WORDSTAR

FOR DOS

Reference

WORDSTAR

F O R D O S

Reference

Version 7.0

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CHAPTER 11   EDITING SCREEN LAYOUT MENU _____ 11-1

*W*ORDSTAR 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.

*H*OW 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.

```
                              WordStar
menu bar →  File     Utilities    Additional                              Help



            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  PO4045.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.

```
                      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
├──────▶───────▶───────▶───────▶───────▶───────▶───────▶───────▶────────┤
                                                                              <▲
                    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 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     ^U 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.

Style bar
Ruler line
Title bar
Menu bar

```
                            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

                         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"
```

Status line
Flag column
Vertical scroll bar

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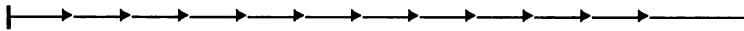
The initial ruler line settings in a document are those in the default paragraph style. The default settings are left margin at 0, right margin at 6.5 inches, and tab stops every .5 inch.

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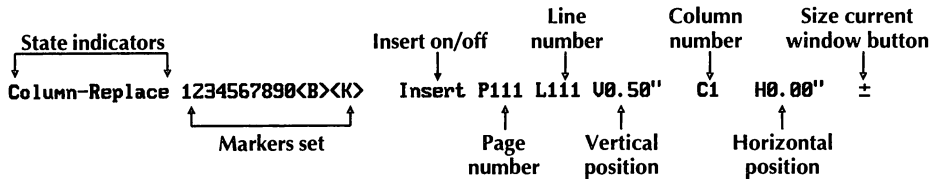
You can use a mouse with several status line options. You can click Insert to switch between Insert and Overtype. You can click the page number (for documents) or line number (for nondocuments) to display the Go to Page (or Line) dialog box, and you can click the beginning and end block markers and marker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

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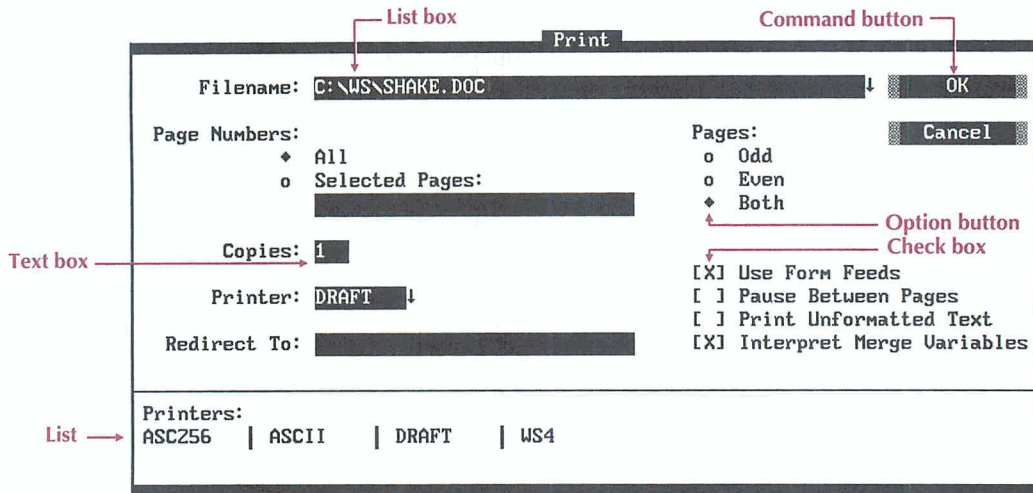
The list of printers below the dialog box is displayed because the cursor is in the list box; whenever you move the cursor to a list box, the corresponding list appears below the dialog box. The list shows the available choices, for example, for filenames or fonts.

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.

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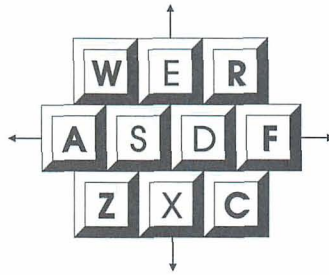
TO MOVE THE CURSOR	PRESS
Up one line	^E or ↑
Down one line	^X or ↓
Left one character	^S or ←
Right one character	^D or →
Left one word	^A or ^←
Right one word	^F or ^→
To column 1 in first onscreen line	^QE or Home
Beginning of file	^QR or ^Home
Right end of last onscreen line	^QX or End
End of file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

*U*SING 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).

*M*OUSE *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

*W*ORDSTAR 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.

*F*UNCTION 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*

*O*PENING 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
```

N_{EW}

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.

$O_{PEN\ DOCUMENT}$

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.

T I P *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."

---

*O*PEN NONDOCUMENT

<div align="right">

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

Classic: **N**

</div>

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.

T I P *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.
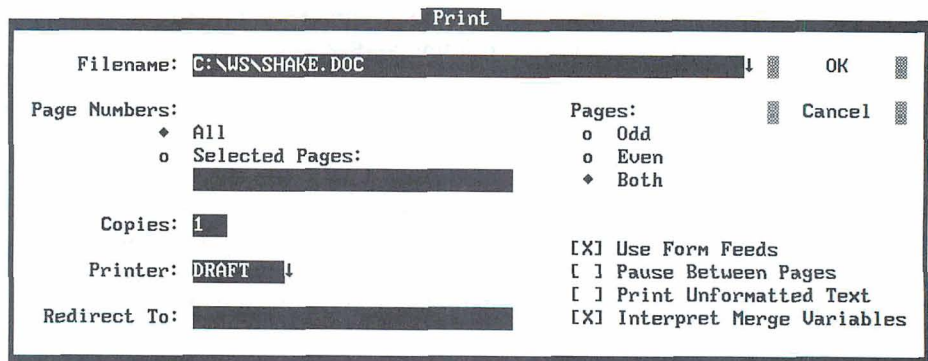
*P*RINT

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.

```
                            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
```

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.

T I P   *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.

---

*P*RINT 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                    ↓ ▒    OK    ▒

             Printer: DRAFT                                 ↓ ▒  Cancel  ▒

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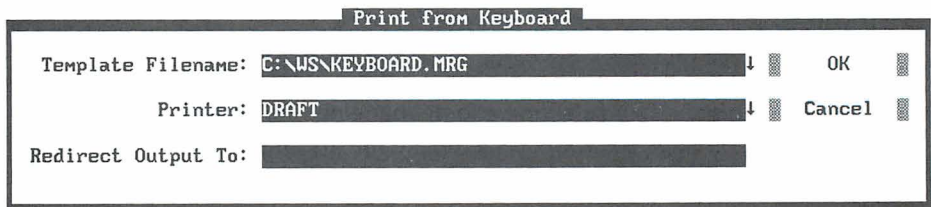
Template Filename   A sample template file (KEYBOARD.MRG) is included with WordStar. You can use that file or create a new one. More information is given below this list.

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)
```

*F*AX

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.

```
                                    ░Fax░
┌──────────────────────────────────────────────────────────────────────┐
│        File to Fax: C:\WS\SHAKE.DOC                        ↓    ▓  OK  ▓│
│                                                                        │
│ Fax File Location: C:\WS\FAX                                   ▓Cancel ▓│
│                                                                        │
│ Name of Fax File: SHAKE 001.PCX            Resolution:     ▓  View   ▓ │
│                                             o  Low                     │
│ Fax Page Numbers:                           ♦  High                    │
│   ♦  All                                    o  Special 300 dpi         │
│   o  Selected Pages: ▓▓▓▓▓▓▓▓▓▓▓▓           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 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

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

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.

---

*S*TATUS

<div align="right">

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

</div>

Displays the Status screen.

```
┌──────────────────────────── Status ────────────────────────────┐
│                                                                 │
│ Current Filename: (none)                        ▓ Continue ▓    │
│                                                                 │
│          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.

*O*PENING *SCREEN* *U*TILITIES *MENU*

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

```
Utilities

Index...        I
TOC...          T
Macros          ▶
```

---
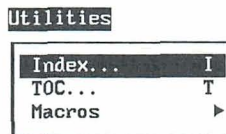
*I*NDEX

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

<div align="right">

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

</div>

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.

---

*M*ACROS

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.

```
Play...        MP
Record...      MR
Edit/Create... MD
Single Step... MS
Copy...        MO
Delete...      MY
Rename...      ME
```

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

<div align="right">Pull-down: ALT + U, M, R
Classic: MR</div>

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.

T I P   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.

T I P   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

<div align="right">

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

</div>

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**

*O*PENING SCREEN *A*DDITIONAL MENU

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

```
Additional
┌──────────────────┐
│ MailList      AM │
│ TelMerge      AT │
│ Star Exchange AS │
└──────────────────┘
```

---

*M*AILLIST

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.

T*ELMERGE*

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.

S*TAR 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.

*O*PENING 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

 Help                    F1
 Change Help Level...
```

---
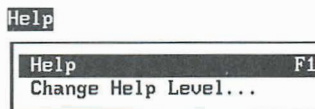
*H*ELP

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.

On the left vertical margin: OPENING SCREEN HELP MENU

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.

*C*HANGE 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).

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

*O*PEN/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.

*C*LOSE

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.

S_{AVE}

<div align="right">

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

</div>

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.

$S_{AVE\ AS}$

<div align="right">

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

</div>

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.

*S*AVE 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.*

*P*RINT

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.

```
                            ▄Print▄
  ┌──────────────────────────────────────────────────────────────┐
  │  Filename: REVIEW.DOC                              ↓ ▓  OK  ▓  │
  │                                                                │
  │ Page Numbers:                          Pages:     ▓ Cancel ▓   │
  │          ◆ All                           o  Odd               │
  │          o Selected Pages:               o  Even              │
  │            ███████████████████████       ◆  Both              │
  │                                                                │
  │    Copies: █                                                   │
  │                                        [X] Use Form Feeds      │
  │   Printer: DRAFT   ↓                   [ ] Pause Between Pages  │
  │                                        [ ] Print Unformatted Text │
  │ Redirect To: ██████████████████████    [X] 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.

*F*AX

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.

   T I P *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.

```
┌─────────────────────────────── Fax ───────────────────────────────┐
│                                                                    │
│      File to Fax: C:\WS\SHAKE.DOC                     ↓  ▓  OK  ▓   │
│                                                                    │
│  Fax File Location: C:\WS\FAX                            ▓ Cancel ▓ │
│                                                                    │
│  Name of Fax File: SHAKE 001.PCX         Resolution:    ▓  View  ▓ │
│                                            o  Low                   │
│  Fax Page Numbers:                         ♦  High                 │
│     ♦  All                                 o  Special 300 dpi       │
│     o  Selected Pages: ▓▓▓▓▓▓▓▓▓▓▓▓▓       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."

*C*HANGE 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).

---

*C*OPY

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

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

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.

C A U T I O N   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

Displays the Status screen.

```
┌──────────────────────────── Status ─────────────────────────────┐
│                                                                  │
│  Current Filename: C:\WS\SHAKE.DOC                 ▒ Continue ▒   │
│                                                                  │
│       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.

*E*XIT 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.

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: $^\wedge U$

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 $^\wedge U$ 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, $^\wedge G$, or $^\wedge H$ (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"

*M*ARK 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.

*M*OVE

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

Deletes text.

```
┌──────────────────────────────────┐
│ Block                        ^KY │
│ Word                         ^T  │
│ Line                         ^Y  │
│ Line Left of Cursor  ^QDel       │
│ Line Right of Cursor    ^QY      │
│ To Character...         ^QT      │
└──────────────────────────────────┘
```

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.

T I P   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.
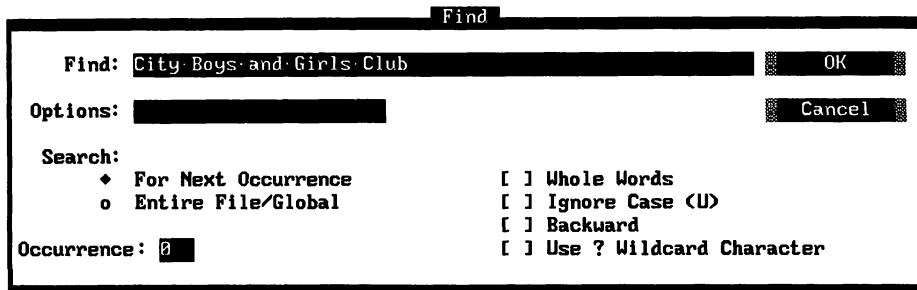
```
                              ▄▄▄▄▄▄
                              █Find█
┌─────────────────────────────────────────────────────────────┐
│                                                              │
│   Find: City·Boys·and·Girls·Club                ███  OK  ███  │
│                                                              │
│ Options: ████████████████████             ███ Cancel ███     │
│                                                              │
│   Search:                                                    │
│         ◆  For Next Occurrence          [ ] Whole Words      │
│         o  Entire File/Global           [ ] Ignore Case (U)  │
│                                         [ ] Backward         │
│ Occurrence: ▓█                          [ ] 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.

*F*IND 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 and Replace ───────────────────────┐
│                                                                 │
│     Find: Cheryl Matthews                            ▓  OK  ▓   │
│                                                                 │
│  Replace: Cheryl Denton                              ▓ Cancel ▓ │
│                                                                 │
│  Options: A                                                     │
│                                      [X] Align                  │
│  Search:                             [ ] Don't Ask              │
│        ◆   For Next Occurrence       [ ] Whole Words            │
│        o   Entire File/Global        [ ] Ignore Case (U)        │
│        o   Rest of File              [ ] Maintain Case          │
│                                      [ ] Backward               │
│  Replace  0   Occurrences            [ ] Use ? Wildcard Character│
│                                                                 │
└─────────────────────────────────────────────────────────────────┘
```
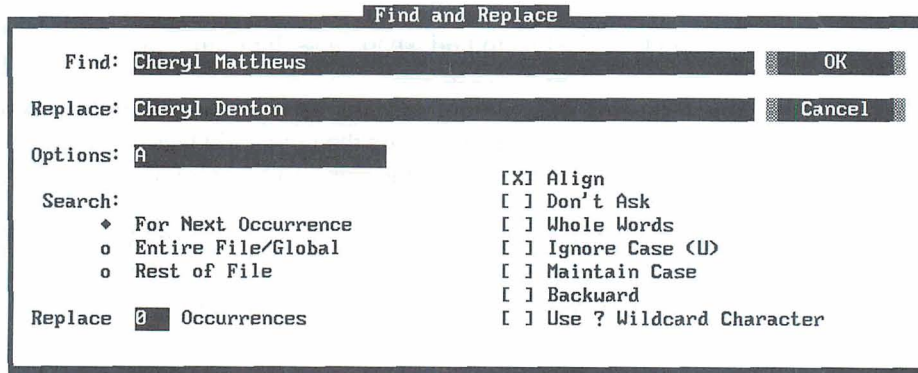
3   Type the replacement text.

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.

**T I P**   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           ^QU
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.

---

*E*DIT NOTE

<div align="right">

Pull-down: **ALT + E, N**
Classic: **^OND**

</div>

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...     │
│ Convert Note...          ^ONU   │
│ Convert at Print...       .cv   │
│ Endnote Location          .pe   │
└─────────────────────────────────┘
```

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

<div align="right">

Pull-down: **ALT + E, T, C**
Classic: **^ONV**

</div>

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

<div align="right">

Pull-down: **ALT + E, T, P**
Classic: **.CV**

</div>

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.

*E*NDNOTE 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."

*E*DITING SETTINGS

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.

*C*OLUMN BLOCK MODE

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.

*A*UTO ALIGN

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*

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).

*E*DITING 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

Displays the document onscreen exactly as it will appear printed.
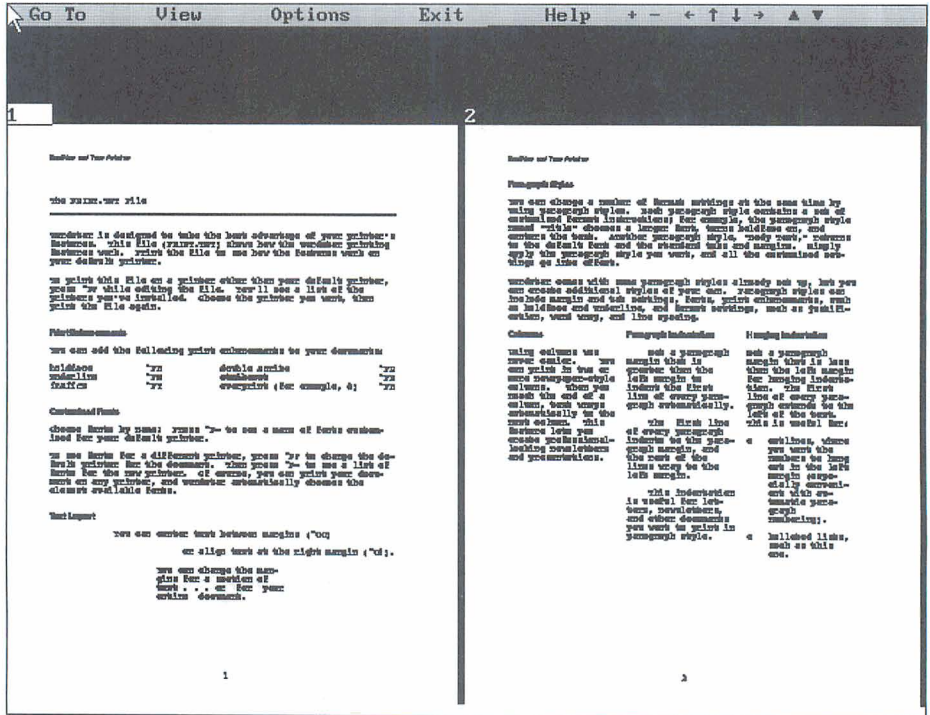
When you start Preview, you see the current page onscreen, with columns, headers, footers, footnotes, fonts, line spacing, and so on. At the top of the screen is the Preview menu bar. The commands on the Preview menus let you move around in your document and change your view of the document. You can 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

Previews another page.

```
Go To

Specified Page ...
First Page
Last Page
Next Page
Previous Page
```
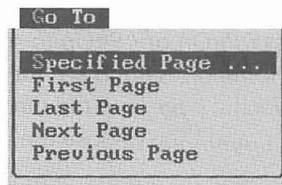
To display the first, last, next, or previous page, choose the appropriate option. To preview a specific page, choose Specified Page, type the page number and press Enter. Preview goes to the specified physical page and ignores any page number commands you may have set. If Preview is displaying more than one page, the page you specify will be the first page at the top of the screen.

VIEW

Previews the document from any of several perspectives.

```
View

Entire Page
Facing Pages
Multiple Pages
Thumbnail Display
2x Zoom
4x Zoom
Adjust Window ...
```
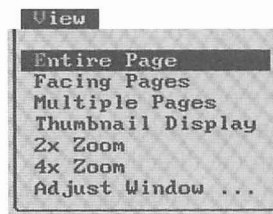
Entire Page   Displays the entire current page, the same view as when you first choose Preview.

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.

T I P   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.

T I P   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

*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.

*T I P   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 docu-
ment. 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 informa-
tion 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, .G*n*$ 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.

*C*OMMAND 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.

T I P 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.

*C*HANGE *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:          Display On Screen:  ▓ OK ▓ │
│  o  Always On                                    │
│  ◆  Display with Command Tags  [X] Scroll Bar  ▓ Cancel ▓ │
│                                                  │
│  Flag Column:           [X] Style Bar            │
│  o  Always On                                    │
│  ◆  Display with Command Tags  [X] Status Line   │
│                                                  │
│  Soft Space Dots:       [X] Ruler Line           │
│  o  Always On                                    │
│  ◆  Always Off          [X] Classic Commands on  │
│  o  Display with Command Tags     Pull-down Menus │
│                                                  │
└──────────────────────────────────────────────────┘
```
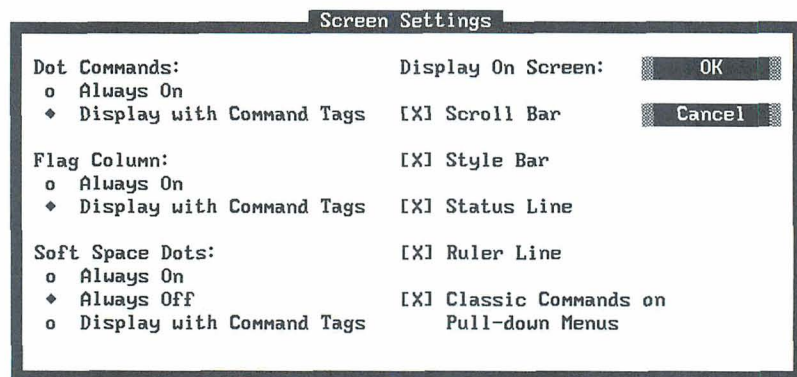
Dot Commands   Dot commands can be always displayed or turned on and off with Command Tags (the default). If display of dot commands is off and you type a dot in column one, the new dot command disappears after you press Enter. You can change the default in WSCHANGE (DBAE).

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.

*E*DITING 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...          │
└─────────────────────────────────┘
```

*P*AGE BREAK

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."

*C*OLUMN BREAK

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."

---

*T*ODAY'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.

---

*O*THER 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.

*V*ARIABLE

Inserts a predefined variable into the text.

```
┌─────────────────┐
│ Date      &@&   │
│ Time      &!&   │
│ Page      &#&   │
│ Line      &_&   │
│ Filename  &×&   │
│ Drive     &:&   │
│ Directory &.&   │
│ Path      &\&   │
└─────────────────┘
```

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."

*E*XTENDED CHARACTER

Pull-down: **ALT + I, E**
Classic: **^P0**

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 ö.

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 sup-
plied 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 draw-
ing 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 con-
sists 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.

*C*USTOM 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".

---

*F*ILE

<div align="right">

Pull-down: **ALT + I, F**
Classic: **^KR**

</div>

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.*

*F*ILE 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

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.

```
┌──────────────────────── Convert Graphic ─────────────────────────┐
│                                                                   │
│  The graphic you have chosen is not in WordStar format.    ▓  OK  ▓│
│  WordStar will convert the graphic to .PIX format.                │
│                                                            ▓ Cancel ▓│
│   Original Filename:  C:\WS\INSET\HERON.PCX                        │
│                                                                   │
│  Converted Filename:  C:\WS\INSET\HERON.PIX                       │
│                                                                   │
│  Conversion Options:                                     | Options | │
│   ◆  Use Settings in File                                         │
│   o  Use Settings on Options Screen                               │
│                                                                   │
└───────────────────────────────────────────────────────────────────┘
```
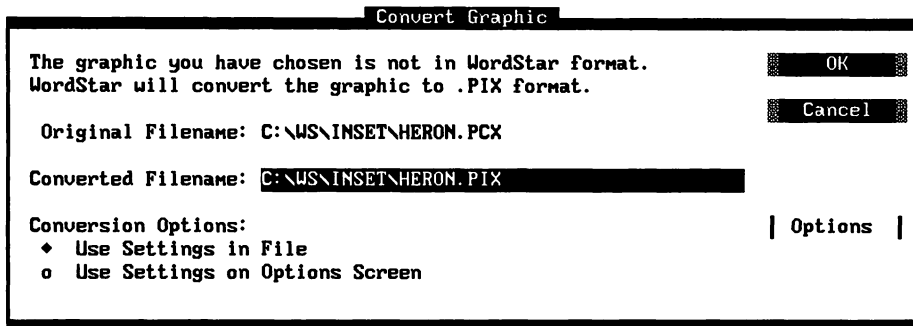
The options on the Convert Graphic Options dialog box are described below:

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 iden-
tified; 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 con-
vert 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 con-
verting 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...      ^ONC   │
│ Footnote...     ^ONF   │
│ Endnote...      ^ONE   │
│ Annotation...   ^ONA   │
└────────────────────────┘
```

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

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."

*I*NDEX/*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...           .tc   │
│ Index Entry...         ^ONI  │
│ Mark Text for Index ^PK      │
│ Dot Leader to Tab      ^P.   │
└──────────────────────────────┘
```

*T*OC *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."

*D*OT *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.

*P*AR. *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.

---

*C*HANGE 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.

*E*DITING 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...                      │
└─────────────────────────────────┘
```
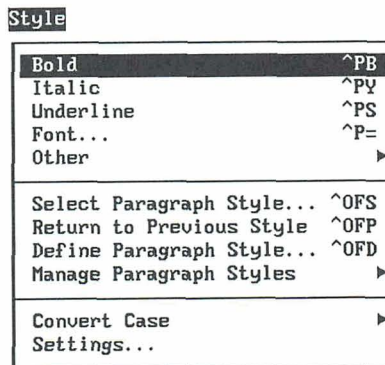
*B*OLD

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.

*I*TALIC

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.

---

*U*NDERLINE

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.)

---

*F*ONT

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.

---

*O*THER

Lets you use strikeout, subscript, superscript, double strike, and colors or shadings.

Strikeout	^PX
Subscript	^PU
Superscript	^PT
Double Strike	^PD
Color/Shading...	^P–

*S*TRIKEOUT

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.

T I P   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              ↓       Left Margin:   .00"    ┌────────┐ │
│                                      1st Line Indent: none     │   OK   │ │
│    Font: Courier 10 PC          ↓      Right Margin:  6.50"    └────────┘ │
│                                                               ┌────────┐ │
│ Leading:   .17"  (Line Height)         Line Spacing: 1       │ Cancel │ │
│                                                               └────────┘ │
│    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│
└─────────────────────────────────────────────────────────────────┘
```

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

<div align="right">Pull-down: ALT + S, E</div>

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).

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	^OJ
Ruler Line...	^OL
Columns...	^OU
Page...	^OY
Headers/Footers	▶
Page Numbering...	^O#
Line Numbering...	.1#
Alignment and Spacing...	^OS
Special Effects	▶

*C*ENTER 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.

*R*IGHT 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."

*R*ULER 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.

```
┌─────────────────── Ruler Line ───────────────────┐
│                                                   │
│  Left Margin: [ .00"]   1st Line Indent: [      ] │ [    OK    ] │
│                                                   │
│ Right Margin: [6.50"]                             │ [  Cancel  ] │
│                                                   │
│    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.

T I P   *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 over-printed 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.

one column ⟶

⟵ two columns
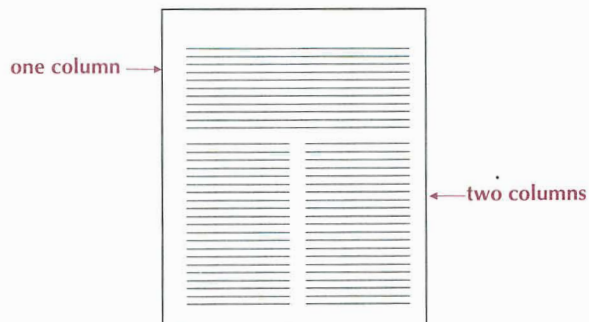
This command sets up newspaper-style columns. The text starts in the first *column*, and when that column is filled, the text wraps to the next column. When you fill the last column on the page, the text wraps to the next page. When you add or delete text and reformat the document, WordStar adjusts the 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.

```
                    Column Layout
       Number of Columns: 1            OK

  Space Between Columns:  .25"       Cancel

      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.

P_{AGE}

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 ─────────────────────────────────────┐         │
│ │                                                │  ▓ OK ▓ │
│ │ Odd Offset:  .80"   Top:  .50"   Header:  .33" │         │
│ │                                                │ Cancel  │
│ │ 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.

M_{ARGINS}

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

bottom
margin

footer
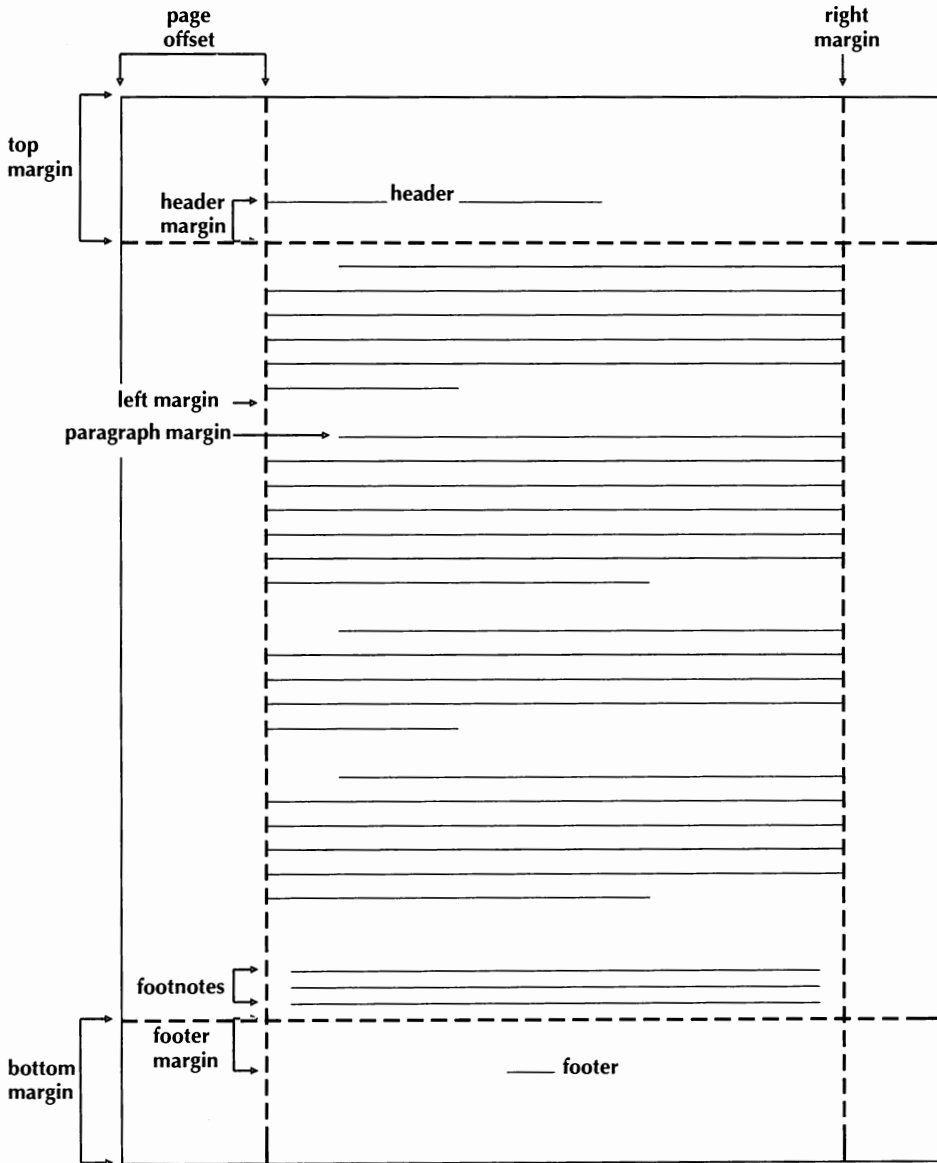
For each option you want to change, type the new setting. You can set the margins to .01 inch accuracy; for example, the top margin setting can be 1.25". You can specify a unit of measurement other than inches by typing the symbol after the number: **r** for ruler units (columns for horizontal settings 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.

even page   odd page
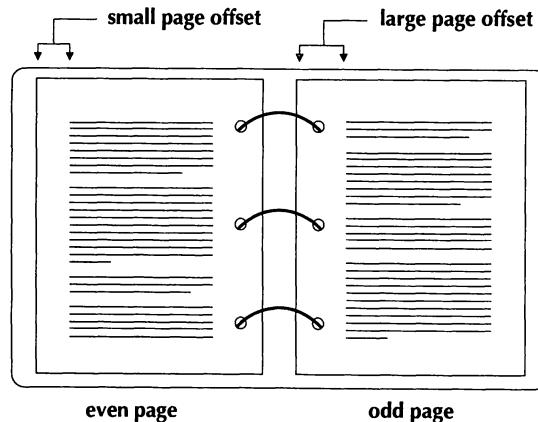
The page offset and left margin settings together determine the distance between the edge of the page and the text. In other words, if the page offset is .8 inch, and you set the left margin to .2 inch, the text is printed 1 inch from the edge of the page.

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.
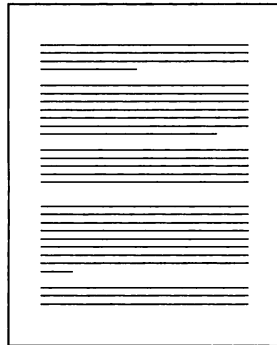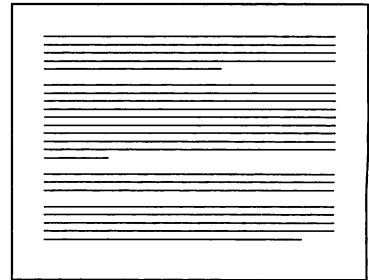
portrait	landscape

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).

*H*EADERS/FOOTERS

Inserts a header or footer into the document.

When you choose Headers/Footers, the following menu appears.

```
Header...  .he
Footer...  .fo
```
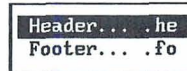
*H*EADER

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.

```
.hlo                          Chapter 1
.hle The Gray Cat
```
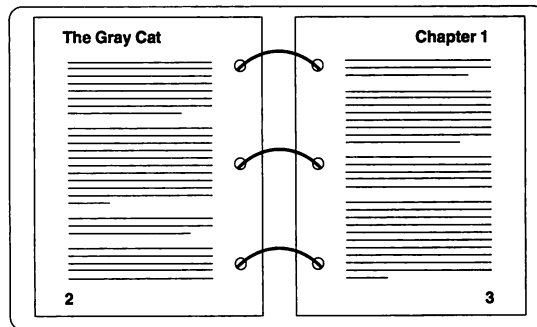

To delete a header, delete the header dot command line or lines. To stop using a header for subsequent pages, insert the same dot command that began it, without any text.

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.

*P*AGE NUMBERING

Pull-down: $ALT + L, N$
Classic: $^{\wedge}O\#$

***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.

```
┌──────────────── Page Numbering ────────────────┐
│                                                 │
│  [X] Print Page Numbers          ▓▓▓ OK ▓▓▓     │
│                                                 │
│  Set Page Number:  1             ▓ Cancel ▓     │
│                                                 │
│  Position on Line: ◆  Centered                  │
│                    o  ▓▓▓▓▓  From Left Margin    │
│                                                 │
└─────────────────────────────────────────────────┘
```
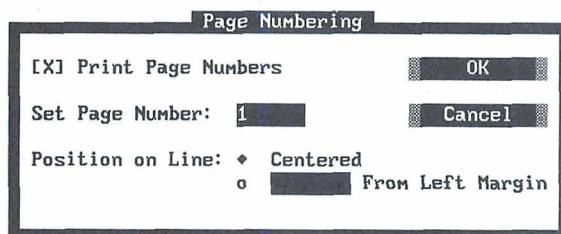
Print Page Numbers   Clear this option if you don't want page numbers to be printed. Select it if you want to resume printing page numbers.

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.

*L*INE 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.

```
┌────────────────── Line Numbering ──────────────────┐
│                                                     │
│  [ ] Use Line Numbering     Spacing:      ▓▓  OK  ▓▓│
│                               ♦  Single             │
│                               o  Double   ▓ Cancel ▓│
│  Numbering Style:                                   │
│    ♦  Numbers Restart on Each Page                  │
│    o  Continuous Numbering Throughout Document      │
│                                                     │
│  Print Line Numbers █/10" to the Left of the Left Margin │
│                                                     │
└─────────────────────────────────────────────────────┘
```
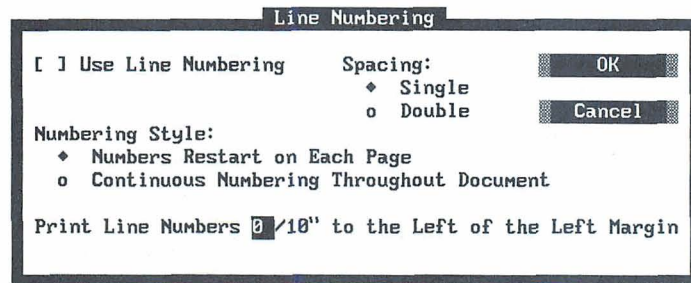
Use Line Numbering   Select this box to turn on line numbering, or clear it to turn it off.

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.

T I P   *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.

---

*A*LIGNMENT 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: █   Leading: ▓ .17" ▓  (Line Height)     │
│                                                        │
└────────────────────────────────────────────────────────┘
```
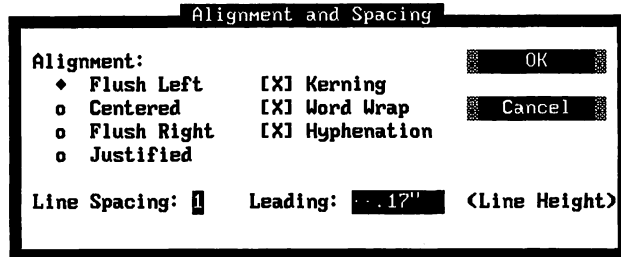
3 Press F10 or choose OK.

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.*

*O*VERPRINT 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.

*O*PTIONAL 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.

*E*DITING 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
```

*S*PELLING CHECK GLOBAL

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 com-
mands 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
```
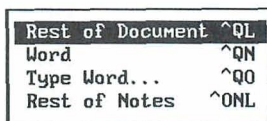
REST OF DOCUMENT

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        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.

WORD

<div align="right">

Pull-down: **ALT + U, O, W**

Classic: **^QN**

</div>

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.
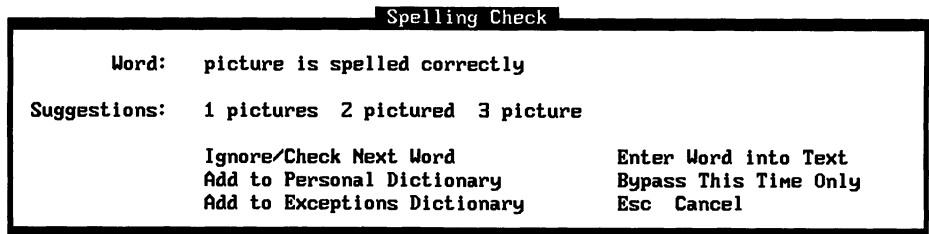
```
                        Spelling Check

      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

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.

*L*ANGUAGE 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.

*I*NSET

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.

```
┌─────────────────────── Calculator ───────────────────────┐
│                                                           │
│  Enter Mathematical Expression to be Calculated:  ░░ OK ░░│
│  ████████████████████████████████████████████████        │
│                                                   ░ Cancel░│
│  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│
│                                                           │
└───────────────────────────────────────────────────────────┘
```
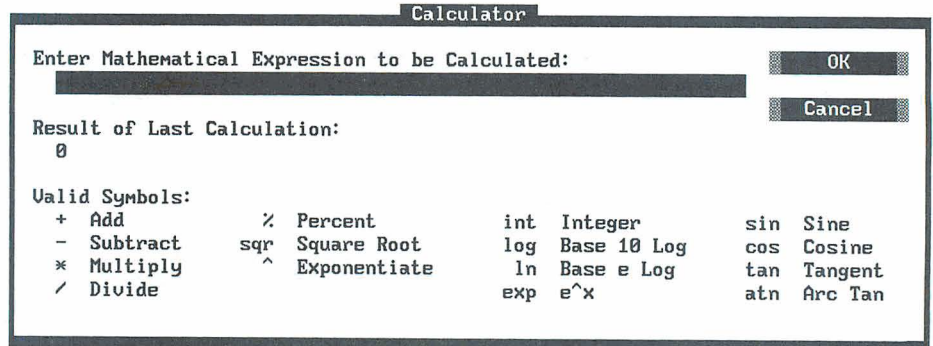
2   In the Calculator dialog box, type the expression you want to evaluate and press Enter or choose OK. (Do not type an equal sign at the end of the expression.) You can use ^R to reenter the previous expression so that you can edit and recalculate it. More information about notation is given after 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.

---

*B*LOCK *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.

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.

T I P   *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.

---

*W*ORD/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

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.

```
Play...         ^MP
Record...       ^MR
Edit/Create...  ^MD
Single Step...  ^MS
Copy...         ^MO
Delete...       ^MY
Rename...       ^ME
```

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.

T I P   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 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).

*P*LAY

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.)

*R*ECORD

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

<div align="right">

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

</div>

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

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

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 sub-routine 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, addi-tional user input may be required before the macro can go on to the next func-tion. 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 condi-tion, 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.

*N*AME *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 docu-
ment 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."
```

*S*ET 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.

*I*F

<div align="right">

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

Classic: **.IF**

</div>

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 non-numerals.

```
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**).

*E*LSE

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.

*E*ND 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.

T I P   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.

T I P   *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.*

*P*RINT 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.

---

*R*EFORMAT

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.

*R*EPEAT 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
        ┌────────────────────────────────┐
        │ Help                        F1 │
        │ Change Help Level...           │
        └────────────────────────────────┘
```

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.

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*C*HANGE 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).

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 in-

formation 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.

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	DEC	HEX	MNEM	CTRL	CHAR
000	00	NUL	^@		016	10	PLE	^P	▶
001	01	SOH	^A	☺	017	11	DC1	^Q	◀
002	02	STX	^B	☻	018	12	DC2	^R	↕
003	03	ETX	^C	♥	019	13	DC3	^S	‼
004	04	EOT	^D	♦	020	14	DC4	^T	¶
005	05	ENQ	^E	♣	021	15	NAK	^U	§
006	06	ACK	^F	♠	022	16	SYN	^V	▬
007	07	BEL	^G	•	023	17	ETB	^W	↕
008	08	BS	^H	◘	024	18	CAN	^X	↑
009	09	HT	^I	○	025	19	EM	^Y	↓
010	0A	LF	^J	◙	026	1A	SUB	^Z	→
011	0B	VT	^K	♂	027	1B	ESC	^[	←
012	0C	FF	^L	♀	028	1C	FS	^\	∟
013	0D	CR	^M	♪	029	1D	GS	^]	↔
014	0E	SO	^N	♫	030	1E	RS	^^	▲
015	0F	SI	^O	☼	031	1F	US	^_	▼

Key: **Dec** = Decimal **Hex** = Hexadecimal **Mnem** = Mnemonic **Ctrl** = Control code **Char** = ASCII character

CODE PAGE 437

DEC	HEX	CHAR	DEC	HEX	CHAR	DEC	HEX	CHAR
032	20		069	45	E	106	6A	j
033	21	!	070	46	F	107	6B	k
034	22	"	071	47	G	108	6C	l
035	23	#	072	48	H	109	6D	m
036	24	$	073	49	I	110	6E	n
037	25	%	074	4A	J	111	6F	o
038	26	&	075	4B	K	112	70	p
039	27	'	076	4C	L	113	71	q
040	28	(	077	4D	M	114	72	r
041	29	)	078	4E	N	115	73	s
042	2A	*	079	4F	O	116	74	t
043	2B	+	080	50	P	117	75	u
044	2C	,	081	51	Q	118	76	v
045	2D	-	082	52	R	119	77	w
046	2E	.	083	53	S	120	78	x
047	2F	/	084	54	T	121	79	y
048	30	0	085	55	U	122	7A	z
049	31	1	086	56	V	123	7B	{
050	32	2	087	57	W	124	7C		
051	33	3	088	58	X	125	7D	}
052	34	4	089	59	Y	126	7E	~
053	35	5	090	5A	Z	127	7F	n/a
054	36	6	091	5B	[	128	80	Ç
055	37	7	092	5C	\	129	81	ü
056	38	8	093	5D	]	130	82	é
057	39	9	094	5E	^	131	83	â
058	3A	:	095	5F	_	132	84	ä
059	3B	;	096	60	`	133	85	à
060	3C	<	097	61	a	134	86	å
061	3D	=	098	62	b	135	87	ç
062	3E	>	099	63	c	136	88	ê
063	3F	?	100	64	d	137	89	ë
064	40	@	101	65	e	138	8A	è
065	41	A	102	66	f	139	8B	ï
066	42	B	103	67	g	140	8C	î
067	43	C	104	68	h	141	8D	ì
068	44	D	105	69	i	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	DEC	HEX	CHAR	DEC	HEX	CHAR
032	20		069	45	E	106	6A	j
033	21	!	070	46	F	107	6B	k
034	22	"	071	47	G	108	6C	l
035	23	#	072	48	H	109	6D	m
036	24	$	073	49	I	110	6E	n
037	25	%	074	4A	J	111	6F	o
038	26	&	075	4B	K	112	70	p
039	27	'	076	4C	L	113	71	q
040	28	(	077	4D	M	114	72	r
041	29	)	078	4E	N	115	73	s
042	2A	*	079	4F	O	116	74	t
043	2B	+	080	50	P	117	75	u
044	2C	,	081	51	Q	118	76	v
045	2D	-	082	52	R	119	77	w
046	2E	.	083	53	S	120	78	x
047	2F	/	084	54	T	121	79	y
048	30	0	085	55	U	122	7A	z
049	31	1	086	56	V	123	7B	{
050	32	2	087	57	W	124	7C		
051	33	3	088	58	X	125	7D	}
052	34	4	089	59	Y	126	7E	~
053	35	5	090	5A	Z	127	7F	n/a
054	36	6	091	5B	[	128	80	Ç
055	37	7	092	5C	\	129	81	ü
056	38	8	093	5D	]	130	82	é
057	39	9	094	5E	^	131	83	â
058	3A	:	095	5F	_	132	84	ä
059	3B	;	096	60	`	133	85	à
060	3C	<	097	61	a	134	86	å
061	3D	=	098	62	b	135	87	ç
062	3E	>	099	63	c	136	88	ê
063	3F	?	100	64	d	137	89	ë
064	40	@	101	65	e	138	8A	è
065	41	A	102	66	f	139	8B	ï
066	42	B	103	67	g	140	8C	î
067	43	C	104	68	h	141	8D	ì
068	44	D	105	69	i	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	β
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	Đ	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	╒			

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."

*T*HE 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."

*T*YPES 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)}.

*S*HIFTED 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}.

*K*EYSTROKES 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.

*K*EYSTROKES 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	

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

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.

Pull-down Commands

Classic Opening Screen Commands

Classic Editing Screen Commands

Dot Commands

NOTES

WORDSTAR.