **Left** (Upside-down), and **Up**.



Right is standard horizontal text. **Left** causes text to turn upside-down and read from right to left. **Up** and **Down** let you type vertically up or down from the cursor position. Choose the direction you want. The current block of text, if any, turns in the direction you chose, and subsequent text you type is in the new direction.

Before you change the direction of the text again, be sure all the text that is to remain in the current direction is exactly the way you want, then choose **Accept** to save it.

If you want to change the direction of only a few words, remember to first accept the text you want in the current direction.

Height

Height allows you to make the characters in the current block of text taller. You can use it alone to make characters appear taller and thinner than the usual characters, or you can use it together with **Width** to make the characters larger.

When you choose **Height**, Inset displays a submenu with six choices, **1x** through **6x**. **1x** is normal height, **2x** is double normal height, **3x** is triple normal height, and so on. Choose the height you want. The current block of text, if any, changes to the height you chose, and subsequent text you type is in the new height.

Before you change the height of the text again, be sure all the text that is to remain in the current height is exactly the way you want, then choose **Accept** to save it.

If you want to change the height of only a few words, remember to first accept the text you want in the current direction.

Width

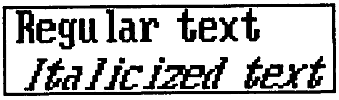
Width allows you to make the characters in the current block of text wider. You can use it alone to make characters appear darker (**2x** makes a good boldface), or you can use it together with **Height** to make the characters larger.

When you choose **Width**, Inset displays a submenu with six choices, **1x** through **6x**. **1x** is normal width, **2x** is double normal width, **3x** is triple normal width, and so on. Choose the width you want. The current block of text, if any, changes to the width you chose, and subsequent text you type is in the new width.

Before you change the width of the text again, be sure all the text that is to remain in the current width is exactly the way you want, then choose **Accept** to save it.

If you want to change the width of only a few words, remember to first accept the text you want in the current direction.

Italics



The **Italics** command lets you italicize (slant) all the characters in the current block of text. When you choose **Italics**, Inset displays two choices, **Normal** and **Italic**. Choose **Italic**. The current block of text, if any, appears in italics, and subsequent text you type is italicized.

Before you change back to normal text, be sure all the italicized text is exactly the way you want, then choose **Accept** to save it.

To turn italics off, choose **Italics** at the Text submenu, then choose **Normal**.

If you want to italicize only a few words, remember to first accept the text you don't want to appear in italics.

Font

The **Font** command allows you to change fonts. You can either use the standard IBM® system font (the default) or choose one of the other available fonts.

Before you change to a different font, save the text you want to remain in the current font by accepting it.

When you choose **Font**, Inset displays two choices, **PC_Font** and **Load** (to load a font from disk). The PC font is the default font. The other fonts are type styles that come with Inset. They are stored in files with the .INF filename extension.

To choose a font other than the default, choose **Load**. Inset displays a menu of the available fonts. Because each font is a file, the menu is in Inset's file selection format. If the list isn't displayed and a font filename is on the top menu line, you can press * or the **Spacebar** to erase the name and display the list.

Choose the font you want. The current block of text, if any, appears in the new font, and subsequent text you type is in the new font.

TIP *You can see how all the fonts look by typing your text on the screen but not accepting it, then choosing each font in turn.*

To return to the default font, choose **Font** at the Text submenu, then choose **PC_Font**.

Changing the Setup Options

If you need to change the choices you made when you installed Inset or you want to change some of the current Inset settings, you can run a program called Setup, which is in a file named SETUP.COM. Log on to your Inset directory and follow the steps below:

1. Type **setup** and press ↵. The Hardware Configuration Setup screen appears.
2. Examine the current settings for the setup options. Type the letter of the option you want to change.
3. Use the cursor keys to move the highlighting to the answer you want, then press ↵ to choose the answer. Information about each option is given after this procedure.
4. When all the settings are correct, press **F10** to save them. You are returned to the system prompt.
5. If Inset was loaded in your computer's memory before you ran Setup, type **ri** and press ↵ to remove Inset from memory, then type **inset** to reload Inset. (Otherwise the setup changes will not take effect.)

The setup options are listed below in the same order as they appear on the Hardware Configuration Setup screen.

A Screen

You choose an Inset screen driver when you install Inset. You can change to another screen driver using this option. To run Inset, your computer must have one of the screen adapters (graphics boards or cards) listed on the screen or an equivalent one. Screen adapters that can be used with Inset are described below.

IBM Color Graphics Adapter The CGA has four different display modes. Two of the modes—80-column text and 40-column text—are text modes. While the screen is in text mode, no graphics images can be displayed. The other two modes display graphics. In medium resolution mode, the screen is 320 pixels wide by 200 pixels high, and four colors can be used. In high resolution mode, the screen is 640 by 200 pixels, and two colors can be used.

IBM Enhanced Graphics Adapter The EGA displays the same four screen modes as the CGA plus three additional modes, 640 by 350 pixels and 640 by 200 pixels, both with 16 colors, and 640 by 350 with 4 colors. The EGA driver supports all the CGA modes and the two 16-color modes. The 640x350x4 mode is actually a monochrome mode with blinking. To use this mode, you must choose the EGAMONO screen driver.

Video Graphics Adapter The VGA supports the CGA and EGA modes plus two additional modes, 640 by 480 pixels with either 2 or 4 colors.

MCGA The MCGA monochrome adapter is used with the IBM PS/2 Models 25 and 30 computers. It supports the CGA graphics modes (emulating colors with gray) and has a high-resolution mode of 640 by 280 pixels with 2 colors.

Hercules Monochrome Graphics Adapter The Hercules Monochrome board allows you to display graphics on an IBM monochrome screen. The Hercules board comes with software (the HGC file) that identifies the board to the computer. The board has two different memory pages where graphics are displayed. They are called page 0 and page 1. Inset performs the equivalent of the HGC FULL command as a default. To run Inset in HGC HALF mode, choose the HERCHALF screen option. (If you choose the wrong screen option, pressing **Alt-LShift-I** twice when starting Inset will automatically change this setting.) With the Hercules Monochrome board, to start Inset, you must use **LShift-Ctrl** while in text mode and **Alt-LShift-I** while in graphics mode.

Note: If you have the Hercules Plus board, you can't use Inset and RAMfonts at the same time. When you load Inset, it turns the RAMfonts off. To use them again, you need to remove Inset from memory and turn the RAMfonts on again.

Hercules Color Graphics Card Inset works with the Hercules Color board the same way as with the CGA board. Choose the CGA screen option.

ATT Display This adapter is similar to the EGA adapters. Two drivers are provided for the ATT, one for color and one for monochrome.

Toshiba The Toshiba 3100 has a monochrome monitor with three graphics modes, including a high-resolution mode of 640 by 400 pixels.

The Genius You can use two modes with the The Genius monochrome monitor, 640 by 200 pixels and 736 by 1008 pixels. Use **Alt-LShift-I** to start Inset when your screen is in graphics mode.

Wyse 700 or Amdek 1280 The WYSE driver lets you display 4-color graphics using shades of gray in two resolutions, 320 by 200 pixels (CGA) and 640 by 800 pixels. It also has three 2-color modes, 640 by 200, 640 by 400, and 1280 by 800. Use **Alt-LShift-I** to start Inset when your screen is in graphics mode.

IBM Monochrome Display The IBM monochrome monitor can display only text; it doesn't have graphics capabilities. If you choose this screen option, the Small version of Inset is automatically used (see the "Q Version" setup option).

QuadEGA+ Board The QuadEGA+ offers CGA and EGA support and also supports the graphics modes of the Hercules Monochrome adapter. When you use this board, you must know which of these three modes you're using. If you're in Hercules mode, use the HERC screen option (or HERCHALF if you use this mode), and treat the adapter the same as the Hercules Monochrome adapter. In any color mode, use the EGA screen option and treat it like the EGA adapter. (If you're using CGA mode, the EGA option will work and you can use both medium resolution and high resolution.)

Tecmar Graphics Master For the Tecmar Graphics Master adapter, choose the CGA screen option. The Tecmar Graphics Master also has enhanced graphics capabilities, but Inset does not support it in its enhanced modes at this time.

Tecmar EGA Master For the Tecmar EGA Master, choose the EGA screen option. This adapter works with Inset the same way as the EGA board does.

B Screen Mode

To start Inset from most programs other than WordStar (or from the system prompt), you press the regular pop-up keys, **LShift** and **Ctrl**. But certain other programs, such as Lotus 1-2-3, don't tell Inset what graphics mode (screen resolution) is being used. When you try to start Inset from inside one of these programs, the Inset Main Menu doesn't appear. You need to use the override pop-up keys **Alt**, **LShift**, and **I** to start these programs. When you press the override pop-up keys, Inset automatically sets the graphics mode to the mode selected at this option. For example, two graphics modes are available for the CGA adapter: medium resolution for colors and high resolution for black and white.

If you need to change the graphics mode for another program, you can find out what mode the program is using and set this option to that mode. If you aren't sure, just run the program and try **Alt-LShift-I** several times in succession. Inset rotates through the available modes. When you find the correct mode, Inset automatically sets this Setup option to the correct mode.

C Printer

To find the correct printer driver for your printer, you can use the **PgDn** key to move the highlighting down the list quickly. If you're not sure which driver to choose, refer to the *Printers and Monitors List.*

If you have more than one printer, you can change printers without using the Setup program. See **Printers** in "Inset Reference."

D Color/Black and White

This option tells Inset if you plan to print in black and white or in colors.

E 4K Buffers

This option sets the number of pages (4K per page) set aside in memory before using disk space. These pages are called buffers. The default setting is the minimum needed for your system. A higher number of buffers generally increases the speed of operation, but takes up more memory. If you're using a printer with very high resolution, such as a laser printer or a color printer, you may want to increase the number of buffers by one or two.

F Port

Your printer is connected to your computer through a port. The parallel ports are LPT1, LPT2, and LPT3. The Inset default is LPT1. If your printer is connected to LPT2 or LPT3, choose that port.

You can change the printer port while running Inset. See **Printers** in "Inset Reference."

Serial printers, such as the HP LaserJet printer (but not the HP LaserJet Plus), are connected to a computer through the COM1 or COM2 port. Before you can print a document containing pix files on a serial printer, you must reroute the printer output through one of the LPT ports. You can do this by using the MODE system command after you exit the Setup program and before you load Inset into memory.

At the DOS prompt, type these commands:

```
MODE COM1:96,N,8,1,P
MODE LPT1:=COM1:
```

Note: The commands shown above work if the serial printer is connected to the computer through the COM1 port and you want to reroute it through LPT1. If your printer is connected through COM2, or if you want to reroute it through LPT2 or LPT3, you can edit SERIAL.BAT and substitute the appropriate numbers. Be sure the LPT port is the one selected in the Setup program.

G Width

Choose 80 columns for standard width (8½-inch) paper or 132 columns for wide (11-inch) paper or for printing in landscape mode.

H Quality

If you choose letter quality, Inset will print graphics in the highest possible resolution (number of dots per inch) for your printer. Choosing draft will result in an increase in the speed of graphic printing, but with a corresponding reduction in resolution.

If you're not sure which quality to print in, you can experiment with printing in both draft and letter quality and compare results. See also **Printing** in "Inset Reference."

I Pitch

The pitch setting determines the width of a column when you specify image size in columns. If you want to set image size in columns, be sure the pitch setting agrees with the printer pitch or font you're using, so the image will be printed correctly. The default setting for most printers is 10 characters per inch, which is also the Inset default. See also **Pitch** and **Size** in "Inset Reference."

J .PIX Directory Path

This option allows you to name the directory where you normally keep your pix files. This directory is the default when Inset asks you for a filename for saving or viewing a file.

The default for this option is no path. Your pix files are saved in the disk or directory where you're working and Inset searches the current directory when it looks for a pix file.

K Temporary Directory Path

If Inset creates temporary overflow files when you're short of disk space, they are put in the directory you name here. Make sure you name a valid directory. The default for this option is the directory that contains the Inset files.

If you name a new directory, the following question appears:

Is this a Virtual (RAM) Disk?

Inset needs to know if the directory for your temporary files is located on a RAM disk. A RAM disk is a portion of memory that you set aside for use as a disk drive. You don't have a RAM disk unless you set it up. If you have not created a RAM disk, press **N** for no. (If you want to create a RAM disk, refer to your computer manual.)

L Default Pop-up Keys

The pop-up keys are used to start Inset and display the Main Menu. They are the **LShift** key and the **Ctrl** key. You can change the pop-up keys with this option.

To change the pop-up keys, press **N** for no, type the number of characters you're choosing (from 1 to 3), and press the keys you want to select. The first key must be either **Ctrl**, **LShift** (the left Shift key), **RShift** (the right Shift key), or **Alt**. You must hold down the first key (and the second, if you choose three keys) while you press the second (or third) key.

M Override Pop-up Keys

The alternate (override) pop-up keys are used to start Inset and display the Main Menu in programs that require a screen mode that is not apparent to Inset. They are **Alt**, **LShift** (the left Shift key), and **I**. You can choose different override pop-up keys with this option.

To change the override pop-up keys, press **N** for no, type the number of characters you're choosing (from 1 to 3), and press the keys you want to select. The first key must be either **Ctrl**, the left **Shift** key, the right **Shift** key, or **Alt**. You must hold down the first key (and the second, if you choose three keys) while you press the second (or third) key.

N Default Macro

At this screen, you can create a macro for running a frequently used Inset function. A macro consists of a series of Inset commands. The commands represented by the macro will run automatically every time you press the pop-up keys to start Inset; you won't have to enter them from the keyboard.

The format of the macro is simply whatever you'd type at the Inset menus to do what you want to do; this might include the letters for the commands you want to run or a filename. All letters must be in uppercase. You can also use the following characters:

;	↵ key
^	**Esc** key
#	Pause until ↵ is pressed. This allows you to, for example, type a filename after the **View** or **Save** command and have the macro resume.
{	Move the cursor one place to the left
}	Move the cursor one place to the right

For example, if you always view a graphics file immediately after you start Inset, you can set up the macro to choose the **View** command, ask you the filename, and display the file. For this macro, you'd type **V**. Another example of a macro is shown below in "O Override Macro." See also "Starting Inset Using Macros" in "More About Inset."

O Override Macro

Inset has a preset *override macro,* which is a series of commands that runs when you press **Alt-LShift-I** to start Inset in a program such as Lotus 1-2-3. This macro automatically chooses the medium resolution option for graphics display mode. (Lotus 1-2-3 changes the display mode without informing the operating system.)

This option allows you to change the override macro. If you do so, take into account that you may need to change the screen mode whenever you start Inset by pressing **Alt-LShift-I**.

This macro is in the same format as described in "N Default Macro." For example, the only reason you ever start Inset while you're in Lotus 1-2-3 may be to capture the current screen. You can set up this macro to automatically start Inset, change to medium resolution screen mode, run the **Save** command, type the directory in which you save these files, pause to allow you to type a filename, and exit Inset. If you save your Lotus pix files in the \SSPIX directory, this macro would be S\SSPIX\#^.

P Keyboard Mode

Some programs may prevent Inset from receiving the keystrokes that start it and display the Main Menu. At this screen, you can set Inset to "grab" keystrokes before other programs can get them. Three choices are available:

Passive	This is the default mode. Inset receives all keystrokes and is started by **Shift-PrtSc**. This mode does not interfere with other programs, so it is preferable whenever possible.
Semi-active	If Inset doesn't start in Passive mode, you can try Semi-active. Semi-active mode is almost as safe as Passive, and it can be useful in programs such as Lotus 1-2-3 and Symphony. However, it can occasionally cause problems with other memory-resident programs, so if you have a problem, change back to Passive as soon as possible.
Active	When you can't start Inset with **LShift-Ctrl** or **Alt-LShift-I**, choose Active. Change this setting back to Passive as soon as possible, because Inset set for Active may not run with other memory-resident software.

Q Version

You can install Inset to run with (full) or without (small) its graphics editing capabilities, which let you create your own computer graphics or edit existing graphics. If you don't install the graphics editing capabilities, the **Edit** command doesn't appear on the Inset Main Menu. The memory saved by not installing graphics editing is about 15K.

If you set Inset up for an IBM monochrome monitor, the version is automatically set to Small, because you can't edit graphics on this type of monitor.

R Maximum .PIX Size

This option sets the maximum size of your pix file images. A smaller size decreases the amount of memory that Inset uses. The minimum size that you can specify is 15K, and the maximum is 447K. The default is 110K. You probably don't need to change this unless you work with very large or very high-resolution images.

S Fast Files

The first time you print an image, Inset creates a *fast file* with the same filename as the pix file but with the .FST extension. This files makes subsequent printing of the image three to sixteen times faster that the first time you printed it. If you modify the image or print it with a different printer, the .FST file is not used for printing and Inset creates a new .FST file reflecting the changes.

This option allows you to turn creation of fast files on and off. The default is on. You might want to set it to off if you have disk space limitations. You can also switch fast file creation on and off while running Inset, using the **Fast** command on the Output submenu.

The disk space that a fast file requires depends on the size of the printed image. If you are printing an image that takes up a full page, the fast file may take up more space than the original pix file; if you are clipping a part of the pix file and printing it an inch wide, the fast file will probably take up considerably less space than the pix file.

More About Inset

Error Conditions

This section describes problems you may have while working with Inset and tells you how to solve them.

You can't load Inset from DOS.

Be sure you're logged on to the drive or directory that has the Inset files. Be sure the appropriate Inset printer driver file (PRD) is in this directory.

The Inset menu doesn't appear when you press LShift-Ctrl or Alt-LShift-I.

If nothing happens when you press the pop-up keys, Inset is not loaded, or your program is blocking the **LShift-Ctrl** or **Alt-LShift-I** sequence, or (if you hear a beep) your program is in the middle of a DOS function.

If Inset isn't loaded, load it. If your program is running a DOS function, you can just press ↵. If a DOS disk read is in progress, you must wait until the disk read is complete before you can start Inset.

If your program is blocking the sequence, try the other sequence (if **LShift-Ctrl** doesn't work, try **Alt-LShift-I**, and vice versa). If that doesn't work, try setting the keyboard mode to Semi-active (if the pop-up keys sometimes work) or Active (if they never work). See "P Keyboard Mode" in "Changing the Setup Options."

If you can see some response on the screen when you press the pop-up keys but the menu isn't displayed correctly, Inset may be using the wrong display mode for the current screen. Use the **Alt-LShift-I** keys several times. Inset rotates through the available screen modes, and one of them should make the menu appear. You can also set this screen mode using the Setup program. See "B Screen Mode" in "Changing the Setup Options."

With a few computers, Inset may have trouble popping up because it can't tell that no mouse is attached to the computer. This can cause operating system error messages. If when you load Inset, it displays a "Mouse Installed" message and you don't have a mouse, try the NOMOUSE.COM program. Log on to your Inset disk or directory and, at the operating system prompt, type **nomouse** ↵.

A beep sounds while you're in an Inset menu.

You pressed an invalid key. Try to enter the command again. Inset may also be signaling to you that it has completed either disk I/O, clipping, or printing. This is not an error.

Nothing happens when you try to print with the Print Go command.

Inset can't find your printer. Check to make sure the printer is online, that the cables are all secure, and that you have selected the right printer driver and port.

The Inset Main Menu doesn't appear when you use Utilities, Inset (Alt+U,I) or ^P&.

WordStar may not know where to find Inset. (This should not happen if you installed Inset using WSSETUP or the Add a feature option in WINSTALL.) Use WINSTALL to check the assignment of WordStar search paths.

WordStar may not have enough available memory to load Inset. If you are running any memory-resident programs, exit WordStar and remove them from memory.

Be sure that you have run the Inset Setup program as described in "Installing Inset" and that the IN.SET file and the appropriate Inset printer driver file (PRD) are in the same directory as the Inset program files.

An image in a document is not printed.

Check the pix tag to make sure the pix filename is correct and the correct path is included. If the pix tag is correct, open your document and be sure Utilities, Inset (**Alt+U,I**) or the **^P&** classic command starts Inset. If you cannot start Inset, see the explanation above for "The Inset Main Menu doesn't appear . . ."

An image is not printed correctly.

If the image appears too tall and thin or too short and wide, change the aspect ratio using either the **Col/Row** or **Inches** options of the **Expand** command. If the image is still incorrect, and it is in a document, try using a different line height or line spacing. If you are printing the image larger than its original size when captured, try printing it at its original size. On a few printers, enlarged graphics may not be printed correctly.

If too much white space shows around the image, use the **Clip** command on the Modify Menu to move the clip lines closer to the actual image.

If you were required to change any switch settings on your printer to make it compatible with the driver, make sure the changes are made.

You may be using the wrong Inset printer driver. See the *Printers and Monitors List* for the name of the correct driver. If you are printing the Inset **Print** command, check your printer using the **Driver** command on the Output submenu. If you are printing with WordStar, you can use PDFEDIT to make sure your PDF is set up for the correct Inset printer driver.

If the graphics appear fuzzy, check the image's screen colors and its settings for the corresponding printer shades of gray. See **Printing in colors or shades of gray** in "Inset Reference."

If the horizontal lines that make up the image are staggered to the left and right then you print the image in a document, try choosing a different font before the pix tag, or try using a different line height or line spacing (6 lines per inch is the most reliable height).

An image printed on a dot matrix printer appears wavy.

Use double-pass printing. See **Printing** in "Inset Reference."

An image is printed in the wrong position in a document

If the image is too far too the left or right, be sure the pix tag is in the correct position on the line. If it is, try choosing a different font before the pix tag. If you are printing the image larger than its original size when captured, try printing it at its original size; with a few printers, enlarged graphics may not be printed correctly.

If the image is too high or low, adjust the position of the pix tag. If necessary, you can use superscript or subscript.

Check how the image is clipped; you can sometimes adjust the position by moving the clip lines.

Only part of an image is printed

The .FST file for the image may be damaged; try deleting this file. If the right portion of the image is cut off, try running the Inset Setup program and changing the width to 132 columns (this may help even on $8^1/_2$-inch wide paper).

On a laser printer, if printing stops before the entire image is printed, the printer doesn't have enough memory for the whole page. To get more memory, you can remove downloaded fonts that you're not using, or you can purchase additional memory, if available. Otherwise, you can work around this problem by reducing the size of the image or printing fewer images on a page. The rest of the page is printed on the next piece of paper (you may need to reset the printer first), so you can also cut and paste if necessary. For preliminary printouts, you can use less memory by setting **Quality** (on the Output submenu of the Modify Menu) to **Draft**.

The text next to an image is spaced incorrectly

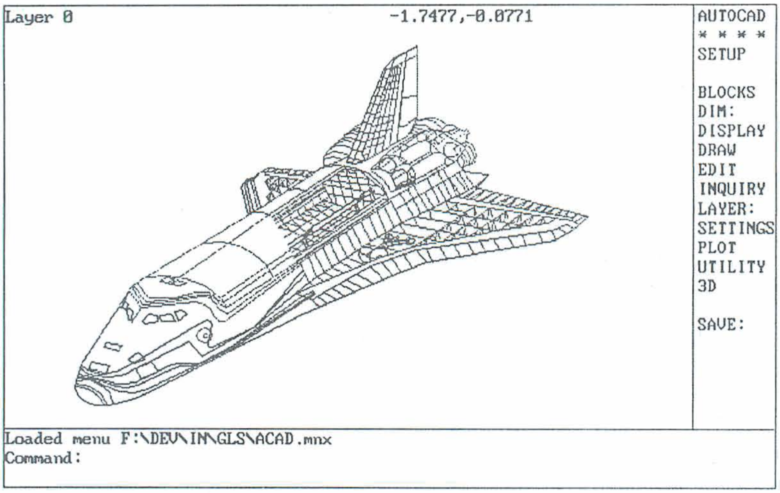
You may need to change the line height to 6, 3, 2, or 1 lines per inch. See **Inserting an image into text** in "Inset Reference." This problem may also cause incorrect page breaks.

Using Inset with Other Programs

The information below shows how Inset works with some of the more popular spreadsheets and graphics programs.

AutoCAD

When capturing AutoCAD drawings, you may need to use **Alt-LShift-I** to start Inset.


Layer 0
-1.7477,-0.0771
AUTOCAD
* * * *
SETUP
BLOCKS
DIM:
DISPLAY
DRAW
EDIT
INQUIRY
LAYER:
SETTINGS
PLOT
UTILITY
3D
SAVE:

```
Loaded menu F:\DEV\IN\GLS\ACAD.mnx
Command:
```

Diagraph

To use Inset with the Diagraph CAD program, you must set the Inset keyboard mode to Active. See "P Keyboard Mode" in "Changing the Setup Options." You should reset the keyboard mode to Passive when you leave Diagraph.

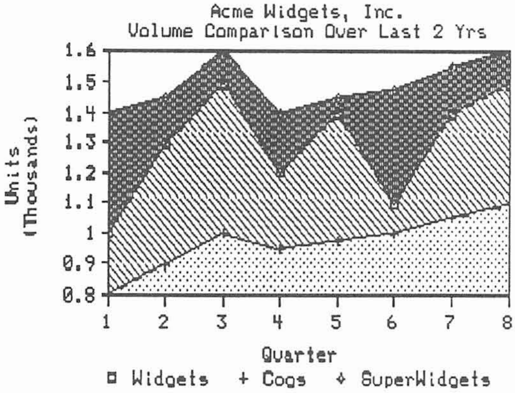
Dr. Halo

To use Inset with the Dr. Halo graphics program, you may need to set the Inset keyboard mode to Active. See "P Keyboard Mode" in "Changing the Setup Options." You should reset the keyboard mode to Passive when you leave Dr. Halo.

EnerGraphics

If you use the EnerGraphics program on an EGA board with 640x350x16 resolution, you must choose the EGA high resolution screen mode for Inset (see "A Screen" in "Changing the Setup Options"). Use **Alt-LShift-I** to start Inset from EnerGraphics.

Lotus 1-2-3



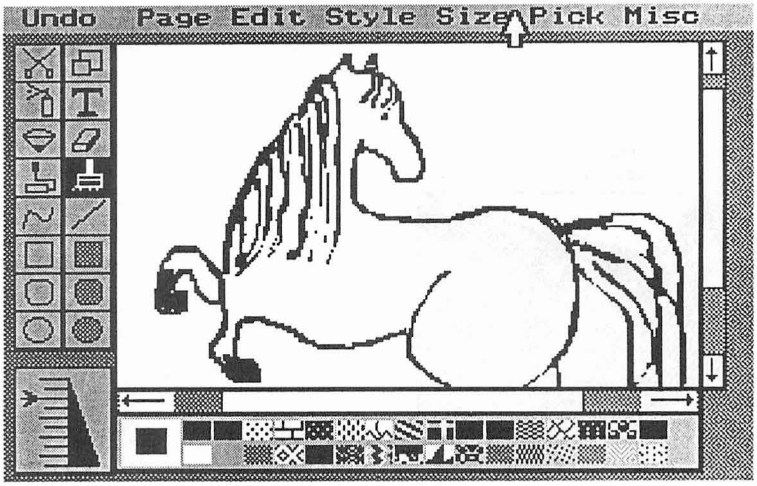
To capture graphics from Lotus 1-2-3 Version 1, you must start Inset using the **Alt-LShift-I** keys. This sets the display mode to medium resolution graphics and displays the Inset Main Menu on the bottom of your screen. With Lotus 1-2-3 Version 2, you can use **LShift-Ctrl**.

When you're in the spreadsheet itself, use **LShift-Ctrl** to start Inset.

PC-Paint

To use Inset with PC-Paint, you must not load any of PC-Paint's screen printing programs (such as EPSON.COM or OKIDATA.COM) after you load Inset. If you do load one of these programs, Inset will be unable to pop up inside PC-Paint.

PC-Paintbrush



If you're using PC-Paintbrush and Inset in the EGA high resolution mode, you must use **Alt-LShift-I** to start Inset. If you use **LShift-Ctrl** by mistake, press **Esc** and then press **Alt-LShift-I**.

Symphony

To run Inset with Symphony, set the Inset keyboard mode to Semi-active. See "P Keyboard Mode" in "Changing the Setup Options."

Windows

To use Inset with Microsoft Windows, you must set the Inset keyboard mode to Active. See "P Keyboard Mode" in "Changing the Setup Options."

You must load Inset before you run the Windows environment. Inset is a memory-resident program, so you can't run it as an application from inside Windows.

Starting Inset with Macros

Inset includes a program called AUTOIN.COM that is an alternative to the pop-up key method of starting Inset. AUTOIN.COM lets you start Inset at the DOS prompt with a command that includes a macro. The macro, which can be up to 80 characters long, issues Inset commands. This method of starting Inset is useful in batch files where you want to perform Inset tasks automatically.

Before you use AUTOIN.COM, you must load Inset into your computer's memory. To use AUTOIN.COM, type **autoin *macro*** and press ↵. An example of an AUTOIN.COM command line is **autoin vsample;pg^y**. This command pops up Inset, views and prints SAMPLE.PIX, and returns to DOS.

For more information on using Inset macros, see "N Default Macro" in "Changing the Setup Options."

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MAILLIST™

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Introduction

WordStar® includes MailList, a program that makes it easy to work with mailing lists. You can use merge printing to insert information from your mailing list into personalized letters for mass mailings. You can also print reports, labels, and envelopes with the information from a mailing list.

With MailList, you can create one or more mailing lists. You just display a form on the screen and type information in the blanks. Besides keeping names and addresses in your mailing list, you can also keep telephone numbers and other information you may want to save. MailList gives you a choice of two forms, one for mailing lists and the other for lists such as inventories. You can update your lists any time and sort them in any order you want.

The MailList documentation is organized into three chapters:

"Creating and Updating a Mailing List" covers the basic operations for creating and maintaining mailing lists.

"Creating Form Letters" gives guidelines for using the WordStar merge print commands to create form letters for use with a mailing list.

"Printing Envelopes, Labels, and Lists" contains instructions for easy printing of envelopes, labels, and reports using the information in a mailing list.

If you didn't copy MailList when you installed WordStar, do so now. See the *Installing and Customizing* booklet for information on adding a feature.

Creating and Updating a Mailing List

MailList enables you to create lists of names, addresses, and other information. Each list is kept on disk in a file called a data file. The following pages give step-by-step procedures for creating and maintaining your mailing lists.

Starting MailList

Follow these steps to start using MailList.

1. To start MailList using pull-down menus, select **Additional** at the WordStar Opening screen, then choose **MailList**.

   To start MailList using classic menus, press **A** at the WordStar Opening Menu, then press **M** for MailList.

   The MailList Menu appears.

2. Press **C** to choose a data file. MailList displays a list of the data files (files with the .DTA extension) in the directory that contains the MailList files.

   MailList comes with a data file named WSLIST.DTA, which is empty. WSLIST.DTA is the default data file; if you don't choose a data file, this is the file you will work with.

TIP *You can use WSLIST.DTA as your main mailing list file. Just choose it as the data file when you're ready to start your mailing list, then enter your list as described below in "Adding Names and Addresses." If you do this, you won't have to choose a new data file each time you start working on your mailing list.*

If you want to display a list of data files in a different directory, first type \ and press ↵ to display a list of directory names, then move the highlighting to the directory you want and press ↵.

3 Type the name of the data file you want to create or update and press ↵. Include the drive letter or directory path if necessary. You don't have to type the .DTA extension; MailList automatically adds this extension. (If you're updating a mailing list, you can move the highlighting to the filename and press ↵ instead of typing the name.)

CAUTION *To choose a file that you entered using the inventory form rather than the mailing list form, you must first choose the inventory form. Otherwise, when you type the filename, an error message appears. See "Using Another Data Entry Form" in this chapter.*

Running MailList from Another Directory

If you try to run MailList from a directory other than the one that contains your MailList data files (WSLIST.DTA), you get the message *Can't find WSLIST.DTA on drive x.* If you press ↵, WordStar creates a new WSLIST.DTA file in the current directory, allowing you to run MailList. Keep in mind that if you ran MailList previously from a different directory, any data you entered in the WSLIST.DTA file in that directory is not contained in the new WSLIST.DTA file.

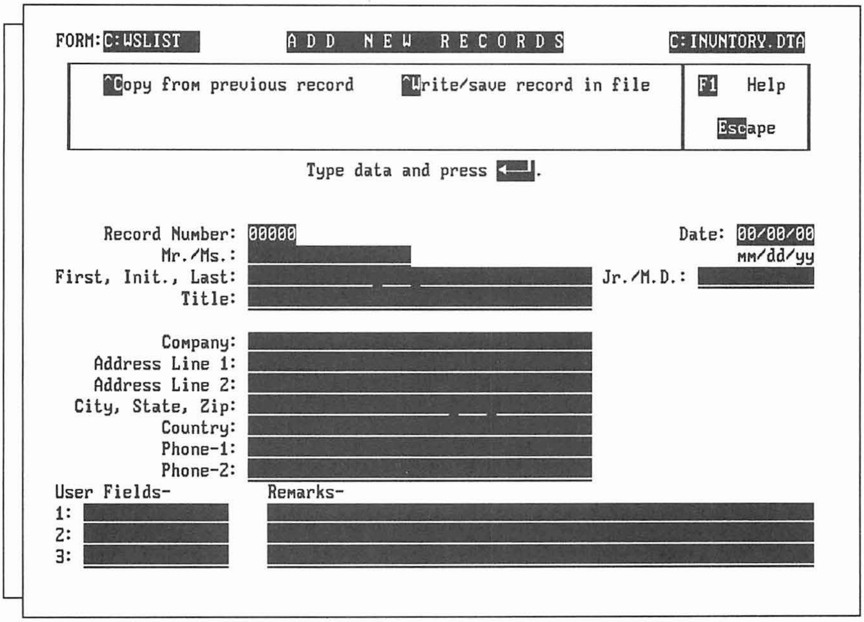
Adding Names and Addresses

You add names, addresses, and other information to your mailing list by filling in an onscreen data entry form. You fill in the form once for each person on the list; the entry for each person is called a record. Each piece of information in a record, such as first name or phone number, is called a field. The information that you enter in a field is called data. The data for the entire mailing list is kept on disk in a data file.

You assign a number, usually 1, to the first record in each MailList data file. MailList sequentially numbers the rest of the records for you.

1 Press **A** at the MailList Menu. The data entry form appears, with the Add New Records Menu at the top of the screen. If this is the first record in a new mailing list, the cursor is in the Record Number field. Otherwise, the record number is the first available number, and the cursor is in the First Name field.

The example below shows the mailing list data entry form, WSLIST.DEF. (Another form, INVNTORY.DEF, is also available. You work with it in the same way as with the mailing list form. It is shown in "Using Another Data Entry Form.")



```
FORM:C:WSLIST          A D D   N E W   R E C O R D S          C:INVNTORY.DTA

   ^Copy from previous record     ^Write/save record in file     F1   Help
                                                                  Escape

                        Type data and press ↵.

     Record Number: 00000                                  Date: 00/00/00
           Mr./Ms.:                                              mm/dd/yy
First, Init., Last:                              Jr./M.D.:
             Title:

           Company:
    Address Line 1:
    Address Line 2:
  City, State, Zip:
           Country:
           Phone-1:
           Phone-2:
User Fields-         Remarks-
1:
2:
3:
```

Note: If you keep data files on any disks or directories other than the MailList directory, copy WSLIST.DEF and INVNTORY.DEF to each of these disks or directories.

2 For a new data file, type the number you want the first record to have (generally **1**) and press ↵.

3 Fill in the data entry form for the first person on your list or the next person you want to add. At each field, type the information and press ↵. The cursor moves to the next field.

All the fields are optional; you are not required to fill in any field. To skip a field and go on to the next one, press ↵.

Always start typing in the first space of a field; if the data in the field begins with a blank space, you won't be able to sort it properly.

If you make a typing error, you can erase characters with the **Backspace** key. You can move the cursor around the form using these commands:

Left one character	**^S** or ←
Right one character	**^D** or →
Previous field	**^A** or ^ ←
Next field	**^F** or ^ →
Top (first) field	**^T** or **Home**
Last field	**^L** or **End**

4. When the form is completed, press ↲ after the last field or press **^W** from any other field. Then press ↲ again to save the data as a record.

   A blank form appears, with the next record number already entered.

5. Enter the rest of your records in the same way. Be sure to save each record (using step 4 above) as you complete it. You can't save records in groups.

   TIP *At any field, you can copy the same information you previously typed for the field by pressing* ***^C****. For example, if you're adding several records and they all have the same date, type the date in the first record. Then when you get to the Date field in each subsequent record, just press* ***^C****, and the same date is automatically inserted.*

6. After you enter and save all your records, press **Esc** to return to the MailList Menu.

Updating and Correcting a Mailing List

After you create your mailing list, you can look at your records and make changes. To change any information, use the steps below to display the record on the screen, make your changes, and save the updated record.

1. Press **V** at the MailList Menu. The View and Edit Records Menu appears with the first record in your mailing list.

2. Make any changes you want. Use the same cursor commands as you do to add a record.

3. Press **^W**. Then press ↲ to save the updated record. The next record appears. (If you press **^W** and then decide you don't want to save the changes, you can press **Spacebar** to return to the record without saving the changes, or you can press **Esc** to abandon the changes and return to the MailList Menu.)

4. Continue editing your records. If you don't want to change a record, you can press **^N** to display the next record or **^P** to display the previous record.

5. After you save the last record you want to change, press **Esc** to return to the MailList Menu.

Normally, you view and edit your records in order of record number. However, if you've sorted your mailing list in another order, the records appear in the sorted order. See "Sorting Mailing Lists." You can also view and edit particular records without going through all the records in order. See "Working with a Specific Group of Records" and "Finding a Particular Record."

6 After you finish editing records, sort your mailing list. See "Sorting Mailing Lists."

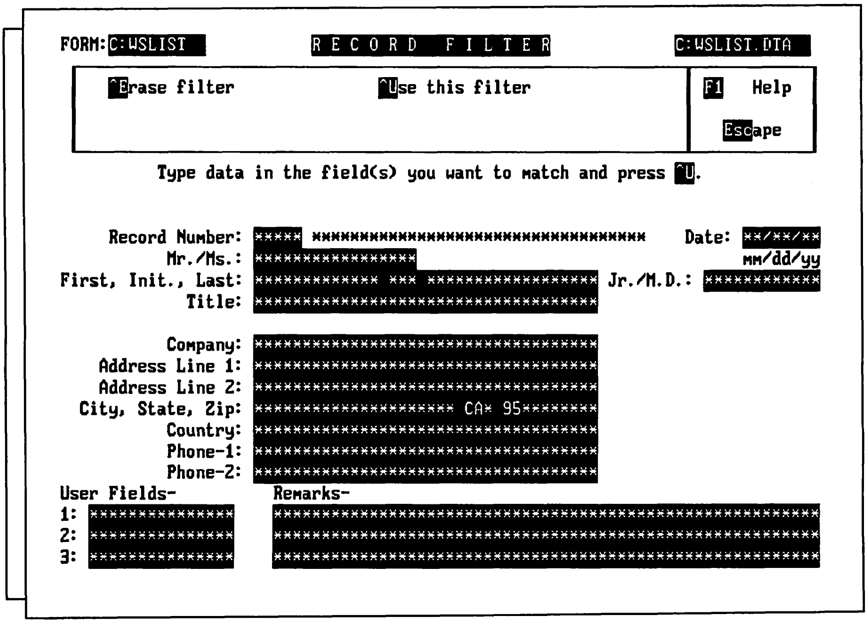
Working with a Specific Group of Records

You may want to view or update a specific part of your mailing list, such as all records with the name "Weiss" or all records with the city of "Summertown" in the state of "TN." You can use a record filter to display only certain records. The record filter "filters out" the records you don't want.

1 At the MailList Menu, press **V** to display the View and Edit Records Menu.

2 Press **^C** for Create or Change Filter. The data entry form appears with asterisks in place of the data in each field. The Record Filter Menu is at the top of the screen.

3 Move the cursor to a field you want to use as the filter, and type the information you want to match in that field. If you want to use more than one field, move the cursor to each field you want to use and type the information to match.



```
FORM:C:WSLIST              R E C O R D   F I L T E R            C:WSLIST.DTA

     ^Erase filter                   ^Use this filter              F1   Help

                                                                     Escape

            Type data in the field(s) you want to match and press ^U.

     Record Number: ***** ***********************************   Date: **/**/**
           Mr./Ms.: *****************                                 mm/dd/yy
First, Init., Last: ************* *** ****************** Jr./M.D.: ************
             Title: ************************************

           Company: ************************************
    Address Line 1: ************************************
    Address Line 2: ************************************
  City, State, Zip: ********************* CA* 95********
           Country: ************************************
           Phone-1: ************************************
           Phone-2: ************************************
User Fields-          Remarks-
1: ***************    *********************************************************
2: ***************    *********************************************************
3: ***************    *********************************************************
```

In the above example, two fields are used as the filter, "CA" for state and "95" for the first two digits of the ZIP code.

4 Press **^U** to start using the filter. The View and Edit Records Menu appears with the first record that matches the data in the filter.

You can keep viewing and editing records as usual, except that only the records that match the filter are displayed.

While you are using a filter, you can press **^C** again at the View and Edit Records Menu to change the filter. To stop using the filter, press **^E** at the Record Filter Menu. Otherwise, the filter is automatically erased when you exit the current View session.

Finding a Particular Record

You can select a specific record to view or edit by giving its record number.

1 At the MailList Menu, press **L**. The Locate Records by Number Menu appears with a blank data entry form. The cursor is in the Record Number field.

2 Type the number of the record you want to see and press ↵. The matching record appears.

3 You can either edit the record or view other records in numerical order beginning with the record on the screen.

To edit the record, make changes the same way you do when adding or viewing a record. After you finish editing, press **^W**, then ↵. A blank record appears again with the cursor in the Record Number field. You can enter another record number to display another record.

To view other records, press **^P** to display the previous record or **^N** to display the next record.

4 When you finish locating and editing records, press **Esc**. The MailList Menu appears.

Erasing Records

You can erase a record only when it is displayed on the screen.

1 Use either **V** (View) or **L** (Locate) at the MailList Menu to display the record you want to erase.

2 Press **^E**.

3 Press **R** to confirm that you want to remove the record. MailList removes the record from the mailing list.

4 After you finish erasing records, sort the mailing list (see "Sorting Mailing Lists" on the next page).

Sorting Mailing Lists

When you view your mailing list, records normally appear in the order in which you entered them. You can sort the mailing list to make records appear in any order you want. After you sort the list, records appear in the sorted order until you sort them again. You can save up to 32 different orders for sorting mailing lists; for example, sometimes you may want to sort by name and other times by date, by state, or ZIP code. (You can also save up to 32 sort orders for the inventory data entry form.)

After you update or erase records, you should sort your list to put the records in the order you want and to use disk space more efficiently. Sorting the mailing list puts the updated records back into place in the data file and erases information left from before you updated the mailing list.

TIP *When you merge print with your mailing list, the form letters (or labels, envelopes, etc.) are printed in the sorted order. Sorting your mailing list before printing enables you, for example, to print labels in ZIP code order.*

To sort your mailing list without changing the sort order, use the following steps:

1. Press **S** at the MailList Menu. The Sort Records Menu appears with a data entry form that shows the current sort order, which is the order you used the last time you sorted a mailing list. If you haven't used any sort orders, the default sort order is in order of record numbers.
2. Press **^U**. MailList sorts the mailing list. When sorting is finished, a message appears.
3. Press **Esc** to return to the MailList Menu.

CAUTION *If you sometimes use leading spaces or zeros in a field, remember that MailList will consider these spaces and zeros when it sorts. Be sure to use these characters consistently so that you can sort the records in the way you want.*

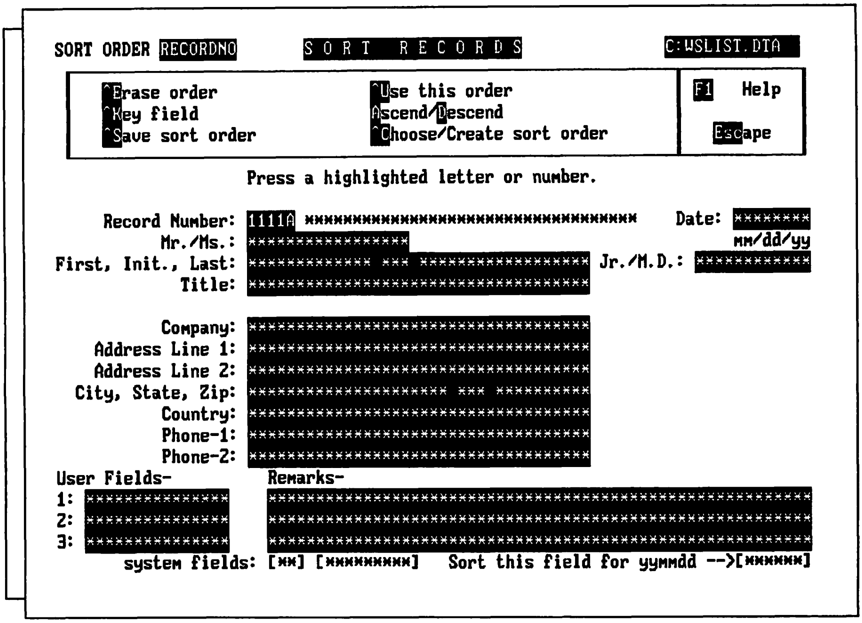
You may want to sort your mailing list into different orders for different purposes. For example, you may want to edit records in order of record number, print out phone lists in alphabetical order, and print labels in ZIP code order. The following sections tell you how to create a new sort order and how to change between sort orders.

Creating a Sort Order

Follow the steps below to create a new sort order.

1. Press **S** at the MailList Menu. The Sort Records Menu appears at the top of the screen.

   Below the menu is a data entry form that shows the current sort order. This is the order you used last time you sorted a mailing list. If you haven't created any sort orders, the form looks like the one on the next page. This form shows the default sort order, RECORDNO. The 1111A in the Record Number field means that the list will be sorted in order of record number.



```
SORT ORDER RECORDNO        S O R T   R E C O R D S              C:WSLIST.DTA

   ^Erase order                 ^Use this order                 F1   Help
   ^Key field                   Ascend/Descend
   ^Save sort order             ^Choose/Create sort order          Escape

                       Press a highlighted letter or number.

       Record Number: 1111A **********************************   Date: ********
            Mr./Ms.: *****************                                  mm/dd/yy
 First, Init., Last: ************* *** ***************** Jr./M.D.: ************
              Title: ***********************************

            Company: ***********************************
     Address Line 1: ***********************************
     Address Line 2: ***********************************
   City, State, Zip: ******************** *** **********
            Country: ***********************************
            Phone-1: ***********************************
            Phone-2: ***********************************
User Fields-          Remarks-
1: ***************    ********************************************************
2: ***************    ********************************************************
3: ***************    ********************************************************
      system fields: [**] [*********]   Sort this field for yymmdd -->[******]
```

2 Press **^C** to choose a new sort order. A list of the available sort orders appears. If you haven't created any sort orders, the only one listed is RECORDNO.

3 Type the name you want to give to the new sort order and press ↵. A sort order name can have up to eight letters and numbers. The data entry form appears for you to enter the sort order.

The sort order is based on up to nine fields called keys. The first key is the first field that is checked when sorting. If several records have the same information for the first key, the second key is checked, and so on. For example, if the first key is the State field, all the records with AK will be first, those with AL will be next, and so on. If the second key is Last (last name), the records within each state will be in alphabetical order by last name. If the third key is First (first name), whenever more than one record has the same state and last name, those records will be in alphabetical order by the first name.

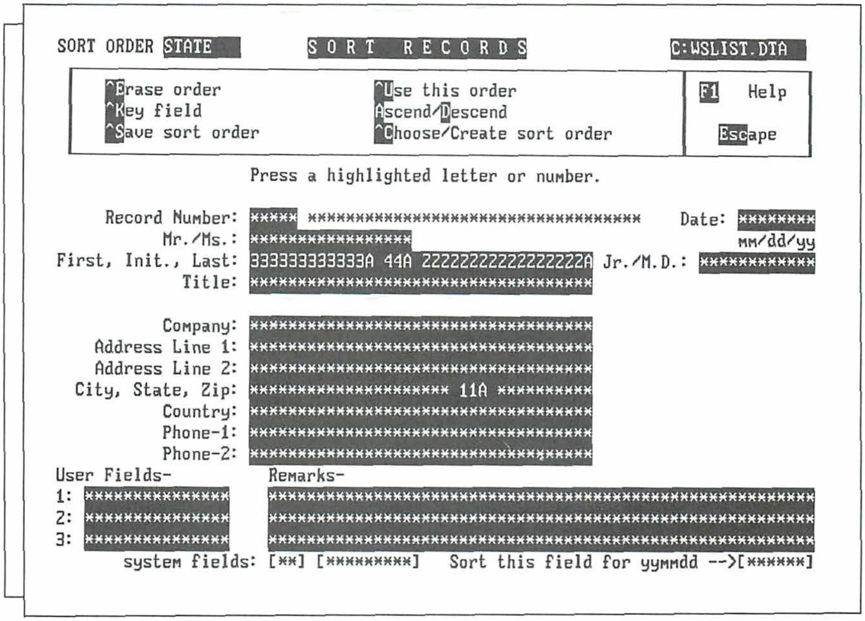
4 Move the cursor to the field you want to be the first key. Use the same keys you use when editing records: **^F** or **^→** to move to the next field and **^A** or **^←** to move to the previous field.

5 When the cursor is in the field you want, press **^K**. The field fills with the number 1, except for the last character in the field, which is an A for ascending order.

When MailList sorts, it uses this order for characters: first spaces, then digits starting with 0, then letters starting with A (for each letter, lowercase immediately follows uppercase). This is considered ascending order. You can have MailList sort any key in descending order, which is the opposite order. In descending order, for example, Z is the first letter of the alphabet and A is the last, and letters come before numbers. Just put the cursor in the key field and press **D**. The A that is the last character in the key changes to a D. To change a key back to ascending order when it is in descending order, move the cursor to the key field and press **A**.

6 Move the cursor to the second key field and press **^K**. The field fills up with the number 2, with A as the last character.

Mark the rest of your keys in the same way. When you're finished, your screen should look similar to the following example, in which four keys are used, State, Last, First, and Initial.



```
SORT ORDER STATE          S O R T   R E C O R D S             C:WSLIST.DTA

      ^Erase order                 ^Use this order               F1   Help
      ^Key field                   Ascend/Descend
      ^Save sort order             ^Choose/Create sort order      Escape

                        Press a highlighted letter or number.

       Record Number: ***** ********************************    Date: ********
            Mr./Ms.: ****************                                  mm/dd/yy
  First, Init., Last: 33333333333A 44A 2222222222222222A Jr./M.D.: ***********
               Title: *********************************

             Company: *********************************
      Address Line 1: *********************************
      Address Line 2: *********************************
    City, State, Zip: ******************* 11A *********
             Country: *********************************
             Phone-1: *********************************
             Phone-2: *********************************
User Fields-            Remarks-
1: **************       *****************************************************
2: **************       *****************************************************
3: **************       *****************************************************
         system fields: [**] [*********]   Sort this field for yymmdd -->[******]
```

7 You can press **^U** to save the new sort order and sort your mailing list, or you can press **^S** to save the sort order without sorting.

8 Press **Esc** to return to the MailList Menu.

Note: To sort by date, you need to choose a special date field. When you enter the date in a record, you enter it as month, day, and year. This date also appears on the bottom right of the sort screen as year, month, and day. This extra field is the one you must use as a key for sorting.

Choosing a Sort Order

To change from one sort order to another, press **^C** (Choose sort order) at the Sort Records Menu. A list of the available sort orders appears. Choose the order you want. A data entry form appears showing the order you choose.

Note: The sort orders you create are stored in a file named MAILSORT.OVR in the current disk or directory. If you don't see the list of sort orders you expect, you may need to copy this file from the disk or directory where you created it.

When the sort order is on the screen, you can use it to sort the mailing list or you can edit or erase the sort order as described below:

- To sort the mailing list using the displayed sort order, press **^U**.
- You can edit a sort order to add keys or to change a key from ascending order to descending order or vice versa. You can't change the order of keys that are already in the sort order, and you can't delete keys. For example, if you have a sort order that has two keys, ZIP code and last name, you can add first name as the third key, or you can change from ascending ZIP code order to descending order. To edit the displayed sort order, just use **^K** and the **A** and **D** commands as you do when creating a sort order. When you finish editing, press **^S** to save the sort order or **^U** to save the sort order and sort the mailing list.
- If you have created the maximum 32 sort orders and want to create another one, you need to erase an existing sort order. You can also erase sort orders you no longer use. To erase the displayed sort order, press **^E**, then answer **Y** to confirm that you want to erase the sort order. After you erase a sort order, it no longer appears in the list you see when you press **^C** to choose a sort order.

Exiting MailList

When you finish working with your mailing list, press **Q** at the MailList Menu to return to WordStar. Be sure to exit WordStar before you turn off your computer. (Using pull-down menus, select **File** at the Opening screen, then choose **Exit WordStar**. Using classic menus, press **X** at the Opening Menu.)

CAUTION *If you exit incorrectly, your data file may be damaged.*

MailList Index Files

When you create or update a mailing list data file, MailList also creates or updates an index file. The index file has the same filename as the data file with the .NDX extension. For example, if you name your data file CLIENTS.DTA, the index file is named CLIENTS.NDX.

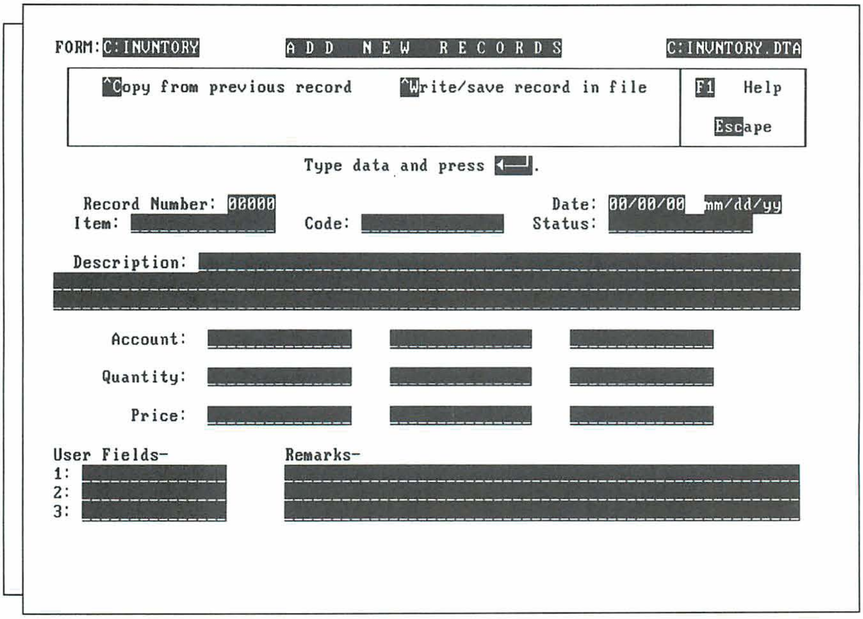
Data files and index files go together. MailList needs to use the index file whenever you work with your mailing list. If you've erased your index file, when you try to work on your mailing list, a message appears telling you that the index file is missing and instructing you to press **R** to rebuild the index file.

Backing Up Mailing Lists

Make frequent backup copies of your data and index files. Always keep at least one extra copy of your mailing list on a floppy disk. This is your insurance against accidental erasures, damaged disks, and other problems.

Using Another Data Entry Form

In the examples so far, the mailing list data entry form was used. MailList also provides an alternate data entry form called the inventory form. You can use the inventory form for any list that doesn't include name and address information. The data entry forms are stored in files with the .DEF extension. The mailing list form is WSLIST.DEF. The inventory form, shown below, is INVNTORY.DEF.



```
FORM:C:INVNTORY          A D D   N E W   R E C O R D S          C:INVNTORY.DTA

     ^Copy from previous record       ^Write/save record in file     F1   Help

                                                                       Escape

                           Type data and press ←┘.

  Record Number: 00000                                Date: 00/00/00  mm/dd/yy
 Item:                    Code:                     Status:

 Description:



        Account:

       Quantity:

          Price:

User Fields-             Remarks-
1:
2:
3:
```

Each time you start MailList, the WSLIST.DEF form is the current form. This form is used for any mailing list you create unless you select the inventory form.

Follow the steps below to change to the inventory form, or from the inventory form back to the mailing list form.

1 Press **U** at the MailList Menu. A list of the form files appears.

2 Type the name of the form you want or move the highlighting to the name. Press ↵.

The form name you choose is now the current form until you exit MailList or choose another form. If you try to edit a mailing list that uses a form different from the current one, an error message appears, and you must select the correct form before you can edit the list.

Creating Form Letters

You can use information from your mailing list in form letters and other documents. You do this by creating a master document, which contains both the text of the letter and the merge print commands and variables. Before you create a master document for your mailing list, read the **Merge printing** section of the *Reference* manual.

Starting the Document

Use the following steps to create a master document to use with your MailList list.

1 Open a WordStar document file. For the filename, type the name you want to give the file and press ↵.

TIP You may want to give all your master documents the same filename extension (for example, .MRG) so that you can easily identify them.

2 Choose the File command on the Insert menu (**Alt+I,F**) or use the **^KR** classic command to insert a file. At the Insert File dialog box, type the filename **maillist.dot**. If necessary, include a directory path for the MAILLIST.DOT file. (To create a master document for an inventory list, type **invntory.dot** and press ↵.)

Your master document should look like the one on the next page. The document is followed by brief explanations of the commands. For more information on these commands, refer to the information on merge printing in the *Reference* manual. (If you used INVNTORY.DOT, the dot commands contain different information.)

```
.op
.df wslist.dta
.rv x, number, full-name, first, mi, last, Mr-Ms, title
.rv company, addr1, addr2, city, state, zip, country
.rv phone1, date, Jr-MD,
.rv user1, phone2, user2, x, user3, remark1, remark2, remark3, ymd

(Type text and variable names here.)

.pa
```

The **.op** command omits page numbers, since most form letters don't need page numbers; you can delete this command if you want to print page numbers.

The **.df** command defines the data file as WSLIST.DTA. If you are not using WSLIST.DTA, substitute the name of your data file. If your data file is in a different directory from your document, include the path.

The **.rv** command loads the data from your file into the variable names shown. The names in this command correspond to the MailList fields. Four commands are used so all the fields can be named. All the fields must be named here even if you use only a few of them in your letter.

The line of text is a reminder for you. Be sure to remove this line before you type your letter.

The **.pa** command causes each letter to print on a separate page.

Typing the Document

After you open the document, you can type your text. In each place where you want to use information from your mailing list, type the corresponding variable name, enclosed in ampersands (&). When you finish typing your master document, save it as you would any document. For more detailed information on using variables, see the information on merge printing in the *Reference* manual.

The variable names you can use to enter mailing list information are the same names used in the **.rv** dot commands. These names refer to the fields on your MailList data entry form. The list on the next page shows the variable names in the MAILLIST.DOT file and the names of their corresponding MailList fields.

VARIABLE NAME	**MAILLIST FIELD**	**VARIABLE NAME**	**MAILLIST FIELD**
&number&	Record Number	&state&	State
&full-name&	First, Initial,	&zip&	Zip
	and Last	&country&	Country
&first&	First	&phone1&	Phone–1
&mi&	Initial	&phone2&	Phone–2
&last&	Last	&date&	Date
&Jr-MD&	Jr./M.D.	&user1&	User Field 1
&Mr-Ms&	Mr./Ms.	&user2&	User Field 2
&title&	Title	&user3&	User Field 3
&company&	Company	&remark1&	Remark 1
&addr1&	Address Line 1	&remark2&	Remark 2
&addr2&	Address Line 2	&remark3&	Remark 3
&city&	City	&ymd&	*

* The &ymd& variable represents the date in year, month, date format (for example, 900826). MailList generates this field automatically, and you can use it for sorting and with MailMerge conditions.

The variable names for the inventory form and their corresponding fields are shown below.

VARIABLE NAME	**MAILLIST FIELD**	**VARIABLE NAME**	**MAILLIST FIELD**
&number&	Record Number	&qty2&	Quantity 2
&date&	Date	&price2&	Price 2
&item&	Item	&acct3&	Account 3
&code&	Code	&qty3&	Quantity 3
&status&	Status	&price3&	Price 3
&desc1&	Description Line 1	&user1&	User Field 1
&desc2&	Description Line 2	&user2&	User Field 2
&desc3&	Description Line 3	&user3&	User Field 3
&acct1&	Account 1	&remark1&	Remark 1
&qty1&	Quantity 1	&remark2&	Remark 2
&price1&	Price 1	&remark3&	Remark 3
&acct2&	Account 2	&ymd&	*

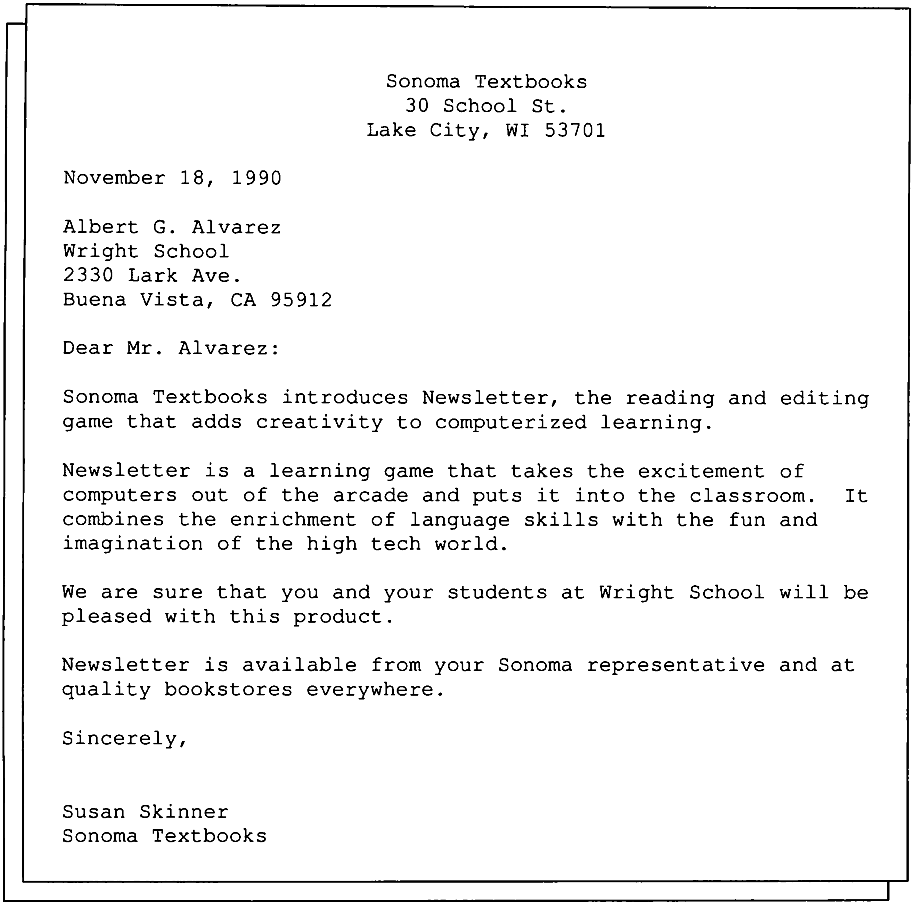
* The &ymd& variable represents the date in year, month, date format (for example, 900826). MailList generates this field automatically, and you can use it for sorting and with MailMerge conditions.

Printing Form Letters

To print a form letter, choose the Print command (**Alt+F,P**). At the Print dialog box, type the filename of your master document. Change any print options you want. Make sure you select the Merge option, and then press **F10** or **^K** to start printing.

The examples that follow include a master document and two printed letters.

```
.op
.df wslist.dta
.rv x, number, full-name, first, mi, last, Mr-Ms, title
.rv company, addr1, addr2, city, state, zip, country
.rv phone1, date, Jr-MD
.rv user1, phone2, user2, x, user3, remark1, remark2, remark3, ymd
.oj off

                         Sonoma Textbooks
                          30 School St.
                        Lake City, WI 53701


November 18, 1990

&full-name&
&company&
&addr1&
&city&, &state& &zip&

Dear &Mr-Ms& &last&:

Sonoma Textbooks introduces Newsletter, the reading and editing
game that adds creativity to computerized learning.

Newsletter is a learning game that takes the excitement of
computers out of the arcade and puts it into the classroom.  It
combines the enrichment of language skills with the fun and
imagination of the high tech world.

We are sure that you and your students at &company& will be
pleased with this product.

Newsletter is available from your Sonoma representative and at
quality bookstores everywhere.

Sincerely,


Susan Skinner
Sonoma Textbooks
.pa
```



Sonoma Textbooks
30 School St.
Lake City, WI 53701

November 18, 1990

Albert G. Alvarez
Wright School
2330 Lark Ave.
Buena Vista, CA 95912

Dear Mr. Alvarez:

Sonoma Textbooks introduces Newsletter, the reading and editing game that adds creativity to computerized learning.

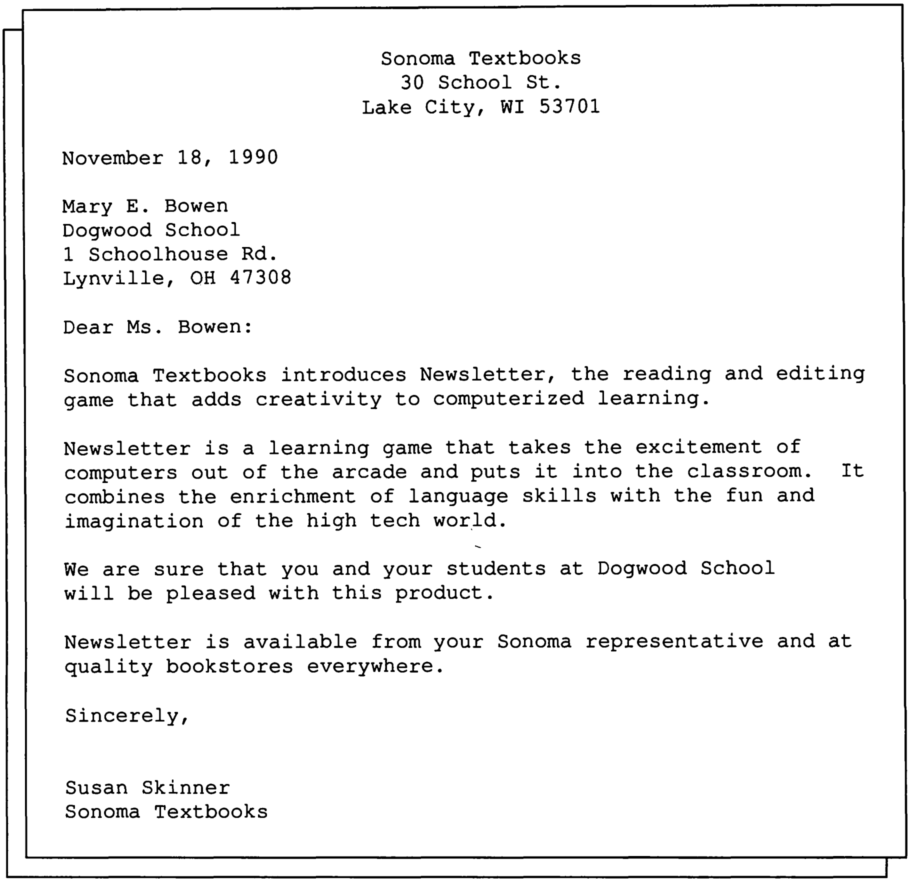
Newsletter is a learning game that takes the excitement of computers out of the arcade and puts it into the classroom. It combines the enrichment of language skills with the fun and imagination of the high tech world.

We are sure that you and your students at Wright School will be pleased with this product.

Newsletter is available from your Sonoma representative and at quality bookstores everywhere.

Sincerely,

Susan Skinner
Sonoma Textbooks



Sonoma Textbooks
30 School St.
Lake City, WI 53701

November 18, 1990

Mary E. Bowen
Dogwood School
1 Schoolhouse Rd.
Lynville, OH 47308

Dear Ms. Bowen:

Sonoma Textbooks introduces Newsletter, the reading and editing game that adds creativity to computerized learning.

Newsletter is a learning game that takes the excitement of computers out of the arcade and puts it into the classroom. It combines the enrichment of language skills with the fun and imagination of the high tech world.

We are sure that you and your students at Dogwood School will be pleased with this product.

Newsletter is available from your Sonoma representative and at quality bookstores everywhere.

Sincerely,

Susan Skinner
Sonoma Textbooks

Printing Envelopes, Labels, and Lists

MailList comes with ready-made files for printing your mailing list on envelopes, labels, and Rolodex cards and for printing proof reports of your mailing list. These files are WordStar documents that contain the merge print commands to insert the data from your list. They are located in your MailList directory (usually \WS\OPTIONS). Just use the following procedures.

Note: If you want to print envelopes, labels, or lists for only part of your mailing list, you can edit these files and insert the appropriate merge print commands. See the information on merge printing in the *Reference* manual.

Printing Envelopes

You can print standard $4^1/_8$-by-$9^1/_2$-inch envelopes for a mailing list using the ENVELOPE.LST file.

Note: Special files are provided for printing envelopes with Hewlett-Packard LaserJet printers. For the LaserJet or LaserJet Plus, use HP-ENVMM.LST. For the LaserJet series II, use HP2-ENVM.LST if you feed the envelopes manually, or HP2-ENVE.LST if you have an automatic envelope feeder.

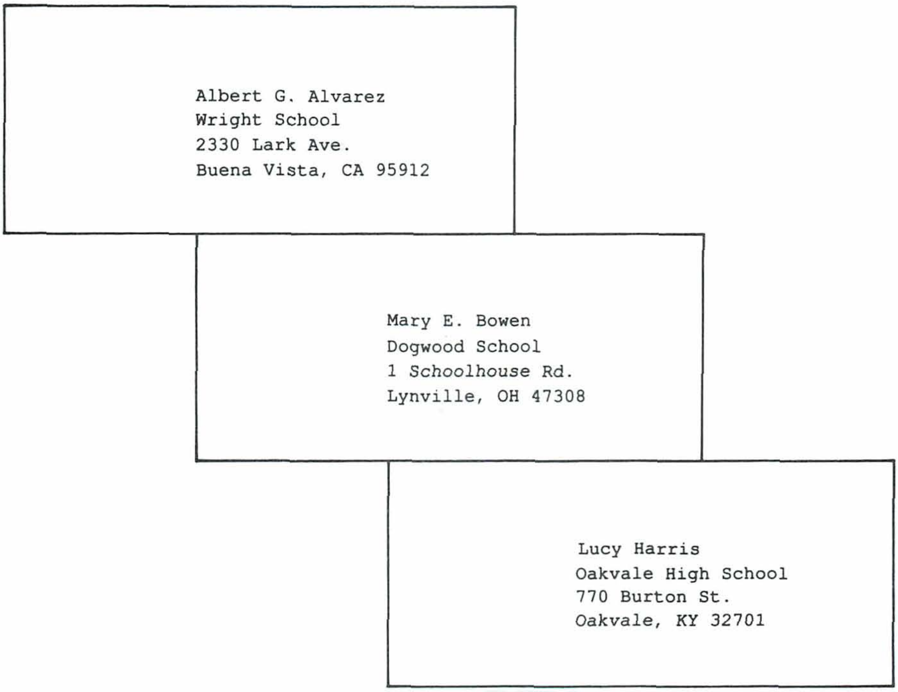
If your data file is not named WSLIST.DTA, before you print envelopes, you need to edit the envelope file and substitute your filename for WSLIST.DTA in the **.df** dot command. If your data file is not in the current drive or directory, you need to edit the envelope file and add the drive letter or directory path.

1. Choose the Print command.
2. For the name of the file, type **envelope.lst**, (**hp-envmm.lst**, **hp2-envm.lst**, or **hp2-enve.lst**). Include a drive letter or directory path if necessary.
3. If you want to change any of the print options, do so. *Don't* start printing yet.
4. Make sure your printer is ready and the paper is removed. Then press **F10** or **^K**.
5. Choose the Print command to go to the Print screen.

   A message saying printing is paused appears on the screen.
6. Insert an envelope in the printer, rolling the platen until the top of the envelope is just visible. The top of the envelope should be at the same spot as the top of the page is when you align paper. (Don't align the envelope where you want printing to begin. It will advance the correct number of lines before printing.)
7. Press **C** to print the first envelope.

   The name and address from the first record are printed on the envelope, and printing pauses.
8. Repeat steps 6 and 7 until you have addressed envelopes for the entire list.

Sample printed envelopes are shown below.



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Mary E. Bowen
Dogwood School
1 Schoolhouse Rd.
Lynville, OH 47308

Lucy Harris
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770 Burton St.
Oakvale, KY 32701

Printing Labels or Rolodex Cards

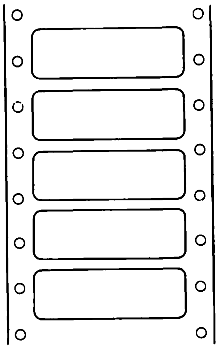
You can print names and addresses from your mailing list on several different types of labels. The LABEL.LST file prints on $3\frac{1}{2}$-by-1-inch, one-across labels. The LABELXL.LST file prints on 5-by-3-inch, one-across labels. The LABEL3.LST file prints on $3\frac{1}{2}$-by-1-inch, three-across labels on 11-inch wide label stock.

If you have a laser printer, MailList provides two special files to print labels:

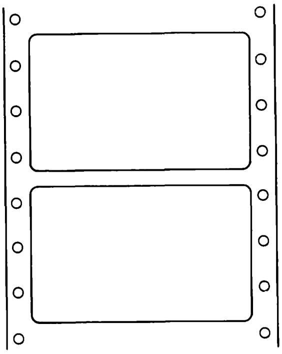
- HP-LAB3.LST prints 27 three-across labels. Each sheet contains 33 labels; however, the file is set up to leave the top and bottom rows of labels blank because most laser printers can't print at the top and bottom of the page.
- LSRLABL3.LST prints 30 three-across labels. This file is designed for label stock that has half-high labels at the top and bottom of the page.

You can also print names and addresses on $2\frac{1}{6}$-by-4-inch continuous strip Rolodex cards, using the ROLODEX.LST file.

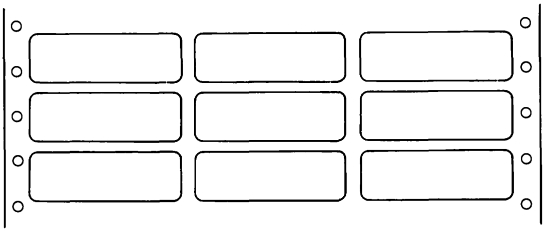
LABEL.LST
3 1/2"x1" one-wide labels



LABELXL.LST
5"x3" one-wide labels



LABEL3.LST 3 1/2"x1" three-wide labels



If your data file is not named WSLIST.DTA, you need to edit the appropriate label or Rolodex file and substitute your filename for WSLIST.DTA in the **.df** dot command. The files to edit are SHOLABEL (for LABEL.LST), SHOLABLX (for LABELXL.LST), SHOLABL3 (for LABEL3.LST), and SHOROLDX (for ROLODEX.LST). If your data file is not in the current drive or directory, add the disk drive or directory path.

If you're printing labels, you must change to the MailList directory before you print.

1 Choose the Print command.

2 For the name of the file, type **label.lst** for $3^1/_2$-by-1-inch one-across labels, **labelxl.lst** for 5-by-3-inch one-across labels, **label3.lst** for $3^1/_2$-by-1-inch three-across labels, **hp-lab3.lst** or **lsrlabl3.lst** for three-across labels on laser printers, or **rolodex.lst** for Rolodex cards. Include a drive letter or directory path if necessary.

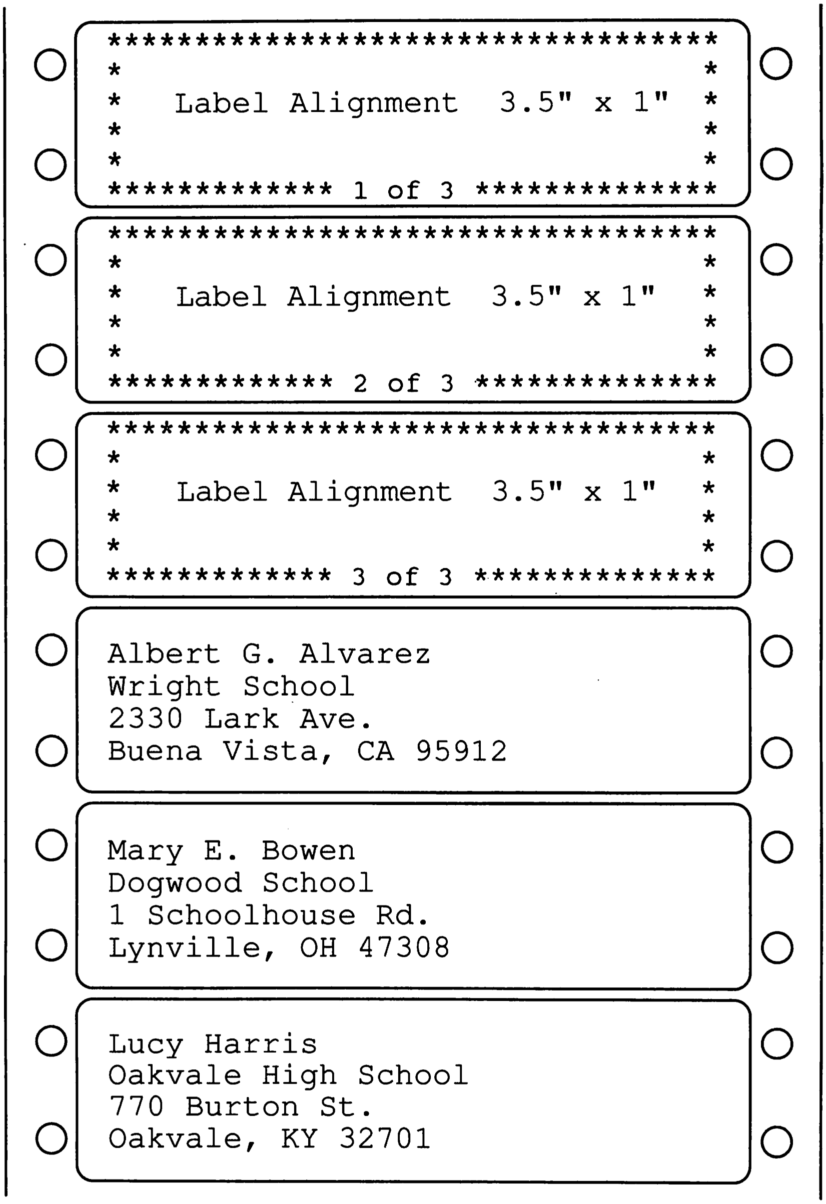
3 If you want to change any print options, do so. If you're printing labels with LABEL3.LST, LABEL.LST, LABELXL.LST, or ROLODEX.LST, type **N** next to *Use form feeds*. Make sure you select the Merge option. *Don't* start printing yet.

4. Remove the paper from your printer. Insert the labels (or cards), rolling the platen until the top of the label is just visible. The top of the label should be at the same spot as the top of the page when you align paper. (Don't align the label where you want printing to begin. It will advance the correct number of lines before printing.)
5. When the printer is ready, press **F10** or **^K**. WordStar prints a sample label (or row of labels) to help you align the labels correctly, then pauses printing.
6. Choose the Print command.
7. Check the sample label. If the text is not centered on the label, realign the labels. Press **C** to continue.

   Two more sample labels are printed, with pauses after each one. At each pause, make any necessary adjustments to the alignment, then press **C** to continue printing. After the third sample label, WordStar prints your labels, one for each record in your data file.

   When printing is complete, you are returned to the Opening screen.

Sample printed labels are shown on the following page.



```
***********************************
*                                 *
*   Label Alignment  3.5" x 1"    *
*                                 *
*                                 *
************* 1 of 3 **************
***********************************
*                                 *
*   Label Alignment  3.5" x 1"    *
*                                 *
*                                 *
************* 2 of 3 **************
***********************************
*                                 *
*   Label Alignment  3.5" x 1"    *
*                                 *
*                                 *
************* 3 of 3 **************

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```

Printing Reports

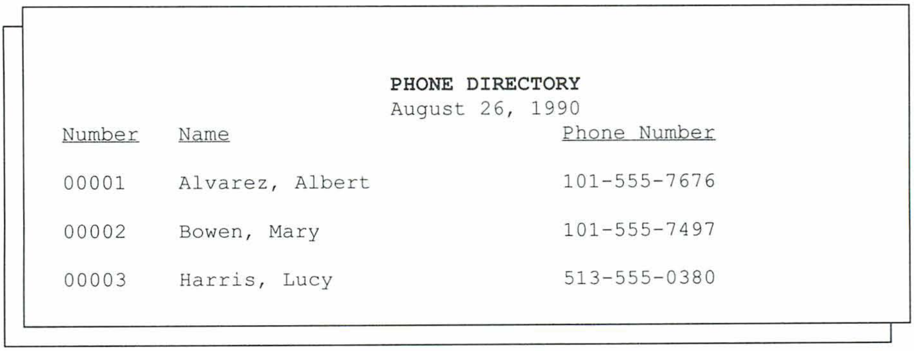
You can print two types of reports that list information from your mailing list. A **proof report** is a listing of all the information in the mailing list; a **phone report** is a list of names and phone numbers only. You can also print a proof report for your inventory list.

If your data file is not named WSLIST.DTA, before you print reports, you need to edit the report file (PROOF.LST, PHONE.LST, or INVNTORY.LST) and substitute your filename for WSLIST.DTA in the **.df** dot command. If your data file is not in the current drive or directory, you need to edit the report file and add the drive letter or directory path.

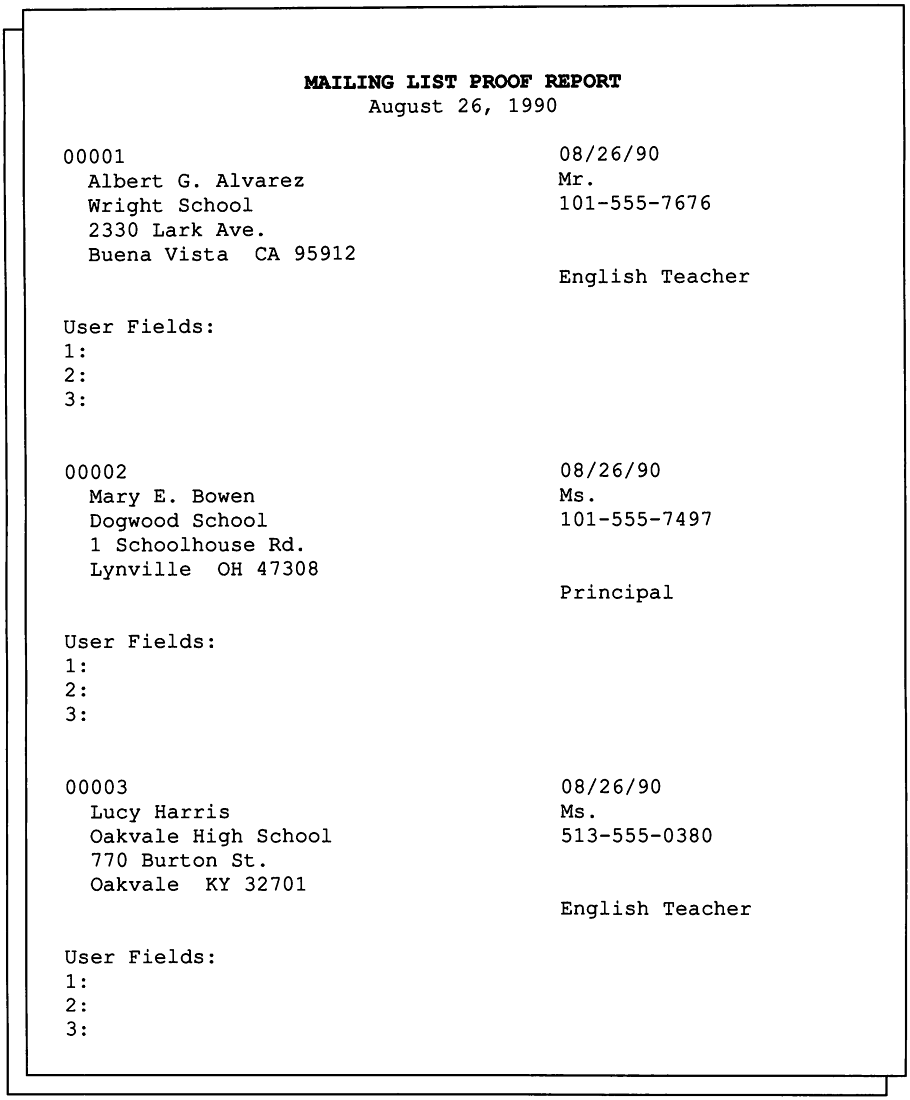
1. Choose the Print command.
2. For the name of the file, type **proof.lst** (or **invntory.lst** for an inventory data file) for a proof report or **phone.lst** for a phone report. Include a drive letter or directory path if necessary.
3. If you want to change any of the print options, do so. Make sure you select the Merge option. Then press **F10** or **^K** to start printing.

   WordStar prints the report.

A sample phone report and a sample proof report for a mailing list are shown below.

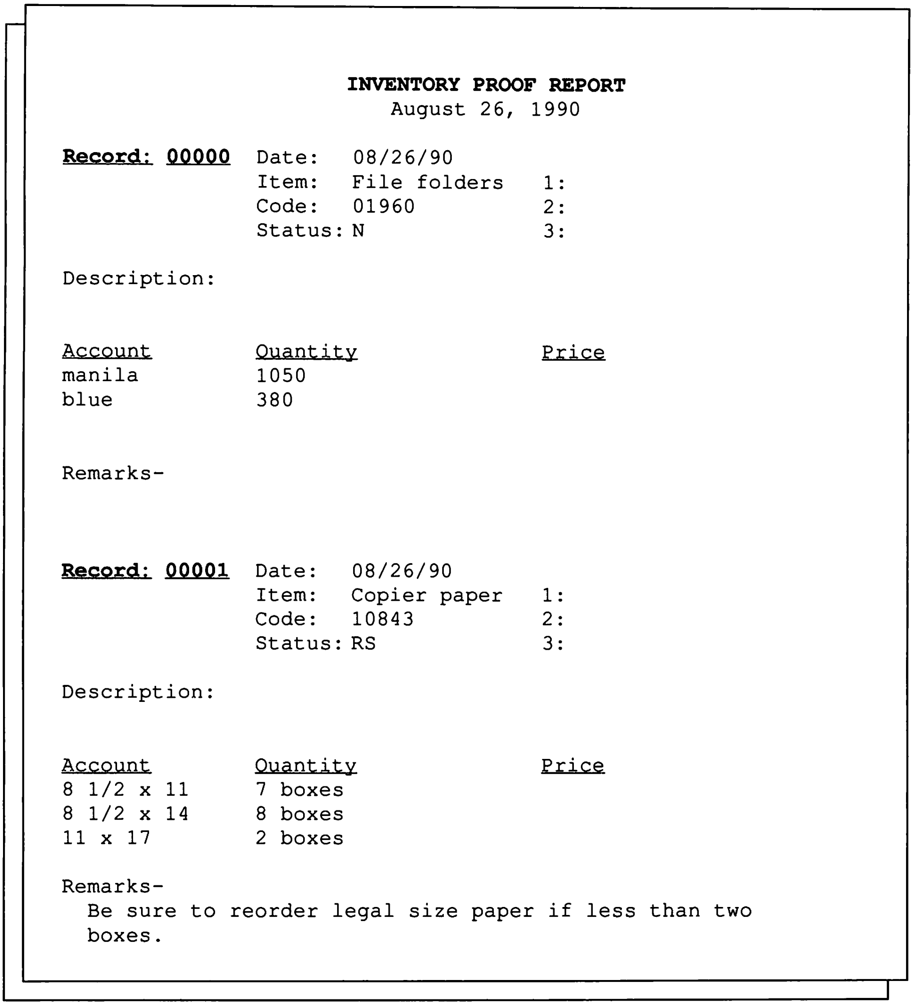


```
                              PHONE DIRECTORY
                              August 26, 1990
Number    Name                            Phone Number

00001     Alvarez, Albert                 101-555-7676

00002     Bowen, Mary                     101-555-7497

00003     Harris, Lucy                    513-555-0380
```



```
                  MAILING LIST PROOF REPORT
                       August 26, 1990

00001                                    08/26/90
  Albert G. Alvarez                      Mr.
  Wright School                          101-555-7676
  2330 Lark Ave.
  Buena Vista  CA 95912
                                         English Teacher

User Fields:
1:
2:
3:


00002                                    08/26/90
  Mary E. Bowen                          Ms.
  Dogwood School                         101-555-7497
  1 Schoolhouse Rd.
  Lynville  OH 47308
                                         Principal

User Fields:
1:
2:
3:


00003                                    08/26/90
  Lucy Harris                            Ms.
  Oakvale High School                    513-555-0380
  770 Burton St.
  Oakvale  KY 32701
                                         English Teacher

User Fields:
1:
2:
3:
```

A sample proof report for an inventory list is shown below.



```
                    INVENTORY PROOF REPORT
                       August 26, 1990

Record: 00000  Date:   08/26/90
               Item:   File folders    1:
               Code:   01960           2:
               Status: N               3:

Description:


Account        Quantity              Price
manila         1050
blue           380


Remarks-



Record: 00001  Date:   08/26/90
               Item:   Copier paper    1:
               Code:   10843           2:
               Status: RS              3:

Description:


Account        Quantity              Price
8 1/2 x 11     7 boxes
8 1/2 x 14     8 boxes
11 x 17        2 boxes

Remarks-
  Be sure to reorder legal size paper if less than two
  boxes.
```

If you want, you can change a proof report to put the information in another order or to exclude information you don't use. Copy PROOF.LST or INVNTORY.LST to a new file, then edit the file as you would a master document so that the variable information you want is in the correct place. (Don't change the **.rv** commands; just change the placement of the variables enclosed in ampersands.)

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PROFINDER™

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Introduction

ProFinder helps you keep your files and programs organized and accessible. ProFinder displays a file list similar to the one displayed with the DOS DIR command. Besides looking at the filenames, you can

- Scroll up and down through the list
- Assign a descriptive label to each file so you can identify its contents easily
- Sort the filenames so you can see the list, for example, in alphabetical order or by filename extension
- Locate all the files in a directory that contain certain words or phrases
- View individual files and search for text within a file
- Tag any number of files in the directory and perform operations such as deleting or copying quickly
- Create, rename, and delete directories
- Run a program by choosing either the program or one of its data files at the file list
- Change with one keystroke to a file list for another disk or directory
- Start WordStar® (or another program) from within ProFinder, then use a special "hot key" to flip between ProFinder and WordStar as often as you want while you're working
- Automate frequently performed activities by creating and using personal menus

Installing ProFinder

If you didn't copy ProFinder when you installed WordStar, do so now. See the *Installing and Customizing* booklet for information on adding a feature.

IMPORTANT *You should put the directory containing ProFinder (usually \WS\OPTIONS) on your DOS path so you can start ProFinder from any directory.*

After you've copied ProFinder you can run the ProFinder installation program, PFINST, which contains monitor and color settings and other program configuration settings. Most users don't need to run PFINST, but you may find it helpful. You must run the installation program if:

- You have a gas plasma monitor or other monochrome monitor but have a color graphics board in your computer.
- You move your ProFinder files from one directory to another. (Otherwise, your configuration settings may not be saved and you may not be able to access help.
- Your computer is not totally IBM compatible and when you run ProFinder, the system freezes or the screen doesn't look right. In this case, set **Speed** on the **Video** submenu to **Slow**.

To run the installation program, type **pfinst** and press ↵. The program asks for the name of the directory that contains the ProFinder files. Press ↵ to accept the displayed name (the current directory), or type the correct directory name and press ↵.

The installation menu appears. To choose an option, move the highlighting to it and press ↵, or just press the first letter of the option. Follow the onscreen instructions. You can press **F1** for help with any option.

Video allows you to change monitor and color settings.

Sort, **File**, **Locate**, **Options**, and **Configuration** allow you to change the same settings you can change in the ProFinder menus with the same names. More information on these options is given later in this section. Changing settings in PFINST is the same as changing the same settings in ProFinder and choosing **Save all settings**. The Options menu has one additional command, **Insert**, which allows you to set the typing mode to insert or overtype for typing information in ProFinder's prompts.

Restore changes settings for all options back to their original settings, whether you've changed them here or from inside ProFinder.

Using ProFinder

Running ProFinder

To start ProFinder, type **pf** and press ↵. A list of the files in the current directory appears on the screen. Each file's name, extension, size, date, and time are shown in the same way the DOS DIR command shows them. Disk space information is shown below the last file in the list.

The ten main ProFinder commands are shown on function key tags on the bottom line of the file list screen. To use any of these commands, just press the corresponding function key or the corresponding number key at the top of your keyboard (use **0** for **F10**). You can also hold down the **Alt** key and press the first letter of the command (for example, **Alt-H** for Help).

Some of the ProFinder commands display menus. To choose a command from a menu, either move the highlighting to the command and press ↵, or just press the first letter of the command.

When you are using ProFinder, you can press **.** (period) to go back one step. For example, if you are displaying a submenu, pressing **.** causes ProFinder to go back to the previous menu.

Press **F1** (or **1** or **Alt-H**) whenever you need help for the command you're using. Press **Esc** after you finish reading the help screen to return to where you were.

Working with the File List

When you start ProFinder, the file list is displayed. You can scroll through the file list using the keys shown below.

PRESS	**TO**
↑ or **^E**	Scroll up one filename
↓ or **^X**	Scroll down one filename
PgUp or **^R**	Scroll up one screenful
PgDn or **^C**	Scroll down one screenful
Home or **^QE**	Move the highlighting to the top of the screen
End or **^QX**	Move the highlighting to the bottom of the screen
^Home or **^QR**	Move the highlighting to the top of the list
^End or **^QC**	Move the highlighting to the bottom of the list
^Z	Scroll the screen up one filename (highlighting doesn't move)
^W	Scroll the screen down one filename (highlighting doesn't move)

You can also press the first letter of a filename to move the highlighting to the next filename that begins with that letter. Press the **Shift** key plus the first letter of a filename to move the highlighting to the previous filename that begins with that letter.

Using File Titles

On the right side of the file list screen is space for file titles. A file title is descriptive text that further identifies a file. You'll find file titles helpful if you have many files and sometimes can't remember the name of the file you're looking for. To add or edit a file title, move the highlighting to the filename and press → (or **Tab** or **^D**). Type the title. You can edit the file title with the WordStar editing commands. When the title is the way you want it, press ↵.

You can move up in the titles column using ↑, **^E**, **PgUp**, or **^R**; you can move down using ↓, **^X**, **PgDn**, or **^C**.

ProFinder stores file titles in a file named TITLES.PF. Each directory that contains files with titles has its own TITLES.PF file. When you use ProFinder to copy, move, or delete files, ProFinder also copies, moves, or deletes their titles.

You can remove the display of file titles from the file list. Press **F6** (Options) and choose **Titles**. The default setting for this option is Yes (titles are displayed). Choosing the option changes it to No. You can change back to Yes by choosing this option again. To quit displaying file titles for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Changing to Another Directory

If you are in a subdirectory, the first line of the list says UPDIR in the file size column. This signifies the parent directory. If the directory has any subdirectories, the file size column for each of them says DIR. The table below shows how to change to a listing of another directory or disk.

TO CHANGE TO	DO THIS
Another directory	Press \ (backslash) and type the name of the directory
Another disk drive	Press **:** (colon) and type the drive letter, then either press ↵ to accept the default directory path (*.*) or type a new path and press ↵
The parent directory	Press **.** (period), or move the highlighting to the UPDIR line and press ↵, or press the **Backspace** key
A subdirectory	Move the highlighting to the DIR line and press ↵
The root directory	Press ^\ (**Ctrl**-backslash)

Displaying Selected Filenames

To specify which filenames you want to display in the file list, press \, or press **F6** (Options) and choose **Directory list**. The default directory search path is all files (*.*) in the current directory. Edit the search path so that it is the one you want and press ↵. (You can use the WordStar editing commands.) As soon as you enter the new search path, the file list changes accordingly. Some sample search paths are shown below:

C:\WS\*.DOC	All files in the \WS directory with the .DOC extension
C:\MEMO?.*	All files in the root directory with filenames that consist of MEMO and one more character, with any extension
A:LET.*	All files named LET with any extension on the disk in drive A

To display only program filenames (with the .EXE, .COM, and .BAT extensions), press **F6** (Options) and choose **Programs only**. The default setting is No. Choosing the option changes it to Yes.

To display only the names of subdirectories of the current directory, press **F6** (Options) and choose **Subdirs only**. The default setting for this option is No. Choosing the option changes it to Yes.

After displaying selected filenames, you can return to the full file list quickly by pressing * (asterisk), or you can press **F4** or **F6** and choose **List all files**.

Sorting a File List

You can display your directory in several orders.

To sort the current file list, press **F7** (Sort), and choose the options you want from the submenu. The default sort order is by Extension, then Name. The options are described below.

Begin sort sorts the file list in the order shown in the sort order box.

Order of sort allows you to specify a new sort order. The displayed options, Name, Extension, Date/Time, and Size, are the orders you can use to sort. You can use any combination of these options for sorting. For each option you choose, another prompt asks you for the sort direction; choose either the default, **Ascending** (regular alphabetical), or **Descending** (reverse alphabetical). Choose the options in the order you want them used. For example, if you want to sort first by filename, then by extension, choose **Name** first, then **Extension**. After you set the sort order, choose **Resume** or press **Esc** or **.** (period). When you set up a new sort order, it remains in effect until you change it again or exit ProFinder. If you want to keep the sort order longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Auto-sort allows you to sort all directories automatically as soon as you change to them. The default is No; choosing this option changes it to Yes. When auto-sort is off, if you want to see sorted file lists, you need to sort each list as you display it. When you turn auto-sort on, it is in effect until you change it or exit ProFinder. To keep auto-sort on for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Using the Hot Keys

ProFinder recognizes two "hot keys." The flip hot key allows you to flip back and forth between WordStar and ProFinder. The copy hot key allows you to copy a block of text from a file you display with ProFinder into a WordStar file.

The hot keys can be very handy. For example, if you're not sure of the name of the file you want to edit, you can use ProFinder to find the file you want, then automatically start WordStar and open the file. While you're editing, you can go back to ProFinder, look through several files to find text you want, and mark it as a block. You can then go back to WordStar and copy the marked block into your document with a single keystroke.

Flip hot key This is the plus key on the numeric keypad. To use it, start at the ProFinder directory display. Move the highlighting to the name of a file you want to edit and press **+**. ProFinder starts WordStar and opens the file you selected. You can now edit the file and do any other WordStar operations (save the file, print, open a new file, and so on).

When you start WordStar using the + key, ProFinder remains in your computer's memory. You can access ProFinder from WordStar by pressing + again. You can flip back and forth between WordStar and ProFinder as often as you like. When you exit WordStar, you return to ProFinder. You can't exit ProFinder until you exit WordStar; if you try, ProFinder displays a message and returns you to WordStar.

You can change the flip hot key from + to another key. You can also use the flip hot key to flip between ProFinder and another program instead of WordStar. For more information, see "Setting the Configuration Options."

Copy hot key This is the minus key on the numeric keypad. It works only when you have started WordStar from ProFinder (using the flip hot key). When you use ProFinder to view a file, you can mark a block in the file (see "Working with Blocks" in "Viewing Files"). After you flip back to WordStar, while you're editing a file, you can press the copy hot key anywhere in the file to copy the marked block. If you are not viewing a file with ProFinder, the copy hot key copies the highlighted filename into WordStar or, if you have tagged filenames, copies each tagged filename in turn. For example, if you want to read several files into a WordStar file, you can tag the filenames in ProFinder, then press **^KR** from WordStar, and press the copy hot key at the filename prompt. Repeat this procedure for each file to be read. Each time you press the copy hot key, the next tagged filename appears.

You can change the copy hot key from the minus key (-) to another key. See "Setting the Configuration Options."

Working with Files

When you're displaying a file list with ProFinder, you can do several operations on the files in the list. These operations are described in the following sections.

You can select, or tag, any number of files for a file operation. Here's how tagging works:

- To tag a file, move the highlighting to the filename and press **F3** or **^K**. You can press **F3** again to untag the highlighted file.
- To tag a group of files, press **F4** (Files), choose **File tag by wild card**, and type the filename, using the * and ? wild-card characters. For example, to tag all files with the .BAK extension, type ***.bak**.
- To see a file list of only the tagged files, press **F4** (Files), then choose **Select tagged files**. To return to a full directory display, press * or press **F4** or **F6** and choose **List all files**.
- To remove the tags from all files that you have tagged, press **F4** (Files), then choose **Untag all**.

- To retag files that you untagged or that ProFinder untagged after a file operation, press **F4** (Files), then choose **Retag**.

While a file operation such as copying or deleting is in progress, you can press any key to interrupt the operation. A prompt asks whether you want to quit or continue.

Copying, Moving, and Renaming Files

To copy files to another directory, press **F4** (Files), then choose **Copy**. To move files to another directory or to rename files, press **F4** (Files), then choose **Move/rename**.

If you have tagged any files, all tagged files will be copied or moved. If you have not tagged any files, type the name of the file(s) to copy or move at the prompt that appears. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws\*.doc** to specify all the files in the \WS directory with the .DOC extension.

At the *Copy to* or *Move to* prompt, type the directory you want the files copied or moved to. If you have not tagged files, you can include the filename if you want the copied or moved file to have a new name. You can use wild-card characters in the filename.

After you enter the file information, you can start copying or moving, or you can set several options. Choose **Begin** to start. The other options have yes/no settings; you just need to choose the option to change the setting. These options are described below.

Confirm overwrites This option determines whether ProFinder asks you if you want to overwrite an existing file (if you are about to overwrite it in a copy or move operation). The default is No.

Transfer titles This option determines whether ProFinder file titles will be copied and moved with files. The default is Yes.

Verify This option allows you to verify as you copy and move. It is the same as the DOS Verify (/v) option. The default is Yes.

Skip same version If you set this option to Yes, ProFinder won't overwrite an existing file that has the same file size, time, and date as the file you are copying or moving. This can save time. For example, if you are backing up a directory of files to a floppy disk, ProFinder can copy only the files that have changed since you last backed up. The default is No.

If you change any of these settings and want to keep your changes for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Deleting Files

To delete files, press **F4** (Files), then choose **Delete**.

If you have tagged any files, all tagged files will be deleted. If you have not tagged any files, type the name of the file(s) to delete. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws*.bak** to delete all the files in the \WS directory with the .BAK extension.

At the prompt, press ↵ to begin. The files you tagged or named are deleted.

Changing File Dates and Times

To change the dates and times shown with filenames, press **F4** (Files), then choose **Time/date stamp**.

If you have tagged any files, the date and time of all tagged files will be changed. If you have not tagged any files, type the name of the file to stamp. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws*.doc** to change the date and time for all the files in the \WS directory with the .DOC extension.

For the date, press ↵ to accept the default, which is the current date, or type another date and press ↵. For the time, press ↵ to accept the default, which is the current time, or type another time and press ↵. (You can type **0** (zero) to omit the time from the list.) At the prompt, press ↵ to begin. ProFinder changes the dates and times.

Printing the File List

To print the file list, be sure your printer is ready. Press **F4** (Files), then choose **Print file list**. ProFinder prints the current file list. If you have tagged any files, they are underlined in the printed list.

Writing Filenames to a File

You can create a file that contains the filenames in the current list. If you have tagged files, the file contains only the tagged filenames. Press **F4** (Files), then choose **Write filenames**. Type the name of the file to write the filenames to and press ↵. If the filename you type is an existing file, a prompt appears. Press **O** to overwrite the file, **A** to append the new filenames to the end of the file, or **Esc** to exit.

Next you can specify up to 20 characters that will appear before (prefix) or after (suffix) each filename in the new file. At each prompt, type the text you want and press ↵. If you don't want a prefix or suffix, just press ↵. As soon as you answer the last prompt, ProFinder writes the filenames to the file you specified.

Viewing Files

You can use ProFinder to look at the contents of any file in the current file list, and you can do several operations with a file you're viewing. To view a file, move the highlighting to the name of the file and press ↵.

While you are viewing a file, you can use the cursor movement keys or the WordStar cursor movement commands to move the cursor around in the file. For a complete list of these commands, press **F1** or **^J** for help while you are viewing a file. You can also locate specific text, mark blocks, and use several other commands. The following sections give complete instructions on how to work with a file you're viewing.

File Format

ProFinder normally assumes the file is in WordStar format. You can usually view ASCII files correctly in WordStar format. However, graphics characters from ASCII files are not displayed correctly, so you may sometimes need to switch from WordStar to ASCII format. You can also view WordStar 2000 files, which have a different format. To switch between formats while you are viewing a file, press **^QG**.

You can change the default format; see "Setting the Configuration Options."

ProFinder also automatically recognizes Lotus 1-2-3 files and displays them in the correct format. When you view a Lotus 1-2-3 file, you can see only the top-left screenful of the file; you can move the cursor through the displayed portion of the file, but you can't scroll to other portions of it.

Finding Text

While you're viewing a file, you can easily find a specific word or phrase. Press **F2** or **^QF** and choose **Text to locate**. ProFinder prompts you for the text to locate. Type up to 20 characters of text and press ↵. You can press ↵ again at the *Begin search* prompt to begin the search, or you can first change any of the search options. To change a search option, choose the option you want to change. The options are described below.

Whole words only specifies that the text to search for must be whole words. The default is No. Thus, if you search for the word "cat" with the No setting, ProFinder will locate "concatenation" or "catered."

Case ignore tells ProFinder to find all instances of the text whether or not any characters are uppercase or lowercase. The default is Yes.

Lightning synonyms is for Turbo Lightning users. It allows you to use a Turbo Lightning synonym file with your searches. The default is No.

User synonyms lets you use a synonym file that you create yourself. For more information, see "Setting the Configuration Options." The default is No.

Direction lets you run a forward, backward, or global search. The default is global; pressing ↵ toggles among the three choices.

The settings for these options (except for Direction) apply to locating files as well as finding text within a file. If you want to keep your changes longer than the current work session, choose the **Save all settings** option (see "Setting the Configuration Options").

Once you've searched for specific text in a file, you can press **F4** or **^L** to find the next instance of the current search text, and you can press **F3** or **^QV** to find the previous instance.

Working with Blocks

While you're viewing a file, you can mark a block within the file. You can then write the block to another file or use the copy hot key to copy the block to a WordStar file (or to a file in whatever program you use with the flip hot key). See also "Using the Hot Keys.")

PRESS	**TO**
F7 or **^KB**	Mark the beginning of a block.
F8 or **^KK**	Mark the end of a block.
F10	Automatically mark the line the cursor is on as a block (Auto-block). Press **F10** again to add the next line to the block. Mark as many consecutive lines as you want. If you mark a line that is not the next line below the current block, that line begins a new block.
^KH	Hide the display of the marked block.
F5 or **^KW**	Write the marked block to a new file. At the prompt, type the name of the file to write the block to and press ↵. If the filename is an existing file, press **O** to overwrite the file, **A** to append the block to the end of the file, or **Esc** to exit. (The block is always written as it is shown on the screen.)
F6 or **^KP**	Print the marked block. At the *Left Margin* prompt, type the number of columns you want the text offset from the left edge of the paper, or press ↵ to accept the default, 0.

Viewing Another File

While you're viewing a file, you can press **F9** or **^OK** to open another file. If the cursor is on a word that is the name of a file in the current directory, ProFinder opens that file. Otherwise, at the prompt, type the name of the file you want to open and press ↵.

When you open more than one file each file appears in a separate "window" on the screen. You can view up to three files at a time. Press **Esc** or **.** (period) to close the current window.

Locating Files

ProFinder can find all the files in the current list that contain certain text. For example, you can quickly find all your documents that mention the Houston contract or June 4, 1988. You can also search file titles instead of the files themselves. This allows you, for example, to display a list of the files that have "report" or "Fjerstad" in their titles.

Note: When you are searching through WordStar document files, the file format should be set to WordStar (the default) for best results. See "Setting the Configuration Options."

To locate files, press **F2** (Locate) at the file list. Then choose **Search files by text** to search for text in files, or choose **Find files by title** to search in file titles. You can now specify the text and set several options, as described below.

Text to locate You can specify up to three text strings (words or phrases), each up to 20 characters long. After you type each search string, press ↵, or press **Esc** when you're finished entering search strings.

Begin search When you choose this option, ProFinder searches for all files (or titles) that contain any of the search strings you entered. The file list changes so that it displays only the files that contain a search string. It also shows which search strings each file contains. When you view any of these files, each instance of a search string in the file is highlighted, and the cursor is on the first instance.

TIP If you have a lengthy search, you can continue to work while ProFinder searches. Just use any commands you want. The search will resume the next time you're at the file list and you stop using the keyboard for a few seconds.

Whole words only tells ProFinder that the text to search for must be whole words. The default is No. Thus, for example, if you search for the word "cat," ProFinder will locate "concatenation" or "catered."

Case ignore tells ProFinder to find all instances of the text whether or not any characters are uppercase or lowercase. The default is Yes.

Lightning synonyms is for Turbo Lightning users. It allows you to use a Turbo Lightning synonym file with your searches. The default is No.

User synonyms allows you to use a synonym file that you create yourself. For more information, see "Setting the Configuration Options." The default is No.

The settings for these options apply to finding text in a file while viewing the file as well as to locating files. If you want to keep your changes for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

After you finish examining the list of files you located, you can return to the full file list by pressing * (asterisk), or you can press **F2** and choose **List all files**.

TIP To avoid lengthy searches of files that you don't want to include in a search, you can specify up to 15 filename extensions to skip. Press ***F2*** *(Locate) and choose* ***Extensions to skip****. You see a preset list of 13 extensions: .EXE, .OBJ, .COM, .LIB, .OVR, .BAK, .HLP, .MAP, .DTY, .$$$, .SYN, .DCT, and .ARC. To add or change an extension, move the highlighting to it and type the extension you want. The new extensions you choose are in effect until you exit ProFinder. To make your changes permanent, use the* ***Save all settings*** *option (see "Setting the Configuration Options").*

Working with Directories

You can use ProFinder to create, rename, and delete directories.

Creating a Directory

To create a directory, press **F5** (Directories), and then choose **Create**. At the prompt, type the name of the directory to create. If the directory will not be a subdirectory of the current directory, be sure to include the complete path. When you press ↵, ProFinder creates the directory.

Renaming a Directory

To rename a directory, press **F5** (Directories), and then choose **Rename**. At the prompt, type the name of the directory to rename and press ↵, or just press ↵ to accept the displayed name. At the next prompt, type the new name you want to assign to the directory. The path to the directory must remain the same. When you press ↵, ProFinder renames the directory.

Deleting a Directory

To delete a directory, press **F5** (Directories), and then choose **Delete**. At the prompt, type the name of the directory to delete and press ↵. Include the complete path if necessary. When you press ↵, ProFinder deletes the directory.

Note: If the directory to delete contains any files or subdirectories, ProFinder will not delete it. You must delete all the files and subdirectories before deleting the directory.

Exiting ProFinder

Press **F8** to exit ProFinder. When you use **F8**, if you've changed from one directory to another since starting ProFinder, you exit to the directory you've changed to. You can also exit by pressing **Esc**. When you press **Esc**, you exit to the directory you were in when you started ProFinder.

If you are running WordStar (or another program) from ProFinder, you can't exit ProFinder until you exit WordStar (or the other program). If you try to exit, you'll find yourself back in WordStar. For more information, see "Using the Hot Keys."

You can also exit by choosing **Quit** from the menu displayed when you run the Menu command (**F10**). For more information about using this menu, see "Creating and Using Menus."

More About ProFinder

This chapter gives information about more advanced ProFinder functions. You should be somewhat familiar with ProFinder before using these functions.

Setting the Configuration Options

The Configuration submenu of the Options Menu contains several options that you can set. To set these options, press **F6** (Options) at the file list, then choose **Configure**. When you change a setting, the new setting is used until you exit ProFinder. To make the setting permanent, choose the **Save all settings** option. The configuration options are described below.

User synonym file This option allows you to give the name of the synonym file used when you use ProFinder to locate files (or file titles) that contain certain text. If your search string contains any word that is the first word in a line of the synonym file, ProFinder will search for all the other words in the line as well.

The default synonym file is USERSYN.PF. You can edit the USERSYN.PF file that comes with ProFinder, or you can create another file. To change to a different synonym file, choose this option and give the name of the synonym file.

The synonym file is an ASCII file, which you can create and edit with WordStar in non-document mode. It consists of one line for each word for which you are naming synonyms. The line consists of the word followed by all its synonyms. All the words in the line are separated by commas.

Hot key settings This option allows you to change the hot keys, the program started by the flip hot key, and the keyboard delay. The four choices are explained below.

Program is the program that is started when you first press the flip hot key. Normally this is WordStar. You can change this if you want to run another program with the flip hot key. The default program command line is ws ~f~e /o~o. The ~f and ~e insert the highlighted filename and extension into the command line. For more information on these and other options you can use, see the list in "Creating and Using Menus." If you enter a different program name, you must include the program file extension if it is not .EXE.

Flip hot key and *Copy hot key* allow you to change the + and - hot keys to other keys. When you choose one of these options, press the hot key you want to use. You can use any function key or a combination of the **Alt** key and a letter, number (not those on the numeric keypad), hyphen, or equal sign. The new hot key is in effect as soon as you press it. Take care not to select a hot key that conflicts with a WordStar command or a hot key for a memory-resident program you use.

TIP *You may want to change both hot keys so that they don't interfere with page preview. Otherwise, when you start WordStar using the ProFinder hot key, you won't be able to use the + and - keys for the zoom options in page preview.*

Keyboard delay allows you to set the speed at which your keyboard copies a block when you use the copy hot key. The default is 0, no delay. This works fine with WordStar. However, if you set up ProFinder so that the flip hot key starts a different program, and you notice that you lose characters when you use the copy hot key to copy a block, you may need to set a keyboard delay. Try increasing the delay to 1 or 2; no system should require a delay greater than 5.

Print margin This option sets the distance from the left edge of the paper where printing begins when you use ProFinder to print a file you're viewing. Enter the number of columns you want for the margin.

File format This option sets the format that ProFinder uses when you view a file. The default is WordStar. You can choose WordStar, ASCII, or WordStar 2000 format. (This setting also changes when you use **^QG** to toggle file format when you're viewing a file.) ProFinder automatically recognizes Lotus 1-2-3 files regardless of which format is chosen.

Tab settings This option determines how document tabs are displayed when you view different types of files. You can have different tab sizes for all files with three specific filename extensions (which you can specify), and one tab size for all other files. The defaults are 4 for files with the .C and .H extensions and 8 for all other files. To change any extension or tab size, move the cursor to the item you want to change and enter the new setting.

About This option displays program information about ProFinder.

Save all settings This option saves all the configuration settings and several other settings. Be sure to choose it if you want the new settings to be permanent. If you don't save your settings, the new settings remain in effect only until you exit ProFinder.

Besides the configuration settings, this option saves the on/off options on the Options Menu, the sort order for sorting, automatic file list sorting, settings for four options for copying and moving files, settings for four options for locating files or text, and the list of extensions to skip while searching for files. If you have changed any of these settings, the new setting will now be the default until you change it again and save the setting. You can also change and save these options using the PFINST installation program. See "Installing ProFinder."

Command Line Options

When you type **pf** to start ProFinder, you can add other information to have ProFinder automatically do certain operations as it starts. The complete command line syntax is

pf *filespec search1 search2 search3 /option*

filespec is the search path for the file list to display; for example, C:\MEMOS\*.MEM, or A:*.*. The default is a file list of all files in the current directory; use a filespec if you want to display a different list. If you want the default directory list and you want to specify a search string or option, you can put a period (**.**) in the filespec position to indicate *.*.

search1, *search2*, and *search3* are search strings. If you specify any search strings, ProFinder automatically runs its Locate function, and the file list that appears includes only the files that contain any of these strings. If a search string contains any spaces, enclose the string in quotation marks. For example, to search all files in the current directory for the words yacht and party, type **pf . yacht party**. To search all .DOC files for April 9, 1990, type **pf *.doc "April 9, 1990"**.

/option is either **/k** or **/m**. **/m** tells ProFinder to display the menu in the file named after the equal sign. **/k** tells ProFinder to run the commands signified by the keystrokes that follow the equal sign. All the keystrokes must be enclosed in quotation marks. For example, you can use the **/k** option to sort a file list; type **pf /k="{F7}{enter}"**. **{F7}** chooses the Sort function, and **{enter}** accepts the default sort order. For more information about these options, see "Creating and Using Menus."

Running Another Program or DOS Command

You can run another program or command from ProFinder in several ways. One simple way is by using the flip hot key; this enables you to run ProFinder and another program (usually WordStar) at the same time. Other ways to run a program or command are described below.

The Go to DOS Command

To go to DOS without exiting ProFinder, press **F4** (Files), then choose **Go to DOS**, and use any DOS commands you want. When you are finished, type **exit** and press ↵ to return to ProFinder. Don't use this command to load a memory-resident program; exit from ProFinder first.

You can't use Go to DOS when you are flipping between ProFinder and WordStar. (You can use the WordStar command to run a DOS command.)

The Run Command

This command allows you to run a program from ProFinder in two ways. You can't use this command while you are flipping between ProFinder and WordStar.

First, when you move the highlighting to a filename with the .EXE, .COM, or .BAT extension and press **F9**, ProFinder exits to DOS and starts the program.

Second, when you press **F9** while highlighting files with certain filename extensions, ProFinder can start the program you use to edit these files. With many programs, it can automatically open the highlighted file. A file named EXTLIST.PF contains a list of extensions and one or more commands to run for each extension.

The EXTLIST.PF file supplied with ProFinder has two extensions. You can add, change, or delete items in this file by editing it in WordStar nondocument mode. Notice that you can give several commands to be run for an extension. Put each command on a new line and indent each of these additional lines at least one column. Use a comma between the extension and the first command. This file is shown below:

```
DOC,ws ~d~p~f~e
WKS,c:
      cd\lotus
      123
      pf ~d~p
```

The first line in the file tells ProFinder to start WordStar and open the highlighted file when the highlighted file has the .DOC extension and you press **F9**. It types **ws** followed by the current drive letter (~d), directory path (~p), filename (~f), and extension (~e).

The rest of the file tells ProFinder to start Lotus 1-2-3 when the highlighted file has the .WKS extension and you press **F9**, and to restart ProFinder on the current drive (~d) and path (~p) after you finish using Lotus 1-2-3.

The next section, "Creating and Using Menus," contains more information on the options you can use in the EXTLIST.PF file.

Creating and Using Menus

You can set up a system of menus of things you can do from ProFinder. To display your main menu, you press **F10** (Menu) at the file list.

*TIP You can have several menus to use in different directories if you want. When you choose **F10**, ProFinder first looks in the current directory for a USERMENU.PF file. If it doesn't find one, it then looks in the directory where you installed ProFinder.*

A sample menu has been set up for you. To choose any option on the menu, move the highlighting to the option and press ↵ or just press the first letter of the option. You can use this menu as it is, or you can change it by adding, modifying, and deleting choices. The menu is in a file named USERMENU.PF, which you can edit as a WordStar nondocument file.

The sample file is shown below.

```
>Sample Menu
Documents,      /k=":c{enter}{F3}\doc{enter}{F7}{enter}"
<------Inset------
Inset,          c:
                cd\inset
                inset
                pf ~d~p
Remove Inset,   c:
                cd\inset
                ri
                pf ~d~p
<----PC-Outline---
Normal version, c:
                cd\pco
                pco /r
                pf ~d~p
Small version,  c:
                cd\pco
                pco /r /m=20
                pf ~d~p
<------Other------
Lotus,          c:
                cd\lotus
                123
                pf ~d~p
Quit,           /m=quitmenu.pf
```

Here is the format for the menu file:

- The menu title ("Sample Menu") begins with a right angle bracket (>). This tells ProFinder to center the title at the top of the menu.
- Each of the lines that is a heading on the onscreen menu begins with a left angle bracket (<). The bracket does not appear on the menu. (The left angle bracket can also be used to create an inactive menu item; the menu line appears dim and the highlighting skips over the line so that you can't choose it.)
- Only the lines that are to appear on the onscreen menu start in the first column. The other lines must be indented at least one space.
- The lines that appear on the onscreen menu can be no longer than 30 characters. Fewer characters are better; ProFinder automatically adapts the size of the menu window to the length of the longest menu line.
- Each line that appears on the onscreen menu is separated from the other information in the file by a comma.

- Each line that appears on the onscreen menu causes ProFinder to run all the commands following it in the file until the next menu (unindented) line. These commands can be any DOS commands.

The commands in the menu file can include several ProFinder options, which are listed below. Each option begins with the ~ (tilde) character, which you'll find on the keyboard.

~d	This is replaced with the current drive letter and a colon (for example, C:).
~p	This is replaced with the current directory path (for example, \WS\DOC).
~f	This is replaced with the current filename.
~e	This is replaced with the current filename extension (including the dot).
~o	This is replaced with the offset (position in the file in decimal notation) of the first instance of the search text if you've used the **Locate** command. If you haven't used **Locate** and you've viewed the file since starting ProFinder, the offset used is the most recent cursor location. You can use **~o** with the WordStar **/o** command line option to start WordStar, open a file, and go to this location in the file.
~m	This is replaced with the file mask currently in use with ProFinder. For example, if the current file list shows C:\WS\*.DOC, and you use a menu command that contains ~m, ProFinder inserts C:\WS\*.DOC into the command line.

Three special ProFinder commands enable you to use the menu for advanced ProFinder functions. They are described below.

/k= tells ProFinder to close the menu and then do the ProFinder functions signified by the following keystrokes. All the keystrokes must be enclosed in quotation marks (" "). For example, the command for the Documents menu line uses the **/k** command to switch to the \DOC directory and display a sorted file list as explained below.

```
Documents,/k=":c{enter}{F3}\doc{enter}{F7}{enter}"
```

The **:** displays the disk drive prompt, and **c{enter}** changes to drive C. At this point, the directory path prompt is on the screen. **{F3}** clears the displayed path and **\doc{enter}** changes the directory to \DOC. **{F7}** chooses the Sort function, and **{enter}** accepts the default sort order.

Notice that the names of certain keys are enclosed in curly brackets ({ }). The function keys are {F1} through {F10}, the ↵ key is {enter}, and **Esc** is {esc}. (You can use either uppercase or lowercase letters.)

/f= tells ProFinder to place the highlighting at the specified filename. For example, **pf ~d~p /f=~f~e** would start ProFinder, change to the same directory, and highlight the same filename as when you chose the menu option.

/m= tells ProFinder to close the menu and then display the menu in the file named after the equal sign. For example, the Quit line in the menu reads:

```
Quit,/m=quitmenu.pf
```

This command displays the menu in the QUITMENU.PF file, which is shown below. It works just like USERMENU.PF. It is supplied with ProFinder as an example of a submenu you can construct.

```
>Exit to:
Current directory,/k="{F8}"
Initial directory,/k="{ESC}"
Resume,/k=""
```

The first menu line, Current directory, sends ProFinder the **F8** command, and you exit to the directory of the current file list. The second line sends ProFinder the **Esc** keystroke, and you exit to the directory where you started ProFinder. The last menu line, Resume, sends ProFinder no keystrokes, and you return to the ProFinder file list.

You can construct as many levels of submenus as you like, as long as the main menu is named USERMENU.PF.

Tips for Advanced Users

ProFinder is great for creating and working with a list of files. Here are a few tips you may find useful:

- Need to create a batch file to do something with several files? Tag the files, then choose **F4** (Files) and choose **Write filenames**. Give the filename you want for your batch file and give a prefix or suffix (or both) to put commands or other information into your batch file. For example, to create a batch file to copy a group of files to a floppy disk, use the prefix **copy** and the suffix **a:**. The resulting batch file might look like this:

  ```
  copy file1.ext a:
  copy file2.ext a:
  copy file3.ext a:
  ```

- Here's another way to mark a group of files. Place an identifying tag in the file title of each file; for example, make sure each file title contains the characters **#1**. Then, whenever you want to do something with these files, press **F2** (Locate) and choose **Find files by title**. Specify **#1** as the text to locate. The new file list will include only this group of files, and you can copy, move, or do another operation with them.

- It's easy to back up your files to floppy disks. First, tag all the files you want to back up. (Use **F3** or **File tag by wild card** on the **F4** Files Menu. Then press **F4**, choose **Copy**, and name your floppy disk drive. ProFinder copies the files. When the floppy disk is full, copying automatically pauses to let you insert another disk.

- The example below shows how a programmer can quickly locate and edit all the C source files that reference a certain procedure whose argument list has changed.

  1. To see a list of the source files, start ProFinder by typing **pf *.?** to display all the .C and .H files.

  2. To list only the source files that reference a specific procedure, press **F2** (Locate) at the file list and choose **Search files by text**. Use the name of the procedure or other identifying text as the text to locate, and run the search.

  3. To note which of these files require changes, move the highlighting to each filename in turn and press ↵ to view the file. When you view each file, the cursor is on the first instance of the search text. You can scroll through each file if necessary to find if you need to change it. If you need to change the file, when you return to the file list, press **F3** to tag the filename.

  4. When you finish viewing and tagging files, move the highlighting to the first filename you tagged and press the flip hot key (the + key unless you've changed it). ProFinder starts WordStar and opens the highlighted file. (The default hot key program is WordStar; if you have changed it, you must change it back for this step to work.) Edit the file to make your changes, then save it.

  5. Choose the WordStar command to open a file. At the prompt for the file to edit, press the copy hot key (the - key unless you've changed it). ProFinder copies the next tagged filename from the file list. Edit the file, and repeat this procedure until you've edited all the tagged files. While you're editing files, you can use the flip hot key at any time to flip back to ProFinder to check something about your files, then flip back into WordStar right where you left off.

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STAR EXCHANGE™

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Introduction

Star Exchange converts documents created with one application to be compatible with documents created with another application. For example, you can convert a document originally created with WordStar 2000 to the WordStar format, and then edit the file as you would any WordStar document.

This documentation addresses conversions between WordStar and other applications. However, Star Exchange also converts between WordStar 2000 and other applications. Either WordStar or WordStar 2000 must be one of the applications in every Star Exchange conversion you do. For example, you can't use Star Exchange to convert between Microsoft Word and MultiMate.

Conversion doesn't alter the original documents; it produces separate, converted documents. After a document has been converted, it may need some editing to duplicate the exact appearance of the original. However, special codes, formatting, and word wrapping are retained during conversion, so the editing needed is minimal.

The Star Exchange documentation includes

- The "Introduction," which gives an overview of Star Exchange, lists the applications supported, and briefly describes the Automatic Translation feature.
- "Using Star Exchange," which tells you how to convert documents. This chapter also contains tips for editing converted documents and a list of features supported by Star Exchange.
- "Error Messages," which lists the error messages you may see in Star Exchange, tells you what they mean, and indicates what to do next.

Applications Supported by Star Exchange

Star Exchange supports over 50 applications. You can convert files from your favorite word processor as well as spreadsheets and databases. For a complete list of the supported applications, see "Supported Applications" in the Appendix.

ASCII conversions are useful in preparing documents for electronic mail transfer or for sharing documents with applications not supported by Star Exchange. Converting a document to ASCII allows an unsupported application to import, view, and print the converted document. In general, WordStar accepts standard ASCII data files, and it's not necessary to convert them through Star Exchange.

Automatic Translation

When converting between applications, you normally tell Star Exchange what application the source document was created with. If you don't know what application was used, that is, if you don't identify it to Star Exchange, Star Exchange can still determine the file format with its Automatic Translation feature. For more information, see "Using Auto Translate" in the chapter "Using Star Exchange."

Using Star Exchange

You can install Star Exchange at the same time you install WordStar. You can also install Star Exchange by starting WINSTALL and using the Add or Remove a Feature option. For instructions on how to start WINSTALL, see the *Installing and Customizing* booklet. You can also use Add or Remove a Feature to add or delete any conversion applications.

When Star Exchange is installed on your computer, you can convert documents to or from WordStar. The two procedures available for converting documents are described below. Instructions for both procedures are in this chapter.

- "Quick Steps for Converting Documents" takes you quickly through the basic steps for conversion. Once you're familiar with Star Exchange, this information may be all you need to convert your documents.
- "Detailed Information on Converting Documents" provides complete details on all aspects of conversion, including screen examples and parameter information. This information supplements the "Quick Steps" procedure described above.

The instructions in this chapter tell you to select WordStar as Conversion A and the other application as Conversion B. You should be aware that WordStar can be either Conversion A or Conversion B. You can convert in either direction, from Conversion A to Conversion B or from Conversion B to Conversion A.

Note: Before you start a conversion, be sure to review the onscreen parameters for your application at least once. For more information, see "Setting Conversion Parameters" in this chapter.

Quick Steps for Converting Documents

To convert documents, you can use either the quick steps below or the more detailed procedure that follows the quick steps (see "Detailed Information on Converting Documents").

1. Start the session from either WordStar or the system prompt.

   At the WordStar Opening Menu or screen, choose Star Exchange from the Additional Menu.

   You can also start Star Exchange at the system prompt. Log on to the WS\CONVERT directory (or the directory containing your Star Exchange files). At the DOS prompt, type **convert** and press ↵.

2. Select the applications:

   At the Main Menu, press **3** for System Setup. Be sure *WordStar* appears in the Conversion A box. Move the other application you'll use for the conversion into the Conversion B box. (Use the ↑, ↓, ←, and → keys to select applications and move them into the conversion boxes.)

3. Press **Esc** to return to the Main Menu.

4. Select the direction of conversion:

   At the Main Menu, press **1** to translate from Conversion A (WordStar) to Conversion B, or press **2** to translate from Conversion B to Conversion A.

   Note: If you choose Auto Translate or a database or spreadsheet as one of your conversions, only one option appears on the Main Menu: for example, **Translate from Auto Translate to WordStar**.

5. Queue documents for translation:

   Type the name of the source document, including the drive letter and directory path; for example, **b:letter.doc**. Press ↵.

   To queue documents from a directory:

   a. Press **F2**.
   b. Type the name of the drive or directory; for example, **c:\wp\docs**. Press ↵.
   c. Use the ↑ and ↓ keys to scroll through the directory list.
   d. Press ↵ to enter a highlighted document into the queue.
   e. Press **Esc** to end directory assistance.

6. Translate the queued documents:

   Press **F10** to start conversion.

7. End the session:

   When conversion is complete, press any key to return to the Main Menu. At the Main Menu, press **4** to return to DOS.

8. Edit the converted documents (see "Editing Converted Documents" in this chapter).

Detailed Information on Converting Documents

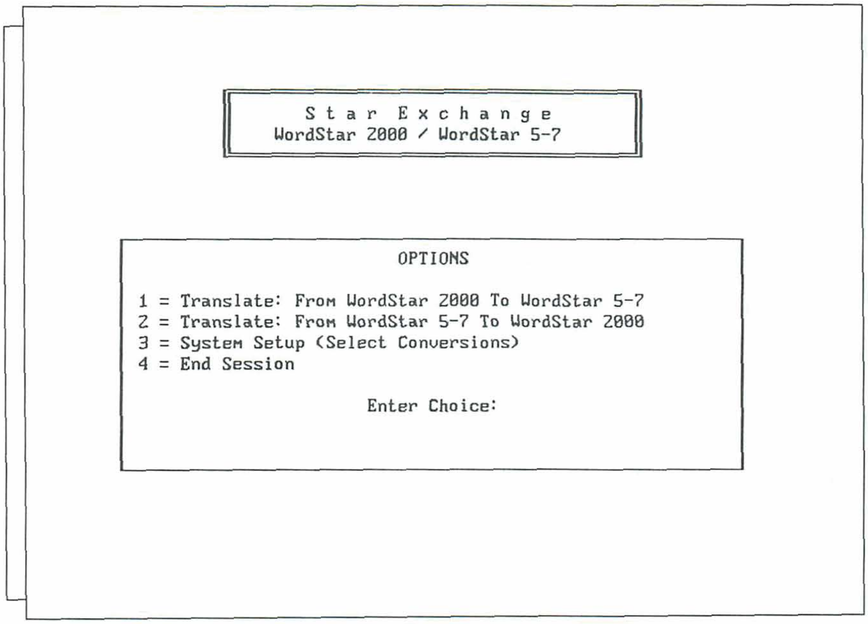
Starting the Session

Start the session from either WordStar or the system prompt.

At the WordStar Opening Menu or screen, choose Star Exchange from the Additional Menu.

You can also start Star Exchange at the system prompt. Log on to the WS\CONVERT directory (or the directory containing your Star Exchange files). At the DOS prompt, type **convert** and press ↵.

The Star Exchange Main Menu appears.



```
          Star Exchange
     WordStar 2000 / WordStar 5-7

                    OPTIONS

1 = Translate: From WordStar 2000 To WordStar 5-7
2 = Translate: From WordStar 5-7 To WordStar 2000
3 = System Setup (Select Conversions)
4 = End Session

                 Enter Choice:
```

The Main Menu options are described below.

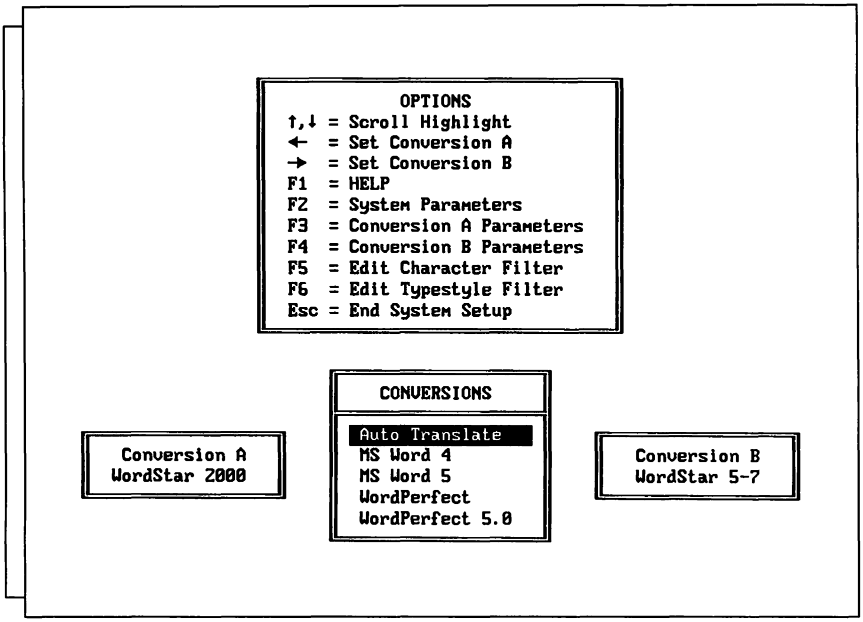
- Options 1 and 2 display Input Queue screens where you list the documents you want to convert.

- Option 3 displays the Conversions Menu. You use this menu for selecting the applications you'll use for the conversion, setting parameters for naming and storing the translated documents, selecting the system work area where the documents are to be stored during conversion, and editing the character and typestyle filters.
- Option 4 returns you to DOS.

TIP Onscreen help is available from any Star Exchange screen where F1 = HELP *is shown as an option. Press the* ***F1*** *key for help; press* ***Esc*** *to leave the help screen.*

Selecting an Application

1 At the Star Exchange Main Menu, press **3** for System Setup. The Conversions Menu appears.



```
                     OPTIONS
              ↑,↓ = Scroll Highlight
              ←   = Set Conversion A
              →   = Set Conversion B
              F1  = HELP
              F2  = System Parameters
              F3  = Conversion A Parameters
              F4  = Conversion B Parameters
              F5  = Edit Character Filter
              F6  = Edit Typestyle Filter
              Esc = End System Setup

                   CONVERSIONS

                 Auto Translate
Conversion A     MS Word 4              Conversion B
WordStar 2000    MS Word 5              WordStar 5-7
                 WordPerfect
                 WordPerfect 5.0
```

The Conversion boxes on the Conversions Menu show the applications and other file formats you can convert to or from with Star Exchange. To convert between WordStar and another application, *WordStar* should be in the Conversion A box and the other application in the Conversion B box. Once you set them up, the Conversion A and B boxes remain the same until you change them.

Note: If Auto Translate is one of your conversions, you don't need to identify the source application during System Setup. For more information, see "Using Auto Translate" in this chapter.

2 Be sure *WordStar* is in the Conversion A box. Move the other application to be used in the conversion into the Conversion B box.

(Use the ↑ and ↓ keys to select an application; use the ← or → key to move it into the Conversion B box.)

Setting Parameters

After selecting an application, you can select options from the Conversions Menu that allow you to set parameters for the conversion. Default parameters have already been set in Star Exchange. You can use those if you wish, or you can change them. For example, you might want to change the Output Directory parameter that specifies where to store your converted documents (the default is the current drive and directory).

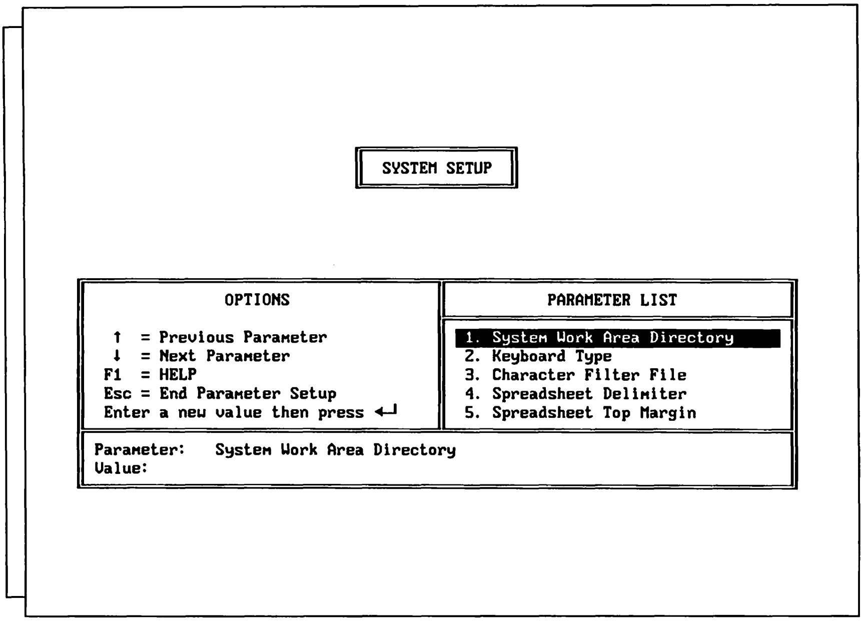
You should review the onscreen parameters for your application at least once before doing a conversion. Once you've set parameters for the conversion, you'll probably use the same ones for all conversions, unless you change computers or applications.

You can select the parameters options shown below by using the **F2, F3, F4**, **F5**, and **F6** keys on the Conversions Menu.

- The **System Parameters (F2)** option is for setting parameters that affect the internal system work area, the keyboard type, the character filter file, and the spreadsheet delimiter and margins.
- The **Conversion A Parameters (F3)** option is for viewing or changing the parameters for the Conversion A application (WordStar).
- The **Conversion B Parameters (F4)** option is for viewing or changing parameters for the Conversion B application.
- The **Edit Character Filter (F5)** option creates a character filter file. It tailors the conversion by replacing a character found in the source document with a specific character in the converted document, based on the character filter file. This option is helpful when the destination application contains characters that are not supported by the source application.
- The **Edit Typestyle Filter (F6)** option allows you to substitute any typestyle (font) in your source document with any supported typestyle in the converted document. This is helpful when the destination application supports fonts that aren't supported by the source application.

Setting System Parameters (F2)

At the Conversions Menu, press the **F2** key. The System Setup Menu is displayed.



```
                         SYSTEM SETUP

            OPTIONS                          PARAMETER LIST

  ↑   = Previous Parameter           1. System Work Area Directory
  ↓   = Next Parameter               2. Keyboard Type
  F1  = HELP                         3. Character Filter File
  Esc = End Parameter Setup          4. Spreadsheet Delimiter
  Enter a new value then press ←┘    5. Spreadsheet Top Margin

 Parameter:   System Work Area Directory
 Value:
```

Use the ↑ and ↓ keys to highlight the parameter you want. The six parameters available are described below.

- **System Work Area Directory** This parameter determines where the intermediate work files are to be stored during conversion. Although Star Exchange automatically erases these files after each conversion, they temporarily need about 1½ times the size of the largest document being converted.

  To set this parameter, type a drive letter or the name of an existing drive and directory, and press ↲.
- **Keyboard Type** This parameter is determined by the type of keyboard you have—disregard it unless you're using an alternative keyboard layout such as Norwegian, Danish, or Hebrew.
- **Character Filter File** This parameter specifies which *existing* character filter file to use for the current conversion. If you don't name an existing filter file in this parameter, none will be used. For more information, see "Edit Character Filter (F5)" in this chapter.

- **Spreadsheet Delimiter** This parameter specifies characters or keys that Star Exchange should insert between columns of converted spreadsheets or databases. You can select commas, tabs, or spaces. Tabs will help you align the columns once you edit the file in a word processor.
- **Spreadsheet Top Margin** This parameter determines the top margin of the converted spreadsheet when it is loaded into the word processor. Enter the value of the top margin and the unit of measure (cm, CM, in, IN, inch, or Inch). The default value is 1 inch.
- **Spreadsheet Bottom Margin** This parameter determines the bottom margin of the converted spreadsheet when it is loaded into the word processor. Enter the value of the Bottom Margin and the unit of measure (cm, CM, in, IN, inch, or Inch). The default value is 1 inch.

Setting Conversion Parameters (F3 and F4)

You can have some control over the codes and format information in a converted document by setting parameters during system setup. Star Exchange stores a separate set of parameters for each application it supports. Some parameters—primarily those that determine how converted files are named and stored—are standard for all supported applications. They are described on the following pages. Others, which you'll see on the onscreen parameter lists, apply to specific applications. These parameters are described on the help screens. To display help, press the **F1** key.

The first time you use Star Exchange, the parameters are set to the default values. After that, the parameters for Conversions A and B are set to the values that were used for the most recent conversion.

To set conversion parameters, start at the Conversions Menu. Press **F3** to set parameters for the Conversion A application (WordStar), or press **F4** to set parameters for the Conversion B application. When the System Setup Menu appears, use the ↑ and ↓ keys to scroll through the parameter list. Each time you type a new value for a parameter, be sure to press ↵ to save the value.

The standard parameters shown below are available for most supported applications. Use the ↓ key at the parameter list to check for possible additional parameters.

Note: There are no parameters available for spreadsheet or database files since you can't convert to those formats.

Output Directory

This parameter determines where the converted files are to be stored. If you don't specify this information, the documents are stored in the current drive and directory.

To specify another directory, type the name of an existing directory and path, and press ↵. For example, type **c:\document** to have the converted documents stored in the DOCUMENT directory on drive C.

File Naming Method

This parameter determines how converted files are named. Five ways for naming files are available, as shown below.

- **Original Filename with User Defined Extension** If you select this method, the filename of the source document is automatically assigned to the converted document in this form:

  [Output Directory][Original File Name].[Output File Extension].

  The Output Directory and Output File Extension parameters are also used to build the filename.

  EXAMPLE

  If a source document named LETTER.XYZ is converted to a different application, and the parameter values are

  Output Directory = **C:\DOC**
  Filenaming Method = **Original Filename with User Defined Extension**
  Output File Extension = **.ABC**

  then the converted file is named: C:\DOC\LETTER.ABC.

- **Original Filename with Original Extension** Choose this method if you want the converted document to be automatically assigned the same name as the source document.

  Note: If Star Exchange creates the converted document in the same directory as the source document, your source document will be overwritten.

- **User Defined Filename with User Defined Extension** The user assigns the filename and the extension. The Output Directory, User Defined Filename, and User Defined Extension parameters are used to build the filename.

- **User Defined Filename with Original Extension** The user assigns the filename and Star Exchange assigns the file extension, using the original extension from the source document. The Output Directory and User Defined Filename parameters are used to build the filename.

  Note: When a document of the same name already exists, Star Exchange prompts you for instructions. Then you can either type a new name and press ↵ , or press **Del** to overwrite the existing document.

- **Prompt User for Filename** This method allows the user to assign the filenames. When you select this parameter, Star Exchange prompts you for a name as each document is converted. You must also include the drive letter or directory name, as necessary, and any mandatory file extension; for example, .DOC for documents that are converted to MultiMate.

User Defined Filename

If you selected a filenaming method where the user assigns the filename, use this parameter for the filename.

You may include a plus sign (+) as the last character in the filename if you want to increment the filenames automatically with numbers, starting with 001. (DOS allows only eight characters for a filename, so limit your filename to five characters when you use the plus sign.)

EXAMPLE

USER DEFINED FILENAME	**FILENAMES OF CONVERTED DOCUMENTS**
ABC+	ABC001, ABC002, ABC003, etc.
ABC+X	ABC001X, ABC002X, ABC003X, etc.
+	001, 002, 003, etc.

User Defined Extension

If you selected a filenaming method where the user assigns the file extension, use this parameter for the extension.

You may include a plus sign (+) in the extension if you want to automatically increment the extensions with numbers starting at 01. (DOS allows only three characters for a file extension, so limit your extension to one character when you use the plus sign.)

EXAMPLE

USER DEFINED EXTENSION	**EXTENSIONS OF CONVERTED DOCUMENTS**
A+	.A01, .A02, .A03, etc.
+	.001, .002, .003, etc.

Note: Special extensions are required by MultiMate 3.6, Advantage II and Wang PC (.DOC) and MultiMate 4.0 (.DOX). You cannot alter the extension for these word processors. For other applications, use any valid DOS extension. (See also the default extensions on the help screen for this parameter.)

Replacement Character

This parameter defines a special character to be inserted in the translated document to mark the location of any nontranslatable character found in the source document. Replacement characters are represented by Hex-ASCII codes; for example, Hex 40 is represented on the screen by an @. (Hex-ASCII codes are listed in the "ASCII Character Charts" in the *Reference* manual.)

Sometimes a source document contains a character that cannot be translated. The character you specify in this parameter will be inserted in the translated document when a nontranslatable character is found. In the converted document, this "marker" indicates a character that needs correcting.

Input File Type

This parameter is useful if you have a database file that you want to use with WordStar. When you choose *Data File* as your Input File Type, Star Exchange converts your data file to an ASCII comma delimited file. (When you convert a data file, Star Exchange changes the Spreadsheet Delimiter from tabs or spaces to *commas.*) You can use the converted file as a data file for merge printing.

Edit Character Filter (F5)

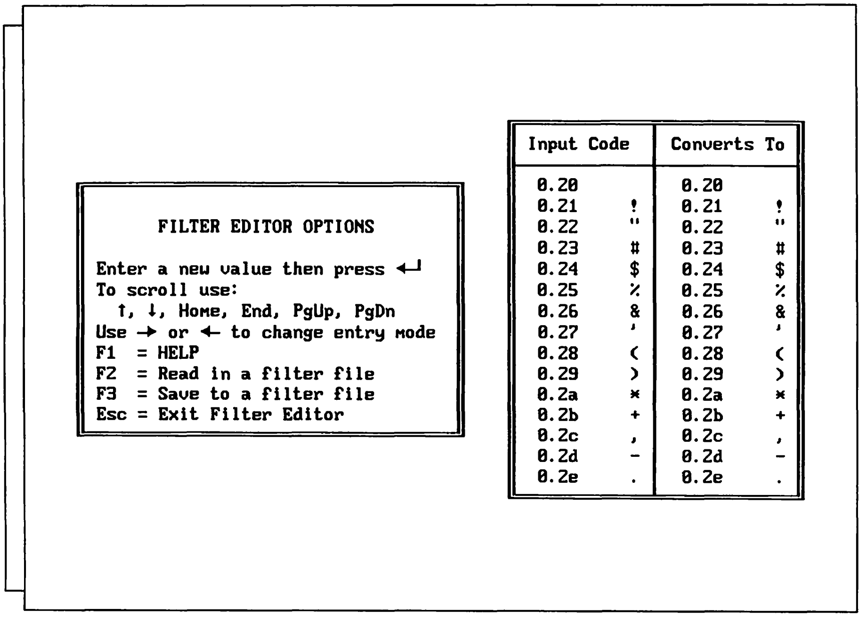
This option allows you to tailor a conversion by creating a file that replaces a specific character (or characters) found in the source document with any character in the converted document. This option is helpful when your destination application does not contain characters that are supported by your source application.

TIP *If you want a filter file to be used during conversion, you* must *specify the drive, filename, and the extension of that file in the Character Filter File parameter (see "Setting System Parameters (F2)" in this chapter).*

To create a filter file:

1. At the Conversions Menu, press **F5**.

   The Filter Table is displayed.



```
FILTER EDITOR OPTIONS

Enter a new value then press ↵
To scroll use:
  ↑, ↓, Home, End, PgUp, PgDn
Use → or ← to change entry mode
F1  = HELP
F2  = Read in a filter file
F3  = Save to a filter file
Esc = Exit Filter Editor
```

Input Code		Converts To	
0.20		0.20	
0.21	!	0.21	!
0.22	"	0.22	"
0.23	#	0.23	#
0.24	$	0.24	$
0.25	%	0.25	%
0.26	&	0.26	&
0.27	'	0.27	'
0.28	(	0.28	(
0.29	)	0.29	)
0.2a	*	0.2a	*
0.2b	+	0.2b	+
0.2c	,	0.2c	,
0.2d	-	0.2d	-
0.2e	.	0.2e	.

In the Filter Table, the values in the Input Code column, which represent characters in the source document, cannot be changed. The values in the Converts To column are the actual replacement characters. These values can be changed.

2 In the Converts To column, use the →, ←, ↑, and ↓ keys to move the cursor to the character you're replacing.

3 To change a character, type either a new character (the replacement character) or the Hex-ASCII representation for that character (see the "ASCII Character Charts" in the *Reference* manual).

4 When the filter file is complete, press **F3** to save it.

5 At the *Save File:* prompt, type a filename and press ↵.

The filename can be any name and extension you choose, and can include a drive name and directory. If you don't include a drive and directory, the default is the current directory.

6 Press **Esc** twice to return to the Main Menu.

To edit an existing filter file:

1 At the Filter Table, press **F2**.

2 At the *Read File:* prompt, type the name of the filter file you want to edit.

3 Make changes and save them as in "To create a filter file" above.

4 Press **Esc** twice to return to the Main Menu.

Edit Typestyle Filter (F6)

This option allows you to select the typestyle, or font, that you want used in a converted document when that font isn't supported by the source application. The font you choose must be supported by the destination application.

The typestyle you choose for your translated document must have the same pitch as the typestyle in the source document. For example, if the source document uses 10 pitch, you can't select a typestyle that is 12 pitch for the translated document. If you do, Star Exchange ignores your selection.

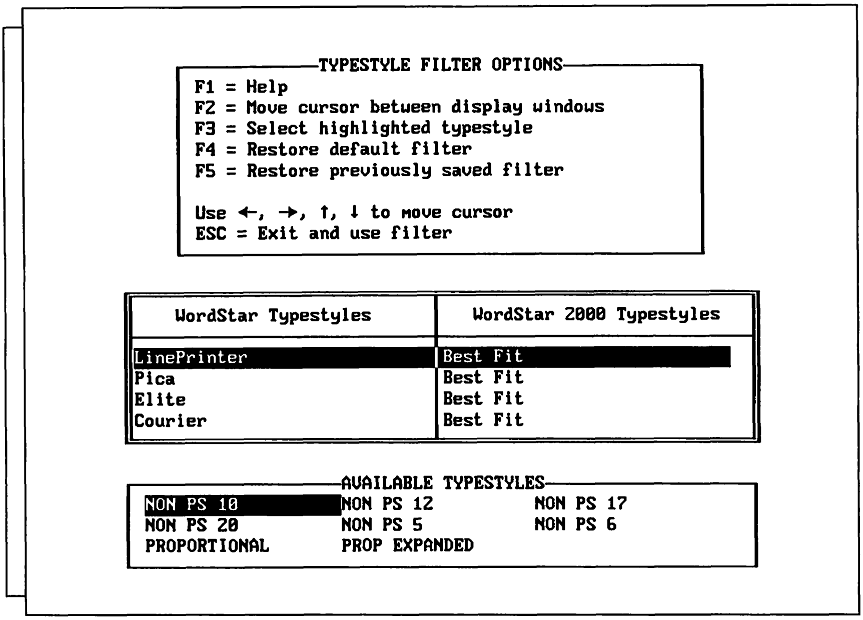
If your conversion includes WordStar 2000 or WordPerfect, be sure to specify the WordStar 2000 PDF file or the WordPerfect PRS file in the appropriate Conversion A or Conversion B Printer Description File parameter during system setup. Specify the drive letter or directory path, if necessary. Otherwise, Star Exchange won't be able to find the correct typestyles.

To edit the typestyle filter:

1 At the Conversions Menu, press **F6**.

2 At the Choose a Direction to Edit screen, press **1** or **2** to select the direction of your conversion.

The Typestyle Filter Menu is displayed.



```
TYPESTYLE FILTER OPTIONS
F1 = Help
F2 = Move cursor between display windows
F3 = Select highlighted typestyle
F4 = Restore default filter
F5 = Restore previously saved filter

Use ←, →, ↑, ↓ to move cursor
ESC = Exit and use filter

WordStar Typestyles          WordStar 2000 Typestyles

LinePrinter                  Best Fit
Pica                         Best Fit
Elite                        Best Fit
Courier                      Best Fit

AVAILABLE TYPESTYLES
NON PS 10         NON PS 12          NON PS 17
NON PS 20         NON PS 5           NON PS 6
PROPORTIONAL      PROP EXPANDED
```

On this screen, the top window lists the options available; the middle window lists the typestyles supported by both the source and the destination applications; the bottom window lists the available typestyles for the destination application (you select a typestyle from this list).

3 Select options as needed:

F1 displays Help, which includes complete instructions for editing the Typestyle Filter.

F2 moves the cursor between the Options window and the Available Typestyles window.

F3 selects the typestyle highlighted in the Available Typestyles window.

F4 restores the original Star Exchange default filter for use in subsequent conversions.

F5 displays the previously saved filter changes and allows you to make further changes.

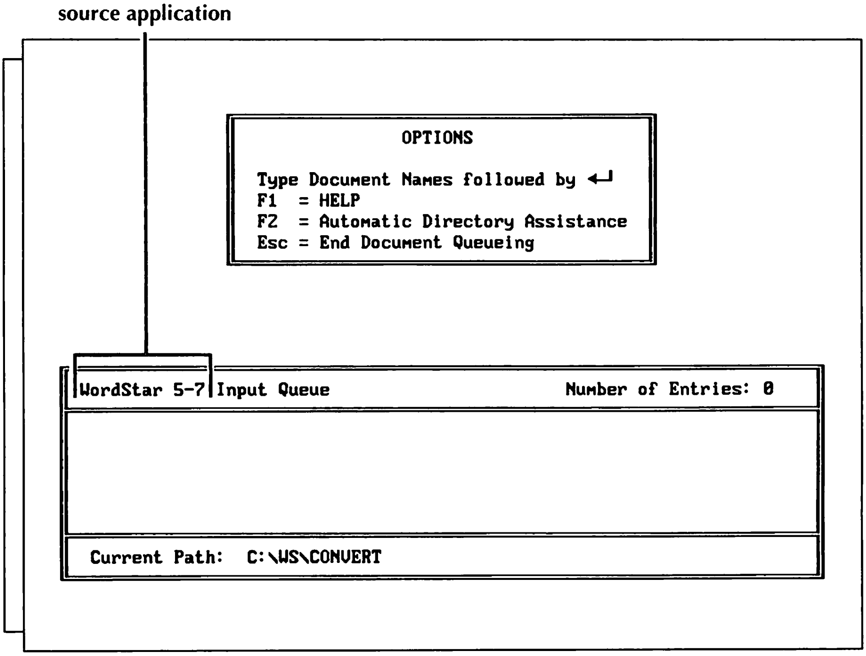
F10 saves your changes.

Queuing Documents for Translation

When the parameters are set as you want them, press **Esc** twice to return to the Main Menu. (You'll see a message on the screen telling you the parameter settings are being saved.) At the Main Menu, press **1** or **2** to choose the direction of conversion, either from A to B or from B to A.

The Input Queue appears. On this screen, you specify the documents to be converted by manually typing each document name or by selecting each document (or an entire directory) from an onscreen directory display.

The Input Queue, shown below, has room for 100 document names. The application named on the screen is the *source* application, the one you're converting *from*.

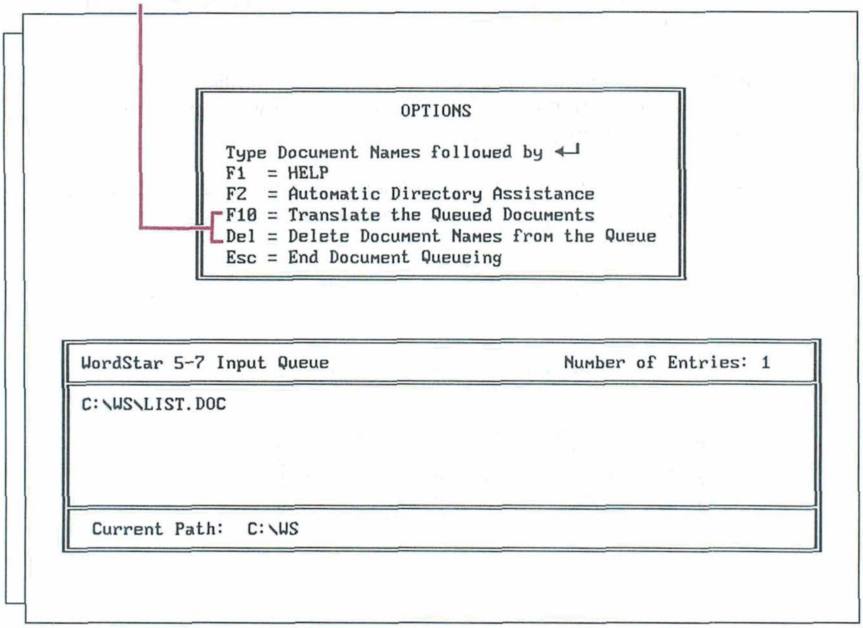


```
OPTIONS

Type Document Names followed by ←┘
F1  = HELP
F2  = Automatic Directory Assistance
Esc = End Document Queueing
```

```
WordStar 5-7 Input Queue                    Number of Entries: 0

Current Path:  C:\WS\CONVERT
```

Note: When you use the Auto Translate option, the Input Queue screen is divided into two sections—one for the document names and one for the names of the source applications, as determined by Star Exchange. For more information, see "Using Auto Translate" in this chapter.

After you enter the first document name into a queue, the OPTIONS list changes to include two more options, as shown below.



additional options

```
                         OPTIONS

   Type Document Names followed by ↵
   F1  = HELP
   F2  = Automatic Directory Assistance
   F10 = Translate the Queued Documents
   Del = Delete Document Names from the Queue
   Esc = End Document Queueing
```

```
WordStar 5-7 Input Queue                     Number of Entries: 1

C:\WS\LIST.DOC




 Current Path:  C:\WS
```

- To type individual document names in the queue, see "Manual Entries" below.
- To select documents from a directory display, see "Automatic Directory Assistance," which follows "Manual Entries."

Manual Entries

In the Input Queue screen, type the first document name (using either upper- or lowercase letters), and press ↵. Continue typing document names, pressing ↵ after each one, until you've entered all the documents that belong in the queue.

- To queue individual documents, type the drive letter or directory path; for example, **b:letter.doc** or **c:\ws\convert\letter.doc**.

  Note: If the drive letter or directory path that appears at the bottom of the Input Queue is where your source documents are located, type only the document names in the queue. When you press ↵, Star Exchange adds the path information.

- To queue *all* documents on a disk or in a directory, type the drive letter or path, and use the DOS wild-card character *.
- To queue documents with related filenames, use the DOS wild-card characters * and ?, and include any identifying drive letter or directory.

EXAMPLES

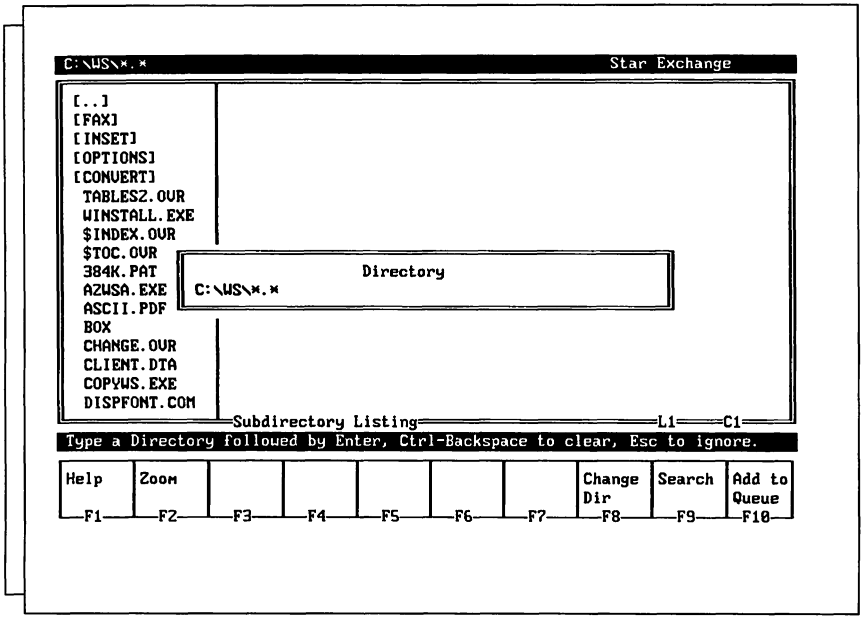
TYPE THIS	TO QUEUE THESE DOCUMENTS
a:*.*	All documents on the disk in drive A.
c:\ws\convert\*.*	All documents in the WS\CONVERT directory on drive C.
a:*.txt	All documents with a .TXT file extension on drive A.
c:\ws\convert\feb??89	All documents with the filename FEB??89 (where ?? is any date) in the WS\CONVERT directory on drive C.

CAUTION All documents in a queue must have been created with the application you chose for the conversion (the source application). Don't mix documents from different applications in the same queue, unless you're using Auto Translate.

Automatic Directory Assistance

Using Automatic Directory Assistance is the fastest way to queue documents that are in the same directory. To add files to the Input Queue using the Directory Assistance screen, follow the quick steps below. For more detailed information about the Directory Assistance screen, see "Using the Directory Assistance Screen" in this chapter.

1 At the Input Queue screen, press the **F2** key. The Directory Assistance screen appears.



```
C:\WS\*.*                                              Star Exchange
[..]
[FAX]
[INSET]
[OPTIONS]
[CONVERT]
 TABLES2.OVR
 WINSTALL.EXE
 $INDEX.OVR
 $TOC.OVR
 384K.PAT                          Directory
 AZWSA.EXE   C:\WS\*.*
 ASCII.PDF
 BOX
 CHANGE.OVR
 CLIENT.DTA
 COPYWS.EXE
 DISPFONT.COM
              Subdirectory Listing                       L1    C1
Type a Directory followed by Enter, Ctrl-Backspace to clear, Esc to ignore.
```

2 Press **Esc** to move to the window on the left side of the screen, which lists the names of all the documents and subdirectories in the current directory. The names in brackets are subdirectories. When a filename is highlighted, the contents of that file appear in the window on the right side of the screen.

3 Use the cursor keys to scroll through the document names. When the document you want to convert is highlighted, press **F10** to add it to the queue.

4 When you finish adding documents to the queue, press **F8** to display the Directory window and specify a different drive and/or directory, or press **Esc** to end Automatic Directory Assistance.

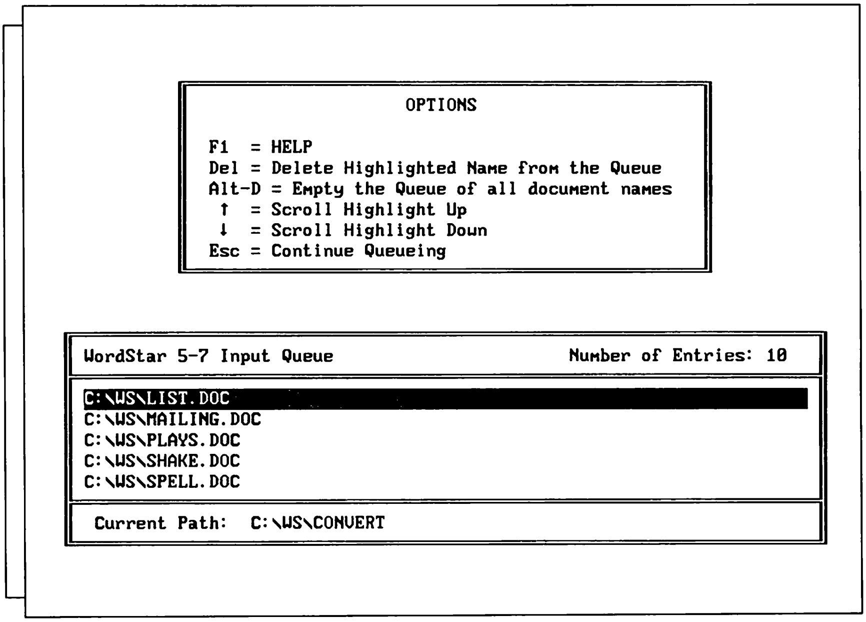
Deleting Documents from the Queue

- Incorrectly typed entries or other improper entries should be deleted from the queue before conversion. Star Exchange doesn't verify that an entry exists until it tries to translate it. Any document that is incorrectly named cannot be translated.
- A queue is not erased automatically after conversion.
- All queues are erased when the session is ended or when you select a different direction of conversion on the Main Menu.

You can delete individual document names or you can delete an entire queue by following these steps:

1 At the Input Queue, press the **Del** key.

This OPTIONS window appears.



```
OPTIONS

F1  = HELP
Del = Delete Highlighted Name from the Queue
Alt-D = Empty the Queue of all document names
 ↑  = Scroll Highlight Up
 ↓  = Scroll Highlight Down
Esc = Continue Queueing

WordStar 5-7 Input Queue                    Number of Entries: 10

C:\WS\LIST.DOC
C:\WS\MAILING.DOC
C:\WS\PLAYS.DOC
C:\WS\SHAKE.DOC
C:\WS\SPELL.DOC

 Current Path:  C:\WS\CONVERT
```

2 Using the ↑ and ↓ keys, highlight the document you want to delete. (To delete the entire queue, skip this step and go to step 3.)

3 Press **Del** to delete the highlighted document. Or press and hold the **Alt** key while you press **D** to delete the entire queue.

4 When you finish deleting files, press **Esc**.

Using Auto Translate

The Auto Translate option on the Conversions Menu lets you convert documents for which the source applications, or file formats, have not been identified to Star Exchange. You simply enter the unidentified files into the Input Queue, and Star Exchange identifies their formats.

To use Auto Translate, choose **Auto Translate** and **WordStar** from the Conversions Menu during system setup. Then choose **Translate: From Auto Translate to WordStar** from the Main Menu. (When Auto Translate is one of the two conversions selected, only one conversion direction is available—*from* Auto Translate *to* WordStar.) At the Input Queue, enter the document names as usual, either manually or using Automatic Directory Assistance. As you enter the document names, Star Exchange identifies them and displays their file formats onscreen.

When you use Auto Translate, the Input Queue is divided into two parts. The document names appear on the left side of the screen; the file formats appear on the right.

If you enter an unidentified document into the queue, and the document was created by an application that is not supported by Star Exchange, the word *UNKNOWN* appears on the right side of the queue opposite the document name. During conversion, Star Exchange bypasses that document and goes on to the next document it recognizes.

Some short WordPerfect 4.2 documents and some ASCII and WordStar 3.3x files may not be recognized by Auto Translate. These documents contain limited or no formatting codes that can be used to determine the origin of the document. Star Exchange treats these documents like any other unidentified document—it displays *UNKNOWN* next to the document name in the queue. The only way to translate such documents is to manually select the conversion as Conversion A or Conversion B.

Translating Queued Documents

When the queue is ready, press **F10** to start the conversion.

CAUTION Be sure you have enough room on your output disk for the converted files—about $1^1/_2$ times the size of the combined input files.

Two windows appear on the screen. One shows the Input Queue (the document being converted is highlighted); the other displays the name of each converted document as it is completed. If you're using Auto Translate, the name of the source application for the document appears while the document is being translated.

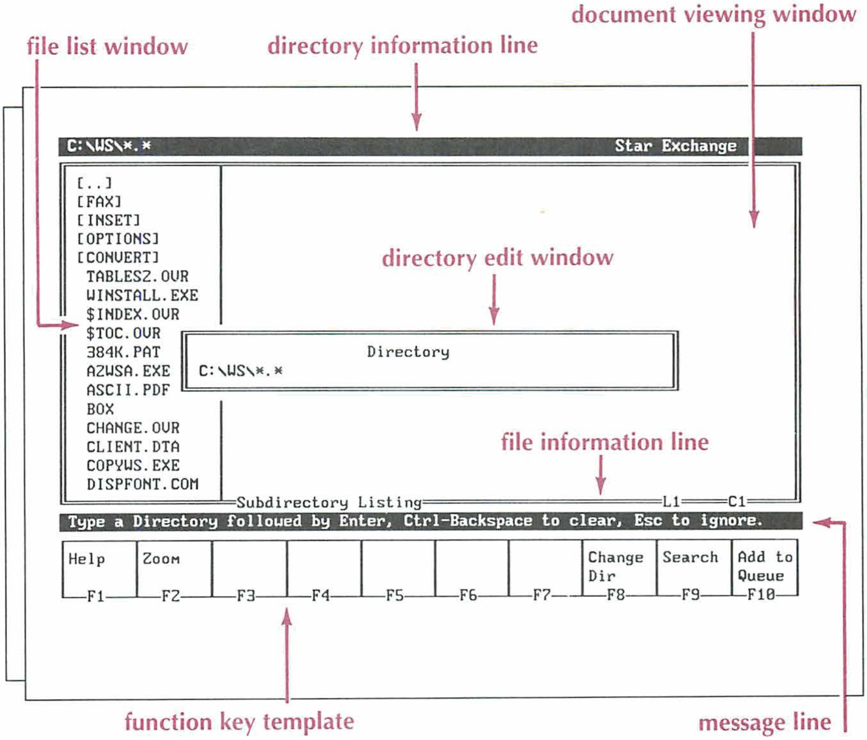
After conversion begins:

- To interrupt a session, press **Esc** and follow the onscreen instructions.
- If you selected *Prompt User for File Name* as your File Naming Method, Star Exchange prompts you for filenames. Be sure to preface each name with the drive letter and directory name, if necessary.
- If you choose a filename that already exists, the program prompts you to either rename the translated document or overwrite the existing document.
- If conversion fails, an error message is displayed. Then you can either press **Esc** to end the session, or press ↵ to translate the next document in the queue.

- After a conversion error occurs, files with the extension .INT may be left on the disk. These files take up disk space unnecessarily and should be deleted.
- When conversion is complete, you can either delete the queue and build another one, or you can press **Esc** to return to the Main Menu.

Using the Directory Assistance Screen

The Directory Assistance screen consists of several parts, as shown below.


document viewing window
file list window
directory information line
directory edit window
file information line
function key template
message line

```
C:\WS\*.*                                                    Star Exchange
 [..]
 [FAX]
 [INSET]
 [OPTIONS]
 [CONVERT]
  TABLES2.OVR
  WINSTALL.EXE
  $INDEX.OVR
  $TOC.OVR
  384K.PAT                          Directory
  AZWSA.EXE      C:\WS\*.*
  ASCII.PDF
  BOX
  CHANGE.OVR
  CLIENT.DTA
  COPYWS.EXE
  DISPFONT.COM
===============Subdirectory Listing================================L1====C1===
Type a Directory followed by Enter, Ctrl-Backspace to clear, Esc to ignore.
Help    Zoom                                        Change  Search  Add to
                                                    Dir             Queue
 F1      F2      F3      F4      F5      F6      F7    F8      F9      F10
```

- The **Directory Information Line** displays the path Star Exchange is using. The path consists of the drive, directory(ies), and filename.
- The **Directory Edit Window** lets you specify the directory and filename for the document you want to view and/or convert.
- The **File List Window** lists the files in the current directory and its subdirectories, if any.
- The **Document Viewing Window** displays the contents of the file that is highlighted in the File List Window.

- The **File Information Line** displays the file format and cursor position for the file displayed in the Document Viewing Window.
- The **Message Line** displays status information or instructions for completing a task.
- The **Function Key Template** displays the function keys available on the current screen and what they do. For some functions, you use the **Ctrl** key along with the function key. For a complete list of the function keys available at the Directory Assistance screen, see "Directory Assistance Keys" in this section.

Using the Directory Edit Window

You can use the Directory Edit Window to specify the drive, directory, and filenames you want. To display the Directory Edit Window from the Input Queue screen, press **F2**. To display it from the Directory Assistance Screen, press **F8**.

To change the directory in the Directory Edit Window, press the **Backspace** key or press **^Backspace** to delete the current directory. Then type the new directory name and the filename. To specify filenames in this window, you can use DOS wild-card characters.

Using the File List Window

The File List Window appears on the left side of the Directory Assistance screen. It displays the parent directory and its subdirectories, and all the filenames in those directories.

You can move the highlighting through the subdirectories and files to find the ones you want. To add a highlighted file to the Input Queue, press the **F10** key.

About the File List Entries

When the Directory Assistance screen appears, the cursor is located in the Directory Edit Window. You can press **Esc** to close that window. Then the cursor moves to the first line of the File List Window. If the current directory is a subdirectory, the first entry in the file list looks like this: *[. .]*. This symbol represents the parent directory of the subdirectory you're in. For example, if you are in the DOCS subdirectory of the WS directory (C:\WS\DOCS), the *[. .]* symbol represents the WS, or parent, directory. If you highlight the *[. .]* symbol and press ↵, Star Exchange changes to the WS (parent) directory.

If the current directory is the root directory, the first entry in the File List Window is either a subdirectory or a file, depending on which was created first. Subdirectories are enclosed in brackets, for example, *[WS]*. Files appear as regular text, for example, SHAKE.DOC.

Finding Subdirectories and Files

The File List Window lets you move easily through the directories on your disk to find the files you want. For example, if you're in the root directory and you want to view C:\WS\DOCS\SHAKE.DOC, you would first highlight the [WS] subdirectory entry and press ↵. Then you would highlight the [DOCS] subdirectory entry and press ↵. Finally, you would highlight the SHAKE.DOC filename. When SHAKE.DOC is highlighted, the contents of that file appear in the Document Viewing Window.

As you move the highlighting through the list of files in the File List Window, the File Information Line changes to reflect the various file formats. This line identifies the file format and the cursor position in the file. If a document contains no formatting codes or codes that Star Exchange cannot recognize, the File Information Line displays *ASCII or Other.*

Using the Document Viewing Window

The Document Viewing Window displays the contents of the file or subdirectory that is highlighted in the File List Window. After highlighting an entry in the File List Window, press the **Tab** key to move into the Document Viewing Window. Then use the cursor keys to scroll down through the file.

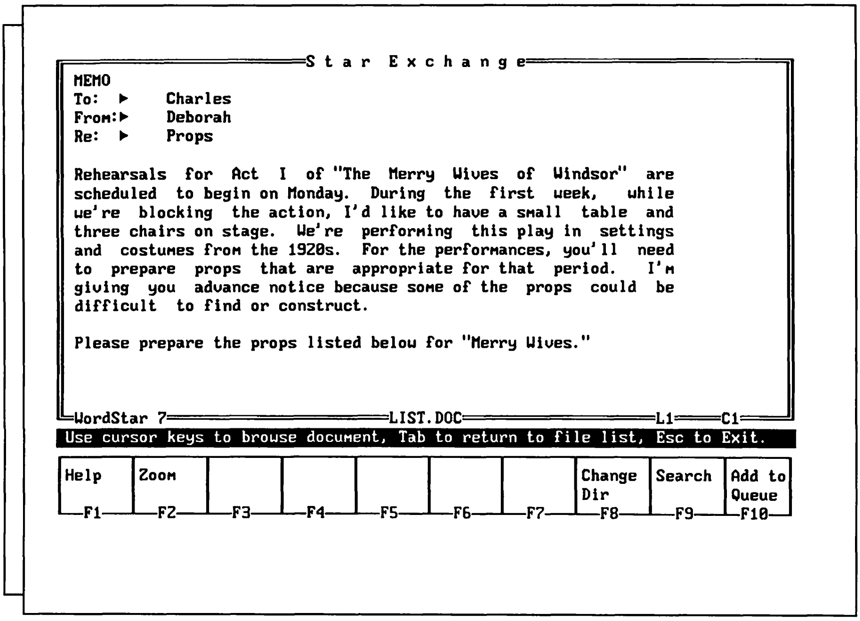
Note: You can view but not edit text and data in the Document Viewing Window.

- If the highlighted file in the File List Window is a subdirectory name, a message in the Document Viewing Window tells you the name of the subdirectory and how many files are in it. You can scroll down the screen (press the **PgDn** key once or twice) to view a list of the files in that subdirectory. The list includes the same information you would see after entering a DIR command in DOS.
- If the highlighted file in the File List Window is a filename, the contents of that file are displayed in the Document Viewing Window. How the file appears onscreen depends on the format and type of file. For example, word processor files appear in their original format.

When you highlight an .EXE or .COM file, the Document Viewing Window displays the message: *This File is an Executable (.EXE) File. It is not viewable.*

Zooming in on Files

To magnify the Document Viewing Window so that it fills the entire screen, press the **F2** key. Then the Document Viewing Window blocks out the File List Window and looks like this:

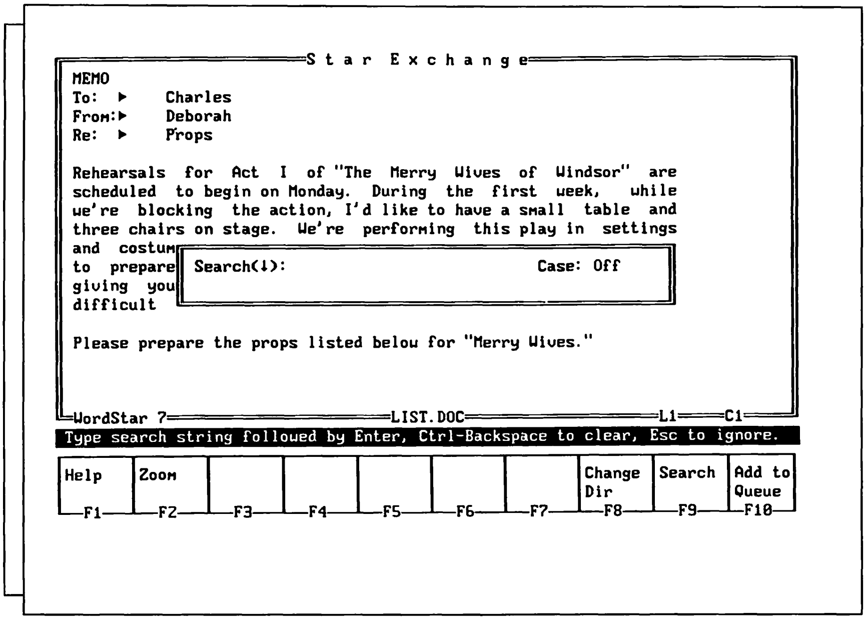


```
=Star Exchange=
MEMO
To: ▶    Charles
From:▶   Deborah
Re: ▶    Props

Rehearsals for Act I of "The Merry Wives of Windsor" are
scheduled to begin on Monday. During the first week,  while
we're blocking the action, I'd like to have a small table and
three chairs on stage. We're performing this play in settings
and costumes from the 1920s. For the performances, you'll need
to prepare props that are appropriate for that period.   I'm
giving you advance notice because some of the props could be
difficult to find or construct.

Please prepare the props listed below for "Merry Wives."

=WordStar 7=              =LIST.DOC=              =L1==C1=
Use cursor keys to browse document, Tab to return to file list, Esc to Exit.
```

To toggle out of Zoom mode and redisplay the File List Window, press the **Tab** key or the **F2** key. To view a different file while in Zoom mode, press the plus (+) or minus (-) key on the numeric keypad. The + key highlights the next file in the File List Window; the - key highlights the previous file.

Searching for Text

You can find specific text in a file by using the Search function. In the Document Viewing Window, press **F9**. The Search window appears:



```
Star Exchange
MEMO
To: ▶     Charles
From:▶    Deborah
Re: ▶     Props

Rehearsals for Act I of "The Merry Wives of Windsor" are
scheduled to begin on Monday. During the first week, while
we're blocking the action, I'd like to have a small table and
three chairs on stage. We're performing this play in settings
and costum
to prepare   Search(↓):                    Case: Off
giving you
difficult

Please prepare the props listed below for "Merry Wives."

WordStar 7          LIST.DOC          L1    C1
Type search string followed by Enter, Ctrl-Backspace to clear, Esc to ignore.
```

Notice the two prompts in the middle of the window:

- The Search prompt (the arrow) shows which direction the search will take. Press ↑ to search upward through the file or ↓ to search downward.
- The Case prompt shows whether case sensitivity is on or off. When Case is on, Star Exchange searches for a string with the same capitalization as the search string. When case sensitivity is off, Star Exchange ignores capitalization. Press **PgUp** to turn case sensitivity on or **PgDn** to turn it off.

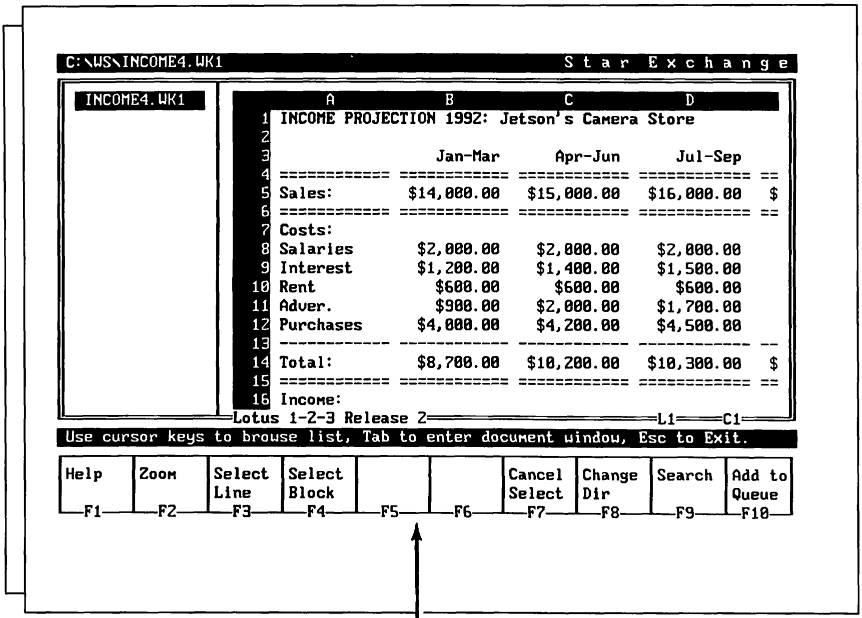
You can enter up to 40 characters in the Search window. If you are searching for a key word, you can enter all or part of the word. When you enter part of a word, Star Exchange displays the first match it finds. For example, if you enter *Fin*, Star Exchange might find the words "Final," "Finish," or "Finland."

To search for a text string, type the text in the Search window and press ↵. When Star Exchange finds the text, it places the cursor at the first character in the text and displays *Search Completed* in the Message Line. To find the next occurrence of the text string, move the cursor past the found text and press **^F9**.

Note: Star Exchange may not find text strings that are separated by word wrap or a line break.

Converting Spreadsheet and Database Files

Star Exchange can convert complete data files or just specified parts of spreadsheets and databases. When you highlight a spreadsheet or database in the File List Window, and press **Tab**, the Function Key Template at the bottom of the screen looks like this:



```
C:\WS\INCOME4.WK1                                          Star Exchange
INCOME4.WK1           A            B            C            D
                   1 INCOME PROJECTION 1992: Jetson's Camera Store
                   2
                   3                Jan-Mar      Apr-Jun      Jul-Sep
                   4 ============ ============ ============ ============ ==
                   5 Sales:        $14,000.00   $15,000.00   $16,000.00   $
                   6 ============ ============ ============ ============ ==
                   7 Costs:
                   8 Salaries       $2,000.00    $2,000.00    $2,000.00
                   9 Interest       $1,200.00    $1,400.00    $1,500.00
                  10 Rent             $600.00      $600.00      $600.00
                  11 Adver.           $900.00    $2,000.00    $1,700.00
                  12 Purchases      $4,000.00    $4,200.00    $4,500.00
                  13 ------------ ------------ ------------ ------------ --
                  14 Total:         $8,700.00   $10,200.00   $10,300.00   $
                  15 ============ ============ ============ ============ ==
                  16 Income:
                  Lotus 1-2-3 Release 2                          L1    C1
Use cursor keys to browse list, Tab to enter document window, Esc to Exit.
```

function key template

To select just part of a spreadsheet or database file, you define the selected section to Star Exchange in one of the following ways:

- By selecting individual rows or records
- By selecting a block of data
- By selecting a noncontiguous range of rows and columns

Selecting Individual Rows or Records

Use the **F3** key to select one row (in a spreadsheet) or record (in a database) at a time. First, press **F3** to define the beginning of the selected area. Then press the ↑ and ↓ keys to extend the area. As you move the cursor up or down, entire lines or records are added to the selected area.

Selecting a Block of Data

Use the **F4** key to select a block (rectangular area) of data. When you press **F4**, the current cursor position becomes one corner of the rectangle. Then use the arrow keys to move the cursor to define the opposite corner of the rectangle. This selection method is handy for converting columns or tables.

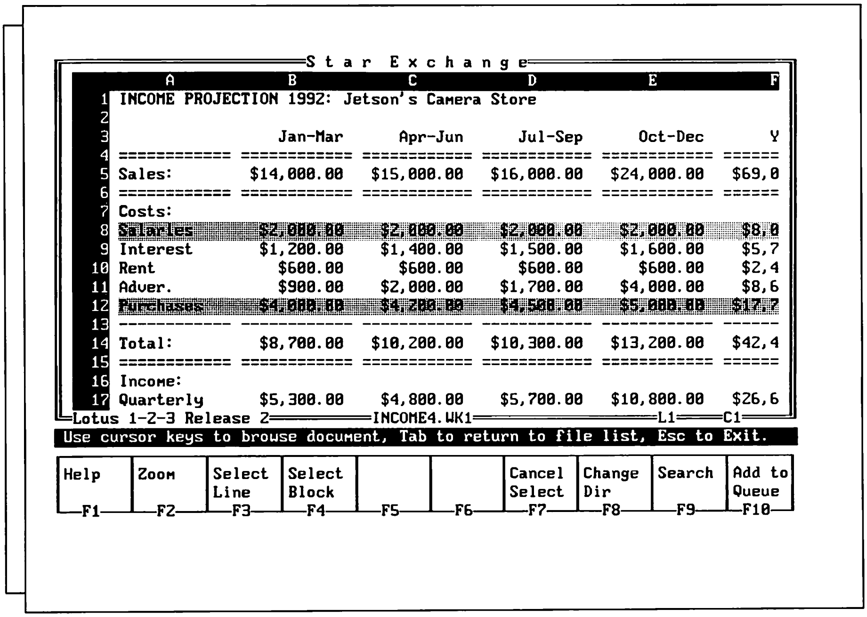
Selecting Noncontiguous Rows and Columns

In spreadsheet and database files, you may want to select only certain rows and columns rather than an entire block of data. You can do so by using the **^F3** and **^F4** commands to select horizontal and vertical ranges. **^F3** selects the Horizontal Range function and **^F4** selects the Vertical Range function. These two functions work together. You define the ranges; the selected area is defined by the intersection of those two ranges.

Instructions for defining the ranges shown in the following examples appear on page 31.

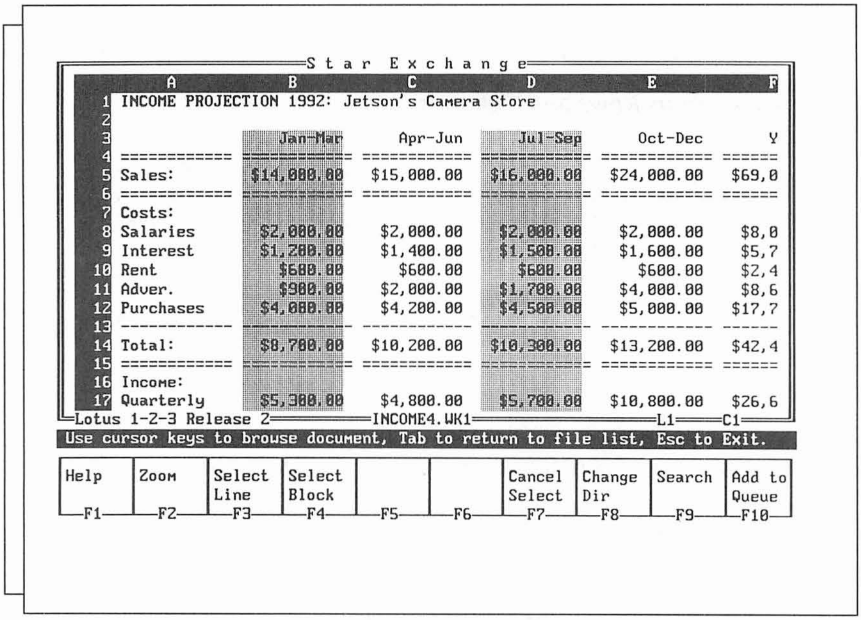
EXAMPLES

Suppose you want to convert the Salaries and Purchases rows in the example below. The rows are noncontiguous, that is, they are not side by side. Each row is a Horizontal Range. When these ranges are selected, the spreadsheet looks like this:



```
═══════════════════S t a r   E x c h a n g e══════════════════════
       A                B            C            D            E        F
 1 INCOME PROJECTION 1992: Jetson's Camera Store
 2
 3                  Jan-Mar      Apr-Jun      Jul-Sep      Oct-Dec      Y
 4 ============ ============ ============ ============ ============ ======
 5 Sales:       $14,000.00   $15,000.00   $16,000.00   $24,000.00   $69,0
 6 ============ ============ ============ ============ ============ ======
 7 Costs:
 8 Salaries      $2,000.00    $2,000.00    $2,000.00    $2,000.00    $8,0
 9 Interest      $1,200.00    $1,400.00    $1,500.00    $1,600.00    $5,7
10 Rent            $600.00      $600.00      $600.00      $600.00    $2,4
11 Adver.          $900.00    $2,000.00    $1,700.00    $4,000.00    $8,6
12 Purchases     $4,000.00    $4,200.00    $4,500.00    $5,000.00   $17,7
13 ------------ ------------ ------------ ------------ ------------ ------
14 Total:        $8,700.00   $10,200.00   $10,300.00   $13,200.00   $42,4
15 ============ ============ ============ ============ ============ ======
16 Income:
17 Quarterly     $5,300.00    $4,800.00    $5,700.00   $10,800.00   $26,6
═Lotus 1-2-3 Release 2═════════INCOME4.WK1═══════════════L1════C1═══
Use cursor keys to browse document, Tab to return to file list, Esc to Exit.
```

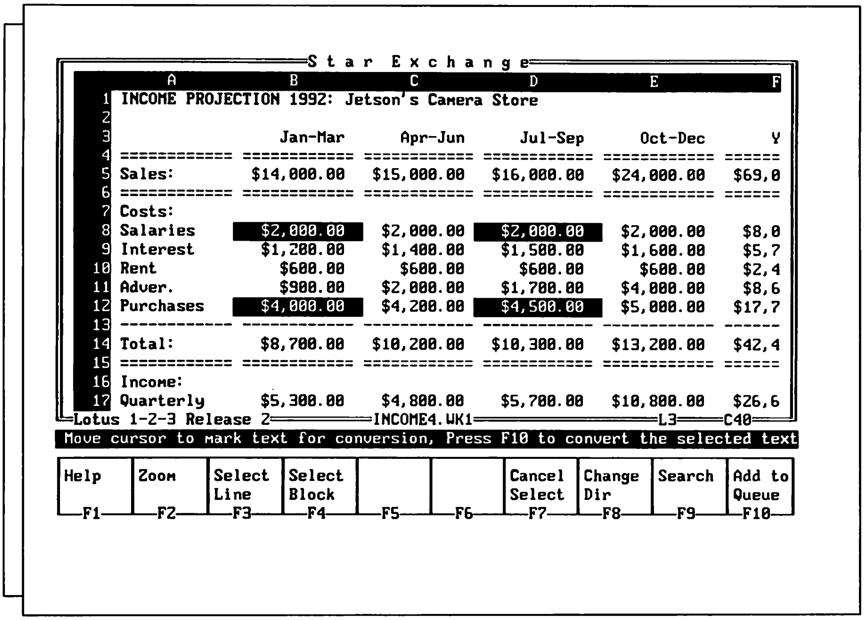
The Jan-Mar and Jul-Sep columns in the example are also noncontiguous. Each column is a Vertical Range. When these ranges are selected, the spreadsheet looks like this:



```
                         Star Exchange
       A            B            C            D            E          F
 1 INCOME PROJECTION 1992: Jetson's Camera Store
 2
 3                  Jan-Mar      Apr-Jun      Jul-Sep      Oct-Dec        Y
 4 ============ ============ ============ ============ ============ ======
 5 Sales:       $14,000.00   $15,000.00   $16,000.00   $24,000.00   $69,0
 6 ============ ============ ============ ============ ============ ======
 7 Costs:
 8 Salaries      $2,000.00    $2,000.00    $2,000.00    $2,000.00    $8,0
 9 Interest      $1,200.00    $1,400.00    $1,500.00    $1,600.00    $5,7
10 Rent            $600.00      $600.00      $600.00      $600.00    $2,4
11 Adver.          $900.00    $2,000.00    $1,700.00    $4,000.00    $8,6
12 Purchases     $4,000.00    $4,200.00    $4,500.00    $5,000.00   $17,7
13 ------------ ------------ ------------ ------------ ------------ ------
14 Total:        $8,700.00   $10,200.00   $10,300.00   $13,200.00   $42,4
15 ============ ============ ============ ============ ============ ======
16 Income:
17 Quarterly     $5,300.00    $4,800.00    $5,700.00   $10,800.00   $26,6
Lotus 1-2-3 Release 2          INCOME4.WK1                 L1     C1
Use cursor keys to browse document, Tab to return to file list, Esc to Exit.
```

Help
F1
Zoom
F2
Select Line
F3
Select Block
F4
F5
F6
Cancel Select
F7
Change Dir
F8
Search
F9
Add to Queue
F10

The selected area is defined by the intersecting areas of the Horizontal Range and the Vertical Range. The following example shows the two ranges and how they intersect to define the selected area:



```
════════════════S t a r   E x c h a n g e════════════════
        A           B            C            D            E         F
 1 INCOME PROJECTION 1992: Jetson's Camera Store
 2
 3                  Jan-Mar      Apr-Jun      Jul-Sep      Oct-Dec      Y
 4 ============ ============ ============ ============ ============ ======
 5 Sales:        $14,000.00   $15,000.00   $16,000.00   $24,000.00   $69,0
 6 ============ ============ ============ ============ ============ ======
 7 Costs:
 8 Salaries       $2,000.00    $2,000.00    $2,000.00    $2,000.00    $8,0
 9 Interest       $1,200.00    $1,400.00    $1,500.00    $1,600.00    $5,7
10 Rent             $600.00      $600.00      $600.00      $600.00    $2,4
11 Adver.           $900.00    $2,000.00    $1,700.00    $4,000.00    $8,6
12 Purchases      $4,000.00    $4,200.00    $4,500.00    $5,000.00   $17,7
13 ------------ ------------ ------------ ------------ ------------ ------
14 Total:         $8,700.00   $10,200.00   $10,300.00   $13,200.00   $42,4
15 ============ ============ ============ ============ ============ ======
16 Income:
17 Quarterly      $5,300.00    $4,800.00    $5,700.00   $10,800.00   $26,6
═Lotus 1-2-3 Release 2═══════INCOME4.WK1══════════════════L3════C40═══
Move cursor to mark text for conversion, Press F10 to convert the selected text
```

Defining the Ranges

- To define a horizontal range:

  Move the cursor to the first row in the range and press **^F3**. If the range includes more than one row, move the cursor up or down to define all the rows you want to include. To define the end of the range, press the Spacebar. The Spacebar anchors the range so you can move the cursor again without extending the range. Repeat these steps until you have defined all the horizontal ranges.

- To define a vertical range:

  Move the cursor to the first column in the range and press **^F4**. If the range includes more than one column, move the cursor left or right to define all the columns you want to include. To define the end of the range, press the Spacebar. Repeat these steps until you have defined all the vertical ranges.

After you have defined both ranges, the intersecting areas (the selection area) appear in reverse video. If you find that the selected area includes any rows or columns that you don't want, you can *deselect* them the same way you selected them.

Directory Assistance Keys

You can use the keys listed below in the Directory Edit Window, the File List Window, and the Document Viewing Window.

PRESS THIS KEY	TO DO THIS
A - Z	Move the cursor in the File List Window to the next entry that begins with the same letter.
- (minus) or + (plus) key	Display the previous (-) or next (+) file in the list.
↵	Change the current directory to the directory highlighted in the File List Window.
F1	Display a help screen.
F2	Toggle the Document Viewing Window in and out of Zoom mode.
F3	Select a row or record in a spreadsheet or database.
^F3	Select a Horizontal Range of rows or records in a spreadsheet or database.
F4	Select a block (rectangular area) of data in a spreadsheet or database.
^F4	Select a Vertical Range of columns or records in a spreadsheet or database.
F7	Cancel all selections in a file.
F8	Display the Directory Edit Window.
F9	Search through a file for a keyword or text string.
^F9	Find the next occurrence of the search text.
F10	Add the highlighted document to the Input Queue.

Editing Converted Documents

When conversion is complete, you should review the translated documents. Changes may be necessary to duplicate the appearance of the original document.

Here are some tips for editing your documents:

- Scan the document for replacement characters. These are the "markers" that Star Exchange inserted for any nontranslatable characters it found in the source document. For more information, see "Replacement Character" in this chapter.
- Check the appearance of any columns in the document. If the line length used for word wrapping varies widely between the two applications in the conversion, you may need to adjust column indentations.

- When you first edit documents that have been converted to DisplayWrite or MultiMate, refer to the instructions below.

  DisplayWrite If the translated documents are stored in Revisable For Text (RFT), use the DisplayWrite utility "Convert Documents" to convert the documents into text files before you edit them.

  MultiMate Large documents translated into MultiMate can exceed the maximum number of format lines, number of pages, and so on, that are allowed. These documents are split into separate documents during conversion. You may wish to do some minor editing to establish breaks between these documents.

Features Supported by Star Exchange

The word processing features supported by Star Exchange are listed below.

Soft carriage returns
Regular tabs
Bold
Titles
Hard hyphens
Right and left margins
Headers and footers
Pitch/font
Top and bottom margins
Hard carriage returns
Decimal tabs
Superscript/subscript
Overstrike
Soft hyphens
Line spacing
Forced page breaks
Footnotes
Offsets and gutters
Centering
Underlining
Columns
Stop codes
Indenting
Automatic page breaks
Italic
Nonprinting comments

Transferring Converted Files to the Macintosh

When converting a document file to a Macintosh word processor format, you need to consider the type of file (MacBinary or Standard) that you want the conversion to produce. If you plan to convert to Standard format, you'll need to use the Macintosh Tagger program to tag the files. If you plan to convert to MacBinary format, you don't need to tag the files. For more information on file types and the Tagger program, see "Macintosh File Types" and "Using the Macintosh Tagger" in this section.

Note: The terms *tag* and *tagging* used in this section are Star Exchange terms, not Macintosh terms. They are used to describe a process that, in Macintosh terms, is similar to changing the creator/type for a file.

The three basic methods for moving a file between the PC and the Macintosh are Apple File Exchange, Superdrive, and direct transfers.

Apple File Exchange and Superdrive

The Apple Superdrive is a standard part of most Macintosh systems. This drive lets the user read DOS formatted disks and can be used to transfer DOS files to a Macintosh disk. This procedure is accomplished using an application called Apple File Exchange (AFE), which is a standard part of Macintosh System 6.0 and later. (For more information, see the "Macintosh Utilities User's Guide.")

If you plan to use AFE to transfer your converted file to the Macintosh, be sure (in System Setup) to select **Standard** as the file type in the Output File Type parameter for the Macintosh format.

When using AFE to move a converted document to the Macintosh, make sure no special translation has been done to the file. This means that special translators (such as Text Translation) should not have check marks next to them in the MS-DOS to Macintosh menu. (This menu does not appear until a DOS disk is inserted into the system.)

A product called DOS Mounter by Dyna Communications allows a DOS disk in a Superdrive to look just like a Macintosh disk to the Finder. In this case, the converted file should be dragged to a real Macintosh disk and then tagged, as explained in "Using the Macintosh Tagger" in this section.

Direct Transfers

Many combinations of hardware and software allow the transfer of files between a PC and a Macintosh. Some of them are as follows:

- Direct serial or parallel connections using standard communications software such as ProComm, Smartcom, or Crosstalk on the PC and MacTerminal, and Microphone or Red Ryder on the Macintosh.
- Modem or network connections using standard communications software.
- Connections using dedicated file transfer software/hardware combinations such as LapLink Macintosh, MacLink Plus Pc, or pcAnywhere.
- Any other connections that allow file transfer.

When using one of the above connections to transfer files, first determine whether or not your Macintosh software will allow the Macintosh to receive files in MacBinary format. Most current Macintosh communications software permits the use of the MacBinary file. Most PC communications software can send the MacBinary file using XMODEM protocol. And virtually all specialized software and hardware can receive and send MacBinary files.

If the transfer software you're using allows MacBinary file transfers, select **MacBinary** (in System Setup) as the Output File Type parameter for the Macintosh format. Once a file has been transferred to the Macintosh as a MacBinary file, it is ready to be used with the word processor for which it was created. No tagging should be necessary.

If your software does *not* support MacBinary files, select **Standard** as the Output File Type parameter for the Macintosh word processor. When the file has been transferred to the Macintosh, you will need to tag it for the word processor you will be using.

Macintosh File Types

As noted above, Macintosh conversions in Star Exchange can produce a Macintosh document in two formats, MacBinary and Standard. (The Standard format is often called the *Data Fork.*)

PC files are created using a single stream of bytes and some fairly unimportant information like the creation time and date. PC-based applications can open almost any file, regardless of its name or other information maintained by the operating system.

Macintosh files are created using two streams of data called the *Data Fork* and the *Resource Fork.* These two forks include information maintained by the Macintosh operating system that associates a creator and type with the file. The Macintosh uses this information to display special icons on files and to allow the user to start an application by double-clicking on a document. If a Macintosh document does not have the correct creator or type, it cannot be opened, not even by the application that created it.

The MacBinary and Standard formats are described below.

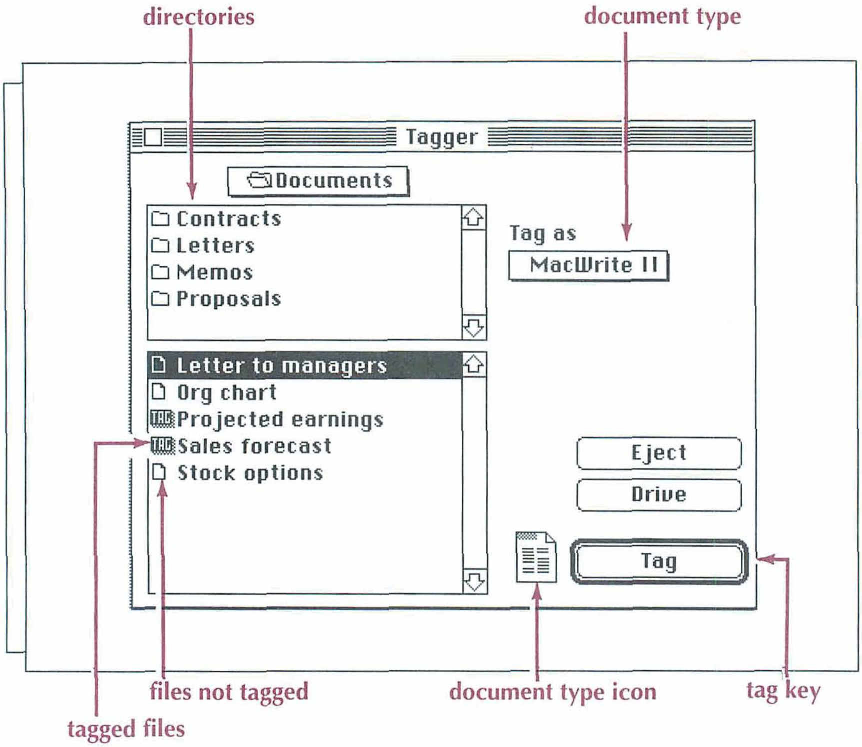
- **MacBinary** When a Macintosh file resides on a non-Macintosh system, you can use the MacBinary format to preserve the information, as well as the separate Data Fork and Resource Fork. This format groups the file's name, creator and type information, and Data Fork/Resource Fork into a single stream of bytes. Most communications programs on the Macintosh can send and receive Macintosh files in this format, allowing the transfer of Macintosh files to and from a non-Macintosh system with no loss of information.
- **Standard** In certain network situations or when the transfer method does not support MacBinary, the conversion can produce only the Data Fork of the Macintosh file. This format is called *Standard.* A file produced with the Standard Option and transferred to the Macintosh is not accessible to the word processor for which it was created. This inaccessibility is caused by incorrect or missing creator and type information. To give this type of transferred document the correct creator and type information, you need to use the Macintosh Tagger program available from WordStar.

Using the Macintosh Tagger

The Macintosh Tagger sets the creator and type information for a file or a group of files on the Macintosh. You can run the Tagger program from the master distribution disk or you can copy Tagger to your Macintosh hard disk and run it from there.

Note: If you're converting files *from* a PC-based format *to* the Macintosh Standard format, you'll need to use the Tagger program. This program is not included with the Star Exchange disks. To order your free copy of the Tagger program, call WordStar Customer Support.

The example below shows the various parts of the Tagger.


directories
document type
Tagger
Documents
Contracts
Letters
Memos
Proposals
Tag as
MacWrite II
Letter to managers
Org chart
Projected earnings
Sales forecast
Stock options
Eject
Drive
Tag
files not tagged
document type icon
tag key
tagged files

The left side of the Tagger looks very much like the standard Open File dialog box used in almost every Macintosh application. The difference between the Tagger and other Macintosh software is that the folders and files in the Tagger are listed separately.

The right side of the Tagger has a pop-up menu for selecting the creator/type that will be attached to the selected files and a Tag button that attaches those files to the selected creator/type.

To use the Tagger, follow the steps below.

CAUTION *Be sure you select only the documents you have converted with Star Exchange and transferred to your Macintosh. Tagging files produced in other applications will not be recognized by their original application. The best way to guarantee that no other files are tagged is to transfer all new files to an empty folder.*

To tag files:

1. Select the disk and folder where your converted document(s) is located.
2. Select the word processor format the document(s) was converted to.
3. Select the document from the list of filenames. (To select more than one document at a time, hold down the Shift key while you click the filenames.)
4. Choose the Tag button.
5. Exit the Tagger.

The documents you tagged have the correct icon and are ready to use with the Macintosh word processor.

Remember--use the Tagger only for files that were converted to Standard format. Files converted to MacBinary format, and transferred to the Macintosh using a MacBinary transfer, have already been tagged.

If a conversion produces a MacBinary document, and the document is transferred to the Macintosh without using a MacBinary transfer, the document will not be recognized by the Macintosh word processor for which it was created.

Only the receiving Macintosh needs to understand MacBinary. MacBinary is implemented on top of other transfer protocols such as XMODEM, and the PC communications software does not have to understand anything about MacBinary.

CAUTION *The current version of the Tagger does not allow you to* undo *mistakes.*

Transferring Macintosh Files to the PC for Conversion

Macintosh conversions can identify and convert files that are in MacBinary format or that are binary images of the Macintosh file's Data Fork. This process is not noticeable to the user and does not depend on the Output File Type parameter setting. Almost all transfers from a Macintosh to a PC will result in one of these two formats (MacBinary or Standard).

Error Messages

This chapter lists error messages that may appear on your screen in Star Exchange.

Access Denied: This file cannot be opened for viewing

You have tried to view a file that is locked by another application. This could be the file loaded in another program, or a file that is locked out on a network. You would see this message if another network user has loaded the file you want to view.

Application load failure—EXE corrupted

One or more of the program files required by Star Exchange has been damaged or did not copy correctly during installation. Start WINSTALL and choose Add or Remove a Feature. Reinstall the conversion format with the damaged file.

Application load failure—EXE not found

A Star Exchange conversion file is missing. Start WINSTALL and choose Add or Remove a Feature. Add the conversion format that you want.

Application load failure—Insufficient memory

You may not have enough memory (a minimum of 384K RAM is required). If you're using another memory-resident program such as SideKick or Inset®, remove it from memory and try the conversion again.

Command file processing error

Star Exchange cannot use the work area. In the System Parameters option, check to see if the drive letter (including the colon) and the directory are correct. Be sure the disk has enough room (about $1\frac{1}{2}$ times the size of the largest document) for the work area.

Disk read error

Star Exchange cannot read the source document. There may be an error on the disk containing the document. Move the file to another part of the disk.

Disk write error

Star Exchange cannot complete the conversion and write an output file because there is not enough room on the disk to write the file. Delete any files you don't need, and repeat the conversion.

Input file open failure

- Star Exchange can't find the document listed in the Input Queue. Be sure the document name in the queue is correct. Delete the name from the queue, and use the Automatic Directory Assistance document queuing method to resubmit it for conversion.
- The path information may not be correct—check to see if it is.
- Too many files may be open. Be sure the FILES=30 statement is in your CONFIG.SYS file.

Insufficient memory for conversion

Your system does not have enough memory to execute the conversion (a minimum of 384K RAM is required). To correct the problem, add more memory to your system.

Invalid input file

- Star Exchange can't translate a document because it wasn't created on the source application for the Input Queue being converted. Convert the failed document in another session, using the correct source application.
- The document you're trying to convert has a format that is not supported by Star Exchange.
- Star Exchange can't read the source document. Using the source application, edit the source document for discrepancies; for example, maybe the document wasn't saved correctly.

RTLINK failure—RTLINKST.COM not found

The RTLINKST.COM file is damaged or missing. Use COPYWS to copy the file from the original compressed disk to the WS\CONVERT directory. Then rerun Star Exchange. For instructions on how to use COPYWS, see the *Installing and Customizing* booklet.

RTLINK failure—General RTLINK failure

One or more of the RTLINK files has been damaged or deleted. Use COPYWS to copy the RTLINKST.COM file and the SCC___??.RTL file from the original compressed disk to the WS\CONVERT directory. Then rerun Star Exchange. For instructions on how to use COPYWS, see the *Installing and Customizing* booklet.

RTLINK failure—SCC__??.RTL not found

The SCC__??.RTL file cannot be found. Use COPYWS to copy the file from the original compressed disk to the WS\CONVERT directory. Then rerun Star Exchange. For instructions on how to use COPYWS, see the *Installing and Customizing* booklet.

Run-Time Error R6001, Null Pointer Assignment

You may have selected the wrong conversion format for the document you're trying to convert. For example, if you select WordPerfect 5.0 from the Conversions Menu and then try to convert a WordPerfect 4.2 document, you may get this error message. If you do, make sure you selected the correct format for the document you're trying to convert. If the format is correct, go back to your source application and edit the source document—scroll to the end of the document and then save it. Then try using Star Exchange again to convert the document.

Unable to create output file

Star Exchange can't create a file for a converted document or for a work area.

- Be sure the disk has enough room (about 1 1/2 times the size of the largest document) for the work area.
- Be sure the FILES=30 statement is in your CONFIG.SYS file.
- Be sure you provided a valid DOS filename for the translated document, including the correct drive letter, a colon, and (if needed) a directory path.
- If you're using the Prompt User for Filename method for naming files, be sure to include any required drive letter and directory path. If you want documents named automatically, use the System Parameters option to change the filenaming method to Default Title.
- Using the System Parameters option, check to see if the drive letter (including the colon) and the directory or RAM disk are correct.

Unable to load application definition files

One or more of the definition (.DEF) files has been deleted from the WS\CONVERT directory. Use COPYWS to copy the .DEF files you need from the original compressed disk to the WS\CONVERT directory. Then rerun Star Exchange. For instructions on how to use COPYWS, see the *Installing and Customizing* booklet.

Unable to read source document

- Press **Esc** to abort the conversion. Return to DOS. Type **type file.log** on the command line and press ↵. The FILE.LOG file is displayed; it contains a message giving you the probable cause of the error.
- Star Exchange can't read the source document. Using the source application, edit the source document for discrepancies; possibly the document wasn't saved correctly.

Supported Applications

The applications listed below are supported by Star Exchange.

WORD PROCESSORS

PC-Based Format	***Version/Release***
DEC WPS PLUS (DX)	3.0 and earlier
DisplayWrite 2, 3, 4, 5	All
First Choice	3.0 and earlier
IBM Writing Assistant	1.01
MASS-11	8.0 and earlier
Microsoft Word	4.0 through 5.5
MultiMate	3.6 and 4.0
MultiMate Advantage	All
MultiMate Advantage 2	All
Nota Bene	3.0
PFS:Write	A, B, and C
Professional Write	2.2 and earlier
Samna Word	IV Plus and earlier
SmartWare II	1.5 and earlier
Volkswriter 3, 4	All
Wang PC (IWP)	2.6 and earlier
WordMARC Composer	Plus and earlier
WordPerfect	5.1 and earlier
WordStar	7.0 and earlier
WordStar 2000	3.5 and earlier
XyWrite	III+ and earlier

Macintosh-Based Format	***Version/Release***
Microsoft Word	4.0
WordPerfect	2.0 and earlier
MacWrite II	1.1

Other Formats	***Version/Release***
ASCII	N/A
Intelligent ASCII	N/A
DCA/FFT	All
DCA/RFT	All
Navy DIF	All
Microsoft RTF	1.0 and earlier

SPREADSHEETS

Application	***Version/Release***
Enable	3.0
First Choice	3.0 and earlier
Framework	III and earlier
Lotus 1-2-3	3.0 and earlier
Lotus Symphony	2.0 and earlier
Microsoft Excel	2.0 through 3.0
Microsoft Works	2.0
Mosaic Twin	2.5
PFS: Professional Plan	1.0
Quattro	PRO and earlier
SuperCalc 5	All
SmartWare II	1.5
VP Planner 3D	1.0

DATABASES

Application	***Version/Release***
dBASE	IV and earlier
Data Ease	4.0
dBXL	1.3
Enable	3.0
First Choice	3.0 and earlier
FoxBase	2.1
Framework	III
Microsoft Works	2.0
Paradox	2.0 through 3.5
Q & A	3.0
R:Base	3.1 and earlier, System V, Personal
Reflex	2.0 and earlier
SmartWare II	1.02 through 1.5

Note: If you want to convert dBXL or FoxBase files, select dBASE as the conversion application to represent these files.

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TELMERGE®

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Introduction

TelMerge makes electronic communications easy by enabling your computer to communicate with computers all around the world. You can use TelMerge to

- Send and receive electronic mail ("Email")
- Check the progress of stocks and bonds with online communications services like the MCI Dow Jones service
- Set up a data collection terminal for salespeople in the field
- Do computer work at home using dial-up lines to a mainframe
- Exchange messages and files with other personal computer users

The TelMerge documentation is organized as follows:

"Getting Ready to Use TelMerge" explains how to prepare your equipment for TelMerge.

"Calling a Service with TelMerge" and "Sending and Receiving Electronic Mail" illustrate the most common data communications tasks with basic exercises.

"Talking to Other Computers" shows how to transfer data files in different ways.

"Shortcuts with TelMerge" contains tips to speed up and customize the program.

There are also sections listing the TelMerge keywords (special commands), preprogrammed communications services, and function key assignments. If you have a problem using TelMerge, see the "Troubleshooting" chapter.

Getting Ready to Use TelMerge

What You Need

To run TelMerge, you must have the following:

- An IBM PC or an IBM-compatible system with at least 128K of internal memory and 90K of available disk space
- A private telephone line with a plug-in connector (RJ11C jack)
- An asynchronous communications card (if you don't have an internal modem)
- A Hayes-compatible modem

TelMerge may not work if you have any of the following:

- A multiline or "hold button" phone system
- A printer and modem on the same port
- A "call waiting" feature on your phone
- RAM-resident programs running concurrently with TelMerge

Note: In some areas you can turn call waiting off for the duration of a phone call. Call the local business office of your telephone company for details.

Installing TelMerge

If you didn't copy TelMerge when you installed WordStar®, do that now. See the *Installing and Customizing* booklet for information on adding a feature.

Setting Up Your Modem

TelMerge is set up to work with the default switch settings on a Hayes modem. (These are the switch settings set by the factory.) Unless your modem has different factory defaults, you don't need to change any switches.

Hayes 300 and 1200

Hayes 300 and 1200 modems are freestanding and require a serial port and a serial cable from your computer. To use these modems without a serial port, you must buy an asynchronous communications adapter card (an "async card"). Follow the directions in the Hayes manual to connect the modem.

Hayes 300 and 1200 Switch Settings

The Hayes 300 and 1200 modems have a row of switches, found behind the front panel, that have the following settings:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	Down	TelMerge ignores the Data Terminal Ready (DTR) signal
2	Up	Puts result codes (CONNECT, RING, etc.) into English words . . .
3	Down	. . . and sends them to your computer
4	Up	Shows modem commands onscreen while dialing
5	Down	Modem doesn't answer incoming calls automatically
6	Down	TelMerge ignores the carrier
7	Up	Sets modem for single-line phone
8	Down	Enables modem command recognition

Hayes 1200B Switch Settings

The Hayes 1200B is an internal modem that plugs into one of your computer's short slots. The 1200B has a row of switches near the top of the card that are set as follows:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	On	Selects the communications port [ON = port COM1, OFF = port COM2]
2	Off	Sets modem for single-line phone
3	Off	TelMerge ignores the carrier

If You Have a Phone System with Built-in Modems

Many offices install phones that contain modems so you can use the same telephone line for both voice and data. If you have such a system—and it has a Hayes-compatible mode—you can use TelMerge with it, but it may require special initialization (see **PREMODEM** in the "Keywords" chapter for more information).

Calling a Service with TelMerge

Registering with a Communications Service

You get information for TelMerge from services and networks. The leading services and their phone numbers are listed in the "Communications Services" chapter. To register with a service, call the one you want directly, or ask your local computer store. Either way, when you register with a service, you receive a subscriber package with information for TelMerge.

How to Use TelMerge

There are two ways to call a service with TelMerge:

- You can create individual service files that each contain the information necessary to call one service. If you subscribe to only one or two services, this is the easiest way to use TelMerge.

- You can set up the TELMERGE.SYS control file with the information for several services. Then, when you run TelMerge, you can call any service by choosing it from the TelMerge Communications Menu. If you subscribe to a number of services, this method is more efficient in the long run.

Both methods are described on the pages that follow. Be sure to have your subscriber packages handy.

Creating Individual Service Files

You can create a file for each communications service you want to call.

1 Start TelMerge. Either pull down the Additional Menu at the Opening screen and choose **TelMerge**, or, if you're using classic menus, press **A** at the Opening Menu, then press **T** for TelMerge.

Note: If you want to run TelMerge as a stand-alone program, log on to the directory containing the TelMerge files, type **telmerge**, and press ↵.

You see the TelMerge Communications Menu.

2 Press **F5** (Other) at the TelMerge Communications Menu. Any files in the current directory with the extension .TEL are displayed. You can choose an existing .TEL file or create a new one.

3 To create a new one, press ↵. TelMerge asks you for the name of the service to call, your user ID and password, and the service's phone number. This information is contained in your subscriber package.

4 TelMerge also asks for information about your system, like your baud rate, and so on. In most cases, you can use the default settings, which are:

Modem HAYES specifies that you are connected to a modem. If you are cabled directly to another computer, replace HAYES with the appropriate description. See **MODEM** in the "Keywords" chapter.

Port COM1 means that TelMerge expects to find a modem connected to the COM1 port on your computer. If you are using a different serial port for your modem, type the correct port number here.

Baud 2400 means that you will be transmitting and receiving at 2400 bits per second—about 2400 words per minute. You can change to any baud rate that your modem allows. The correct setting for this keyword may vary for different services. Some telexes, for instance, use baud 300.

Duplex Full means that the remote computer will "echo" your typing back to you. That way, you can be sure it received what you sent. Some services require half duplex—check your subscriber package.

Press ↵ to accept the default answer for the current question and go to the next one. If you press **Esc** after giving the phone number, default answers are used for all the remaining questions.

5 Your answers to these prompts are stored in a new file (in the current directory) with the extension .TEL. You can use it again by pressing **F5** (Other) at the TelMerge Communications Menu and then choosing it.

If you need to change a .TEL file later, edit it as you would any nondocument file. You can add any additional keyword commands you like. See the "Keywords" chapter for more information.

Using the TELMERGE.SYS Control File

If you subscribe to a number of services, you can store the information for every service in one file, which is called a control file. This file (TELMERGE.SYS) is already provided for you. All you need to do is fill in the necessary information. TELMERGE.SYS is usually stored in the WS directory.

The TELMERGE.SYS file contains the TelMerge menu. Below the menu is a series of "scripts" containing information for each service. If you are calling a service that is preprogrammed into TELMERGE.SYS, all you add are the phone number of the service, your user ID, and your password.

Once you add the necessary information to the control file, connecting to a service is simple. You start TelMerge and type the name of the service you want to call when TelMerge asks for it. TelMerge consults the script for that service for the information it needs to make the connection and to log you on.

Note: If you're running TelMerge as a stand-alone program, the TELMERGE.SYS file must be in the current directory or in a directory on your DOS path. To specify a .SYS file to use, other than TELMERGE.SYS, type **telmerge *filename.sys*** at the command line.

Adding Information

Adding Information to TELMERGE.SYS

1. Start WordStar and edit the TELMERGE.SYS file in nondocument mode.
2. Press the **PgDn** key until you see the "System Section."

```
;*****************
; System   Section
;*****************
;
;The following keywords set the basic defaults for your system.
;The current settings work for most systems.  If the setting for
;any keyword here doesn't match your system's requirements, replace
;it with one of the other choices listed for that keyword.
;
;Specify the settings that you will use most of the time.  If a
;particular service requires different settings, specify them
;in that service's script.  Settings in a script override settings
;in the System Section.
```

Each entry listed in this part of the file is a keyword that tells TelMerge how to work with your system. The default values for these keywords work in most cases. However, check the **MODEM, PORT,** and **BAUD** keywords now to make sure they are set up correctly for your system. See the "Keywords" chapter for a full description of these keywords.

Adding Information about a Service

Once you receive your subscriber package from a service (CompuServe is used in the example below), you enter information into TELMERGE.SYS.

1 Each preprogrammed service has its own script with the information TelMerge needs to place a call. Press the **PgDn** key a few times until you see the CompuServe script, which starts with LABEL CIS. LABEL CIS tells TelMerge to use this script when you specify CIS as the name of the service to call.

The SERVICE CIS tag tells TelMerge what technical information to send to the service. This information is already programmed into TelMerge.

Fill in the next three lines using the information you received from the communications service.

2 Put the cursor after the word NUMBER, press the **Tab** key twice, and type the telephone number of the service. Type **9** or **1** before the number if your telephone system requires it. You can also include the code to turn call waiting off if you need to.

Note: When you use 9 to get an outside line, type one or two commas after it. Each comma makes the modem wait about two seconds so the second dial tone has time to sound before the modem dials the rest of the phone number.

3 Put the cursor after the keyword USERID, press the **Tab** key twice, and type your user ID.

4 Put the cursor after the keyword PASSWORD, press the **Tab** key twice, and type your personal password. The rest of the CompuServe script is already filled in for you.

LOGFILE CIS.LOG means that if LOGGING is ON, the record of your CompuServe session is saved to a file called CIS.LOG. See "Logfiles" in "Sending and Receiving Electronic Mail."

END tells TelMerge that it has come to the end of the script for CompuServe. Once you finish a CompuServe session, TelMerge returns you to the TelMerge Communications Menu.

Note: Printing is off when you start to use CompuServe even if you changed PRINT to YES. You must press **F8** to turn printing on.

5 Save the file.

Calling a Service through a Network

Many people use commercial data networks to contact databases and services. To call a service through a commercial data network, add the name of the network, change the phone number in the service script, and add the **HOSTID** code provided by the network. This example shows the proper entries.

```
Label       MCI
Service     MCI
Network     Tymnet
Hostid      MCIMAIL
Number      9,453-5420
Userid
Password
Logfile     MCI.LOG
End
```

Adding a New Service to TELMERGE.SYS

The procedure for adding a new service (one that isn't preprogrammed) to TelMerge is the same as the one discussed in the previous section, with two exceptions:

- You add the service name to the TelMerge Communications Menu.
- You create a new script in TELMERGE.SYS for the new service.

To add a new service to TELMERGE.SYS, follow these instructions:

1. Use WordStar to edit the TELMERGE.SYS file in nondocument mode.
2. Move the cursor to the Menu section in the file, which contains a series of SAY statements. Mark the line containing NEW as a block. Press ↵ to create a blank line and copy the block.
3. Replace NEW with the name of your service, and delete the semicolon from the beginning of the line.
4. Move down to the Service section and mark the text from LABEL NEW through the next END statement as a block. Move the cursor down one line and copy the block.

Now customize the information in the copied section for your new service:

1. Replace NEW with the name of the new service. This name must match the name you typed on the Menu.
2. Add the phone number, your user ID, and your password.
3. Change any other data that you want to modify.
4. Quit and save the file.

Note: If you want the menu entries you add to be highlighted when you run TelMerge, type a vertical bar (|) before and after the service label.

Adding a Telex Service

You can add any telex service the same way you add other new services, but with these additions:

1. On the line above the phone number, type **INTERACTIVE**, press the **Tab** key twice, and type the phone number of the interactive (real-time) telex service. The service supplies you with this number.
2. On the line below the interactive number, type **ANSWERBACK**, press the **Tab** key twice, and type the answerback name for that service. The service gives you this name when you sign up.

Add the INTERACTIVE and ANSWERBACK responses only if your service provides telex communications. See **INTERACTIVE** and **ANSWERBACK** in the "Keywords" chapter.

Sending and Receiving Electronic Mail

Preparing Messages for Electronic Mail

Most communications services allow you to compose messages online, but you are charged for the time you are connected to the service. It is less expensive to type your messages first, using WordStar. Then, when the service prompts you for your message, press the SEND function key and specify the file containing your message. Your message is sent to the service.

A document file won't always print properly when it's received by the service. For this reason, TelMerge strips most of the print control commands from a file before transmitting it. Tabs, indents, margins, and centering are maintained, though spacing may change slightly. Boldfacing, underlining, and other print features are removed. You can control a file more closely by printing it to disk and then sending the disk file. To send a document that contains footnotes, endnotes, line numbers, or paragraph numbers, print the document to disk in ASCII format and then send the ASCII file.

Sending Electronic Mail

There are several ways to send electronic mail:

- You can send an **electronic letter** to someone if you both have an account with the same service. You deposit the letter in your correspondent's electronic mailbox.
- You can send a **paper letter**. In this case, you still send the letter electronically, but the service prints and delivers it. This may cost more than regular mail, but it can be much faster.

- If your correspondent has a **telex** machine, you can direct the letter to the telex network. In this case, your mail is printed on your correspondent's telex machine.

Examples of each of these methods follow. Each example shows the use of a particular communications service. Many services offer all of the methods and not just the method shown in the example.

Sending an Electronic Letter

EXAMPLE

To send an electronic letter using CompuServe, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **CIS** (for CompuServe) and press ↵. TelMerge dials CompuServe.

   As TelMerge dials, it counts the seconds it takes to reach that service. At 45 seconds, TelMerge redials the number. After dialing twice, TelMerge gives up. You can change the number of times TelMerge dials with the TRY keyword. See the "Keywords" chapter.

   Note: If TelMerge does not find a phone number for a service you specify, it prompts you for that information. At each prompt, type the required information and press ↵. TelMerge saves the information in a file that you name and calls the service. TelMerge gives the file a .TEL extension and stores it in the \WS directory. If you call that service again, press **F5** at the TelMerge Communications Menu and type the .TEL filename. TelMerge calls the service for you.
4. When CompuServe answers, TelMerge automatically issues your password and identification number and logs you on. You are now at the CompuServe Main Menu.

   From the CompuServe Main Menu, go to the Email Menu (see your CompuServe manual). From the Email Menu, enter the CompuServe editing workplace.
5. When you are online in TelMerge, you have two sets of function keys to use. The "TelMerge Function Keys" chapter explains each one and how they are used.

   Press the **F2** function key to see function key set 2 (if it is not already displayed). Then press **F4** to send a file. When prompted, type the full pathname of the file that contains your letter and press ↵. TelMerge transmits your file to CompuServe.
6. Follow the CompuServe instructions to close and send the letter.
7. Exit the Email Menu, then exit CompuServe.
8. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending an Electronic Paper Letter

EXAMPLE

To send an electronic paper letter using MCI Mail, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **MCI** and press ↵. TelMerge dials the number of MCI Mail and logs you on. You are now at the MCI Mail Main Menu.

   See your MCI Mail manual (or follow onscreen instructions) to reach the MCI Mail editing workplace. Type the name and address of your correspondent. MCI Mail prompts you for the letter.
4. Press **F4** of function key set 2 to send a file. Type the full pathname of the file containing your letter and press ↵. TelMerge sends your file.
5. When you are prompted for the end-of-text marker, type a forward slash (/) and press ↵.
6. Select the menu choice that sends your letter. MCI acknowledges receipt of your letter. The letter will be laser-printed and delivered to your correspondent.
7. At the MCI Mail prompt, type **exit** to disconnect from MCI.
8. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending a Telex

EXAMPLE

Following is a sample telex document. This format is prescribed by ITT. For variations of this telex format, see instructions from your service.

```
0000000+

TO:
Barbara Jones
FROM:
Andy Smith
DT:
11/21/88

Greetings from the Fall Cookware Show!  We have just unveiled
our new food processor.  Along with its many powerful features,
this machine kneads dough, grinds meat, and purees vegetables.
To see all of the new features of this state-of-the-art
product, you must try it for yourself.

NNNN

. . . . .
```

In telex messages you put the addressee's number in the top left corner of the document. End-of-document and disconnect signals come at the end. You then use TelMerge to send the document to the telex service.

There are two ways to send a telex document: **store-and-forward mode** and **interactive mode**.

When you use **store-and-forward** mode, you communicate with an intermediate computer system. Your letter is stored temporarily and transmitted later to its destination.

When you communicate in **interactive** mode, you are connected to your correspondent's individual telex machine, which prints each character as you send it. There is no intermediate computer system.

Using Store-and-Forward Mode

EXAMPLE

To send a telex using ITT TIMETRAN, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **ITT** and press ↵. You see the prompt *What file do you want to send?*
4. Type the full pathname of the file that contains your letter and press ↵.
5. If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **N** for no.

   ITT displays your account number, password, and destination account number, then transmits the file. You receive verification—"CALL ACCEPTED." If you have messages in your mailbox, ITT says "MESSAGES WAITING."
6. Press the SEND function key (**F4** of function key set 2) to see your messages. ITT displays all of your messages. When it has finished, it displays "END OF TRANSMISSION."
7. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Using Interactive Mode

EXAMPLE

To send a telex using ITT telex, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **ITT** and press ↵.
4. If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **Y** for yes.

5. After the service answers and TelMerge logs you on, type the telex number of your correspondent followed by a + (plus sign). The systems exchange answerback codes.
6. At this point, if your correspondent is there, you could communicate back and forth in real time. Instead, you'll send a prepared document. Press the SEND key (**F4** of function key set 2), type the filename, and press ↵. TelMerge sends your file.
7. Press the WHO ARE YOU key (**F7** of function key set 1). TelMerge verifies that you were connected during the entire session.
8. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Note: If you have a problem using interactive mode with a particular service, use that service's store-and-forward mode instead.

Receiving Electronic Mail

The way you receive mail varies with different services. With store-and-forward telex services like ITT and RCA, you give a command after you log on to the service. The service then tells you if you have mail waiting.

With menu-driven communications services like CompuServe and MCI Mail, you are told if mail is waiting as soon as you log on to the service.

If you have mail, make sure the TelMerge logging feature is on and then ask the service to send your mail. When logging is on, all mail is saved in a file on the disk. You turn logging on and off by pressing **F7**. With telex services, however, logging is always on. Check the status line to see if logging is on.

CAUTION *Make sure you have enough room on your disk for your logfile before you turn logging on. If you run out of disk space during a session, TelMerge disconnects from the service immediately to avoid loss of information. If this happens, make room on your disk and log on to the service again. Your mail is probably not lost; in most cases, the service still has it.*

Logfiles

When you turn LOGGING ON, information is saved in a logfile in the current directory (unless you change the pathname for it in your service script). Unless you specify otherwise, the filename is TELMERGE.LOG. (Logfiles for preprogrammed services have been named individually in the TELMERGE.SYS file. For instance, TELMERGE.SYS names a CompuServe session logfile CIS.LOG.) Each session is saved in its own file. Files received by TelMerge can be edited with WordStar in nondocument mode.

When you start a new session, TelMerge saves your previous session by automatically renaming the old .LOG file as .SAV. The new session is then saved in the .LOG file. The contents of the earlier .SAV file are discarded. If you want to save the logfiles of previous sessions, rename the .LOG file at the end of each session. Choose a filename that reflects the date of your session and the service that you used, for example, JUN06.ITT.

You can use the APPEND keyword to have information from each online session added to the existing logfile without creating a new file each time. See **APPEND** in the "Keywords" chapter for more information.

You can also create prompts that ask you for a logfile name each time you call a service. To do this, type a **?** after the keyword LOGFILE in that service's script. Insert a blank line just before the LOGFILE statement and type **say Name for logfile?** See "Shortcuts with TelMerge" for more information.

Printing

If you have a "PRINT YES" statement in a control file script, you can print your session while you're online. Use the **F8** (PRINT) function key to turn printing on or off. To check the current setting, look at the status line. If you have no printer, you can direct the printed output to a disk file. See **PRINT** in the "Keywords" chapter for more information.

Talking to Other Computers

Methods of Data Transfer

If you use TelMerge exclusively for sending Email through an Email service, you don't need to read this chapter. You can always use the **F4** (SEND) function key to transfer data. However, if you intend to call a mainframe or send program files, read on.

There are two general methods of transferring data between computers:

- **ASCII transfer** allows you to send and receive standard text files. This transfer method will not work for files that contain print controls or for binary and program files. All communications programs and commercial communications services support ASCII transfers.
- **Protocol transfer** allows you to send a file with print controls in place. You can also use this method to send and receive program files.

A protocol is a set of conventions for exchanging data between two computers and checking for errors that may occur during transmission. TelMerge uses the XMODEM checksum and XMODEM CRC protocols. Both the sending and receiving computers must be running the same protocol for a protocol transfer to work.

The protocol TelMerge uses to send the file depends on the function key you send it with and the service specified in the script.

- If you specify SERVICE TelMerge and press the **F4** (SEND) function key, TelMerge uses the CompuServe A protocol.

- If you specify any other service and press **F4**, TelMerge performs an ASCII file transfer.
- If you press the **F6** (XM SND) function key, TelMerge uses the XMODEM protocol.

Talking to Mainframes

Mainframes expect to be talking to terminals, not to your personal computer. If you are simply using Email or doing ASCII file transfers, this should not be a problem. However, the mainframe may require that your personal computer emulate (behave as) one of the more common terminals. TelMerge can be set up to emulate two terminals:

- **VT100** The DEC VT100 is a popular ASCII terminal. This is the default emulation. You don't need to add it to your script.
- **VIDTEX** The VIDTEX (or VT52) is another ASCII terminal. If a mainframe requires this emulation, you can put the command **EMULATE VIDTEX** in your control file script.

See **EMULATE** in the "Keywords" chapter for more information.

If you have log-on problems in half-duplex mode, add these keywords to your service script: DUPLEX HALF and ADDLF NO. The ADDLF NO statement prevents TelMerge from sending a line feed after each carriage return sent from the keyboard.

Note: TelMerge may not support certain communication controls required by mainframes.

Online Databases

Online services, such as CompuServe, are large mainframe computers with local nodes distributed throughout the country.

When you send Email and simple text files to an online database, use the **F4** (SEND) function key to send in ASCII mode (without any print controls). When you do a protocol transfer, the service usually asks you which protocol you are using. If you have problems with transmissions (losing characters, etc.) see **BAUD** and **LINEDELAY** in the "Keywords" chapter.

Talking to Another Personal Computer

With TelMerge, you can communicate with personal computers and computer "bulletin boards" that use any asynchronous communications software. You add these services to TelMerge just as you would any other new service. If the other computer is also using TelMerge, see "Talking to Another TelMerge User" later in this chapter.

Use the SEND function key to send ASCII files. For other files, use a protocol transfer (XMODEM CRC or checksum). Modify your TELMERGE.SYS file as follows. First add the new service name (either "ORIGINATE" or "RECEIVE" in our example) to your TELMERGE.SYS menu, then add these scripts:

ORIGINATING COMPUTER

```
Label   ORIGINATE
Say     Originating Computer
Number  (number of other computer)
End
```

RECEIVING COMPUTER

```
Label   RECEIVE
Say     Receiving Computer
Modem   ANSWER
End
```

1 If you are the receiving computer, set the modem switch setting for auto-answer to ON, restart your modem (to reinitialize it), start TelMerge, and type **receive** (or whatever name you chose). Then wait for the originating computer to call and establish communication. The modem is placed in answer mode.

If you are the originating computer, wait until the receiving computer is set up. Then start TelMerge and type **originate** (or whatever name you chose). TelMerge dials the number. The receiving computer answers the call and the two computers connect.

2 To talk with the other computer, type your message. Messages are transmitted.

To send an ASCII file, press the **F4** (SEND) function key, type the name of a file to send, and press ↵.

For protocol transfers, tell the remote system that you are about to send a file. When the system indicates that it is ready, press the **XM SND** function key (**F6** of function key set 2) and type the filename (when prompted).

The default protocol is XMODEM checksum. To use XMODEM CRC protocol, put PROTOCOL XMCRC in the control file script. See **PROTOCOL** in the "Keywords" chapter for more information.

When the transfer is complete, TelMerge indicates that it was successful.

3 Receiving an ASCII file is automatic. To receive a file via protocol transfer, tell the remote system to initiate a file transfer. When the system indicates that it is ready, press the **XM REC** function key (**F5** of function key set 2) and type the filename (when prompted).

4 The originator or receiver presses **F10** twice to disconnect.

With an ASCII file transfer, you can see the text on your screen as it comes from the modem; if you have LOGGING ON, the file is stored to disk. With a protocol transfer, incoming data is captured in a buffer and written to disk without being displayed onscreen. Instead, the status line displays, for example, *RECORD #4.*

Using Your Personal Computer for Data Collection

With the TelMerge auto-answer ability, you can set up your personal computer to receive data automatically. For example, sales staff can call in reports and data.

ASCII File Transfers

To use your personal computer for data collection, add a control file script with this information:

```
Label       COLLECT (or whatever)
Say         Now ready for data collection
Service     TELMERGE
Logfile     COLLECT.LOG
Modem       ANSWER
Duplex      HALF
End
```

With your modem in answer mode, TelMerge treats all incoming calls as one session, adding each call to the same logfile. If your correspondents are using TelMerge and add the following script to their control files, each file they send you creates a new file on your disk. If this is the case, run TelMerge from a directory that has no files in it that you want to save, since files sent to you will overwrite files with the same name on your disk.

```
Label       CALLHOME (or whatever)
Say         Now calling home office for file transfer
Service     TELMERGE
Duplex      HALF
Number      (your phone number)
End
```

Protocol Transfers

In protocol transfers, if a caller tries to send you a filename that already exists on your disk, the file on your disk is overwritten.

CAUTION *If you expect a lot of incoming calls through TelMerge, be sure your disk has plenty of space to accommodate incoming files. If your disk fills up, the caller is disconnected and all subsequent connections fail.*

Talking to Another TelMerge User

If you are communicating with another computer that is running TelMerge, set up your script as follows.

```
Label       TMERGE2
Say         Now connected to another TelMerge user
Service     TELMERGE
Duplex      HALF
End
```

Protocol transfers between two computers running TelMerge use the CompuServe A protocol.

If you are sending files to the other computer, type the name to give to the file when it reaches the remote computer. You can use the wild-card character * to send multiple files with the same extension (*.DOC) or all the files in a directory (C:\DOCS\*.*). During a personal-computer-to-personal-computer transfer, the user who presses the SEND function key provides the filename for the other user.

You can use TelMerge to transfer files directly between computers (without modems) if the serial ports of the computers are connected by a special serial cable adapter. Both computers must have TelMerge. Set up the control file scripts as follows.

```
Label       DIRECT
Say         Now set up for direct connection
Service     TELMERGE
Modem       DIRECT
Duplex      HALF
End
```

The direct transfer procedure is the same as for a transfer over the telephone. See "Talking to Another Personal Computer" earlier in this chapter for more information.

A Summary of Techniques to Send and Receive Files

Send (F4) Sends ASCII files. (When contacting another TelMerge user, **F4** uses the CompuServe A protocol.)

XmSnd (F6) Uses the current protocol (the one set in the service script) to send a file to a service or to a personal computer that is not using TelMerge.

XmRec (F5) Uses the current protocol (the one set in the service script) to receive a file from a service or from a personal computer that is not using TelMerge.

No action is required to receive an ASCII file. When you contact another TelMerge user, no action is ever required to receive a file.

Shortcuts with TelMerge

This section contains some suggestions for customizing TelMerge for your personal needs. The shortcuts are most useful if you are using the TELMERGE.SYS file to call your services. The shortcuts in this section include

- programming function keys
- reprogramming TELMERGE.SYS:
  prompting for a password
  prompting for a logfile name
  prompting for printer or disk output
- automating an online session
- exiting while online
- using Snap Shot and ShoFil

Programming Function Keys

You can customize **F7** and **F8** of the online function key set 2 for each service you use. In this example, the **F7** function key (FK1) is programmed to check mail on the CompuServe EasyPlex service.

1. Use WordStar to edit the TELMERGE.SYS file.
2. Page down until you come to the section that begins *Label CIS*.
3. At any point after the *Say* statement, press ↵ to insert a blank line.
4. On the blank line, type **fk1r,email go_mail**.
5. Save the file.

What does **fk1r,email go_mail** mean?

- **FK1** stands for the **F7** function key. The **R** sends a carriage return at the end of the command.
- When you are online with CompuServe, **Email** is the new label for the **F7** function key (at the bottom of your screen).
- **Go_mail** (followed by ↵) is the command issued when you press **F7** while logged on to the CompuServe EasyPlex electronic mail service.

You can program **F7** and **F8** to send commands, passwords, or other information while online. They can have different functions for each service.

Reprogramming TELMERGE.SYS

TelMerge has a built-in scripting language with conditional commands like **IF** and **ELSE**. The following examples demonstrate the use of this scripting language.

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a password.

```
Say Password?
Hold ?
If =MyPassword
Goto GoodPassword
Else
Say Sorry. Incorrect password.
Exit
EndIf

Label GoodPassword
Password !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a logfile name. Insert the following lines into the appropriate section of your control file just after the Label line that gives the service name.

```
Logfile MYFILE.LOG
Say What would you like to call this session's logfile?
Say
Say Type a filename and press Enter,
Say or press Enter to use the filename "MYFILE.LOG."
Say
Hold ?

Logfile !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for printer or disk output.

```
Print MYFILE.PRN
Say Type the name to use
Say for the diskfile
Say (Type P to use the printer)
Hold ?
If =P
Print YES
Else
Print !
Endif
```

Automating an Online Session

You can use the TelMerge keywords to issue commands automatically, so you have a minimal amount of typing to do. Here are some examples.

Changing the Log-on Script

TelMerge issues the commands in its control file in a particular order (see the "Keywords" chapter for a full listing). If you have a service that needs information in a different order—or one that calls for input that TelMerge doesn't understand—use the LOGON keyword to customize your log-on sequence.

Suppose that you subscribe to a service that requires you to log on by giving (in order) the network identification number, your first name, your last name, and your password. The LOGON keyword is designed to handle this. You would type the following line into your control file:

LOGON ***networkid|firstname|lastname|password***

Each vertical bar (|) in the LOGON command tells TelMerge to issue a carriage return and wait for a prompt from the service before continuing.

Since LOGON is one of the last keywords that TelMerge checks, remove the lines containing the network identification and your password from the control file script before using this new version.

Automating an Entire Session

TelMerge can automatically call a service and request the information you need. You can even make several automated calls in sequence without pressing any keys in between. The following keywords work together to create an automated session. (They are described in more detail in the "Keywords" chapter.)

KEYWORD	**DESCRIPTION**
CALL	Dials the service now
WAIT *word*	Waits for this word from the remote service (after logging on)
SEND *word*	Sends this word (or words) to the service
PAUSE *secs*	Waits this number of seconds for the service to start sending
QUIET *secs*	Waits until the serial line is quiet for this number of seconds
FILESEND *filename*	Sends the specified file
LOGGING ON or OFF	Turns logging on or off at this point in the session
PRINT ON or OFF	Begins or ends printing at this point in the session
HANGUP	Hangs up the phone

In an automated session, when TelMerge finds a CALL keyword, it dials the service using the preceding information. Then the script keywords are executed. When it reaches HANGUP, it looks at the next script to see if it contains a CALL keyword. If it does, TelMerge calls that service. Otherwise, it exits the service and goes to the TelMerge Communications Menu.

If you press any key but **F10** during an automated session, TelMerge terminates the call and switches to normal interactive mode. If you press **F10** during an automated call, the current script (including any other calls that follow in the script) is canceled, and the phone is hung up. You can automate part of a session and then continue it in interactive mode by leaving out the HANGUP keyword after the last CALL keyword.

EXAMPLE

Here is an example of an automated session.

```
Service mci
Print yes
Number (800)123-4567
Baud 2400
Userid kputman

Logging on
Call
Wait command:
Send dowj
Wait query
Send //djnews
Wait help
Send .I/EDP 01
Pause 2
Quiet 1
Send ^M
Pause 2
Quiet 1
Send //cqe
```

```
Wait query
Send wstar
Wait return.
Send f
Pause 2
Quiet 1
Send disc
Wait command:
Send exit
Hangup
```

Exiting While Online

While you're online, you may want to check a file before sending it. With TelMerge, you can exit a service while online without logging off. To do this, press the **F9** (Edit) function key, while you're online. You return to the WordStar Opening screen. When you are ready to reconnect, restart TelMerge and press the **F8** (Go Online) function key. Select the service from the menu. You can skip the automatic log-on process (by pressing any key after you reconnect), since the remote computer thinks you have been logged on all the time.

To go to DOS while you're online, press the **F3** (DOS) function key of set 2. You can use any DOS command or run another program. When you're finished, press **Esc** to return directly to your online session.

Using Snap Shot and ShoFil

Use the **F5** (SnapSh) key to save the current screen in your logfile or in memory. You can save up to five screens in memory, but they are saved for the current session only. Use the ShoFil function key to look at any file while you're online.

You can use Snap Shot during ShoFil. For example, if a service displays a list of files available for downloading, turn logging on, and ask the service to display the list. Logging saves the display on disk. Then press the **F8** (ShoFil) function key and ↵ to view the logfile. Take snap shots of the parts of the list that interest you. Then use the Recall function to display them. Find the file you want to download.

You can use the ShoFil function to create a customized help screen. Edit the previous log file in WordStar to display the information you want to see while you're online. For example, you can consolidate all the commands for a given service onto one screen. Copy that screenful of information to a file with a descriptive name, like CISHELP.DOC. Then, when you're online with that service, use ShoFil to view the screen whenever you want.

You can also use ShoFil to review the logfile of the current session. To do this, press **F8** (ShoFil) and then press ↵.

Keywords

Keywords determine the actions that TelMerge takes. All the TelMerge keywords are listed in this section, with explanations and examples of their use. See "Calling a Service with TelMerge" for more information on using each keyword. Press **F1** to display the current settings for keywords while you're using TelMerge.

How Keywords Are Sent

This list shows the order of keywords sent in a call. The NUMBER keyword is required; all others are optional. See individual entries for default values for the optional keywords (except USERID, HOSTID, FILESEND, and PASSWORD).

KEYWORD	**DESCRIPTION**
PREMODEM	
INIT	Modem initialization
INIT2	Additional modem initialization
PREFIX	Dial—default ATDT
NUMBER	Or INTERACTIVE if interactive telex
SUFFIX	Wait for carrier reply from modem
ATTENTION	
ATDELAY	Wait this many tenths of a second
ATTENTION	If more than one in control file
TERMINAL	If network
HOSTID	If network
USERID	Or ANSWERBACK for Telex
PASSWORD	
LOGON	

KEYWORD	DESCRIPTION
FILESEND	In a normal session, TelMerge enters interactive online mode. In an automated session, CALL, WAIT, SEND, PAUSE, QUIET, FILESEND, and HANGUP take effect. Press **F10** to hang up the phone, unless there is a HANGUP keyword after the CALL keyword.
HANGCOM POSTMODEM	Modem hangs up

Special Characters

The following special characters can be used with TelMerge keywords.

CHARACTER	FUNCTION
{	Subsequent characters on the line are ignored. Use this symbol to add comments to the control file.
?	Waits for your response from the keyboard. If followed by a number, your response is limited to that number of characters. When used with HOLD, puts the character(s) you type into a memory buffer. You can use a **!** to assign these characters later as an entry for a keyword. (See the **HOLD** keyword.)
!	Assigns the contents of the buffer to the preceding keyword.

Entries for the modem keywords (INIT, INIT2, PREMODEM, POSTMODEM, HANGUP) and log-on keywords (TERMINAL, HOSTID, USERID, PASSWORD, LOGON) can include the following special characters.

CHARACTER	FUNCTION
\d	Causes a delay of one second.
^	Sends the next character as a control character. **^E** sends a Ctrl-E.
^^	Sends a caret (^) to the remote service. When the caret is the last character of a string, no carriage return is sent after that string. For instance, **SEND Y^** sends the letter Y without a carriage return.

Ctrl-M and a carriage return are interchangeable. To send one carriage return, type **^M^**. Without the last **^**, a carriage return is added after the string ^M, resulting in two carriage returns.

Keyword Listing

ADDLF Tells TelMerge whether to send a line feed following a carriage return entered from the keyboard.

Usage:	ADDLF YES ADDLF NO

Use for logging on to some half-duplex services such as the legal service LEXIS. Without ADDLF NO, a service may not respond when you press ↵ or it may hang up.

ANSWERBACK Issues your personal ID code at a *Who are you* request (used by telex systems only).

Usage:	ANSWERBACK *string*
Example:	ANSWERBACK Charlie

Telex-based services request your user identification to verify that you dialed correctly. The code you type for the answerback string (up to 30 characters) is provided by the service when you register.

APPEND Adds information from new sessions to the named logfile, without starting a new one.

Usage:	APPEND YES APPEND NO (default)

Use APPEND in automated sessions when you make several calls, or to avoid renaming .LOG files to save them.

ATDELAY Pauses before sending first character to a service.

Usage:	ATDELAY *tenths of seconds*
Default:	ATDELAY 5

Some networks require a delay before the first character (usually the ATTENTION character—see **ATTENTION**) can be received. If the service doesn't respond when you first call, increase the setting to ATDELAY 20 or ATDELAY 30.

ATTENTION Issues any special characters required by a service at the beginning of transmission.

Usage:	ATTENTION *character*
Example:	ATTENTION ^C (sends Ctrl-C) ATTENTION ^M (sends Ctrl-M or carriage return)

To specify more than one ATTENTION character, put each one on a separate line following the keyword. You can specify a maximum of six. Supplied automatically for preprogrammed services and if NETWORK keyword is used.

AUTOLOG Turns automatic log-on on and off.

Usage:	AUTOLOG YES (default) AUTOLOG NO

If you are testing a new control file script, you may want to disable the automatic log-on process by specifying AUTOLOG NO.

BAUD Sets the rate at which information is transmitted between two devices.

Usage:	BAUD 110 BAUD 300 BAUD 1200 BAUD 2400 (default) BAUD 4800 BAUD 9600

TelMerge can use six different baud rates. The lower the baud rate, the slower the rate of transmission. When an information service supports various baud rates, there may be different phone numbers and charges for each setting.

BITS Sets the number of bits sent for each character.

Usage:	BITS 7 BITS 8 (default)

Already set internally for preprogrammed services. Change as needed when you add a new service.

CALL Used instead of END in automated sessions to call the service.

Usage: CALL

All information for contacting a service should be above the CALL keyword in the script. When CALL is encountered, TelMerge calls, attempts to log on, and then executes any subsequent keywords in that script. (See **END**.)

CLS (Clear Screen) Clears the display.

Usage: CLS

Returns the cursor to the upper-left corner of the screen.

DUPLEX Determines which computer controls the onscreen display of characters you type.

Usage: DUPLEX FULL (default)
DUPLEX HALF

Characters you type can be displayed onscreen by your computer or by the host computer. FULL DUPLEX means the host computer "echoes" your characters to the screen as you send them. HALF DUPLEX means your computer echoes the characters. Preprogrammed services already have the proper DUPLEX setting.

ELSE See **IF**.

EMULATE Enables monitors to behave like different terminals.

Usage: EMULATE VT100 (default)
EMULATE VIDTEX
EMULATE NONE

Use this keyword to emulate a mainframe terminal. VT100 (ANSI standard) is a widely used terminal. See also **FULLSCREEN**.

VT100 emulation accepts and displays ANSI standard sequences for cursor movement, colors, and special attributes. These sequences include foreground color, background color, high intensity, foreground/background reverse, and underlining. Some electronic bulletin boards use these sequences to display color screens with highlighted text.

VIDTEX (VT 52) emulation accepts and displays sequences for cursor movement and printer enabling and disabling.

END Ignores subsequent commands in a control file script and runs it.

Usage: END

TelMerge starts at the service label, reads in the keyword commands up to the END command, and calls the service. END is similar to the CALL keyword. CALL is used for automated sessions, and END is used for interactive sessions.

ENDIF See **IF**.

EXIT Stops and returns to WordStar.

Usage: EXIT

Use with IF/ELSE to end a session if certain conditions are not met. See **IF.**

FILESEND Sends an ASCII or WordStar file that you specify.

Usage: FILESEND *filename*

Example: FILESEND \MEMO.WS

In interactive sessions (no CALL keyword included), the file is sent after you are logged on to the service. In automated sessions, the file is sent when TelMerge encounters the FILESEND command.

FIRST Waits for a particular character from the remote service before displaying characters onscreen.

Usage: FIRST *character*

Example: FIRST p

Some services send a series of characters before the prompt you need to read. Use FIRST to specify the first character you want to display. In the example, the first text displayed is *Please log in*, because "p" was specified as the first character to display.

FK Programs a **F**unction **K**ey (**F7** or **F8** of function key set 2) to issue a specified command.

Usage:
FK1,*label space string*
FK2,*label space string*
FK1R,*label space string*
FK2R,*label space string*

Example: FK1R,Email GO_Mail

In the example, Email defines the screen label for function key **F7**. R sends a carriage return at the end of the command. Go_Mail is the command—go to the electronic mail menu. FK1 represents **F7** and FK2 represents **F8**. Commands can be up to 60 characters long. You can program these keys differently for each service.

FULLSCREEN

Works with EMULATE to allow better VT100 or VIDTEX screen emulation.

Usage:
FULLSCREEN YES
FULLSCREEN NO (default)

Removes the status line at the top of the screen to display 24 lines. When you toggle logging (**F7**) or printing (**F8**) on or off while in FULLSCREEN mode, the status line is temporarily displayed to show this change. Then the status line is overwritten or scrolls off the screen.

GOTO

Goes to a LABEL in the control file.

Usage: GOTO *label name*

Example: GOTO Menu

GOTO and LABEL are always used together.

GRAPHIC

Uses the extended character set for graphic display.

Usage:
GRAPHIC YES
GRAPHIC NO (default)

The extended character set is used by some electronic mail services and bulletin boards to enhance screen displays.

HANGCOM

Gives hangup instructions to the modem.

Usage: HANGCOM *string*

Default: HANGCOM ATH

The command ATH tells your modem to hang up. If your modem uses a different hangup command, use HANGCOM to specify it in your control file. (See **USEDTR** for more information.)

HANGUP

Used in an automated session to hang up the phone.

Usage: HANGUP

To add another call to the automated session, use the NUMBER keyword after HANGUP. Specify any keywords that differ from those in the last call. Then type the CALL keyword. (See **CALL** for more information.)

HARDCOPY

See **PRINT**.

HOLD

Waits for user input from the keyboard, and stores the response in a buffer.

Usage: HOLD ?

A buffer stores information temporarily. Test the buffer contents with the IF and IFNOT keywords. You can use the information in the buffer as the response to another keyword by typing **!** after the keyword. Stores up to 80 characters.

HOSTID

Issues the host ID code.

Usage:	HOSTID *string*
Default:	No HOSTID is sent
Example:	HOSTID XYZZY

HOSTID (up to 30 characters) is the network's internal "phone number" for the service you are calling. Include it if you use NETWORK in the script.

IF, IFNOT, ELSE, ENDIF

Tests for a specific condition and proceeds accordingly.

Usage:	IF *string*
	IFNOT *string*
	ELSE
	ENDIF

Example:	See "Reprogramming TELMERGE.SYS" in the "Shortcuts with TelMerge" chapter

Use together to create program logic for TelMerge.

IFNOT

See **IF**.

INCLUDE Interrupts the current script and runs the script in the included file.

Usage:	INCLUDE *filename*
Example:	INCLUDE SCRIPT.SYS

Use INCLUDE to pass control between several files. When the included script is completed, TelMerge returns to the original script at the line following the INCLUDE keyword. Use as many INCLUDE statements as you want and nest up to four files.

INIT Initializes the modem before a call is made.

Usage:	INIT *string*
Default:	INIT ATE1

Specify the initialization string for your modem if it differs from the default. In the default, AT prepares the modem for a command; E1 echoes input to the screen. A carriage return follows the string. A \d with INIT adds a delay of one second. (See "Special Characters" at the beginning of this section.)

INIT2 Adds other initialization information.

Usage:	INIT2 *string*
Example:	INIT2 ATS 7=20

The string sent by INIT2 follows the INIT string. The example sets the number of seconds TelMerge will wait for a carrier signal after dialing. (The Hayes default is 20 seconds.)

INTERACTIVE Specifies the phone number of a telex real-time (interactive) service.

Usage:	INTERACTIVE *phone number* INTERACTIVE P *phone number*
Example:	INTERACTIVE 9 (800) 555-1212

Numbers specified can be up to 30 characters long. Include any dialing prefix required by your PBX system and the area code.

The default dialing mode is tone dialing. The "P" preceding the number in the second usage form indicates pulse dialing to the Hayes Smartmodem.

See your modem manual for information about special punctuation marks. For the Hayes Smartmodem, a comma creates a two-second delay. This is useful for dialing out of a local PBX, which requires a second dial tone.

LABEL Marks a position in the control file as a destination for a GOTO keyword.

Usage: LABEL *label name*

Example:

```
GOTO MCI
:
LABEL MCI
```

Each GOTO statement must have a corresponding LABEL. Labels can be up to 80 characters long.

LINEDELAY Pauses after each line sent with the **F4** (SEND) function key.

Usage: LINEDELAY *tenths of a second*

Example: LINEDELAY 3

Use LINEDELAY if the receiving computer cannot keep up with your SEND speed. In the example, TelMerge waits three tenths of a second after each carriage return before sending the next line.

LOGFILE Names the file that records an online session.

Usage: LOGFILE *filename*

Default: LOGFILE *telmerge*.log

Example: LOGFILE MCI.LOG

With logging on, the online session is recorded in the current directory (unless you specify a pathname for it). The name of the logfile defaults to the service name and a .LOG extension. The previous logfile is saved to a .SAV file. The .SAV file from the session before that is overwritten.

LOGGING Sets the initial status of the logging function.

Usage: LOGGING ON (default)
LOGGING OFF

When logging is on, a logfile is opened and incoming information from an online session is recorded. You can turn logging on or off during any online session with the LOG function key (**F7** of function key set 2).

LOGON Automates the log-on process and much of an online session.

Usage: LOGON *string*|*string*|*string*

Example: LOGON Joe|Smith|*password*|^M^|^M^|f

LOGON replaces the USERID, PASSWORD, TERMINAL, and HOSTID keywords. It automates the session up to the point of logging. You can automate the rest of the session with CALL, WAIT, and SEND. LOGON can have up to 80 characters.

In the example, LOGON logs Joe Smith on to a bulletin board service that prompts with *First Name?, Last Name?, Password?, Want to see bulletins? (carriage return for no), Want messages?,* and, finally, a menu in which " f " goes to the file section. The vertical bar character (|) after each item in the string sends a carriage return and waits for the next prompt. (See the **PROMPT** keyword.)

MODEM Defines the type of modem you are using.

Usage:

MODEM AUTOMATIC (default)
MODEM ACOUSTIC
MODEM DIRECT
MODEM ANSWER
MODEM HAYES
MODEM HAYES 2400

The default is a Hayes Smartmodem that automatically dials and answers. Use MODEM HAYES 2400 if you are using the Hayes Smartmodem 2400.

For an acoustic modem, change the response to ACOUSTIC and dial the service manually. TelMerge resumes operation after the connection is made. *Note:* If the setting is MODEM ACOUSTIC, AUTOLOG is set to NO for that service, even if you specify AUTOLOG YES in that script. Once the telephone connection is made, you must complete the log-on procedure yourself.

For a direct-cabled connection (without modems), change the response to DIRECT.

For a personal-computer-to-personal-computer transfer, change the response to AUTOMATIC or ANSWER. See "Talking to Another Personal Computer."

NETWORK Specifies a network to use to contact a particular service.

Usage:

NETWORK TYMNET
NETWORK TELENET
NETWORK UNINET

A network allows you to reach a service with a local phone call rather than with a long distance one. If you use the NETWORK keyword, you must use HOSTID as well, but you don't need the ATTENTION and TERMINAL keywords.

NUMBER

Specifies the telephone number for a service.

Usage: NUMBER *phone number*
NUMBER P *phone number*

Example: NUMBER 9,,(201)555-1212
NUMBER P9,,(201)555-1212

NUMBER can be up to 38 characters long. Include any dialing prefix required by your PBX system and the area code. The commas shown in the examples create two-second delays for a PBX that requires a second dial tone. See your modem manual for more information about special punctuation marks.

If you have call waiting and your local telephone company provides a way to disable it, you can add the call waiting cancel code to the NUMBER string. Put it before the area code of the service number. Call waiting is reinstated as soon as the HANGUP signal is issued.

The default dialing mode is tone dialing. If you have a Hayes Smartmodem, which requires pulse dialing, type a **P** after the NUMBER keyword.

PARITY

Specifies an error-checking procedure.

Usage: PARITY NONE (default)
PARITY ODD
PARITY EVEN
PARITY ZERO
PARITY ONE

This keyword is already set internally for preprogrammed services. For new services, change the response to the setting required by that service.

PASSWORD

Issues your password to a service automatically.

Usage: PASSWORD *string*

Example: PASSWORD BLUEFOX

Passwords can be up to 30 characters long. If you don't want to include passwords in your control file scripts, type the following lines to have TelMerge prompt you for your password just before logging on to the service.

```
SAY What is your password
PASSWORD ?
CLS
```

PAUSE Pauses for the number of seconds you specify to allow the remote service to begin sending.

Usage:	PAUSE *number of seconds*
Example:	PAUSE 3

Use PAUSE in an automated session when you don't know how the service will respond. Use PAUSE in conjunction with QUIET to insure that the service is finished sending characters. In this example, TelMerge waits three seconds before proceeding to the next instruction in your script.

PORT Specifies the port on your computer that TelMerge will use to communicate.

Usage:	PORT COM1 (default) PORT COM2

If you use the COM1 port for your printer, connect TelMerge to the COM2 port and change the entry for PORT to COM2.

POSTMODEM Sends a string of characters to an electronic switch after a call is made.

Usage:	POSTMODEM *string*
Example:	POSTMODEM ATE1V1^M

Use POSTMODEM to initialize the modem for the next user. If a PREMODEM command tells switching equipment to use modem 3, POSTMODEM can unhook modem 3 to make it available.

In the example, "ATE1" leaves the modem in echo mode. "V1" uses long responses (words) instead of single characters. The "^M" is needed because neither PREMODEM nor POSTMODEM automatically sends a carriage return.

PREFIX Specifies a condition for dialing a phone number.

Usage:	PREFIX *string*
Default:	PREFIX ATDT
Example:	PREFIX ATM0DT

The Hayes Smartmodem dials the "Dial String," which consists of the prefix, the number, and the suffix.

Entries for the PREFIX keyword can be up to 30 characters long. Begin each one with AT and end with a dial command (DT for tone dialing or DP for pulse dialing). In the example, M0 (zero) silences the modem's speaker during dialing. Check your modem manual for more information about dialing prefixes.

PREMODEM Sends a string of characters to the communications port before the modem initialization string is sent.

Usage:	PREMODEM *string*
Example:	PREMODEM ^Z\d\d\d

A premodem command (up to 32 characters) can be sent to an electronic switch connecting several modems, a corporate phone system with built-in modems, or a modem that requires a special command before normal Hayes-type initialization.

Use ^ to specify control characters and **\d** to specify a one-second delay. (See "Special Characters" at the beginning of this chapter.)

In the example, a Ctrl-Z (required by some phones with built-in modems) is sent, followed by a three-second pause (one second for each \d).

PRINT Records an online session on your printer or in a disk file.

Usage:	PRINT YES PRINT *filename* PRINT *port* PRINT NO (default)
Example:	PRINT LPT2

PRINT YES sends a record of your session to your default printer. PRINT *port* sends the information to a printer connected to a different port. PRINT *filename* sends the information to a disk file with that name.

If PRINT is set to YES, turn printing on and off with the **F8** (PRINT) function key. Before you begin printing, be sure that your printer is ready and has enough paper.

Printing is initially ON for preprogrammed telex services. Printing begins as soon as you connect with the service. You can turn it off and on again with **F8**.

PROMPT Adds new characters to the prompts TelMerge recognizes.

Usage: PROMPT *character*

Example: PROMPT J

A prompt is used by the remote service to tell you that it's waiting for your response. For example, in the phrase "Command :" the colon (:) is a prompt, since it is the service's signal that it is ready for you to respond.

These prompt characters are recognized by TelMerge: @, :, =, !, ?, >, ^, and Q. Use PROMPT to add up to nine new prompts. Prompts can be up to 14 characters long.

PROTOCOL Changes the file transfer protocol.

Usage:

```
PROTOCOL XMCRC
PROTOCOL XMCHK  (default)
```

F5 of function key set 2 (XM REC) defaults to XMODEM checksum protocol. To use the CRC protocol, add PROTOCOL XMCRC to the service script.

QUIET Waits until no character has been received from the remote service for a specified number of seconds before sending new information.

Usage: QUIET *number of seconds*

Example: QUIET 3

Use in conjunction with PAUSE in automated sessions. In this example, TelMerge waits until no characters have been received for three seconds before following the next instruction in your script.

SAY Displays the subsequent text on that line when you run TelMerge.

Usage: SAY *string*

Example:

```
SAY Check the printer
SAY
SAY and press ↵
SAY to continue
HOLD ?
```

Each SAY command can be up to 80 characters long. Create blank lines by using SAY alone with no text.

SEND Sends a string of characters and a carriage return to the service.

Usage: SEND *string*

Example: SEND //NEWS

In the example, the word NEWS is sent to the remote service, followed by a carriage return. (The slashes are part of an MCI command.) Use SEND in automated sessions.

SERVICE Logs on to a particular service automatically.

Usage:	SERVICE CIS	CompuServe
	SERVICE ESL	EasyLink
	SERVICE ITT	ITT Telex/TIMETRAN
	SERVICE MCI	MCI Mail
	SERVICE OAG	Official Airline Guides
	SERVICE ONT	ONTYME Messaging Service
	SERVICE RCA	RCA Telex/TELEXTRA
	SERVICE Telmerge	Another TelMerge user

SERVICE is a description of your communications service (up to 32 characters long). It appears in the status line when you are connected to that service. Any service not listed here can be added with the SERVICE keyword. (See "Adding a New Service to TELMERGE.SYS.")

If you add a new service without specifying a service name, TelMerge displays *Remote System* when you connect with that service.

STOPS Sets the number of stop bits.

Usage: STOPS 1 (default)
STOPS 2

This keyword is already internally set for preprogrammed services. Check the service requirements for this setting when adding a new service. The default setting works for most services.

SUFFIX Issues a post-dial command to the modem.

Usage:	SUFFIX *string*
Default:	A carriage return is sent
Example:	SUFFIX M1

SUFFIX (up to 30 characters) follows NUMBER. In the example, "M1" turns on the modem speaker after the number is dialed. This is useful if you use PREFIX to tell the modem to be silent *during* dialing, but you want to hear busy or no-answer signals when dialing is completed.

The Hayes Smartmodem dials the "Dial String," which consists of the PREFIX, NUMBER, and SUFFIX keywords. See your modem manual for more information.

TERMINAL Specifies your terminal type.

Usage:	TERMINAL *string*
Example:	TERMINAL A

During an automatic log-on to a network, TERMINAL (up to 6 characters) specifies the equipment you are using. Do not use TERMINAL with a preprogrammed NETWORK keyword, since these terminal settings are already internally programmed into TelMerge.

TRY Specifies how many times to redial a busy number before giving up and returning to WordStar.

Usage:	TRY *number from 1 to 99*
Default:	TRY 2
Example:	TRY 9

When a number is busy, TelMerge does not redial immediately. It waits until the dialing clock registers about 45 seconds.

USEDTR Controls how TelMerge hangs up the modem.

Usage:	USEDTR YES USEDTR NO (default)

You can use this keyword with modems that have a switch that uses the DTR serial port signal to hang up. The Hayes 2400 modem can use the DTR switch, but it requires special initialization. For this modem, use the INIT2 keyword ("INIT2 AT&D3"). If the phone doesn't hang up when it should, add **USEDTR YES** to your control file script and set the modem switch to use DTR. (See also **HANGCOM**.)

USERID Issues your identifying name when you log on to a communications service.

Usage:	USERID *string*
Example:	USERID 1456

When you subscribe to a communications service, you receive a user ID code (up to 30 characters long) that you must send each time you call the service.

WAIT Waits for a particular string from the remote service before continuing with the next instruction.

Usage:	WAIT *string*
Example:	WAIT Command:

In this example, "WAIT Command:" tells TelMerge to wait until the word "Command:" is received from the remote service before proceeding. Use WAIT for automated sessions.

Troubleshooting

This section lists some commonly reported TelMerge problems and their solutions.

CAUTION *Some problems have been reported in running TelMerge with RAM-resident programs. If you have problems using TelMerge, disable any RAM-resident programs you have. To do this, you may need to remove the commands in your AUTOEXEC.BAT file that start these programs. Then reboot your computer and run TelMerge.*

Connection Problems

The modem dials the phone, but there is no answer.

The telephone number in the script for this service is probably incorrect. Be sure to include the appropriate prefix ("9" for a PBX or "1" for long distance) and the area code.

The modem dials and connects, but TelMerge doesn't log on to the service.

There may be something wrong with the script for that service. You may have typed the wrong user ID or password, or specified the wrong baud rate setting for your modem. See the "Communications Services" chapter and edit the control file. You can also try increasing the character delay. Set the ATDELAY keyword to 20 or 30. (See **ATDELAY** in the "Keywords" chapter.)

Transmission is erratic, or is cut off when sending a document to a service.

The end-of-document marker for that particular service may have been inadvertently included somewhere in the text of the message. For instance, MCI uses a slash (/) to indicate the end of a letter. Edit the document and remove the offending character(s). See the information packet from your service for more information.

Also, check the LINEDELAY keyword in your control file script. Try increasing the LINEDELAY setting to 10. (See **LINEDELAY** in the "Keywords" chapter.)

When connecting to a service, everything freezes.

Perhaps the keyword in that script is set for PRINT YES, but when you connect to the service, your printer is turned off. Turn on your printer and try again. This can also happen if you run TelMerge while using a RAM-resident program. Disable any RAM-resident programs, reboot your computer, and run TelMerge again.

Screen Display Problems

During a session, none of the characters typed appears on the screen.

The service you are using requires half duplex. Edit the control file and add the line **DUPLEX HALF** to the service's script.

During a session, each character typed appears twice on the screen.

The service you are using requires full duplex. Edit the control file and replace DUPLEX HALF with **DUPLEX FULL** for that service's script.

The screen fills with random characters when connected to a service.

The baud rate of the service and the baud rate of your computer don't match. The baud rate information for the service is in the packet that the service sent you. Edit the service's script in the control file and specify the proper baud rate.

During a telex service session, lines in the text wrap before the end of the line.

Telex services allow fewer than 80 characters across the page. Use a right margin of 65 in document files to be safe.

File Problems

The logfile is erased each time a new session is initiated.

TelMerge renames the previous logfile *logfile*.SAV at the beginning of each new session. The same logfile name is used for every session and is specified in the script for that service after the keyword LOGFILE. If you want to keep old logfiles, rename the file after each session or add APPEND to the scripts whose logfiles you want to save. (See **APPEND** in the "Keywords" chapter for more information.)

Printing Problems

Documents do not retain print commands like bold, underline, and overstrike when sent.

Because of compatibility constraints, TelMerge strips all print commands from WordStar document files, unless you use a protocol transfer. The balance of the document is transmitted faithfully.

CAUTION *If you are sending files that you created with another word processor, and these files contain print enhancements, you must use a protocol transfer. Otherwise, serious problems could occur.*

During a telex service session, certain punctuation marks don't appear in the document received.

The character set for telex is a subset of the typewriter character set. Generally, lowercase characters are converted to uppercase. Certain punctuation marks are discarded during the transmission, and others are converted. The communications service representative can supply more specific information.

TelMerge Function Keys

TelMerge Communications Menu Function Key Assignments

FUNCTION KEY	LABEL	PURPOSE
F1	Help	Displays TelMerge function keys and current settings
F5	Other	Creates a new service file or allows you to specify an existing one
F8	Go Online	Returns to a service after you go offline temporarily
F10	Exit	Exits the service

Online Function Key Assignments—Set 1

FUNCTION KEY	LABEL	PURPOSE
F1	Help	Explains each function key
F2	Set2	Switches between function key sets 1 and 2
F3	UserID/Hereis	Sends the user identification code you typed in this service's script to the service
F4	PassWd/Mail	Sends the password you typed in this service's script to the service. (For telex services, gets messages)

FUNCTION KEY	LABEL	PURPOSE
F5	SnapSh	Saves current screen in logfile or in memory. Saves up to 5 screens
F6	Recall	Displays screens saved with **F5**
F7	Log/WRU	Turns logging on and off. (For telex services, issues a WHO ARE YOU command)
F8	Print	Turns printing on and off
F9	Edit	Exits to WordStar while online. Use **F8** (Go Online) to return to the service
F10	Hangup	Hangs up the phone. Be sure to log off from your service first if required

Online Function Key Assignments—Set 2

FUNCTION KEY	LABEL	PURPOSE
F1	ShoFil	Displays any file, including the current logfile
F2	Set1	Switches between function key sets 1 and 2
F3	DOS	Goes to operating system without disconnecting from service (type **exit** to go back online)
F4	Send	Sends a WordStar or ASCII file
F5	XM Rec	Receives a file using the XMODEM protocol
F6	XM Snd	Sends a file using the XMODEM protocol
F7	User1	Can be programmed for your own commands. (See the **FK** keyword)
F8	User2	Can be programmed for your own commands. (See the **FK** keyword)
F9	Break	Issues an RS-232C break signal (not normally used)
F10	Hang up	Hangs up the phone. Be sure to log off from your service first, if required.

Communications Services

This chapter provides information about TelMerge preprogrammed services. For more information, contact the service directly. When you register with a service, you receive the information required to call that service with TelMerge. See "Calling a Service with TelMerge."

You can also use TelMerge to call services or networks that are not preprogrammed. For instructions, see "Adding a New Service to TELMERGE.SYS." If you use a network to call a service, see **NETWORK** in the "Keywords" chapter.

CompuServe Information Service

5000 Arlington Centre Blvd.
Columbus, OH 43220
(800) 848-8990

TelMerge Service Name: CIS

CompuServe offers an information service as well as electronic mail (EasyPlex and InfoPlex). CompuServe provides business news, computer games, special interest group bulletin boards, online conferencing, newspapers, and much more.

Note: When you call CompuServe, TelMerge uses the CompuServe A protocol to exchange files.

EasyLink by Western Union

Western Union Telegraph
4230 Altha Road
Dallas, TX 75244
(800) 527-5184 (Sales); (800) 435-7375 (Help)

TelMerge Service Name: ESL

Western Union offers EasyLink electronic mail service (a store-and-forward system), an information service called FYI, and a Mailgram service. EasyLink cables your message if it can't be delivered by a telex network.

ITT Telex and TIMETRAN

ITT World Communications
100 Plaza Drive
Secaucus, NJ 07096
(800) 922-0184

TelMerge Service Name: ITT

ITT offers telex services, a store-and-forward service (TIMETRAN), and a paper mail service. ITT cables your message if it can't be delivered by telex. ITT also offers an information service called UPDATE. TelMerge turns logging and printing on automatically for ITT. If you don't want to print your sessions, change the PRINT setting to NO.

MCI Mail

MCI Mail
1150 17th St., N.W, 8th Floor
Washington, DC 20036
(800) 444-6245; (202) 833-8484 (Washington, DC)

TelMerge Service Name: MCI

MCI Mail offers an electronic mail service, an information service (in cooperation with Dow Jones News/Retrieval), and a courier service. Access to telex networks is also available.

Official Airline Guides

Official Airline Guides
2000 Clearwater Drive
Oak Brook, IL 60521
(800) 323-4000

TelMerge Service Name: OAG

The Official Airline Guides Electronic Edition provides airline schedules and fares for commercial air carriers.

ONTYME Messaging Service

ONTYME Marketing TYMSHARE
2560 North First Street
San Jose, CA 95131
(800) 435-8880

TelMerge Service Name: ONT

ONTYME is an electronic store-and-forward message service that provides worldwide local-call access. You can route messages through the telex networks if you want. TYMSHARE has another network called TYMNET.

RCA Telex and TELEXTRA

RCA Global Communications
201 Centennial Avenue
Piscataway, NJ 08854
(800) 526-3969

TelMerge Service Name: RCA

RCA provides real-time telex services, TELEXTRA store-and-forward service, and an information service called HOTLINE. RCA Telegram turns your telex into a telegram if necessary. TelMerge turns LOGGING and PRINT on automatically for RCA. If you do not have a printer or prefer not to use one, change the PRINT setting to NO.

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NOTES

NOTES

WORDSTAR®

A1-C2020

WORDSTAR

PC-Outline

Brown Bag Software

WordStar Companion Program

Distributed with WordStar 5.0, 5.5, and 6.0

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Getting Started

Introduction

You're about to discover one of the easiest, most comprehensive outlining programs available on the market today. With PC-Outline™ by Brown Bag Software® you can quickly arrange large amounts of information into an easy-to-use structure. Once your outline structure is in place, finding the information you need is a snap.

With PC-Outline you can enter your information in any order, and the program keeps track of each piece. When you're ready to organize those pieces, PC-Outline provides an impressive list of functions to help you. Once your information is organized into an outline format, you can use PC-Outline to view or find your information in a variety of ways.

Because PC-Outline keeps track of not only the information, but also the relationships to other information, your job is made easier.

PC-Outline is more than just an outlining program. Its uses are limited only by your needs and your imagination. Here is a list of just a few of the ways you can use PC-Outline:

- To-do lists
- Project planner
- Daily scheduler
- Writing tool
- Word processor
- Procedure writing

- Class notes
- Law case preparation
- Project proposals
- Screenplay writing
- Electronic scratch pad

The chapter "Applying PC-Outline to Your Needs" illustrates some of these uses.

To use PC-Outline, you need an IBM PC or an IBM-compatible system with at least 128K of internal memory and a copy of DOS 2.0 or greater.

To install a printer see Appendix B, "Additional Printer Information." To install a monitor, see Appendix C, "Command Parameter Options."

Installing PC-Outline™ by Brown Bag® Software

Note: If your copy of PC-Outline came with WordStar 2000, you can install it as an additional feature of WordStar 2000. Follow the instructions in the "Starting" section of the WordStar 2000 documentation.

IF YOU HAVE A HARD DISK COMPUTER

This section explains how to install PC-Outline on a hard disk using either 5¼-inch or 3½-inch disks. You'll need the disk containing PC-Outline.

1. Turn on and boot your computer so that the operating system prompt (C>) is on the screen.
2. Type **md\pco** (or any other name you choose) and press ↵ to create the directory for PC-Outline.
3. Type **cd\pco** (or other directory name) and press ↵ to change to the PCO directory.
4. Insert the PC-Outline disk into your floppy disk drive.
5. Type **copy a:*.*** (or the appropriate drive letter) and press ↵ to copy all files on the disk into the PCO directory.
6. Remove the disk from the floppy drive and store it in a safe place.

IF YOU HAVE A FLOPPY DISK COMPUTER

This section explains how to install PC-Outline on a floppy disk system using either 5¼-inch or 3½-inch disks. You'll need the disk containing PC-Outline, a copy of your DOS disk, and one blank formatted disk.

1. Insert your DOS disk in drive A and turn on and boot your computer.
2. Remove your DOS disk and insert the disk from your PC-Outline package into drive A.
3. Insert the blank formatted disk into drive B.
4. At the operating system prompt (A>), type **copy a:*.* b:** and press ↵.
5. Remove the original disk from drive A and store it in a safe place.
6. Remove the copy from drive B and use it as your working copy of PC-Outline.

Starting PC-Outline

Note: If you installed PC-Outline to run as an additional feature of WordStar 2000, choose **Additional features** at the Opening Menu. You'll see a list of programs that you installed with your word processing software. Choose **PC-OUTLINE.**

You can load PC-Outline as a non-memory-resident program or as a memory-resident program. These instructions tell you how to load PC-Outline as a non-memory-resident program. If you want to use PC-Outline as a memory-resident program, read the section following these instructions.

IF YOU HAVE A HARD DISK COMPUTER

1. Turn on the computer.
2. At the system prompt (C>), type **cd\pco** (or the name of the directory you created) and press ↵ to change to the directory containing the PC-Outline files.
3. Type **pco** and press ↵.
4. After the program is loaded, you'll see the PC-Outline Opening Menu.

IF YOU HAVE A FLOPPY DISK COMPUTER

1 Turn on and boot your computer.
2 Insert your copy of the PC-Outline disk into drive A.
3 At the operating system prompt (A>), type **pco** and press ↵.
4 After the program is loaded, you'll see the PC-Outline Opening Menu.

Loading PC-Outline as a Memory-Resident Program

When PC-Outline is loaded as a memory-resident program, it is loaded into your computer's memory once and remains there running in the background while you run other software programs. When you want to use PC-Outline, you just press a special key combination, and PC-Outline will be displayed right in the middle of your other application program.

Note: If you plan to run the memory-resident version of PC-Outline, load PC-Outline before you start up your word processing software. You may want to add the PC-Outline loading command line to your AUTOEXEC.BAT file, if you use one.

To load PC-Outline as a memory-resident program, follow the start-up instructions above for your type of computer, with one exception. At the operating system prompt, type **pco/r** instead of just **pco**.

This loads the program into memory and displays a short message on your screen. You then return to the operating system prompt.

Once PC-Outline is loaded as memory resident, you can activate it at any time from any program by pressing ^\ (**Ctrl-Backslash**). When you quit PC-Outline, you'll be returned to whatever you were doing before you invoked PC-Outline. You can move quickly back and forth between your program and PC-Outline by pressing ^\ at any time.

Note: Sometimes when you press ^\ it doesn't work. When this happens, press ↵.

TIP *If you want to change ^\ to another shortcut keystroke, use the KEYSET.COM utility program provided on your PC-Outline disk.*

Removing PC-Outline from Memory

If you want to completely remove PC-Outline from memory, follow these steps:

1 Save all outlines.
2 Exit PC-Outline and return to your other application.
3 Exit your other application to return to the DOS prompt.

4 Load PC-Outline and position the cursor in the main editing mode where you can type into an outline (not in a menu or option box).

5 Press ^**Backspace** three times in a row. PC-Outline is removed from memory. The memory it occupied is recovered by DOS only if there were no other memory-resident programs loaded after PC-Outline.

CAUTION Don't use this command if another memory-resident program is loaded after PC-Outline.

Where to Go from Here

This manual is divided into four main chapters. Where you start depends on your level of familiarity with computers, outlining, and PC-Outline in particular.

If you're familiar with several software packages, but are new to outlining, start with the "Trying It Out" chapter. This guides you through the creation of an outline and covers all the options you'll need to make PC-Outline a useful tool.

If you're familiar with other outlining software packages but are new to PC-Outline, go directly to the "Reference" chapter. This chapter contains detailed information about every menu and function in PC-Outline.

If you're already familiar with how to use PC-Outline and you want to explore some real-life applications, start with the "Applying PC-Outline to Your Needs" chapter. This chapter will guide you through several useful applications that demonstrate many of the program's features.

Included with this manual are several sample files that are designed to be used without the manual to help demonstrate key features of PC-Outline. You can either read the manual alone, work through the manual in conjunction with the disk-based outlines, or load the disk-based outlines and experiment from there. The choice is yours.

Trying It Out

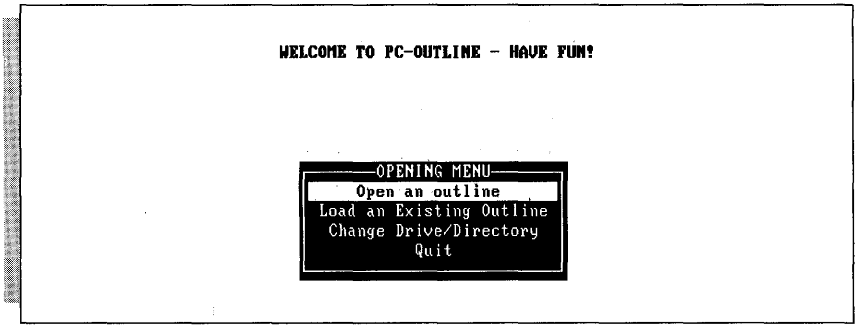
If you've installed PC-Outline properly for your computer, you're ready to try it out.

In the next few pages, you'll learn some of the basics of PC-Outline, create a new outline, work with and change the outline, and print your document.

If you haven't already done so, start PC-Outline following the directions for your type of computer shown in the previous chapter.

The Opening Menu

The first screen you see is the Opening Menu.



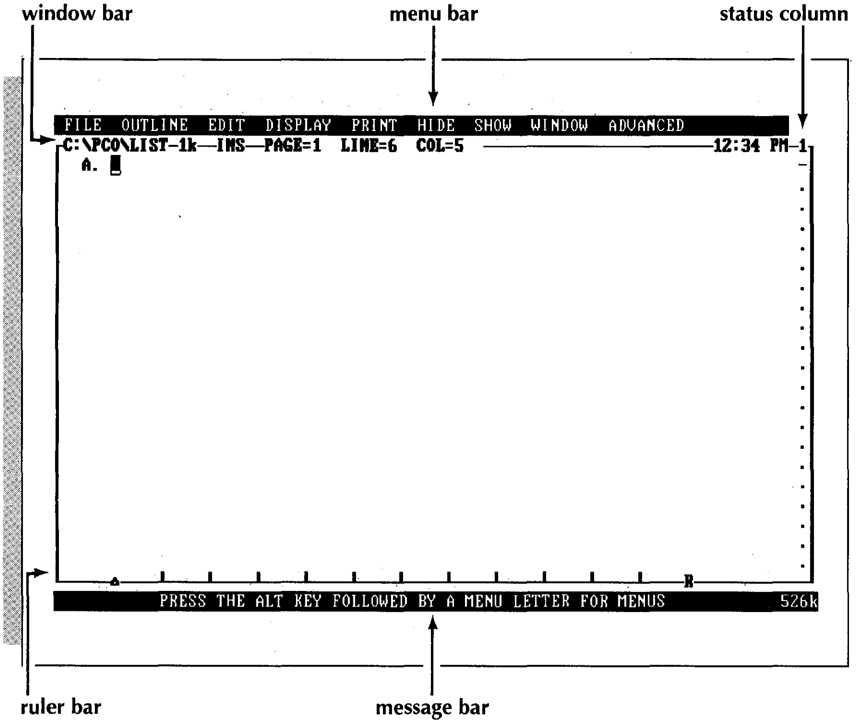
```
WELCOME TO PC-OUTLINE - HAVE FUN!

        OPENING MENU
        Open an outline
   Load an Existing Outline
   Change Drive/Directory
            Quit
```

The command you want is the first one on the Opening Menu, **Open an Outline**. If the highlighting is not on **Open an Outline**, use ↑ or ↓ to move the highlighting to it. Press ↵ to choose this command.

The PCO File screen then appears. Type the name of your new outline and press ↵. The filename can be any legal DOS path and/or filename *without* an extension. The extension .PCO is automatically appended to the filename you specify.

The Working Screen

After you enter a filename, the working screen is displayed. This screen is the same for all work you do with PC-Outline. See the "Reference" chapter for an explanation of the different parts of the screen.



window bar
menu bar
status column
FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
ruler bar
message bar

```
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5 ——————————12:34 PM-1
 A. █
```

```
PRESS THE ALT KEY FOLLOWED BY A MENU LETTER FOR MENUS          526k
```

Typing with PC-Outline

Typing with PC-Outline is much the same as typing with a conventional word processor. Characters are inserted into your outline at the cursor location as you type them. If a line gets too long, it automatically wraps to the next line.

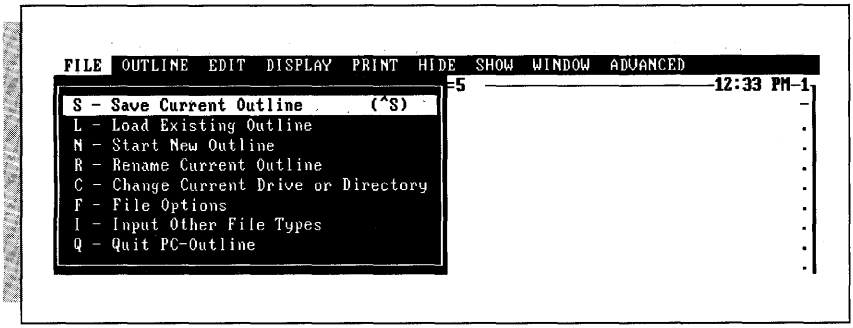
The cursor in PC-Outline is indicated by a reverse video rectangle. The cursor moves as you type, or you can move it by using special cursor movement keys located on the numeric keypad of your computer's keyboard. These keys are **PgUp**, **PgDn**, **Home**, **End**, ↑, ↓, ←, and →.

PC-Outline has several keys to help speed up editing the text of a document. A complete list of these can be found in the "Editing in PC-Outline" section of the "Reference" chapter. Two of the most commonly used editing keys are

- **Del** Deletes the character on which the cursor is currently located, including carriage returns. All other text is adjusted accordingly.
- **Backspace** Deletes the character immediately preceding the cursor, including carriage returns. All other text is adjusted accordingly.

Using Menus

The program options available in PC-Outline appear in one of the nine pull-down menus, an example of which is shown below. The title of each of these menus appears across the top line of the screen in the menu bar.


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
5
12:33 PM-1
S - Save Current Outline (^S)
L - Load Existing Outline
N - Start New Outline
R - Rename Current Outline
C - Change Current Drive or Directory
F - File Options
I - Input Other File Types
Q - Quit PC-Outline

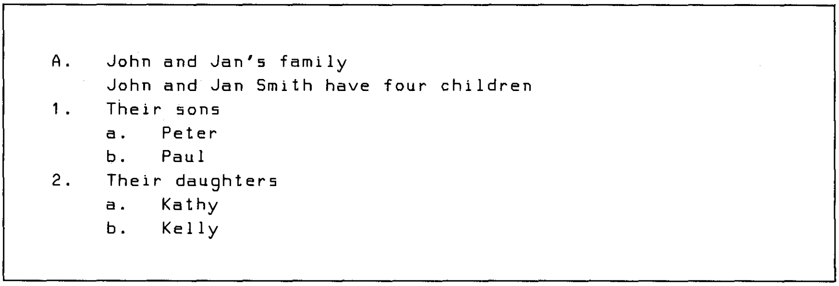
Before you create your first outline, remember these points about using menus:

- **Choosing a Menu** One way is to press the **F10** key. This displays the first menu, the File Menu. Another way is to press the **Alt** key and the first letter of the menu name simultaneously.
- **Changing Menus** To choose one of the other menus, use ← or →.
- **Choosing an Option** To choose a function on any menu, move the highlighting to your selection using ↑ or ↓ and press ↵. You can also press the letter preceding the option you want.
- **Leaving a Menu without Choosing an Option** At any time before choosing an option, you may bypass all options by pressing **Esc**. This will return you to the current outline with no changes made.
- **Shortcut Keystrokes** PC-Outline also offers a complete set of shortcut keystrokes that can accomplish many of the functions contained in the menus. These keys are displayed to the right of the function in the menus. See Appendix A, "Quick Key Reference" for a list of all the shortcut keystrokes.

For more information about using menus and screens, see the "Reference" chapter.

Terminology Used in PC-Outline

This manual and some PC-Outline function names contain special terminology to describe an outline structure. The terminology compares an outline to a family tree where each member in the family has both parents and children. An outline about a family might look something like this:



```
A.    John and Jan's family
      John and Jan Smith have four children
1.    Their sons
      a.    Peter
      b.    Paul
2.    Their daughters
      a.    Kathy
      b.    Kelly
```

The terminology you'll encounter is as follows:

- **Element or Entry** An element or entry is any single portion of an outline, for example, "John and Jan's family," "Paul," and "Their daughters."
- **Text** All text that follows the first line of an element is referred to simply as the element's text. The sentence "John and Jan Smith have four children" is the text of the element "John and Jan's family."
- **Family** Elements are arranged in families that consist of the head of the family and all of its children, grandchildren, etc.
- **Children** Children are subelements grouped under an element. The element "Their sons" is a child of "John and Jan's family," and the elements "Peter" and "Paul" are children of "Their sons."
- **Parent** Parent is the element under which all elements on a level are grouped. The element "Their daughters" is a parent of the elements "Kathy" and "Kelly." In turn, the element "John and Jan's family" is a parent of the elements "Their sons" and "Their daughters."

Creating Your First Outline

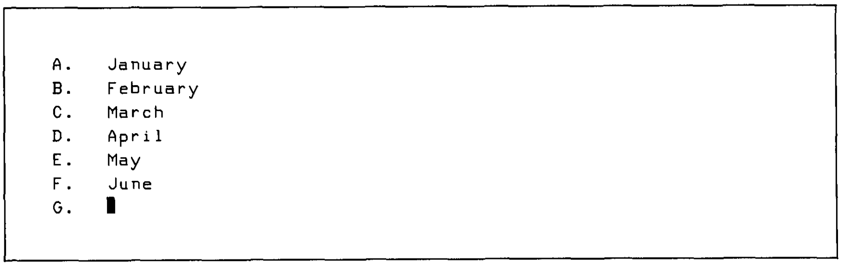
Now it's time to build your new outline. You should have a blank working screen on your monitor with "A." in the left-hand corner of the screen. Follow these steps to create the outline:

1. Type the word **January**.
2. Press the **F10** key, use the cursor keys to display the Outline Menu, and choose **Create New Outline Entry**.

3 Type **February** next to "B."

4 Continue to enter the months March through June. You can create new elements as you did in step 2 above, or you can use the shortcut keystrokes ^↵ or ^**N**. (Be sure to press ^↵ after typing the word "June.")

Your outline should now look like this:



```
A.    January
B.    February
C.    March
D.    April
E.    May
F.    June
G.    █
```

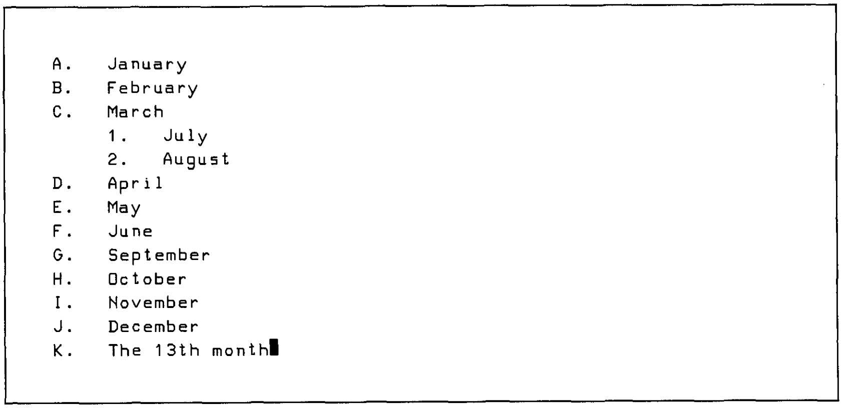
5 Use ↑ to move the cursor to the position directly below March, then press→ once. You'll notice that this creates the subelement "1."

6 Type **July** and press ^↵. Notice that a new subelement is created at the same level as 1. By using the cursor keys before you type anything into an element, you can change its level.

7 Type **August** and press ^↵.

8 Move the cursor to the position below June (G.).

9 Finish typing the outline so it looks like this:



```
A.    January
B.    February
C.    March
      1.    July
      2.    August
D.    April
E.    May
F.    June
G.    September
H.    October
I.    November
J.    December
K.    The 13th month█
```

Hiding and Showing Text and Children

PC-Outline has the ability to hide and show (unhide) various parts of the outline. Using the sample outline you've created, follow these steps:

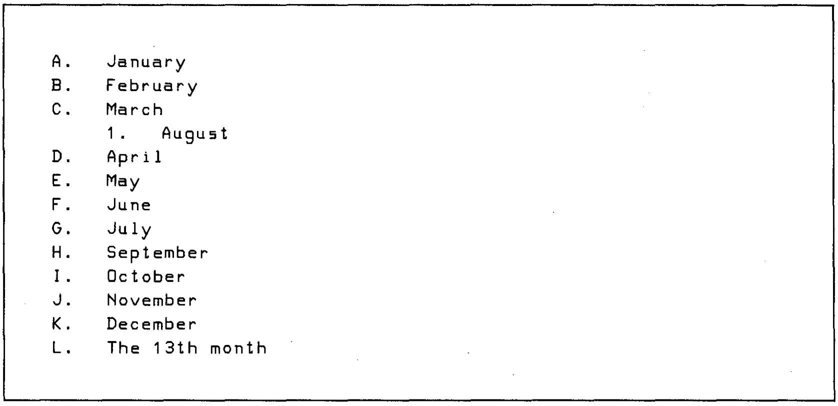
1. Move the cursor up to "March."
2. Display the Hide Menu and choose **Current Entry's Children**. Notice that "1. July" and "2. August" disappear from the screen. These elements still exist; they are just hidden until you decide to show them again.
3. You can also hide and show outline elements using the gray + key to the right of the numeric keypad. Press the gray + key twice. "1. July" and "2. August" will reappear and then disappear again.
4. Display the Show Menu and choose **Current Entry's Children**. "1. July" and "2. August" reappear.

As you can see, there are many different ways to hide and show outline elements.

Moving Elements

Since the months still aren't in order, follow these steps to rearrange them:

1. Move the cursor to "1. July" if it isn't already there.
2. Choose **Move Outline Entries** from the Outline Menu. The element number and the element itself will be highlighted.
3. Using the cursor keys, position "July" under "June." Notice that PC-Outline automatically renumbers the outline as you move the element.
4. When the element is positioned properly, press ↵. The highlighting disappears, and your outline should look like this:



```
A.    January
B.    February
C.    March
      1.   August
D.    April
E.    May
F.    June
G.    July
H.    September
I.    October
J.    November
K.    December
L.    The 13th month
```

5. Now repeat the same steps to move "August" to its proper place.

Deleting Elements

You can also delete elements that you don't want. Since there are only twelve months, eliminate the last outline entry by following these steps:

1. Move the cursor to the last line in the outline.
2. Choose **Delete Outline Entries** from the Outline Menu.
3. You will see a message asking you to confirm this deletion. This gives you a chance to change your mind since you could accidentally delete an element and all of its children with this command. Move the highlighting to "Yes" and press ↵ to delete the last line.

Printing an Outline

When you are finished creating an outline, you'll probably want to print it. To print the outline you just created, follow these steps:

1. Make sure your printer is connected to your computer, loaded with paper, turned on, and online. If you don't know how to do any of these things, refer to your printer manual.
2. If any of your outline elements are hidden, choose **All Text and Children** from the Show Menu to expose the entire outline. Parts of the outline that are hidden will not print unless you first show them on screen.
3. Choose **Go Start Printing** from the Print Menu. Your printer should respond quickly. If it doesn't, press ^**Break** (this stops printing) and then repeat all of these steps.

Note: The printing in PC-Outline is designed for quick, draft printing. If you want to take advantage of more elaborate print functions, use the **Set Device for Output** function on the Print Menu. This function allows you to convert your outline to various file formats. See "Set Device for Output" in the "Using the Print Menu" section in the "Reference" chapter.

Saving an Outline

Now that you've created and printed your outline, you should save it to disk the way you'll save all the outlines that you create in the future. Choose **Save Current Outline** from the File Menu to save your outline. For more information about this function, see the "Reference" chapter.

Quitting PC-Outline

When you're finished using PC-Outline and have saved all work you want to keep, choose **Quit PC-Outline** from the File Menu.

Once your work is saved, you'll be returned to the operating system prompt or to the other program that was running when you started PC-Outline.

TIP *Remember that you can also return to your other program by pressing* ^\.

What's Next?

At this point, you know everything necessary to use PC-Outline. Try creating several outlines that you find useful. If you run into trouble, refer to this chapter or read about a particular function in the "Reference" chapter.

Once you're comfortable with PC-Outline, move on to the "Applying PC-Outline To Your Needs" chapter. This chapter contains several applications designed to demonstrate new uses for PC-Outline. See if some of these meet *your* needs.

Reference

The first few pages of this chapter tell you how to use the menu system and how to enter necessary information. The second part describes the functions that appear on each menu.

Using the Menus and Screens

The next few pages explain the methods and options for using the menus and screens in PC-Outline.

Choosing a Menu

You can use two methods to choose a menu:

- One way is to press the **F10** key. This displays the first menu, the File Menu. From the File Menu, you can use ← and → to move from one menu to another. To choose a function from a menu, use ↑ and ↓ to move the highlighting to that function and press ↵.
- Another quick way to display a menu is to press the **Alt** key in combination with the first letter of the menu you want. For example, to display the Window Menu, press **Alt-W**.

Choosing a Function from a Menu

Once you're in a menu, you can use one of these two methods to choose an item:

- Use ↑ and ↓ to move the highlighting to the function you want and press ↵.
- Press the letter preceding the function you want.

You can also select a function directly from the working screen by pressing the **Alt** key with the menu and function letters. For example, press **Alt-FS** to choose **Save Current Outline** from the File Menu.

Leaving a Menu without Choosing an Option

At any time before choosing a function from a menu, you may bypass all options by pressing the **Esc** key. This returns you to the current window without making any changes.

Shortcut Keys

Many of the more common menu options also have shortcut keystrokes that complete the same function. These keystrokes are listed to the right of the option shown on the menu. For example, the shortcut for the **Current Paragraph Style** function on the Display Menu is **^T**.

TIP *You can add shortcut keys or change the existing ones using the built-in macro facilities. For more information, see "Key Definition" in the "Using the Advanced Menu" section of this chapter. For a complete list of original key assignments, see Appendix A, "Quick Key Reference."*

Option Boxes

Some menu selections lead to an option box from which you may change several program settings at once. All of these boxes work the same way:

- To move from one setting to another, use ↑ and ↓.
- To change a setting, put the cursor on the desired option. The message bar (the bottom line of the screen) indicates what you should do to change the current option. There are three types of options:

  Choices Using → or the **Spacebar**, cycle through the predefined choices for this particular option. Use ← to cycle through the choices in reverse order. You can also press the first letter of the desired option to choose it directly.

  Numbers Enter the new number by typing it over the existing number. If you hear a beep when you try to leave a number option, it is because you entered an invalid number.

  Text Enter the appropriate new text.

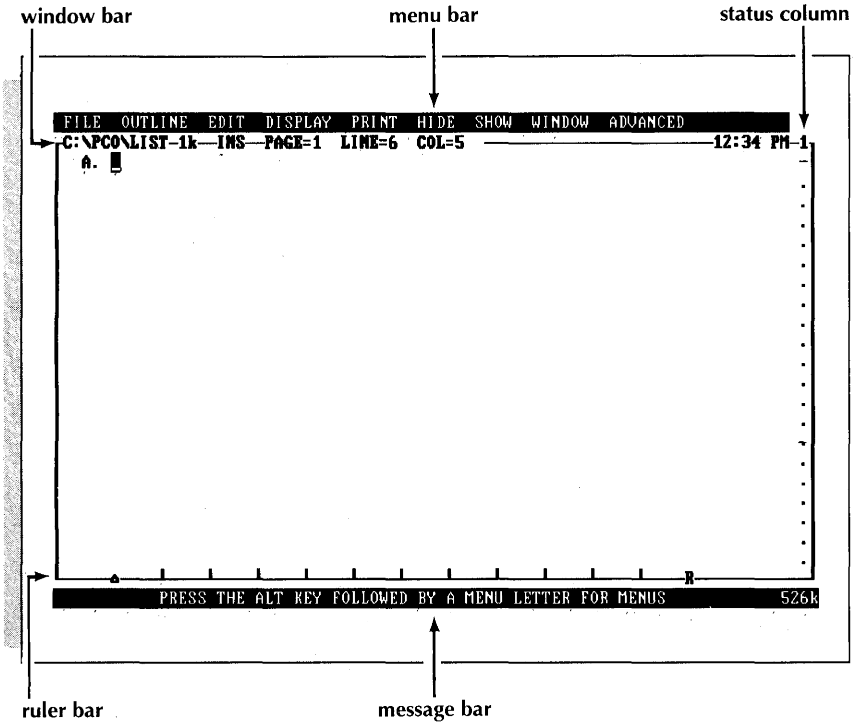
- To confirm a new setting, simply move to another option or press ↵ if you're finished with all options. If you move to another option, an arrow appears beside the setting to indicate that it has been changed.
- To avoid changing a setting, press **Esc** or ↵ before you move to a new setting.
- To save your changes to the program start-up file so they will be active the next time you start PC-Outline, press **F10**.
- To exit an option box, press ↵.

Specifying Ranges

Many of PC-Outline's functions require that you specify a range, or portion of the outline, for use with the function. For example, the **Copy Block** function requires that you mark the range of text to be copied. To specify the range, position the cursor at one end of the range and then choose the function you want. The range begins at the location of the cursor when the function is chosen. To extend this range, use the standard cursor movement keys (↑, ↓, **PgUp**, **PgDn**, etc.). The range you define is always highlighted.

If you decide you want to cancel the currently selected function while marking the range, just press **Esc**. When you're finished specifying the range, press ↵ to complete the operation.

The Working Screen


window bar
menu bar
status column
FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
A.
R
526k
ruler bar
message bar

```
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5  ——————————12:34 PM-1
PRESS THE ALT KEY FOLLOWED BY A MENU LETTER FOR MENUS
```

The screen shown here will be the same for all work you do with PC-Outline. The important parts of this screen are as follows:

- **The Menu Bar** This is the top line of the screen. Each of the words you see is the title of a menu. To view these menus, see "Choosing a Menu."

- **The Window Bar** This is the line immediately below the menu bar. This line contains information about the current window: the complete DOS path and filename for this outline, the size of the outline in bytes, the insert or overstrike mode indicator, the cursor position, the system clock time, and the window number.

  Note: On some IBM-compatible systems, the time may not be the same as your system time. If this is the case, you must run the program GOODCLK.COM each time you boot your computer before you run PC-Outline.
- **The Status Column** This is the column on the right, just inside the window border. This column can contain the following symbols: (1) a highlighted down arrow directly across from the bottom of an element indicates that there are hidden children of this element, (2) a dash means there are no children, and (3) a highlighted dash means that there is hidden text.
- **The Ruler Bar** This line is located just above the message bar at the bottom of the screen. The ruler bar shows the margins, tab stops, and cursor position.
- **The Message Bar** This line appears at the bottom of the screen and contains helpful information about what you are currently doing. If you get stuck, look at this line for help.

Editing in PC-Outline

PC-Outline has just one editing mode, whether you're editing text or your outline structure. There are different keystrokes available to edit text and outlines.

Editing Text

Use the following keys to edit text in PC-Outline:

KEYS	FUNCTION
↑ ↓ ←→	Move through text like word processor
Shift-→	Deletes word to the right
Shift-←	Deletes word to the left
^→	Moves cursor to right one word
^←	Moves cursor to left one word
^Home **Shift-Home**	Move cursor to beginning of outline
^End **Shift-End**	Move cursor to end of outline
^Y	Deletes text line
Shift-Del	Deletes to end of line

Editing Outlines

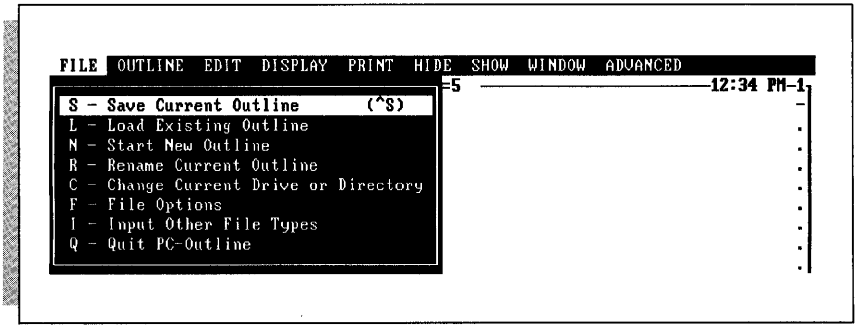
Use the following keys to edit the outline structure in PC-Outline:

KEYS	FUNCTION
↑ ↓	Move a family being moved with ^**M** or an empty inserted heading up or down from heading to heading
Shift-↑	Moves cursor up from heading to heading on the same (if it exists) or higher level
Shift-↓	Moves cursor down from heading to heading on the same (if it exists) or higher level
Shift-PgUp **Shift-PgDn**	Move cursor up or down from paragraph to paragraph
^PgUp	Moves cursor up to parent heading
^↵ **or** ^ **N**	Create entry at same level. Immediately press ← or → to change the entry level.

See Appendix A, "Quick Key Reference," for a complete list of all editing and short-cut keystrokes.

Using the File Menu

The File Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
=5
12:34 PM-1
S - Save Current Outline (^S)
L - Load Existing Outline
N - Start New Outline
R - Rename Current Outline
C - Change Current Drive or Directory
F - File Options
I - Input Other File Types
Q - Quit PC-Outline

Save Current Outline (^S)

This function saves the current outline under the filename displayed in the upper left corner of the window bar. The filename extension .PCO is added to the name.

Each time you save a file, PC-Outline saves the previous version as a backup file and gives the backup filename a .BAK extension. To recover a backup version, rename it to change its extension from .BAK to .PCO.

TIP *The automatic backup feature can be turned off using the* ***Configuration Settings*** *option on the Advanced Menu.*

Load Existing Outline

Use this function to load a file into the current window from a list of all outlines in the current directory. This function replaces the contents of the current window.

If there are no outline files in the directory, you will be prompted automatically for a new filename (see "Start New Outline").

TIP *The list of files is sorted in date and time order, the newest files first. If you set the DOS time and date correctly, you will find the outlines you worked on most recently are the first ones in the list.*

Start New Outline

Use this function to create a new outline in the current window. The contents of the current window are replaced with the new outline. You can enter just a DOS filename or a complete path and filename, but *do not* enter a filename extension.

B: Space Filename

If the filename you type does not exist, a new blank outline is created in the current window. If the file does exist, it is loaded from disk.

Rename Current Outline

Use this function to rename the outline in the current window.

To save an outline to a disk drive other than the default drive, simply rename the outline by specifying the new drive with the same filename.

Change Current Drive or Directory

Use this function to specify a new default drive or directory name. You may specify just the new drive, for example, **C:**, or a complete directory path name, for example, **C:\OUTLINE\TODO**.

Outlines in existing windows are still saved to the directory from which they were loaded regardless of the current default directory. To save them to a different location, use the **Rename Current Outline** function.

Note: You can always start from the same directory by specifying the directory name using the **Configuration Settings** function on the Advanced Menu. If no value is specified, the starting current directory will be set to the DOS current directory when PC-Outline is loaded.

File Options

This function displays a submenu of options for directory maintenance.

Pick a Subdirectory

Use this function to choose a new current directory from a list of the subdirectories in the current directory.

Set Parent Directory

Use this function to make the current directory be the directory above the current directory in the directory tree.

Create New Subdirectory

Use this function to create a new subdirectory in the current directory.

Erase an Outline

Use this function to delete an outline from the current directory. You must confirm your choice.

Input Other File Types

Use this function to read other files into an outline in PC-Outline.

Read In an ASCII File

This function inserts the contents of the ASCII file you specify at the cursor position in the current window.

Read In a WordStar Professional 4.0 File

This function inserts the contents of the WordStar Professional 4.0 file you specify at the cursor position in the current window.

Read In a Structured File

This function inserts the contents of the file you specify at the cursor position in the current window. This type of file is compatible with ThinkTank™ and Ready!™ and contains outline structure.

To transfer information from another PC-Outline file, ThinkTank, or Ready! to PC-Outline, save an outline in ThinkTank to structured format (or just save an outline normally in Ready!), create a blank outline in PC-Outline, and then read the file into the blank outline with this function.

Note: If you want to read in a PC-Outline file, first write the file to a structured format using **Set Device for Output** at the Print Menu. Then read in the structured file using **Input Other File Types** as described here.

Read In a WordStar Classic 5.0 File

This function inserts the contents of the WordStar Classic Release 5.0 file you specify at the cursor position in the current window.

TIP *The structured file format has several other uses because it is both an ASCII format and it maintains the outline format. One way to check spelling in an outline is to write it to a structured file format (see "Set Device For Output" in the "Using the Print Menu" section), check the spelling, and then read the corrected file back into PC-Outline. Because the normal outline file format is not ASCII, it cannot be checked for spelling directly.*

Read In a WordStar 2000 File

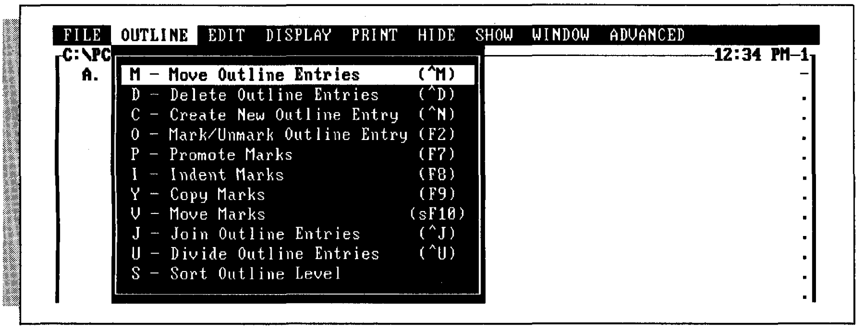
This function inserts the contents of the WordStar 2000 file you specify at the cursor position in the current window.

Quit PC-Outline

Use this function to exit PC-Outline. In the memory-resident version, this function just returns you to the application that was active when you started PC-Outline. You can also leave the memory-resident version of PC-Outline by pressing ^\.

Using the Outline Menu

The Outline Menu contains the following functions:



```
 FILE  OUTLINE  EDIT  DISPLAY  PRINT  HIDE  SHOW  WINDOW  ADVANCED
C:\PC                                                    12:34 PM-1
  A.   M - Move Outline Entries      (^M)
       D - Delete Outline Entries    (^D)
       C - Create New Outline Entry  (^N)
       O - Mark/Unmark Outline Entry (F2)
       P - Promote Marks             (F7)
       I - Indent Marks              (F8)
       Y - Copy Marks                (F9)
       V - Move Marks               (sF10)
       J - Join Outline Entries      (^J)
       U - Divide Outline Entries    (^U)
       S - Sort Outline Level
```

Move Outline Entries (^M)

Use this function to move the current element and all of its children to a new location in the outline. After selecting the function, you will be prompted to move the entry to a new location with the cursor keys. When the element moves, the outline numbering is automatically adjusted to reflect its new location.

Note: When you start this function, the children and text of the element are temporarily hidden to give you a clear view of where you are moving the outline family.

TIP *To move a number of outline elements all at once, use the* ***Mark/Unmark Outline Entry*** *and* ***Move Marks*** *commands also located on the Outline Menu.*

Delete Outline Entries (^D)

Use this function to delete an outline entry and all of its children.

Note: You'll be prompted for confirmation before the entry is actually deleted. If you don't want to be prompted for confirmation, you can start PC-Outline with the **/p** command parameter. See Appendix C, "Command Parameter Options," for more information.

Create New Outline Entry (^↵ or ^N)

Use this function to create a new outline element after the current element at the same outline level.

After you've created the element, but before you've typed anything into it, you can move the element to a new location using the ←, →, ↑ or ↓ keys. Pressing any other key cancels this movement mode. For example, to create a new outline element that is a child of the current element, press ^↵ or ^ N and then press → to indent the new entry to the next level.

Mark/Unmark Outline Entry 2

Use this function to mark or unmark an element and all of its children. Once an element is marked, you can promote, indent, copy, or move it using one of the other Outline Menu commands.

Marking an element marks the entire outline family, and you can mark several elements before you actually perform some movement activity. You are not allowed to mark or unmark any children of a marked entry because they are already marked by virtue of their parent being marked.

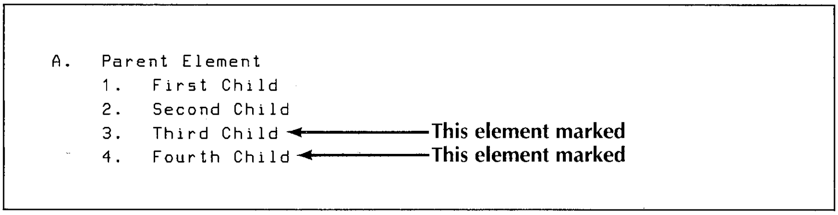
To unmark a marked entry, position the cursor at the top of the marked family and repeat this function.

Promote Marks (F7)

Use this function to move all marked outline elements one outline level to the left.

EXAMPLE

Before promoting marks:

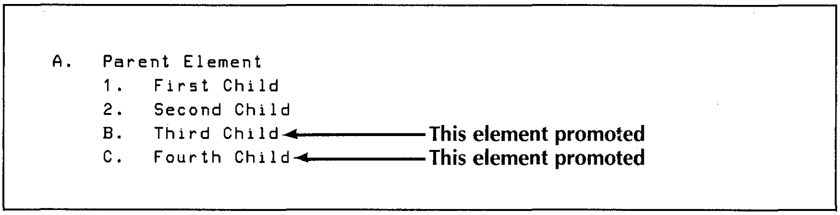


```
A.  Parent Element
    1.  First Child
    2.  Second Child
    3.  Third Child
    4.  Fourth Child
```

This element marked

This element marked

After promoting marks:



```
A.   Parent Element
     1.   First Child
     2.   Second Child
     B.   Third Child ←———— This element promoted
     C.   Fourth Child ←——— This element promoted
```

Note: Only the last element on a level or a series of last outline elements on a level can be promoted. If you are trying to promote an illegal entry, PC-Outline ignores the command.

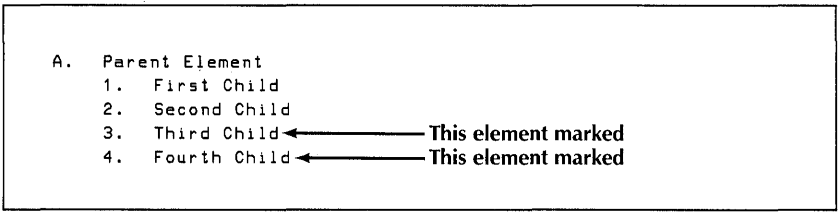
TIP *To promote an element in the middle of a level, you must first indent all the elements on the same level.*

Indent Marks (F8)

Use this function to move all marked outline elements one outline level to the right.

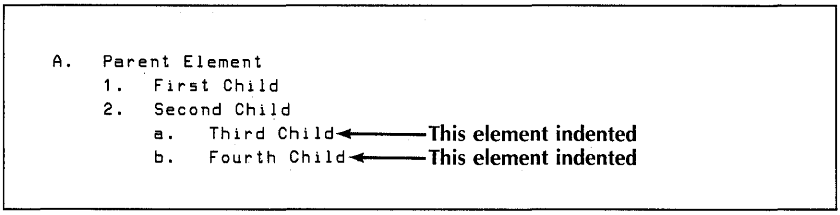
EXAMPLE

Before indenting marks:



```
A.   Parent Element
     1.   First Child
     2.   Second Child
     3.   Third Child ←———— This element marked
     4.   Fourth Child ←——— This element marked
```

After indenting marks:



```
A.   Parent Element
     1.   First Child
     2.   Second Child
          a.   Third Child ←——— This element indented
          b.   Fourth Child ←—— This element indented
```

All elements but the first one on a level may be indented. If you are trying to indent an illegal entry, PC-Outline ignores the command.

Copy Marks (F9)

This function copies all marked outline entries to the location following the current element at the same outline level. **Copy Marks** is useful for duplicating a series of outline entries several places in the outline.

Note: You cannot use **Copy Marks** to copy outline entries to a location within a currently marked family. This prohibits you from copying an outline family to the position immediately after a marked family. To accomplish this task, simply copy it before the marked family. If you just want to duplicate the marked element, the order will not matter (they are duplicates of each other). If you want to copy it after a marked element that isn't the same, copy the original to a location before the location you want, and then move it to the location you want using **Move Outline Entries**.

Move Marks (Shift-F10)

This function moves all marked outline entries to the location immediately following the current element at the same outline level.

Note: You cannot use **Move Marks** to move outline entries to a location within a currently marked family.

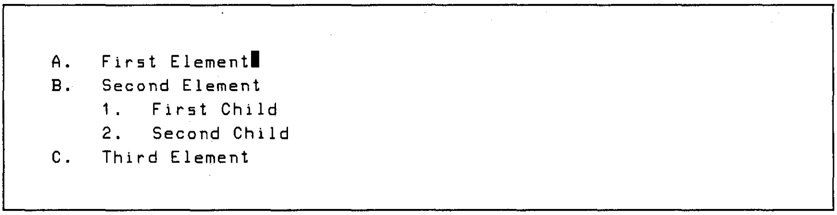
TIP ***Move Marks*** *is useful as an information-gathering function. You can browse through your outline, marking all the elements that you want to gather at a new location, and then move them to the new location with one keystroke.*

Join Outline Entries (^J)

This function joins the current element to the next sequential outline element at the same level to form one new element.

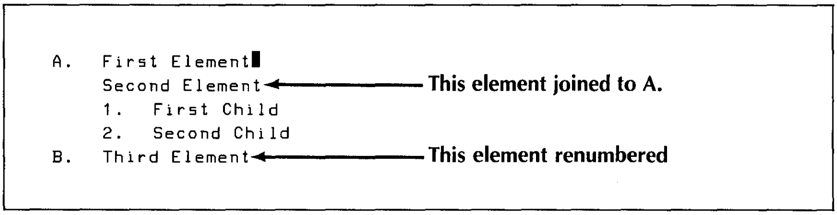
EXAMPLE

Before joining elements A. and B.:



```
A.  First Element█
B.  Second Element
    1.  First Child
    2.  Second Child
C.  Third Element
```

After joining elements A. and B.:



```
A.   First Element█
     Second Element
     1.   First Child
     2.   Second Child
B.   Third Element
```

This element joined to A.
This element renumbered

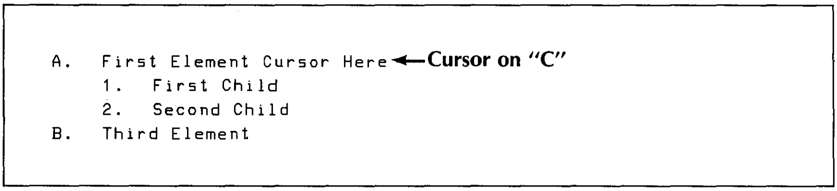
Note: The **Join Outline Entries** function works only when two sequential elements are on the same level and the first element does not have any children.

Divide Outline Entries (^U)

This function divides one outline element into two elements. Any children of the original element are reassigned to the new element.

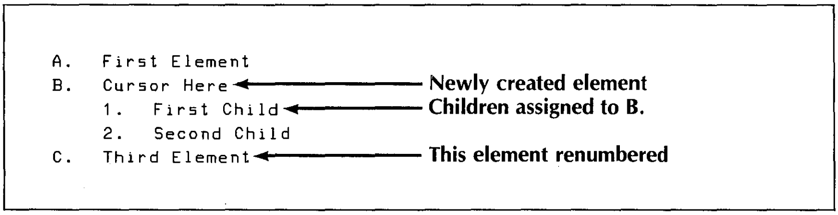
EXAMPLE

Before element A. is divided:



```
A.   First Element Cursor Here
     1.   First Child
     2.   Second Child
B.   Third Element
```

After element A. is divided:



```
A.   First Element
B.   Cursor Here
     1.   First Child
     2.   Second Child
C.   Third Element
```

Newly created element
Children assigned to B.
This element renumbered

Sort Outline Level

Use this function to sort all outline elements in one family on one particular level of the outline. For example, a sort of the following outline with the cursor positioned as shown would sort the elements First, Second, Third, and Fourth Child.

EXAMPLE

Before sorting:

```
A.   Parent Element
     1.   First Child█
     2.   Second Child
     3.   Third Child
          a.   Child of Third Child
     4.   Fourth Child
B.   Element After Parent
```

After a decreasing order sort:

```
A.   Parent Element
     1.   Third Child
          a.   Child of Third Child
     2.   Second Child
     3.   Fourth Child
     4.   First Child█
B.   Element After Parent
```

Note: When an outline level is sorted, the children of each element remain attached to it and move along with it in the sort.

Sorts are controlled by the following settings:

- **Sort Direction** Can be either increasing or decreasing order.
- **Type of Sort** Can be either (1) Dictionary order: punctuation, numbers, letters (without regard to uppercase/lowercase), blanks; or (2) Pure ASCII order: blanks, punctuation, numbers, uppercase letters, lowercase letters.
- **Field Number to Sort** Can be 0 through 9.

A field begins immediately after a colon. For example, there are three fields in the outline in the example below. The 0 field starts at the beginning of each outline entry, and each new field begins after a colon.

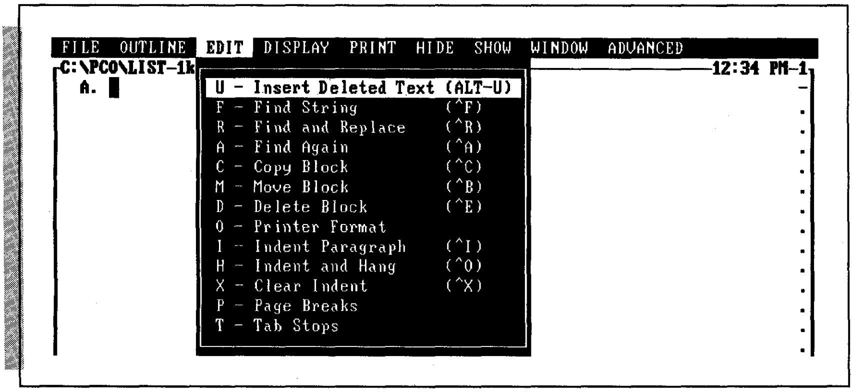
EXAMPLE

```
A.   Parent Element                        (Field #1)   (field #2)
     1.   First Child                      :Name1       :Address1
     2.   Second Child                     :Name2       :Address2
     3.   Third Child                      :Name3       :Address3
          a.   Child of Third Child
     4.   Fourth Child                     :Name4       :Address4
```

If you sort by the Field 1, the sort is done based on the characters following the first colon. When fields are used to their best advantage, they can give PC-Outline some simple database capabilities.

Using the Edit Menu

The Edit Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k
12:34 PM-1
A.
U - Insert Deleted Text (ALT-U)
F - Find String (^F)
R - Find and Replace (^R)
A - Find Again (^A)
C - Copy Block (^C)
M - Move Block (^B)
D - Delete Block (^E)
O - Printer Format
I - Indent Paragraph (^I)
H - Indent and Hang (^O)
X - Clear Indent (^X)
P - Page Breaks
T - Tab Stops

Insert Deleted Text (Alt-U)

Use this function to restore the last characters you erased or deleted. You can undo the deletion if you used commands to delete a block, a word, a line, or the rest of the line.

Find String (^F)

Use this function to search an outline for the first occurrence of any word or phrase (string) you specify. There are three settings that control a search:

- **Search for what string?** Type the exact string to be searched for. A **?** may be used as a wild-card character to match any character. For example, if you want to find all occurrences of either "play" or "pray," you could search for "p?ay." Do not put a **?** at the beginning of a search word because the first character matches everything and will significantly slow down the search.
- **Force case to be the same?** A "Yes" answer finds a match only if capitalization matches perfectly; a "No" answer finds a match regardless of capitalization.
- **Search scope?** Choose **Only ON entries** to search only the portions of the outline that are not hidden. Choose **All entries** to search the entire outline and unhide any parts where a match is found.

Searches are circular. If you start the search near the end of the outline and no matches are found, the search will continue at the beginning of the outline. If no matches are found on a search, you will just hear a beep.

Find and Replace (^R)

This function works exactly the same as the **Find String** function except that it allows you to replace the matching string with another string. Use these three settings, plus those described for **Find String**, to control this function:

- **Replace with what string?** Type the exact string you want as a replacement for the matched string.
- **Ask before replacing?** Specify whether you want to be prompted for confirmation before each replacement.
- **All Occurrences?** Specify whether you want to replace all matches or just the next match.

Find Again (^A)

Use this function to find the next match of the last string specified with **Find String** during this session.

Note: The **Find Again** function uses the same settings you selected for the original **Find String** operation.

TIP *This function is useful for moving around in the outline. For example, you could mark a number of places in your outline with four asterisks (**************).* You could then search for "****" and use the ***Find Again*** *function to move from one place to the next.*

Copy Block (^C)

Use this function to copy a block of text (not outline structure) from one outline location to another. Follow these steps to copy a block of text:

1. Position the cursor at the start or end of the block of text you want to copy.
2. Choose **Copy Block** from the Edit Menu or press **^C**.
3. Position the cursor at the other end of the block (the text between the two ends will be highlighted).
4. Press ↵ to finish marking the block.
5. Position the cursor where you want the marked text copied. You can switch windows with the **Alt-#** command if you want to copy text to another window.
6. Press ↵ to complete the copy.

Note: The **Copy Block** function works on text only. A marked block may span outline boundaries, but outline structure is not copied, only the text in each outline entry.

Move Block (^B)

This function works just like **Copy Block** except the text is moved instead of copied (the original copy of the text is deleted after the new copy is inserted).

Delete Block (^E)

This function works the same as the **Move Block** and **Copy Block** functions except that the block is deleted instead of copied or moved.

If any outline elements are left empty after a **Delete Block** (and they don't have any children or their children are also empty), they are deleted from the outline structure.

Printer Format

This function allows you to make use of your printer's special features like boldface, underline, italics, etc., by inserting codes into your outline that instruct your printer where to start one of these special features and where to end it. These are the settings to use:

FUNCTION NAME	FUNCTION KEY
Underline On	**^F1**
Underline Off	**^F2**
Boldface On	**^F3**
Boldface Off	**^F4**
Italics On	**^F5**
Italics Off	**^F6**

FUNCTION NAME	FUNCTION KEY
Superscript On	**Shift-F7**
Superscript Off	**Shift-F8**
Subscript On	**^F7**
Subscript Off	**^F8**
Double Strike On	**Shift-F5**
Double Strike Off	**Shift-F6**

To use one of these features, position the cursor first at the beginning and then at the end of where you want it to take effect, and either choose the appropriate menu option or press the function key combination you want.

The codes appear in one of three ways in your outline:

- If the cursor is positioned over the character where the code was inserted, the bottom line of the screen tells you what the code is (for example, "BOLDFACE ON").
- If the cursor is not positioned over the character and printer code display is turned off, the character where the printer code is inserted appears in a different intensity than the rest of the text. (See also "Printer Code Display" in the "Using the Print Menu" section.)
- If the printer code display is turned on, the printer code is displayed as a graphics character. You can then edit the graphics character just like any other character. Graphics characters pointing to the right mean a print feature is on, and graphics characters pointing to the left mean a print feature is off.

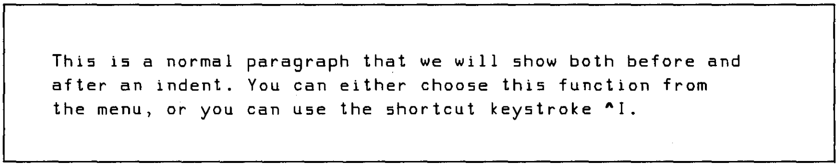
TIP *The best approach is to turn on the display so you can then edit the codes as if they were normal characters.*

Indent Paragraph (^I)

Use this function to move the left margin of the current paragraph to the next tab stop.

EXAMPLE

Before indenting:



```
This is a normal paragraph that we will show both before and
after an indent. You can either choose this function from
the menu, or you can use the shortcut keystroke ^I.
```

After indenting:

```
      This is a normal paragraph that we will show both before
      and after an indent. You can either choose this function
      from the menu, or you can use the shortcut keystroke ^I.
```

Repeat this function to indent more than one tab stop. If you want to indent a number of paragraphs at once, use **Range Paragraph Style** on the Display Menu.

This function can be undone with **Clear Indent** (^X).

Indent and Hang (^O)

This function works exactly like the **Indent Paragraph** function except that the first line of the paragraph is not indented. This is useful for creating hanging indents as shown below.

EXAMPLE

These next two paragraphs contain examples of hanging indents:

```
   This paragraph and the one below both contain hanging indents.
        The first line has a left margin of 1 while the rest of
        the lines have a left margin of 6.

   1) This is also a type of hanging indent. The first line is
        not indented so we can type the number where we want it,
        but the rest of the lines are indented to give this
        effect.
```

TIP *You can undo a hanging indent by choosing* ***Current Paragraph Style*** *from the Display Menu and setting First Line Alignment back to SAME AS REST OF PARAGRAPH and the Left Margin back to 1.*

Clear Indent (^X)

Use this function to undo an **Indent Paragraph** command and set the left margin back to 1.

Page Breaks

This function allows you to insert two types of page break controls into your outline to divide it into separate pages during printing.

Hard Page Break

A hard page break instructs PC-Outline to start a new page wherever you insert the break. To insert a hard page break, choose this function and type **.P**.

A page break appears in your outline in one of three ways:

- Whenever you position the cursor anywhere in the line where a hard page break is located, a ".P" is displayed on the bottom line of the screen.
- If the page break is not located on an empty line, the page break location is displayed in reverse video.
- The left-hand column of the screen always contains a square bullet (or quad) on the line where the page break is located.

To delete a page break, position the cursor exactly on the location where you inserted it, choose the **Page Break** function, delete the ".P", and press ↵.

Conditional Page Break

A conditional page break allows you to specify that a certain number of lines of text must stay together on one page. If the lines won't all fit together at the end of the current page, a new page will be started before them and all the lines will appear together on the top of the next page.

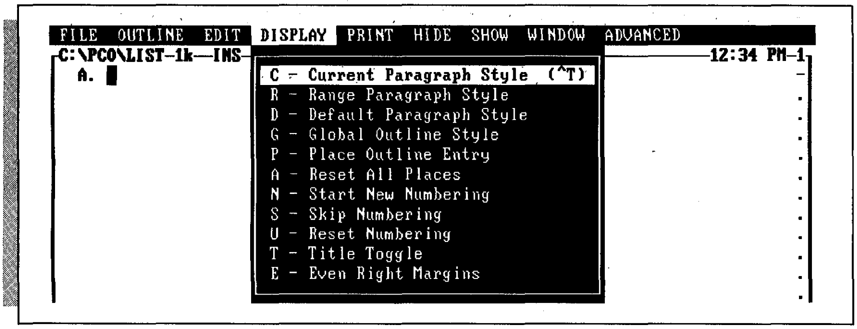
To insert a conditional page break, position the cursor at the top of the range to keep together, choose the **Page Break** function, and type **.C *n*** (*n* is the number of lines to keep together).

Tab Stops

Use this function to set tab stops wherever you want. Move the cursor along the ruler line when it appears, and set or clear tab stops where you want them. The ruler is saved with your outline and affects the entire outline. There is only one ruler per outline.

Using the Display Menu

The Display Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS
12:34 PM-1
A.
C - Current Paragraph Style (^T)
R - Range Paragraph Style
D - Default Paragraph Style
G - Global Outline Style
P - Place Outline Entry
A - Reset All Places
N - Start New Numbering
S - Skip Numbering
U - Reset Numbering
T - Title Toggle
E - Even Right Margins

Current Paragraph Style (^T)

Use this function to control the format of the current paragraph. These optional five settings appear in the Current Paragraph Style option box:

- **Paragraph Alignment** Choose one of these four options to control the paragraph alignment:

  Left Aligned: Left edge even, right edge ragged.

  Justified: Left and right edges even. Extra spaces are inserted between words to align justified paragraphs.

  Centered: Left and right edges ragged. Extra spaces are added before and after the line to center it between the margins.

  Right Aligned: Left edge ragged, right edge even.
- **First Line Alignment** Controls the left margin setting for the first line of a paragraph. Choose one of these two options: (1) keep the first line the same as the rest of the paragraph, or (2) make the first line flush left.
- **Left Margin** Controls the starting left column for each paragraph. Left margin values are always relative to the start of the outline entry. For example, a left margin of 1 always starts in the first column of the outline entry regardless of how far indented the outline entry is. If the outline entry is indented 12 spaces, a left margin of 1 starts in column 13 (12 + 1).
- **Right Margin** Allows you to change the right margin. Like the left margin, the right margin is relative to the start of the outline entry. For example, a right margin of 65 in an outline element that is indented 12 spaces is actually in column 77 (12 + 65).

See "Even Right Margins" for a discussion on how to set the right margin to an absolute column (instead of a relative column as described above). See "Range Paragraph Style" for a discussion on how to set several paragraphs all to the same format.

- **Make Default Settings** Use this function to make the default paragraph settings the same as the current paragraph settings. This setting is an easy way to change the default settings and works just like the **Default Paragraph Style** function.

*TIP When you first start a new outline, choose **Current Paragraph Style** and set the margins you want for the current document. Then answer "Yes" to this question, and all subsequent paragraphs will get the new format.*

Range Paragraph Style

This function works just like the **Current Paragraph Style** function except that it prompts you to mark a range and modifies the paragraph format for the entire range.

The settings in the Range Paragraph Style option box are identical to those in the Current Paragraph Style option box except that this function does not include the default settings choice. See the previous discussion on "Current Paragraph Style" for a description of each setting.

Note: Only the settings that you actually change (marked with an arrowhead) will be applied to the range. If you want a setting that is already correct to be applied to the range, you must reenter the setting. For example, if the right margin already says 70 and you want it to be 70, you *must* reenter the 70 before it will work properly.

Default Paragraph Style

This function controls the format of all future paragraphs created whenever you press the ↵ key. The settings are the same as those for **Range Paragraph Style** and **Current Paragraph Style**. See those previous sections for a discussion of the settings.

Pressing **F10** in this option box saves the current settings to the configuration file PCO.CFG so that they will be loaded automatically the next time you start PC-Outline.

Global Outline Style

This function leads to an option box that contains 20 settings that control the outline format.

Indent Per Outline Level

Use this setting to specify the number of spaces of indent per outline level. The default value is 3 spaces per level. You can change this setting to any value between 0 and 20.

Spaces For Numbering

Use this setting to specify the indent for the top outline level (the numbers for the top outline level have to fit in this number of spaces). This defaults to a value of 4. If you set it to less than 4, some of the numbers may be truncated.

TIP *Roman numerals in particular require a setting of at least 6. If you ever get a numbering sequence that looks like I, II, II, it is probably because you haven't increased the spaces for numbering to 6 and the leftmost I in III is being truncated.*

First Entry Number

This setting allows you to control the beginning number of the top level of your outline. A setting of 1 starts the top level with 1 or A or I, etc., depending on which numbering type you choose. A setting of 3 starts the top level with 3 or C or III, etc.

Note: This setting is provided in order to allow you to link the numbering styles of several outlines. For example, because each outline is limited to 64K, you could divide a very large outline into several smaller outlines and specify their first entry numbers accordingly.

Numbering Type

This setting gives you global control over the type of numbering scheme. The global options are as follows:

- **Sequential Numbering: A, 1, a,...** When you select sequential numbering, the numbering style for each level of the outline is determined by the eight levels of letters and punctuation you set. You can choose from five different letter or number combinations for each level. You can then specify the punctuation you want for each level. For example, you could set sequential numbering as follows:

EXAMPLE

```
A.   First Level
     1.   Second Level
     2.   Second Level
          a)   Third Level
          b)   Third Level
B.   First Level
```

- **Procedural Numbering: 1.2.2.1.3** Use this option to set the entire outline to procedural numbering.

EXAMPLE

```
1.0   First Parent
 1.1   First Child
 1.2   Second Child
  1.2.1 Child of Second Child
2.0   Second Parent
3.0   Third Parent
```

- **Bullets** This option sets the entire outline to bullet numbering. This option is included only for compatibility with earlier versions and should no longer be used. Marks will not show up in your outline if you are using this setting. The best way to achieve bullet numbering on all levels is to set this option to sequential numbering and set all eight levels to bullets.
- **None** This option turns all numbering off and has the same effect as setting the indent per level to 0 and spaces for numbering to 0.

Place Outline Entry

This function gives you ultimate control over the left/right placement of each outline entry. Follow these steps to place an outline element:

1. Position the cursor on the element to be placed.
2. Choose the **Place Outline Entry** function.
3. Using ← and →, position the outline element where you want it.
4. Press ↵ when the element is properly positioned.

Note: The distance you move an outline entry is always relative to its default position. If you move it three spaces to the left of its default position, it will always be in that relational position even if you change the default position.

*TIP This function can be combined with **Skip Numbering** to add nonoutline formatted text in the middle of an outline formatted document.*

You can undo a **Place Outline Entry** by either placing it back to its default location or resetting all places with the **Reset All Places** function.

Reset All Places

This function resets all outline element place values to their default locations.

Start New Numbering

This function restarts the numbering of the current element so that this element is numbered as the first element on that level.

Note: This function affects appearance only. Functions such as **Sort** and **Hide** ignore **Start New Numbering**.

Skip Numbering

Use this function to skip the numbering of the current element. To undo this function, use Reset Numbering.

TIP *This function can be very useful for inserting nonoutline formatted text in an outline structure. You can also combine this function with **Place Outline Entry** to insert nonoutline formatted text in an outline structure that is not indented with the rest of the structure.*

Reset Numbering

This function resets the numbering of the current element to its default appearance by undoing **Start New Numbering** and **Skip Numbering**.

Title Toggle

Use this function to skip numbering on the first outline element. This works as a toggle. If the first element is numbered, its numbering will be turned off and vice versa.

Once you set the title on, you may type the title as if PC-Outline were a word processor. In fact, if you start a blank outline and turn the title on immediately, PC-Outline will work just like a simple word processor.

Even Right Margins

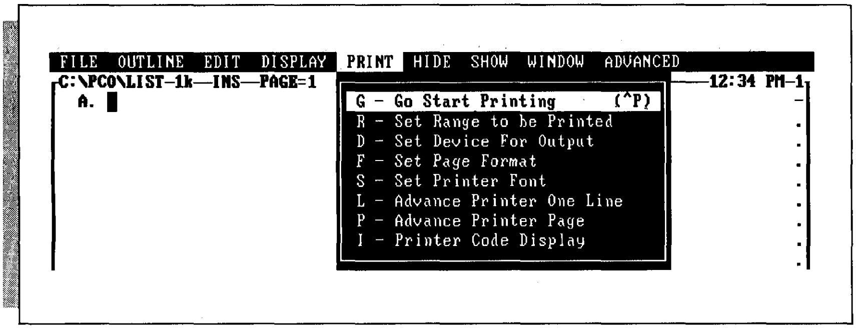
Use this function to align the right margins of a number of differently indented outline entries, usually before printing. This function prompts you first for a range over which you want to align the right margin and then for the new right margin.

Note: Unlike other right margins that are relative to the start of the outline entry, this right margin is an absolute column number. This function goes through each paragraph in the range and calculates where to set the relative right margin in order to have it appear in a particular printed column.

TIP *During the normal process of creating an outline, you will end up with a right margin that moves further to the right as the indentation in the outline increases. To align the right margin right before printing, choose **Even Right Margins**, mark the whole outline, and enter the right margin you want.*

Using the Print Menu

The Print Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1
12:34 PM-1
A.
G - Go Start Printing (^P)
R - Set Range to be Printed
D - Set Device For Output
F - Set Page Format
S - Set Printer Font
L - Advance Printer One Line
P - Advance Printer Page
I - Printer Code Display

Go Start Printing (^P)

This function starts printing the current block. If no range is marked, the entire outline is printed.

Note: Some printers do not print bullets correctly. If you experience problems printing, either create a printer substitution file to correctly print bullets or remove the bullets. See Appendix B, "Additional Printer Information," to solve other printer problems.

Set Range to Be Printed

This function allows you to specify only a portion of the outline to be printed. After you select this function, you're prompted to mark a range to be printed.

Set Device for Output

This function allows you to specify the destination for printing. You will usually use this function to write outlines to other files as described below.

- **Send to Printer** Prints normally to the printer.
- **Send to File** Sends the exact same information that would have gone to the printer to a file instead. The file will automatically have the same root name as the outline, but with the extension .PRN. You can then use the DOS print command to print this file.
- **Send to ASCII File** Strips out all printer information and other non-ASCII characters, such as page breaks, page numbering, etc., and sends the output to an ASCII file. Every line in the outline is terminated with a hard carriage return. When you choose **Go Start Printing**, you're prompted for a filename. This option can be useful for transferring outline formatted material to your word processor.

- **Send to WordStar Professional 4.0 File** This option converts the outline to WordStar Professional Release 4 file format. Save the converted file in WordStar before printing it.
- **Send to WordStar Classic 5.0 File** This option converts the outline to WordStar Classic Release 5 file format. Save the converted file in WordStar before printing it.
- **Send to Structured File** Creates a specially formatted ASCII file that has ASCII outline formatting information embedded in it describing the outline structure.
- **Send to WordStar 2000 File** This option converts the outline to WordStar 2000 file format. WordStar 2000 high bits are retained for paragraph formatting when reading the file into WordStar 2000. Save the converted file in WordStar 2000 before printing it.

Note: After you execute a **Go Start Printing** function, the **Device for Output** is set back to the printer.

Set Page Format

Use this function to select settings for many of the page formatting options like page size, margins, etc. The settings are as follows:

- **Top Margin** Sets the number of blank lines at the top of each page. The top margin must be less than the number of lines per page minus the bottom margin.
- **Bottom Margin** Sets the number of blank lines at the bottom of each page. The bottom margin must be less than the number of lines per page minus the top margin.
- **Lines per Page** Sets the total number of lines per page, including top and bottom margins. A standard printed page is 66 lines long with 53–55 lines actually printed. The number of lines per page must be greater than the top margin plus the bottom margin.
- **Left Print Margin** Sets the number of blank columns at the left side of each page. Although the default value is 5, setting this to 0 allows you full access to the whole page.
- **Printer Feed** You have two choices based on the type of printer you have: (1) *Continuous* prints the entire document on continuous feed paper without interruption, and (2) *Pause after each page* pauses at the end of each printed page for inserting a new sheet.
- **Page Numbering** You have five options for page numbering: left, right, centered, manually specify the column number for the page number, and off (don't print any page numbers).
- **Page Column for Numbering** If page numbering is set to Manually Specified, this option controls the starting column of the page number.
- **Start Page Numbering With** Starts page numbering with this value. Typically this is set to 1.
- **Page Breaks** Determines whether you produce a document with page breaks or a continuous document with no top or bottom margins and no page breaks.

Set Printer Font

This function sends a code sequence directly to your printer to set it to a certain type characteristic. The built-in options are as follows:

- Boldfaced
- Italics
- Double strike
- Condensed
- Elite

Note: This function immediately sends your printer a printer code and changes the mode of the printer for all subsequent printing. You can use it for printing an entire document in a particular font or for changing your printer so that some other program will print in the desired font. Don't confuse this function with **Printer Format** in the Edit Menu which is used for actually embedding print commands within a document.

See Appendix B, "Additional Printer Information," to customize these options for your printer.

Advance Printer One Line

This function sends a line feed to the printer.

Advance Printer Page

This function sends a form feed to the printer.

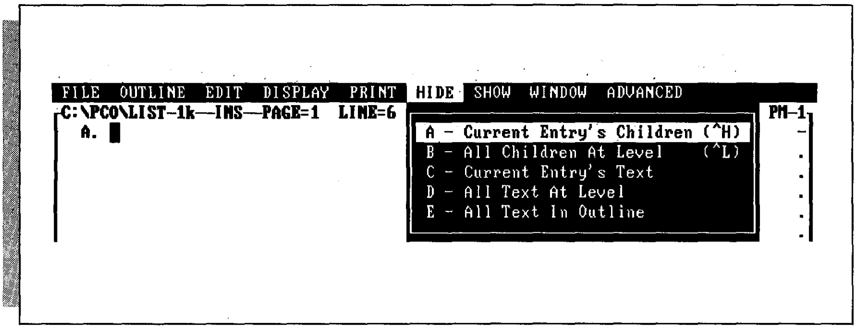
Printer Code Display

Use this function to display or hide (toggle with **Alt-F1**) the embedded printer codes on the screen. These are the Printer Format codes available from the Edit Menu.

Note: This option distorts the onscreen location of certain parts of your outline, since the codes take up space onscreen that they don't take up in printing.

Using the Hide Menu

The Hide Menu contains the following functions:

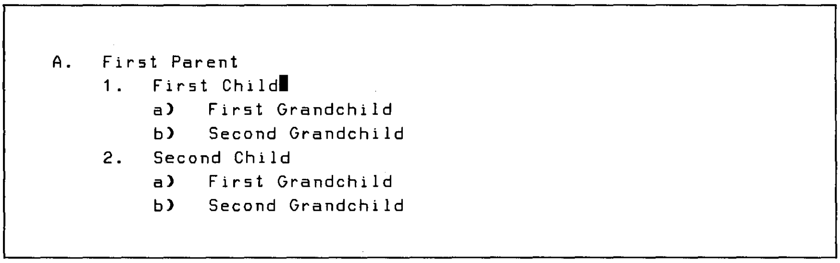

FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1 LINE=6
PM-1
A.
A - Current Entry's Children (^H)
B - All Children At Level (^L)
C - Current Entry's Text
D - All Text At Level
E - All Text In Outline

Current Entry's Children (^H)

Use this function to hide all the children of the current element. You can also use the gray + key as a toggle to hide and show the children.

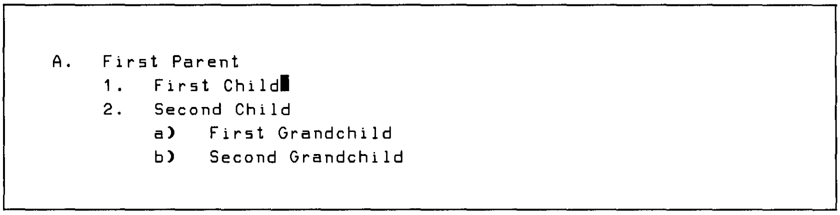
EXAMPLE

Before hiding the children of First Child:



```
A.   First Parent
     1.   First Child█
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
          a)   First Grandchild
          b)   Second Grandchild
```

After hiding the children of First Child:



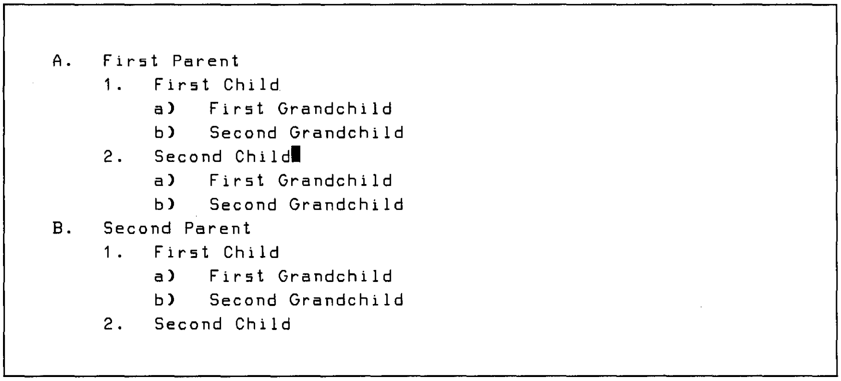
```
A.   First Parent
     1.   First Child█
     2.   Second Child
          a)   First Grandchild
          b)   Second Grandchild
```

All Children at Level (^L)

Use this function to hide all the children of all the outline elements at the same level within the same family as the current element.

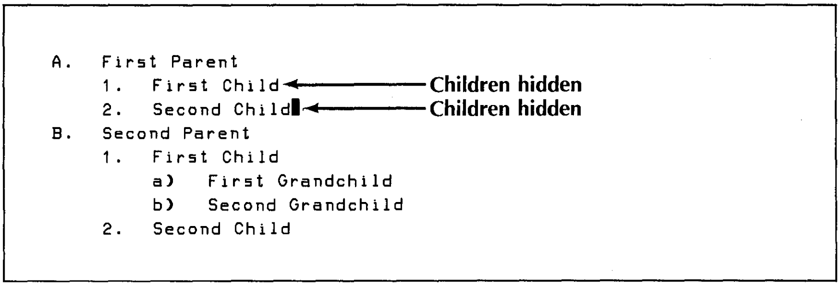
EXAMPLE

Before hiding all children at level:



```
A.   First Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child█
          a)   First Grandchild
          b)   Second Grandchild
B.   Second Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
```

After hiding all children at level:



```
A.   First Parent
     1.   First Child
     2.   Second Child
B.   Second Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
```

Children hidden

Children hidden

Note: This function can be reversed using **All Children at Level** on the Show Menu.

Current Entry's Text

Use this function to hide all text following the first line of the current element. You can also use **^PgDn** as a toggle to hide and show all text following the first line of the current element.

All Text at Level

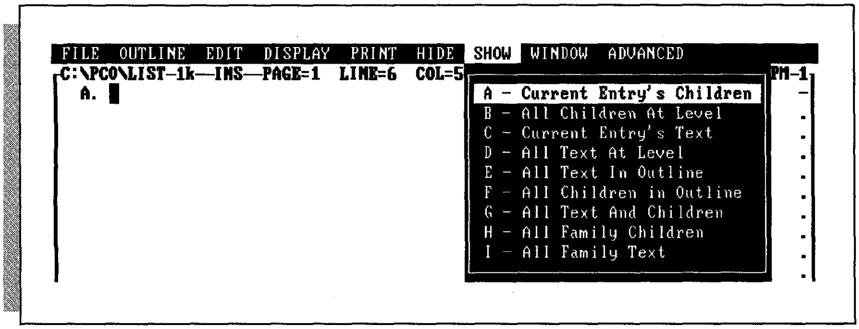
Use this function to hide all text at the current level. This function operates on the same outline entries as **All Children at Level** except that text is hidden instead of children.

All Text in Outline

Use this function to hide all text in the outline.

Using the Show Menu

The Show Menu contains the following functions:



```
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5
A.
```

FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
PM-1
A - Current Entry's Children
B - All Children At Level
C - Current Entry's Text
D - All Text At Level
E - All Text In Outline
F - All Children in Outline
G - All Text And Children
H - All Family Children
I - All Family Text

Current Entry's Children

Use this function to show all the children of the current element. You can also use the gray + key as a toggle to show and hide the children.

All Children at Level

Use this function to show all the children of all the outline elements at the same level within the same family as the current element. This function is the reverse of **All Children at Level** on the Hide Menu.

Current Entry's Text

Use this function to show all text following the first line of the current element. You can also use **^PgDn** as a toggle to show and hide all text following the first line of the current element.

All Text at Level

Use this function to show all text at the current level. This function operates on the same outline entries as **All Children at Level** except that text is shown instead of children.

All Text in Outline

Use this function to show all text in the outline.

All Children in Outline

Use this function to show all children in the outline.

All Text and Children

Use this function to show everything in the outline.

All Family Children

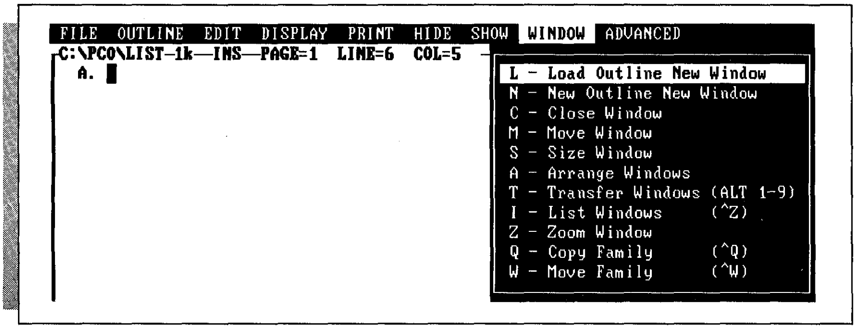
Use this function to show all children, grandchildren, etc., of the current element.

All Family Text

Use this function to show all text in each of the children, grandchildren, etc., of the current element.

Using the Window Menu

The Window Menu contains the following functions:



```
 FILE  OUTLINE  EDIT  DISPLAY  PRINT  HIDE  SHOW  WINDOW  ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5
  A. ▌
                                          L - Load Outline New Window
                                          N - New Outline New Window
                                          C - Close Window
                                          M - Move Window
                                          S - Size Window
                                          A - Arrange Windows
                                          T - Transfer Windows (ALT 1-9)
                                          I - List Windows     (^Z)
                                          Z - Zoom Window
                                          Q - Copy Family      (^Q)
                                          W - Move Family      (^W)
```

Load Outline New Window

This function works exactly like **Load Existing Outline** on the File Menu except that the outline is loaded into a new window. Both the current outline and any other outlines already open are all open at once. You can have up to nine windows/outlines open at one time.

The window number appears in the upper right corner of the window. You can switch directly between windows by either pressing the **Alt** key and the number of the window you want or by using the **Transfer Windows** function on the Window Menu.

New Outline New Window

This function works exactly like the **Start New Outline** function on the File Menu except that the outline is started in a new window.

Close Window

Use this function to close the current window and release its memory for use by other windows. If you have made any unsaved changes to the current window, PC-Outline will prompt you to save these changes.

Note: You cannot close the last remaining window because there must always be at least one window open.

Move Window

This function allows you to reposition the currently active window on your screen using the cursor keys. Since the window can't be moved off the screen, you must first reduce its size before you have any room to move it. Use the **Size Window** function or the **Zoom Window** function to reduce the window size.

Size Window

Use this function to change the size of the currently active window. Use the cursor keys to move the lower right corner to the new size.

Note: You cannot make a window smaller than 4 lines high by 7 columns wide.

Arrange Windows

Use this function to return all windows to their default size and position. When windows are in their default position, they line up neatly in overlapping fashion showing you the top line of every open window.

Transfer Windows (Alt 1–9)

Use this function to switch directly to the specified window.

List Windows (^Z)

Use this function to list all the open windows, their window number, their memory size, and whether any unsaved changes have been made to the window.

Zoom Window

Use this function to shrink (or expand) the currently active window from full screen size to partial screen size (or vice versa). You can use the gray – (minus) key to toggle the screen sizes.

TIP *The best way to use the **Zoom Window** function is to use the **Arrange Windows** function to unzoom all the windows, switch to the window you want, and then zoom it to full size for working. When you want to go to another window, unzoom the current one, switch to the window you want, and zoom again.*

Copy Family (^Q)

Use this function to copy the entire family (the element, all children, all grandchildren, etc.) of the current element and make it a child of the location you specify. Follow these steps to use this function:

1. Position the cursor at the top of the family you want to copy.
2. Choose this function.
3. Move the cursor to the new location for the family. You can even switch windows (press **Alt** and the window number to switch to).
4. Press ↵ to start the copy.

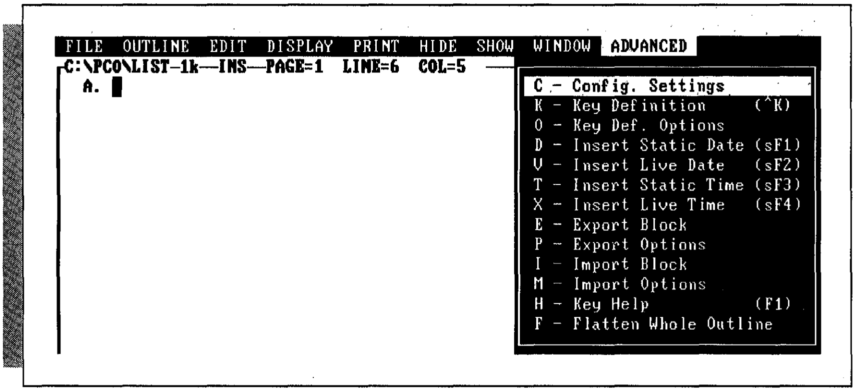
Note: This function is primarily designed for copying families of outline structure between windows. The Mark functions on the Outline Menu are usually easier to use for copying within the same outline.

Move Family (^W)

This Function works exactly like the **Copy Family** function except the family is moved instead of copied.

Using the Advanced Menu

The Advanced Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1 LINE=6 COL=5
A.
C - Config. Settings
K - Key Definition (^K)
O - Key Def. Options
D - Insert Static Date (sF1)
V - Insert Live Date (sF2)
T - Insert Static Time (sF3)
X - Insert Live Time (sF4)
E - Export Block
P - Export Options
I - Import Block
M - Import Options
H - Key Help (F1)
F - Flatten Whole Outline

Configuration Settings

This function allows you to change 13 of PC-Outline's default settings. To permanently save the settings to the configuration file, press the **F10** key from within the Configuration Settings option box.

The configuration settings are:

- **Cursor Delay** Specify "Yes" if you want to change the cursor delay, or "No" if you don't want to change it.
- **Speed of Cursor 1–240** You can type a number between 1 and 240 to change the speed of the cursor movement in PC-Outline. The fastest speed is 1 and the slowest speed is 240.
- **Starting Directory Path** Sets the starting directory for PC-Outline files. If this field is blank, the DOS current directory will be used as the starting directory. If you always keep your outlines in the same directory, enter that directory here. The name entered in this field must be a complete DOS directory name (including optional path).
- **Macros File/Path** Sets the path/filename for macro files. This defaults to PCOMAC.CFG (in the current directory). If you want to keep your macro files in a directory other than the current directory, enter that name here. The name entered in this field must be a complete DOS directory name (including optional path).

- **Printer Description File** Sets the path/filename for the printer description file. The name entered in this field must be a complete DOS directory name (including optional path). See Appendix B, "Additional Printer Information," for more information.
- **Configuration File/Path** Sets the path/filename for the configuration file PCO.CFG. Use this option if you want to keep your configuration file in a location other than the current directory. When PC-Outline starts up, it looks for its configuration file in three places:

  1. In the current directory.
  2. In the directory and filename specified in the environment with the "SET PCO=<path/filename>" command.
  3. In the directory and filename specified as a command parameter with the "/L=<path/filename>" command.

  If a valid configuration file isn't found in any of these places, PC-Outline starts up with built-in default values for all configuration settings.

- **Automatic Timed File Saving** If this is set to "Yes," the current outline will be saved at regular intervals as determined by the value entered in Time Between Automatic Saves. The outline will not be saved if no changes have been made. Only the current window is saved; other changed windows are not saved.
- **Time Between Automatic Saves** If Automatic Timed File Saving is set to "Yes," this value determines how long a time interval passes between automatic saves.
- **Create Automatic Backup Files** If this is set to "Yes," each time you save an outline, the previous version becomes the backup file.
- **Prompt Before Overwriting** If this is set to "Yes," you are prompted for confirmation before an existing file is overwritten during a save operation. If this setting is set to "No," no warning will be given.
- **Video Retrace** This setting is provided to speed up screen performance on some computers. If you have a monitor capable of displaying graphics, experiment with setting this on "No." If you see snow on the screen every time you type, you cannot use this setting and should set it back to "Yes." If you don't see any snow on the screen, you can use this setting and should leave it set to "No." You can also set video retrace to "No" by using the command parameter "/S."
- **Printer Port** Sets the printer port for all printing in PC-Outline. The possibilities are LPT1, LPT2, LPT3, COM1, COM2, and COM3.
- **Force Black and White** If you have a graphics monitor that isn't color, PC-Outline will try to use color attributes on it. If you would prefer to only use black and white attributes, set this option to "Yes." You can also set this to "Yes" by using the command parameter "/B."

Key Definition (^K)

This function allows you to redefine keys on the keyboard by assigning from one to several thousand keystrokes to a single key. This function is useful for either changing the meaning of PC-Outline's keys or for recording frequently used phrases and attaching them to a single key.

Follow these steps to reassign a key:

1 Choose **Key Definition** from the Advanced Menu or press **^K**.

2 Respond to the prompt by pressing the exact keystroke that you want to redefine. For example, if you want **Alt-N** to type your name, press **Alt-N** here. The cursor changes in size.

3 Now type the exact keystrokes that you want to be assigned to **Alt-N**. Using the previous example, type your name.

4 When you finish typing the keystrokes to assign, press **^Break**. The cursor returns to normal size.

5 To save the key definition permanently, press **Alt-A**, then press **O** (Key Definition Options), and **S** (Save All Key Definitions). (Otherwise this key definition would be in effect only during the current PC-Outline session.)

Now whenever you press **Alt-N** (or whatever key you reassigned), PC-Outline repeats the keystrokes you recorded and types your name (or whatever keystrokes you assigned to it).

Note: While you are defining a key, no other key definitions are in effect (you must use the original meanings of all redefined keys). This permits you to swap the definitions of two keys, which otherwise would be impossible.

Key Definition Options

This function presents a submenu with the following four options:

- **Clear a Key Definition** Prompts you for a key definition to clear if you want to unassign a definition to a key.
- **Save All Key Definitions** Saves all currently defined keys to a disk file called PCOMAC.CFG (unless you have changed the name in the Configuration Settings option box). These definitions will be loaded automatically the next time you start PC-Outline. You must save the definitions in order for PC-Outline to remember them.
- **Inhibit All Key Definitions** Temporarily suspends all key definitions.
- **Restart All Key Definitions** Reverses the **Inhibit All Key Definitions** function.

Insert Static Date (Shift-F1)

This function inserts the current DOS system date.

Insert Live Date (Shift-F2)

This function inserts and continuously updates the current DOS system date. The screen and printing always represent the current system date.

Insert Static Time (Shift-F3)

This function inserts the current DOS system time.

Insert Live Time (Shift-F4)

This function inserts and continuously updates the current DOS system time. The screen is updated every time it is redrawn (almost every time you press a key), and printing is always updated.

Export Block

This function exports a block of an outline directly into another program. You can use this function only if you've loaded the memory-resident version of PC-Outline.

CAUTION *Make sure you have set the export options correctly before you start the exporting process. See "Export Options" below for more information.*

Follow these steps to export a block from an outline:

1. Position the cursor where you want the exported text to go in the other program.
2. Invoke PC-Outline and load or create the text to export.
3. Position the cursor at the beginning of the block of text you want to export.
4. Choose this function.
5. Move cursor to end of text you want to export.
6. Press ↵ to signify you have completely marked the block (**Esc** cancels the command), and exporting begins.

Export Options

When exporting files, you have to determine how the text is to be exported. You can pick a predefined mode containing certain settings or you can manually create your own.

After you choose **Export Options** at the Advanced Menu, you'll see an option box where you choose the export mode. If you pick any mode other than "Manual," the rest of the settings in the option box are automatically set when you press **F10** to save the options. In Manual mode, you have to pick each setting yourself.

Once you save your settings with **F10**, they remain the same until you change them again. All exported files will use these same settings. The modes available and their default settings are listed below.

Word Wrap Mode

Use word wrap mode for programs that support word wrap. Soft carriage returns (where word wrap occurred) are typed as a space in order to let the receiving program format the word wrap itself. Text is exported as follows:

- Hard carriage return = hard carriage return
- Soft carriage return = space
- Soft space = nothing
- Leading space = nothing
- Start each line with = nothing

Line-By-Line Mode

Use line-by-line mode for programs that require a hard carriage return at the end of each line. Text is exported as follows:

- Hard carriage return = hard carriage return
- Soft carriage return = hard carriage return
- Soft space = space
- Leading space = space
- Start each line with = nothing

Spreadsheet Mode

Use spreadsheet mode for a spreadsheet that requires a ↓ at the end of each line. Text is exported as follows:

- Hard carriage return = ↓
- Soft carriage return = ↓
- Soft space = nothing
- Leading space = nothing
- Start each line with = apostrophe

Manual Mode

Use manual mode if you want to individually set each of the five settings. Any time you change one of the settings, it will automatically switch into manual mode. These are the options for each setting:

- Hard carriage return = hard carriage return or ↓
- Soft carriage return = hard carriage return, ↓, or space (simulate word wrap)
- Soft space (from justification) = nothing or space
- Leading space (from paragraph indents) = nothing or space
- Start each line with = nothing, apostrophe ('), quotation mark ("), caret (^), or plus sign (+)

Export Speed

Use this option with any of the four modes described above to set the speed of exporting keystrokes to slow, medium, or fast. The default is medium because some programs can't handle very fast typing. Most applications can handle the fast speed, so it's probably worth your while to try it.

Import Block

Use this function to copy information from another program's screen into PC-Outline. This function works only with the memory-resident version of PC-Outline and does not work properly with applications running in any graphics modes.

CAUTION *Make sure you have set the import options correctly before you start the importing process. See "Import Options" below for more information.*

Follow these steps to import information from another program:

1. In your other program, display the information that you want to copy into PC-Outline.
2. Invoke PC-Outline.
3. Position the cursor in PC-Outline where you want the text to be inserted.
4. Choose the **Import Block** function.
5. You will be shown your previous program's screen. Position the cursor in the upper left corner of the text you want to import and press ↵.
6. Position the cursor in the lower right corner of the text you want to import and press ↵.

Import Options

When importing files, you have to choose whether each line of imported text should be ended with a hard carriage return or with word wrap.

After you choose **Import Options** at the Advanced Menu, you'll see an option box where you choose the import mode. Once you save your import mode with **F10**, it will remain the same until you change it again. All imported files will use this same setting.

Key Help (F1)

This function displays a help screen containing the function of most of the special keys used in PC-Outline.

Flatten Whole Outline

Use this function to flatten the entire outline, promoting all elements up to the top level.

CAUTION *This function is not reversible and should be used with great caution.*

Applying PC-Outline to Your Needs

Now that you're familiar with the basics of outlining, it's time to learn some of PC-Outline's many features. These features are designed to provide a complete, efficient program for you to use to develop your ideas and organize your thoughts.

This chapter is divided into five applications. Each application demonstrates several of PC-Outline's features while introducing a new way of using PC-Outline to accomplish your daily tasks.

Note that each application starts by listing the features introduced in that section. The text is designed to allow you to learn the features by reading or by following along in PC-Outline.

The five applications are

- **To-Do Lists** How to organize your daily activities.
- **Sorted Lists** How to use PC-Outline as a simple database to keep track of contacts, phone numbers, and other information.
- **Templates and Macros** How to create frequently used pieces of outline structure and store them for repeated use. Also shows you how to customize shortcut keystrokes.
- **Project Management** How to use PC-Outline as a simple project manager.
- **Using Windows** How to use several windows to your advantage in all your other applications.

Application 1: To-Do Lists

Features covered in this section include

- Using the Title Toggle function
- Creating outline elements
- Moving outline elements
- Marking/unmarking outline elements
- Moving marked outline elements

One of the most valuable uses of PC-Outline is management of your daily tasks. By taking just a few minutes every morning to add new items to your list and to generate a list of today's activities, you can control even the most hectic jobs. Try the following method to get your day under control.

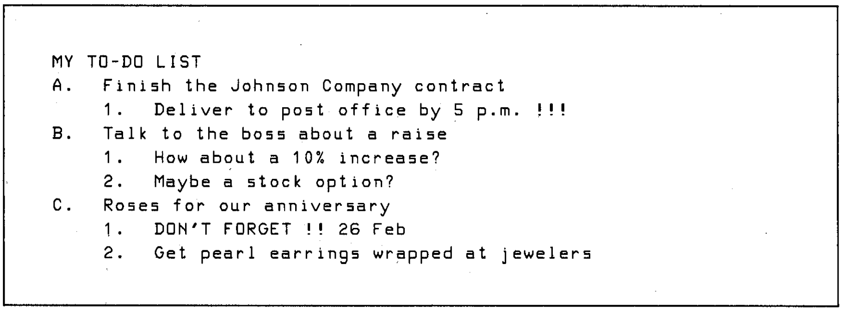
List Making

On the first level of the outline, keep your list of tasks to do. Whenever you think of a new task, just add it using **Create New Outline Entry** from the Outline Menu (or ^**N** or ^↵). As children of each of these tasks, keep the subtasks or the little tidbits of knowledge that you'll need to remember.

If you're using PC-Outline in the memory-resident mode, just press ^\ from within your other software, and PC-Outline will pop up instantly. In this mode, you'll be able to jump in and out of your to-do list whenever a new idea strikes.

By just jotting down tasks as you think of them, you might end up with a to-do list like the one shown below. Try putting together your own to-do list in this format.

TIP *If you want the title of your list, "MY TO-DO LIST," to be unnumbered, use* ***Title Toggle*** *on the Display Menu to turn numbering off for the first element.*

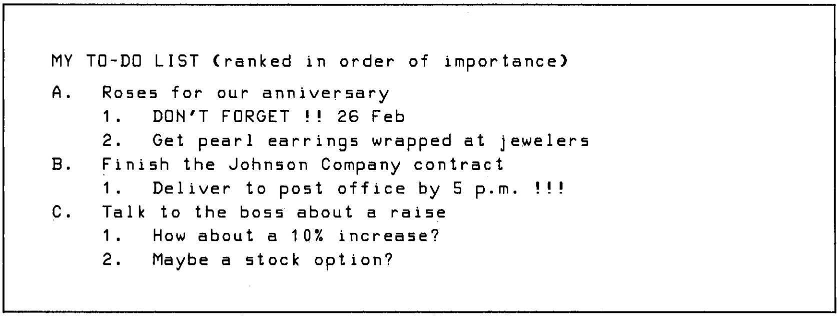


```
MY TO-DO LIST
A.   Finish the Johnson Company contract
     1.   Deliver to post office by 5 p.m. !!!
B.   Talk to the boss about a raise
     1.   How about a 10% increase?
     2.   Maybe a stock option?
C.   Roses for our anniversary
     1.   DON'T FORGET !! 26 Feb
     2.   Get pearl earrings wrapped at jewelers
```

Prioritizing Your List

Now you can prioritize your tasks using **Move Outline Entries** (^M) from the Outline Menu. Don't worry about the subtasks; PC-Outline will automatically move them with the task. In fact, to help you move an element quickly around a complicated outline, PC-Outline will hide all the text and subtasks while you manipulate the position of the main level task.

Prioritizing could help make your outline more orderly like this:



```
MY TO-DO LIST (ranked in order of importance)
A.   Roses for our anniversary
     1.   DON'T FORGET !! 26 Feb
     2.   Get pearl earrings wrapped at jewelers
B.   Finish the Johnson Company contract
     1.   Deliver to post office by 5 p.m. !!!
C.   Talk to the boss about a raise
     1.   How about a 10% increase?
     2.   Maybe a stock option?
```

Remembering Today's Tasks

If you use a to-do list frequently, you may find that certain items become important each day and have to be done that day. Every morning after you enter any new tasks, just browse through the outline and use **Mark/Unmark Outline Entry** from the Outline Menu (or the **F2** key) to mark any items that require attention today. PC-Outline uses the concept of marks to allow for faster editing of multiple elements. Note that a marked element's number will appear in reverse video.

Then, at the top of the outline, create a new element called "TODAY'S LIST." Remember to use **Title Toggle** to turn off numbering for this line. You can then use **Move Marks** from the Outline Menu to gather all of today's high priority items in one place. Notice that these elements are on the same level as the element they were copied to. To make them children of "TODAY'S LIST," mark these same two again and choose **Indent Marks** (**F8**) from the Outline Menu.

```
MY TO-DO LIST
A.   TODAY'S LIST
     1.   Roses for our anniversary
          a)   DON'T FORGET !! 26 Feb
          b)   Get pearl earrings wrapped at jewelers
     2.   Finish the Johnson Company contract
          a)   Deliver to post office by 5 p.m. !!!
B.   ITEMS FOR LATER CONSIDERATION
     1.   Talk to the boss about a raise
          a)   How about a 10% increase?
          b)   Maybe a stock option?
```

Application 2: Sorted Lists

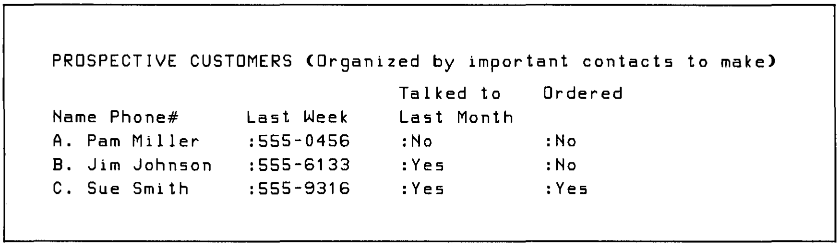
Features covered in this section include

- Sorting an outline level
- Hiding and showing children and text

You can use PC-Outline like a simple database to keep track of categories of data. For example, the sample file shown below keeps track of prospective customers and some pertinent data pertaining to each of them. The colons (:) indicate the start of a new field of information.

```
PROSPECTIVE CUSTOMERS
                                  Talked to    Ordered
Name               Phone#         Last Week    Last Month
A. Sue Smith       :555-9316      :Yes         :Yes
B. Jim Johnson     :555-6133      :Yes         :No
C. Pam Miller      :555-0456      :No          :No
```

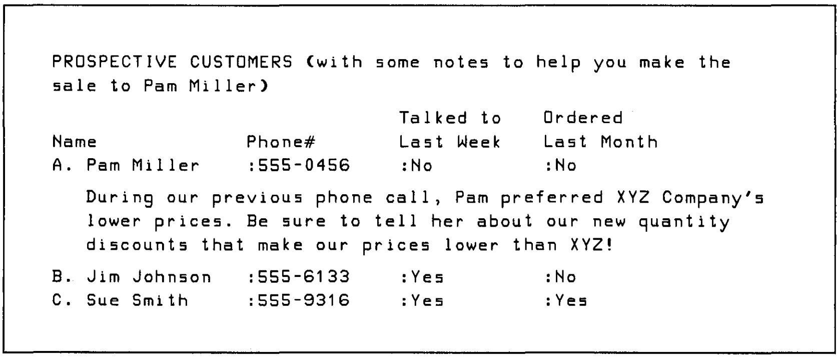
Now, when you get ready to make your weekly sales calls, you can quickly sort through all your prospective customers and call those you haven't talked to in the last week. Or, using **Sort Outline Level** from the Outline Menu, you can sort the last field to see who hasn't ordered for over a month. This would leave the outline looking like this:



```
PROSPECTIVE CUSTOMERS (Organized by important contacts to make)
                                 Talked to    Ordered
Name Phone#       Last Week      Last Month
A. Pam Miller     :555-0456      :No          :No
B. Jim Johnson    :555-6133      :Yes         :No
C. Sue Smith      :555-9316      :Yes         :Yes
```

As you get ready to call each person on your list, just use **Current Entry's Text** from the Show Menu to display any information you recorded about this individual. These hidden notes could help you be a better salesperson.

In the expanded form for a specific customer, your outline might look something like this:



```
PROSPECTIVE CUSTOMERS (with some notes to help you make the
sale to Pam Miller)
                                 Talked to    Ordered
Name              Phone#         Last Week    Last Month
A. Pam Miller     :555-0456      :No          :No
   During our previous phone call, Pam preferred XYZ Company's
   lower prices. Be sure to tell her about our new quantity
   discounts that make our prices lower than XYZ!
B. Jim Johnson    :555-6133      :Yes         :No
C. Sue Smith      :555-9316      :Yes         :Yes
```

Application 3: Templates and Macros

Features covered in this section include

- Copy marks
- Writing and reading structured files
- Creating and using redefined keys

Some of your uses of PC-Outline may call for a repetitive pattern of keystrokes. These patterns usually fall into one of two categories: (1) a form (called a "template") that allows you to just fill in the blanks, or (2) a set of keys that either form a series of commands or a text string (called a "macro"). In this section, you'll learn how to create both templates and macros.

Using Templates Repetitively in an Outline

Some outlines may call for the repetitive use of certain groups of elements. If so, try organizing your outline so that all elements in a series are members of the same family. For a simple project management exercise, you might organize elements like this:

```
A.   TASK NAME:
     1.   Leader:
     2.   Team Members:
          a)
          b)
          c)
     3.   Date Next Action Due:
     4.   Description:
```

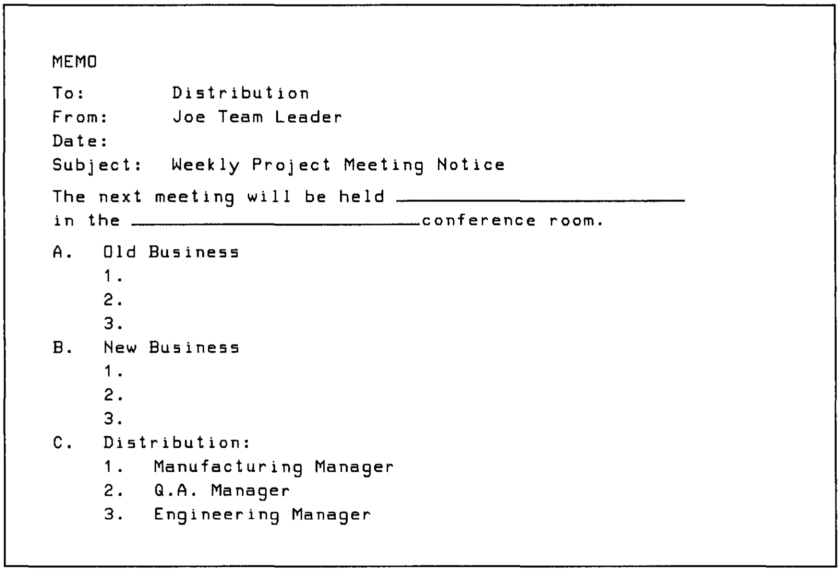
To use this family as a template, choose **Mark/Unmark** (**F2** key) from the Outline Menu to mark this entire family. Then move up to the title element (since you can't copy an element onto itself) and choose **Copy Marks** (**F9** key) from the Outline Menu to reproduce this simple template. By repeating this several times, you can generate plenty of templates, each ready for you to enter only the pertinent new information without having to retype the pattern each time.

TIP *Don't forget to keep an extra blank copy of the template at the bottom of your document so you'll still have a blank template left to copy.*

Using Templates to Form an Entire Outline

If you use a general purpose outline like the weekly form memo shown below, you can create an outline template to be used each week. To build the outline template, use **Set Device for Output** from the Print Menu and **Input Other File Types** from the File Menu.

To begin typing this memo, choose **Title Toggle** on the Display Menu. Type the top part of the memo, pressing ↵ at the end of every line. When you're ready to turn outline numbering back on, press ^↵, and finish the memo.



```
MEMO
To:       Distribution
From:     Joe Team Leader
Date:
Subject:  Weekly Project Meeting Notice
The next meeting will be held ____________________
in the ______________________conference room.
A.   Old Business
     1.
     2.
     3.
B.   New Business
     1.
     2.
     3.
C.   Distribution:
     1.   Manufacturing Manager
     2.   Q.A. Manager
     3.   Engineering Manager
```

After typing the memo, save it to disk by choosing **Set Device for Output** from the Print Menu. Since you want the structure of the outline to be maintained for future use, choose the **Structured File** option from the submenu. When you choose **Go Start Printing**, you'll be prompted for a filename for the outline.

Now the next time you have another meeting and want to use the template, choose **Input Other File Types** from the File Menu. Choose **Structured File** again, and when you are prompted for a filename, type the name you used to file the outline originally.

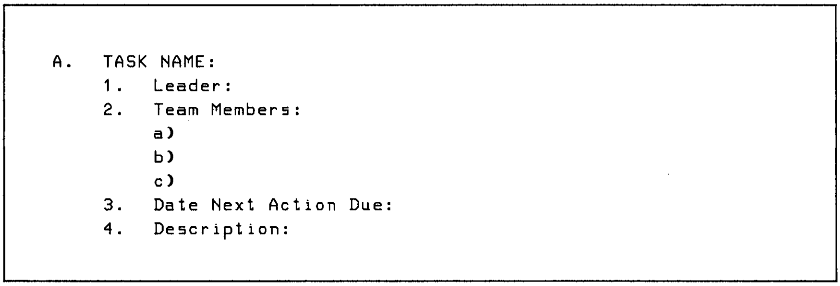
Creating Macros by Redefining Keys

PC-Outline provides a Key Redefinition function you can use to assign any series of keystrokes to a single key. For example, you could create the same outline family that is shown in "Using Templates Repetitively in an Outline," and assign it to a single keystroke.

To redefine a key, choose **Key Definition** (^**K**) from the Advanced Menu. Then choose a key to define. You can choose any single keystroke to define or any key together with Shift, Alt, or Ctrl. For this example, the **F3** key will do.

Notice that the cursor is now a blinking half cursor. This is to remind you that you are in the Key Definition mode and that every key you press is being remembered by PC-Outline.

You can type just about anything into a macro that you could normally type. The only restriction is that you can't redefine another key. For this example, create the same outline family that is shown in "Using Templates Repetitively in an Outline."



```
A.   TASK NAME:
     1.   Leader:
     2.   Team Members:
          a)
          b)
          c)
     3.   Date Next Action Due:
     4.   Description:
```

Note: If you make a mistake, press **^Break** and start over.

When you're done, press **^Break** to tell PC-Outline to stop remembering keys. Press **Alt-A**, **O**, and **S** to save the new key definition permanently. Now whenever you press the **F3** key, all the keys that you typed will be inserted into PC-Outline. You don't even have to keep a copy of the template around. Just press the **F3** key and you'll have a new copy.

TIP *You may want to reassign the cursor diamond keys—^E, ^S, ^X, and ^D—to work as they do in WordStar. Follow the steps above, pressing the appropriate arrow key. Remember, however, that once you've created macros for these keys, you can no longer use the original functions for these commands. Disregard the "shortcut" references to these keystrokes on the menus.*

Application 4: Project Management

Features covered in this section include

- Creating outline elements
- Moving outline elements
- Sorting outline levels
- Finding strings

In the early stages of a project, many people find that the most difficult task is getting the jumble of ideas, tasks, resources, and time durations organized into a legible and sensible order. As the project progresses, it becomes necessary to track progress and figure out how things are going on a regular basis. You may find that PC-Outline offers a very simple and convenient solution to both of these problems.

Start your project by letting your ideas flow into PC-Outline. Just create a new element for each idea using **Create New Outline Entry** (^↵) from the Outline Menu. Once you have all or most of your ideas out of your head, you can think about organizing them. You can use the straightforward method of moving individual elements around with **Move Outline Entry** (^M) from the Outline Menu, or you can try using a more efficient method like sorting.

Take a look at a couple of methods of organizing a project. Your projects might require different formats for organization, but these examples will help you think of just what you need to track and how best to track it.

Tracking Solutions to Problems

For tracking the solution of several problems, try this format:

```
A.  PROBLEM: Next Action Due: Stage of Completeness...
    (Use the text region to fully describe the problem)
    1.  Symptom
        (Use text to describe fully)
        a)  Observer -
        b)  Date Found -
    2.  Cause
        (Use text to describe fully)
        a)  Researcher -
        b)  Next Action Due_Date Found -
    3.  Solution
        (Use text to describe fully)
        a)  Solver -
        b)  Next Action Due_Date Found -
```

Note: Save this file on filename PROJECT. You'll need it to complete the next application.

Tracking and Sorting Tasks

For tracking tasks, try this format:

```
A.   TASK        :Date Due   :Person Responsible
     (Use text to describe task fully)
1.   Subtask A   :Date Due   :Person Responsible
     (Use text to describe subtask fully)
2.   Subtask B   :Date Due   :Person Responsible
3.   Subtask C   :Date Due   :Person Responsible
4.   Subtask D   :Date Due   :Person Responsible
```

As your project list gets longer, you can become more efficient by using the sort function. In the above example, you can use **Sort Outline Level** from the Outline Menu to sort by any of the fields preceded by a colon (:).

To quickly find all the tasks that involve a specific item, use **Find String** (^**F**) from the Edit Menu to locate the first mention of that item. Just follow the instructions and answer the questions that appear on your screen, and PC-Outline will start the search and find the first occurrence of the string you specify.

To find the next occurrence, use **Find Again** (^**A**) from the Edit Menu. This will repeat **Find String** using the same settings.

Application 5: Using Windows

Features covered in this section include

- Opening new windows
- Switching between windows
- Using multiple windows
- Transferring text and elements
- Closing windows

In this application, you'll open two windows containing two different outlines and share information between them. This application uses the file you created in Application 4 in addition to the new file you'll create in this application.

Opening New Windows

To get started, load the file PROJECT into PC-Outline. Then choose **New Outline New Window** from the Window Menu. When you're prompted for a filename, type **list**.

You'll then see the familiar working screen with the "A." that indicates the start of a new outline document. Although it appears that you've just replaced the PROJECT outline with a new blank outline, notice the "2" in the upper-right corner of the screen. This indicates that you've opened up a second window in PC-Outline.

Each window contains a separate outline file. By repeating the above process, you can load up to nine windows into PC-Outline at one time, provided your computer has sufficient memory. Note that by using **Load Outline New Window** from the Window Menu, you could also load an existing file into a new window.

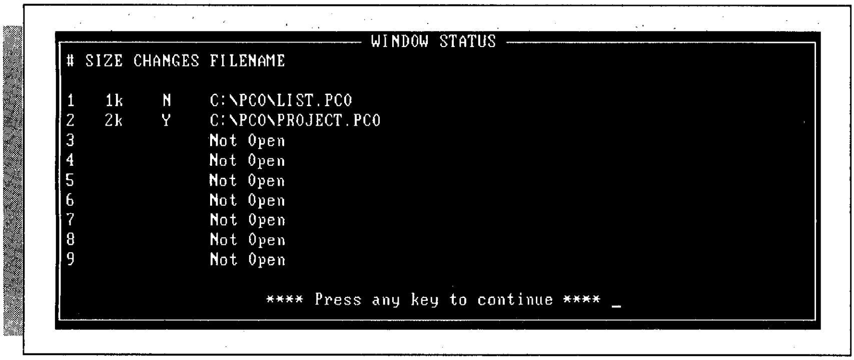
Switching between Windows

Multiple windows allow you to switch between outline files and exchange material between them. Use **Transfer Windows** from the Window Menu (or **Alt-1**) to switch back to the first window, where the PROJECT file is located. Your screen reverts to the outline from the previous application. Use **Transfer Windows** again (or **AH-2**) to return to the LIST window.

Listing and Arranging Windows

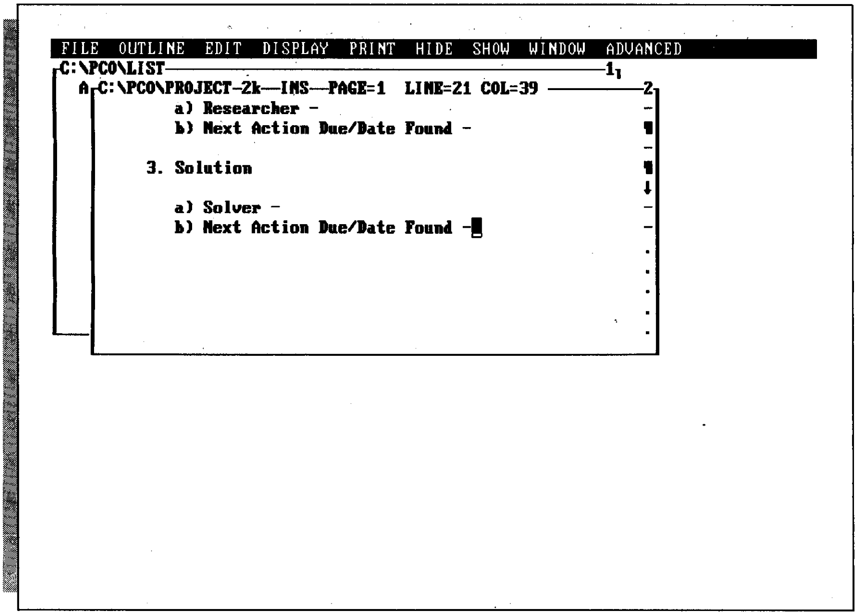
Before entering any information into this outline, briefly examine a few of the features that will help you use windows efficiently in PC-Outline.

To see a list of the windows in use, choose **List Windows** from the Window Menu. This list shows all windows and the files they contain, whether any unsaved changes have been made to them, and their current file size. The following example shows what **List Window** would show if you had two windows open.



```
------------------------ WINDOW STATUS ------------------------
# SIZE CHANGES FILENAME

1  1k    N     C:\PCO\LIST.PCO
2  2k    Y     C:\PCO\PROJECT.PCO
3              Not Open
4              Not Open
5              Not Open
6              Not Open
7              Not Open
8              Not Open
9              Not Open

               **** Press any key to continue **** _
```

To view all currently open windows, choose **Arrange Windows** from the Window Menu. The open windows will be displayed in an orderly fashion as shown below, with the window bar of each outline displayed.



```
C:\PCO\LIST                                                1
 A C:\PCO\PROJECT-2k—INS—PAGE=1  LINE=21 COL=39             2
            a) Researcher -
            b) Next Action Due/Date Found -

         3. Solution

            a) Solver -
            b) Next Action Due/Date Found -
```

Changing the Size of Windows

Although a window fills up the entire screen, you can use **Size Window** from the Window Menu to change a window's size. You can change the size of a window from full screen all the way down to just a very small rectangle. By using this feature, you can see the contents of one or more other windows while working in your current window.

Once you have a window adjusted to a smaller size, you may want to bring it back to full size, work in it, and then reduce it to its original size. To do this, choose **Zoom Window** from the Window Menu. You can also use the gray – (minus) key to toggle between the full screen and its reduced size.

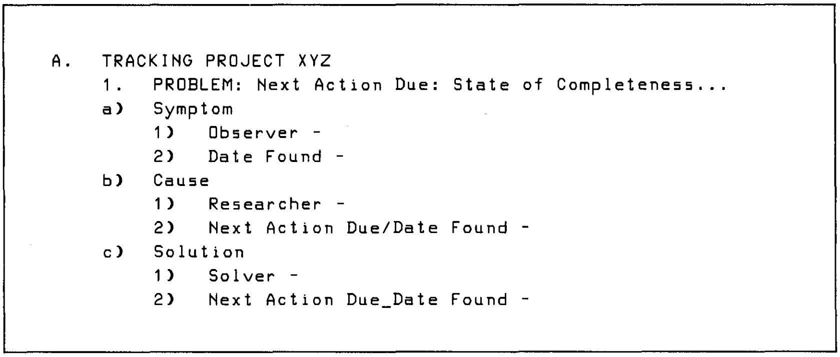
Finally, to make this process of using multiple windows easier, you can move a window to any location on the screen as long as the window is always visible and is not full size. Just choose **Move Window** from the Window Menu, and use the cursor keys to move the window. Once you have it where you want it, you can lock it into place by pressing ↵.

Transferring Information between Windows

Now that you know how to use multiple windows, you can share material between them. First, create the following heading in LIST.

```
A.   TRACKING PROJECT XYZ
```

Now use **Transfer Windows** to move back to the PROJECT outline. Then copy the entire PROJECT outline to LIST as a child of this element. To do this, put the cursor on the top line and press **^Q (Copy Family)**. Then press **Alt-1**, position the cursor under the heading in LIST, and press ↵. The result should look like this:



```
A.   TRACKING PROJECT XYZ
     1.   PROBLEM: Next Action Due: State of Completeness...
     a)   Symptom
          1)   Observer -
          2)   Date Found -
     b)   Cause
          1)   Researcher -
          2)   Next Action Due/Date Found -
     c)   Solution
          1)   Solver -
          2)   Next Action Due_Date Found -
```

Closing Windows

In this application, you've learned how to create a window, how to manipulate information within a window, and how to exchange information between windows. There is only one other item to learn about windows: how to close them.

First, save the new outline by choosing **Save Current Outline** from the File Menu. Then choose **Close Window** from the Window Menu to close the currently active window. You cannot close the last open window. But if you want to get rid of an outline in the last open window, just use **Load Existing Outline** or **Start New Outline** from the File Menu to replace the existing outline with the new one.

APPENDIX A

Quick Key Reference

FUNCTION	KEY
Block, copy	**Alt-EC** or **^C**
Block, delete	**Alt-ED** or **^E**
Block, move	**Alt-EM** or **^B**
Boldface, begin	**^F3**
Boldface, end	**^F4**
Change current drive/directory	**Alt-FC**
Children hide/show toggle	**Gray +**
Clear all marks	**Alt-F2**
Code display toggle	**Alt-F1**
Configuration settings	**Alt-AC**
Copy block	**Alt-EC** or **^C**
Copy family	**Alt-WQ** or **^Q**
Copy marks	**Alt-OY** or **F9**
Cursor left one word	**^←**
Cursor right one word	**^→**
Cursor to beginning of line	**Home**
Cursor to bottom of screen	**End End**
Cursor to end of file	**^End** or **Shift-End**
Cursor to end of line	**End**
Cursor to end of paragraph	**Shift-PgDn**
Cursor to next element on same level	**Shift↓**
Cursor to parent	**^PgUp**
Cursor to previous element on same level	**Shift-↑**
Cursor to top of file	**^Home** or **Shift-Home**
Cursor to top of paragraph	**Shift-PgUp**
Cursor to top of screen	**Home Home**

(continued)

FUNCTION	KEY
Date, insert live	**Alt-AV** or **Shift-F2**
Date, insert static	**Alt-AD** or **Shift-F1**
Delete block	**Alt-ED** or **^E**
Delete line	**^Y**
Delete outline family	**Alt-OD** or **^D**
Delete to end of line	**Shift-Del**
Delete word left	**Shift-←**
Delete word right	**Shift-→**
Directory/drive, change	**Alt-FC**
Display codes	**Alt-PI** or **Alt-F1**
Display menus	**F10** or **Alt-*menu letter***
Divide outline element	**Alt-OU** or **^U**
Double strike, begin	**Shift-F5**
Double strike, end	**Shift-F6**
End of file	**^End** or **Shift-End**
Export block	**Alt-AE**
Export options	**Alt-AP**
Family move	**Alt-WW** or **^W**
File options	**Alt-FF**
Find and replace	**Alt-ER** or **^R**
Find string	**Alt-EF** or **^F**
Find string again	**Alt-EA** or **^A**
Flatten outline	**Alt-AF**
Font select	**Alt-PS**
Format page	**Alt-PF**
Hanging indent	**Alt-EH** or **^O**
Help	**Alt-AH** or **F1**
Hide all text entries	**Alt-HE**
Hide children	**Alt-HA** or **^H**
Hide level children	**Alt-HB** or **^L**
Hide/show children toggle	**Gray +**
Hide text toggle	**^PgDn**
Hide this text entry	**Alt-HC**
Hide this text level	**Alt-HD**
Import block	**Alt-AI**
Import options	**Alt-AM**
Indent and hang	**Alt-EH** or **^O**
Indent, clear	**Alt-EX** or **^X**
Indent current entry	**F6**
Indent marks	**Alt-OI** or **F8**
Indent paragraph	**Alt-EI** or **^I**
Ins/overwrite toggle	**^G** or **Ins**
Insert deleted text	**Alt-U** or **Alt-EU**
Insert live date	**Alt-AV** or **Shift-F2**

FUNCTION	KEY
Insert live time	**Alt-AX** or **Shift-F4**
Insert non-break space	**^F10**
Insert static date	**Alt-AD** or **Shift-F1**
Insert static time	**Alt-AT** or **Shift-F3**
Italics, begin	**^F5**
Italics, end	**^F6**
Join outline elements	**Alt-OJ** or **^J**
Jump to parent	**^PgUp**
Key, define	**Alt-AK** or **^K**
Key definition options	**Alt-AO**
Line, delete	**^Y**
Line feed, printer	**Alt-PL**
List windows	**Alt-WI** or **^Z**
Load existing outline	**Alt-FL**
Load outline new window	**Alt-WL**
Mark/Unmark	**Alt-OO** or **F2**
Marks, clear all	**Alt-F2**
Marks, copy	**Alt-OY** or **F9**
Marks, indent	**Alt-OI** or **F8**
Marks, move	**Alt-OV** or **Shift-F10**
Marks, promote	**Alt-OP** or **F7**
Menu display	**F10** or **Alt-*menu letter***
Move block	**Alt-EM** or **^B**
Move family	**Alt-WW** or **^W**
Move marks	**Alt-OV** or **Shift-F10**
Move outline elements	**Alt-OM** or **^M**
Move cursor word left	**^←**
Move cursor word right	**^→**
New outline elements	**Alt-OC** or **^N**
New window new outline	**Alt-WN**
Numbering, reset	**Alt-DU**
Numbering, skip	**Alt-DS**
Numbering, start new	**Alt-DN**
Page advance, printer	**Alt-PP**
Page break control	**Alt-EP**
Paragraph down	**Shift-PgDn**
Paragraph indent	**Alt-EI** or **^I**
Paragraph style	**Alt-DC** or **^T**
Paragraph up	**Shift-PgUp**
Place outline entry	**Alt-DP**
Print	**Alt-PG** or **^P**
Print code display	**Alt-PI**
Print destination	**Alt-PD**
Print range	**Alt-PR**

(continued)

FUNCTION	KEY
Printer formatting	**Alt-EO**
Promote current entry	**F5**
Promote marks	**Alt-OP** or **F7**
Quit PC-Outline	**Alt-FQ**
Read other file types	**Alt-FI**
Rename current outline	**Alt-FR**
Replace	**Alt-ER** or **^R**
Reset outline places	**Alt-DA**
Right margins, even	**Alt-DE**
Save outline	**Alt-FS** or **^S**
Show all children	**Alt-SF**
Show all children at level	**Alt-SB**
Show all family text	**Alt-SI**
Show all offspring	**Alt-SH**
Show all text at level	**Alt-SD**
Show entry's children	**Alt-SA**
Show text, current entry	**Alt-SC**
Show text, whole outline	**Alt-SE**
Show whole outline	**Alt-SG**
Sort outline entries	**Alt-OS**
Space, insert non-break	**^F10**
Start new outline	**Alt-FN**
Style, default set	**Alt-DD**
Style, global set	**Alt-DG**
Style, range set	**Alt-DR**
Subscript on	**^F7**
Subscript off	**^F8**
Superscript on	**Shift-F7**
Superscript off	**Shift-F8**
Switch to window number	**Alt-WT** or **Alt-1-9**
Tab set	**Alt-ET**
Time, insert live	**Alt-AX** or **Shift-F4**
Time, insert static	**Alt-AT** or **Shift-F3**
Title, add	**Alt-DT**
Top of file	**^Home** or **Shift-Home**
Underline, begin	**^F1**
Underline, end	**^F2**
Undelete	**Alt-Eu** or **Alt-U**
Unindent paragraph	**Alt-EX** or **^X**
Up one entry same level	**Shift-↑**
Window arrange	**Alt-WA**
Window close	**Alt-WC**
Window family copy	**Alt-WQ** or **^Q**

FUNCTION	KEY
Window family move	**Alt-WW** or ^**W**
Window list	**Alt-WI** or ^**Z**
Window move	**Alt-WM**
Window number, switch to	**Alt-WT** or **Alt-1–9**
Window size	**Alt-WS**
Window zoom	**Alt-WZ**
Word left	^-←
Word right	^-→
Zoom/unzoom toggle	**Gray –**
Zoom window	**Alt-WZ**