

# WORDSTAR



F O R D O S

Installing and Customizing

# WORDSTAR®

F O R D O S

Installing and Customizing

Version 7.0

### **Copyright Notice**

Copyright © 1992 WordStar International Incorporated. All rights reserved.

No part of this publication may be copied or distributed, transmitted, transcribed, stored in a retrieval system, or translated into any human or computer language, in any form or by any means, electronic, mechanical, magnetic, manual, or otherwise, or disclosed to third parties without the express written permission of WordStar International Incorporated, 201 Alameda del Prado, P.O. Box 6113, Novato, California 94948 U.S.A.

### **Trademark Notice**

WordStar and TelMerge are registered trademarks, and MailList and ProFinder are trademarks of WordStar International Incorporated. Inset is a registered trademark of Inset Systems, Inc. Star Exchange is a trademark of Systems Compatibility Corporation. All other product names in this publication are trademarks or registered trademarks of their respective owners.

# CONTENTS

<b>INTRODUCTION</b>	v
<b>CHAPTER 1 INSTALLING WORDSTAR</b>	1-1
Using WSSETUP	1-1
Starting and Exiting WordStar	1-3
Modifying the CONFIG.SYS File	1-4
The Files= Statement	1-4
The Stacks= Statement	1-4
Installing Companion Programs	1-5
Using COPYWS to Decompress a Single File	1-5
README—For the Latest Information	1-5
<b>CHAPTER 2 CUSTOMIZING WORDSTAR</b>	2-1
Finding Information in this Section	2-1
Starting WINSTALL	2-3
The WINSTALL Menu	2-3
Installing a Monitor	2-4
Setting Basic Editing Defaults	2-5
Adding or Removing a Feature	2-6
Installing a Printer	2-7
Customizing Your Printer in PRCHANGE	2-10
Modifying a PDF	2-11
Deleting a PDF	2-15
Adding Fonts to a PDF	2-16
Notes on Laser Printers	2-23
Setting Margins	2-23
Using Printer-language Program Files	2-23

Overprinting a Page	2-24
HP LaserJet and Compatible Printers	2-24
Postscript Printers	2-25
Troubleshooting Printing Problems	2-27
Managing Your Computer's Memory	2-33
Using EMS	2-33
Increasing Available Memory	2-33
Changing WordStar Settings in WSCHANGE	2-34
WSCHANGE Menu Structure	2-35
Getting Around in WSCHANGE	2-36

### **CHAPTER 3 ADVANCED CUSTOMIZING** 3-1

Fine-tuning Preview	3-1
Editing the FONTID.CTL File	3-2
Adjusting the Screen Font Display	3-5
Creating Screen Fonts for Fax Files	3-10
Selecting a Symbol Set	3-10
Using DISPFONT to Create Fonts	3-11
Patching WordStar	3-13
About the User Area	3-14
About the PATCH.LST File	3-14
Using Patching Menus	3-15
Creating and Editing Patch Files	3-17
Transferring Customizations Using the Auto-patcher	3-19
WordStar and its Paths	3-20
Primary and Secondary Paths	3-21
Using PDFEDIT	3-23
Entering Printer Codes	3-24
Editing Custom and Simple PDFs	3-24
Getting Around in PDFEDIT	3-24

### **INDEX** Index-1

# INTRODUCTION

If you're upgrading from a previous release or revision of WordStar, be sure to read the booklet "Upgrading from a Previous Release" before you install WordStar 7.0.

This booklet includes the following sections:

- "Installing WordStar" tells you how to install WordStar. This section also tells you how to start and exit WordStar, how to view the README file, and how to decompress a single file from the compressed program disks in your package.
- "Customizing WordStar" tells you how to modify your printer installation and WordStar settings to suit your particular needs. This section includes a list of the paths you can take in WSCHANGE (the WordStar customizing option) to change various settings in WordStar.
- "Advanced Customizing" provides more advanced procedures for customizing WordStar, such as fine-tuning Preview, patching WordStar, and using the PDFEDIT option. Only advanced WordStar users should use these procedures.

# INSTALLING WORDSTAR

This section tells you how to install WordStar using WSSETUP, the WordStar setup program. You'll need the disks that came in your WordStar package. Then follow the instructions below to install WordStar.

---

## USING WSSETUP

Most hard disk computers have a floppy disk drive named A and a hard disk drive named C. If your drives are named differently, make the appropriate substitutions in the instructions below.

- 1 Turn on your computer.
- 2 When C appears on the screen, put the Installation disk in drive A.
- 3 Type **a:** and press Enter.
- 4 Type **wssetup** and press Enter. As you install WordStar, read the instructions on the screen.

## INSTALLING WORDSTAR

- 5 You may be asked if you want to modify the CONFIG.SYS file. If so, follow the onscreen instructions to modify the file, and be sure to reboot your computer. When you finish, restart WSSETUP by following steps 2, 3, and 4 above. If you are not asked to modify the CONFIG.SYS file, go to step 6.
- 6 At the Serial Number screen, type the serial number for your copy of WordStar. Press **F10** to continue.
- 7 At the Disk Drive Names screen, press **F10** to install WordStar in the WS directory on drive C.
- 8 At the Add or Remove a Feature screen, copy your disks. WordStar, Dictionaries, and Preview are already marked with a plus sign (+) for copying. These features contain the main program files for word processing. Highlight and mark any other features you want. Press the **PgDn** key to see the complete list. Be sure to mark Printer Data Files and choose the printer(s) you're going to install.

Note: When a feature is followed by three dots, it means you can copy all options or selected options. If a feature is already marked with a +, press Enter to see the options.

When you finish marking features, press **F10** to start copying, and follow the onscreen instructions for inserting disks.

- 9 Install your monitor and choose the default colors for your type of monitor. If you have a monochrome graphics monitor or if your monitor doesn't display underlined characters, choose the alternate monochrome display option.
- 10 Install your printer. You can install one printer in WSSETUP. That printer becomes your default printer, the one assigned to print your documents. (If you have other printers, you can install them later.) When you name your printer description file (PDF) at the Installed Printer Menu, choose a name that suits your printer. Don't choose ASCII, ASC256, DRAFT, or WS4.

For more information about printer installation, see "Installing a Printer" in the "Customizing WordStar" section of this booklet.

When you finish installing your printer and you're back at the Installed Printer Menu, press **F10** to save your PDF.



- 11 At the Summary screen, read the information and press **F10** to return to DOS. Remove Disk 1 from drive A.

When the DOS prompt appears, you can start WordStar.

Later on, you may decide to add more features, change WordStar settings, or install another printer. To make additional changes to WordStar, use WINSTALL, the WordStar program that contains options for additional installation and customization. For more information about WINSTALL, see "Customizing WordStar" in this booklet.

---

## *STARTING AND EXITING WORDSTAR*

Once you've installed WordStar, here's how to start and exit the program each time you want to use it:

- 1 Turn on your computer.
- 2 Log on to the directory containing your WordStar files. For example, if WordStar is in the WS directory, type `cd\ws` and press Enter.
- 3 Type `ws` and press Enter.
- 4 Press **F** to see the File Menu and begin using WordStar.
- 5 When you want to exit WordStar, go back to the Opening screen and press **X**.

If you have any problems starting WordStar, see "Modifying the CONFIG.SYS File" below.

## ***MODIFYING THE CONFIG.SYS FILE***

### ***THE FILES= STATEMENT***

During WSSETUP, WordStar checks the FILES= statement in your CONFIG.SYS file to see if it is correct for your DOS version and WordStar. If the FILES= statement needs to be changed, WSSETUP asks if you want the CONFIG.SYS file to be modified. If you respond "No" to that question, you'll have to go into the CONFIG.SYS file and make the changes yourself.

WSSETUP may continue to prompt you to modify the CONFIG.SYS file, even though the FILES= statement is correct for your DOS version. This happens when memory-resident programs or other items in your AUTOEXEC.BAT file don't leave WordStar enough room to run correctly.

To solve this problem:

- If you have DOS 3.0 or later, increase the FILES= statement in increments of five (rebooting after each increment) until the CONFIG.SYS prompt no longer appears when you run WSSETUP. Probably one increase will be enough. A second option is to remove any memory-resident programs from your AUTOEXEC.BAT file.
- If you have DOS 2.*n* or earlier, FILES=20 is the maximum that can be stated in the CONFIG.SYS file. If the CONFIG.SYS prompt continues to appear, even though you have a FILES=20 statement, remove all memory-resident programs from your AUTOEXEC.BAT file. (In a normal DOS 2.*n* environment, FILES=20 is enough to run WordStar properly.)

If you want to bypass the FILES= check in WSSETUP, type **wsetup /z** at the DOS prompt and press Enter. Then WSSETUP will run without verifying your FILES= statement. This method is recommended only if you're sure the FILES= statement is adequate for your needs.

### ***THE STACKS= STATEMENT***

If you get a DOS error message like *Stack Overflow* or *Divide Overflow*, and you're using DOS 3.2 or later, try adding STACKS=20,256 to your CONFIG.SYS file.

---

## ***INSTALLING COMPANION PROGRAMS***

If you want to add a companion program such as MailList™ or Star Exchange, you can use the Add or remove a feature option in WINSTALL. For more information, see “Add or remove a feature” under “The WINSTALL Menu” in “Customizing WordStar.”

---

## ***USING COPYWS TO DECOMPRESS A SINGLE FILE***

The disks in your WordStar package are compressed. If you need to replace a single file, you can decompress the file from the appropriate compressed disk. To decompress and copy a single file from a compressed disk, follow the instructions below.

- 1** Insert Disk 1 from your WordStar package into drive A. Log on to drive A.
- 2** At the A prompt, type **copyws a: c:\ws filename**, where *filename* is the name of the file you want to decompress, and press Enter. The program tells you what disk to insert.
- 3** Follow the onscreen instructions.

---

## ***README—FOR THE LATEST INFORMATION***

The README file contains information about WordStar that became available after the manuals were printed. To view README, make sure you're in the WordStar directory. Type **readme.bat** and press Enter. Use regular WordStar commands to move around in or print the README file.

# *CUSTOMIZING WORDSTAR*

After you install WordStar, you can customize it by changing some of its settings to suit your particular needs. For example, you might want to change the colors displayed in WordStar, or change the printer port selection for your printer.

You used WSETUP to install WordStar. To customize WordStar, you use WINSTALL. WINSTALL offers options for customizing WordStar and installing additional features.

To find the information you need to customize WordStar using WINSTALL, see the chart on the next page.

## ***FINDING INFORMATION IN THIS SECTION***

The following chart shows some of the items you can change in WINSTALL, and which sections in this chapter to refer to for instructions.

TOPIC	WHERE TO FIND IT
AUTOEXEC.BAT file	Setting Basic Editing Defaults
Color settings	Changing WordStar Settings in WSCCHANGE
CONFIG.SYS file	Setting Basic Editing Defaults
Converting files	Adding or Removing a Feature
Custom printer code	Installing a Printer
Default printer	Setting Basic Editing Defaults
Dialog boxes (Enter key)	Setting Basic Editing Defaults
Directory (initial logged)	Setting Basic Editing Defaults
Disk drives	Changing WordStar Settings in WSCCHANGE
Downloading fonts	Customizing Your Printer in PRCHANGE
Fonts	Customizing Your Printer in PRCHANGE
Graphics	Adding or Removing a Feature
Help level	Setting Basic Editing Defaults
Inset®	Adding or Removing a Feature
MailList	Adding or Removing a Feature
Margins	Changing WordStar Settings in WSCCHANGE
Memory usage	Managing Your Computer's Memory
Monitor	Installing a Monitor
Paragraph style (default)	Setting Basic Editing Defaults
Pathing	Changing WordStar Settings in WSCCHANGE
Pause between pages	Customizing Your Printer in PRCHANGE
PDFs	Installing a Printer
Preview screen fonts	Customizing Your Printer
Printer drivers	Installing a Printer
Printer port	Installing a Printer
RAM usage	Changing WordStar Settings in WSCCHANGE
Screen size	Changing WordStar Settings in WSCCHANGE
Sheet feeders	Installing a Printer
Star Exchange	Adding or Removing a Feature
Tabs	Changing WordStar Settings in WSCCHANGE
WordStar settings	Changing WordStar Settings in WSCCHANGE

## STARTING WINSTALL

To customize WordStar, you use WINSTALL. To start WINSTALL, log on to your WordStar directory (usually WS). Type **winstall** and press Enter. You see the WINSTALL Menu.

If the monitor display in WINSTALL isn't clear, exit the program, type **winstall /m** at the DOS prompt, and press Enter.

## THE WINSTALL MENU

```

                                WINSTALL

Install a monitor
Modify or install a printer (PRCHANGE)
Set basic editing defaults
Add or remove a feature
Customize WordStar (WSCHANGE)
Add fonts to custom database (LSRFONTS)
Save and return to DOS

(C) Copyright 1992 WordStar International Inc. All rights reserved.

Directions:
F1 = Help

Esc = Quit without saving

Start typing name = Find matching name
↑ ↓, Home, End = Move highlighting
← = Select

```

The WINSTALL Menu offers the choices shown below.

- **Install a monitor** You installed your monitor when you installed WordStar. You can use this option to change the type of monitor you installed. See "Installing a Monitor."
- **Modify or install a printer (PRCHANGE)** You installed a printer when you installed WordStar. Use this option to customize how your printer works with WordStar or to install or customize additional printers. See "Installing a Printer."

- **Set basic editing defaults** This option allows you to set some basic defaults for WordStar. See “Setting Basic Editing Defaults.”
- **Add or remove a feature** When you installed WordStar, you had the opportunity to add or remove features such as ProFinder™, Star Exchange, and MailList. You can use this option at any time to add or remove various features to suit your needs. See “Adding or Removing a Feature.”
- **Customize WordStar (WSCHANGE)** You can use this option to change many WordStar settings, such as the default help level, the colors on a color monitor, and the directory paths to different WordStar files. See “Changing WordStar Settings in WSCHANGE.”
- **Add fonts to custom database (LSRFONTS)** If you have a laser printer, and you have fonts that are not listed on the font menus in PRCHANGE, first you’ll need to use the LSRFONTS option to build a custom font database. Then you’ll use PRCHANGE to add the fonts to your PDF. See “Adding Custom Fonts” in “Adding Fonts to a PDF.”

Each option on the WINSTALL Menu is described in detail below.

---

## *INSTALLING A MONITOR*

You installed a monitor when you installed WordStar. Use the WINSTALL **Install a monitor** option if you want to change your monitor installation.

The monitor options are shown below. If you don’t know what kind of monitor you have, choose the first option, **IBM PC/Compatible**. If you see snow on the screen or experience problems while editing in WordStar, install your monitor as the third option, **IBM PC ROM/Compatible**. The monitor options are

- **IBM PC/Compatible (includes EGA and VGA)** A standard IBM PC or compatible color or monochrome monitor that uses video RAM directly. This installation provides the fastest display.
- **IBM PC CGA/Compatible** An IBM PC or compatible monitor that uses CGA video RAM directly. This installation removes most snow from the screen.

- **IBM PC ROM/Compatible** This installation is for monitors that are less than 100 percent IBM compatible. It removes snow from the screen, but provides the slowest display.
- **IBM PC EGA with 43 lines** This monitor choice displays 43 lines onscreen while editing in WordStar and then reverts to the usual 25 lines when you exit WordStar.
- **IBM PC VGA with 50 lines** This monitor choice displays 50 lines onscreen while editing in WordStar and then reverts to the usual 25 lines when you exit WordStar.

For most types of monitors, you can choose an option that includes onscreen underlining. Choose one of those options only if your monitor supports onscreen underlining.

After you make your monitor selection, you can choose screen colors. If you want WordStar to display in monochrome, choose **Use standard monochrome display** if your monitor displays underlined characters or **Use alternate monochrome display (includes most laptops)** if your monitor does not display underlined characters. If you want WordStar to display in the preset colors, choose **Use standard color display**. If you want to customize the colors displayed in WordStar, use WSCHANGE.

---

## *SETTING BASIC EDITING DEFAULTS*

Use the WINSTALL **Set basic editing defaults** option if you want to change some of the basic WordStar editing defaults. The following items are listed on the menu:

- **Help level** This option allows you to change the default menu display level. The default level is 4, pull-down menus.
- **Default paragraph style** A paragraph style sets the default font, margins, tabs, line height, line spacing, justification, and print attributes to be used in your documents. The default paragraph style is Body Text. Use this option if you want to change the default.



- **Initial logged directory** With this option, you can change the drive and directory WordStar logs on to each time you start the program. If you work in a particular drive and directory most of the time, you can have WordStar log on to that drive and directory.
- **Default printer** The first printer you install in WordStar is the default printer. If you have installed more than one printer, you can use this option to change the default. The default printer should be the printer you use the most.
- **Enter key in dialog boxes** You can use this option to choose the way you want the Enter key to work in dialog boxes. The Enter key can close the dialog box (the default) or move from one option to the next.
- **Check CONFIG.SYS file** When you choose this option, WordStar checks your CONFIG.SYS file to make sure it is correct for your DOS version and WordStar. It must contain the line FILES=30 (for DOS 3.0 or later) or FILES=20 (for DOS 2.n or earlier) for WordStar to function properly. If the FILES= statement is not set to the correct value, WordStar will modify the file and save your current CONFIG.SYS file as CONFIG.OLD. Remember to reboot your computer after the CONFIG.SYS file is modified.
- **Modify AUTOEXEC.BAT file** When you choose this option, WordStar modifies your AUTOEXEC.BAT file to include the WordStar directory name in the path. Remember to reboot your computer after the AUTOEXEC.BAT file is modified.

---

## *ADDING OR REMOVING A FEATURE*

You can use this WINSTALL option at any time to add or remove various WordStar features, such as Star Exchange, MailList, or TelMerge®.

To add a feature, move the highlighting to the feature to be added and type + (plus sign). When you finish marking the features you want to add, press F10. Insert the disk that is requested and press F10.

If you want to change the directory or subdirectory to which a highlighted feature is copied, press F3. Type a new name and press Enter. WordStar creates the directory for you.

If you want to remove a feature, first rename any user-modifiable files used for that feature or move them to a different directory. For example, before you remove MailList, be sure to rename or move the .DTA files. WordStar does not delete your document files, PDFs, or WSCHANGE setting files when you remove a feature. However, if a directory is empty after a feature has been removed, WordStar removes the empty directory.

To remove a feature, move the highlighting to the feature to be removed and type a minus sign (–). When you finish indicating changes, press F10.

When a feature has been added, the plus sign (+) on the screen changes to a small square (■). When a feature has been removed, no mark appears.

If you copy or delete WordStar features at the DOS prompt instead of using WINSTALL, the changes are not reflected on the Add or Remove a Feature screen.

---

## *INSTALLING A PRINTER*

You probably installed a printer when you installed WordStar. The following instructions describe how to install a new or additional printer.

When you install a printer, information about that printer is copied to a file called a printer description file (PDF). When you print a document, WordStar gets the printer information it needs from the PDF. For example, the PDF tells WordStar what fonts are available for your printer. Every time you install a printer, you create another PDF. You can install as many printers as you want, and you can have multiple PDFs for the same printer. For example, you might put the fonts you use for proposals in one PDF and the fonts you use for memos in another.

To install a printer, choose **Modify or install a printer (PRCHANGE)** from the WINSTALL Menu (or type **prchange** at the system prompt and press Enter). At the Installed Printer Menu, type a name for the PDF and press Enter. Use a name that describes the printer you're installing, for example, EPSON (don't choose an existing PDF name).

## CUSTOMIZING WORDSTAR

At the Printer Type Menu, choose the type of printer you have (see the table below).

<b>MENU CHOICE</b>	<b>CHOOSE FOR</b>
HP Laserjets and compatibles	HP LaserJet and compatible printers
Other lasers	Other laser printers
PostScript lasers	Laser printers with PostScript capability
HP Deskjets and compatibles	HP Deskjet or Deskjet Plus and compatible printers
Others A-D (includes generic)	Other printers starting with the letters A-D, and generic printers (such as CUSTOM and SIMPLE)
Others E-N	Other printers starting with the letters E-N
Others O-R	Other printers starting with the letters O-R
Others S-Z	Other printers starting with the letters S-Z
Extra database	Use this with supplementary disks supplied by WordStar

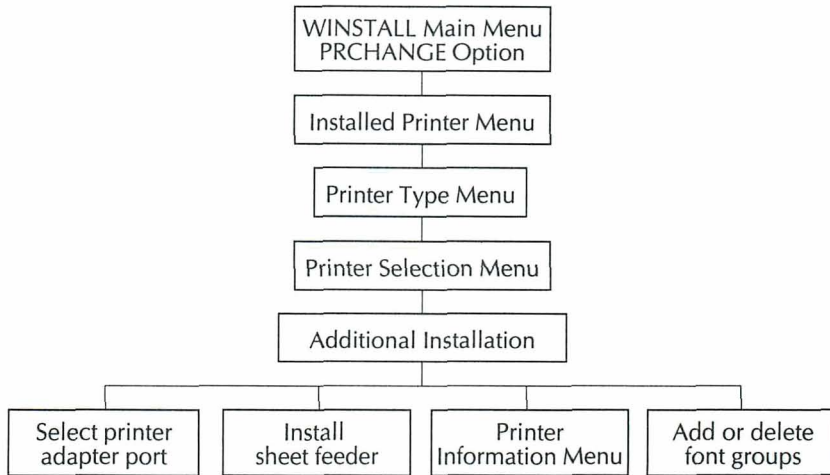
*Note:* If you didn't install the Printer Data feature when you installed WordStar, you're prompted to insert the appropriate disk or type the drive and directory where the Printer Data is located. Insert the requested disk and type the drive letter, or type the directory path, and press F10.

The Printer Selection Menu appears. Move the highlighting to the name of your printer, or type the first letter of the printer name to move through the list to printers that begin with that letter. Press Enter to install the printer.

*Note:* If your printer isn't listed on the Printer Selection Menu, see **The printer isn't on the Printer Selection Menu** under "Troubleshooting Printer Problems."

After installing a printer, you can use the Additional Installation Menu to specify your printer port, install a sheet feeder, or add or delete fonts. The following diagram shows the choices on the Additional Installation Menu.

## CREATING A PDF



**TIP** After you install a printer, go to the Printer Information Menu to view, print, or save information about the printer you installed. This information may help you take advantage of your printer's capabilities.

When you finish installing your printer, choose **Return to Installed Printer Menu**. At the prompt *Do you want the printer you installed to be your default printer?* type **Y** or **N**.

*Note:* The first printer you install is your default printer. Each time you install another printer, a prompt asks if you want the new printer to be your default. The default printer (PDF) is assigned to each document you create and determines what fonts you can choose when you edit a document. You can assign a printer other than the default printer to a document when you edit the document.

At the Installed Printer Menu, press F10 to return to the WINSTALL Menu. Or, if you want to install another printer, type the name of a new PDF and press Enter.

**TIP** You can print the *PRINT.TST* file to see how WordStar uses the features of your printer. For example, if your printer supports color, print the *PRINT.TST* file to see how the colors print. If your printer is a PostScript printer, print the *PSPRINT.TST* file.

Now that you've installed a printer, you may not need to read any further. However, if you want more information about any of the items listed below, see "Customizing Your Printer in PRCHANGE."

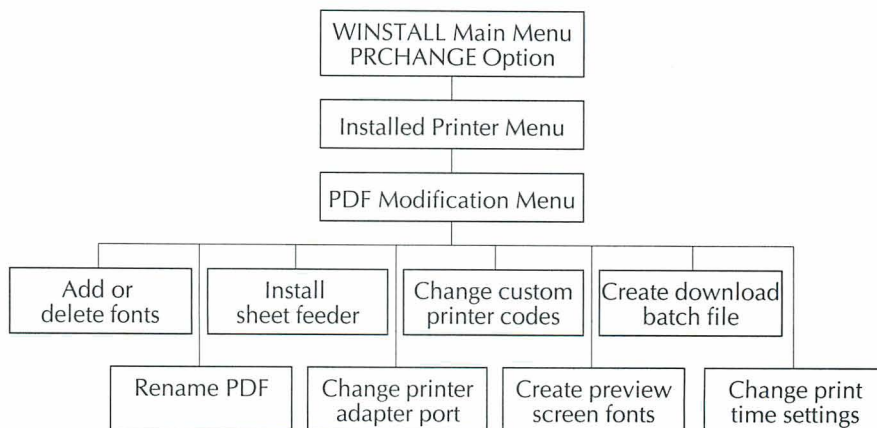
- Adding cartridge fonts
- Adding downloadable soft fonts or making batch files to download soft fonts
- Creating preview screen fonts
- Choosing internal fonts
- Installing sheet feeders or special paper-handling capabilities
- Changing the printer port
- Using printer features that WordStar doesn't support

*Note:* If you have any printing problems, see "Troubleshooting Printer Problems."

---

## **CUSTOMIZING YOUR PRINTER IN PRCHANGE**

After you choose a printer and create a PDF in WordStar, you can modify (or customize) that PDF at any time using the PRCHANGE option in WINSTALL. The following diagram shows the choices you have for modifying a PDF.

**MODIFYING A PDF*****MODIFYING A PDF***

To modify a PDF, choose **Modify or install a printer (PRCHANGE)** from the WINSTALL Menu, or type **prchange** at the system prompt and press Enter. At the Installed Printer Menu, move the highlighting to the PDF you want to modify and press Enter. (If the PDF is in another directory, type the path and press Enter. Then choose the PDF.) If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the Printer Data on your hard disk. When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.

The options on the PDF Modification Menu are described below.

**Add or delete fonts** When you choose this option, WordStar displays a list of fonts currently in the PDF and asks if you want to change them. You can add or delete fonts as needed; for example, your printer may have additional cartridge or soft (downloaded) fonts that you want to add. (The fonts in a PDF are listed on the screen when you select a font in WordStar.)

When you add fonts, keep these points in mind:

- If many fonts are available for your printer, add only the fonts and sizes that you plan to use. Otherwise, the PDF may become too large for you to add more fonts, and the list of fonts that is displayed in WordStar will be very

long. You can always add fonts later, or create another PDF for the same printer and use different fonts.

- The font list displayed when you're adding cartridge or soft fonts shows all the font groups that are available for your printer; however, you may not have purchased or installed all of them. If you add fonts that your printer doesn't have, and then try to use them in a document, your printer will use a substitute font.

When you choose to change fonts, the Add or Delete Fonts menu appears. The types of fonts listed on the Add or Delete Fonts menu are described below. For step-by-step instructions on how to add them, see "Adding Fonts to a PDF" in this section.

- **Cartridge fonts** are contained on cartridges that you insert into slots on your printer. WordStar supports most cartridges made by printer manufacturers. If your cartridge is not listed on the Add Cartridges screen, it might work like one or more of the other cartridges on the list. You can also contact the manufacturer of the cartridge to see if special PDFs or custom printer databases have been developed for WordStar.
- **Internal fonts** come preinstalled in the printer. Most printers have only one internal font group, but some printers, such as the HP DeskJet, have many. You may want to add only some of them to the PDF.
- **Soft fonts** must be downloaded (copied from a disk) to your printer before you can use them. The number of fonts you can download depends on the size of the font files, the amount of memory in your printer, and the number of soft fonts the printer allows. Use this option only for printers other than HP LaserJets, PostScript printers, Xerox 4045, and IBM 4019 and 4029 printers. For these printers, and for other soft fonts that aren't listed on the Add Soft Fonts screen, you need to create a custom database and then use the **Fonts from custom database** option (see "Adding Custom Fonts" in this section).
- **Fonts from custom database** are cartridge and soft fonts that are not listed on the Add Cartridge Fonts or Add Soft Fonts screens. You can add fonts to the custom database for HP LaserJet and compatible printers, PostScript printers, Xerox 4045 printers, and IBM 4019 and 4029 printers. See "Adding Custom Fonts" in this section.

When you finish adding fonts, WordStar asks if you want to change font families. Within each font family, you can assign different fonts for bold, italic, bold-italic, superscript, subscript, or graphics. For example, you may want to assign a smaller font for subscript and superscript (smaller subscripts and superscripts are automatic on scalable font printers).

**Rename current PDF** Choose this option to rename a PDF. For example, if you have two laser printers, you might want to assign names such as LASER1 and LASER2 to distinguish one from the other.

**Modify sheet feeder** You can change the sheet feeder specified in a PDF. (For many printers, the default sheet feeder or tray is automatically installed and you can change from one tray to another by choosing Layout→Page and specifying the Paper Bin or by using the **.bn** command.)

*Note:* Most sheet feeders need special page length and margin settings to work correctly. If you install a sheet feeder, check the Printer Information screen to see the sheet feeder requirements for your printer.

**Change printer adapter port** WordStar assumes your printer is connected to the LPT1 port at the back of your computer. If your printer is connected to a different port, use this option to identify it. You can also use this option to change printer protocol or background print speed, or to specify a user-defined device or disk.

If you change to a serial port (COM1 or COM2), you need to enter the correct MODE command at the DOS prompt before printing. For more information, see "Troubleshooting Printer Problems."

**Change custom printer code** You can customize the commands **^PF**, **^PG**, **^PQ**, **^PW**, **^PE**, and **^PR** (or Insert→Custom Printer Code→1-6) to perform special functions on your printer. For example, if your printer has a half-speed mode, you can customize one of these commands to insert the code for half speed. Refer to your printer manual for the codes for your printer. Enter the code in ASCII (see the "ASCII Conversion Charts" in Appendix B of the *Reference* manual). You can type up to 73 characters in each code. Then, when you use the command in a document, WordStar inserts the code. For more information, see "Custom Printer Code" and "Change Printer Codes" in "Editing Screen Insert Menu" in the *Reference* manual.



For some printers, the custom printer codes have already been customized to perform special functions. Check the Printer Information screen for your printer to see any preprogrammed codes.

You can use custom printer codes to send an ASCII (nondocument) file containing printer codes to your printer. Choose the custom printer code command to modify, and then type **%F"filename"** as the code. Be sure to capitalize the **F** and include the quotation marks. The filename should include a drive and directory if the filename isn't in the WordStar directory (usually WS). When you're editing in WordStar, you can add a program file to your document by choosing Insert→Custom Printer Code→Other, or pressing ^P!, and then typing the filename. If you have a laser printer, see "Notes on Laser Printers" in this section for more information.

*Note:* You can enter a file with codes for all printers except the special-use PDFs ASCII, ASC256, PRVIEW, and XTRACT.

**Create preview screen fonts** Screen fonts are used for Preview and for creating fax files. They correspond to HP LaserJet or compatible soft fonts, and are used in Preview only if you are using those fonts in your document. (If you don't have soft fonts, you can create fax files using the .WSF files supplied with WordStar.) WordStar translates most printer fonts to screen (or fax) fonts so you can see your document onscreen exactly as it will be printed, and so that you can send faxes using those fonts.

When you choose this option, you are prompted for the location of your font files. WordStar scans the PDF for unique typefaces, and then looks at the FONTID.CTL file. At the end of FONTID.CTL is a list of existing screen font (.WSF) files. A new .WSF file is created for each unique typeface that is not listed in FONTID.CTL.

*Note:* Fonts larger than 72 points are displayed as 72-point fonts in Preview. However, the spacing is correct.

*Note:* If you are using fonts from a custom database with Preview, make sure they appear after the 16 standard typefaces on the list of typefaces in the FONTID.CTL file. Otherwise, the correct font may not be shown in Preview. Whenever you change the list of fonts in FONTID.CTL, be sure to delete the line that begins with VER=.

If you want to create Preview fonts for scalable fonts, use a font generation program such as Type Director 2.0 to create one bitmapped (presized) font, in one size and symbol set, for each font you want to preview. If you're not sure which size to create, choose 12-point. If you're not sure which symbol set to create, choose USASCII. Then, for each font you want to preview, type **dispfont** and the name of the font file, and press Enter. (After you finish creating preview screen fonts, you can delete the bitmapped font files you created.)

For more information on Preview, see "Fine-tuning Preview" in "Advanced Customizing."

**Create download batch file** You can create a batch file that will download the soft fonts in a PDF to your printer. Just type a name for the batch file, or choose an existing batch file, and press Enter. When you choose this option, you are prompted for the location of your font files.

***TIP** To download the fonts to your printer, log on to the drive or directory where the batch file is located and type the name of the batch file. If you get the message Bad command or filename, make sure the file PECHO.COM is in the same directory as the batch file. If you share the printer with other users, be sure no one else is using the printer when you download fonts.*

**Change print-time settings** Use this option to change the default settings for form feeds and to pause between pages.

**Return to Installed Printer Menu** Choose this option when you finish modifying a PDF. At the Installed Printer Menu, you can install another printer, choose another PDF to modify, or press F10 to return to the WINSTALL Menu or the DOS prompt.

## ***DELETING A PDF***

To delete a PDF, use the DOS DEL command to remove the PDF file. Log on to the directory containing WordStar (usually WS), type **del filename.pdf**, and press Enter.

## ***ADDING FONTS TO A PDF***

The following pages contain step-by-step procedures for adding fonts to a PDF. If you need help at any time in PRCHANGE, press **F1**.

### ***ADDING CARTRIDGE FONTS OR INTERNAL FONTS***

The following procedure describes how to add any internal fonts and most cartridge fonts to a PDF. If a cartridge is not listed on the Add Cartridges screen (in step 6), you may need to treat it the same as a custom font (see "Adding Custom Fonts").

- 1** At the WINSTALL Main Menu, choose **Modify or install a printer (PRCHANGE)**.
- 2** At the Installed Printer Menu, choose the PDF you want to add fonts to.
- 3** If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.
- 4** When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.
- 5** At the PDF Modification Menu, choose **Add or delete fonts**.
- 6** At the Current Fonts in PDF Menu, type **Y**.
- 7** At the Add or Delete Fonts Menu, choose **Add cartridge fonts** or **Add internal fonts**. Then follow the instructions below for the type of fonts you're adding.

**Cartridge fonts** At the Add Cartridges screen, move the highlighting to each cartridge you want to add, and press Enter to mark it. When you finish marking cartridges, press **F10** to add them to your PDF.

*Note:* Some cartridges have choices for different symbol sets. For example, Roman 8 (R8) cartridges have R8 and R8 IBM Emulation choices. If you aren't sure which you want to install, choose **R8 IBM Emulation**.

**Internal fonts** At the Add Internal Font Groups screen, move the highlighting to each font group you want to add, and press Enter to mark it. When you finish marking font groups, press **F10** to add them to your PDF.

- 8 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.
- 9 At the Add or Delete Fonts Menu, choose **Return to previous menu**. At the PDF Modification Menu, choose **Return to Installed Printer Menu**. At the Installed Printer Menu, press **F10** to return to the WINSTALL Menu.

*Note:* Be sure to insert the correct cartridge in the printer before you print with this PDF.

### ***ADDING SOFT FONTS***

The following procedure describes how to add soft fonts to a PDF for printers other than HP LaserJets and compatibles, PostScript printers, Xerox 4045, and IBM 4019 and 4029 printers. To add soft fonts for these printers, or fonts that are not listed on the Add Soft Fonts screen (in step 7 below), you must use a custom font database (see "Adding Custom Fonts").

- 1 At the WINSTALL Main Menu, choose **Modify or install a printer (PRCHANGE)**.
- 2 At the Installed Printer Menu, choose the PDF you want to add fonts to.
- 3 If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.
- 4 When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.
- 5 At the PDF Modification Menu, choose **Add or delete fonts**.
- 6 At the Current Fonts in PDF Menu, type **Y**.
- 7 At the Add or Delete Fonts Menu, choose **Add soft fonts**.

- 8 At the Add Soft Fonts Menu, move the highlighting to each font group you want to add, and press Enter to mark it. When you finish marking font groups, press **F10** to add the marked font groups to your PDF.

*Note:* Some soft fonts have choices for different symbol sets. For example, Roman 8 (R8) soft fonts have R8 and R8 IBM Emulation choices. If you aren't sure which one you want, choose **R8 IBM Emulation**.

- 9 At the Available Typefaces Menu, move the highlighting to each typeface you want to add, press Enter to mark each one, and press **F10** to add the marked typefaces to your PDF.
- 10 At the Available Type Sizes Menu, move the highlighting to each type size you want to add, press Enter to mark each one, and press **F10** to add the marked type sizes to your PDF.
- 11 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.
- 12 At the Add or Delete Fonts Menu, choose **Return to previous menu**. You're asked if you want to create screen fonts. If you don't create screen fonts, WordStar uses the default Times Roman and Helvetica screen fonts in Preview. Type **Y** and follow the prompts to create screen fonts for Preview, or type **N** to return to the PDF Modification Menu.
- 13 At the PDF Modification Menu, choose **Return to Installed Printer Menu**. At the Installed Printer Menu, press **F10** to return to the WINSTALL Menu.

*Note:* Be sure to download the correct fonts to the printer before you print with this PDF. You can create a downloading batch file in PRCHANGE, or you can use a downloading program supplied with your fonts.

### ***ADDING CUSTOM FONTS***

Custom fonts include soft fonts for PostScript, HP LaserJet and compatibles, Xerox 4045, and IBM 4019 and 4029 printers, and cartridge fonts not listed on the Add Cartridge Fonts screen. The steps below show what you need to do to use custom fonts with WordStar and where to find information for each step.

- 1 Create the fonts (if you use a font generator program like Type Director), or have the required files on your disk. The types of files you may need are described after these steps. For more information, see the documentation for your fonts.
- 2 Use the LSRFONTS option in WINSTALL to add the fonts to the custom font database. For more information, read the rest of this section. (The custom font data is stored in .DTU files. If you already have .DTU files from WordStar 6.0, you don't need to create new ones. However, if you have earlier .DTU files, you'll have to create new ones.)
- 3 Use the PRCHANGE option to add the fonts from the database to a PDF. For more information, read the rest of this section.
- 4 Download the fonts to the printer or insert the cartridge into the printer. For more information, see the vendor documentation for your fonts.
- 5 In WordStar, attach the correct PDF to the document. For more information, see "Change Printer" in "Editing Screen File Menu" in the *Reference* manual.
- 6 Choose the fonts you want to use in the appropriate locations in the document. For more information, see "Font" in "Editing Screen Style Menu" in the *Reference* manual.

When you add fonts to the custom database, you may be prompted for the location of your font files, .AFM files, or AutoFont support files.

- **Font files** are either on purchased floppy disks or created by a font generator program.
- **.AFM files** are included with PostScript fonts. (PostScript internal fonts are included in a PostScript PDF when it is created.)
- AutoFont support files for scalable soft fonts can be created when you create the fonts. In Type Director, choose **Environment**. Then choose or create an AutoFont Support application. Choose **Utilities**, and then choose **Application Utility**. Under Active Application, choose **AutoFont Support**. To create the AutoFont support files, press **F1**.

**ADDING FONTS TO THE CUSTOM FONT DATABASE** Follow the steps below to add fonts for a laser printer, including HP LaserJet or compatibles, PostScript printers, IBM 4019 and 4029, and Xerox 4045. If you need help at any time in LSRFONTS, press **F1**.

- 1** At the WINSTALL Main Menu, choose **Add fonts to custom database (LSRFONTS)**, or type **lsrfonts** at the DOS prompt and press Enter.

*Note:* If the monitor display isn't clear, exit the program, type **lsrfonts /m** at the DOS prompt, and press Enter. The program will use a monochrome display.

- 2** At the Add Fonts to Custom Database menu, choose the type of fonts you want to add.
- 3** Type the name of the drive or directory where your font files, .AFM files, .TFM files, or .MTR files are located and press the **F10** key.
- 4** At the Available Fonts Menu, move the highlighting and press Enter to mark each font you want to use. Press **F2** if you want to change the menu name of the highlighted font. (The menu name is the name that appears when you select a font in WordStar.)

*Note:* To see fonts in a different directory, press **F8**. Then type + and the directory name.

- 5** Press **F10** to add the marked fonts to the database.

If you're creating a custom font database for the first time, or if your database is not in the current directory or on the DOS path, you are prompted for the location of the custom font database. Type the drive and directory location of the database, and press Enter.

*Note:* If .DTU files are on the DOS path, the font information you just entered is stored in the .DTU file that comes first on the path. If you have old .DTU files from a release of WordStar previous to 6.0, be sure you don't add the font information to those .DTU files; the resulting file may be unusable in either version.

If you have an HP LaserJet III or compatible printer with cartridge fonts, you're prompted to choose a symbol set as each font is added to the database. Press Enter to mark the symbol sets you want, and press **F10** to add the marked symbol sets. If you're not sure which symbol set to use, choose **PC: PC-8**.

At the message *Do you want to remap the symbol set?* choose No to access the symbol set on your printer even when it doesn't match the screen symbol set. If you choose Yes, the printed characters will emulate the screen characters as closely as possible.

- 6 At the prompt to name the font group you just created, press Enter to use the current system date and time as the font group name, or type a more descriptive name (for example, **Tms Rmn 10-18** or **Tms & Helv**), and press Enter.
- 7 At the Add Custom Laser Fonts to Database Menu, choose **Return to WINSTALL Menu** to quit, or repeat steps 2 through 6 to add more font groups.

Now you've added font information to the custom database. Next you'll use PRCHANGE to copy to your PDF the font information from the database you just created. The fonts will appear on the font list when you select a font in WordStar.

**ADDING CUSTOM DATABASE FONTS TO A PDF** Follow the steps below to add the custom database fonts to a PDF.

- 1 At the WINSTALL Menu, choose **Modify or install a printer (PRCHANGE)**.
- 2 At the Installed Printer Menu, choose the PDF you want to add fonts to.
- 3 If you haven't installed the Printer Data, follow the onscreen instructions to insert the appropriate disk or type the location of the printer data on your hard disk.
- 4 When you're asked if you want to modify the PDF, type **Y**. The PDF Modification Menu appears.
- 5 At the PDF Modification Menu, choose **Add or delete fonts**.



- 6 At the Current Fonts in PDF Menu, type **Y**.
- 7 At the Add or Delete Fonts Menu, choose **Add fonts from custom database**.  
  
If your custom font database is not in the current directory or on the DOS path, you're prompted for its location.
- 8 At the Add Soft or Custom Fonts Menu, move the highlighting and press Enter to mark each font group you want to add, or press **F4** to mark all the font groups listed. When you finish marking font groups, press **F10**.
- 9 At the Available Typefaces Menu, move the highlighting and press Enter to mark each typeface you want to add, or press **F4** to mark all the typefaces listed. When you finish marking typefaces, press **F10**.
- 10 At the Available Type Sizes Menu, move the highlighting and press Enter to mark each type size you want to add, or press **F4** to mark all the type sizes listed. If you are adding scalable fonts, you don't need to choose sizes; just choose the font. When you finish marking type sizes, press **F10** to add the marked fonts to your PDF.
- 11 When you finish adding fonts, WordStar asks if you want to change font families. If you want to change font families, type **Y** and follow the onscreen prompts. Otherwise, type **N**.
- 12 At the Add or Delete Fonts Menu, choose **Return to previous menu**. At the PDF Modification Menu, choose **Return to Installed Printer Menu**.
- 13 At the Installed Printer Menu, press **F10**. At the WINSTALL Menu, choose **Save and return to DOS**.

*Note:* Be sure to download the correct fonts to the printer before printing with this PDF. You can create a download batch file in PRCHANGE, or you can use a downloading program supplied with your fonts or purchased separately.

---

## NOTES ON LASER PRINTERS

To install a laser printer, choose the appropriate type of printer from the Printer Type Menu. Then choose your printer from the Printer Selection Menu. For more information, see “Installing a Printer.” For information on adding fonts for the printer, see “Adding Fonts to a PDF” in this chapter. If you have any problems with your printer, see “Troubleshooting Printer Problems.”

### SETTING MARGINS

Most laser printers can't print in areas close to the edges of the page, so if you change margins in a document, always leave at least .5 inch of blank space in the top and bottom margins in addition to the space needed for a header or footer.

### USING PRINTER-LANGUAGE PROGRAM FILES

You can create program files in your printer's language for special printer features or for printing special graphics, such as page borders or a company logo. For example, you can create PostScript files for a PostScript printer, or PCL files for a LaserJet or compatible printer. When you use a printer program file with a WordStar document, the printer codes in the file are sent to the printer, and the text or graphics are added to your page. You can modify the program files by editing them in nondocument mode.

To insert a program file into a WordStar document, choose Insert→Custom Printer Code→Other, or press ^P!. In the Custom Printer Code dialog box, type **%F"filename"**—*be sure to capitalize the F and include the quotation marks.* (The *filename* is the name of the program file; it can include a drive and directory.) For the characters to display onscreen, type a descriptive name that will help you remember what the file does, for example, **squarebullet**.

**TIP** You can put the name in angle brackets so it looks like a command tag on the screen rather than regular text, for example, **<squarebullet>**.

If you want to program the custom printer commands to access your own program files, see **Change custom printer codes** under “Modifying a PDF” in this section. You can then use Insert→Custom Printer Code and the appropriate number (or ^PF, ^PG, ^PQ, ^PW, ^PE, or ^PR) to insert the code whenever you want to use it.

## ***OVERPRINTING A PAGE***

Occasionally you may want to print two pages of text or graphics superimposed on each other. For example, if you have a border that you want to place around the page of text, it may be easier to treat the border and text as separate pages while you’re editing them.

On many laser printers, including HP LaserJets and compatibles and PostScript printers, you can overprint two or more pages using the **.xl 00** (two zeros) command.

Normally, WordStar sends a form feed at the end of each page. The **.xl** command sets the form feed command sent to the printer, and the setting of 00 sends nothing. Type **.xl 00** on a line by itself on the first page you want to overprint. Since no form feeds are sent to the printer, subsequent pages are overprinted. To stop overprinting, type **.xl 0C** on a line by itself on the first page you don’t want overprinted.

Don’t use any **.bn** commands (or change the Paper Bin setting in Layout→Page) in the same document as the **.xl 00** command. The **.bn** command issues its own form feeds, so the **.xl 00** can’t take effect.

If you have trouble overprinting pages, and the **.xl 00** command is at the top of a page, move it lower on the page (below some text).

## ***HP LASERJET AND COMPATIBLE PRINTERS***

### ***USING THE SAMPLE HP PROGRAM FILES***

You can create your own printer program files for printing special graphics. See “Using Printer-Language Program Files” in this section. You can also use the four sample HP program files that are included with WordStar.

<b>SAMPLE PROGRAM FILE</b>	<b>DESCRIPTION</b>
CHEX.HP	Prints a checkerboard at the top of the page
PLEAD.HP	Prints legal pleading lines without the numbers
SHADE.HP	Prints a 15 percent gray background on the page
ARROW.HP	Prints an arrow at the cursor position

### ***USING CODE PAGES***

Code pages are onscreen character sets. WordStar supports code pages 437 (United States) and 850 (Multilingual). The characters in code page 437 and code page 850 are listed in the *Reference* manual in Appendix B, "ASCII Conversion Charts."

You can use DOS (versions 3.3 and later) to set a code page to change the characters that are displayed onscreen (for more information, see your DOS manual). You can change the default code page for WordStar in WSCHANGE (DCGL). When you set WordStar to use code page 850, WordStar recognizes the code page 850 characters in sorting, case conversion, spelling checks, and cursor movement, and displays those characters in Preview.

You can use code page 850 with HP LaserJet and compatible printers and with IBM printers. For a LaserJet or compatible printer, use fonts with the appropriate symbol set, or create soft fonts with the appropriate symbol set using a font generation program. For LaserJet III or compatible cartridge fonts, use LSRFONTS to read the AutoFont support files that come with the cartridge. For an IBM printer, use the instructions in your DOS manual for setting up a printer for code page 850.

If you want to see the code page 850 characters in Preview, see "Fine-tuning Preview" in "Advanced Customizing."

## ***POSTSCRIPT PRINTERS***

WordStar comes with several files with the .PS filename extension for use with PostScript printers. Make sure these files are in your WordStar directory. If you didn't add them when you installed WordStar, you can use the **Add or remove a feature** option in WINSTALL to copy the files to your hard disk.

For printers that are connected to a serial port, WordStar works with either DTR or XON/XOFF protocol (the default is DTR). If your printer uses XON/XOFF protocol, use PRCHANGE and choose Change printer adapter port, and then Printer protocol selection to change it. If you have any problems, see **The printer isn't printing** under "Troubleshooting Printer Problems."

To use legal-size paper, edit the WSPROL.PS file in nondocument mode, and change the value for the /pgsize variable from 11 inches to 14 inches. To print in landscape mode, select Landscape in the Layout→Page (or ^OY) dialog box during editing.

The **Postscript Generic (PS:2Up)** choice on the Printer Selection Menu is good for printing small booklets or program listings. Using landscape mode, it prints two side-by-side pages on each sheet of paper. The fonts on the page are reduced to 65 percent of their usual size. You can use a PostScript 2Up PDF only with 8.5 x 11-inch (letter-size) paper.

### ***USING THE SAMPLE POSTSCRIPT PROGRAM FILES***

You can print the PSPRINT.TST file to see how you can use many PostScript features with WordStar.

You can also create your own PostScript program files for printing special graphics. See "Using Printer-Language Program Files" in this section. You can also use the four sample PostScript program files that come with WordStar. The following list shows the sample PostScript program files and the custom printer commands you use to add them to a document.

<b>SAMPLE PROGRAM FILE</b>	<b>PRINT COMMAND</b>	<b>DESCRIPTION</b>
LETTER.PS	^PQ	Prints an easily-modified sample letterhead
BORDER.PS	^PW	Prints a border around the current page
LOGO.PS	^PE	Prints a sample logo
BOX.PS	^PR	Prints a double box with its upper-left corner at the cursor position

**EDITING THE BOX.PS FILE** To change the size of the box in the BOX.PS file, choose Insert→Custom Printer Code→Other (or use ^P!) to insert the file into your document. When WordStar prompts you for the characters to send to the printer, type the variables you want to change (see the table below) and then type **%F"box.ps"**—*be sure to capitalize the F and include the quotation marks.* For example, to get a box 2 inches wide by 3 inches high, type this:

```
/bw 2 inch def /bh 3 inch def %F"box.ps"
```

If you don't want the nested box, set /bg to 0 (zero). Be sure to type the settings correctly; mistakes may cause printing errors.

VARIABLE	MEANING	DEFAULT VALUE
/bw <i>n</i> inch def	box width	4 inches
/bh <i>n</i> inch def	box height	4 inches
/bt <i>n</i> def	box-edge thickness	1.5 points
/bg <i>n</i> def	gap between nested boxes	3 points

### **CREATING YOUR OWN POSTSCRIPT PROGRAM FILES**

If you create your own PostScript program files, include a "save" command at the beginning of each file and a "restore" command at the end to preserve the original state of the printer after the commands have been executed. (To see a sample, look at the PostScript program files that come with WordStar.) If you use a "showpage" command in a PostScript file, WordStar breaks the page at that command at print time.

---

## **TROUBLESHOOTING PRINTING PROBLEMS**

This section offers solutions to the most common printer problems.

### ***The printer isn't printing.***

- Make sure the printer is plugged in, turned on, and has paper. If your printer has an online or select switch, make sure it's set for online. If the printer is on a network, you may need to link to it before you can use it. Check with your system administrator for details.

## CUSTOMIZING WORDSTAR

- If you have a serial printer, make sure the correct mode statement is in your AUTOEXEC.BAT file. The mode statement should look like this: **mode com1:9600,n,8,1,p**. If necessary, replace "com1" with the correct port number for your system, and replace "9600" with the baud rate your printer is set for. (See your printer manual for more information.)
- Make sure you specified the correct printer port when you installed your printer for WordStar. Printers are connected by cables to ports at the back of the computer. You need to tell WordStar which port your printer is connected to (the default is LPT1). Use PRCHANGE to make sure you specified the correct port.
- If your printer has an auto-switch program to switch between emulations such as PostScript and HP, and that program requires that one emulation is addressed as LPT1 and the other as LPT2, be sure the correct port is specified in the PDF.
- If you specified the correct printer port, check the cable between the computer and the printer. If the cable isn't firmly connected, or if it isn't working properly, your printer can't print.

Follow these steps to test the cable and connections:

- 1 Make sure your printer is set for nonproportional printing.
- 2 Log on to the drive or directory where the DOS DEBUG program is located (usually your DOS directory). At the prompt, type **debug** and press Enter. The DEBUG prompt (a dash) appears onscreen.
- 3 Press **^P** to establish a connection between the screen and the printer. After you press **^P**, everything on the screen is sent to the printer.
- 4 At the DEBUG prompt, type **D100 1000** and press Enter. If the printer is connected properly, it begins printing. The printer cannot print as fast as the characters appear onscreen, so after a short time, the screen will stop filling while the printer catches up. If you want to stop the debug display, press **^C**.
- 5 To stop your printer, press **^P** again. Then type **Q** and press Enter to exit DEBUG. Turn your printer off and then on again to clear the buffer. (If you have a page printer, be sure to do a form feed before you turn off the printer so that the last page is printed.)

Look at the printer output. The DEBUG output should appear in columns of numbers and letters. If the columns are misaligned (indicating missing letters) or incomplete, your printer is not working properly. Contact your printer dealer for help.

- If the output is printed correctly, but the printer still won't print with WordStar, the problem may be in the way that WordStar sends information to the printer. Start WordStar and press **P** to print a document. In the Print dialog box, type the name of the document. In the *Redirect To* box, type the name of the port your printer is connected to; for example, **lpt1** or **com1** (do not type a colon after the name of the port). If the document prints, use PRCHANGE to specify that port as a user-defined device.
- If the printer still doesn't print, use WSCHANGE to turn off the printer busy test (on the Printer Busy Handshaking Menu), or use PRCHANGE and choose **PRN** as the default port for the printer.

***TIP** If you use either of the above methods, and editing slows down when you print in the background, use PRCHANGE to set the background print speed to the speed of your printer. See **The printer prints fine for a while, then output becomes garbled** in this section.*

- If you have a PostScript printer, be sure that WordStar and the printer are using the same protocol. To change the protocol, use PRCHANGE, and choose Change printer adapter port, and then Printer protocol selection. If you are using DTR but previously changed from another protocol, copy SETDTR.PS to the correct port for your printer. For example, if your printer is connected to COM1, type **copy setdtr.ps com1**.

### ***The printer isn't listed on the Printer Selection Menu.***

Check your printer manual to see if it works like another printer. Many laser printers work like the HP LaserJet, many daisy wheel printers work like the Diablo 630, and many dot matrix printers work like the Epson FX-80 or the IBM PC Graphics printer. If your printer works like another printer, choose that printer from the menu. If your printer doesn't work like another printer, choose Typewriter (if your printer can backspace) or Draft (if it can't). These are generic printers that work fairly well with almost any printer. The DRAFT PDF has been created for you, so you don't need to install that printer. To install Typewriter, choose **Others A-G (includes generic)** at the Printer Type Menu. Then choose **Typewr** at the Printer Selection Menu.



***Printed output is garbled.***

If your output is garbled, you may have the wrong printer assigned to the document, or the cable between your printer and computer may be bad. To see which printer is assigned to the document, open the document and choose the command to change printers (File→Change Printers, or ^P?). If the wrong printer is assigned, choose the correct one. If you have more than one printer, make sure you specified the correct port for each one. For information on checking the printer port and testing the cable and connections, see **The printer isn't printing** in this section.

***The printer prints fine for a while, then output becomes garbled.***

This problem usually occurs because your printer can't accept information as fast as WordStar sends it. Use PRCHANGE to set the background print speed to the speed of your printer. For a daisy wheel printer, set the speed to 20; for any other type of printer, set the speed to 100. To change print speed in PRCHANGE, choose Change printer adapter port at the PDF Modification Menu, choose Printer protocol selection at the Change Printer Adapter Port Menu, and choose Background print speed in CPS at the Printer Protocol Selection Menu. Alternately, if your printer is connected to a parallel port, you can try typing **mode lpt1,,p** at the DOS prompt before starting WordStar. This command sets the printer into infinite retry state.

***WordStar displays the message Print Wait.***

This message does not indicate a problem. It lets you know that printing has paused for some reason, for example, you may have added a pause printing command to the file, or your printer may be out of paper. Display the Printing screen to see why the printer paused. Follow the onscreen instructions to start or abandon printing, as you prefer.

***WordStar displays the message Printer may not be ready.***

Be sure the printer is turned on, has paper, and is online. If the printer is ready, you may have specified the wrong port when you installed the printer. Printers are connected by cables to ports at the back of your computer. A computer has more than one port, so you need to tell WordStar which port your printer is connected to (the default is LPT1). Use PRCHANGE to see if you specified the correct port for the printer.

***WordStar displays the message You've selected too many fonts. Please start again and select fewer fonts.***

Return to the Installed Printer Menu, choose the PDF again, and add fewer fonts. The number of fonts you can add is limited by memory and disk space on the computer and the size of the fonts you're trying to add. You may need to make more than one PDF for different groups of fonts.

***The wrong fonts appear in the printed document.***

When editing, you choose fonts from a list of fonts available for the printer assigned to your document. If you print the document on a printer other than the one assigned to your document, WordStar chooses the closest available font on that printer. If you print the document on the assigned printer, and you don't get the fonts you specified, check the items below.

- If your printer uses downloaded fonts, remember to download the fonts each time the printer is turned off and then on again.
- If you are trying to use downloadable fonts, make sure your printer has enough memory for the fonts you download.
- If you specified the downloaded fonts as temporary, and then reset the printer, the fonts have been cleared from your printer's memory. Download the fonts again as permanent fonts.
- Make sure you didn't use a dot command in your document to turn letter quality or proportional spacing on or off.
- The memory limitations of your printer may affect the number of fonts that can be printed on one page.
- If you're working on a network, another user may have downloaded fonts, overwriting yours. To avoid this problem, network users should devise a system for downloading and clearing fonts.
- The network may not be able to download all the fonts you specified. Some networks have a "hold" command that waits until you unlink from the printer before downloading fonts.

***Text creeps up or down on successive pages.***

WordStar uses form feeds to advance the paper. If your printer can't accept a form feed command, clear the Use Form Feeds check box in the Print dialog box. You can change the default for this option in PRCHANGE. If changing the setting doesn't work, change the form feed switch on your printer—if the switch is off, turn it on; if it's on, turn it off. Laser printers and other printers with sheet feeders must use form feeds to advance the paper and may need special page length and margin settings. If you use nonstandard paper, such as labels, form feeds must be turned off.

***TIP*** Before printing a document that is longer than one page, be sure the paper is properly positioned and ready to print on line 1. On some printers, you need to set the top-of-form switch from the front panel. You may need to turn the printer off and on again to clear the buffer. Do not rotate the printer platen to adjust the top of the form. Check your printer manual for more information.

***On an HP LaserJet printer, the spacing of the letters is wrong.***

- If the spacing is only slightly off, you may not be getting the correct font. If you have a soft font with the same name as the internal or cartridge font you want, the soft font choices override the internal or cartridge font choices. Poor spacing can result. To use the internal or cartridge version of the font, delete the soft font from the printer's memory.
- You may have used the same font with more than one symbol set in the PDF. See **Internal fonts** under "Adding Cartridge Fonts or Internal Fonts" in this chapter.
- You may not have reformatted your document after changing printers or fonts.
- If you have an extreme spacing problem where some letters are printed on top of each other and others are spread out across the page, you may have chosen a font your printer doesn't have, and your printer may have chosen a font with different spacing.

When a LaserJet looks for a matching font, it also tries to match the symbol set. For example, if you request a Times Roman 10 font with the ROMAN8 symbol set, the printer won't use a Times Roman 10 font with the USASCII

symbol set. Instead, it tries to find a font, such as the Line Printer font, that has the ROMAN8 symbol set. (See your printer manual for more information.)

***On a PostScript printer, you get a time-out error if you begin printing on page 30 or above.***

Change the amount of time your printer waits before it sends the error message. Edit the WSPROL.PS file and add this line toward the beginning of the file: **statusdict /waittimeout 600 put.** This sets the wait time-out to 600 seconds (the maximum setting). The default setting is 30 seconds. To turn off the wait time-out, set it to zero.

***TIP*** To print error messages when problems occur, copy the file *EHANDLER.PS* to your printer; for example, if your printer is connected to COM1, type **copy ehandler.ps com1.**

---

## ***MANAGING YOUR COMPUTER'S MEMORY***

### ***USING EMS***

If you have expanded memory (EMS), WordStar can use it to run faster and provide more functionality. For example, if you have two windows open, you have enough memory to start Inset only if WordStar is using EMS. WordStar detects EMS and uses it as needed.

You can use WSCHANGE (CC2G) to change the amount of EMS WordStar uses. The default is 16 pages of 16K each. If you have more EMS that you don't plan to use while running WordStar, you can try increasing this amount to make WordStar run faster.

### ***INCREASING AVAILABLE MEMORY***

If your computer doesn't have enough memory for you to use all of the WordStar features, and you want WordStar to use the minimum amount of memory, try applying the WSMIN.PAT file as described below.

- 1 Log on to the WordStar directory (usually WS), type **wschange ws**, and press Enter.
- 2 Choose E (Patching) and then A (Auto-patcher).
- 3 Type **wsmmin.pat** and press Enter.
- 4 When you see the message “Patching complete,” press any key to return to the Patching Menu. Then press ^X and Y to exit from WSCHANGE.

If this procedure doesn't free up enough memory for the features you want to use, try one or more of the following suggestions:

- Turn off background printing in WSCHANGE (BDCA).
- If you don't need automatic hyphenation, turn the hyphenator memory off in WSCHANGE (CCB). This saves about 60K of RAM.
- Run the Inset SETUP program, choose Q (Version), and choose Small. Press F10 to save your changes. This saves about 15K of RAM when you use Inset. If you want to edit graphics, load Inset from DOS by typing **inset/f**.

---

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

You can customize the way WordStar works by using the WSCHANGE option in WINSTALL. You can customize dozens of WordStar settings—from margins to the colors on your screen—so that the program always looks and acts the way you want it to. Although you can change many settings for a particular document while you're editing in WordStar, using WSCHANGE to change the settings affects all the documents you create. The settings you choose remain in effect until you change them in WSCHANGE or in the default paragraph style (see “Manage Paragraph Styles” in “Editing Screen Style Menu” in the *Reference* manual).

To use WSCHANGE, choose **Customize WordStar (WSCHANGE)** at the WINSTALL Menu, or type **wschange ws** at the system prompt, and press Enter.

*Note:* If you just type **wschange** and press Enter, the copyright screen appears. You're prompted for the .EXE file to change and the .EXE file to save changes to. If you haven't changed the name of your WS.EXE file, type **ws** and press Enter at both prompts.

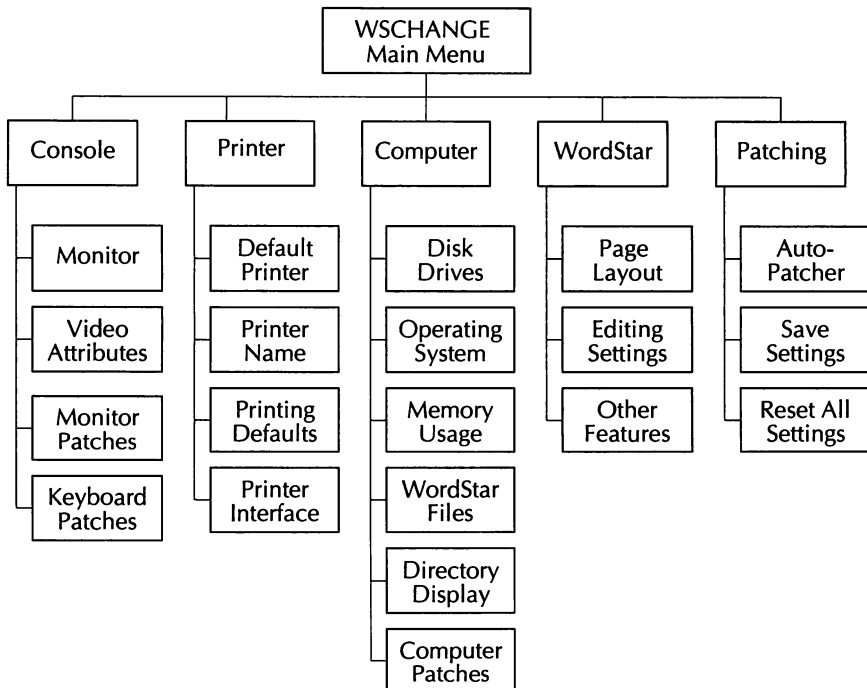
The WSCHANGE Main Menu appears.

## ***WSCHANGE MENU STRUCTURE***

As you can see by looking at the WSCHANGE Main Menu, WSCHANGE is organized in categories to help you find the settings you want to change. To change a setting, you go through a series of menus until you reach the one that has the item you want to change. You press the letter for that item and type the new setting.

WSCHANGE has extensive online help that explains most menu choices. If you have questions about a menu selection, press **F1** for help.

The menu structure of WSCHANGE is shown below.



## GETTING AROUND IN WSCHANGE

The chart on the following pages shows the path from the WSCHANGE Main Menu to most items in WSCHANGE.

Using the chart is the easiest way to find an item in WSCHANGE. For example, if you want to change the top margin setting, first find "Top margin" on the chart. Then, beginning at the WSCHANGE Main Menu, press the letters shown (**DAAB**) for the path. Type the new setting and press Enter. Follow the onscreen instructions to save the change.

***TIP** Press ^X at any menu to save your changes and leave WSCHANGE, or you can press ^C to leave WSCHANGE without saving any changes.*

In the chart below, some entries in the SETTING column are followed by one or more numbers. These numbers refer to notes that appear at the end of this section. In the DEFAULT column, the comment "N/A" means there is no default for the item. The comment "See screen display" means the default is an onscreen character that can't be reproduced for this chart, or that the default is too long for the chart.

SETTING	PATH	DEFAULT
Alignment <sup>1</sup>	DBC	N/A
Alternate font <sup>2</sup>	BCH	No font name
Auto backspace characters	DBBF	None
Auto-align	DBCE	ON
Auto-backup <sup>3</sup>	DCGI	0
Auto-hyphenation	DBCC	ON
Auto-patcher	EA	N/A
Automatic leading, 120% of text size	BCL	OFF
Automatically fill out last record	DBHG	ON
Background printing (concurrent)	BDCA	ON
Backup file type	CD5D	BAK
Backup files when saving	CD6D	ON
Beep if printer wait condition	BDCB	ON
Beginning block marker	DBDC	<B>
Bidirectional printing	BCB	ON
Binding space character	DBA3C	(See screen display)
Blank lines suppression	DAAK	OFF
Blocks	DBD	N/A
Bottom margin	DAAC	1.33"

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
Buffer size for various features	CC	N/A
Busy test for output to printer	BDAA	ON
“Can’t find that file” prompt	DBA2J	ON
Character conversion patches	DCF	N/A
Character for line numbering, left margin	DBJE	(See screen display)
Character for line numbering, right margin	DBJG	(See screen display)
Character width <sup>1</sup>	BCG	No font name
Characters before auto-hyphenation	DBCD	5
Characters, international table	DCGM	OFF
Characters, maximum unerased	DBEA	500
Check for double word	DCAJ	ON
Classic commands at Opening pull-downs	DBH2A	ON
Classic commands displayed on pull-downs	DBAK	ON
Code page default	DCGL	437
Color display alternate palette <sup>1</sup>	ABC	N/A
Color display alternate palette <sup>2</sup>	ABD	N/A
Color display default	ABB	N/A
Colors, save color settings in file	ACD	N/A
Colors, select individually	ABA	(See screen display)
Column break character	DBA4D	C
Column character, snaking	DBA3D	(See screen display)
Column mode	DBDA	OFF
Column replace mode	DBDB	OFF
Command tags display	DBAB	ON
Computer patches	CF	N/A
Concurrent printing	BDCA	ON
Continuous underlining	BCE	OFF
Copy auto-patch settings	EA	N/A
Cursor movement delay	ACBA	N/A
Cursor movement style, vertical	DBH2C	0
Cursor movement, hardware	CBCE	ON
Cursor sizes for all other monitors	ACF	N/A
Cursor sizes for monochrome monitors	ACE	N/A
Cursor stays in column 1 at marker	DBHD	ON
Cursor wrap on pull-down menus	DBA2F	ON
Data item separator	DCEA	,
Date format for &@& variable	DCEC	3 1, 4 (month day, year)
Date format for insert today’s date	DCDG	3 1, 4 (month day, year)
Decimal point	DBFK	.
Decimal tab stops <sup>4</sup>	DACB	None
Default printer <sup>2</sup>	BA	Current default
Default search path <sup>1 5</sup>	CDAA	\WS



## CUSTOMIZING WORDSTAR

SETTING	PATH	DEFAULT
Default search path 2 <sup>5</sup>	CDAB	\WS
Default search path 3 <sup>5</sup>	CDAC	\WS
Default search path 4 <sup>5</sup>	CDAD	\WS\INSET
Default search path 5 <sup>5</sup>	CDAE	\WS\OPTIONS
Default search path 6 <sup>5</sup>	CDAF	\WS\OPTIONS
Default search path 7 <sup>5</sup>	CDAG	\WS\INSET
Default search path 8 <sup>5</sup>	CDAH	\WS
Default search path 9 <sup>5</sup>	CDAI	\WS\FAX
Default search path 10 <sup>5</sup>	CDA2A	\WS\CONVERT
Default search path 11 <sup>5</sup>	CDA2B	\WS\MACROS
Default search path 12 <sup>5</sup>	CDA2C	\WS
Default search path 13 <sup>5</sup>	CDA2D	\WS
Default search path 14 <sup>5</sup>	CDA2E	\WS
Default search path 15 <sup>5</sup>	CDA2F	\WS
Default search path 16 <sup>5</sup>	CDA2G	\WS
Definitions during spelling session	CCC	OFF
Del erases left (not at cursor)	DBHC	OFF
Delay disk access if typing	CAB	0
Delay value for auto align	DBCF	500
Delay, longest (sign-on)	DCGB	2000
Delay, medium (menus)	DCGC	1000
Delay, short (document align)	DCGD	200
Dialog boxes, Enter moves from field to field	DBH2D	OFF
Dialog boxes, update field from list	DBH2	See screen display
Dictionary (main) name/location <sup>5, 6</sup>	DCAB	SPLMN000.DCT (U/2)
Dictionary usage	DCAE	N/A
Directory display <sup>7</sup>	CEA	ON
Directory, display file size	CEG	ON
Directory, display files at filename prompts	CEI	ON
Directory, display in alphabetical order	CEB	ON
Directory, file types excluded from	CEC	(See screen display)
Directory, filenames that are displayed	CED	???????.???
Directory, initial log-on	CEE	None
Directory, show files with changing drive/dir.	CEH	OFF
Directory, show path with filename	DBA2E	ON
Disk access pause	DBBE	0
Disk drives, valid	CAA	(All drives valid)
Disk space, display remaining	CEF	ON
Dispatch table	CDE	WSDSPCH.OVR(U/1)
Document mode, status line filler character	DBA2C	" " (blank)
Dollar format for inserted numbers	DCDI	--,---,---,---.99
Dot command at start of page	DBA4G	1
Dot command character	DBA4F	.
Dot command display	DBAE	ON

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
Dot commands automatically put into file	DBH2B	ON
Dot leader character	DBA3F	.
Edit screen, help level	DBAA	4
Editing screen, return to old	DBH2F	OFF
Editor, memory allocated for	CCJ	64K
EMS, amount used	CC2G	16 pages
End of line character	DBA4K	@
End of file character <sup>8</sup>	DBA3J	^
Ending block marker	DBDD	<K>
Endnote buffer size	DAD2H	2 records
Endnote file type	DAD2G	\$E\$
Endnote font <sup>2</sup>	DAD2AA	No font name
Endnote reference mark in note, attributes	DAD2DA	0
Endnote reference mark in note, lead char.	DAD2DB	(
Endnote reference mark in note, trail char.	DAD2DC	)
Endnote reference mark in text, attributes	DAD2CA	32
Endnote reference mark in text, lead char.	DAD2CB	^@
Endnote reference mark in text, trail char.	DAD2CC	^@
Endnote repeating character table	DAD2B	#@
Endnote tag type	DAD2E	3
Endnote VMI between notes	DAD2FA	240
Endnote VMI for each endnote line	DAD2FB	240
Endnote, default color to use	DAD2AC	0
Endnote, default ruler to use	DAD2AB	0
Enter moves from field to field in dialog box	DBH2D	OFF
Erasing and cursor type ahead	DBED	OFF
Esc acts like ^R and ↵	DBHF	OFF
Exceptions dictionary file <sup>5</sup>	CD4D	EXCEPT.DCT(U/2)
Exit WSCHANGE and save changes	^XY	N/A
Exit WSCHANGE without saving changes	^C	N/A
Fast typing display pause	DBBC	50
Fast typing page/line/column delay	DBBD	75
Fax file name and path	CD4I	?????????.PCX(U/9)
File directory display	CEA	ON
File sizes, display	CEG	ON
Filenames	CD	N/A
Find and replace default options	DBGA	None
Flag column display	DBAC	ON
Font menu definitions, number of	CC2C	100
Font family member definitions, number of	CC2D	20
Font size unit of measure	DAGD	Points
Font, alternate <sup>2</sup>	BCH	No font name

## CUSTOMIZING WORDSTAR

SETTING	PATH	DEFAULT
Font, default (normal character) <sup>1, 5</sup>	BCG	No font name
Font, for endnotes <sup>2</sup>	DAD2AA	No font name
Font, for footnotes <sup>2</sup>	DADAA	No font name
Font, for line numbers	DBJA	No font name
Font, normal character <sup>1, 5</sup>	BCG	No font name
FONTID.CTL for Preview, location of <sup>5</sup>	CDH	FONTID.CTL(U/3)
Footer and header buffer size	CC2A	4096 bytes
Footer margin	DAAE	0.33"
Footer, page number position	DABB	Center
Footnote buffer size	CC2E	8 records
Footnote continuation text	DADG	...Continued...
Footnote file type	DADK	\$F\$
Footnote font <sup>2</sup>	DADAA	No font name
Footnote position	DADH	0
Footnote reference mark in note, attribute	DADDA	0
Footnote reference mark in note, lead char.	DADDB	^@
Footnote reference mark in note, trail char.	DADDC	.
Footnote reference mark in text, attribute	DADCA	32
Footnote reference mark in text, lead char.	DADCB	^@
Footnote reference mark in text, trail char.	DADCC	^@
Footnote repeating character table	DADB	*~
Footnote separator	DADF	-----
Footnote tag type, restart on each page	DADEB	0
Footnote tag type, type of reference mark	DADEA	3
Footnote, default color to use	DADAC	0
Footnote, default ruler to use	DADAB	0
Footnote, running format	DADI	8
Footnote, VMI between notes	DADJA	240
Footnote, VMI between sep. line/first note	DADJD	240
Footnote, VMI between text/separator line	DADJC	240
Footnote, VMI for each footnote line	DADJB	240
Form feed character	DBA4B	F
General exclusion list file for Indexer <sup>5</sup>	DCCA	WSINDEX.XCL(U/1)
Go to top of page with ^QI	DCGJ	OFF
Graphics conversion file	CD3B	TOPIX.EXE(U/7)
Graphics conversion settings file	CD3C	TOPIX.SET(U/7)
Graphics files directory display	CD3D	?????????.??? (U/4)
Graphics files file extension	CD3E	.PIX
Hard return ending character	DBA3G	<
Hardware cursor movement	CBCE	ON
Header and footer size	CC2A	4096 bytes
Header margin	DAAD	0.33"

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
Headers and footers	DAB	N/A
Height, line <sup>1</sup>	BCJ	240
Help level	DBAA	4
Help overlay file <sup>5</sup>	CDC	WSHELP.OVR(U/1)
HMI units for ruler line	DBA2G	180
Horizontal unit of measure	DAGA	Inches
Hyphenation	DBCC	ON
Hyphenation index file <sup>5, 6</sup>	CD5C	HYPIN000.DCT(U/1)
Hyphenation overlay file <sup>5</sup>	CD5A	WSHYP000.OVR(U/1)
Hyphenation, main data file <sup>5</sup>	CD5B	HYPMN000.DCT(U/1)
Hyphenator memory on/off	CCB	ON
IBM compatible ROM BIOS	CBCA	ON
IBM counter/timer for beeping	CBCB	ON
Index every word	DCCB	OFF
Indexer exclusion list file <sup>5</sup>	CD2E	WSINDEX.XCL(U/1)
Initial directory log-on	CEE	None
Insert characters	DBBB	ON
Inset program file for print-time loading <sup>5</sup>	CD3A	INSET.EXE(U/4)
Inset, load at print-time	BC2C	ON
INT 1C timer interrupt	CBCD	ON
International characters table	DCGM	OFF
International dictionary file <sup>5, 6</sup>	CD4E	SPLIN000.DCT(U/2)
Justification <sup>1</sup>	DBCA	OFF
Kerning	BC2B	ON
Keyboard repeat rates <sup>9</sup>	ADA	N/A
Language default	DCGK	1
Language, display on status line	DBA2D	OFF
Leading (line height) <sup>1</sup>	BCJ	240
Leading, automatic, 120% of text size	BCL	OFF
Left margin <sup>1</sup>	DAAH	0.00"
Left margin for line number	DBJD	0.70"
Letter quality printing <sup>1</sup>	BCC	DIS
Line feed character	DBA4A	J
Line height (leading) <sup>1</sup>	BCJ	240
Line height unit of measure	DAGC	Inches
Line numbering font	DBJA	No font name
Line numbering, continuous	DBJB	OFF
Line numbering, left margin character for	DBJE	(See screen display)
Line numbering, right margin character for	DBJG	(See screen display)
Line numbering, left margin for	DBJD	0.70"

## CUSTOMIZING WORDSTAR

SETTING	PATH	DEFAULT
Line numbering, right margin for	DBJF	7.40"
Line numbering, space between number/character	DBJH	0.30"
Line spacing <sup>1</sup>	DBC B	1
Line spacing between line numbers	DBJ C	0
Log on to directory in file list	CEJ	OFF
Log-on directory, initial	CEE	None
Long busy time-out	BDAB	0
Long line character	DBA3I	+
Longest delay (sign-on)	DCGB	2000
Lotus international characters	DBBH	OFF
Macro compiler error messages	DCDF	OFF
Macro file, compiler <sup>5</sup>	CD2H	WSC.EXE(U/1)
Macro file, decompiler <sup>5</sup>	CD2I	WSD.EXE(U/1)
Macro file, hot key list <sup>5</sup>	CD2F	WSHOTKEY.OVR(U/1)
Macro files and path <sup>5</sup>	CD2G	??????.WSM(U/11)
Macros	DCD	N/A
Macros, dollar format for numbers	DCDI	--,---,---,---.99
Macros, format for today's date	DCDG	3 1, 4 (month day, year)
Macros, format for today's time	DCDH	B:C D (hh:mm am/pm)
Macros, hot key buffer size	CCG	4 (896 bytes)
Macros, pause for input key	DCDB	Alt+-
Macros, stop at any time	DCDD	Ctrl+Break
Macros, stop during playback key	DCDC	Esc
Macros, stop recording key	DCDA	Alt+=
MailList from Additional menu <sup>5</sup>	CD3H	WSLIST.COM(U/6)
Main spelling buffer	CCD	N/A
Main spelling dictionary file <sup>5, 6</sup>	CD4B	SPLMN000.DCT(U/2)
Margins for endnotes	DAD2AB	0 (default ruler)
Margins for footnotes	DADAB	0 (default ruler)
Margins, page size and	DAA	N/A
Maximum characters unerased	DBEA	500
Measurements, units of	DAG	N/A
Medium delay (menus)	DCGC	1000
Memory usage	CC	N/A
Memory usage, EMS	CC2G	16 pages
Menu level	DBAA	4
Merge print dot command character	DBA4H	:
Merge print memory	CC2b	4K
Merge printing	DCE	N/A
Messages and menus buffer	CCF	4 records
Messages and menus file <sup>5</sup>	CDD	WSMSG.S.OVR(U/1)
Microjustification	BCD	DIS

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
Monitor name	AAB	N/A
Monitor patches	AC	N/A
Monitor selection	AAA	N/A
Monitor, IBM PC CGA compatible	AAAB	N/A
Monitor, IBM PC compatible, incl. EGA & VGA	AAAA	N/A
Monitor, IBM PC EGA with 43 lines	AAAD	N/A
Monitor, IBM PC ROM compatible	AAAC	N/A
Monitor, IBM PC VGA with 50 lines	AAAE	N/A
Monochrome display default	ABF	N/A
Monochrome graphics display default	ABE	N/A
Mouse, delay before horizontal scroll	DCHG	300
Mouse, delay before vertical scroll	DCHH	300
Mouse, horizontal motion sensitivity	DCHC	15
Mouse, horizontal move before scroll	DCHE	20
Mouse for left hand	DCHB	OFF
Mouse support	DCH	N/A
Mouse support on/off	DCHA	ON
Mouse, vertical motion sensitivity	DCHD	15
Mouse, vertical move before scroll	DCHF	15
Multi-user or network system	CBB	OFF
Near letter quality printing <sup>1</sup>	BCC	DIS
Newspaper column file type	CD5H	\$D\$
No extra soft lines at paragraph end	DBHE	OFF
Nondocument, command line default	DCBA	OFF
Nondocument, print as default	BCA	OFF
Nondocument, status line filler character	DBA2CB	" " (blank)
Nondocument, tabs/auto-indent by file type	DCBD	(See screen display)
Nondocument, ^B and ^QU strip MSB	DCBC	ON
Normal (default) character font <sup>1, 5</sup>	BCG	No font name
Notes (footnotes/endnotes)	DAD	N/A
Outline style numbering	DBIC	OFF
Overprint line character	DBA3K	-
Page break character	DBA4C	P
Page break divider character	DBA3B	-
Page length	DAAA	11.00"
Page number	DABA	ON
Page number, initial	DABC	1
Page number, position	DABB	Center
Page offset on even pages	DAAF	0.80"
Page offset on odd pages	DAAG	0.80"

## CUSTOMIZING WORDSTAR

SETTING	PATH	DEFAULT
Paragraph ending character	DBA3G	<
Paragraph margin <sup>1</sup>	DAAJ	(none)
Paragraph numbering separator at end	DBIB	OFF
Paragraph numbering style	DBIA	1.1.1.1.1.1.1.1
Paragraph numbering, outline style	DBIC	OFF
Paragraph style, default	DAFB	Body Text
Paragraph styles library file <sup>5</sup>	DAFA	WSSTYLE.OVR(U/1)
Paragraph styles temporary file extension	DAFC	\$G\$
Path settings, save	CD6E	N/A
Paths, default search	CDA	N/A
Personal dictionary file <sup>5</sup>	DCAD	PERSONAL.DCT(U/2)
Personal dictionary memory	DCAG	2K
Personal dictionary, always prompt for	DCAEC	OFF
Preview file <sup>5</sup>	CDF	PREVIEW.OVR(U/3)
Preview work files <sup>5</sup>	CDG	???????.CRT(U/3)
Print control (command tags) display	DBAB	ON
Print from keyboard template file <sup>5</sup>	CD2D	KEYBOARD.MRG(U/1)
Print nondocument as default	BCA	OFF
Print page numbers	BC2A	ON
Print Wait, beep for	BDCB	ON
Printer busy test	BDAA	ON
Printer character input subroutine	BDBF	N/A
Printer character output subroutine	BDBD	N/A
Printer description files <sup>5</sup>	CD2B	???????.PDF(U/1)
Printer initialization subroutine	BDBA	N/A
Printer input status subroutine	BDBE	N/A
Printer long busy time-out	BDAB	0
Printer output status subroutine	BDBC	N/A
Printer overlay files <sup>5</sup>	CD2A	???????.OVR(U/1)
Printer patch area	BDBG	N/A
Printer uninitialization subroutine	BDBB	N/A
Printer, choose a default printer	BA	DRAFT
Printer, choose name for sign-on screen	BB	Draft Printer
Printing defaults	BC	N/A
Printing, background printing (concurrent)	BDCA	ON
Printing, busy test for output to printer	BDAA	ON
Printing, long busy time-out	BDAB	0
Prompt "Can't find that file"	DBA2J	ON
Prompt "Return to WordStar"	DBA2I	ON
Proportional spacing	BCF	DIS
Pull-downs, turn cursor wrap on/off	DBA2F	ON

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
RAM resident, WordStar	CCA	OFF
RAM, put characters directly in video RAM	CBCC	ON
Reset all settings	EC	N/A
"Return to WordStar" prompt	DBA2I	ON
Reverse bright/dim	ACCC	N/A
Right margin <sup>1</sup>	DAAI	6.50"
Right margin for line number	DBJF	7.40"
ROM BIOS, IBM compatible	CBCA	ON
Ruler line, 1st stored	DAEB	Quotation
Ruler line, 2nd stored	DAEC	Hanging Indent 1
Ruler line, 3rd stored	DAED	Undefined
Ruler line, 4th stored	DAEE	Undefined
Ruler line, 5th stored	DAEF	Undefined
Ruler line, 6th stored	DAEG	Undefined
Ruler line, 7th stored	DAEH	Undefined
Ruler line, 8th stored	DAEI	Undefined
Ruler line, 9th stored	DAEJ	Undefined
Ruler line, default <sup>1</sup>	DAEA	Body text
Ruler line display	DBAH	ON
Run a DOS command prompt	DBA2I	ON
Save all settings in file	EB	N/A
Save color settings in file	ACD	N/A
Save path settings in file	CD6E	N/A
Save WSCHANGE changes and exit	^XY	N/A
Screen colors, alternate color palette 1	ABC	N/A
Screen colors, alternate color palette 2	ABD	N/A
Screen colors, color display default	ABB	N/A
Screen colors, monochrome display alternate	ABE	N/A
Screen colors, monochrome display default	ABF	N/A
Screen colors, reset to shipped default	ABGD	N/A
Screen colors, select individually	ABA	(See screen display)
Screen height	AACA	25
Screen size, horizontal scroll width	AACC	20
Screen width	AACB	80
Scroll bar display	DBAJ	ON
Scroll speed	DBBG	3
Separator between data items	DCEA	,
Short delay (doc align)	DCGD	200
Sign-on message	DCGA	None
Single user system	CBA	N/A
Smallest word checked	DCAH	2
Snaking column character	DBA3D	(See screen display)
Soft return ending character	DBA3H	" " (blank)



## CUSTOMIZING WORDSTAR

SETTING	PATH	DEFAULT
Soft space character	DBA3A	(See screen display)
Soft space display	DBAD	OFF
Sort order for block sort	DCFC	N/A
Special characters, patching	ACA	N/A
Spelling check defaults	DCA	N/A
Spelling check options	DCA2	N/A
Spelling checker overlay <sup>5, 6</sup>	DCAA	WSSPL000.OVR(U/2)
Spelling, "Words checked" prompt	DCAL	ON
Spelling, main buffer	DCAF	65535
Spelling, watch progress of spelling check	DCAK	OFF
Status line display	DBAI	ON
Status line, display language	DBA2D	OFF
Status line filler character, document mode	DBA2CA	(blank)
Status line filler character, nondocument mode	DBA2CB	(blank)
Status line location	DBA2B	BOTTOM
Stored ruler lines	DAE	N/A
Strikeout character	BCI	-
Style bar display	DBAG	ON
Style bar location	DBA2A	TOP
Subscript/superscript roll	BCK	90
Suppress blank lines	DAAK	OFF
Suppressed blank line character	DBA4J	(See screen display)
Tab stops, decimal <sup>1, 4</sup>	DACB	None
Tab stops, regular <sup>1, 4</sup>	DACA	(See screen display)
Tabs and auto-indent by file type (nondoc.)	DCBD	(See screen display)
TelMerge from Additional menu <sup>5</sup>	CD3F	TELMERGE.EXE(U/5)
TelMerge system file	CD3G	TELMERGE.SYS(U/5)
Temporary block file type	CD5G	\$C\$
Temporary text file type, backward editing	CD5F	\$B\$
Temporary text file type, forward editing	CD5E	\$A\$
Text spillover	CCG	0
Thesaurus definitions overlay <sup>5, 6</sup>	CD4H	DEFIN000.DCT(U/2)
Thesaurus dictionary file <sup>5, 6</sup>	CD4G	THESR000.DCT(U/2)
Thesaurus overlay file <sup>5, 6</sup>	CD4F	WSTHS000.OVR(U/2)
Thousands number separator	DBFJ	,
Time format for &!& variable	DCED	B:C D (hh:mm am/pm)
Time format for insert current time	DCDH	B:C D (hh:mm am/pm)
Title bar display	DBAF	ON
Top margin	DAAB	0.50"
Turn "Can't find that file" on/off	DBA2J	ON
Turn "Return to WordStar" on/off	DBA2I	ON

## CHANGING WORDSTAR SETTINGS IN WSCHANGE

SETTING	PATH	DEFAULT
Turn "Words checked" message on/off	DCAL	ON
Turn cursor wrap on pull-downs on/off	DBA2F	ON
Turn spelling check on/off	DCAI	ON
Type ahead buffer flush control	ADB	OFF
Underline blanks	BCE	OFF
Unerase buffer	CCI	500 bytes
Unerase single character erasures	DBEB	OFF
Unit for all measurements	DAGE	(Mixed)
Unknown dot command character	DBA4I	?
Valid disk drives	CAA	(All drives valid)
Variable name indicator	DCEB	&
Vertical cursor movement	DBH2C	0
Vertical unit of measure	DAGB	Inches
Video attribute subroutine	ACCA	N/A
Video attributes	AB	N/A
Video RAM, put characters directly in	CBCC	ON
VMI units for line height	DBA2H	240
Watch progress of spelling check	DCAK	OFF
Watch progress of ^QU alignment	DBCG	OFF
Window prompt for document/nondocument	DCGG	OFF
Window separator character	DBA4E	W
Window, size of other	DCGH	128
Word wrap at right margin <sup>1</sup>	DBBA	ON
"Words checked" message	DCAL	ON
WordStar compatibility	DBH	N/A
WordStar files	CD	N/A
^6 hard to soft carriage return/auto-align	DBHB	OFF
^B and ^QU strip MSB in nondocument	DCBC	ON
^H moves left (not erase left)	DBHA	OFF
^N split line (or hard return to soft)	DCGJ	ON
^QI goes to top of page	DCGJ	OFF
^QU, watch progress of ^QU alignment	DBCG	OFF
^QX goes to right side of screen	DBHH	ON

***WSCHANGE CHART NOTES***

- 1 This setting should be changed in the default paragraph style (usually Body Text).
- 2 If you change the default printer or the default setting for the normal character, alternate character, endnote, footnote, or line numbering font, your PDFs must be in the main WordStar directory (usually WS). Otherwise, WSCHANGE can't find them.
- 3 Auto-backup works only with IBM computers that have a ROM BIOS date of 11/85 or later.
- 4 When you set tabs in WSCHANGE, be sure to set them in ascending order (2", 4", 6"). If you set them in descending order (6", 4", 2"), they won't take effect.
- 5 The default search paths shown assume you installed WordStar with WSSETUP and didn't change the directory names.
- 6 Some spelling, thesaurus, and hyphenation filenames contain "000." The actual filenames on your WordStar disks have "001" in the filename. The "000" in WSCHANGE tells WordStar that multiple languages can be used. The "001" in the filenames on disk tells WordStar you're using the American English (as opposed to British English) version of those files. (If "001" were used in WSCHANGE, you would be able to use only the American English version of the spelling, thesaurus, and hyphenation files.)
- 7 Turning the directory display off in WSCHANGE does not affect help level 4 (pull-down menus). The directory is always displayed at help level 4.
- 8 When you set WordStar not to pad out the last record of your file with ^Z (SETEOF), only nondocument files are affected. In document files, WordStar always pads out the last record.
- 9 The keyboard repeat rates work only with IBM computers that have a ROM BIOS date of 11/85 or later.

CHAPTER 3

---

# ADVANCED CUSTOMIZING

This section includes instructions for

- ❑ Fine-tuning Preview to Display Fonts
- ❑ Patching WordStar Manually and Using the Auto-patcher
- ❑ Setting Paths for WordStar Files
- ❑ Advanced Customizing of PDFs

---

## *FINE-TUNING PREVIEW*

Preview works correctly on most computers. However, if you have trouble getting it to work properly on your computer, or if you want to improve the display, you can make several adjustments. For example, you can specify a different type of monitor, change the page size, or adjust the screen fonts. To make these adjustments, you edit a configuration file in WordStar named FONTID.CTL.

**CAUTION** *Before you edit FONTID.CTL, make a copy of the original file. Then if you make any errors, you can use the original file.*

## ***EDITING THE FONTID.CTL FILE***

Preview uses the FONTID.CTL file to get information about these items:

- Type of graphics card being used
- Aspect ratio of the monitor display
- Grid type used in the display
- Page size being previewed
- Background color of the page
- Size of the top and left offsets for nonprinting areas of the page
- Resolution for fax files
- Screen fonts (.WSF files) installed

The above items are preset in WordStar; however, you can change any of them. To change a setting in the FONTID.CTL file, you edit that file as a nondocument file in WordStar. The FONTID.CTL file is maintained by the PRCHANGE, DISPFONT, and Preview programs. However, if you need to edit the file, keep the following points in mind:

- You must edit FONTID.CTL as a *nondocument* file.
- After you edit FONTID.CTL and save the file, you must exit WordStar for your changes to take effect.
- If you delete a font entry from the table in FONTID.CTL, you can no longer preview that font.
- Invalid font entries, or those that have no corresponding .WSF files, will be removed from FONTID.CTL. If you delete a .WSF file, the corresponding entry is removed from FONTID.CTL.

## ***CHANGING THE PREVIEW DISPLAY***

***SPECIFYING A MONITOR*** In the FONTID.CTL file, the Display Adapter Type is defined by the line CRT\_TYPE=*n*. If *n* is blank, the monitor type is selected automatically. In the monitor list, adapters marked with NA must be selected manually. For example, the Cirrus VGA 16-color adapter looks like this in the file:

```
; NA 8 = 800 X 600 CIRRUS VGA (16 COLOR)
```

To choose that adapter, you would type **8** as the code after CRT\_TYPE=.

If your monitor isn't supported for Preview (see the "Printers and Monitors List"), try using 0 (monochrome) or 1 (color) as the monitor code. Also, check with the monitor manufacturer to see if a special WordStar graphics driver file is available. If you have a WordStar graphics driver file for your monitor, type the filename after CRT\_TYPE=.

***CAUTION*** *When you change the monitor type, run Preview before you make changes to any files. The wrong monitor type could hang up the system and lose data.*

If you're using a monochrome VGA card, and you get a blank screen after you exit Preview, type **mode bw80** at the system prompt. (The DOS MODE.COM file must be on your path.)

If you have a laptop with a VGA LCD display (monochrome) and you want to improve your display, try the VGA MONO selection.

*Note:* If your graphics adaptor card is SUPERVGA and will run at 1024x768, check the manual to see if it has a VESA Bios driver. This driver remains in memory and supports a standard interface. With the VESA driver loaded, specify CRT\_TYPE= VESA1024.WGD. This should support your SUPERVGA in high resolution 1024x768 mode.

***ADJUSTING THE ASPECT RATIO*** You can change the Aspect Ratio to make the horizontal and vertical inches equal in the Preview display. To see the Aspect Ratio, press **O** and then **G** to turn the Grid option on. See if the horizontal and vertical grid marks are about the same. If they aren't, edit FONTID.CTL and type a positive or negative number after ASPECT= (for example, -10) to adjust the horizontal grid marks. Positive values make the grids wider, while negative values make the grids narrower.

**USING DIFFERENT GRID TYPES** You can choose from five different grid types by editing the GRID\_TYPE= line in FONTID.CTL.

- 1 = Pica Grid (6 dots per inch)
- 2 = Inch Grid (10 dots per inch)
- 3 = Inch Grid (4 dots per inch)
- 4 = Centimeter Grid (2 dots per centimeter)
- 5 = Centimeter Grid (5 dots per centimeter)

After GRID\_TYPE=, type a number from **1** to **5**. The *dots per inch* are the reference dots you see in Preview when Grid is on, and not the printed dots per inch. Unless you change it, the Grid Type is 2 (10 dots per inch).

**DISPLAYING DIFFERENT PAGE SIZES** You can change the display page size by editing the PAGE= line in FONTID.CTL. After PAGE=, type the horizontal inch measurement, an "X," and the vertical inch measurement. For example, to preview a document on legal size paper, you would type **8.5X14**. FONTID.CTL includes a few PAGE= comment lines (preceded by semicolons) for standard page sizes other than the default letter size. To use one of the standard page sizes listed, remove the semicolon from the PAGE= line you want to use. Then add a semicolon preceding PAGE=8.5X11.

Preview switches between portrait and landscape pages using the default setting PAGE=8.5X11.

*Note:* If you prefer, you can use commas as decimal points when you type the page size.

**CHANGING THE BACKGROUND COLOR** You can change the background color of the previewed page by editing the PAPER\_COLOR= line in FONTID.CTL. After PAPER\_COLOR=, type a number from **0** (black) to **15** (white). The colors may vary from monitor to monitor. Remember that black text isn't visible against a black page.

**REVERSING COLORS** If you're using a laptop or any other monitor that reverses colors, Preview displays white text on a black background. To return to the normal display of black text on a white background, type 1 after INVERSE=.

**SETTING THE TOP AND LEFT OFFSETS** You can set an offset in decipoints (one decipoint = 1/720 inch) to allow for the areas of the page. If you set the top and left offsets to 180, Preview adds .25 inch to the top margin and page

offset values. The default offsets are 0. If you change printers, you may have to change the offsets manually.

*Note:* Top and left offsets also affect the alignment of text on fax pages.

**CHANGING THE RESOLUTION FOR FAX FILES** Most fax machines have a resolution of 200 dots per inch (dpi) horizontally. The vertical resolution is either 200 (high) or 100 (low) dpi. Send fax files in the same resolution in which they were created.

WordStar's fax file output supports both high and low resolutions. The default output resolution in FONTID.CTL is high, represented by the statement FAX\_RES=1. The statement for low resolution is FAX\_RES=0. The statement for 300x300 dots per inch is FAX\_RES=2. The setting that you choose needs to be supported by your fax machine. The high resolution produces better-looking fax output. Phone line charges are less for normal resolution but the fax output isn't as satisfactory.

When you request fax files from either the Opening screen or the Editing screen, you enter the resolution in the Fax dialog box. The settings in the Fax dialog box override settings in FONTID.CTL. However, when you create fax files from within Preview, WordStar uses the FAX\_RES setting in FONTID.CTL.

You can select settings in FONTID.CTL that allow you to create .PCX files in the correct resolution for dot matrix printers. These are not fax files. The statement for a 9-pin dot matrix printer is FAX\_RES=3. The statement for a 24-pin dot matrix printer is FAX\_RES=4.

*Note:* You need to obtain a utility (not supplied by WordStar) to print the .PCX files for the 9-pin and 24-pin dot matrix printers.

## ***ADJUSTING THE SCREEN FONT DISPLAY***

When you create screen fonts (.WSF files) in PRCHANGE or the DISPFONT program, information about each font is stored in the FONTID.CTL file. Preview cannot display a typestyle unless it's in FONTID.CTL. If WordStar can't find the font, it displays the best match it can find.

WordStar supplies four groups of screen font (.WSF) files. The files are used when WordStar can't find a better match for your font. The four groups are named as follows:



## ADVANCED CUSTOMIZING

NAME	CHARACTERISTICS
COURIER	Fixed pitch serif font for typefaces like Courier and Prestige Elite
NPSHLV	Fixed pitch sans serif font for typefaces like Line Printer and Gothic
UNIVERS	Proportional sans serif font for typefaces like Helvetica and Triumvirate
TIMES	Proportional serif font for typefaces like Times Roman and Century Schoolbook

Each screen font group above includes four files for regular (1), italic (2), bold (3), and bold-italic (4) fonts.

When you create a screen font in PRCHANGE or DISPFONT, the font is assigned a seven-character name; for example, **0512USR.WSF**, where

05	HP Typeface ID number (05 = Times Roman)
12	Point size
US	Symbol set (US = USASCII)
R	Weight/style (R=Regular, B=Bold, I=Italic, J=Bold-Italic)
.WSF	WordStar Screen Font

The font section of FONTID.CTL uses this format for screen fonts:

**01= UNIVERS1,180 093 C034 341**

FILENAME OR #	REPRESENTS
01	Sequence number
UNIVERS1	Screen font filename (.WSF)
180	Height (1/720 inch, or point size x 10)
093	Average character width (1/720 inch)
C034	Key for typeface and characteristics
341	HP symbol set number

*Note:* If you add a font to FONTID.CTL manually, you need to enter only the sequence number and the screen font filename. Preview calculates the other values.

### ***HOW PREVIEW SELECTS SCREEN FONTS***

Preview needs only one size of each screen font to display that font in any size (size is not a selection criterion as it is in printers). Preview chooses which font to display based on the following priorities:

- Math/Symbols/Text (850 or 437) symbol set
- Proportional/Fixed
- Specific typestyle
- PC-850/PC-8 (code page 437) symbol set
- Italic/Upright
- Bold/Normal weight
- Serif/Sans serif/Display/Script

If Preview finds more than one “best match,” WordStar uses the one that appears last in the FONTID.CTL file. FONTID.CTL does not contain duplicates unless you force them (see “Making Screen Fonts”).

### ***MAKING SCREEN FONTS***

To make the best looking Preview display, create screen fonts from the same fonts you’ll use for printing. Otherwise, the screen fonts may look slightly different than the printed fonts. The symbol set should be either PC-8 or PC-850 since WordStar maps those symbol sets to the fonts in your printer. You can use the USASCII symbol set if you want to achieve smaller font files or to allow greater resolution of screen fonts. This symbol set, however, does not display extended characters.

***MAKING SCREEN FONTS AUTOMATICALLY*** When you install soft fonts, you use LSRFONTS to create a custom font database containing the fonts you want to preview. Then you use PRCHANGE to install the custom fonts in your PDF. (See “Adding Custom Fonts” in “Customizing WordStar” in this booklet.)

After you add the fonts to your PDF, you’ll see the prompt *Do you want to create screen fonts? Y/N*. If you press **Y**, PRCHANGE scans all the fonts in your PDF and makes the necessary screen fonts.

When adding screen fonts, keep these points in mind:

- Only one screen font is needed for each typeface/attributes/symbol set combination because Preview scales the screen font to the correct size. Larger fonts make better-looking screen fonts, but they also take up more disk space than smaller fonts. Start with 18-point fonts, and then try larger or smaller fonts, depending on whether you want better resolution or more disk space. For the USASCII symbol set, 30 points produces optimum results.
- The size limit for .WSF files is 48K, and the limit for the largest single character in a font is 4K. If either limit is exceeded, the .WSF file will not be created. If you can, use smaller soft fonts to build the screen fonts.
- Symbol sets in the same group are considered duplicates, but PC-8 and PC-850 symbol sets override other symbol sets in the same group.
- Only bitmapped (HP LaserJet series II and compatible) soft fonts can be used to create screen fonts. Scalable (HP LaserJet III and compatible) and compressed (HP LaserJet IIP and compatible) fonts will not work. If you use Type Director or another soft font generator to create soft fonts, set up the program to make soft fonts for HP LaserJet Series II and compatible printers. First create an 18-point font, and then create a screen font from it by running DISPFONT.
- If you don't think your font was added to FONTID.CTL, or if the screen font doesn't match the printed font, try creating the font manually.

***MAKING SCREEN FONTS MANUALLY*** If you make screen fonts in PRCHANGE, and you do not like the screen font size selected, you can force DISPFONT to make the screen font in another size.

To make a screen font, log on to the directory where FONTID.CTL and the \*.WSF files are located (usually WS). Make sure your path includes the directory where DISPFONT.COM and DISPFONT.OVR are located (usually WS). Type **dispfont *fontname***, where *fontname* is the name of the soft font file (including the path, if needed), and press Enter. (You can use a wild-card specification to enter filenames, for example, \*.SFP.) DISPFONT creates a .WSF file (a screen font) and displays the filename or displays an error message telling you why it can't create the screen font. Each time DISPFONT creates a screen font, it updates the FONTID.CTL file.

DISPFONT doesn't normally create a duplicate font, but if you want to force creation of a duplicate font, type **dispfont fontname f** and press Enter. You may want to force a duplicate font if, for example, a screen font was originally created in a very small point size and you want better resolution. The "f" for "force" works with wild-card characters, but you need to be careful. If you type **dispfont \*.sfp f** you may add a lot of duplicates into your FONTID.CTL table. The FONTID.CTL table should not really go beyond 60 entries, and fills up at 99 entries.

**CAUTION** *Duplicate screen fonts may just be different symbol sets belonging to the same group, for example, Courier 10 PC and Courier 10 US. ASCII and PC-8 are considered equivalent, but PC-8 is preferred because it includes more characters. If you override a PC-8 font with an ASCII font, you can't display the entire character set.*

### **ADDING EXISTING SCREEN FONTS**

If you want to add screen fonts (.WSF files) that are stored on a floppy disk or in a network directory, you can use DISPFONT to copy the font into the current directory. Type **dispfont drive/directory filename** and press Enter. For instance, to add all the screen fonts on a floppy disk located in drive A, type **dispfont a:\*.wsf** and press Enter. (Be sure to include the location of the font files, or the screen fonts will be added twice.) The DISPFONT program copies the screen font files from the floppy disk to the current directory and updates FONTID.CTL.

### **TROUBLESHOOTING SCREEN FONT PROBLEMS**

The problems described below may occur when you create screen fonts.

**YOU ADD A NEW FONT AND EVERYTHING DISPLAYS IN THAT FONT** If this occurs, the fonts in your PDF may not match the default screen fonts. When Preview doesn't find an exact match, it looks for the closest match. If it finds more than one "closest match," it uses the last one in the list in FONTID.CTL. When you add fonts, those fonts are last in the list and are used before any of the default fonts. Edit FONTID.CTL and move the last font to the top of the font list. Then carefully renumber the list, starting with sequence number 01. Delete the VER= line, save the file, and then exit WordStar and restart it. If there are gaps or duplicate numbers in the font list, the list will be renumbered when you start Preview.

For example, if all the fonts in your PDF are Roman-8, and you add one special Roman-8 screen font, Preview may choose the new font for all fonts since it is the only one that has the correct symbol set. You can either make screen fonts from your Roman-8 fonts or build a PDF that uses the PC-8 (the default) symbol

set for all the other fonts. Making fonts with the correct typeface number usually helps, even if the symbol set is wrong.

***CRT FILES ARE FILLING UP YOUR HARD DISK*** CRT files are created for each size of each font you display. They are not deleted automatically except when the "VER=" line in FONTID.CTL is removed. However, you can remove CRT files at any time, and Preview rebuilds them as needed. Log on to the directory where Preview keeps its files (usually WS); this directory has one or more subdirectories with .CRT extensions. Make sure the directory with DELCRT.EXE is on your DOS path, and type **delcrt** and press Enter. (If you need to, specify the path; for example, **c:\ws\delcrt**.) DELCRT searches for files and subdirectories with the .CRT extension and deletes them.

---

## ***CREATING SCREEN FONTS FOR FAX FILES***

Preview creates fax images similar to the way it creates screen images. It may help you to think of the fax machine as a 200 dpi printer. You want to get the best looking print quality using the output from Preview. To achieve the best looking fax fonts, just as in Preview, you start with the best original fonts. WordStar starts with HP LaserJet bitmapped fonts and converts them to compressed .WSF files. Only one size of each typeface is required. Preview scales the fonts at display time to match the size of type desired and the size and shape of your graphics screen.

Your WordStar package contains a selection of screen fonts. These fonts adequately display smaller point sizes. For larger point sizes, you can produce much better fonts by starting with larger original fonts.

## ***SELECTING A SYMBOL SET***

The symbol set that you use affects the font size. The USASCII set has much smaller font files. We recommend that you use the USASCII symbol set if you don't require international characters and line and box symbols in your documents.

*Note:* Preview cannot handle a screen font over 48K or a scaled bitmap over 64K.

The following chart shows the quality of fonts produced from various point sizes and symbol sets. The results were obtained from a Compugraphics CG TIMES Bold font.

<b>FAX FONT SIZE</b>	<b>10 PT. ORIG. PC-8</b>	<b>18 PT. ORIG. PC-8</b>	<b>30 PT. ORIG. USASCII</b>
10 pt.	Good	Excellent	Excellent
12 pt.	Good	Excellent	Excellent
18 pt.	Fair	Excellent	Excellent
24 pt.	Fair	Excellent	Excellent
30 pt.	Fair	Fair	Excellent
40 pt.	Poor	Fair	Excellent
50 pt.	Poor	Fair	Fair
60 pt.	Poor	Poor	Fair
72 pt.	Very Poor	Poor	Fair

The recommended original fonts to use for fax files are 18-point, PC-8 symbol set, or 30-point, USASCII.

*Note:* The PC-850 symbol set has the same size .WSF files as the PC-8 symbol set, because the number of characters in the symbol sets is the same. Legal has the same size .WSF files as USASCII.

## ***USING DISPFONT TO CREATE FONTS***

You create screen fonts for Preview using the utility DISPFONT. DISPFONT takes an HP LaserJet bitmapped, portrait font, and converts it into a WordStar Screen Font (.WSF) file. If you have a LaserJet II or III printer, you probably already have several downloadable bitmapped soft fonts. If you are using a special font that you purchased, like Old English or a script font, you can probably use it with DISPFONT. For more information on the DISPFONT program, see the previous section in this chapter called "Adjusting the Screen Font Display."

*Note:* Currently, DISPFONT only converts HP LaserJet fonts. If you don't have any soft fonts, you can contact WordStar for a disk of USASCII screen fonts at 30 points. These are for CG-Times and Univers fonts.

### ***LASERJET SERIES II SOFT FONTS***

Use the following steps to create screen fonts for LaserJet Series II soft fonts.

- 1** Determine the largest point size available from your soft fonts (around 30-point for USASCII or 18-point for PC-8).
- 2** Log on to the directory where the FONTID.CTL resides (usually WS).
- 3** Type **dispfont \fontpath\fontname f** and press Enter.

For example, type **dispfont c:\myfonts\tr300rpn.usp f**. The “f” in this command means “force duplicate creation.” DISPFONT overwrites a similar font that exists in a smaller size. When you type the command, DISPFONT creates a screen font file (.WSF) and an entry in the FONTID.CTL file.

### ***LASERJET III SCALABLE FONTS AND LASERJET II-P COMPRESSED FONTS***

DISPFONT cannot directly read the LaserJet III scalable fonts and LaserJet II-P compressed fonts. Use Type Director or some other font-scaling program to create LaserJet Series II soft fonts in portrait orientation, in the desired symbol set, and at the recommended point size (see the previous section “Selecting a Symbol Set”). Then use DISPFONT to create screen fonts using the information described in the previous section “LaserJet Series II Soft Fonts.”

### ***CARTRIDGE AND INTERNAL FONTS***

To Preview or fax cartridge or internal fonts, you need to use a bitmapped version of the same (or close to the same) font. Many cartridges come with machine-readable bitmapped versions on disk. If you can get the bitmapped fonts into HP LaserJet II format, you can use them to create screen fonts. Otherwise, you may be able to use a standard font (like Times) which closely approximates other fonts such as Century Schoolbook.

### ***NON-HP PRINTER FONTS***

If you purchased scalable fonts from a vendor and installed them for your printer, see if the font scaler program can also make HP LaserJet II fonts (most scaler programs can do this). After you create the HP LaserJet II fonts, follow the instructions in the above section “LaserJet Series II Soft Fonts.”

## ***ADOBE FONT FOUNDRY***

DISPFONT needs HP LaserJet bitmapped fonts to create screen files. If you have PostScript fonts, you can use the Adobe Font Foundry program to build bitmapped font data from your PostScript fonts. We recommend building an HP bitmapped font of 14 to 18 points using the USASCII symbol set. The larger the point size, the more disk space the font requires but the resolution is better. For instructions on how to use the Adobe Font Foundry software, see the *Adobe Type Library, User Guide*.

---

## ***PATCHING WORDSTAR***

When you *patch* WordStar, you customize it by editing the program codes. Instead of answering prompts and letting WSCHANGE make the changes for you, you enter the hexadecimal codes yourself. You can patch any item in the user area of the WS.EXE program file. You'll find a listing of the contents of the user area in the PATCH.LST file. The pages that follow describe the user area and the PATCH.LST file, and give instructions for using patching menus and the WordStar auto-patcher.

***CAUTION*** *Patching is a very technical procedure and is recommended for advanced users only. Mistakes in patching can have far-reaching effects on WordStar, so be sure to make a copy of the WS.EXE program file before you begin. That way, if your patches don't work as expected, you can go back to your original version.*

*Be careful when using patches from a previous version of WordStar. Patches that refer to data addresses may have disastrous results in WordStar because the data has been moved. However, patches that refer to user area labels may work because most labels haven't been changed. Do not read in any patch files without checking the PATCH.LST file first. (For more information about patching from previous versions of WordStar, see the booklet *Upgrading from a Previous Release* and the section in this chapter called "Transferring Customizations Using the Auto-patcher.")*



## ***ABOUT THE USER AREA***

All WS.EXE customizations are made in the user area of the WS.EXE file. The user area is made up of many small sections, each of which affects a certain part of the program. Many sections have identifying labels; for example, LGLDRV refers to the legal disk drives section and HITE refers to the screen height section.

Each section in the user area contains data (some sections have only one data item); the label is associated with the first data item. Each data item has its own address, that is, a consecutive hex number, based on the location of the data. An address may change if the data is moved between releases of WordStar; however, labels always refer to specific data and they move with that data.

## ***ABOUT THE PATCH.LST FILE***

You'll find PATCHLST.EXE in the directory containing your WordStar files (usually WS). To decompress the file, log on to the WordStar directory, type **patchlst**, and press Enter. PATCHLST.EXE decompresses to the file PATCH.LST.

Before you make any changes to PATCH.LST, print the file and determine what areas you want to change. PATCH.LST has a large right margin, so either print it in a small font or print it sideways on the page (if your printer allows).

Remember that PATCH.LST is just a readable copy of the user area; the user area itself is part of the WS.EXE program file.

The user area combines program code and English words. The following chart shows the part of the user area listing; it doesn't necessarily contain correct addresses or default settings.

0F30	FF	iniedt	db	TRUE	Right justification
0F31			db	TRUE	Word wrap when typing
0F32			db	TRUE	Insert on
0F33			db	TRUE	Print codes displayed

In the example above, the text (to the right) describes the function of the section. The address (on the far left) indicates where the data appears in the user area. The addresses are in ascending order and appear as hexadecimal

numbers. If a line has more than one data item, the next address is incremented accordingly.

Sometimes a label is shown next to the address. When you patch WordStar, you can specify either the label or the address. The label applies only to the first data item in a section; subsequent data items don't have labels. You can use labels such as INIEDT+1 and INIEDT+2 to refer to the subsequent data items.

DB (define byte) or DW (define word) on each line is the assembler directive that defines the data; for example, DB 3 means to define a byte containing the number three, and DW 1 means to define a word containing the number one. A *word* is a data item with two bytes (16 bits) stored in two successive bytes, with the low-order byte first; for example, DW 12EFH means to store the hex word 12EF in the two bytes. The first byte contains EF and the next byte contains 12.

The data that follows DB or DW can be (1) a number, (2) TRUE or FALSE, (3) a string, or (4) DUP (duplicated). TRUE is the same as hex FF (equal to ON); FALSE is the same as hex 00 (equal to OFF).

A string is several characters for which ASCII codes are stored in successive bytes. Strings in the user area listing are surrounded by single quotes; for example, the string 'ABC' is stored in three bytes as hex 41, 42, and 43 (the ASCII codes for A, B, and C, respectively).

If DUP follows DB or DW, it means the value in parentheses is to be duplicated several times; for example, 10 DUP (0) means the value zero is to be duplicated ten times. At the end of each line in the user area listing is a comment that describes the data. Usually these comments provide the most technical information about the data.

## ***USING PATCHING MENUS***

To patch changes in the user area, begin at the WSCHANGE Main Menu. Type the letters for your menu selections until you get to the patching menu you want. Choose an item from the menu or press the equal sign = to go to any other location in the user area.

## ADVANCED CUSTOMIZING

If you press =, you're prompted for an address or label from the user area. It's best to use labels because addresses can change from one version of WordStar to another. (You can also use label calculations such as LGLDRV+1.)

Once you specify what area to patch, WSCHANGE displays the address, the current value (in hex) for the 16 bytes beginning at that address, and their ASCII equivalents, as shown in the following example:

```
0575 C3 90 90 C3 BE A6 06 2E 8A 04 E3 4E 8A E0 8A 36 . . . . . N . . . 6
```

WSCHANGE displays 16 bytes of information at a time, regardless of the size of the data item. After you change the sixteenth byte, the next 16 bytes appear. If the data is only 6 bytes long, you'll see those 6 bytes plus 10 bytes from the next data item. The address at the left of the screen is for the first 16 bytes on the screen.

To the right of the address, the bytes are shown as hexadecimal numbers. Beyond those are the ASCII equivalents for the bytes. (If a byte is not in the range of hex 20 to 7E, it is not a displayable character and it appears as a dot.)

The cursor is located at the first digit of the first byte at the address shown. To change the byte at the cursor, type any of the patch commands shown below.

<b>COMMAND</b>	<b>PURPOSE</b>
' (single quote)	Changes the value of the digit pair at the cursor to that of any ASCII character. Type a single quote (') and the ASCII character, for example, 'A. WSCHANGE translates this into the proper hex equivalent (in this case, 41h).
0-9, A-F	Changes the hex value. Each hex digit must be either a number or a letter between A and F.
. (period)	Redisplays the line showing any changes you've made.
↵ (Enter)	Leaves the byte above the cursor unchanged and advances to the next byte.
X	Saves your changes and returns to the menu.
Backspace or ^H	Corrects typing errors.
^C	Cancel your changes and exits WSCHANGE.
^X	Saves your changes and exits WSCHANGE.

## CREATING AND EDITING PATCH FILES

If you want to transfer your changes to another copy of WordStar, you can use the WordStar auto-patcher (instructions appear in this section). If you don't want to use the auto-patcher, you can create and edit the patch files yourself.

A patch file is a nondocument file that lists the starting location for the patch and the hexadecimal codes to be entered at that location. Use nondocument mode in WordStar to create or edit a patch file.

Here's an example of a patch file that patches 16 bytes in the user area. The patch starts at the label INILOG, which is the initial directory log-on setting. The log-on directory is changed to C:\WS\LETTERS:

```
INILOG=0D,43,3A,5C,57,53,5C,4C,45,54
=54,45,52,53,00,00
```

The label INILOG followed by an equal sign (=) indicates where the patch starts. You can also use an address calculation, such as INILOG+5, or a hex address. The first byte, 0D, tells how long the string is. Notice that the second line in the above example begins with an equal sign rather than an address. This signifies a continuation of the previous line. The auto-patcher can only handle lines that are shorter than 128 characters, so use this method to break up long patches. The hex value for each byte follows the equal sign.

Add strings to the file by surrounding them with either single or double quotes as shown in the following example:

```
INITID='Special test version',0D,0A,00
TRMINI=FF,ERASCR,ERASCR/100
```

WordStar evaluates the values between the commas and to the right of the equal sign as byte values. They are always evaluated as modulo 256. However, all arithmetic is done with words (16-bit values) and all numbers are assumed to be hexadecimal. Calculations are evaluated strictly from left to right and parentheses cannot be used.

You can use these operators in calculations:

+	(add)	*	(multiply)		(and)
-	(subtract)	/	(divide)	^	(or)

For more information on patching specific areas of the program, see the PATCH.LST file.

***USING THE UDATE LABEL***

If you patch any of the following labels from WordStar 7.0, you should place a UDATE label on the first line of the patch file:

BFRSIZ	HPFILE	MLFILE	STFILE
CFFILE	HYFILE	MORPAT	TDFILE
DDFILE	IDFILE	MSFILE	THFILE
DEFPTH	INIEDT	NOTYPE	TMFILE
DSTKSZ	ISFILE	NWFLG	UPDATE
EMSMEM	IXFILE	PDFFILE	UDFILE
EXFILE	KBFILE	PRFILE	VCOLOR
EXTKB	KBXLAT	PVFILE	VIDATT
FNFILE	LNGCOD	PVWFILE	WRKTYP
HDFILE	MDFILE	SCMARK	
HIFILE	MEMFLG	SPFILE	

A patch file created by the auto-patcher in WordStar 7.0 includes a product release date (UPDATE) on the first line of the file; patch files from previous versions of WordStar don't have a release date. If a patch file (created either manually or by the auto-patcher) has no date on the first line, WSCCHANGE determines that you're upgrading and won't patch the labels in this list. The labels that are listed have changed significantly from earlier versions of WordStar and patching from an earlier version would cause problems in the current program.

To find the correct UPDATE code for your patch file, look for UPDATE at the end of the file PATCH.LST. The label that you type in the patch file should look similar to this and contain the correct hex code:

```
UPDATE=db, ##, ##, ##
```

*Note:* If your patch file from an earlier version of WordStar has the labels WID, UDMEM, or SPLMEM, they are patched as the new labels WIDE, UDCMEM, and SPMMEM.

## ***TRANSFERRING CUSTOMIZATIONS USING THE AUTO-PATCHER***

You can use the WordStar auto-patcher to transfer customizations from one copy of WordStar to another. This is useful if you're upgrading to a new release of WordStar or if you want to trade customizations with another WordStar user.

To transfer customizations, you first save the customizations to a patch file, then you edit the patch file (if necessary), and then transfer (patch) the customizations to the program file you want to customize.

WordStar can determine if you're using a patch file from a previous version of WordStar. A patch file created by WSCHANGE in the current version of WordStar includes a product release date on the first line of the file; patch files from previous versions of WordStar don't have a release date. If your patch file has no date, WSCHANGE determines that you're upgrading and won't patch specific labels. For a list of these labels, see the previous section in this booklet called "Using the Update Label."

### ***SAVING YOUR CUSTOMIZATIONS***

Follow the steps below to save the customizations in your current version of WordStar.

- 1** At the WSCHANGE Main Menu, press **E** (Patching).  
  
*Note:* Other choices are available in WSCHANGE for saving screen color and path settings.
- 2** At the Patching Menu, press **B** (Save settings) and type a filename for the patch file to which you want your customizations saved.
- 3** Type **Y** to save the entire user area, or type **N** and specify the label for the information you want to save.
- 4** Press **^X** and then **Y** to save your changes and exit WSCHANGE.

### ***COPYING THE PATCH FILE***

Now, copy the patch file to your WordStar program file.

- 1** At the WSCHANGE Main Menu, press **E** (Patching).

- 2 At the Patching Menu, press **A** (Auto-patcher), type the name of the patch file you want to copy, and press Enter. You can specify a drive and path in the patch filename.
- 3 Press any key to return to the Patching Menu, and press **^X** and then **Y** to save your changes and exit WSCHANGE.

---

## *WORDSTAR AND ITS PATHS*

When WSSETUP is run to install WordStar, most files go into the WordStar directory (usually WS). Some features are installed in separate directories and certain paths are set for the files. These features and their default paths are shown below. *WORDSTAR FILES* lists the files that WordStar accesses on the path. No files are listed next to ProFinder since WordStar doesn't access ProFinder files.

FEATURE	PATH	WORDSTAR FILES
WordStar	\WS	WSHELP.OVR, WSMGS.OVR, WSDSPCH.OVR, WSSTYLE.OVR, WSHOTKEY.OVR, WSC.EXE, WSD.EXE
Preview	\WS	PREVIEW.OVR, *.CRT, FONTID.CTL
Dictionaries	\WS	WSSPL000.OVR, SPLMN000.DCT, PERSONAL.DCT, EXCEPT.DCT, SPLIN000.DCT, WSTHS000.OVR, THESR000.DCT, DEFIN000.DCT
Macros	\WS\MACROS	*.WSM
Fax	\WS\FAX	*.PCX
PostScript	\WS	WSPROL.PS, WSPROL2.PS
Inset	\WS\INSET	INSET.EXE
Graphics Conversion	\WS\INSET	TOPIX.EXE, TOPIX.SET
MailList	\WS\OPTIONS	WSLIST.COM

<b>FEATURES</b>	<b>PATH</b>	<b>WORDSTAR FILE</b>
ProFinder	\WS\OPTIONS	None
TelMerge	\WS\OPTIONS	TELMERGE.EXE, TELMERGE.SYS
Star Exchange	\WS\CONVERT	CONVERT.EXE

Some features are grouped together and given different path numbers, even though the paths may be the same:

<b>FEATURE</b>	<b>PATH</b>
Program and other files not mentioned below	Path 1 (\WS)
Dictionaries (not overlays)	Path 2 (\WS)
Preview	Path 3 (\WS)
Inset	Path 4 (\WS\INSET)
TelMerge	Path 5 (\WS\OPTIONS)
MailList	Path 6 (\WS\OPTIONS)
Graphics conversion	Path 7 (\WS\INSET)
PostScript	Path 8 (\WS)
Fax	Path 9 (\WS\FAX)
Star Exchange	Path 10 (\WS\CONVERT)
Macros	Path 11 (\WS\MACROS)

When you run Inset, either when printing or by choosing Utilities→Inset (Alt+U,I) at the Editing screen, WordStar changes to the drive and directory specified in path 4, loads Inset, and returns to the original drive and directory. The same path is used when you select pix files (\*.PIX) by choosing Insert→Graphic (Alt+I,G) at the Editing screen. This method is also used when you convert graphics, use macros, or run TelMerge, MailList, or Star Exchange from the Opening screen.

## ***PRIMARY AND SECONDARY PATHS***

In WSCCHANGE you can specify primary and secondary paths for all WordStar files. WordStar looks first for files on the primary path and then searches the



secondary path. Primary and secondary paths are very useful if you're running WordStar in a network environment.

When you install WordStar as a single user, WordStar assigns all files to secondary paths. As a result, you can set up a customized directory and specify a primary path for the files on that directory. WordStar searches for files in your customized directory before it searches the secondary path.

### ***SPECIFYING PRIMARY AND SECONDARY PATHS***

Follow the steps below to specify primary and secondary paths in WSCHANGE.

- 1** At the WSCHANGE Main Menu, press **C** (Computer) then **D** (WordStar files).

The primary and secondary paths are shown in parentheses following the WordStar filenames. In the example below, the primary path is "U" and the secondary path is "3." "U" means uninstalled—no path is assigned.

```
F Preview file.....PREVIEW.OVR (U/3)
```

*Note:* You can examine or change the default paths by pressing **A** at WordStar Files Menu #1.

- 2** At the WordStar Files Menu, press the command for the file whose path you want to change.

For example, at the WordStar Files Menu #2, press **G** to change the primary and secondary paths for the macro description files (\*.WSM).

- 3** At the filename prompt, type a new filename or press Enter if you want to accept the current filename.
- 4** At the primary path menu, choose the primary path or press **X** to continue without changing.
- 5** At the secondary path menu, choose the secondary path or press **X** to continue without changing.
- 6** Press **^X** and then **Y** to save your changes and exit WSCHANGE.

---

## USING PDFEDIT

You can use PDFEDIT to create custom PDFs for printers that WordStar doesn't support, or to make changes to PDFs for supported printers (for example, to add a sheet feeder that WordStar doesn't support).

When you use PDFEDIT, you'll type the codes your printer uses for print enhancements. Check your printer manual very carefully for the correct code sequences.

**CAUTION** *PDFEDIT is an extremely technical program that should be used only by very experienced printer users. Before you begin working in PDFEDIT, make copies of the PDFs you plan to edit. Then, if you make a mistake, you can restore your original PDFs.*

To use PDFEDIT, you must have installed a printer and created a PDF. You can install a printer similar to yours and modify the PDF to fit your printer, or you can install for CUSTOM or SIMPLE to create a generic CUSTOM or SIMPLE PDF.

To start PDFEDIT, follow the steps below for your type of computer.

- 1 Log on to your WordStar directory (usually WS).
- 2 Type **pdfedit** and press Enter.
- 3 At the first screen, press any key to continue.
- 4 Move the highlighting to the PDF you want to modify and press Enter. You'll see the PDF Editor Main Menu.

*Note:* If the display in PDFEDIT isn't clear, exit the program and type **pdfedit /m** and press Enter. The program will use a monochrome display.

If you need help at any time in PDFEDIT, press **F1**.

## ***ENTERING PRINTER CODES***

You can enter codes in most areas of PDFEDIT using ASCII control code notation. Control code notation uses a caret (^) followed by a character for the first 32 values (00-1F hex). To convert hex or decimal values to ASCII, see the "ASCII Conversion Charts" in the *Reference* manual.

## ***EDITING CUSTOM AND SIMPLE PDFS***

Before you can customize a CUSTOM or SIMPLE PDF, you must use PRCHANGE to create it. Choose CUSTOM or SIMPLE from the Printer Selection Menu.

The SIMPLE PDF really is simple. As it encounters print codes in the text, it sends the control sequence you defined for that code to the printer. SIMPLE makes one pass through the line from left to right. On some printers, interactions may occur between the various print controls, so if the SIMPLE PDF doesn't produce the results you want, try the CUSTOM PDF.

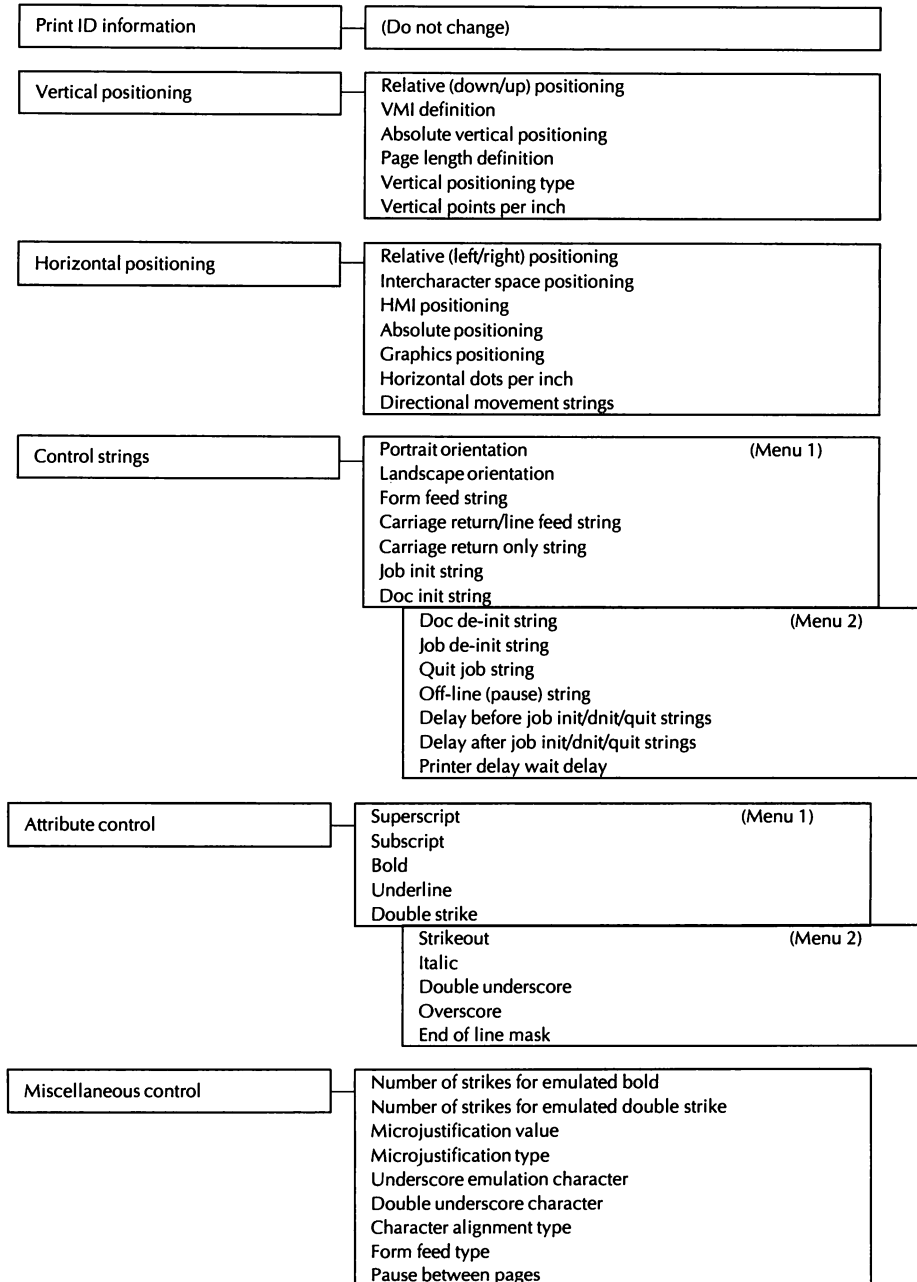
The CUSTOM PDF is more sophisticated than the SIMPLE PDF in that it usually compensates for a missing control sequence. For example, if you don't define control sequences for turning bold on and off, the CUSTOM PDF will overstrike the line several times, but the SIMPLE PDF won't print bold at all.

## ***GETTING AROUND IN PDFEDIT***

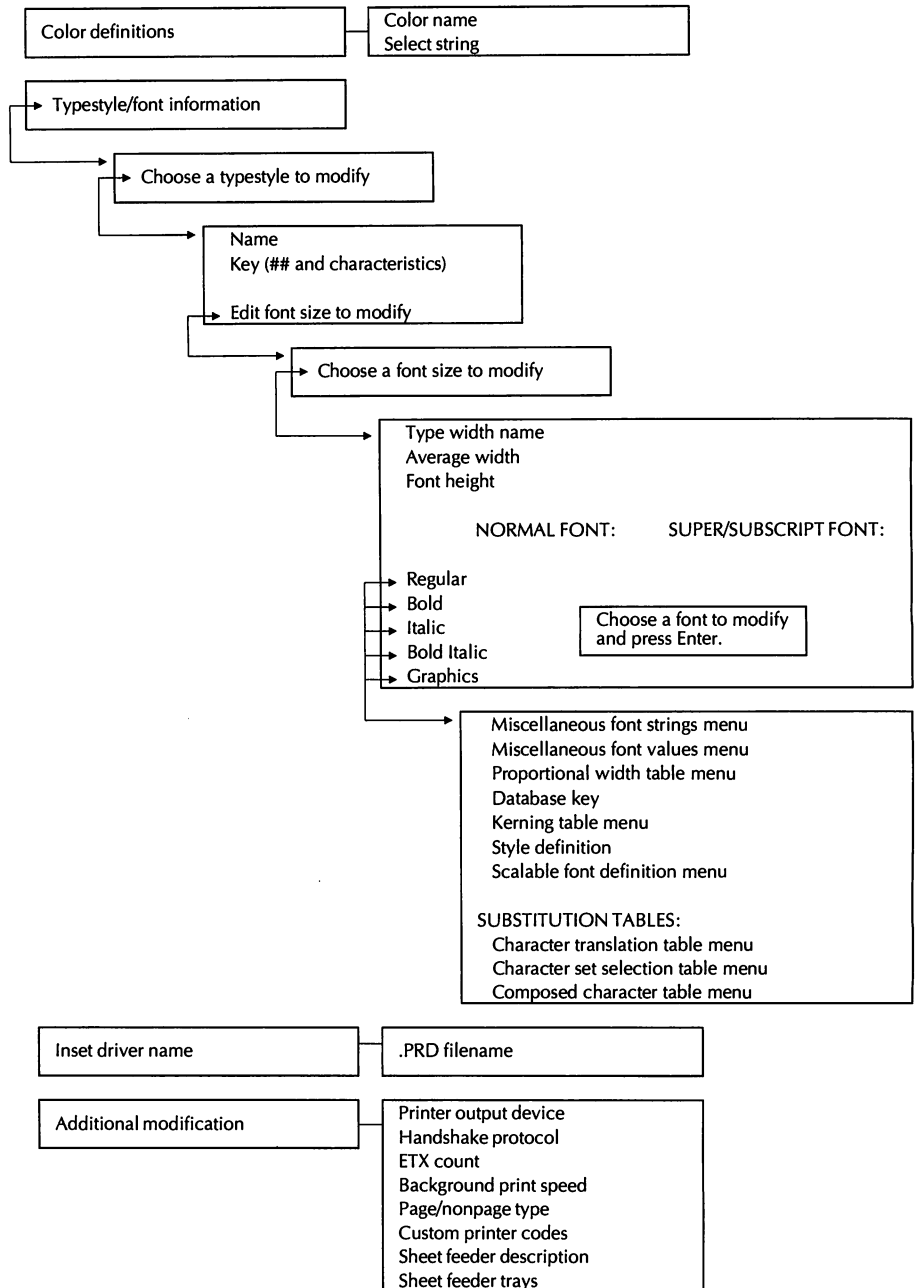
PDFEDIT lets you customize many areas of a PDF. If you're modifying a PDF that already works with your printer, just change the items you want to adjust.

The chart on the next two pages shows the menu structure of PDFEDIT.

## PDFEDIT MENU STRUCTURE



## PDFEDIT MENU STRUCTURE (Continued)



## INDEX

- \* (multiplication operator), for patching, 3-17
  - + (addition operator), for patching, 3-17
  - (subtraction operator), for patching, 3-17
  - . (display user area changes), 3-16
  - / (division operator), for patching, 3-17
  - = (move around in user area), 3-15 to 3-16
  - ^ (or operator), for patching, 3-17
  - ' (change digits to ASCII in user area), 3-16
  - | (and operator), for patching, 3-17
  - ^6 (hard to soft carriage return), auto-align and, 2-47
- A**
- 
- abandon changes. *See* cancel changes
  - add
    - custom fonts to PDF, 2-4, 2-19, 2-21 to 2-22
    - fonts to custom database, 2-4, 2-12 to 2-13, 2-19 to 2-21
    - fonts to FONTID.CTL, 3-5 to 3-10
    - fonts to PDF, 2-8, 2-11 to 2-12, 2-16 to 2-22
    - program files to documents (^P!), 2-14, 2-23 to 2-24
  - Add cartridge fonts option (Add or Delete Fonts Menu), 2-16
  - Add fonts from custom database option (Add or Delete Fonts Menu), 2-22
  - Add fonts to custom database (LSRFONTS) option (WINSTALL Menu), 2-4, 2-19, 2-20 to 2-21
  - Add internal fonts option (Add or Delete Fonts Menu), 2-16, 2-17
  - Additional Installation Menu, 2-8, 2-9
  - addition operator (+), for patching, 3-17
  - Add or delete font groups option (Additional Installation Menu), 2-9
  - Add or Delete Fonts Menu, 2-12
  - Add or delete fonts option (PDF Modification Menu), 2-11 to 2-12, 2-16, 2-17, 2-21
  - Add or Remove a Feature option (WINSTALL Menu), 2-4, 2-6 to 2-7
  - Add or Remove a Feature screen (WSSETUP), 1-2
  - Add soft fonts option (Add or Delete Fonts Menu), 2-17 to 2-18
  - Adobe Font Foundry, 3-13
  - Advanced Page Preview. *See* Preview
  - .AFM files, 2-19, 2-20
  - alignment, 2-36, 2-38, 2-47
  - alternate font, 2-36
  - alternate palettes, 2-37
  - and operator (&), for patching, 3-17
  - arithmetic operators, for patching, 3-17
  - ARROW.HP, 2-25
  - ASC256 PDF, 2-14
  - ASCII files, with printer codes, 2-14
  - ASCII PDF, 2-14
  - ASCII symbol set, screen fonts and, 3-9
  - ASPECT= statement (FONTID.CTL), 3-3
  - auto-align, 2-36, 2-38
  - auto backspace characters, 2-36
  - auto-backup, 2-36
  - AUTOEXEC.BAT, 1-4, 2-6, 2-28
  - AutoFont support files, 2-19, 2-25
  - auto-hyphenation, 2-36, 2-37
  - automatically fill out last record, 2-36
  - automatic leading, 2-36, 2-40
  - auto-patcher
    - copy settings, 2-37
    - turn on/off, 2-36
    - UPDATE and, 3-18
    - using, 3-19 to 3-20
  - auto-switch programs, for laser printers, 2-28

## INDEX

**B**


---

^B (strip MSB in nondocument), 2-47  
 background color, change for Preview, 3-4  
 background printing  
     speed of, 2-13, 2-29, 2-30  
     turn on/off, 2-34, 2-36  
 backup files, 2-36  
 "Bad command or filename" message, 2-15  
 batch file, for soft font download, 2-15  
 baud rate, for serial printers, 2-28  
 beep if printer wait condition, 2-36  
 beeping, turn on/off, 2-36, 2-41  
 bidirectional printing, 2-36  
 binding space character, 2-36  
 bins (paper), 2-13, 2-24  
 blank lines, suppress, 2-46  
 blocks, 2-36  
 .bn (select paper bin), 2-13, 2-24  
 booklets, printing on PostScript printers, 2-26  
 BORDER.PS, 2-26  
 bottom margin, 2-36  
 BOX.PS, 2-26 to 2-27  
 buffer flush control, for type ahead buffer, 2-47  
 buffer size  
     endnote buffer, 2-39  
     footnote buffer, 2-40  
     general buffer, 2-37  
     header and footer buffer, 2-40  
     macro hot key buffer, 2-42  
     messages and menus buffer, 2-42  
     spelling main buffer, 2-46  
     unerase buffer, 2-47  
 busy test for printer, 2-29, 2-44  
 busy time-out, 2-42

**C**


---

^C (cancel WSCHANGE changes and exit),  
     2-36  
 cables (printer), testing, 2-28 to 2-29

cancel changes  
     in WSCHANGE and exit (^C), 2-36  
     *See also* exit  
 "Can't find that file" prompt, 2-37  
 carriage returns  
     ending character for, 2-40, 2-45  
     hard returns to soft returns, auto-align and,  
         2-47  
 cartridge fonts  
     add or delete, 2-11 to 2-12, 2-16 to 2-17,  
         2-18 to 2-22  
     Preview or fax, 3-12  
 centimeter grids, 3-4  
 Change custom printer code option (PDF  
     Modification Menu), 2-13  
 Change printer adapter port option (PDF  
     Modification Menu), 2-13  
 Change print-time settings option (PDF  
     Modification Menu), 2-15  
 characters, change defaults for, 2-37  
 character sets, onscreen. *See* code pages  
 Check CONFIG.SYS file option (WINSTALL), 2-6  
 checkerboard, print on HP LaserJet, 2-25  
 CHEX.HP, 2-25  
 classic commands, turn display on/off, 2-37  
 code pages, 2-25, 2-37, 3-7  
 color monitors  
     background color in Preview, 3-4  
     customize settings, 2-5, 2-37, 2-45  
     endnote color, 2-39  
     footnote color, 2-40  
     preset colors, 2-5, 2-37, 2-45  
     reverse colors, 3-4  
     *See also* monitors  
 color printers, testing, 2-19  
 column settings, 2-37  
 command tags display, 2-37, 2-44  
 communications program. *See* TelMerge  
 companion programs, install/remove, 1-2, 1-5,  
     2-4, 2-6 to 2-7  
 compressed files, decompress, 1-5

compressed fonts, 3-8, 3-12  
 computer patches, 2-37  
     *See also* patching  
 concurrent printing. *See* background printing  
 CONFIG.SYS, 1-2, 1-4, 2-6  
 continuous underlining, 2-37  
 \CONVERT, 3-21  
 convert files. *See* Star Exchange  
 CONVERT.EXE, 3-21  
 COPYWS, 1-5  
 COURIER screen font group, 3-6  
 Create download batch file option (PDF  
     Modification Menu), 2-15  
 Create preview screen fonts option (PDF  
     Modification Menu), 2-14  
 creeping text on page, 2-32  
 .CRT files, 3-10, 3-20  
 CRTs. *See* monitors  
 CRT\_TYPE= statement (FONTID.CTL), 3-3  
 cursor movement, 1-2, 2-37, 2-40, 2-47  
 cursor sizes, 2-37  
 cursor type ahead, 2-39  
 cursor wrap on pull-downs, 2-44  
 custom fonts, 2-4, 2-12 to 2-13, 2-18 to 2-22  
 customize WordStar, 1-3, 2-1 to 2-22, 2-34 to  
     2-48, 3-1 to 3-26  
     add or remove companion programs, 2-4,  
         2-6 to 2-7  
     directories/paths, 3-20 to 3-22  
     editing defaults, 2-4, 2-5 to 2-6  
     fax files, 3-10 to 3-13  
     memory management, 2-33 to 2-34  
     monitors, 2-4 to 2-5, 2-42 to 2-43, 2-45,  
         2-47  
     patching WordStar, 3-13 to 3-20  
     Preview, 3-1 to 3-10  
     printers, 2-3, 2-10 to 2-22, 3-23 to 3-26  
     WordStar settings, 2-34 to 2-48  
 Customize WordStar (WSCHANGE) option  
     (WINSTALL Menu), 2-4, 2-34 to 2-48  
 CUSTOM PDF, 3-23, 3-24

Custom Printer Code dialog box, 2-23  
 custom printer codes, 2-13 to 2-14, 2-23 to 2-24

## D

---

daisy wheel printers, 2-29, 2-30  
     *See also* printers  
 data item separator, 2-37  
 date format, 2-37  
 DEBUG, test printer cable and connection with,  
     2-28 to 2-29  
 decimal point character, 2-37  
 decimal tab stops, 2-37  
 decompress files, 1-5  
 Default paragraph style option (WINSTALL), 2-5  
 Default printer option (WINSTALL), 2-6  
 default settings  
     change, 2-34 to 2-48  
     code page, 2-25, 2-37  
     for editing, 2-4, 2-5 to 2-6  
     listed, 2-36 to 2-48  
     printer, 2-6, 2-9, 2-37, 2-44  
     screen fonts, 2-18  
     symbol set, 3-9  
 DEFIN000.DCT, 3-20  
 definitions during spelling session, 2-38  
 delays, 2-38, 2-42  
 DELCRT, 3-10  
 delete  
     companion programs, 2-4, 2-6 to 2-7  
     .CRT files, 3-10  
     fonts from PDF, 2-8, 2-11 to 2-12  
     PDFs, 2-15  
     *See also* Add or delete; Add or Remove  
 Del key, change function of, 2-38  
 dialog boxes  
     change defaults for, 2-38  
     Enter key function in, 2-6, 2-38, 2-39  
 dictionaries  
     change defaults for, 2-38, 2-39, 2-41, 2-44  
     directory/path for, 3-20, 3-21  
     exceptions dictionary, 2-39



## INDEX

### dictionaries (*continued*)

- international dictionary, 2-41
- personal dictionary, 2-44, 3-20

### directories

- change defaults for, 2-38, 3-21 to 3-22
- defaults listed, 2-38, 3-20 to 3-21
- initial logged directory, 2-6, 2-38
- See *also* paths

### disk access pause, 2-38

### Disk Drive Name screen (WSSETUP), 1-2

### disk drives, change defaults for, 2-38

### disk space, turn display on/off, 2-38

### dispatch table, 2-38

### DISPFONT, 3-2, 3-5, 3-8 to 3-9, 3-11 to 3-13

### display problems. See monitors, unclear display; troubleshooting, screen font problems

### "Divide Overflow" message, 1-4

### division operator (/), for patching, 3-17

### documents, add program files to (^P!), 2-14, 2-23 to 2-24

### dollar format, 2-38

### DOS

- AUTOEXEC.BAT, 1-4, 2-6, 2-28
- CONFIG.SYS, 1-2, 1-4, 2-6
- MODE command, 2-13, 2-28
- Run a DOS command prompt, 2-45
- See *also* directories; paths

### dot commands

- .bn (select paper bin), 2-13, 2-24
- change default settings for, 2-38 to 2-39, 2-47
- .xl 00 (overprint a page), 2-24

### dot leader character, 2-39

### dot matrix printers, 2-29, 3-5

See *also* printers

### double word check, 2-37

### downloaded fonts. See soft fonts

### DRAFT PDF, 2-29

### DTR protocol, for PostScript printers, 2-26, 2-29

### .DTU files, 2-19, 2-20

## E

---

### editing

- BOX.PS file, 2-27
- default settings for, 2-4, 2-5 to 2-6
- FONTID.CTL, 3-2 to 3-5
- patch files, 3-17 to 3-18
- PDFs, 3-23 to 3-26

### Editor, memory allocation for, 2-39

### Edit screen, change defaults for, 2-39

### EHANDLER.PS, 2-33

### EMS, 2-33, 2-39, 2-42

### endnotes, 2-39

### end of file character, 2-39

### end of line character, 2-39

### Enter key

- dialog boxes and, 2-6, 2-38
- move to next byte in user area, 3-16

### Enter key in dialog boxes option (WINSTALL), 2-6

### equal sign (=), move around in user area, 3-15 to 3-16

### error messages

- "Bad command or filename", 2-15
- buffer size for, 2-42
- "Divide Overflow", 1-4
- "Printer may not be ready", 2-30
- print messages on PostScript printers, 2-33
- "Stack Overflow", 1-4
- "You've selected too many fonts", 2-31
- See *also* messages; prompts

### Esc key, change function of, 2-39

### EXCEPT.DCT, 2-39, 3-20

### exit

#### WordStar, 1-3

#### WSCHANGE, 2-36

### expanded memory, 2-33, 2-39, 2-42

### extended character set, screen fonts and, 3-7

**F**


---

%F"filename" (add custom printer code), 2-14  
 F1 (help). See help  
 families of fonts, 2-13  
 fast typing, 2-39  
 fax files  
   change defaults for, 2-39  
   directory/path for, 3-20, 3-21  
   resolution for, 3-5  
   screen fonts for, 2-14 to 2-15, 3-10 to 3-13  
   top and left offsets and, 3-5  
 FAX\_RES= statement (FONTID.CTL), 3-5  
 file conversion. See Star Exchange  
 files  
   change defaults for, 2-39, 2-47  
   decompress, 1-5  
   See also directories; fax files; paths  
 FILES= statement (CONFIG.SYS), 1-4  
 find and replace, change defaults for, 2-39  
 flag column display, 2-39  
 Font Foundry (Adobe), 3-13  
 FONTID.CTL, 2-14, 2-40, 3-1 to 3-10, 3-20  
 fonts  
   add  
     custom fonts to PDF, 2-4, 2-19, 2-21 to 2-22  
     to custom database, 2-4, 2-12 to 2-13, 2-19 to 2-21  
     to FONTID.CTL, 3-5 to 3-10  
     to PDF, 2-8, 2-11 to 2-12, 2-16 to 2-22  
   alternate font, 2-36  
   batch file for soft font download, 2-15  
   cartridge fonts, 2-11 to 2-12, 2-16 to 2-17, 2-18 to 2-22, 3-12  
   change defaults, 2-39 to 2-40  
   compressed fonts, 3-8, 3-12  
   custom fonts, 2-4, 2-12 to 2-13, 2-18 to 2-22  
   delete from PDF, 2-8, 2-11 to 2-12  
   DISPFONT, 3-2, 3-5, 3-8 to 3-9, 3-11 to 3-13

fonts (*continued*)  
   endnote font, 2-39, 2-40  
   families of, 2-13  
   for fax files, 2-14 to 2-15, 3-10 to 3-13  
   footnote font, 2-40  
   internal fonts, 2-11 to 2-12, 2-16 to 2-17, 3-12  
   larger than 72 points, 2-14  
   letter spacing problems on HP LaserJets, 2-32 to 2-33  
   line numbering font, 2-40, 2-41  
   LSRFonts, 2-4, 2-19, 2-20 to 2-21  
   naming, 2-21  
   for Preview, 2-14 to 2-15, 2-18, 3-5 to 3-13  
   scalable fonts, 2-15, 2-19, 3-8, 3-12  
   screen fonts, 2-14 to 2-15, 2-18, 3-5 to 3-13  
   soft (downloaded) fonts, 2-4, 2-11 to 2-13, 2-15, 2-17 to 2-22, 2-31, 3-8  
   symbol sets and, 3-7, 3-9, 3-10 to 3-11  
   wrong fonts appear in printed document, 2-31  
   "You've selected too many fonts" message, 2-31  
 footers and headers, 2-40 to 2-41  
 footnotes, 2-40  
 form feeds  
   character for, 2-15, 2-40  
   creeping text on page and, 2-32

**G**


---

garbled output, from printer, 2-30  
 general exclusion list file for Indexer, 2-40  
 go to top of page (^QI), 2-40  
 graphics conversions  
   change defaults for, 2-40  
   directory/path for, 3-20, 3-21  
 graphics files, change defaults for, 2-40  
 graphics program. See Inset  
 gray background, print on HP LaserJet, 2-25  
 GRID\_TYPE= statement (FONTID.CTL), 3-4

**H****^H**

- erase left in patcher, 3-16
- move left, 2-47
- hard carriage returns. *See* carriage returns
- hard disk computers, install WordStar on, 1-1 to 1-3
- headers and footers, 2-40 to 2-41
- height of lines. *See* leading
- height of screen, 2-45
- help
  - levels of, 2-5, 2-41
  - overlay file for, 2-41
  - in PDFEDIT (F1), 3-23
  - in PRCHANGE (F1), 2-16
  - in WSCHANGE (F1), 2-35
- Help level option (WINSTALL), 2-5
- Hewlett Packard LaserJet. *See* HP LaserJets and compatible printers
- hexadecimal patches. *See* patching
- horizontal unit of measure, 2-41
- .HP files, 2-25
- HP LaserJets and compatible printers, 2-24 to 2-25
  - code pages and, 2-25
  - compressed fonts (Series II-P), 3-8, 3-12
  - font matching and symbol sets, 2-32 to 2-33
  - letter spacing problems, 2-32 to 2-33
  - margins and, 2-23
  - overprinting pages, 2-24
  - program files, 2-23 to 2-25
  - sample program files, 2-25
  - scalable fonts (Series III), 2-15, 2-19, 3-8, 3-12
  - screen font creation using LaserJet soft fonts, 3-8, 3-12
  - soft fonts, 2-12, 2-18 to 2-22, 3-8
  - symbol sets and, 2-12, 2-32 to 2-33
  - See also* laser printers
- hyphenation, 2-34, 2-41
- HYPIN000.DCT, 2-41
- HYPMN000.DCT, 2-41

**I**

- IBM 4019 and 4029
  - code pages and, 2-25
  - soft fonts, 2-12, 2-18 to 2-22
  - See also* laser printers
- IBM compatible ROM BIOS, turn on/off, 2-45
- IBM counter/timer for beeping, 2-41
- IBM PC monitor options, 2-4 to 2-5, 2-43
- inch grids, 3-4
- indexing, change defaults for, 2-40, 2-41
- initial logged directory, 2-6, 2-38
- Initial logged directory option (WINSTALL), 2-6
- insert toggle, 2-41
- Inset
  - change defaults for, 2-41
  - directory/path for, 3-20, 3-21
  - memory and, 2-33, 2-34
- INSET.EXE, 2-41, 3-20
- install
  - companion programs, 1-2, 1-5, 2-4, 2-6 to 2-7
  - MailList, 1-5, 2-4, 2-6 to 2-7
  - monitors, 1-2, 2-3, 2-4 to 2-5
  - printers, 1-2, 1-3, 2-3, 2-7 to 2-10
  - ProFinder, 2-4
  - sheet feeders, 2-8, 2-9, 2-13
  - Star Exchange, 1-5, 2-4, 2-6 to 2-7
  - TelMerge, 2-6 to 2-7
  - WordStar, 1-1 to 1-3
- Install a monitor option (WINSTALL Menu), 2-3, 2-4 to 2-5
- Installed Printer Menu, 2-11, 2-15
- Install Printer Menu, 2-7, 2-9
- Install sheet feeder option (Additional Installation Menu), 2-9
- INT 1C timer interrupt, 2-41
- internal fonts
  - add or delete, 2-11 to 2-12, 2-16 to 2-17
  - Preview or fax, 3-12
- international characters, 2-37, 2-41, 2-42
- international dictionary file, 2-41
- INVERSE= statement (FONTID.CTL), 3-4

**J**


---

justification, 2-41, 2-42

**K**


---

kerning, 2-41  
 KEYBOARD.MRG, 2-44  
 keyboard repeat rate, 2-41

**L**


---

landscape mode, PostScript printers, 2-26  
 language, change defaults for, 2-41  
 laptops  
   with monochrome VGA LCD display, 3-3  
   underlining and, 2-5  
 LaserJets. *See* HP LaserJets and compatible printers  
 laser printers  
   auto-switch programs, 2-28  
   margins and, 2-23  
   program files, 2-23 to 2-24  
   sheet feeders, 2-8, 2-9, 2-13, 2-32  
   *See also* fonts; HP LaserJets and compatible printers; IBM 4019 and 4029; PostScript printers; printers; Xerox 4045  
 last record, automatically fill out, 2-36  
 leading  
   automatic, 2-36, 2-41  
   VMI units for line height, 2-47  
 left margin, 2-41  
 left offset, for Preview, 3-4 to 3-5  
 legal pleadings, print on HP LaserJet, 2-25  
 legal-size paper  
   for PostScript printers, 2-26  
   preview document on, 3-4  
 LETTER.PS, 2-26  
 letter spacing problems, for HP LaserJets, 2-32 to 2-33  
 line height. *See* leading

line numbering, 2-41 to 2-42  
 line spacing, 2-42  
 logged directory, 2-6, 2-38  
 logical operators, for patching, 3-17  
 LOGO.PS, 2-26  
 long busy time-out, 2-42  
 longest delay, 2-42  
 long line character, 2-42  
 Lotus international characters, 2-42  
 LSRFONTS, 2-4, 2-19, 2-20 to 2-21

**M**


---

macros  
   change defaults for, 2-42  
   directory/path for, 3-20, 3-21  
 MailList  
   change defaults for, 2-42  
   directory/path for, 3-20, 3-21  
   install/remove, 1-5, 2-4, 2-6 to 2-7  
 margins  
   bottom margin, 2-36  
   footnotes and endnotes, 2-42  
   headers and footers, 2-40  
   laser printers and, 2-23  
   left margin, 2-41  
   line numbering, 2-41 to 2-42  
   paragraphs, 2-44  
   right margin, 2-45  
   top margin, 2-46  
 measurement units. *See* units of measure  
 memory, 2-42  
   allocation for Editor, 2-39  
   EMS, 2-33, 2-39, 2-42  
   increasing available, 2-33 to 2-34  
   video RAM, 2-45  
 memory-resident programs  
   WordStar and, 1-4  
   WordStar as, 2-45  
 menus  
   Additional Installation Menu, 2-8, 2-9  
   Add or Delete Fonts Menu, 2-12

## INDEX

### menus (*continued*)

- buffer size for, 2-42
  - Installed Printer Menu, 2-11, 2-15
  - Install Printer Menu, 2-7, 2-9
  - levels of, 2-42
  - patching menus, 3-15 to 3-16, 3-19 to 3-20
  - PDFEDIT menu map, 3-25 to 3-26
  - PDF Modification Menu, 2-11 to 2-15
  - PRCHANGE menu map, 2-11
  - Printer Busy Handshaking Menu, 2-29
  - Printer Information Menu, 2-9
  - Printer Selection Menu, 2-8, 2-9, 2-26, 2-29
  - Printer Type Menu, 2-8, 2-9, 2-29
  - WSCHANGE menu map, 2-35
  - See also WINSTALL Menu
- merge print, change defaults for, 2-42
- messages
- buffer size for, 2-42
  - change defaults for, 2-42
  - "Printer may not be ready", 2-30
  - "Print Wait", 2-30
  - See also error messages; prompts
- microjustification, 2-42
- MODE command (DOS), 2-13, 2-28
- Modify AUTOEXEC.BAT option (WINSTALL), 2-6
- Modify or install a printer (PRCHANGE) option
- from WINSTALL Menu, 2-3, 2-7 to 2-22
  - See also PRCHANGE; printer description files (PDFs)
- Modify sheet feeder option (PDF Modification Menu), 2-13
- monitors
- change defaults for, 2-43, 2-45, 2-47
  - install, 1-2, 2-3, 2-4 to 2-5
  - specify for Preview, 3-3
  - speed of display, 2-4, 2-5
  - types supported, 2-4 to 2-5
  - unclear display
    - in PDFEDIT, 3-23
    - snow removal, 2-4
    - in WINSTALL, 2-3, 2-20
    - in WordStar, 2-4

### monitors (*continued*)

- See also color monitors
- monochrome monitors, 2-5, 2-43, 3-3
- See also monitors
- monochrome VGA cards, 3-3
- mouse, change defaults for, 2-43
- MSB, strip in nondocument files (^B), 2-47
- .MTR files, 2-20
- multiplication operator (\*), for patching, 3-17
- multi-user systems. See networks

## N

---

^N (split line/hard return to soft), 2-47

### naming

- font groups, 2-21
- PDFs, 1-2, 2-13
- near letter quality printing, 2-43

### networks

- downloadable font problems, 2-31
- network option on/off, 2-43
- printer not printing, 2-27

newspaper column file type, 2-43

### nondocument files

- change defaults for, 2-43
- with printer codes, 2-14
- strip MSB in (^B), 2-47

notes. See endnotes; footnotes

NPSHLV screen font group, 3-6

### numbering

- lines, 2-41 to 2-42
- pages, 2-43

## O

---

offset. See page offset

online help. See help

onscreen character sets. See code pages

onscreen fonts. See screen fonts

\OPTIONS, 3-20 to 3-21

or operator (^), for patching, 3-17

outline style numbering, 2-43  
 overprinting pages, 2-24  
 overprint line character, 2-43

## P

---

^P! (add program file to document), 2-14, 2-23  
     to 2-24  
 ^P? (change printer), 2-30  
 PAGE= statement (FONTID.CTL), 3-4  
 page breaks, 2-43  
 Page Down key, 1-2  
 page length, 2-43  
 page numbers, 2-43  
 page offset  
     change default, 2-43  
     set for Preview, 3-4 to 3-5  
 Page preview. *See* Preview  
 page size, in Preview, 3-4  
 page top. *See* top of page  
 palettes  
     alternate, 2-37  
     *See also* color monitors  
 paper bins, 2-13, 2-24  
 PAPER\_COLOR= statement (FONTID.CTL), 3-4  
 paragraphs, change defaults for, 2-44  
 paragraph styles, 2-5, 2-44  
 patching, 3-13 to 3-20  
     caution about, 3-13  
     commands for, 3-16  
     computer patches, 2-37  
     copy patch files, 3-19 to 3-20  
     create and edit patch files, 3-17 to 3-18  
     from previous WordStar versions, 3-13,  
         3-18, 3-19  
     increasing available memory and, 2-34  
     menus for, 3-15 to 3-16, 3-19 to 3-20  
     monitor patches, 2-43  
     overview, 3-13  
     PATCH.LST file and, 3-13, 3-14 to 3-15  
     printer patch area, 2-44  
     save changes, 3-16, 3-19

patching (*continued*)  
     special characters, 2-46  
     transfer patches to other WordStar copies,  
         3-19 to 3-20  
     UPDATE label and, 3-18  
     user area and, 3-14  
     *See also* auto-patcher  
 PATCH.LST, 3-13  
 PATCHLST.EXE, 3-14  
 paths  
     change defaults for, 2-44, 3-21 to 3-22  
     defaults listed, 2-44, 3-20 to 3-21  
     search paths, 2-37 to 2-38  
     specify primary and secondary, 3-21 to 3-22  
     to WSCHANGE options, 2-36 to 2-48  
     for WordStar directory in AUTOEXEC.BAT, 2-6  
     *See also* directories  
 pause between pages, 2-15  
 PC-8 symbol set, screen fonts and, 3-7, 3-8,  
     3-9, 3-11  
 PC-850 symbol set, screen fonts and, 3-7, 3-8,  
     3-11  
 .PCX files, 3-5, 3-20  
 PDFEDIT, 3-23 to 3-26  
 PDF Modification Menu, 2-11 to 2-15  
 PDFs. *See* printer description files (PDFs)  
 ^PE (custom printer code), 2-13, 2-24  
 PECHO.COM, 2-15  
 period (.), display user area changes, 3-16  
 PERSONAL.DCT, 2-44, 3-20  
 ^PF (custom printer code), 2-13, 2-24  
 ^PG (custom printer code), 2-13, 2-24  
 Pg Dn key, 1-2  
 /pgsize variable (WSPROL.PS), 2-26  
 pica grid, 3-4  
 .PIX files, 3-21  
 PLEAD.HP, 2-25  
 ports  
     printer not printing and, 2-28, 2-30  
     redirect printer output, 2-29  
     specify/change, 2-8, 2-9, 2-13, 2-28  
     *See also* serial ports

## INDEX

- Postscript Generic (PS:2 Up) option (Printer Selection Menu), 2-26
- PostScript printers, 2-25 to 2-27
  - booklet printing on, 2-26
  - directory/path for files, 3-20, 3-21
  - DTR protocol, 2-29
  - error message printing on, 2-33
  - landscape mode, 2-26
  - legal-size paper, 2-26
  - margins and, 2-23
  - overprinting pages, 2-24
  - program files, 2-23 to 2-24, 2-25 to 2-27
  - program listings printed on, 2-26
  - protocols, 2-26, 2-29
  - sample program files, 2-26 to 2-27
  - screen font creation using PostScript fonts, 3-13
  - soft fonts, 2-12, 2-18 to 2-22
  - testing, 2-10, 2-26
  - time-out error, 2-33
  - See also laser printers; serial ports
- ^PQ (custom printer code), 2-13, 2-24
- ^PR (custom printer code), 2-13, 2-24
- PRCHANGE, 2-3, 2-7 to 2-22
  - customize a printer, 2-3, 2-10 to 2-22
  - help (F1), 2-16
  - install a printer, 2-3, 2-7 to 2-10
  - menu map, 2-11
  - screen font creation in, 2-14 to 2-15, 2-18, 3-5, 3-7, 3-8
- Preview
  - change defaults for, 2-44
  - change display for, 3-3 to 3-5
  - code pages and, 2-25, 3-7
  - directory/path for, 3-20, 3-21
  - editing FONTID.CTL, 3-2 to 3-5
  - fine-tuning, 3-1 to 3-10
  - maximum screen font file size, 3-10
  - monitor specification for, 3-3
  - screen fonts for, 2-14 to 2-15, 2-18, 3-5 to 3-13
  - troubleshooting screen font problems, 3-9 to 3-10
- PREVIEW.OVR, 2-44, 3-20
- print control (command tags) display, 2-37, 2-44
- Printer Busy Handshaking Menu, 2-29
- Printer Data, 2-8
- Printer Data Files, mark for copying, 1-2
- printer description files (PDFs)
  - add custom fonts to, 2-4, 2-19, 2-21 to 2-22
  - add fonts to, 2-8, 2-11 to 2-12, 2-16 to 2-22
  - change default file extension for, 2-44
  - CUSTOM PDF, 3-23, 3-24
  - delete, 2-15
  - delete fonts from, 2-8, 2-11 to 2-12
  - described, 2-7
  - modify (customize), 2-10 to 2-15, 3-23 to 3-26
  - naming, 1-2, 2-13
  - sheet feeders and, 2-13
  - SIMPLE PDF, 3-23, 3-24
- Printer Information Menu, 2-9
- “Printer may not be ready” message, 2-30
- printers
  - auto-switch programs, 2-28
  - beep if printer wait condition, 2-36
  - cable and connection test, 2-28 to 2-29
  - change (^P?), 2-30
  - change default, 2-5, 2-6, 2-37, 2-44
  - change default settings for, 2-44
  - creeping text on page, 2-32
  - customize, 2-3, 2-10 to 2-22, 3-23 to 3-26
  - custom printer codes, 2-13 to 2-14, 2-23 to 2-24
  - default printer, 2-6, 2-9, 2-37, 2-44
  - default settings for, 2-44
  - form feeds, 2-15, 2-40
  - garbled output, 2-30
  - install, 1-2, 1-3, 2-3, 2-7 to 2-10
  - not on Printer Selection Menu, 2-8, 2-29
  - not printing, 2-27 to 2-29, 2-30
  - patch area, 2-44
  - protocols, 2-13, 2-26, 2-29

printer (*continued*)

- redirect output, 2-29
- testing, 2-10, 2-26, 2-28 to 2-29
- troubleshooting problems, 2-27 to 2-33
- types supported, 2-8
- See also* daisy wheel printers; dot matrix printers; fonts; laser printers; ports; printer description files (PDFs); printing; serial ports; sheet feeders
- Printer Selection Menu, 2-8, 2-9, 2-26, 2-29
- Printer Type Menu, 2-8, 2-9, 2-29
- printing
  - background (concurrent)
    - speed of, 2-13, 2-29, 2-30
    - turn on/off, 2-34, 2-36
  - bidirectional, 2-36
  - busy test for output to printer, 2-29, 2-44
  - error messages on PostScript printers, 2-33
  - long busy time-out, 2-44
  - merge print, 2-42
  - near letter quality, 2-43
  - overprinting pages, 2-24
  - pause between pages, 2-15
  - speed of, 2-13, 2-29, 2-30
  - See also* printers
- print-time settings, 2-15
- PRINT.TST, 2-10
- "Print Wait" message, 2-30
- ProFinder
  - directory/path for, 3-21
  - install/remove, 2-4
- program files
  - add to documents (^P!), 2-14, 2-23 to 2-24
  - HP Laserjets and compatible printers, 2-24 to 2-25
  - PostScript printers, 2-23 to 2-24, 2-25 to 2-27
- program listings, printing on PostScript printers, 2-26
- prompts
  - "Can't find that file", 2-37
  - "Return to WordStar", 2-44
  - Run a DOS command prompt, 2-45

prompts (*continued*)

- "Words checked", 2-47
- See also* messages
- proportional spacing, 2-44
- protocols
  - PostScript printers, 2-26, 2-29
  - printers, 2-13
- PRVIEW PDF, 2-14
- .PS files, 2-25 to 2-27
- PSPRINT.TST, 2-10, 2-26
- pull-downs, cursor wrap on/off, 2-44
- ^PW (custom printer code), 2-13, 2-24

---

**Q**

---

- ^QI (go to top of page), 2-47
- ^QU (align), 2-47
- quit. *See* cancel changes; exit
- quote mark (') (change digits to ASCII in user area), 3-16
- ^QX (go to right side of screen), 2-47

---

**R**

---

- R8 emulation options, 2-16, 2-18
- RAM. *See* memory
- RAM-resident programs. *See* memory-resident programs
- README, 1-5
- record, last, automatically fill out, 2-36
- redirect printer output, 2-29
- remove. *See* Add or delete; Add or Remove; delete
- Rename current PDF option (PDF Modification Menu), 2-13
- reset all settings, 2-45
- resolution
  - for fax files, 3-5
  - of screen fonts, 3-8
- Return to Installed Printer Menu option (PDF Modification Menu), 2-15



## INDEX

"Return to WordStar" prompt, 2-44  
reverse colors, 3-4  
right margin, 2-45  
ROM BIOS, IBM compatible, turn on/off, 2-41,  
2-45  
ruler lines, 2-39, 2-40, 2-41, 2-45  
Run a DOS command prompt, 2-45

## S

---

### save

change defaults for, 2-45  
changes in WSCHANGE and exit (^X), 2-36  
patching changes, 3-16, 3-19  
scalable fonts, 2-15, 2-19, 3-8, 3-12  
screen character sets, 2-25  
screen dimensions, 2-45  
screen display problems. *See* monitors, unclear  
display; troubleshooting, screen font  
problems  
screen fonts, 2-14 to 2-15, 3-5 to 3-13  
add existing, 3-9  
create, 2-14 to 2-15, 2-18, 3-5, 3-7 to 3-9,  
3-11 to 3-13  
default, 2-18  
duplicate, 3-9  
for fax files, 2-14 to 2-15, 3-10 to 3-13  
how Preview selects, 3-7  
maximum file size for, 3-8, 3-10  
overview, 3-5 to 3-6  
resolution of, 3-8  
symbol sets and, 3-7, 3-8, 3-9, 3-10 to 3-11  
troubleshooting problems, 3-9 to 3-10  
scroll bar, 2-45  
scrolling speed, 2-45  
searching, change defaults for, 2-39  
search paths, 2-37 to 2-38  
Select printer adapter port option (Additional  
Installation Menu), 2-9  
separator between data items, 2-45  
Serial Number screen (WSSETUP), 1-2

serial ports  
assigning, 2-8, 2-13  
mode statement and, 2-13, 2-28  
PDF customization and, 2-13  
protocols for, 2-26  
serial printers. *See* PostScript printers; serial  
ports  
Set basic editing defaults option (WINSTALL  
Menu), 2-4  
SETDTR.PS, 2-26, 2-29  
SHADE.HP, 2-25  
sheet feeders  
creeping text on page and, 2-32  
install, 2-8, 2-9, 2-13  
sign-on message, 2-45  
SIMPLE PDF, 3-23, 3-24  
single quote (') (change digits to ASCII in user  
area), 3-16  
single user system, 2-45  
smallest word checked, 2-45  
snaking column character, 2-45  
snow on monitor, 2-4  
soft carriage returns. *See* carriage returns  
soft fonts  
add or delete, 2-11 to 2-12, 2-17 to 2-18  
add or delete custom, 2-4, 2-12 to 2-13,  
2-18 to 2-22  
batch file for download, 2-15  
compressed, 3-8  
scalable, 2-15, 2-19, 3-8  
screen fonts and, 3-8  
troubleshooting, 2-31  
soft spaces, 2-46  
sort order, 2-46  
spacing  
letter spacing problems on HP LaserJets,  
2-32 to 2-33  
line spacing, 2-42  
proportional spacing, 2-44  
speed  
of display, 2-4, 2-5  
of printing, 2-13, 2-29, 2-30

speed (*continued*)  
 of scrolling, 2-45  
 of WordStar, 2-33

spelling check, change defaults for, 2-38, 2-42, 2-46

spillover of text, 2-46

SPLIN000.DCT, 2-41, 3-20

SPLMN000.DCT, 2-38, 2-42, 3-20

“Stack Overflow” message, 1-4

STACKS= statement (CONFIG.SYS file), 1-4

Star Exchange  
 directory/path for, 3-21  
 install/remove, 1-5, 2-4, 2-6 to 2-7

start  
 PDFEDIT, 3-23  
 WINSTALL, 2-3  
 WordStar, 1-3  
 WSCHANGE, 2-34 to 2-35

status line, 2-46

stop. *See* cancel changes; exit

strikeout character, 2-46

strip MSB in nondocument files (^B), 2-47

style bar, 2-46

style sheets. *See* paragraph styles

subscripts  
 font for, 2-13  
 roll for, 2-46

subtraction operator (-), for patching, 3-17

superscripts  
 font for, 2-13  
 roll for, 2-46

SUPERVGA cards, 3-3

suppress blank lines, 2-46

symbol sets  
 code pages and, 2-25  
 default set, 3-9  
 for fax file screen fonts, 3-10 to 3-11  
 for HP LaserJet III printers, 2-21  
 HP LaserJet font matching and, 2-32 to 2-33  
 screen fonts and, 3-7, 3-8, 3-9, 3-10 to 3-11

## T

---

tab stops, 2-46

TelMerge  
 change defaults for, 2-46  
 directory/path for, 3-21  
 install/remove, 2-6 to 2-7

TELMERGE.EXE, 2-46, 3-21

TELMERGE.SYS, 2-46, 3-21

temporary files, 2-46

testing printers, 2-10, 2-26, 2-28 to 2-29

text creeping on page, 2-32

text spillover, 2-46

.TFM files, 2-20

thesaurus, change defaults for, 2-46

THESR000.DCT, 3-20

thousands number separator, 2-46

time format, 2-46

time-out error, PostScript printers, 2-33

TIMES screen font group, 3-6

title bar display, 2-46

TOPIX.EXE, 2-40, 3-20

TOPIX.SET, 2-40, 3-20

top margin, 2-46

top offset, for Preview, 3-4 to 3-5

top of page, go to (^QI), 2-40

transfer patches, 3-19 to 3-20

troubleshooting  
 printer problems, 2-27 to 2-33  
 screen font problems, 3-9 to 3-10  
*See also* monitors, unclear display

TSR programs. *See* memory-resident programs

type ahead buffer flush control, 2-47

Type Director, 2-15, 2-19, 3-8, 3-12

typing, fast, 2-39

## U

---

UPDATE label, for patching, 3-18

underlining  
 continuous, 2-37  
 monitor installation and, 2-5

## INDEX

unerase, change defaults for, 2-47  
units of measure, 2-41, 2-42, 2-47  
UNIVERS screen font group, 3-6  
unzip files, 1-5  
upgrade instructions, for patching, 3-13, 3-18,  
3-19 to 3-20  
USASCII symbol set, screen fonts and, 3-7, 3-8,  
3-10 to 3-11, 3-13  
user area (WS.EXE), 3-14 to 3-15

## V

---

variable name indicator, 2-47  
VER= statement (FONTID.CTL), 3-9, 3-10  
vertical unit of measure, 2-47  
VESA BIOS drivers, 3-3  
VGA cards, 3-3  
video attributes, 2-47  
video RAM, put characters directly in, 2-47  
VMI units for line height, 2-40, 2-47

## W

---

windows, change defaults for, 2-47  
WINSTALL  
    overview, 1-3, 2-1  
    start, 2-3  
    unclear display in, 2-3, 2-20  
WINSTALL Menu, 2-3 to 2-4  
    Add fonts to custom database (LSRFONTS)  
        option, 2-4, 2-19, 2-20 to 2-21  
    Add or remove a feature option, 2-4, 2-6 to  
        2-7  
    Customize WordStar (WSCHANGE) option,  
        2-4, 2-34 to 2-48  
    Install a monitor option, 2-3, 2-4 to 2-5  
    Modify or install a printer (PRCHANGE)  
        option, 2-3, 2-7 to 2-22  
    Set basic editing defaults option, 2-4  
words, smallest word checked, 2-45

“Words checked” prompt, 2-47  
WordStar  
    exit, 1-3  
    install, 1-1 to 1-3  
    speed of, 2-33  
    start, 1-3  
WordStar compatibility, 2-47  
word wrap, 2-47  
\WS, 3-20 to 3-21  
WSC.EXE, 2-42, 3-20  
WSCHANGE, 2-4, 2-34 to 2-48  
    cancel changes and exit (^C), 2-36  
    EMS and, 2-33  
    exit, 2-36  
    help (F1), 2-35  
    menu map, 2-35  
    overview, 2-34 to 2-35  
    patching user area, 3-15 to 3-16  
    path specification in, 3-21 to 3-22  
    paths to WSCHANGE options, 2-35 to 2-48  
    save changes and exit (^X), 2-36  
    start, 2-34 to 2-35  
WSD.EXE, 2-42, 3-20  
WSDSPCH.OVR, 2-38, 3-20  
WS.EXE, user area, 3-14 to 3-15  
.WSF files, 2-14, 3-2, 3-5 to 3-6, 3-8  
WSHELP.OVR, 2-41, 3-20  
WSHOTKEY.OVR, 2-42, 3-20  
WSHYP000.OVR, 2-41  
WSINDEX.XCL, 2-40, 2-41  
WSLIST.COM, 2-42, 3-20  
.WSM files, 3-20  
WSMIN.PAT, 2-33 to 2-34  
WSMSG.S.OVR, 2-42, 3-20  
WSPROL2.PS, 3-20  
WSPROL.PS, 2-26, 2-33, 3-20  
WSSETUP, 1-1 to 1-3  
WSSPL000.OVR, 2-46, 3-20  
WSSTYLE.OVR, 2-44, 3-20  
WSTHS000.OVR, 3-20

**X**

---

X (save patching changes), 3-16  
^X (save WSCHANGE changes and exit), 2-36  
Xerox 4045  
    soft fonts, 2-12, 2-18 to 2-22  
    *See also* laser printers  
.xl 00 (overprint a page), 2-24  
XON/XOFF protocol, for PostScript printers, 2-26  
XTRACT PDF, 2-14

**Y**

---

“You’ve selected too many fonts” message, 2-31

**Z**

---

zipped files, unzip, 1-5

## NOTES

---

**WORDSTAR®**

A1-C2000