WORDSTAR®
PROFESSIONAL
RELEASE 5

WORDSTAR®
PROFESSIONAL

RELEASE 5

5204

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Starting

Overview

WordStar® Professional Release 5 is a full-featured, flexible, word processing program. WordStar Professional offers two types of menus to meet your writing and business needs—the traditional classic WordStar menus and new pull-down menus. You can work with one type of menu all the time or switch back and forth at the touch of a key.

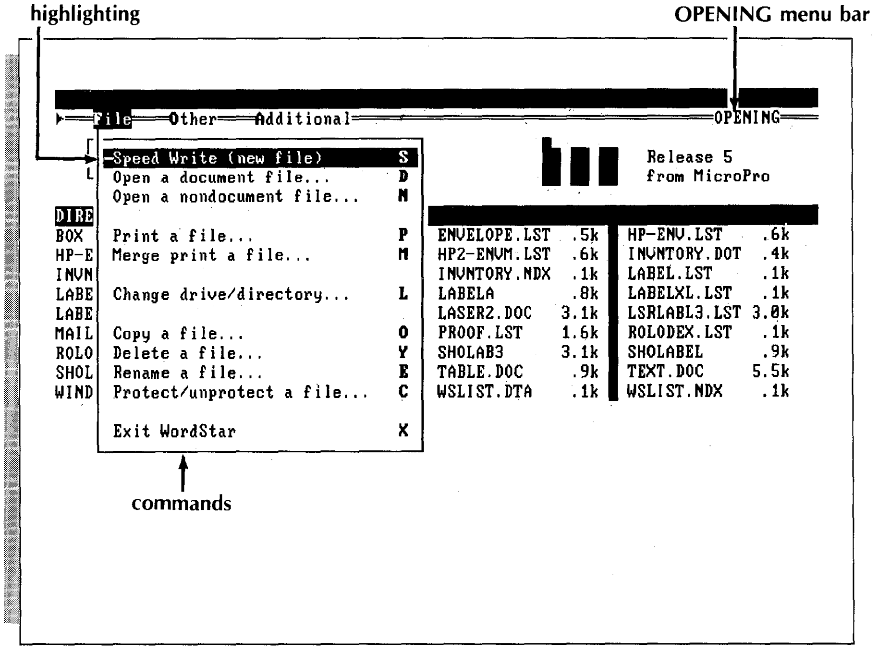
If you already use WordStar, you'll be glad to know that the classic WordStar menus haven't changed except for the addition of many new commands. If you're a first-time or occasional WordStar user, you'll learn to work quickly, using the pull-down menus. Pull-downs make learning WordStar virtually effortless. You don't have to memorize any commands.

The WordStar onscreen tutors and the "Training Guide" teach you how to use pull-down menus. The "Reference Guide" covers both pull-down menus and classic menus. Once you've learned the basics, you'll find practical suggestions and examples for using WordStar in the "Applications" tab section. *Pocket WordStar* is a handy little guide that you'll want to keep near your computer. It shows both pull-down and classic menus and lists all the WordStar commands. If you like to use function keys for word processing, the keyboard overlay shows the 40 function key combinations available with WordStar. (You can change the function key assignments if you want.)

WordStar Professional Release 5 also includes several other programs to make your work easier: MailList™—for preparing mailing lists and form letters, TelMerge®—for sending and receiving electronic mail and using telecommunications services, ProFinder™—for organizing your hard disk and locating files quickly, and PC-Outline™ by Brown Bag Software®—for creating outlines and arranging information in an easy-to-use structure.

For a summary of all the new features of WordStar Professional Release 5, be sure to read *What's New*. Experienced WordStar users will appreciate the list of new and changed commands at the back of *What's New*.

When you install WordStar, it's set for pull-down menus. You can change the default setting to classic menus, if you like, in the installation program. And you can always change back and forth between pull-down and classic menus while you're using WordStar, simply by changing the help level.


highlighting
OPENING menu bar
File
Other
Additional
OPENING
-Speed Write (new file) S
Open a document file... D
Open a nondocument file... N
Print a file... P
Merge print a file... M
Change drive/directory... L
Copy a file... O
Delete a file... Y
Rename a file... E
Protect/unprotect a file... C
Exit WordStar X
Release 5
from MicroPro
commands

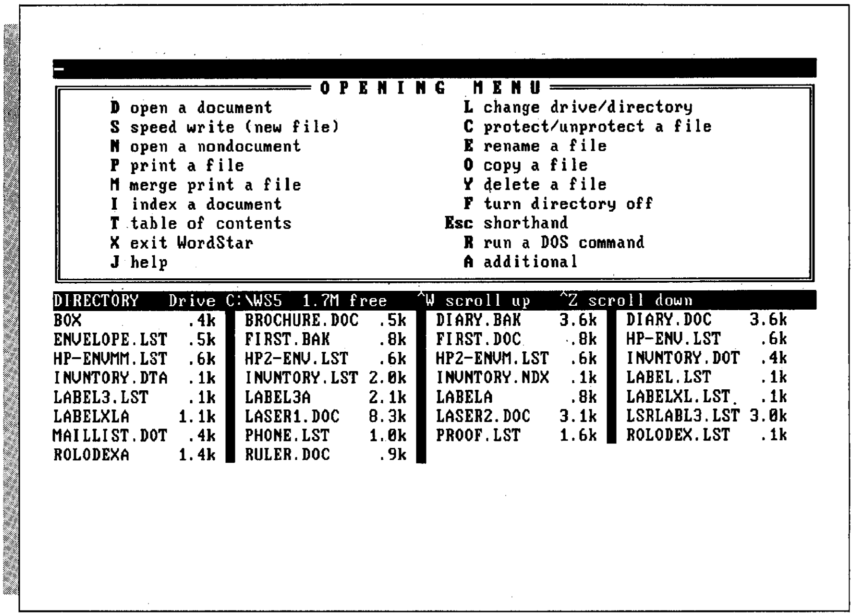
```
DIRE
BOX
HP-E
INVN
LABE
LABE
MAIL
ROLO
SHOL
WIND

ENVELOPE.LST   .5k   HP-ENV.LST     .6k
HP2-ENVM.LST   .6k   INVNTORY.DOT   .4k
INVNTORY.NDX   .1k   LABEL.LST      .1k
LABELA         .8k   LABELXL.LST    .1k
LASER2.DOC    3.1k   LSRLABL3.LST  3.0k
PROOF.LST     1.6k   ROLODEX.LST    .1k
SHOLAB3       3.1k   SHOLABEL       .9k
TABLE.DOC      .9k   TEXT.DOC      5.5k
WSLIST.DTA     .1k   WSLIST.NDX     .1k
```

Pull-down menu

You'll notice the titles of the pull-down menus on the menu bar that runs across the top of the screen. The OPENING menu bar has three menus; the EDIT menu bar has seven. To pull down a menu, move the cursor to the title on the menu bar. To choose a task or command on a menu, move the cursor to it and press ↵. Pull-down menus give you room to use the entire screen for writing and editing. A menu appears at the touch of a key when you want it; when you're finished, it goes away. Although you'll find all the commands you need for your everyday word processing tasks on pull-down menus, you're not limited to those choices. You can also use classic commands when the menu bar is displayed.

The classic menus are familiar to long-time WordStar users. The Opening Menu presents a list of file management tasks. Each task or command is assigned a letter. To choose a command, press the appropriate letter.



```
                            O P E N I N G  M E N U
      D open a document                         L change drive/directory
      S speed write (new file)                  C protect/unprotect a file
      N open a nondocument                      E rename a file
      P print a file                            O copy a file
      M merge print a file                      Y delete a file
      I index a document                        F turn directory off
      T table of contents                     Esc shorthand
      X exit WordStar                           R run a DOS command
      J help                                    A additional

DIRECTORY    Drive C:\WS5  1.7M free    ^W scroll up   ^Z scroll down
BOX            .4k  BROCHURE.DOC  .5k  DIARY.BAK     3.6k  DIARY.DOC     3.6k
ENVELOPE.LST   .5k  FIRST.BAK     .8k  FIRST.DOC      .8k  HP-ENV.LST     .6k
HP-ENVMM.LST   .6k  HP2-ENV.LST   .6k  HP2-ENVM.LST   .6k  INVNTORY.DOT   .4k
INVNTORY.DTA   .1k  INVNTORY.LST 2.0k  INVNTORY.NDX   .1k  LABEL.LST      .1k
LABEL3.LST     .1k  LABEL3A      2.1k  LABELA         .8k  LABELXL.LST    .1k
LABELXLA      1.1k  LASER1.DOC   8.3k  LASER2.DOC    3.1k  LSRLABL3.LST  3.0k
MAILLIST.DOT   .4k  PHONE.LST    1.0k  PROOF.LST     1.6k  ROLODEX.LST    .1k
ROLODEXA      1.4k  RULER.DOC     .9k
```

Classic menu

When you're typing a document, the classic Edit Menu is displayed at the top of the screen. To choose commands from the Edit Menu, hold down the **Ctrl** key while you press the command letter. Some commands on the Edit Menu take you to other menus.

Which set of menus should you use? If you've never used WordStar before, start with the pull-down menus. You'll be amazed how quickly you'll become productive with WordStar. If you know a little about WordStar but use it only occasionally, the pull-downs are great because you don't have to remember any commands from one time to the next. There's nothing to memorize.

If you're an old hand at WordStar, you'll most likely decide to stick with the classic menus. You're accustomed to power typing with the classic commands, where you can do all your work and keep your fingers on the home keys. And you already know how the commands are grouped on the various menus. Remember that you can install WordStar with classic menus as the default setting.

Now it's time to install WordStar Professional. Follow the easy instructions to set up WordStar and begin using it.

Notes for WordStar® Users Who Are Upgrading to Release 5

If you're a very experienced WordStar user, you can probably just copy the disks from the WordStar Professional package and run WINSTALL. Be advised though that the basic installation has been changed. (Hard disk users, copy your disks into a new directory called WS5.) Keep these important points in mind:

- The basic WordStar installation takes place in WINSTALL. Customization and technical changes to WordStar (patching) take place in WSCHANGE. If you patched WordStar extensively in a previous version, see Appendix C, "Customizing WordStar," and the README program for information about which patches will work in Release 5.
- Your CONFIG.SYS file must have a FILES = 20 statement. WINSTALL checks for this and adds the statement. Be sure to complete this step during installation and reboot at the end.
- When you install, you'll notice that WordStar is set for pull-down menus (help level 4). If you prefer, you can change the default to classic menus during installation. You can also change back and forth between pull-down and classic menus while you're using WordStar. If you plan to go through the lessons in the "Training Guide," make sure you're using the pull-down menus.
- This release includes new dictionaries for the thesaurus and spelling checker. Personal dictionaries created in previous versions of WordStar are obsolete. If you want to continue using an old personal dictionary, do the following:

  Once WordStar is installed, open the personal dictionary file in nondocument mode. Mark the entire file as a block. Use **^KZ** to sort the contents of the personal dictionary into ascending order. If you have a two floppy disk system, save the personal dictionary file to the Spelling Dictionary and Thesaurus disk, not the Program disk.
- For the convenience of hard disk users, WordStar is set up to run in a directory called \WS5. If you want a different directory name, you need to change the name in WSCHANGE.
- In WordStar Professional Release 5, the **Esc** key is used most often to escape or "back out" of a screen or menu without making a change. **Esc** is no longer used to accept defaults or to set tabs and margins at the cursor location. You can reprogram the **Esc** key in WSCHANGE to work as it did in previous releases.
- The onscreen tutors provide a tour of pull-down menus. If you're installed for classic menus instead of pull-downs, the tutors prompt you to reset the help level to **4** (pull-downs). For the tutors to run correctly, a nonproportional 10-pitch font must be the default. When you've finished the tutors, you can change the default font in WSCHANGE.

- This version of WordStar has many new features and requires more disk space and memory (minimum 384K RAM).
- To get the most out of WordStar on a two floppy disk computer, refer to the README program for information about creating specially configured Program disks.

Installing WordStar Professional Release 5

First you'll copy your WordStar disks. Follow the instructions for your type of computer.

IF YOU HAVE A HARD DISK COMPUTER

These instructions are for copying either 5¼-inch or 3½-inch disks (including hard disk laptop computers). You'll need the disks that came in your package.

Usually, you'll have a floppy disk drive labeled A and a hard disk drive labeled C. If your disk drives are labeled differently, make the appropriate substitutions.

You'll create a directory for WordStar. (If you would like more information about directories, see your DOS manual.) Then you'll copy the WordStar disks into that directory.

1. Turn on your computer.
2. At the system prompt (C>), type **md \ws5** and press ↵ to create a directory called WS5.
3. Type **cd \ws5** and press ↵ to log on to this new directory.
4. Put the disk containing the Program in drive A.
5. Type **copy a: *.*** and press ↵.
6. When the copying is finished and you see C> on your screen, remove the disk from drive A.
7. Repeat steps 4, 5, and 6 to copy the remaining disks onto your hard disk. (You don't need to copy the Tutor disk.)

Note: WordStar is set up to run from the directory you just created, \WS5. If you want to put WordStar in a different directory, you must indicate the directory name in a program called WSCHANGE. See Appendix C, "Customizing WordStar."

Now, turn to "Running WINSTALL" later in this section.

IF YOU HAVE A TWO FLOPPY DISK COMPUTER

Follow the copying instructions for your type of disk drive.

5¼-inch or 3½-inch Disks (Including Two Floppy Disk Laptops)

You'll need	*Your DOS disk* *The disks in your package* *Enough blank formatted disks to copy each disk plus one extra, if you plan to go through the "Training Guide." (See your DOS manual, if you need help with formatting.)*

Follow these steps to copy your disks. Two floppy disk drives are usually labeled A and B. If yours are different, make the appropriate substitutions.

1 Turn on and boot your computer.

You'll see A> on your screen.

2 Remove the DOS disk from drive A and replace it with the disk containing the Program. Put one of your blank formatted disks in drive B.

3 Type **copy a: *.* b:** and press ↵.

The copying is finished when you see A> on your screen once again.

4 Remove both disks from the drives. Label the newly created disk.

5 Repeat the procedure in steps 2, 3, and 4 to copy the remaining disks. (You don't need to copy the Tutor disk.)

Use your copies of the WordStar disks. Store the originals in a safe place. If you plan to go through the lessons in the "Training Guide," you should have one extra blank disk.

The README program has suggestions about customizing disks. To run README, see "The README Program" later in this section.

Now, turn to "Running WINSTALL" later in this section.

High Capacity Disks (Floppy Disks with More than 1 Mb of Disk Space)

The way you set up WordStar to run on your two floppy disk system depends on the capacity of the floppy disks. Following are suggestions for combining the disks from your package onto 1.2M or 1.4M blank, formatted disks. If you plan to go through the lessons in the "Training Guide," format one extra blank disk.

Assemble the disks containing these programs and copy them to a high capacity disk as follows:

Disk 1	Program Dictionaries Definitions Dictionary or Advanced Page Preview

If your second disk drive is also high capacity, copy the disks with these programs to another high capacity disk:

Disk 2	Installation Printer Data

If your second disk drive is low capacity, copy the disk with this program to a low capacity disk:

Disk 2	Installation

Group the remaining programs according to your needs. Remember to copy to high or low capacity disks according to the disk drives where they'll be used. You don't need to copy the Tutor disk. The README program has more suggestions about customizing disks. To run README, see "The README Program" later in this section.

Use your copies of the WordStar disks. Store the originals in a safe place.

Now you can install WordStar.

Running WINSTALL

You install WordStar so it will work with your computer, printer, and monitor. The basic installation takes place in a program called WINSTALL.

If you have a hard disk computer, make sure you're in your WordStar directory \WS5 (type **cd\ws5** and press ↵). Type **winstall ws** and press ↵.

If you have a two floppy disk computer, put your copy of the disk with the Program in drive A and your copy of the disk with the Installation in drive B. Type **b:** and press ↵ to log on to drive B. Type **winstall a:ws** and press ↵.

You'll see the Main Installation Menu on your screen.

Note: If you type just **winstall** to start the program, you'll be asked which file you want to install. Type **ws** to install the file WS.EXE.

The Main Installation Menu offers choices for the basic installation of your program. Each selection leads to another menu with more specific choices. Don't worry if you make a mistake. After you've gone through all the menus, you can change your selections.

Installing Your Monitor

If you have a monochrome monitor that's 100% IBM® compatible, you can skip this section and go to "Selecting Your Printer." WordStar is already set up to work with this type of monitor.

If you have a color monitor, a monitor that is not 100% IBM compatible, an IBM EGA monitor, or an IBM CGA monitor, follow these steps:

1. Press **A** to display the Console menu.
2. Press **A** to display the Monitor selection menu.
3. If you have a 100% IBM-compatible monitor using video RAM directly, press **A.**

   If you have a 100% IBM-compatible monitor using CGA video RAM, press **B.**

   If you have a color monitor, or a monitor that is not 100% IBM compatible, press **C** to choose "ROM BIOS."

   If you have an IBM EGA monitor and want to display 43 screen lines, press **D.**

   If you want to display only 25 lines, press **A.**
4. Press **X** to return to the Console menu.
5. You can also choose the following:

   How you want underlined text displayed onscreen

   What character you want to display a soft space

   Default colors

   Default monochrome

   To make these changes, press the appropriate letter. If you're not sure what to do, skip this.
6. Press **X** to return to the Main Installation Menu.

Installing Your Printer

Next you'll tell WordStar what kind of printer you have. If you have more than one printer, you'll install them one at a time.

If you have a two floppy disk computer, have your Printer Data disks handy. (The Printer Data disks contain the list of printers.) When it's time to insert a Printer Data disk, you'll see a message on the screen. For help during printer installation, press the key marked **F1**.

1. Press **B** to see the Printer selection menu.
2. Follow the instructions on the screen to find your printer and select it. (If your printer isn't listed on any of the menus, see the *Printer Information* booklet for suggestions on what printer to use.)

   Information about the printer you select is stored in a printer description file called a "PDF."
3. To name the PDF file for your printer, type a filename of up to eight characters. (It's especially important to use a descriptive name if you're installing more than one printer.)
4. You can also change these settings at the Additional Installation Menu:

   Add and remove font groups, if they're available for your printer.

   Select a printer adapter port—how a printer is connected to the computer. WordStar assumes that the default printer is connected to your computer at the port called "LPT1." (Later, you'll select which of your printers should be the default printer, the one WordStar uses automatically to format and print a document.) If you're installing other printers, be sure to change the printer adapter port setting for each if necessary.

   Install a sheet feeder if your printer uses one.

   View (or print) printer information for each selected printer, if you like.

   To make these changes, choose the appropriate item from the menu. If you're not sure what to do, skip this.
5. Return to the WINSTALL Main Installation Menu. If you have more than one printer, follow the same procedure to install each one.

If you're an advanced user, you can modify PDF settings by running the WordStar customization program WSCHANGE. Just type WSCHANGE at the system prompt and press ↵. (If you have a hard disk, make sure you're at the WordStar directory prompt. If you have a two floppy disk system, WSCHANGE is on the Installation disk.) For more detailed information about PDF files or WSCHANGE, see Appendix C, "Customizing WordStar."

Choosing the Default Printer

If you've installed more than one printer, select which should be the default printer (the one WordStar uses if you don't specify a printer).

1. Press **C** to select the default printer.
2. From the list of installed printers, select which will be the default.

Naming Your Disk Drives

Now, you'll tell WordStar which disk drives your computer has and which one you'll run WordStar from.

1. At the WINSTALL Main Installation Menu, press **D** to see the Computer menu.
2. Press **A** to choose your disk drives.
3. Press **Y** (for yes) to change the information.
4. Type the letter of the drive where your WordStar program files will be located. (On a two floppy disk computer, this is usually A, and on a hard disk computer, C.)
5. If the disk drive you just named is floppy, press **Y**. If it's hard, press **N**.
6. Type the letters of the remaining drive(s) on your computer and indicate if each is floppy or hard.
7. Press ↵ when you are finished.

   WINSTALL displays your selections. An asterisk appears next to the disk drive where your WordStar files will be located.
8. At the prompt, *Do you want to change this? (Y/N)*, press **N** if your drive selections are correct. You'll return to the Computer menu.

   If you need to change your drive selections, press **Y**. Then follow steps 4 – 8 above.

Checking the CONFIG.SYS File

The installation program needs to check a file called CONFIG.SYS. For WordStar to operate correctly, this file must have a FILES = 20 statement. WINSTALL checks the file and then adds the statement if necessary.

Follow these steps:

1. Press **C** to have WINSTALL check your CONFIG.SYS file.
2. Read the information on the screen. Press **Y** to respond to the prompt.
3. Follow the instructions on the screen. (If you have a two floppy disk computer, and have put system tracks on your Program disk, leave that disk in drive A. This is your boot disk. If you have a hard disk computer, your CONFIG.SYS file is on drive C.)
4. When WINSTALL is finished checking the CONFIG.SYS file, press **X** to return to the Main Installation Menu.

Specifying the Location of the Dictionaries

WordStar needs to know the location of your dictionaries. Dictionaries are used when you check spelling, ask for a word definition, or look for synonyms in the thesaurus. Refer to the list below for the location of your dictionaries:

Type of Computer	*Location of Dictionaries*
Two floppy with 5¼-inch disks	Spelling Dictionary and Thesaurus disk Definitions disk
Two floppy with 3½-inch disks	Dictionaries disk
Two floppy with a high capacity disk	Program disk
Hard disk	Hard disk

Follow these steps:

1. At the Main Installation Menu press **E**.
2. Read the menu and make the appropriate selection for your computer.
3. Press **X** twice to return to the Main Installation Menu.

Changing the Help Level (Pull-down or Classic Menus)

WordStar features two kinds of menus: pull-down menus and classic menus. Classic menus have not changed from previous versions of WordStar except for the addition of new commands. Pull-down menus are the default setting. They provide a way for first-time or occasional users to work quickly without a lot of memorization.

If you already use WordStar, you'll probably want to work with classic menus. Follow these steps to change the default from pull-down to classic menus:

Note: If you plan to go through the lessons in the "Training Guide," use pull-down menus. You can change the default setting to classic menus later, if you like.

1. Press **F** for Help level.
2. Select **B** for classic menus.
3. Select the level of menu display for classic menus (all menus, submenus only, or no menus).
4. Return to the Main Installation Menu.

Finishing the Installation

If you want to go back and change any of your selections, you can do so from the Main Installation Menu. Otherwise, follow these steps to finish the installation:

1. Press **X**.
2. At the prompt, *Are you finished making changes? (Y/N),* press **Y**.
3. When you see the system prompt on your screen, reboot your computer in one of these ways:

   If you have a hard disk computer, press **Ctrl, Alt,** and **Del** at the same time.

   If you have a two floppy disk computer, remove the Program disk from drive A and the Installation disk from drive B. Put your boot disk in drive A and press **Ctrl, Alt,** and **Del** at the same time.

When you see the system prompt on the screen again, WordStar is ready to use.

The README Program

You'll find the latest information about WordStar in a program called README.

If you have a two floppy disk computer, README has suggestions for creating Program disks that reduce file swapping. By removing some files and adding others, for instance, you can customize an "executive" Program disk for a laptop computer.

If you have a hard disk computer, make sure you're at the C:\WS5 > prompt. Type **readme**, and press ↵.

If you have a two floppy disk computer, put the disk containing README into drive A. Type **a:** and press ↵ to log on to drive A. Then type **readme** and press ↵.

Important Notes

- To see how your printer works with WordStar, you can print a file called PRINT.TST. (If you're using a two floppy disk computer, this file is on the Program disk.)
- If you have a two floppy disk computer, always start your computer with the DOS disk (or Program disk with system tracks) you used during installation.

You must use the same disk because the FILES = 20 statement was added to your CONFIG.SYS file. If you use other disks to boot your computer, the FILES = 20 statement must be added to the CONFIG.SYS file on those disks.

- Be sure to send in your Registration Card to validate your warranty and receive current information about WordStar from MicroPro®.
- The Customer Service booklet provides information about technical support, warranty replacements, and updates.
- If you have a hard disk computer, and you want to start WordStar from any directory, you can add the \WS5 directory to your computer's path. See your DOS manual for information on changing your PATH statement.

Starting WordStar

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

IF YOU HAVE A HARD DISK COMPUTER

1. Make sure your computer is on. You should see C> on your screen.
2. Type **cd\ws5** and press ↵ to log on to your WordStar directory.
3. Type **ws** and press ↵.

IF YOU HAVE A TWO FLOPPY DISK COMPUTER

1. Make sure your computer is on and booted. You should see A> on your screen. (If you booted with the DOS disk, remove the disk from drive A. If you booted with your WordStar Program disk, leave the disk in drive A.)
2. Put the Program disk in drive A and a blank formatted disk in drive B for your word processing.

   Always do your word processing on a disk in drive B. This time you're using a blank disk, but you can also use disks that have files on them.
3. Type **b:** and press ↵.
4. Type **a:ws** and press ↵.

You're ready to begin learning and using WordStar.

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Training

The WordStar Professional Release 5 package includes two kinds of training materials to help you learn the program. An onscreen tutorial presents an overview of the program. If you're new to word processing, the tutors are a good place to start. For more specific training, the lessons in this book let you practice using the program with step-by-step instructions.

Using the Onscreen Tutorial

The onscreen tutors are a great way to get acquainted with WordStar. They provide a guided tour of the program via the new, easy-to-use, pull-down menus.

Find the Tutor disk in your package. Remove the card enclosed in the disk envelope and follow the printed instructions to run the tutors. You can repeat the tutors as often as you like.

The Training Lessons

The "Training Guide" includes nine lessons to teach you WordStar. Lessons 1–6 cover basic word processing; Lessons 7–9 teach you more advanced tasks. You may want to practice what you learned in the first six lessons, then go through the rest of the training later.

With the "Training Guide" you can learn at your own pace and spend time working with the program as you learn. The lessons are written so you can review specific tasks individually without having to go through the entire lesson again.

Now turn to Lesson 1 and start learning WordStar. The training lessons assume that you're using pull-down menus.

LESSON 1

Learning the Basics

In this lesson you'll learn about

- Starting WordStar
- Getting Onscreen Help
- Creating a File
- Typing Text
- Saving and Naming a File
- Printing

You usually follow the same steps each time you write or edit. In Lesson 1 you'll learn the basic steps. Then you'll be ready to try more specific tasks.

Getting Ready

If you have a hard disk computer, you can skip this section and go to ''Starting WordStar.''

Floppy disk computer users need to set up a work disk for training. To do that, you need a blank, formatted disk. If you need to format a disk, do that now, then return here.

Follow these steps to set up a Training Work Disk:

1. Make sure your computer is on and the system prompt A> appears on the screen. (If your disk drives aren't called A and B, substitute the correct names in the steps.)
2. Place your copy of the disk that contains MailList™ in drive A.

3. Place a blank, formatted disk in drive B.
4. Type **copy maillist.dot b:** and press ↵.
5. Remove the MailList disk from drive A and insert the WordStar Program disk in drive A.
6. Type **copy *.doc b:** and press ↵.

   The training files are copied onto the disk in drive B.
7. When you see the message that the files are copied, remove the disk from drive B. Label the disk "Training Work Disk."
8. Remove the WordStar Program disk from drive A.

Now that you've prepared a Training Work Disk, you're ready to begin.

Starting WordStar

IF YOU HAVE A HARD DISK COMPUTER

To start WordStar, follow these steps:

1. Make sure you're in the directory that contains the WordStar program files. If you're not, type **cd\ws5** and press ↵. (If you copied your files to another directory during installation, type cd\ and the name of that directory and press ↵.)
2. Type **ws** and press ↵.

IF YOU HAVE A TWO FLOPPY DISK COMPUTER

You'll need the copy of the WordStar Program disk you created during installation and the Training Work Disk.

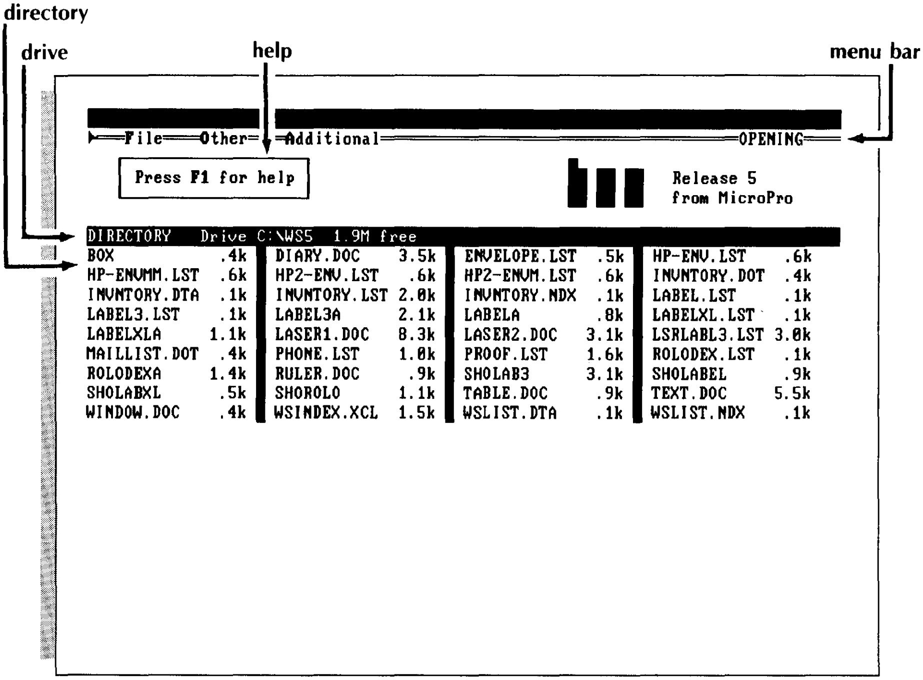
To start WordStar, follow these steps:

1. Place the WordStar Program disk in drive A.
2. Place the Training Work Disk in drive B.
3. Type **b:** and press ↵.
4. At the B> prompt, type **a:ws** and press ↵.

Always do word processing on a work disk in drive B. The Program disk in drive A runs the program, and it's a good idea never to put anything else on it.

The Opening Screen

When you start WordStar, the Opening screen looks like this:



```
╞══File══Other══Additional═══════════════════════════════OPENING══

   Press F1 for help                          Release 5
                                              from MicroPro

DIRECTORY    Drive C:\WS5   1.9M free
BOX             .4k  DIARY.DOC     3.5k  ENVELOPE.LST  .5k  HP-ENV.LST     .6k
HP-ENVMM.LST    .6k  HP2-ENV.LST    .6k  HP2-ENVM.LST  .6k  INVNTORY.DOT   .4k
INVNTORY.DTA    .1k  INVNTORY.LST 2.0k  INVNTORY.NDX  .1k  LABEL.LST      .1k
LABEL3.LST      .1k  LABEL3A       2.1k  LABELA        .8k  LABELXL.LST    .1k
LABELXLA       1.1k  LASER1.DOC    8.3k  LASER2.DOC   3.1k  LSRLABL3.LST 3.0k
MAILLIST.DOT    .4k  PHONE.LST     1.0k  PROOF.LST    1.6k  ROLODEX.LST    .1k
ROLODEXA       1.4k  RULER.DOC      .9k  SHOLAB3      3.1k  SHOLABEL       .9k
SHOLABXL        .5k  SHOROLO       1.1k  TABLE.DOC     .9k  TEXT.DOC      5.5k
WINDOW.DOC      .4k  WSINDEX.XCL   1.5k  WSLIST.DTA    .1k  WSLIST.NDX     .1k
```

The directory lists files. If you have a hard disk computer, you probably see many files listed on the screen. These files are in the current directory on the current drive. If you have a floppy disk computer, you see the training files you copied onto the Training Work Disk in drive B displayed on the screen.

The double line near the top of the screen is a menu bar. The menu bar contains the names of pull-down menus. On each pull-down menu is a list of choices for performing word processing tasks. To perform a word processing task, "pull down" a menu and choose the item that will perform the task.

You can get onscreen help by pressing the key marked **F1**.

Getting Onscreen Help

As you're learning and using WordStar, remember that onscreen help is always available.

Practice getting help at the Opening screen.

1 Press the key marked **F1**. (F1 is a function key located at either the left side of your keyboard or across the top.)

2 Read the information.

The information in the pop-up window tells you how to choose a pull-down menu from the menu bar.

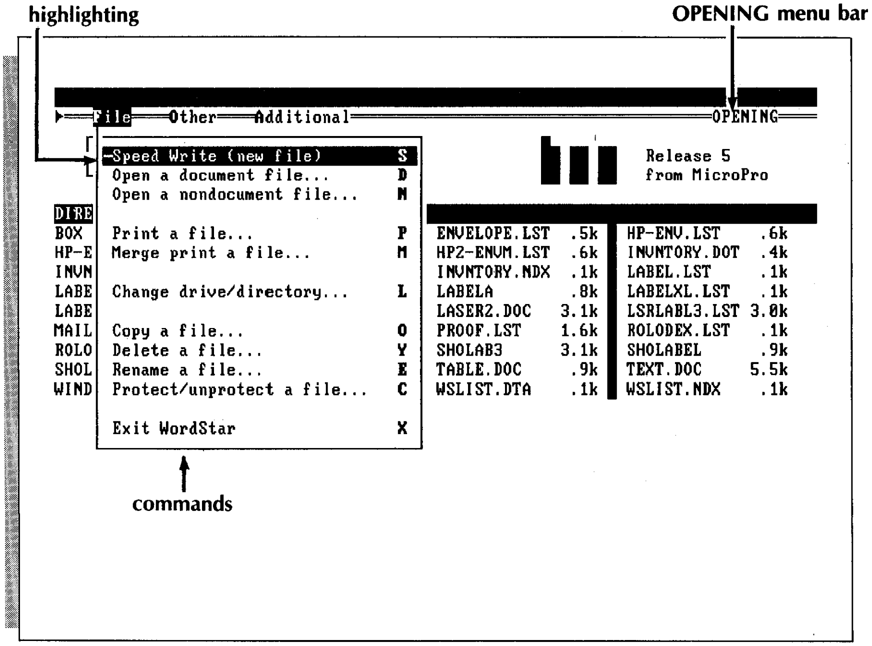
3 When you're finished, press the **Escape** key (the key marked **Esc**).

Creating a File

In word processing, documents are kept on a disk in a file. You can't start typing a document until you create the file it will be kept in.

Take these steps to create a file:

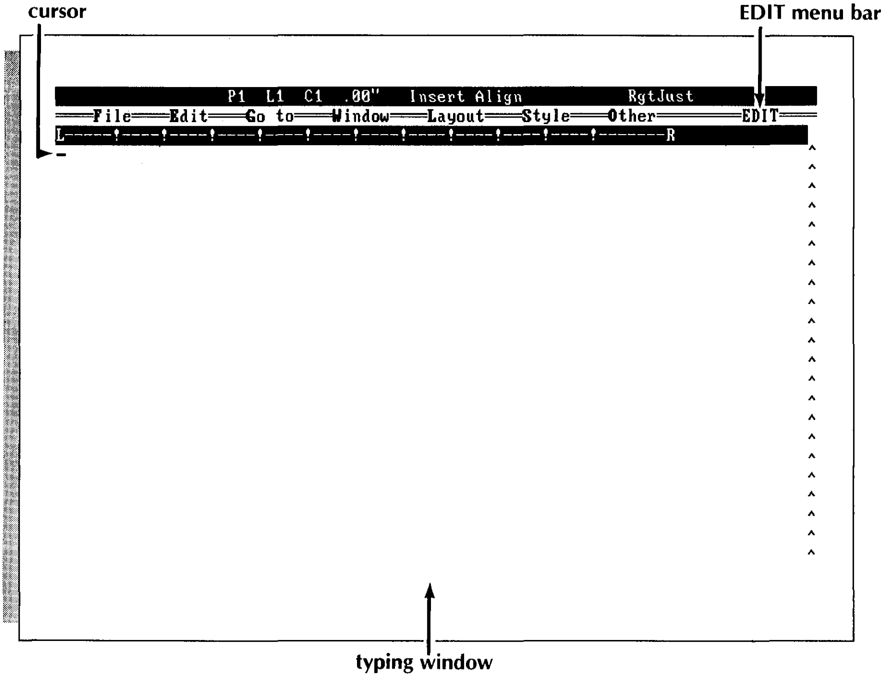
1 Press **F** to select the File pull-down menu from the menu bar. (If you don't see this pull-down menu on the screen, press the **Spacebar** and press **F** again.)


highlighting
OPENING menu bar
File
Other
Additional
OPENING
Speed Write (new file) S
Open a document file... D
Open a nondocument file... N
Print a file... P
Merge print a file... M
Change drive/directory... L
Copy a file... O
Delete a file... Y
Rename a file... E
Protect/unprotect a file... C
Exit WordStar X
Release 5
from MicroPro
commands

```
DIRE
BOX
HP-E
INVN
LABE
LABE
MAIL
ROLO
SHOL
WIND

ENVELOPE.LST   .5k   HP-ENV.LST     .6k
HP2-ENVM.LST   .6k   INVNTORY.DOT   .4k
INVNTORY.NDX   .1k   LABEL.LST      .1k
LABELA         .8k   LABELXL.LST    .1k
LASER2.DOC    3.1k   LSRLABL3.LST  3.0k
PROOF.LST     1.6k   ROLODEX.LST    .1k
SHOLAB3       3.1k   SHOLABEL       .9k
TABLE.DOC      .9k   TEXT.DOC      5.5k
WSLIST.DTA     .1k   WSLIST.NDX     .1k
```

2 To create a new file press ↵ to choose **Speed Write**, the highlighted command. With Speed Write, you get a quick start.

You're at the Edit screen ready to type.


cursor
EDIT menu bar
P1 L1 C1 .00" Insert Align RgtJust
File Edit Go to Window Layout Style Other EDIT
L----!----!----!----!----!----!----!----!----!----!----!-------R
typing window

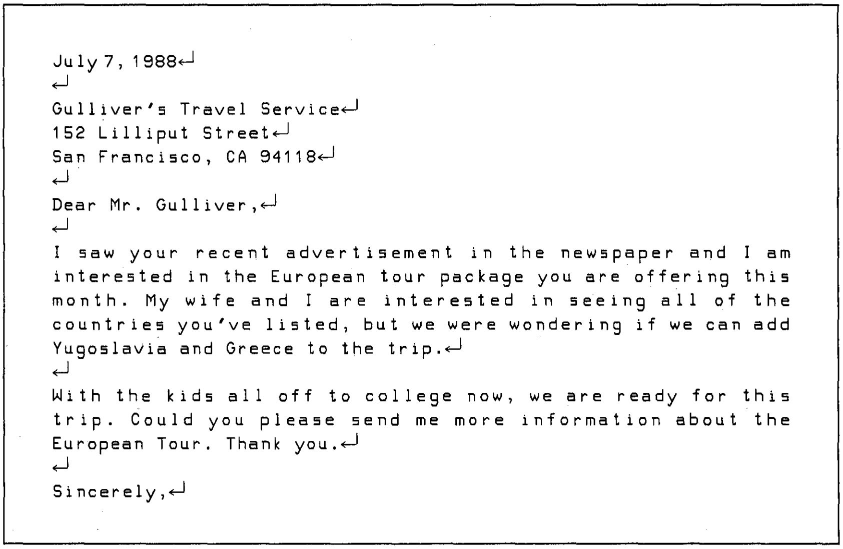
Typing Text

Type the following letter, pressing the **Enter** key whenever you see this symbol ↵.Don't worry when you come to the end of a line; WordStar automatically "wraps" text to the next line. Pressing ↵ acts like the Return key on a typewriter. If you press ↵ by mistake, use the **Backspace** key to get the cursor back in the right position.

If you make typing errors, just leave them. You can correct them later when you learn editing in Lesson 2.

(If you make a lot of mistakes and want to start over, hold down the key marked **Alt** while you press **F** to choose the pull-down File Menu. Press the key with the arrow pointing down to move the highlighting to **Abandon changes**. The arrow keys are located at the right of the regular keyboard. Press ↵ to choose **Abandon changes** and type **Y**. You'll be back at the Opening screen and you can start over at "Creating a File.")

Now type the letter.



```
July 7, 1988↵
↵
Gulliver's Travel Service↵
152 Lilliput Street↵
San Francisco, CA 94118↵
↵
Dear Mr. Gulliver,↵
↵
I saw your recent advertisement in the newspaper and I am
interested in the European tour package you are offering this
month. My wife and I are interested in seeing all of the
countries you've listed, but we were wondering if we can add
Yugoslavia and Greece to the trip.↵
↵
With the kids all off to college now, we are ready for this
trip. Could you please send me more information about the
European Tour. Thank you.↵
↵
Sincerely,↵
```

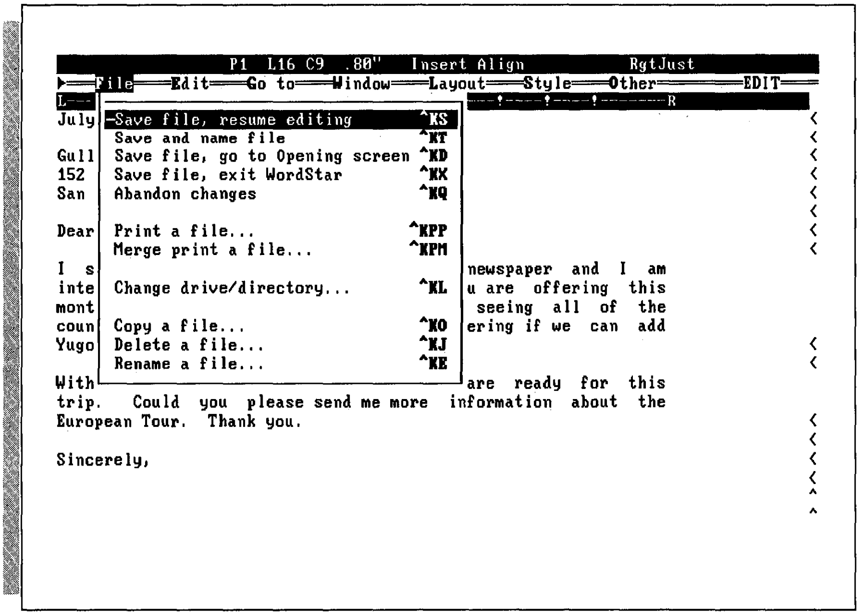
Saving a File

When you finish working in a file, you tell the computer to save and store the file containing the document.

Choices for saving a file are on the File pull-down menu.

Save the file.

1 Hold down the key marked **Alt** while you press **F**, for File. (At the Edit screen, press the **Alt** key before pressing the first letter of the pull-down menu. Then WordStar knows you're making a choice instead of typing a letter.)


P1 L16 C9 .80" Insert Align RgtJust
File Edit Go to Window Layout Style Other EDIT
Save file, resume editing ^KS
Save and name file ^KT
Save file, go to Opening screen ^KD
Save file, exit WordStar ^KX
Abandon changes ^KQ
Print a file... ^KPP
Merge print a file... ^KPM
Change drive/directory... ^KL
Copy a file... ^KO
Delete a file... ^KJ
Rename a file... ^KE

```
July
Gull
152
San

Dear

I s                                newspaper  and  I  am
inte                               u are  offering  this
mont                                seeing  all  of  the
coun                               ering if we  can  add
Yugo

With                               are  ready  for  this
trip.  Could  you  please send me more  information  about  the
European Tour.  Thank you.

Sincerely,
```

2 Move the highlighting to **Save file, go to Opening screen**.

To move the highlighting, you press the keys marked with arrows (↓, ↑, ←, and →). These arrow keys are located to the right of the regular keyboard. On some keyboards they are located on the numeric keypad. (If a number appears, press the **Num Lock** key once and try again.)

3 Press ↵.

Now your file needs a name.

Choosing a Filename

Each time you write a document, such as a memo or letter, you give it a name, or filename. The computer stores and retrieves a document according to the filename. Once a file is named and saved, you can go back to it any time to edit or read it.

A filename can contain from one to eight characters, including letters and numbers. In addition to the eight-character name, you can also add a file extension—a period followed by three more characters.

TIP *Use filenames that will remind you of the contents of your document. For example, if you're writing a memo to an auditor, you might name it AUDITOR. The extension could be a date reminder. A memo written to the auditor on December 13 might be named AUDITOR.D13. You can use 1–9 to represent January–September and O,N,D for the last three months of the year.*

Name the file.

1 Type **first.doc** and press ↵.

You've created a file called FIRST.DOC. You're back at the Opening screen with the file FIRST.DOC now listed in the directory display.

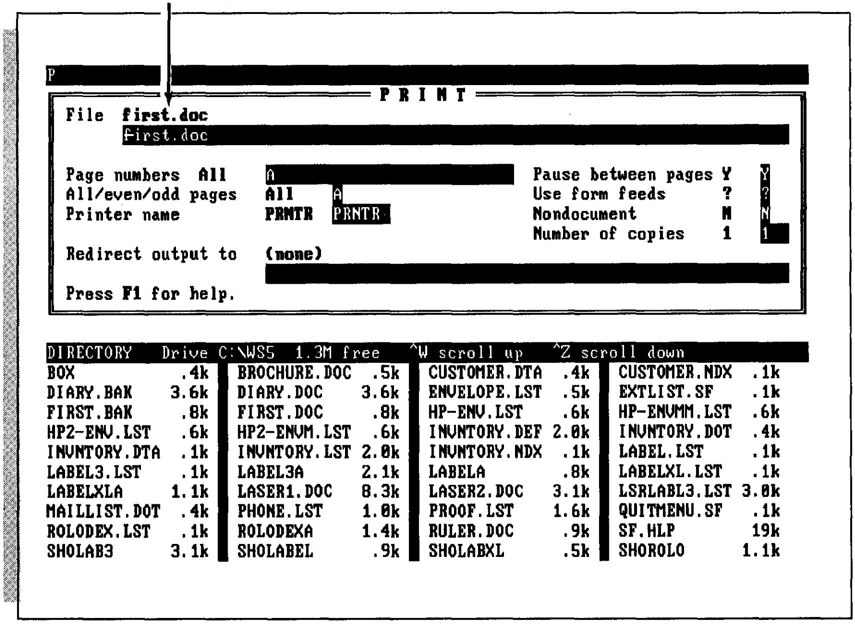
Printing

If your printer is set up, you might want to see your letter on paper. If you don't have a printer, skip this section.

Print the file FIRST.DOC.

1 At the Opening screen press **F** for File.
2 Highlight **Print a file** and press ↵. A dialog box appears because the program may need information from you. This is where you tell the printer what to print and how you want to print it. Most of the time you won't have to change any of the information.

document to print



```
P
                          P R I N T
 File  first.doc
       first.doc

 Page numbers  All     A                   Pause between pages Y  Y
 All/even/odd pages    All  A              Use form feeds      ?  ?
 Printer name          PRNTR PRNTR         Nondocument         N  N
                                           Number of copies    1  1
 Redirect output to    (none)

 Press F1 for help.

DIRECTORY    Drive C:\WS5   1.3M free    ^W scroll up    ^Z scroll down
BOX            .4k   BROCHURE.DOC  .5k   CUSTOMER.DTA  .4k   CUSTOMER.NDX  .1k
DIARY.BAK     3.6k   DIARY.DOC    3.6k   ENVELOPE.LST  .5k   EXTLIST.SF    .1k
FIRST.BAK      .8k   FIRST.DOC     .8k   HP-ENV.LST    .6k   HP-ENVMM.LST  .6k
HP2-ENV.LST    .6k   HP2-ENVM.LST  .6k   INVNTORY.DEF 2.0k   INVNTORY.DOT  .4k
INVNTORY.DTA   .1k   INVNTORY.LST 2.0k   INVNTORY.NDX  .1k   LABEL.LST     .1k
LABEL3.LST     .1k   LABEL3A      2.1k   LABELA        .8k   LABELXL.LST   .1k
LABELXLA      1.1k   LASER1.DOC   8.3k   LASER2.DOC   3.1k   LSRLABL3.LST 3.0k
MAILLIST.DOT   .4k   PHONE.LST    1.0k   PROOF.LST    1.6k   QUITMENU.SF   .1k
ROLODEX.LST    .1k   ROLODEXA     1.4k   RULER.DOC     .9k   SF.HLP        19k
SHOLAB3       3.1k   SHOLABEL      .9k   SHOLABXL      .5k   SHOROLO      1.1k
```

3 Notice that the file information is current. FIRST.DOC is the file you just saved.

4 Press the function key **F10** to begin printing.

Your first document prints.

Reviewing the Basics

You've covered the basics of word processing in a few short steps. For most word processing jobs, you follow these steps:

1 Start the program.
2 Create a file.
3 Type your text.
4 Save the file.
5 Print.

What could be easier! Now move on to the next lesson, where you'll learn about editing with WordStar. (If you want to stop here and start the lessons again later, choose **File** from the OPENING menu bar. Then choose **Exit WordStar** to leave WordStar.)

LESSON 2

Editing

In this lesson you'll learn about

- The Editing Screen
- Moving Around in Your Document
- Erasing and Inserting
- Correcting with Overtype

You've learned the basics—creating a file, typing text, saving and naming a file, printing. But the real power of word processing is editing. With the WordStar editing commands, you can correct typos, change wording, insert words and sentences, and more.

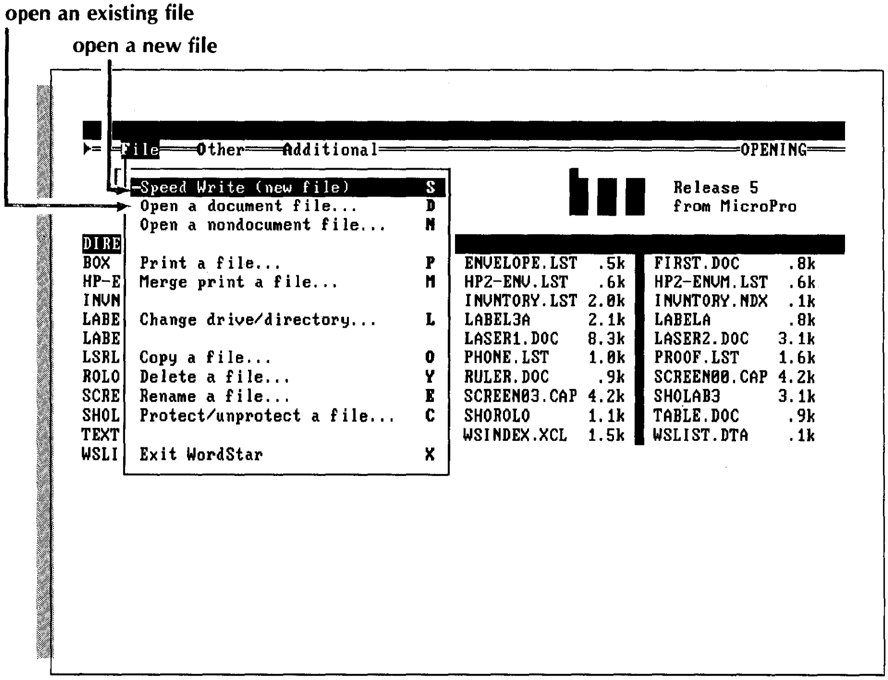
To practice editing, you'll work with the file you created in Lesson 1, FIRST.DOC.

Opening a File

In Lesson 1 you learned how to create a file. Now you'll go back to the letter you wrote and edit some of the text. Start this lesson at the Opening screen.

To open the file FIRST.DOC, follow these steps:

1. From the OPENING menu bar, press **F** to pull down the File Menu.
2. Notice the choices for opening files.



open an existing file

open a new file

```
▸=File==Other==Additional=================================OPENING==
    -Speed Write (new file)        S        Release 5
     Open a document file...       D        from MicroPro
     Open a nondocument file...    N
DIRE
BOX  Print a file...               P  ENVELOPE.LST  .5k  FIRST.DOC      .8k
HP-E Merge print a file...         M  HP2-ENV.LST   .6k  HP2-ENVM.LST   .6k
INVN                                  INVNTORY.LST 2.0k  INVNTORY.NDX   .1k
LABE Change drive/directory...     L  LABEL3A      2.1k  LABELA         .8k
LABE                                  LASER1.DOC   8.3k  LASER2.DOC    3.1k
LSRL Copy a file...                O  PHONE.LST    1.0k  PROOF.LST     1.6k
ROLO Delete a file...              Y  RULER.DOC     .9k  SCREEN00.CAP  4.2k
SCRE Rename a file...              E  SCREEN03.CAP 4.2k  SHOLAB3       3.1k
SHOL Protect/unprotect a file...   C  SHOROLO      1.1k  TABLE.DOC      .9k
TEXT                                  WSINDEX.XCL  1.5k  WSLIST.DTA     .1k
WSLI Exit WordStar                 X
```

In Lesson 1 Speed Write was the choice for creating a new, unnamed file. To open a file containing an existing document, choose **Open a document file**.

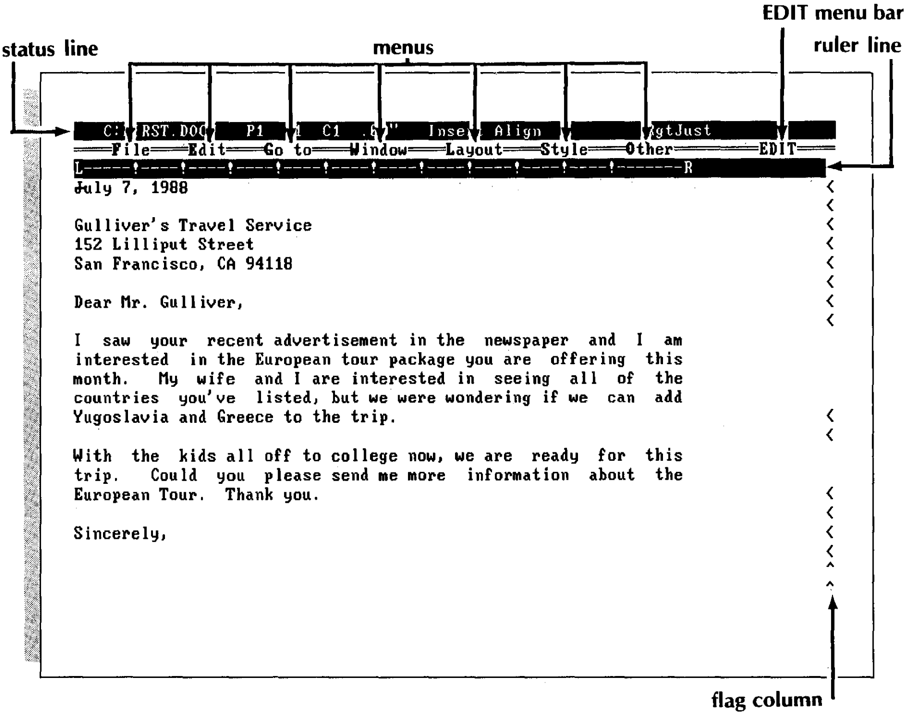
3 Press ↓ once to select **Open a document file**. Press ↵.

If you chose **Speed Write** by mistake, press **Alt F** to pull down the File Menu, choose **Abandon changes**, and start again at step 1.

4 Type **first.doc** and press ↵.

The Edit Screen

Here's the letter you wrote in Lesson 1, ready for revisions.


EDIT menu bar
status line
menus
ruler line
C: RST.DOC P1 1 C1 .6" Inse Align gtJust
File Edit Go to Window Layout Style Other EDIT
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-------R
flag column

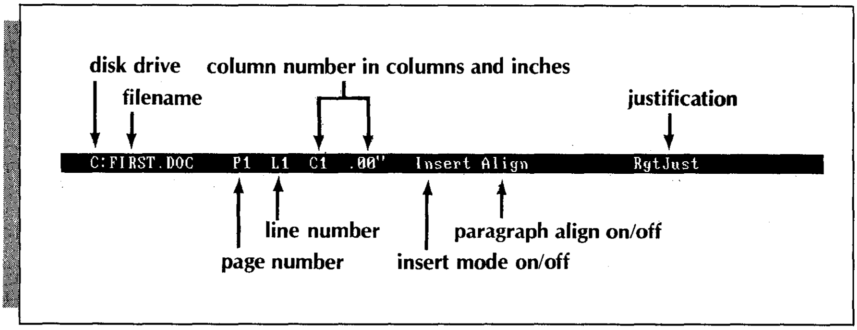
```
July 7, 1988

Gulliver's Travel Service
152 Lilliput Street
San Francisco, CA 94118

Dear Mr. Gulliver,

I  saw  your  recent advertisement in the  newspaper  and  I  am
interested  in the European tour package you are  offering  this
month.  My  wife  and I are interested in  seeing  all  of  the
countries  you've  listed, but we were wondering if we  can  add
Yugoslavia and Greece to the trip.

With  the  kids all off to college now, we are  ready  for  this
trip.  Could  you  please send me more  information  about  the
European Tour.  Thank you.

Sincerely,
```

Look through (browse) the pull-downs on the EDIT menu bar to see what choices are available for editing a document.

1. Hold down the **Alt** key and press **E** to pull down the Edit Menu.
2. Press → to see the Go To pull-down. Continue to press → until you've browsed all the menus on the menu bar.
3. Press ← enough times to move back to the first item on the menu bar. When you're finished, press the **Spacebar** to resume your work at the current screen.

Look at the other parts of the Edit screen.

The status line contains the following information:



```
 C:FIRST.DOC    P1  L1  C1  .00"   Insert Align          RgtJust
```

disk drive
filename
column number in columns and inches
justification
line number
page number
paragraph align on/off
insert mode on/off

Press the down arrow key (↓) a few times and watch the line number change. Do the same with the right arrow key (→) and watch the column number change. (If you're typing numbers instead of moving the cursor, press the **Num Lock** key and try again.)

The ruler line shows left and right margins and tab stops (the exclamation marks). The line is 65 spaces (6.5 inches) long, and the tabs are set at five-space (.5-inch) intervals. You'll learn more about the ruler line in Lesson 3.

The flag column contains characters, or flags, that WordStar displays to give you information about your document. For example, < means you ended the line by pressing ↵, P indicates the end of the page, and ^ shows the end of the file. For a complete explanation of all the flag characters, see **Flag column** in the "Reference Guide."

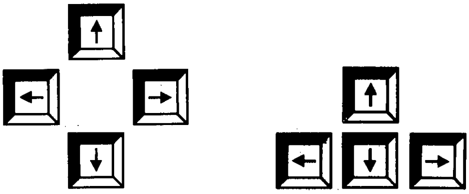
Moving Around in Your Document

Learning to move the cursor around is an important part of word processing training. You need to know how to get around your document quickly in order to fix and change text. If you already know how to move the cursor and scroll, then you can skip the next two sections and move on to "Erasing and Inserting."

Moving the Cursor

You can move the cursor with the arrow keys. (You've already practiced using some arrow keys to move the highlighting.)

Using the arrow keys shown below, move the cursor around.



TO MOVE THE CURSOR	PRESS
up one line	↑
down one line	↓
left one character	←
right one character	→

You can also make longer moves by pressing the **Ctrl** key in combination with an arrow key. The symbol ^ stands for the **Ctrl** (Control) key. When you see ^←, for example, you hold down the **Ctrl** key while you press the left arrow key.

Use the **Ctrl** key with arrow keys to practice making longer moves.

left one word	^←
right one word	^→

When you're finished, move the cursor to line 1, column 1 of your document. Remember to use the status line to help find the location of the cursor.

Scrolling

Scrolling allows you to make bigger moves in your document. With scrolling, the cursor stays in one spot and the screen moves.

Try a few scrolling moves. You should be at line 1, column 1.

1 Press ^**PgDn** a few times. Notice that the cursor is stationary and the screen moves up.

2 Press ^**PgUp** until the first line of the document shows on the screen again.

When you have a file with more text than can be seen on the screen, you can also use these commands to scroll through your document a screen at a time:

down a full screen	**PgDn**
up a full screen	**PgUp**

TIP *Touch typists who prefer not to remove their fingers from the home row position, can use the "Cursor diamond" and other arrow key equivalents to move the cursor. Cursor diamond keys are letter keys used with the **Ctrl** key. The "diamond" refers to their position on the keyboard. See **Cursor diamond** in the "Reference Guide."*

Erasing and Inserting

The ability to fix typos quickly and change wording in a document is one of the great features of word processing.

You'll practice erasing and inserting by editing FIRST.DOC. Unless you've made some typos in your letter, this document looks all right. But, just for practice, try working your way through the letter, making a few changes as you go. Later, if you have your own typos to fix, go ahead and fix them.

First, practice erasing a single character. Then try erasing a word and an entire line.

Erasing a Character

The **Delete (Del)** and **Backspace** (←) keys have erase functions. **Del** erases the character at the cursor and **Backspace** erases the character to the left of the cursor.

1. Press ↓ to move the cursor down to the line beginning with "interested."
2. Press ^→ enough times to move the cursor under the "t" in the word "tour."

   Now capitalize this letter.
3. Press **Del** and the "t" disappears. Notice how the text shifted to take up the space of the missing letter.
4. Type **T**.

Deleting a Word

You've changed your mind about the extra countries you want to visit. Change "Yugoslavia" to "Italy."

1. Press ↓ and ^← until the cursor is under the "Y" in Yugoslavia.
2. With the cursor under the "Y" in "Yugoslavia," press **Alt E** to choose the Edit pull-down.
3. Choose **Delete word**.
4. Type **Italy** and press the **Spacebar** once.
5. Try the whole process again and change "Greece" to "Austria."

Deleting a Line

1. Press ↓ to move the cursor down to the first line in the second paragraph.
2. From the Edit pull-down, choose **Delete line**, and the line is gone. Notice how the text shifted up to take up the space left by the line you erased.

Using Undo

WordStar has a handy command that will save you time and frustration if you delete something by accident or if you change your mind. The **Undo** command will bring back the most recently removed text.

You just deleted a line in the letter. With the cursor in the same place, choose **Undo** from the Edit pull-down and watch the line return to your document.

Correcting with Overtype

In the exercises above, you deleted text and WordStar inserted the replacement text. You really have two ways (or "modes") to correct text in WordStar—by inserting characters or words or by typing directly over existing text. You choose this "mode," that is, turn it on or off, with the **Insert** (**Ins**) key.

Look at the status line. Press the **Ins** key and watch what happens. Until this point, you've had insert on as shown by the word *Insert* in your status line. You just turned insert off and the word disappeared. Press it again and insert mode is back on.

Turn insert off and correct some text by typing over it.

1. Press the **Ins** key to turn insert off. (Watch the status line to make sure it's off.)
2. Make sure the cursor is in the second paragraph under the "W" in "With."

   Let's remove this sentence by typing over the unwanted text. Type **We want to begin making travel plans soon.**
3. Press **Ins** to turn insert mode back on.

   You've still got some extra text to erase.
4. Press **Del** until all the extra text in that sentence is erased.

Saving Your File—Backup Files

Save and exit the file FIRST.DOC.

1. Pull down **File**.
2. Choose **Save file, go to Opening screen.**

Once you're at the Opening screen again, look at the directory. You'll notice a new file in the directory listing called FIRST.BAK. Once you've edited and saved a file, WordStar automatically creates a backup version of that file. Backup files always have the extension .BAK. You can't edit backup files, but you can use them to restore files that have been lost or erased. See the "Reference Guide" for more information about .BAK files.

If you want to print FIRST.DOC, pull down **File** from the OPENING menu bar, choose **Print a file**, and press **F10**.

In Lesson 3 you'll learn about document layout. (If you want to stop here and start the lessons again later, pull down **File** and choose **Exit WordStar**. Begin the training again at Lesson 3.)

LESSON 3

Formatting Your Document

In this lesson, you'll learn another important element—how to format a document. The format determines how the document will look when it prints. You'll cover these subjects:

- Centering Text
- Ruler Lines
- Setting Tabs
- Typing Columns
- Dot Commands
- Setting Margins
- Setting Ragged Right Margins

To learn about formatting, you'll type an itinerary. An itinerary requires a special page design. You'll center text, set tabs and margins, and change the right margin from justified to ragged right.

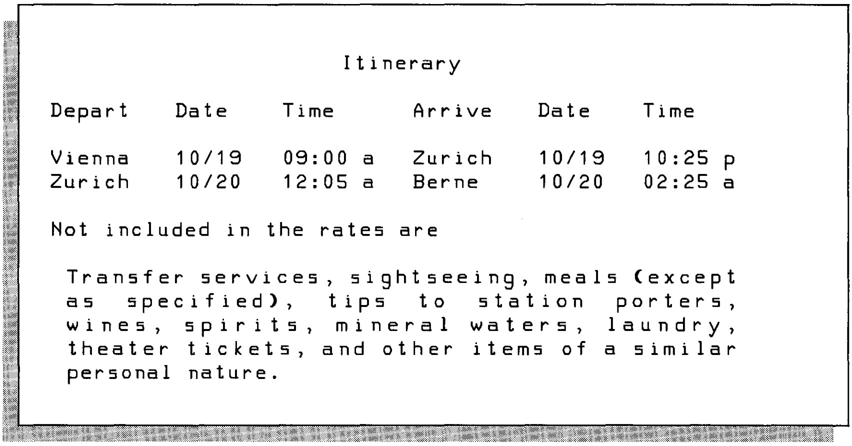
Starting Up

Open a new file for a document in which you'll type an itinerary.

1 Start at the Opening screen.

2 Open a new file. If you've forgotten how, see "Opening a File" in Lesson 1.

The itinerary will look like this when it's printed:



```
                         Itinerary

Depart    Date     Time      Arrive    Date     Time

Vienna    10/19    09:00 a   Zurich    10/19    10:25 p
Zurich    10/20    12:05 a   Berne     10/20    02:25 a

Not included in the rates are

 Transfer services, sightseeing, meals (except
 as specified), tips to station porters,
 wines, spirits, mineral waters, laundry,
 theater tickets, and other items of a similar
 personal nature.
```

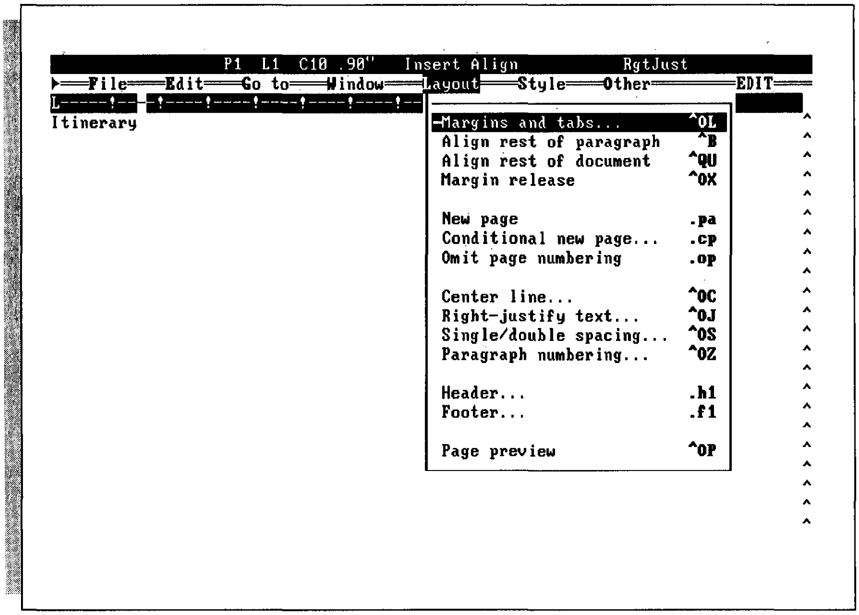
To create the special page design for this document, you'll choose items from the Layout pull-down menu.

Centering Text

Center and type the heading.

1 On the line with the cursor, type **Itinerary.**

2 From the EDIT menu bar, pull down **Layout**. (If you make the wrong choice, use → or ← to move the highlighting to Layout.)


P1 L1 C10 .90" Insert Align RgtJust
File
Edit
Go to
Window
Layout
Style
Other
EDIT
Itinerary
Margins and tabs... ^OL
Align rest of paragraph ^B
Align rest of document ^QU
Margin release ^OX
New page .pa
Conditional new page... .cp
Omit page numbering .op
Center line... ^OC
Right-justify text... ^OJ
Single/double spacing... ^OS
Paragraph numbering... ^OZ
Header... .h1
Footer... .f1
Page preview ^OP

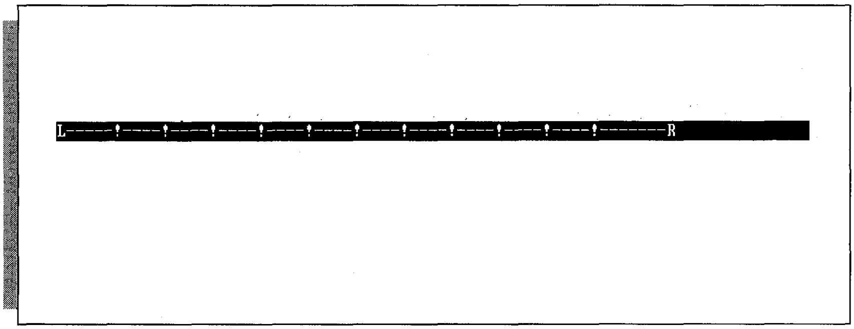
3 Choose **Center line**. The title centers.

4 Press ↵ twice to create a blank line.

The Ruler Line

An important part of designing a document is setting tabs and margins. You can see the current tab and margin settings in the ruler line at the top of the editing area.

When you create a document, the left margin is automatically set at column 1 (.00 inch) and the right margin is set at column 65 (6.5 inches). Tab stops are set at five-column (0.5-inch) intervals.



```
L----!----!----!----!----!----!----!----!----!----!----!-------R
```

The ruler line contains these symbols:

L and **R** indicate left and right margins.
! indicates tab stops.
– indicates columns.

TIP *It's important to remember that you don't have to set page offset (how far text is offset from the left edge of the page). WordStar automatically offsets text approximately one inch. To change page offset, choose* ***Margins and tabs*** *from the Layout pull-down.*

If you change tabs and margin settings while you're typing a document, the ruler line reflects these changes. You'll learn more about the ruler line later.

Setting Tab Stops

Some of the information in an itinerary is set up in columns. Before you type the travel information in columns, you'll set tab stops at 1.1, 2.0, 3.2, 4.3, and 5.2 inches.

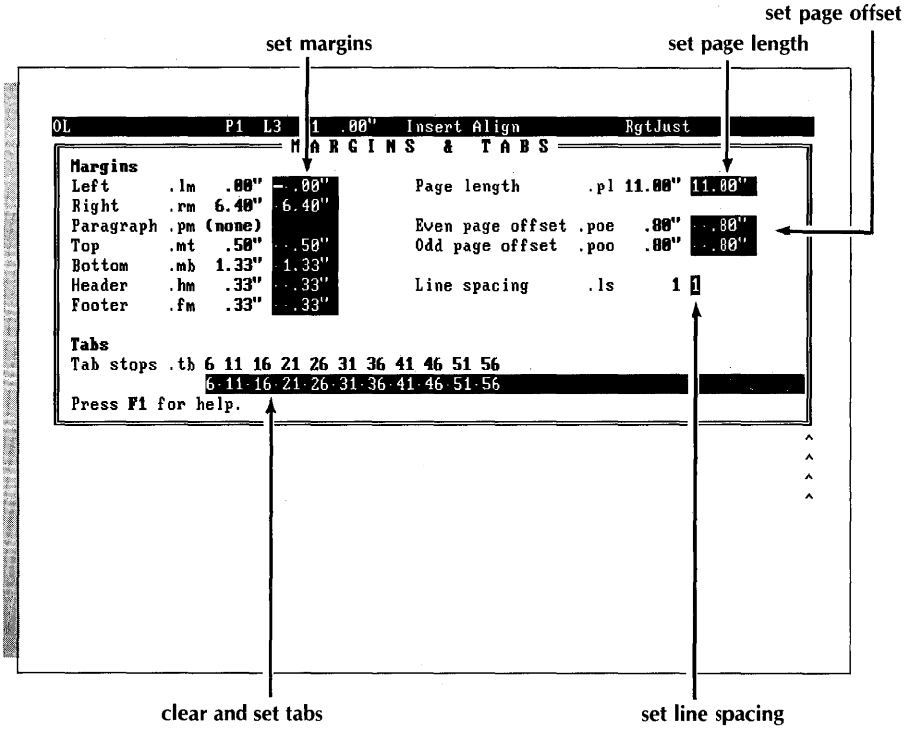
Set the tab stops on the ruler line.

1 Pull down **Layout**.

Many of the items on the Layout pull-down are followed by three dots (...). These dots mean that the item is followed by a request for more information.

2 Choose **Margins and tabs**.

The Margins & Tabs dialog box is where you change the page layout for your document.



```
OL                P1  L3  1  .00"  Insert Align          RgtJust
================= M A R G I N S   &   T A B S ==================
Margins
Left      .lm    .00"  -·.00"         Page length      .pl 11.00" 11.00"
Right     .rm   6.40"  ·6.40"
Paragraph .pm  (none)                 Even page offset .poe   .00" ··.00"
Top       .mt    .50"  ··.50"         Odd page offset  .poo   .00" ··.00"
Bottom    .mb   1.33"  ·1.33"
Header    .hm    .33"  ··.33"         Line spacing     .ls       1 1
Footer    .fm    .33"  ··.33"

Tabs
Tab stops .tb 6 11 16 21 26 31 36 41 46 51 56
              6·11·16·21·26·31·36·41·46·51·56
Press F1 for help.
```

3 Move the cursor to *Tab stops*. Press the **Tab** key to move the cursor forward and the **Shift** key with the **Tab** key to move it backward.

4 Type the following numbers (each separated by a space): **1.1 2.0 3.2 4.3 5.3**. (You don't have to type the inch symbol.)

5 Check to make sure the new tab settings are correct. If not, correct the incorrect number by backspacing over it and retyping.

6 Press **F10**.

7 Look for the new tabs in the ruler line. WordStar also inserts a "dot command" **.tb** in column 1 followed by the numbers in inches for each tab stop. You'll learn more about dot commands later.

Note: At the Margins & Tabs dialog box, you can press **F2** to return to work without changing the layout.

TIP *To clear all tabs, follow the procedure for setting tabs and type* ***0.***

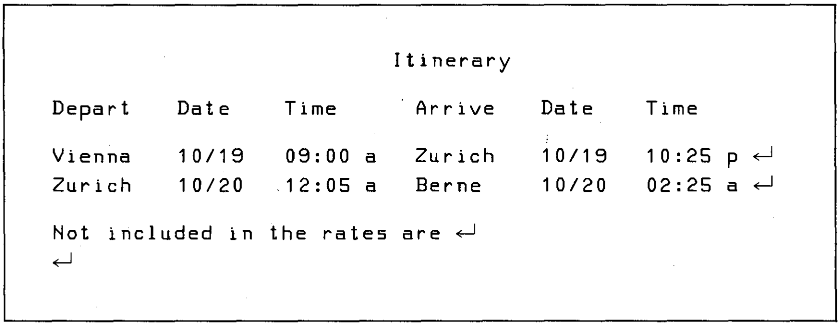
Typing the Column Headings and Text

Once the tabs are set, you can type the headings. The headings are Depart, Date, Time, Arrive, Date, Time.

1. Type **Depart** and press the **Tab** key (located to the left of the **Q** key).
2. Type **Date** and press the **Tab** key.
3. Type **Time** and press the **Tab** key.
4. Type **Arrive** and press the **Tab** key.
5. Type **Date** and press the **Tab** key.
6. Type **Time**.
7. Press ↵ twice.

Now that you've typed the column headings, type the next lines the same way. (If you tab too many times, you can press the **Backspace** key enough times to back up to the correct tab stop. Then press the **Tab** key again.)

1. Type the rest of the text shown below. Be sure to press the **Tab** key to move the cursor to each tab stop.



```
                      Itinerary

Depart    Date     Time      Arrive    Date     Time

Vienna    10/19    09:00 a   Zurich    10/19    10:25 p ↵
Zurich    10/20    12:05 a   Berne     10/20    02:25 a ↵

Not included in the rates are ↵
↵
```

Setting Margins

You can set margins in the Margins & Tabs dialog box, or you can type these dot commands in your document:

.lm ***n"*** sets the left margin (*n* is a number in inches)
.rm ***n"*** sets the right margin (*n* is a number in inches)

Before you continue, you should learn about dot commands.

Dot Commands

You may have noticed dot commands listed next to some items on the pull-down menus. When you choose an item with a corresponding dot command, WordStar puts the dot command into your document. The dot command shows where a layout feature such as margins takes effect.

Here is some basic information you should know about dot commands:

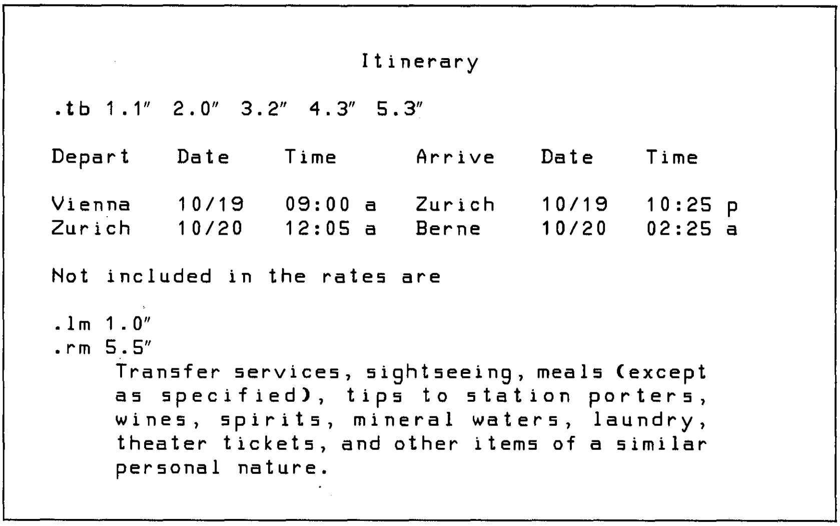
- A dot command begins with a dot (a period) in column 1, followed by a two-letter code, sometimes a space followed by more information, and ↵.
- You can remove a dot command by deleting the line .
- Although you see it displayed on your screen, the dot command does not really occupy a line of text and it doesn't print.
- A dot command is stored with the text when you save a document.
- You can type a dot command directly into a document instead of choosing an item from a pull-down.

Setting Margins with Dot Commands

The margins for the document are currently set for 0.0 and 6.4 inches in the dialog box. Before you type the rest of the document, take these steps to set new margins for the paragraph you'll type next. Set the left margin at 1.0 inches and the right margin at 5.5 inches. Try typing dot commands, an easy way to change margins within text.

Change the left and right margin settings.

1. With the cursor in column 1, type **.lm 1.0″** and press ↵. Be sure to type the inch symbol (″) in a dot command. (You can type dot commands in either uppercase or lowercase letters.)
2. Starting in column 1, type **.rm 5.5″** and press ↵.
3. Type the last paragraph. As you begin to type, notice the new margin settings.



```
                        Itinerary

.tb 1.1" 2.0" 3.2" 4.3" 5.3"

Depart     Date      Time        Arrive      Date      Time

Vienna     10/19     09:00 a     Zurich      10/19     10:25 p
Zurich     10/20     12:05 a     Berne       10/20     02:25 a

Not included in the rates are

.lm 1.0"
.rm 5.5"
     Transfer services, sightseeing, meals (except
     as specified), tips to station porters,
     wines, spirits, mineral waters, laundry,
     theater tickets, and other items of a similar
     personal nature.
```

4 At the end of the paragraph, press ↵.

Changing Justified Text to Ragged Right

Justified text has all lines the same length, so that the right margin is straight. WordStar inserts "soft" spaces between words to make the line extend all the way to the right margin. When you start WordStar, text is justified.

Ragged-right text has an uneven right margin. When you turn justification off, everything you type will be ragged right until you turn justification on again.

Change the right margin of the paragraph to ragged right.

1 Move the cursor to the beginning of the paragraph.

2 Pull down **Layout** and choose **Right-justify text.**

   Notice that the dot command *.oj off* appears in column 1. WordStar has inserted a dot command to show that you've turned justification off. Next, realign the paragraph to form an uneven margin.

3 Move the cursor to the "T" in "Transfer."

4 Pull down **Layout** and choose **Align rest of paragraph** to align the paragraph with an uneven right margin. (If you edit text within the paragraph, the margin realigns automatically.)

The paragraph now has an uneven right margin.

Saving and Naming the File

You've learned the basics for formatting a document: you've cleared and set tabs, changed margins, and turned off justification.

If you want, you can practice resetting tabs and margins some more. When you're ready, save and name the itinerary TRIP.DOC. (Remember that a filename should describe the document's contents.)

Printing the Itinerary

Print the itinerary.

1. Make sure your printer is on and ready.
2. From the OPENING menu bar, pull down the File Menu.
3. Choose **Print a file**.
4. Look at the questions in the dialog box. TRIP.DOC is the file you just saved.
5. Press **F10**.

TRIP.DOC prints.

In the next lesson, you'll add strength to your WordStar skills with block moves. (If you want to stop here and start the lesson again later, choose **File** from the OPENING menu bar and then choose **Exit WordStar**. Resume the training at Lesson 4.)

LESSON 4

Working with Blocks of Text

In this lesson, you'll learn about working with blocks of text. You'll cover these subjects:

- Marking a Block
- Moving a Block
- Hiding a Block
- Block Math (Totaling Two Numbers)

Block commands are power tools of editing. With block commands, you can easily move large sections of text and reorganize your writing. You can even do math.

In this lesson, you'll type a short brochure and edit it with block commands.

Starting Up

1. Start at the Opening screen.
2. Open a new file for a brochure. (If you need help, see "Opening a File" in Lesson 1.)
3. At the Edit screen, type the following text exactly as it is shown.

```
Excursions↵
↵
Day 2↵
Rome: Morning and afternoon city sightseeing by motorcoach.
English-speaking guide optional.↵
↵
Day 1↵
Florence-Rome: Leave at 8:30 a.m. by deluxe motorcoach. Arrive
at Rome in the afternoon.↵
↵
Fare in first class hotels: $100.00. Bath optional:  $25.00.↵
```

The paragraphs are out of sequence in the brochure: Day 2 comes before Day 1. You can reorganize the document with block moves.

Marking a Block

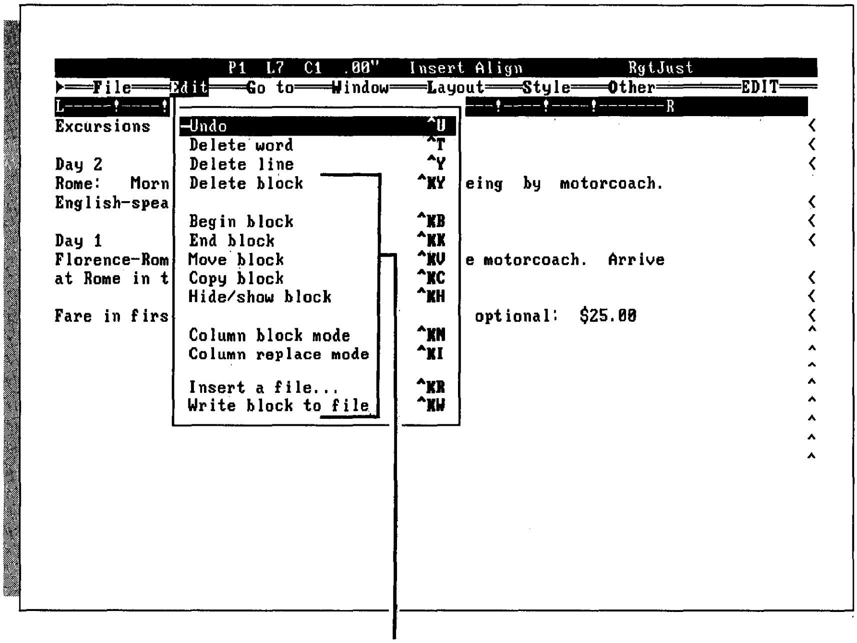
A block is a piece of text. It can be any size—as large as an entire document or as small as a single character. You define the size of a block of text by putting markers at the beginning and end of it.

Mark the beginning of a block.

1 Move the cursor to the "D" in "Day 1."

2 Pull down **Edit.**

Several choices on the Edit pull-down are for working with blocks of text.


P1 L7 C1 .00" Insert Align RgtJust
File Edit Go to Window Layout Style Other EDIT
L-----!-----! ---!-----!-----!-------R
Excursions
Day 2
Rome: Morn
English-spea
Day 1
Florence-Rom
at Rome in t
Fare in firs
Undo ^U
Delete word ^T
Delete line ^Y
Delete block ^KY
Begin block ^KB
End block ^KK
Move block ^KV
Copy block ^KC
Hide/show block ^KH
Column block mode ^KN
Column replace mode ^KI
Insert a file... ^KR
Write block to file ^KW
eing by motorcoach.
e motorcoach. Arrive
optional: $25.00

Block commands

3 Choose **Begin block.**

The symbol <B> appears, marking the beginning of the block.

Now mark the end of the block.

1 Move the cursor to column 1 of the blank line following the paragraph.

2 Pull down **Edit.**

3 Choose **End block.** Notice the letters B and K in the flag column at the right edge of the screen.

The <B> symbol at the beginning of the block disappears and the block is highlighted.

Note: If you put the markers out of sequence (the end marker before the beginning marker), a <K> appears in the text before the <B>.

To mark a different block, you would repeat the procedure elsewhere in your file.

Moving a Block

Put the paragraphs in the correct order.

1. Move the cursor to column 1 of the blank line below "Excursions" and press ↵ to create another blank line.
2. Pull down **Edit**.
3. Choose **Move block**.

The block moves to the cursor position. The paragraphs are now in the correct sequence.

Turning Block Display Off

You've moved a block of text, but the block is still highlighted. It's a good practice to turn block display off when you've finished working with it. WordStar works faster when block display is off.

Turn off block display.

1. Pull down **Edit**.
2. Choose **Hide/show block**.

Note: The block is still there, but it is no longer displayed. If you chose Hide/show again, the block would be highlighted.

Block Math

With block math you can total the numbers in the last paragraph.

1. Mark the beginning and end of the paragraph beginning with "Fare."
2. When the block is marked, pull down **Other** and choose **Block math (add numbers)**. The total appears at the upper part of your screen.
3. Press **Esc** to continue.
4. Pull down **Edit** and hide the block.

WordStar also has a calculator that performs sophisticated calculations. See the "Reference Guide" for details.

Saving or Abandoning a Document

You've learned to mark a block of text and then tell WordStar what you want to do with it. You've moved a paragraph, and you've used block math to add two figures. Practice some more, if you want. Then you can save the document, or you can abandon it if you don't want to edit it again.

When you abandon a new document, you are returned to the Opening screen without saving the document. When you abandon a document that existed previously, you are returned to the Opening screen without saving the changes.

1. From the File pull-down menu, save and name the file BROCHURE.DOC.

   or

   Abandon the file.

In the next lesson, you'll find and replace a word in a document and check spelling. (If you want to stop here and start the lessons again later, pull down **File** and choose **Exit WordStar**. Begin the training again at Lesson 5.)

LESSON 5

Finding Words, Checking Spelling, and Choosing Synonyms

In this lesson you'll learn about

- Finding Words
- Finding the Next Occurrence
- Finding and Replacing
- Checking Spelling
- Choosing Synonyms

So far you've been working with short documents. Editing a short document is easy. But working with a longer document poses special problems.

WordStar has some features that are especially helpful for editing large documents. With the WordStar "find" feature you can search a document for specific text, numbers, or symbols. You can move the cursor quickly to a specific place in a long document. You can find and change certain text throughout a document. WordStar can also check the spelling in a document and correct misspelled words. To choose a substitute word or a synonym for a word, you can use the thesaurus.

In this lesson you'll learn how to use the find, spelling check, and thesaurus features. You'll work with a file that came on your program disk, DIARY.DOC. (If you have a two floppy disk system, you should have copied this file onto your Training Work Disk. If you didn't copy the file, do that now, then return here.) This lesson starts at the Opening screen.

Starting Up

1 Open the training file DIARY.DOC. (To open an existing document, remember to choose **Open a document file** from the File pull-down.) Besides typing the name of the file and pressing ↵, you can choose the filename another way. Use the arrow keys to move the cursor to the name of the file in the directory display, and press ↵.

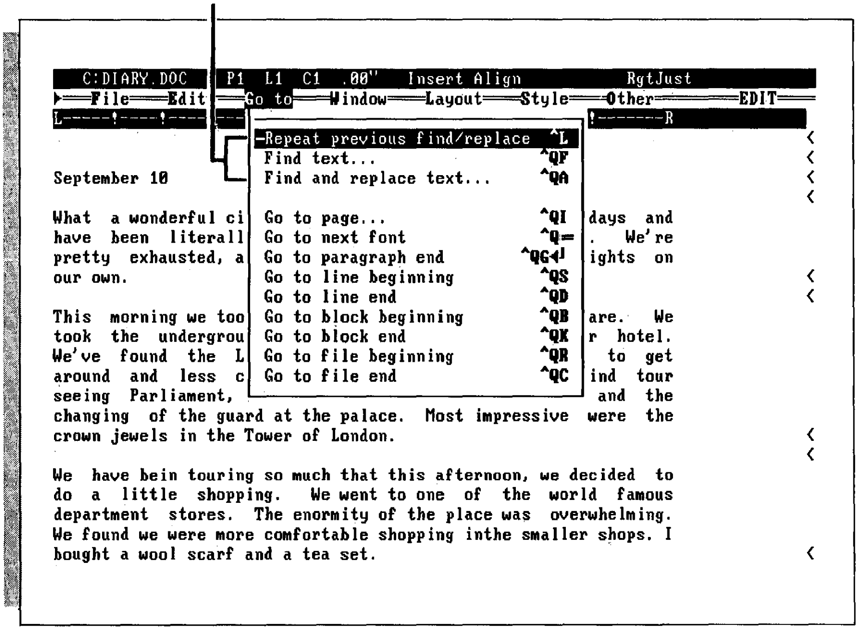
Finding a Word

WordStar can quickly locate up to 65 characters of text, including words, groups of words, numbers, and symbols. Locating words or phrases can be helpful when you're editing or when you want to find your place in a large document.

Ask WordStar to find a word in DIARY.DOC.

1 Pull down **Go To**.
Look at the commands for locating text.

commands for locating text



```
   C:DIARY.DOC     P1  L1  C1  .00"   Insert Align          RgtJust
►══File══Edit══Go to══Window══Layout══Style══Other═══════EDIT══
L-----!-----!----- ---                      !-------R
                   -Repeat previous find/replace  ^L                 <
                    Find text...                 ^QF                 <
September 10        Find and replace text...     ^QA                 <
                                                                     <
What  a wonderful ci Go to page...               ^QI  days  and
have  been  literall Go to next font             ^Q=  .  We're
pretty  exhausted, a Go to paragraph end        ^QG◄┘ ights  on
our own.             Go to line beginning        ^QS                 <
                     Go to line end              ^QD                 <
This  morning we too Go to block beginning       ^QB  are.  We
took  the  undergrou Go to block end             ^QK  r  hotel.
We've  found  the  L Go to file beginning        ^QR   to  get
around  and  less  c Go to file end              ^QC  ind  tour
seeing  Parliament,                                    and  the
changing  of  the guard at the palace.  Most impressive  were  the
crown jewels in the Tower of London.                                 <
                                                                     <
We  have bein touring so much that this afternoon, we decided  to
do  a   little  shopping.   We went to one  of  the  world  famous
department  stores.  The enormity of the place was  overwhelming.
We found we were more comfortable shopping inthe smaller shops. I
bought a wool scarf and a tea set.                                   <
```

2 Choose **Find text**. In the dialog box, tell WordStar what text to locate.

3 For the text to find, type **London**.

4 Press **F10** to begin the search.

The cursor moves to the first occurrence of the word "London" in your document.

Finding the Next Occurrence

Ask WordStar to locate the next occurrence of "London" in the document.

1 Pull down **Go To**.

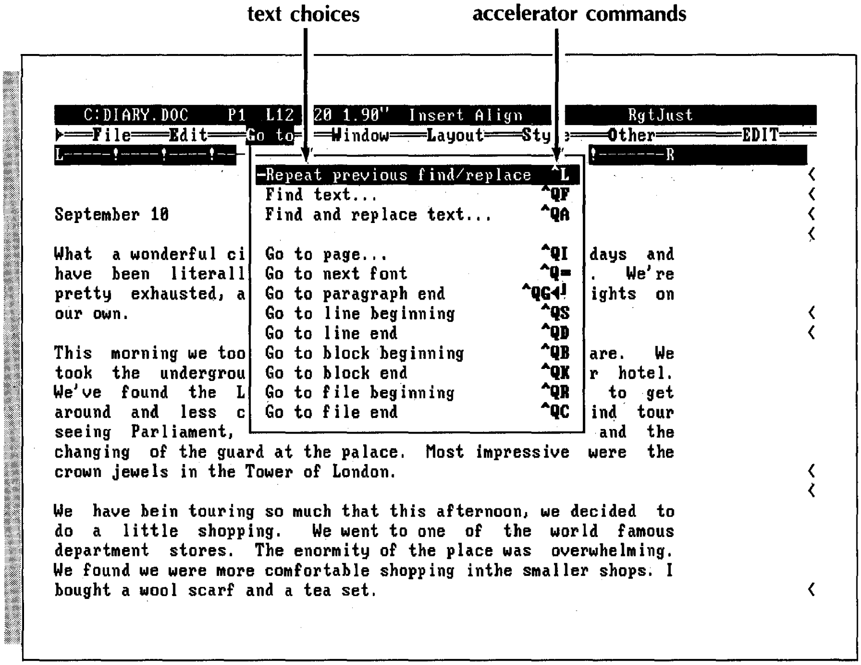
2 Choose **Repeat previous find/replace**.

The cursor moves to the next occurrence of "London" in your text. A quick glance through the text reveals that London is mentioned nine more times. Instead of pulling down the Go To Menu several more times, try using the accelerator commands.

Accelerator Commands

Until now, you've chosen items from a pull-down menu to carry out word processing tasks. WordStar also has accelerator commands, shortcuts for selecting the same items from pull-downs. Accelerator commands are listed on the pull-down menus.

Pull down **Go To** and look at the commands.



```
 C:DIARY.DOC    P1  L12  20 1.90"  Insert Align      RgtJust
▸══File══Edit══Go to══Window══Layout══Sty e══Other══════EDIT══
L-----!-----!-----!--                              !-------R
                     -Repeat previous find/replace  ^L                <
                      Find text...                 ^QF                <
September 10          Find and replace text...     ^QA                <
                                                                      <
What  a wonderful ci  Go to page...                ^QI  days  and
have  been  literall  Go to next font              ^Q=  .  We're
pretty  exhausted, a  Go to paragraph end        ^QG◂┘  ights  on
our own.              Go to line beginning         ^QS                <
                      Go to line end               ^QD                <
This  morning we too  Go to block beginning        ^QB  are.   We
took  the  undergrou  Go to block end              ^QK  r  hotel.
We've  found  the  L  Go to file beginning         ^QR   to  get
around  and  less  c  Go to file end               ^QC  ind  tour
seeing  Parliament,                                      and  the
changing  of the guard at the palace.  Most impressive  were  the
crown jewels in the Tower of London.                                  <
                                                                      <
We  have bein touring so much that this afternoon, we decided  to
do  a  little  shopping.  We went to one  of  the  world  famous
department  stores.  The enormity of the place was  overwhelming.
We found we were more comfortable shopping inthe smaller shops. I
bought a wool scarf and a tea set.                                    <
```

The accelerator command for **Repeat previous find/replace** is **^L**. The symbol ^ stands for the **Ctrl** key. When you see the accelerator command **^L**, for example, it means that you press the **Ctrl** key and the letter **L** at the same time.

Locate the rest of the occurrences of "London" by using an accelerator command.

1 Pull down **Go To** and press **^L** (hold down the **Ctrl** key while you press **L**). The pull-down Go To Menu disappears, and the cursor moves to the next occurrence of "London."

2 Now that you know the accelerator command for **Repeat previous find/replace**, you won't have to pull down Go To when you want to locate "London" again. At the Edit screen, press **^L**.

3 Continue to press **^L** until you reach the end of the document.

As you get more familiar with WordStar, you may want to speed up your work with accelerator commands. Look for them on pull-down menus.

Finding and Replacing

WordStar can find text and replace it with other text. This is helpful if you have to find a word or phrase in order to change it. WordStar can also search a document backward, that is, move from the end to the beginning. Because you're at the end of the file DIARY.DOC, tell WordStar to do a backward search this time.

1 Pull down **Go To** and choose **Find and replace text**.

2 For the text to find, type **London** and press **Tab**.

3 For the replacement text, type **Rome** and press **Tab**.

Look at the options this time. The options let you ask for a more specific search. This time, tell WordStar to search backward through the document.

4 To search backward, type **B** and press **F10**.

WordStar finds the first occurrence of "London," this time moving backward.

5 Look at the status line in the upper right corner of your screen. WordStar asks you if you want to replace the text.

Press **Y** and watch your text. "London" changes to "Rome."

6 Press the accelerator command **^L** to find the next occurrence of "London."

7 Replace the text. (Remember, press **Y** to replace text.)

8 Continue pressing **^L** and replacing "London" with "Rome" until you reach the beginning of the file.

Automatic Replacing

You can find and replace faster by letting WordStar replace text automatically. You've just replaced all references to "London" in your text with "Rome." This time let WordStar change "Rome" back to "London" and make your trip diary correct.

1 Pull down **Go To** and choose **Find and replace text**.

2 Type **Rome** and press **Tab**.

3 Type **London** and press **Tab**.

You want to tell WordStar to replace all occurrences of "Rome" with "London" automatically. In other words, you don't want to be asked every time.

4 For *Options*, press **G** (*search file from beginning or end*) and **N** (*replace without asking*) and press **F10**. (Just type the commands as **gn**.)

Watch your screen to see the text replaced automatically.

5 When WordStar reaches the end of the file, press **Esc**.

6 Pull down **Go To** and choose **Go to file beginning**. You're back at the beginning of the file.

You can use the find feature in a variety of ways in WordStar. Besides forward and backward searches and manual and automatic replacements, WordStar searches for parts of words, can ignore or search for specific case (upper or lower), and more.

Checking Spelling

WordStar can help find and correct misspellings and typos. You can use the WordStar spelling check feature in two ways: to check the spelling of a word before you type it in your document or to check spelling in an entire document.

WordStar checks the spelling against a large dictionary that came with your package. Hard disk computer users have already copied the dictionary onto their hard disks, and it's ready to use. If you have a two floppy disk computer, you may be prompted by WordStar to switch disks.

You have another dictionary called the personal dictionary. As you use the spelling checker, you can add words (even names) to your personal dictionary that aren't in the main dictionary. You can put specialized words like technical, legal, or medical terms in your personal dictionary. WordStar checks spelling against both dictionaries.

The Spelling Check Commands

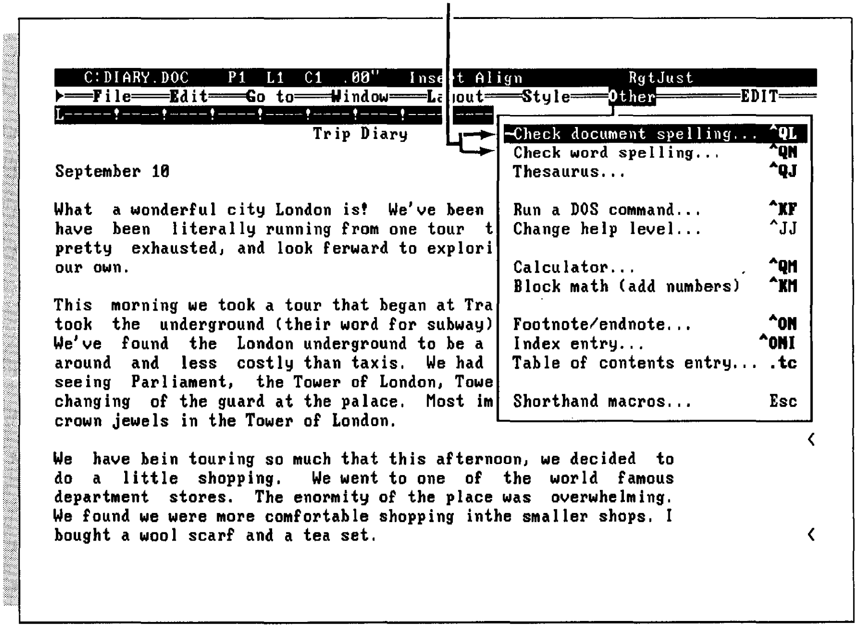
The spelling check commands are listed on the Other pull-down. You can use them any time you're working in a file.

Checking the Spelling of a Whole Document

WordStar can check the spelling of a single word in your document or an entire document. It can even check the spelling of a word *before* you type it in your document.

Run a spelling check on DIARY.DOC.

1. Position the cursor in column 1, line 1.
2. Pull down **Other**. It lists the spelling commands.



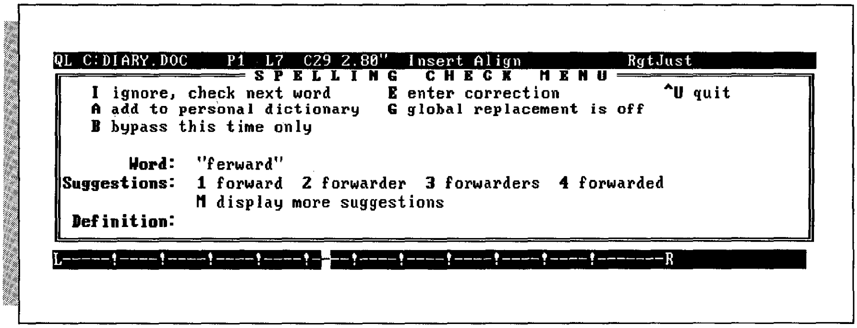
check and correct spelling

```
  C:DIARY.DOC     P1   L1   C1   .00"    Inse t Align              RgtJust
▸══File═══Edit════Go to════Window════La out═══Style═══Other═══════════EDIT═══
L-----!-----!-----!-----!-----!-----!-----!---  ----
                         Trip Diary              -Check document spelling...  ^QL
                                                  Check word spelling...      ^QN
September 10                                      Thesaurus...                ^QJ

What  a wonderful city London is!  We've been     Run a DOS command...        ^KF
have  been  literally running from one tour  t    Change help level...        ^JJ
pretty  exhausted, and look ferward to explori
our own.                                          Calculator...               ^QM
                                                  Block math (add numbers)    ^KM
This  morning we took a tour that began at Tra
took  the  underground (their word for subway)    Footnote/endnote...         ^ON
We've  found  the  London underground to be a     Index entry...             ^ONI
around  and  less  costly than taxis.  We had     Table of contents entry... .tc
seeing  Parliament,  the Tower of London, Towe
changing  of the guard at the palace.  Most im    Shorthand macros...         Esc
crown jewels in the Tower of London.
                                                                                <
We  have bein touring so much that this afternoon, we decided  to
do  a  little  shopping.  We went to one  of  the  world  famous
department  stores.  The enormity of the place was  overwhelming.
We found we were more comfortable shopping inthe smaller shops. I
bought a wool scarf and a tea set.                                              <
```

3. Choose **Check document spelling.**

   (Some floppy disk users are prompted to switch disks.)

   The cursor stops on the word "ferward," a typo, and the Spelling Check Menu is displayed. WordStar offers correct spelling suggestions.



```
QL C:DIARY.DOC     P1  L7  C29 2.80"  Insert Align            RgtJust
═══════════════════ S P E L L I N G   C H E C K   M E N U ═══════════════
    I ignore, check next word      E enter correction          ^U quit
    A add to personal dictionary   G global replacement is off
    B bypass this time only

       Word:  "ferward"
Suggestions:  1 forward  2 forwarder  3 forwarders  4 forwarded
              M display more suggestions
 Definition:
L-----!-----!-----!-----!-----!---!-----!-----!-----!-----!-----!-------R
```

4. Press **1** to tell WordStar to replace the incorrect word with the suggested correct spelling.

   The spelling check continues.

   WordStar stops on the word "Trafalgar" because it doesn't recognize this word.

   Look at the choices on the Spelling Check Menu. You need to decide whether to have WordStar skip this word or add it to your personal dictionary.

5. Press **A** to add this word to the personal dictionary. Later, if WordStar comes across this word, it'll know the correct spelling.

   WordStar stops on the word "bein," another typo.

6. Look at the suggestions. Notice that you press **M** to see more suggestions. To practice, press **M**. Then press **M** again to return to the first group of suggestions.

7. Press **3** to select the correct spelling of "been."

   WordStar stops on "inthe," a typo. In this case, you want to type a correction yourself.

8. Press **E** to select *enter correction*.

9. At the prompt, type **in the** and press ↵.

   WordStar continues to check spelling until it reaches the end of the document. You can stop a spelling check at any time.

10. Press the accelerator command **^U** to stop the spelling check.

    (Some floppy computer users are prompted to switch disks.)

11. Notice how many words were checked and press **Esc**.

12. Pull down **File** and choose **Save file, resume editing**.

Turn to the "Reference Guide" for more details about the spelling checker and the Spelling Check Menu commands. For more practice, run a spelling check on your first training document, FIRST.DOC.

Using the Thesaurus

As you write or edit, you can use the WordStar thesaurus to help you find the exact word you want without having to stop and look it up in a book.

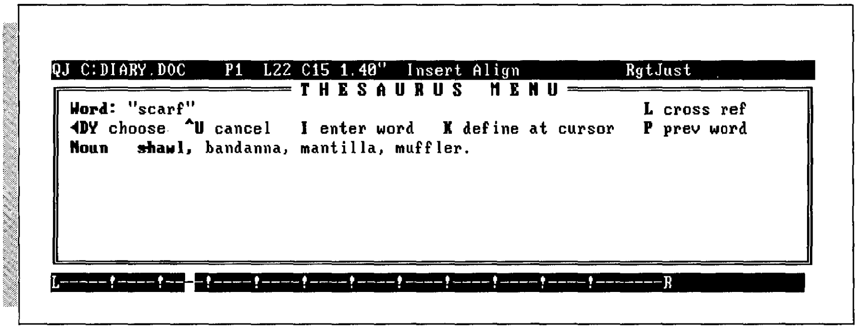
Practice using the thesaurus in DIARY.DOC.

1 Move the cursor to the word "scarf" in the last sentence of the third paragraph.

Use the thesaurus to find a different word to use.

2 Pull down **Other** and choose **Thesaurus**. (Some floppy disk users are prompted to change disks.)

Look at the Thesaurus Menu and notice the list of synonyms.



```
QJ C:DIARY.DOC     P1  L22 C15 1.40"  Insert Align             RgtJust
=================== T H E S A U R U S   M E N U ====================
 Word: "scarf"                                            L cross ref
 ◄DY choose  ^U cancel   I enter word   X define at cursor   P prev word
 Noun   shawl, bandanna, mantilla, muffler.
```

3 The cursor is at "shawl." Press ↵ to use the synonym. You've replaced "scarf" with "shawl."

(If you have a two floppy disk system, you may be prompted to change disks every time you choose a synonym.)

Try the thesaurus again.

4 Move the cursor back to the word "wonderful" in the first sentence of the first paragraph. From the Other pull-down menu, choose **Thesaurus**.

5 Use the arrow keys ↓ and → to move the highlighting to "smashing." Press ↵ to use the synonym.

Try some of the other thesaurus functions.

1 Move the cursor to the word "guard" in the fourth sentence of the second paragraph.

2 This time, use the accelerator command ^**QJ** to display the Thesaurus Menu.

   There are many synonyms listed by parts of speech. The last synonym displayed is followed by a semicolon (;). This means that more synonyms can be displayed.

3 Press ↓ several times to move through the list. Press ↑ to move back to the first group. When "noun" is no longer enclosed in parentheses, you are back at the beginning of the list.

4 Move the cursor to "guard."

5 Check the meaning of the word "guard." Press **K**.

6 Press ^**U** to remove the definition.

You can also check the meaning of synonyms.

1 Move the cursor to "sentry." Press **K**.

2 Press ^**U** to remove the definition.

You can even check for synonyms of synonyms.

1 With the cursor on "sentry," press **L**. Now "sentry" is the word to be checked, and you can see *its* synonyms.

2 Move the cursor to "watchman" and press **L**. You see its synonyms.

3 Perhaps "guard" is the best word after all. Press **P** twice.

   While you're at the Thesaurus Menu, you can look up synonyms for any word by pressing **I** and typing the word. The word doesn't have to be in your document. If a word is misspelled, idiomatic, or a proper noun, the thesaurus provides a list of "near alphabet guesses," words with similar spelling.

4 Press ^**U** to exit the Thesaurus Menu.

5 Save the file DIARY.DOC and go to the Opening screen.

Now move on to Lesson 6, where you'll learn about special effects and printing. (If you want to start the lessons again later, you can press the accelerator command **FX** to exit WordStar.)

LESSON **6**

Special Effects and Printing

This lesson covers these subjects:

- Special Effects (Boldface and Underline)
- Turning Off Display
- Inserting Page Breaks
- Omitting Page Numbers
- Changing Page Offset
- Interrupting Printing

Reopening DIARY.DOC

To learn about adding special effects to your text, you'll edit the sample file DIARY.DOC again.

1 Start at the Opening screen.

2 Reopen the file **DIARY.DOC**.

When you see the Edit screen, you're ready to begin.

Adding Special Printing Effects

Special printing effects like boldface and underline add emphasis and variety to documents.

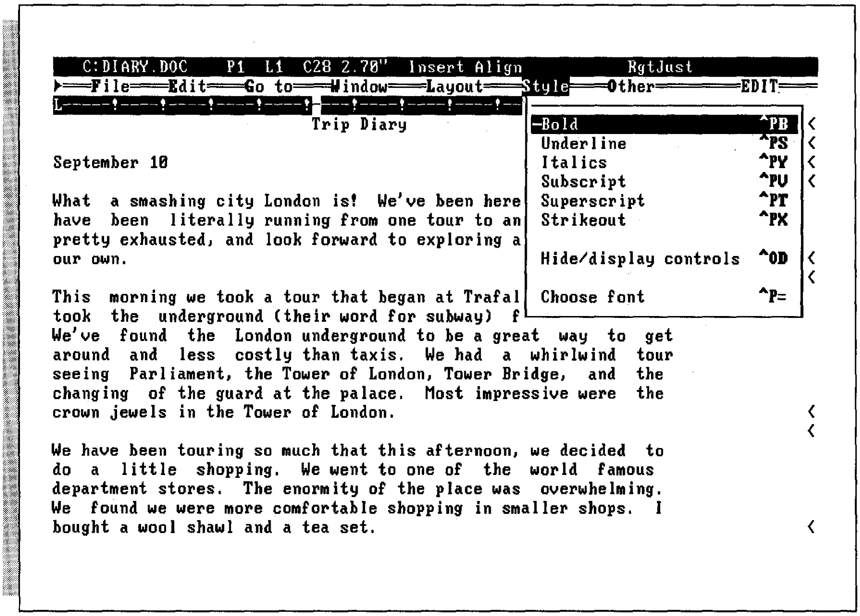
The special effects choices are on the Style pull-down menu. You choose printing effects such as boldface and place the commands in pairs at the beginning and end of the text to be emphasized.

Boldfacing Text

Practice adding boldface to some characters.

Boldface the heading.

1. Move the cursor to "T" in "Trip Diary."
2. Pull down **Style**.



```
 C:DIARY.DOC     P1  L1  C28 2.70"  Insert Align            RgtJust
►═══File═══Edit═══Go to═══Window═══Layout═══Style═══Other═══════EDIT═══
L-----!-----!-----!-----!-----!-----!-----!--
                       Trip Diary          -Bold                  ^PB  <
                                            Underline             ^PS  <
September 10                                Italics               ^PY  <
                                            Subscript             ^PV  <
What  a smashing city London is!  We've been here  Superscript    ^PT
have  been  literally running from one tour to an  Strikeout      ^PX
pretty exhausted, and look forward to exploring a
our own.                                    Hide/display controls ^OD  <
                                                                       <
This  morning we took a tour that began at Trafal  Choose font    ^P=
took  the  underground (their word for subway)  f
We've  found  the  London underground to be a great  way  to  get
around  and  less  costly than taxis.  We had  a  whirlwind  tour
seeing  Parliament, the Tower of London, Tower Bridge,  and  the
changing  of the guard at the palace.  Most impressive were  the
crown jewels in the Tower of London.                                   <
                                                                       <
We have been touring so much that this afternoon, we decided  to
do  a  little  shopping.  We went to one of  the  world  famous
department stores.  The enormity of the place was  overwhelming.
We  found we were more comfortable shopping in smaller shops.  I
bought a wool shawl and a tea set.                                     <
```

3. Choose **Bold**. Notice that WordStar puts a ^B on the screen to show where the boldface begins and highlights the text that follows.
4. Move the cursor to the space following "Diary."
5. Pull down **Style**, choose **Bold** again. The ^B on the screen shows where the boldface ends. The highlighting stops before the second ^B.

WordStar knows that the ^B symbols are not part of your text and will not print them.

The text between the pair of ^B print control symbols appears highlighted on a monochrome screen and in a different color on a color monitor. The highlighted text will print in boldface.

TIP *If you use boldface a lot, use the accelerator command* ***^PB*** *to turn boldface on or off.*

Deleting Print Control Symbols

When you revise a document, be careful not to rearrange or delete print control symbols. If you do, you may be surprised at the results.

See what happens when you erase one of a pair of print control symbols.

1. Erase one of the ^B print control symbols. Use the **Del** or the **Backspace** key. All the text following the remaining print control is highlighted and will print in boldface.
2. Reenter the boldface command in the same place. Only the enclosed text is highlighted.

Underlining Text

Underlining works like boldface. Underline the headings "September 10" and "September 12."

1. Move the cursor to the "S" in the first occurrence of "September."
2. Pull down **Style** and choose **Underline**. The ^S on the screen shows where the underlining starts.
3. Move the cursor to the space following the number.
4. Pull down **Style** and choose **Underline** again. The ^S on the screen shows where the underlining stops.
5. Move the cursor to the second diary entry, "September 12." Repeat steps 2–4.

The text between the ^S symbols appears underlined on most monochrome screens and in a different color on a color monitor. The text will be underlined when the document prints.

Turning Display On and Off

If you want to see how your text looks without print control symbols, you can hide them. Turn the display of print controls on or off from the Style Menu.

Hide the print control symbols.

1. Pull down **Style** and choose **Hide/display controls**.
2. Notice that the print control symbols are gone, but the text is still highlighted and underlined.

Print controls can be hidden, but they're still in effect. Choosing **Hide/display controls** again (or pressing the accelerator command **^OD**) turns display on again.

Inserting Page Breaks

Every page in a WordStar document is automatically set for 66 lines with 55 lines of text. (Page length is like a sheet of paper 11 inches long with three lines in the top margin and eight lines in the bottom margin.) When the cursor reaches the end of the page you're typing, WordStar automatically inserts a page break. The automatic page break, which is indicated by a broken line with a P in the flag column, signals the end of one page and the beginning of another.

Sometimes, though, you'll want to start typing on a new page before the current one is filled. You can insert a page break anywhere.

Insert a page break in DIARY.DOC.

1 Move the cursor to column 1 of the blank line above "September 12." The status line tells you that you're on page 1.

2 Pull down **Layout** and choose **New page**. Look at the status line now—you're on page 2.

  Notice how WordStar shows you the new page break.

Remember, WordStar automatically starts a new page if the page fills with text. (The automatic page break goes away if you delete lines of text, but the one you insert with a command doesn't.)

Omitting Page Numbers

WordStar automatically numbers pages in a document. Page numbers appear at the bottom of each page when you print your document. Sometimes, though, you may not want page numbers in a document.

Tell WordStar to omit page numbers.

1 Pull down **Go To** and choose **Go to file beginning** (or press the accelerator command ^**QR**) to make a quick cursor move to the top of the document. Be sure the column number in the status line says *C1*.

2 Pull down **Layout** and choose **Omit page numbering.**

  When the document prints, there will be no page numbers.

3 Save DIARY.DOC and return to the Opening screen.

Printing and Interrupting Printing

You may have several reasons to interrupt printing. Most often, it's to look over a page. Even if you need to stop printing altogether, you don't have to turn off the printer.

Start to print DIARY.DOC. Then pause printing.

1. Make sure your printer is on and ready.
2. At the Opening screen, press **FP**, the accelerator command for **Print a file.**
3. Press **F10**. Printing begins and you're returned to the Opening screen.
4. To pause printing, press **FP** to get to the Printing screen.
5. Press **P** again to make the printer pause. (It may take a few seconds.)
6. Press **C** to continue. Printing begins again.

If you should accidentally choose the wrong file to print, you can stop printing by pressing the accelerator command **^U** at the Printing screen. WordStar returns you to the Opening screen where you can start again.

What's Next?

You've learned the basic techniques for opening, editing, and printing a document. Now you may want to practice what you've learned before continuing with the remaining lessons.

The lessons that follow cover features you won't want to miss. When you're ready, look through the remaining lessons to get an idea of what other WordStar features are available to you. Then you can start with Lesson 7 and finish all the lessons, or you can select just the lessons that interest you.

LESSON 7

More Features

In this lesson you'll learn about

- Windows
- Classic WordStar Menus
- Shorthand
- Column Blocks
- Using the Calculator
- Changing Fonts
- Footnotes

WordStar is a word processing program rich in features and functionality. In the first six lessons of the "Training Guide" you were introduced to most of WordStar's menus and some basic commands. You'll find that the more you use the program, the more you'll learn, but there are a few features that merit some extra attention. This lesson contains exercises on some of these features.

The lesson is written so you can work your way from start to finish or select individual subjects.

If you have a floppy disk computer, you'll need your Training Work Disk. If you don't have a Training Work Disk, refer to Lesson 1 for instructions on creating one. If you have a hard disk computer, make sure you're in the WordStar directory. Start each exercise at the Opening screen.

Windows

When you're editing a file, you can open another file at the same time. When you do this, the screen splits and you have a "window" open on each file. This is a handy tool for editing two documents at the same time, because you can move text between documents. You can also use windows for looking at two different places in the same document.

Opening a Window

Open a file, then open a window on another file and work with two documents at the same time.

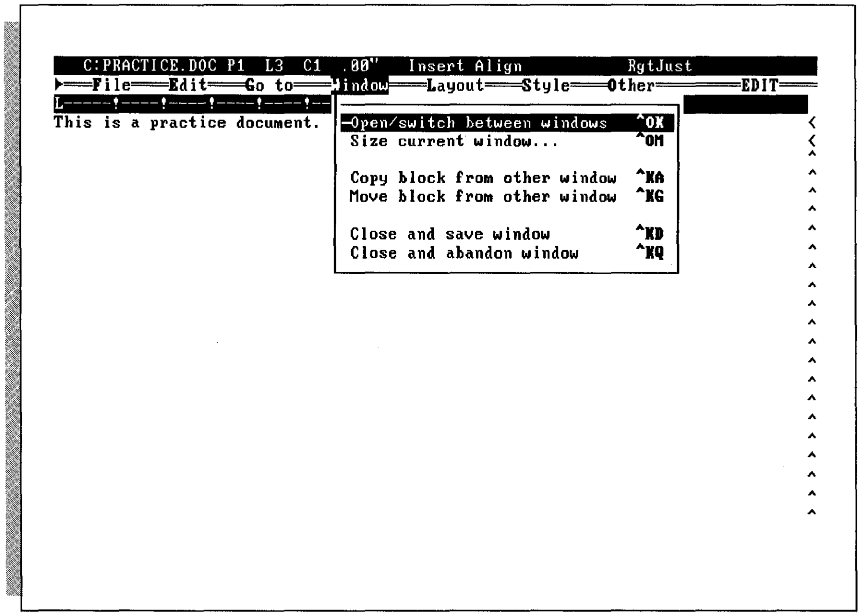
Start at the Opening screen.

1 Open a new document file called PRACTICE.DOC. (Don't use Speed Write.)

2 Type **This is a practice document.** Press ↵ twice.

Now you'll open a window on another file. (If your computer doesn't have enough random access memory, RAM, to open a new window, the command to open a window will be ignored.)

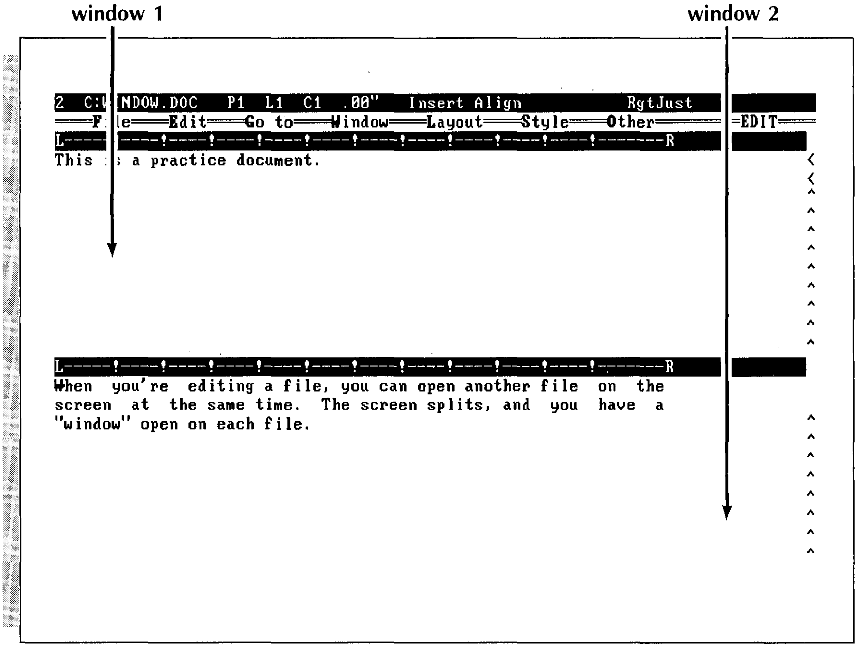
3 Pull down **Window** from the EDIT menu bar.


C:PRACTICE.DOC P1 L3 C1 .00" Insert Align RgtJust
File
Edit
Go to
Window
Layout
Style
Other
EDIT
Open/switch between windows ^OK
Size current window... ^OM
Copy block from other window ^KA
Move block from other window ^KG
Close and save window ^KD
Close and abandon window ^KQ

This is a practice document.

4 Choose **Open/switch between windows** to open a window on another document.

5 When the dialog box appears, move the highlighting to **WINDOW.DOC**, a sample file in the directory, and press ↵. (You can also create a new document in a window.) Your screen looks like this:



```
2  C:\ NDOW.DOC    P1  L1  C1  .00"   Insert Align            RgtJust
═══File═══Edit═══Go to═══Window═══Layout═══Style═══Other═══════  ═EDIT═══
L----!----!----!----!----!----!----!----!----!----!-------R
This is a practice document.

L----!----!----!----!----!----!----!----!----!----!-------R
When  you're  editing a file, you can open another file  on  the
screen  at  the same time.  The screen splits, and  you  have  a
"window" open on each file.
```

Notice that the ruler line for WINDOW.DOC separates the two windows. The number 2 in the status line indicates that the cursor rests in the new window. Although you can see both documents, you can edit only the document in the window with the cursor. The information in the status line applies to the window where the cursor is.

Moving the Cursor between Windows

Next, you'll move the cursor to the other window.

1 Pull down **Window** and choose **Open/switch between windows**. The cursor moves to the other window. Now you can edit text in that file, and the status line applies to that window.

2 Repeat step 1 and move the cursor back to the window containing WINDOW.DOC.

Can you move Labels from one file to another?

Copying Text from One Window to Another

You can copy or move a block of text from one file to another by copying or moving text between windows.

Next, copy a block of text from WINDOW.DOC to PRACTICE.DOC.

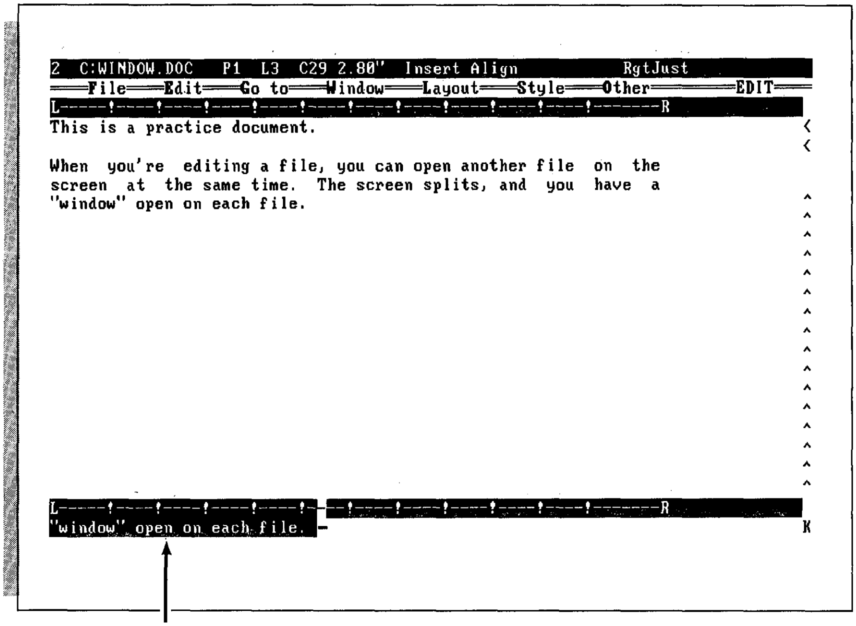
1. Move the cursor to line 1, column 1 in WINDOW.DOC and mark the beginning of the block. (Block commands are on the Edit pull-down.)
2. Pull down **Go To** and choose **Go to file end**.
3. Mark the end of the block.
4. Pull down **Window** and move the cursor into the window containing PRACTICE.DOC.
5. Pull down **Window** and choose **Copy block from other window** to copy the block into PRACTICE.DOC.

Changing the Size of the Current Window

You can set the number of lines that will be in the window with the cursor when the screen is split.

Split the screen so that WINDOW.DOC contains one line.

1. Pull down **Window** and choose **Open/switch between windows** to switch the cursor to WINDOW.DOC.
2. Pull down **Window** again and choose **Size current window**.
3. For a window two lines long, type **2** and press ↵. (The ruler line counts as one line.)



```
2  C:WINDOW.DOC   P1  L3  C29 2.80"  Insert Align          RgtJust
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-------R
This is a practice document.

When  you're  editing a file, you can open another file  on  the
screen  at  the same time.  The screen splits, and  you  have  a
"window" open on each file.

L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-------R
"window" open on each file.
```

resized window

Note: If you type 0, the upper window takes over the whole screen. When you move the cursor between windows, the screen changes from one document to the other. The status line shows which window you're working in.

Closing a Window

When you want to exit, use the **Close** commands on the Window pull-down (or the same commands on the File pull-down) to close one window at a time. (Because you won't use these files again, you don't need to save them.)

Close the window containing WINDOW.DOC.

1. Make sure the cursor is in the window with WINDOW.DOC.
2. Pull down **Window** and choose **Close and abandon window**.

   You've closed the window, exited WINDOW.DOC, and you're still in PRACTICE.DOC.
3. Pull down **Window** again and choose **Close and abandon window** to abandon PRACTICE.DOC.

Classic WordStar Menus

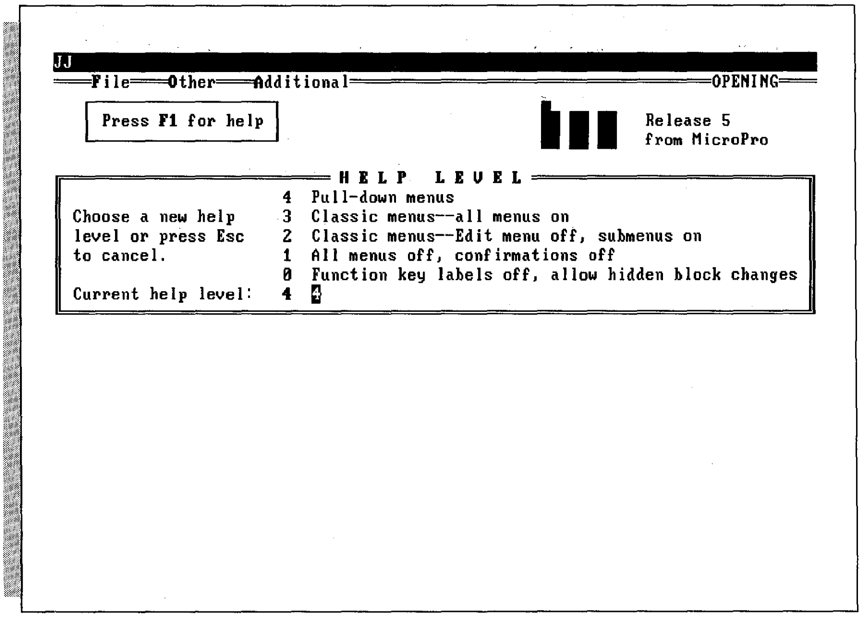
Thus far in the lessons, you've created and edited documents by choosing items from WordStar's easy-to-use pull-down menus. The pull-down menus list the basic WordStar accelerator commands and dot commands.

WordStar also has an alternate set of menus called classic menus. The classic menus list every command available in WordStar. Power users, who edit complicated documents, and touch typists might prefer using classic menus.

You can use either set of menus or switch between them at any time. The command for changing from pull-downs to classic menus is on the Other Menu, available from either the OPENING or EDIT menu bar.

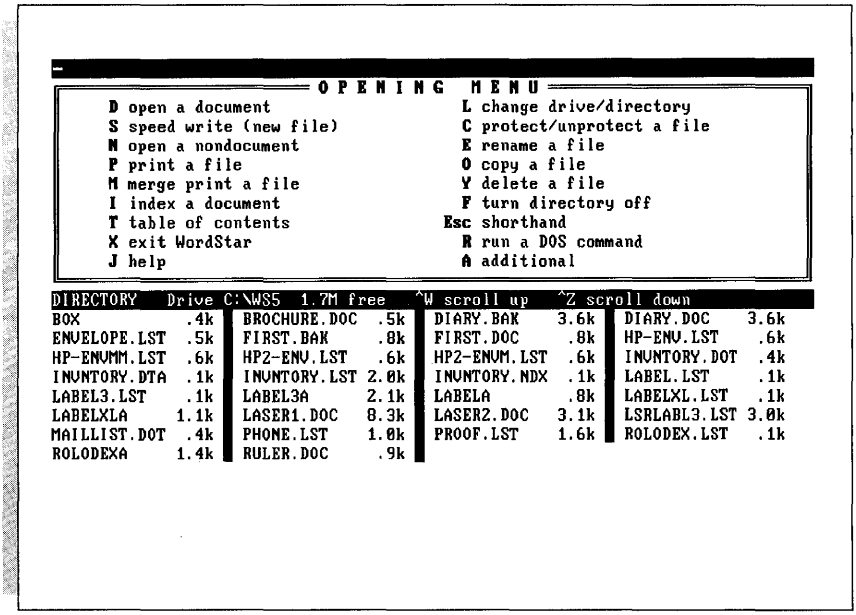
Change to classic menus.

1 From the OPENING menu bar, pull down **Other** and choose **Change help level**. You'll see the following help level information.



```
                       H E L P   L E V E L
                      4  Pull-down menus
Choose a new help     3  Classic menus--all menus on
level or press Esc    2  Classic menus--Edit menu off, submenus on
to cancel.            1  All menus off, confirmations off
                      0  Function key labels off, allow hidden block changes
Current help level:   4  
```

2 The help level for pull-down menus is 4. To choose classic menus, type **3**. The classic Opening Menu is displayed.

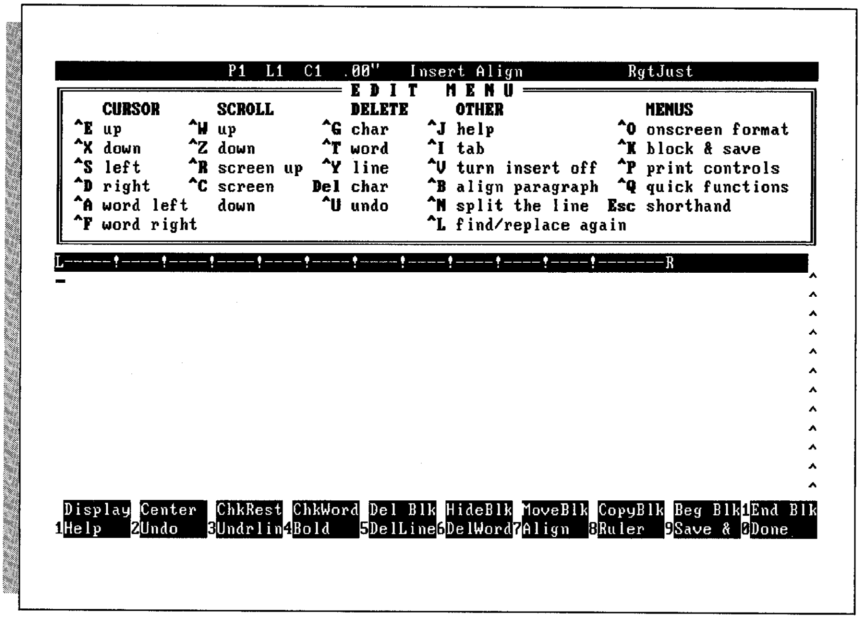


```
                      OPENING MENU
     D open a document                    L change drive/directory
     S speed write (new file)             C protect/unprotect a file
     N open a nondocument                 E rename a file
     P print a file                       O copy a file
     M merge print a file                 Y delete a file
     I index a document                   F turn directory off
     T table of contents                Esc shorthand
     X exit WordStar                      R run a DOS command
     J help                               A additional
DIRECTORY    Drive C:\WS5  1.7M free   ^W scroll up   ^Z scroll down
BOX             .4k  BROCHURE.DOC  .5k  DIARY.BAK     3.6k  DIARY.DOC     3.6k
ENVELOPE.LST    .5k  FIRST.BAK     .8k  FIRST.DOC      .8k  HP-ENV.LST     .6k
HP-ENVMM.LST    .6k  HP2-ENV.LST   .6k  HP2-ENVM.LST   .6k  INVNTORY.DOT   .4k
INVNTORY.DTA    .1k  INVNTORY.LST 2.0k  INVNTORY.NDX   .1k  LABEL.LST      .1k
LABEL3.LST      .1k  LABEL3A      2.1k  LABELA         .8k  LABELXL.LST    .1k
LABELXLA       1.1k  LASER1.DOC   8.3k  LASER2.DOC    3.1k  LSRLABL3.LST  3.0k
MAILLIST.DOT    .4k  PHONE.LST    1.0k  PROOF.LST     1.6k  ROLODEX.LST    .1k
ROLODEXA       1.4k  RULER.DOC     .9k
```

The classic Opening Menu lists commands and tasks. You decide what word processing task you want to perform and press the corresponding command. You'll find a brief discussion of the relationship between the two kinds of menus in "Starting."

Open a file from the classic menus.

1 At the classic Opening Menu, press **s** to open a Speed Write document.



```
            P1  L1  C1  .00"   Insert Align           RgtJust
 ═══════════════════════════ E D I T   M E N U ═══════════════════════════
    CURSOR        SCROLL          DELETE      OTHER                 MENUS
 ^E up        ^W up           ^G char     ^J help              ^O onscreen format
 ^X down      ^Z down         ^T word     ^I tab               ^K block & save
 ^S left      ^R screen up    ^Y line     ^V turn insert off   ^P print controls
 ^D right     ^C screen      Del char     ^B align paragraph   ^Q quick functions
 ^A word left    down         ^U undo     ^N split the line   Esc shorthand
 ^F word right                            ^L find/replace again
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-------R
_
 Display  Center   ChkRest  ChkWord  Del Blk  HideBlk  MoveBlk  CopyBlk  Beg Blk 1End Blk
1Help    2Undo    3Undrlin 4Bold    5DelLine 6DelWord 7Align   8Ruler   9Save &  0Done
```

Notice that the classic Edit Menu lists commands for moving the cursor, scrolling, erasing, and general editing. On the right is a list of the five submenus where you'll find the rest of the WordStar commands.

Look briefly at the submenus.

2 Press ^**O** to see the Onscreen Format Menu. When you're ready to go on, press the **Spacebar**.

3 Look through the commands on the Print Controls Menu and Quick Functions Menu. You'll recognize tasks from the pull-downs. When you're finished browsing, abandon the file.

4 To quit the file, press ^**K** for the Block & Save Menu.

5 Look for the command to abandon changes. Press **Q**.

Now that you've opened a file and abandoned it with classic menus, you're back at the classic Opening Menu. See **Menus** in the "Reference Guide" for information about using classic menus.

Change back to pull-down menus.

1. Find the Help command on the classic Opening Menu. Press **J** twice.
2. To choose the pull-down menus, type **4**.

   You're back at the OPENING menu bar listing the pull-downs.

Shorthand Macros

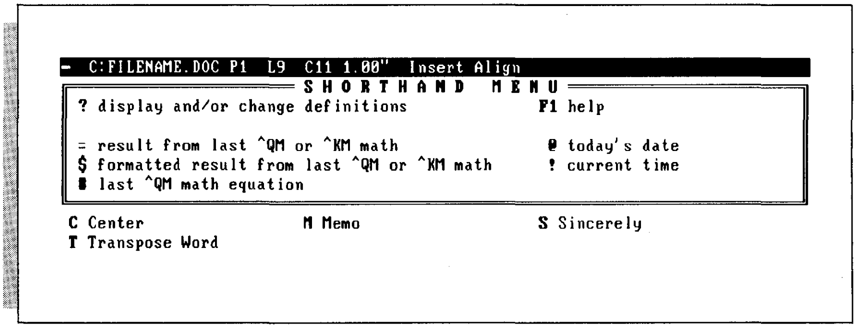
Shorthand (sometimes called macros) is a timesaving feature that allows you to assign a single character to a longer line of text or commands. Using shorthand can save you many keystrokes on repetitive tasks.

For example, if you type a specific name regularly, you can use shorthand to assign this text a single letter or number, N for instance. Then when you're working in a file, instead of typing the name, you press **Esc**, then **N** to have WordStar insert the name automatically.

You need to learn two aspects of shorthand—how to use shorthand characters while you're working in a file and how to create the definitions and assign characters to them.

Before you begin using shorthand, you should become familiar with the Shorthand Menu. The command to display the Shorthand Menu is located on the Other pull-down, reached from either the Opening or Edit screens.

1. From the OPENING menu bar, pull down **Other** and choose **Shorthand macros**. The Shorthand Menu is displayed.



```
-  C:FILENAME.DOC P1  L9  C11 1.00"  Insert Align
                          S H O R T H A N D   M E N U
 ? display and/or change definitions                    F1 help

 = result from last ^QM or ^KM math                     @ today's date
 $ formatted result from last ^QM or ^KM math           ! current time
 # last ^QM math equation

C Center                    M Memo                      S Sincerely
T Transpose Word
```

The shorthand screen consists of a menu and a list of shorthand characters that have been defined. Notice that the shorthand character is displayed in boldface followed by a word or phrase to remind you what the shorthand character does. Five shorthand characters are listed on the menu itself (=, #, $, @, !). These are already set, and you can't change them. See the "Reference Guide" for more information on using these characters.

The other shorthand characters (C, M, P, S, T) are already defined for you, but you can change them if you want. One shorthand character contains text (M for memorandum), three contain commands (P for cursor to previous paragraph, T for transpose word, and C for center), and one contains text and commands (S for sincerely and three carriage returns.)

When you're finished looking at the Shorthand Menu, press **Esc** to return to the Opening screen.

Using Shorthand Characters

Now, practice using shorthand characters.

1. Create a file with Speed Write.
2. Press ↵ twice to move the cursor in column 1 to line 3.

   First, you'll use a shorthand character and have WordStar insert some text.
3. Pull down the Other Menu. Notice that the accelerator command for displaying the Shorthand Menu is **Esc**.

   Esc and **^JJ** look dimmer than the other accelerator commands in the list (or if you have a color monitor, they're in a different color.) Accelerator commands displayed like this can't be issued when the pull-down menu is displayed. They must be issued directly from the Edit screen.
4. Choose **Shorthand macros**. The Shorthand Menu is displayed.
5. Press **M**. (Shorthand characters can be either upper- or lowercase.)

   WordStar inserts the word "Memorandum."

   Next, you'll use a shorthand character for some commands.
6. Take a shortcut. Press the accelerator command **Esc**, then **C**.

   WordStar centers the text.

Defining Characters

Now you know how to use shorthand characters to speed up your word processing. You might want to create and define your own shorthand characters.

You should be back at the Edit screen.

1 Press **Esc**, then **?** (question mark).

Under the heading MENU & KEY DEFINITIONS is a list of all the currently defined shorthand characters, along with a reminder of what each does. Notice that the five special shorthand characters (=, #, $, @, !) don't appear on the menu because you can't change their definitions. *"Bytes available"* informs you of how much memory you have for more definitions. (You can set aside more memory in the WSCHANGE program.)

A shorthand character can be any single letter or number, making a total of 36 possible shorthand definitions. The maximum number of characters in a shorthand definition is 64.

Define a shorthand character for some text.

1 At the prompt *Shorthand character*, type **E**.

2 At the prompt *Description*, type **employees** and press **Tab.**

3 At the prompt *Definition*, type **A special notice to all employees:** and press **F10**. (The small dots indicate spaces.)

Notice that the shorthand character and definition are now listed with the other shorthand characters in alphabetical order. You can continue creating shorthand definitions, or you can exit by pressing ↵.

4 Press ↵.

5 At the prompt *Store macro changes on disk?*, type **Y**. Your shorthand character and definition are saved in a file. (For floppy disk systems, the file is on the Program disk.)

You should be back at the Edit screen.

6 To try out your new shorthand character, put the cursor in column 1, line 6. Press **Esc**, then **E**. WordStar inserts the line of text.

Now, define a shorthand character for commands.

1 Press **Esc** to display the Shorthand Menu. Note that the shorthand character you just defined, E, is on the menu.

2 Press **?**.

3 At the prompt *Shorthand character*, type **H**.

4 At the prompt *Description*, type **heading** and press **Tab.**

At the next step you're going to use some commands from the classic menus to define the shorthand character. You'll type a heading and then the command for centering. If you were centering and typing a heading from the classic menus, you'd use these keystrokes:

Gulliver's Travel Service ^OC

You need to enter this the same way for your shorthand definition. In other words, you must press the command for centering. Most important though, to enter any command you must press ^**P** first. This is to tell WordStar not to execute the command while you're creating the definition.

5. At the prompt *Definition*, type **Gulliver's Travel Service**. Then press ^**P** followed by the command ^**O**. Release the **Ctrl** key and press **C**.

   Your definition should look like this:

   ```
   Gulliver's Travel Service^OC
   ```

   Notice that the ^P isn't displayed. The C can be either upper- or lowercase.
6. Press **F10**.
7. Press ↵, then type **Y** at the prompt.
8. To try out your new shorthand character, move the cursor to line 1, column 1. Press **Esc**, then **H**. WordStar inserts and centers the text.
9. Abandon the file.

Remember, the shorthand definition contains the keystrokes you would normally type. To enter a command you must press ^**P** just before pressing the accelerator command.

Advanced Shorthand

So far, you've used very simple shorthand. As you become more familiar with shorthand, you'll figure out ways to use this feature to best meet your needs.

Shorthand definitions are limited to one line. Following, though, is a lesson that illustrates how you can create shorthand characters that will insert text of more than one line. It's done by inserting shorthand characters within a shorthand definition.

Let's say you want to have the following heading typed with the first line boldfaced and all lines centered:

Gulliver's Travel Service
152 Lilliput Street
San Francisco, CA 94118

First, you define each line individually.

1 At the Opening screen, pull down **Other** and choose **Shorthand macros**.

2 Follow the steps in the previous section and create three new shorthand definitions, one for each line of the heading.

First line Give the first line the shorthand character 1 and call it "name." In the definition, enter **^PB** to boldface and **^OC** to center the text. Enter **^M** (the accelerator command for a carriage return) at the end of the definition.

Use the following series of keystrokes for the definition. Remember, you must press **^P** before you enter an accelerator command.

^P^PBGulliver's Travel Service^P^PB^P^OC^P^M

When you're finished entering the keystrokes, the definition should look like this on your screen:

```
^PBGulliver's Travel Service^PB^OC^M
```

Second line Give the second line the shorthand character 2 and call it "street." In the definition, enter the accelerator command to center the text. Enter **^M** (carriage return) at the end of the definition.

Use the following series of keystrokes for the definition. Remember, you must press **^P** before you enter a command.

152 Lilliput Street^P^OC^P^M

When you're finished entering the keystrokes, the definition should look like this on your screen:

```
152 Lilliput Street^OC^M
```

Third line Give the third line the shorthand character 3 and call it "city." In the definition, enter commands with accelerator commands to center the text. Enter **^M** (carriage return) at the end of the definition.

Use the following series of keystrokes for the definition. Remember, you must press **^P** before you enter a command.

San Francisco, CA 94118 ^P^OC^P^M

When you're finished entering the keystrokes, the definition should look like this on your screen:

```
San Francisco, CA 94118^OC^M
```

Next, you need to define a fourth shorthand character and include the three shorthand characters you just defined.

3 Define a fourth shorthand character. Give this one the character H and call it "heading." (This will change the shorthand character H you defined in the previous exercise.) Just type over the currrent information.

Use the following series of keystrokes for the definition. **Esc** stands for the **Escape** key. Press **^P**, press **Esc**, press **1**, press **^P**, and so on.

^PEsc1^PEsc2^PEsc3

When you're finished entering the keystrokes, the definition should look like this on your screen:

```
^[1^[2^[3
```

You've defined a shorthand character with the keystrokes that will tell WordStar to enter the three shorthand characters 1, 2, and 3 in succession.

4 Press ↵ twice, then **Y** at the prompt to save your definitions and return to the Opening screen.

5 Open a new file. Try the shorthand character H you just created.

6 With the cursor in column 1, line 1, press **Esc**, then **H**. WordStar enters three lines with one shorthand character.

If you don't get the three-line address, go back over the description of each definition to make sure you've typed the keystrokes exactly. Then try again.

7 Abandon the file.

This process is called nesting shorthand keys. You can also try chaining shorthand definitions by putting the Esc-character sequence at the end of the definition. You could also have a shorthand definition reference itself by entering its own Esc-character sequence at the end. This process, called looping, would be useful for doing a repetitive task that can't be performed with a single command. You press **^U** to stop the loop.

Column Blocks

You may need to type columns of text or tables. Editing columns can be tricky because altering one column can sometimes affect how another column lines up. WordStar has a handy feature called column blocks, which can help you edit and work with columns of text. By switching modes from a horizontal arrangement of text to a vertical arrangement, you can work with columns of text easily.

In this lesson you'll mark and move a block of text from a table. You'll use a sample file called TABLE.DOC.

1 Open the file TABLE.DOC. Notice that the table includes columns of figures.

2 Pull down **Edit** and find the command to turn column mode on.

3 Choose **Column block mode**. Notice the word *Column* is displayed in the status line. This indicates column mode is on.

Now, mark a column block.

4 Move the cursor to the space just to the left of the "M" in the phrase "Maximum g." Mark the beginning of the block.

5 Move the cursor down to the last line of the column to the number 3.10. Then move it to the right until it's positioned one space past the vertical column line. Mark the end of the block. The block is highlighted.

Now, delete the block.

6 From the Edit pull-down, choose **Delete block**. Notice how the other columns to the right of the one you removed moved over to fill in the space.

You may not always want to have the other columns shift to fill in. You'll remove the block again, this time turning column replace on.

7 Pull down **Edit** and choose **Undo** (or press the accelerator command ^**U**) to bring the block back.

Now, start over and mark the block again.

1 On the Edit pull-down, find the choice to turn column replace on.

2 Choose **Column replace mode**. Look at the status line. *ColRepl* tells you column mode is on and column replace is on.

3 Mark the block again. (Follow steps 4 and 5 above.)

4 From the Edit pull-down, choose **Delete block**. Notice that this time with column replace on, the text left a space instead of moving.

5 Exit and abandon the file.

You've just completed two very simple column operations. There's a lot more you can do with column blocks. See **Column blocks** in the "Reference Guide."

Changing Fonts

If your printer has a variety of fonts, you can change to another typeface within your text.

Change some text to a different font.

1 Open a practice file with Speed Write.

2 Type the following text:

```
Final sale starts tomorrow. ↵
↵
Doors will be open at noon! ↵
↵
Bring your wallet and don't be late. ↵
```

Next, choose another font for the remaining text.

3 Move the cursor to the "D" in "Doors."

4 From the Style pull-down, choose **Choose font**.

5 Move the highlighting to one of the fonts displayed in the list.

For nonproportional fonts, the list tells you the pitch of the available fonts, for example, 10 pitch or 12 pitch. For proportional fonts, the list also tells you the typeface of the fonts, such as Times Roman or Helvetica.

6 Press ↵ to choose the font you want.

7 Notice the font name enclosed by angle brackets (<>). The text following the font name prints that font until you change the font again. The line breaks and page breaks displayed correspond to the chosen font.

8 Save the practice file. Name it FONTS.DOC, then print it.

Footnotes

With WordStar you can type a variety of notes. Notes are automatically ordered and printed in the proper place in a document. One of these notes, a footnote, appears at the bottom of the page on which a reference occurs.

Create a footnote.

1 Open a practice file with Speed Write.

2 Type **The translation is formal**.

3 From the Other pull-down, choose **Footnote/endnote**.

WordStar offers endnotes and footnotes. You'll create a footnote.

4 Press **F** for footnote.

5 With the cursor in the footnote window, type **Susan Moran, ed. and trans.**

6 Press **^KD** to save the footnote.

With display off, references to footnotes (numbers beginning with 1) appear in the text. With display on, the first few words of the footnote appear in brackets.

References print in superscript. The footnote itself is separated by dashes from the text and printed at the bottom of the page.

7 Save the file and name it NOTE.DOC. Print the file if you like.

Note: You can choose some other sequencing method for references, such as A B C or * ** *** with the dot command **.f#**. See **Footnotes and endnotes** in the "Reference Guide."

To remove a footnote, delete its reference and type **Y**. (If you delete a reference accidentally, you can restore it with the **Undo** command.)

You've covered some of WordStar's most useful features. In the next lesson, Advanced Formatting, you'll build on what you learned about formatting in Lesson 3.

LESSON 8

Advanced Formatting

In this lesson you'll learn about

- More Onscreen Format Commands
- Headers and Footers
- The Ruler Line
- Automatic Indentation

Formatting determines how a document will look when it's printed. You can do a lot with WordStar in terms of designing documents. Lesson 3 introduced you to some basic formatting commands. In this lesson, you'll be introduced to a few more formatting techniques that you'll find helpful.

You can work your way through the lesson from start to finish or select individual subjects at random.

More Onscreen Format Commands

You should already be familiar with a few of the onscreen format commands. There are several other useful commands you can issue with commands from the classic menus. (The command to change to classic menus is on the Other Menu.) Following is an explanation of these commands. Open the file TEXT.DOC and practice using some of the commands.

COMMAND	FUNCTION
Margins	
^OA	Turns auto-align off and on. With auto-align off, WordStar doesn't force an edited line to fit within the margins. You must press **^B** or **^QU** to align the text. With auto-align on, WordStar adjusts an edited line to fit the margins automatically.
^OT	Turns the display of the ruler line on and off. This gives you more room on your screen to display text.
^OO	Inserts a copy of the current ruler line in your document. The new ruler is inserted as a **.rr** command. You can edit this ruler line.
Typing	
^OW	Turns word wrap off and on. If you turn word wrap off, you have to end each line by pressing ↵, just as you would on a typewriter.
^OH	Turns automatic hyphenation on and off. When auto-hyphenation is off, words that don't fit within the right margin wrap to the next line. When it is on, WordStar automatically hyphenates words that extend beyond the right margin.
^OE	Enters a soft hyphen. A soft hyphen prints only when it occurs at the end of a line. When you use **^OE** to hyphenate a word, the hyphen won't print if the position of the word changes in the paragraph. A word's position would change, for example, when text in a paragraph realigns.
^OG	Sets a temporary indent.
Display	
^OP	Turns preview on and off. You can't edit your document while previewing.

Footers and Headers

Footers are special lines printed at the bottom of every page; headers are special lines printed at the top of every page. Footers and headers can be useful in documents where you want certain information such as a chapter title to appear on every page. With footers and headers you don't have to type this information on every page. WordStar inserts it automatically.

A footer or header can be up to three lines long. The page number that WordStar prints is actually a footer.

To create a one-line header or footer, choose **Header** or **Footer** from the Layout pull-down. You can also use the following dot commands:

COMMAND	FUNCTION
Footer at the Layout Menu or type a dot command:	
.f1 or **.fo**	first line of footer
.f2	second line of footer
.f3	third line of footer
Header at the Layout Menu or type a dot command:	
.h1 or **.he**	first line of header
.h2	second line of header
.h3	third line of header

Practice inserting a header and a footer in the file TEXT.DOC.

1. Make sure the cursor is at column 1, line 1 and insert is on.
2. From the Layout pull-down, choose **Header** or type **.h1**↵ to begin the header. (Remember, dot commands can be typed in either upper- or lowercase.)
3. Type **Gulliver's Travels**.
4. Move the cursor to 5.1 inches and type **Part I**↵.
5. Pull down **Layout** and choose **Footer** or type **.f1**↵.
6. Move the cursor to 2.7 inches and type **Page #**.

   You can have WordStar put the page number anywhere you want in a header or footer. The symbol # stands for the page number.
7. Save and print the file. (For quick printing, press the **Ctrl** key and the **PrtSc** key and then **F10**.)

Notice how the text in the one-line header and footer repeats on each page. The page number you typed as # prints with the actual page number.

You can use footers and headers in many ways. See **Headers and footers** in the "Reference Guide" for more information.

The Ruler Line

The ruler line displays a document's left and right margins and tab stops. When you create a new document, the left margin is automatically set at column 1 (.00 inch), and the right margin is set at column 65 (6.5 inches). Tab stops are set at five-column (0.5-inch) intervals. In Lesson 3 you learned how to set and clear tabs and change the left and right margins. But there's more to know about working with ruler lines in WordStar.

It's important to understand how WordStar reads the formatting commands in your document.

1. Open the file RULER.DOC.
2. With the cursor on the first line, slowly move the cursor down through the document and watch the ruler line as the cursor moves past dot commands.

   WordStar gets its formatting signals from the dot commands.

You can type a ruler line yourself. Just start the line with **.rr** and type the ruler using the standard ruler line characters, such as an exclamation point for a tab.

TIP *In WSCHANGE, you can create up to ten preset versions of the ruler line. To insert a preset ruler line in your document, type the dot command **.rr** and the number of the ruler line with the tabs and margins you want. This shortcut eliminates resetting tabs and margins for frequently used page styles.*

Automatic Indentation

Word wrap is one of the features that makes word processing fast and easy. You don't have to insert a carriage return at the end of every line. But sometimes you need to create documents with text that requires specific indentations—a paragraph or numbered list, for example. WordStar has an automatic indentation command, **.pm**, that you use to manage word wrap for indented text.

We'll look at the technique for using **.pm** to indent a paragraph and create a hanging indentation in a numbered list.

Paragraph Indentation

1. Open a practice file.
2. Pull down **Layout** and choose **Margins and tabs**. In the box, move to **Paragraph** and type **.5**. Press **F10** to return to editing.

   A *P* for paragraph indentation appears in the ruler line. The dot command **.pm** inserted in column 1 tells WordStar to indent the first line of a paragraph to .5 inch.

3 Type this text:

```
Word processing is a computer-age term for typing and edit-
ing any kind of text like letters, memos, articles, reports,
even books. Word processing involves typing into a com-
puter, but it's more than just typing.↵
↵
With a typewriter, you see words on paper as you type. When
you use a word processor, you see words on the computer
screen as you type.↵
↵
```

4 Notice how the first line of each paragraph indented five spaces.

5 At the Margins & Tabs dialog box, move to **Paragraph**, and type **.0**. Press **F10** to return to editing. Watch the ruler line—the *P* for paragraph indentation disappears.

Hanging Indentation

Sometimes you need to wrap text continuously to an indented space. This time, type dot commands to create a hanging indentation.

1 In the practice file, place the cursor on column 1, line 10.
2 Move the cursor under the second **.pm** in column 1.
3 Type **.lm.5"**.
4 Move the cursor under the **.lm** in column 1. Type **1.** and press the **Tab** key. Now type this text:

```
As you read your text on the screen, you can change it and
rearrange it until it looks just the way you want.
```

5 Press ↵ twice.

Notice how the text wrapped and held where you set the left margin at .5 inch. The text will continue to hold until you press the ↵key.

6 Type **2.**, press the **Tab** key, and type this text:

```
You can save text typed with a word processor and use it again
later. Your text is saved electronically in a file.
```

7 Press ↵ twice.

You can remove the indentations by typing **.pm0** and **.lm0** in column 1, again pressing ↵ after each.

8 Save and exit the file.

As you gain experience with WordStar, you'll find other ways to design and format your documents. The next lesson covers merge printing. You'll print personalized form letters with WordStar's merge print feature.

LESSON 9

Merge Printing

The WordStar MailList function lets you store mailing lists that contain names, addresses, and other information. Merge printing commands insert information from a mailing list into a document when you print, enabling you send individualized letters to each person on your mailing list.

Note: You can also merge print with mailing lists typed in WordStar or created in other programs such as Lotus® 1-2-3®, Symphony®, or dBASE®. For information, see "Using data files from other programs" in the **Merge printing** section of the "Reference Guide."

In this lesson, you'll learn about

- Creating a Mailing List
- Making Changes to the Mailing List
- Creating a Master Document
- Printing Form Letters to the Mailing List

Creating a Mailing List

Use MailList to create a short mailing list.

1. Unless you're continuing from Lesson 8, start WordStar.

   If you have a two floppy disk system and MailList is not on your Program disk, you'll run the MailList program at the system prompt. Make sure your Training Work Disk is in drive B. As you go through the steps in this lesson, you'll be prompted onscreen to change disks.

2 From the OPENING menu bar, pull down **Additional** and choose **MailList.** The MailList Menu appears.

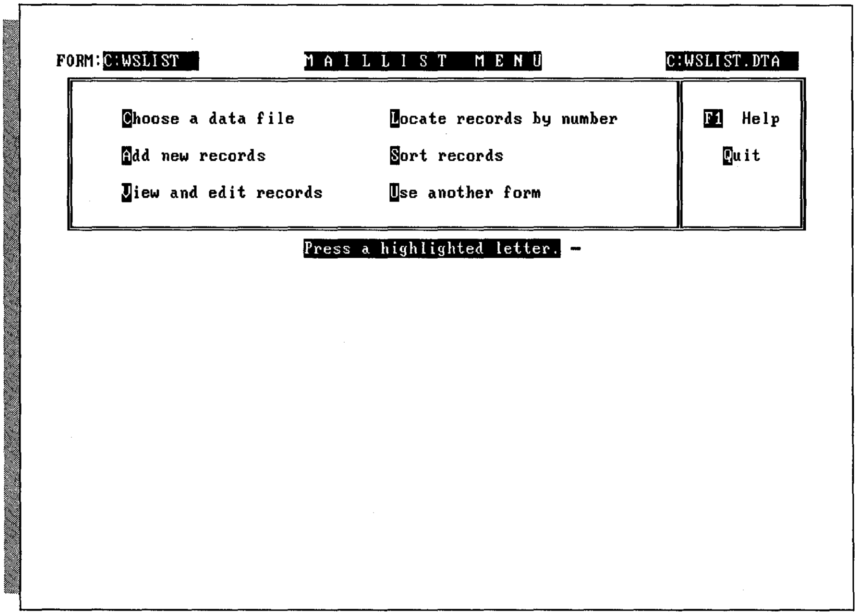
Some floppy disk users may see instructions to run MailList from the system prompt. If so, do the following:

Exit WordStar.

Remove the Wordstar Program disk from drive A and insert the disk containing MailList.

At the B > prompt, type **a:** and press ↵ to log on to drive A.

Type **wslist** and press ↵.


FORM:C:WSLIST
MAILLIST MENU
C:WSLIST.DTA
Choose a data file
Add new records
View and edit records
Locate records by number
Sort records
Use another form
F1 Help
Quit
Press a highlighted letter. -

3 Press **C** to choose a data file. (A mailing list is kept in a file called a data file.)

4 Type **customer.dta** (or **b:customer.dta** if you have a two floppy disk computer) and press ↵.

The mailing list you're creating is named CUSTOMER.DTA. Next, you'll type information into the mailing list form.

1 Press **A** to add records to the data file. A record is the information about one person on the mailing list.

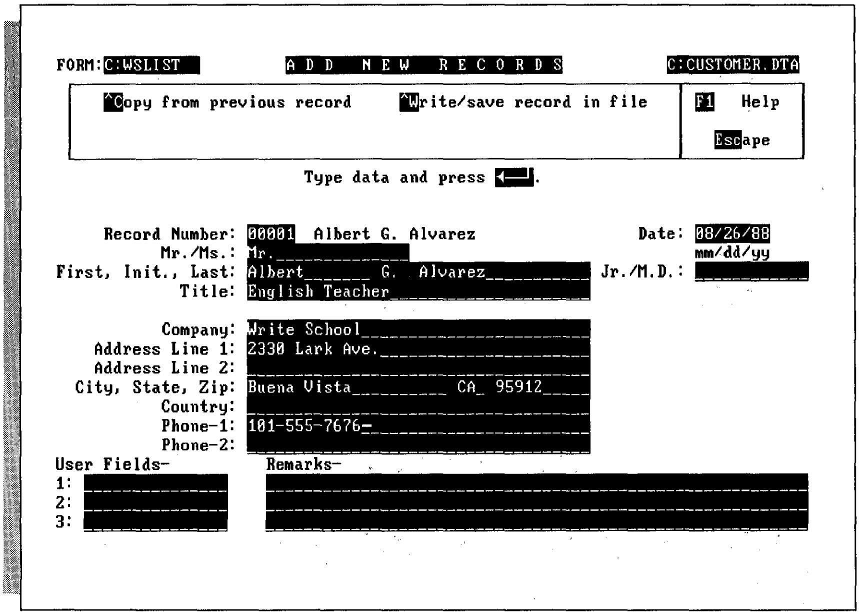
A form called the data entry form appears on the screen. Each piece of information on the form is called a field. The cursor is in the Record Number field.

2. Type **1**, then press ↵. This assigns the number 1 to the first record.

   The cursor moves to the Date field.
3. Type **082688** and press ↵. This is displayed as 08/26/88.
4. Fill in the rest of the form so that it looks like the screen below.

   If you don't need to fill in a field, just press ↵ to skip to the next field. If you make a typing error, you can erase characters with the **Backspace** key. You can move the cursor around the form using these commands:

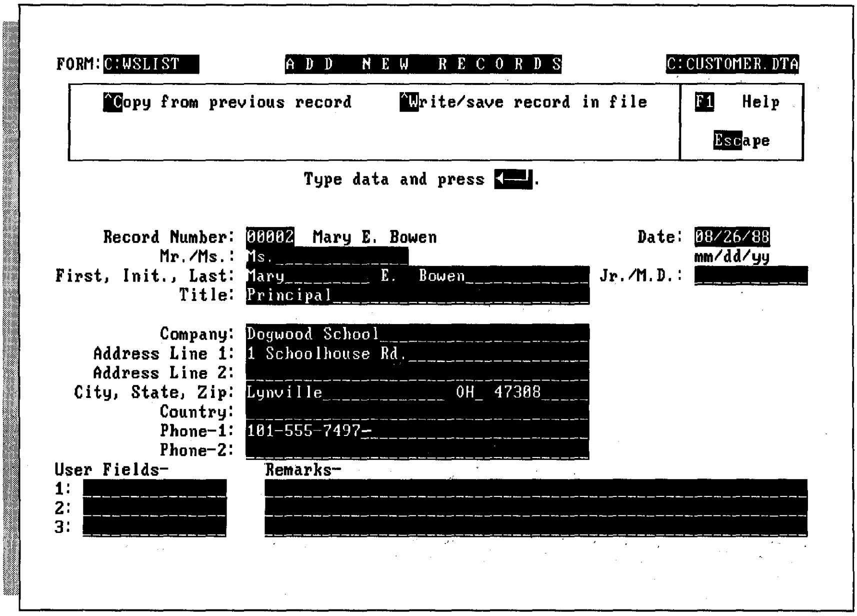
Left one character	^**S** or ←
Right one character	^**D** or →
Previous field	^**A** or ^ ←
Next field	^**F** or ^ →
Top (first) field	^**T** or **Home**
Last field	^**L** or **End**



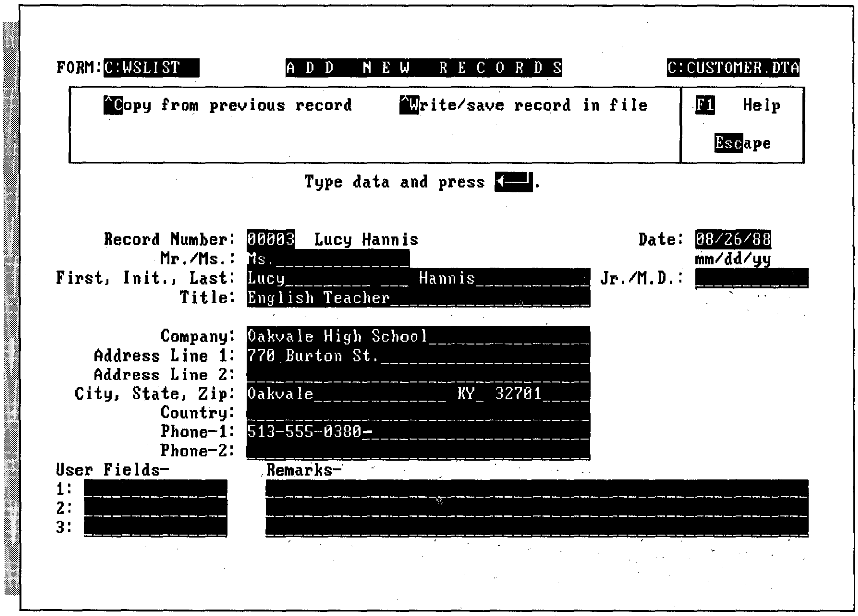
```
FORM:C:WSLIST            A D D   N E W   R E C O R D S            C:CUSTOMER.DTA
  ^Copy from previous record      ^Write/save record in file    F1   Help

                                                                    Escape
                            Type data and press ↵.

    Record Number: 00001  Albert G. Alvarez                   Date: 08/26/88
          Mr./Ms.: Mr.____________                                  mm/dd/yy
First, Init., Last: Albert______ G.  Alvarez_________    Jr./M.D.: __________
            Title: English Teacher________________________

          Company: Write School___________________________
   Address Line 1: 2330 Lark Ave._________________________
   Address Line 2: ________________________________________
 City, State, Zip: Buena Vista_________ CA_ 95912____
          Country: ________________________________________
          Phone-1: 101-555-7676-__________________________
          Phone-2: ________________________________________
User Fields-         Remarks-
1: _____________     ___________________________________________________
2: _____________     ___________________________________________________
3: _____________     ___________________________________________________
```

5. Check to make sure you typed everything correctly. Notice the line at the top of the screen that says *^Write/save record in file*. Press ^**W** to save this information in the data file.
6. Notice the three choices at the top of the screen. Press ↵ to save the record.

7 Repeat steps 4–6 to add these two records to your data file:



```
FORM:C:WSLIST          A D D   N E W   R E C O R D S          C:CUSTOMER.DTA

   ^Copy from previous record      ^Write/save record in file     F1  Help

                                                                  Escape

                         Type data and press ←┘.

     Record Number: 00002  Mary E. Bowen                    Date: 08/26/88
            Mr./Ms.: Ms.______________                             mm/dd/yy
  First, Init., Last: Mary_________ E.  Bowen___________  Jr./M.D.: __________
              Title: Principal____________________________

            Company: Dogwood School______________________
     Address Line 1: 1 Schoolhouse Rd.___________________
     Address Line 2: ____________________________________
   City, State, Zip: Lynville____________ OH_ 47308_____
            Country: ____________________________________
            Phone-1: 101-555-7497-_______________________
            Phone-2: ____________________________________
User Fields-            Remarks-
1: ____________         __________________________________________________
2: ____________         __________________________________________________
3: ____________         __________________________________________________
```



```
FORM:C:WSLIST          A D D   N E W   R E C O R D S          C:CUSTOMER.DTA

   ^Copy from previous record      ^Write/save record in file     F1  Help

                                                                  Escape

                         Type data and press ←┘.

     Record Number: 00003  Lucy Hannis                      Date: 08/26/88
            Mr./Ms.: Ms.______________                             mm/dd/yy
  First, Init., Last: Lucy_________ ___  Hannis___________  Jr./M.D.: __________
              Title: English Teacher______________________

            Company: Oakvale High School_________________
     Address Line 1: 770 Burton St.______________________
     Address Line 2: ____________________________________
   City, State, Zip: Oakvale_____________ KY_ 32701_____
            Country: ____________________________________
            Phone-1: 513-555-0380-_______________________
            Phone-2: ____________________________________
User Fields-            Remarks-
1: ____________         __________________________________________________
2: ____________         __________________________________________________
3: ____________         __________________________________________________
```

8 When you're finished typing and saving all three records, press **Esc**. The MailList Menu appears.

You now have three customers on your mailing list.

Making Changes to the Mailing List

Once you've added records, you can look at them and make changes any time. Next, you'll look through your records and make a correction.

1 Press **V** to view and edit records. The first record appears on your screen. Notice the View and Edit Records Menu at the top of the screen.

2 Press **^N** to see the next record.

3 Press **^P** to see the previous record.

4 Press **^P** again. You're now at the beginning of the file.

5 Press **Esc** to go to the end of the file.

6 Correct Ms. Hannis's name to Ms. Harris. Use the same commands to move the cursor as you did in adding records.

7 Press **^W** to save the updated record.

8 Press **Esc**.

9 Press **Q** to exit MailList.

If you have a two floppy disk computer and you ran MailList at the system prompt, start WordStar.

The WordStar Opening Menu appears.

Creating a Master Document

You're ready to write a letter to each customer on the mailing list you just created. You can create this letter, called a master document, with WordStar and use MailMerge® commands to insert names and addresses from the mailing list.

Start at the WordStar Opening screen with Speed Write.

1 Open a new file.

2 From the Edit pull-down, choose **Insert a file** and insert the file MAILLIST.DOT. (If necessary, include a pathname file for the MAILLIST.DOT file.)

MAILLIST.DOT contains the dot commands you need in a master document. (If your mailing is contained in a program other than MailList, you shouldn't use MAILLIST.DOT to set up the master document.) You can find complete information about these dot commands later in this manual. For now, notice the lines beginning with **.df** and **.rv**.

3 Move the cursor to the line beginning with **.df**.

The **.df** dot command defines the data file as WSLIST.DTA. (WSLIST.DTA is an empty file you can use for your main mailing list.) You want to use CUSTOMER.DTA, the data file you created.

TIP *If you have a two floppy disk computer, put MailList format files (such as MAILLIST.DOT) and your mailing list files (.DTA) on the same disk.*

4 Following **.df**, erase WSLIST.DTA and type **customer.dta**. (Include a pathname, if necessary.)

The next three lines begin with **.rv**. The words in these lines are names that correspond to the fields on your mailing list form. You'll use these names in the letter where you want to insert data from the mailing list file.

5 Move the cursor to the blank line above the line that says *(Type text and variable names here.)* Press ^**Y** twice to remove the blank line and the line following it. These lines shouldn't appear in the letter.

6 Type the letter shown below. When you're finished, check your work. All the words enclosed in ampersands (&) are called variable names. Variable names occur wherever information is to be inserted. They must exactly match the corresponding names in the **.rv** dot commands. (Upper- and lowercase letters are acceptable.) Be sure that all the text is above **.pa**, the dot command that tells WordStar to start a new page.

```
Sonoma Textbooks↵
30 School St.↵
Lake City, WI 53701↵
↵
September 28, 1988↵
↵
&full-name&↵
&company&↵
&addr1&↵
&city&, &state&, &zip&↵
↵
Dear &Mr-Ms& &last&:↵
↵
Sonoma Textbooks introduces Modern Classics, the reading and
writing game that adds creativity to computerized learning.↵
↵
We are sure that you and your students at &company& will be
pleased with this product.↵
↵
Sincerely,↵
↵
↵
Sam Hergenrather
```

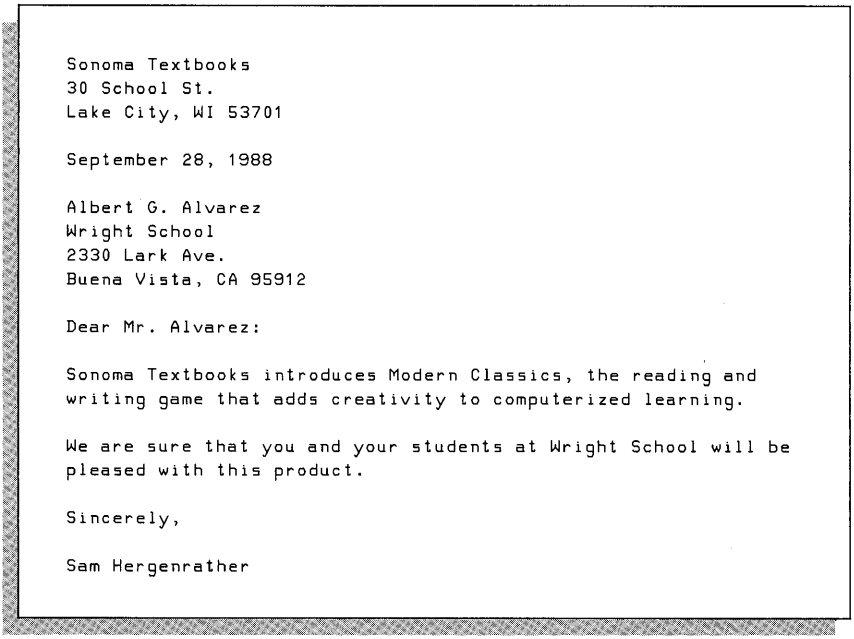
Note: The **.op** dot command omits page numbers. Most form letters don't need page numbers. You can delete it if you want to print page numbers.

Printing Form Letters to the Mailing List

Next, you'll print form letters using the mailing list and master document you just created.

1. Save the file and name it CLASSICS.DOC.
2. From the File pull-down, choose **Merge print a file**. Make sure your printer is ready and has continuous feed paper if appropriate.
3. CLASSICS.DOC is the filename of the master document. Press **F10** to start printing.

Three letters are printed, one to each person on the mailing list. The first letter should look like this:



Sonoma Textbooks
30 School St.
Lake City, WI 53701

September 28, 1988

Albert G. Alvarez
Wright School
2330 Lark Ave.
Buena Vista, CA 95912

Dear Mr. Alvarez:

Sonoma Textbooks introduces Modern Classics, the reading and writing game that adds creativity to computerized learning.

We are sure that you and your students at Wright School will be pleased with this product.

Sincerely,

Sam Hergenrather

Now that you've created a mailing list and a master document and used them together to print form letters, you've finished the lesson and learned the basics of MailList and merge printing. Read the information in the "MailList" tab section and in the **Merge printing** section of the "Reference Guide" to find how much more you can do with mailing lists and merge printing.

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Reference Guide

The "Reference Guide" gives detailed explanations of WordStar's features, functions, and commands. Topics are presented in alphabetical order. The entry titles are functional. For example, you don't have to know that the command for boldfacing a word is on the Style pull-down. Simply look for **Boldface**. If you don't immediately find the topic you are looking for, refer to the index.

A

Accent marks

Many non-English words have accent marks; for example, **écran** or **accès**. To print accent marks, use the **^PH** overprint command. **^PH** causes the printer to backspace and overprint the previous character. See also **Overprinting**.

Additional features

WordStar has additional features that you can use to create mailing lists or use a telecommunications service. These are on the Additional pull-down at the Opening screen. If you're using the classic menus, press **A** at the Opening Menu. For more information on these features, see the appropriate tabbed section in this book.

Aligning text

When you edit a document, you usually change the length of some of its lines. WordStar then aligns the paragraph you're working in to make the lines fit within the margins. This feature is called auto-align. While editing, you can turn auto-align off (and on again) with **^OA**. You can change the default setting for auto-align by using WSCHANGE. You can also decide how long typing must pause before aligning begins.

While WordStar aligns new text to the current margins and tabs, it does not automatically realign existing text after you change margins, tabs, or fonts. To realign an existing paragraph, move the cursor to the first line of text that you want to align, then choose **Align rest of paragraph** from the Layout pull-down, or press **^B**. If the new left margin indents the paragraph, place the cursor at the beginning of the line before you align.

If you are using a temporary indent (**^OG**), the temporary indent column is used as the left margin. WordStar stops aligning at the next hard carriage return (shown by the < flag at the right side of the screen).

You can align more than one paragraph by choosing **Align rest of document** at the Layout pull-down or by pressing **^QU**. You can stop aligning by pressing **^U**.

When aligning a whole document, you can mark certain sections of text, such as tables or charts, that you do not want to align. Place the cursor on the line above the section and type the dot command **.aw off**. Type **.aw on** on the line before you want aligning to resume.

When you use **.aw off** to turn auto-align off, word wrap and justification are turned off as well. When the cursor is in a portion of text that will be aligned, the word *Align* appears in the status line.

If you change margins in a note and want to realign all subsequent notes, press **^ONU**. For more information, see **Footnotes and endnotes.**

With auto-hyphenation on (**^OH**), WordStar hyphenates words while you're aligning. See **Hyphenation**.

TIP *Use the **^PO** command to create a binding space between words you want to remain together on the same line. A phrase that uses binding spaces instead of normal spaces is treated as one word. See **Binding space**.*

^OA turns off auto-align for the current editing session, but the next time you edit the file, auto-align will be on again.

TIP *You can use the **.pf** command to align text at print time. This command is mostly used with merge printing but can also be used with regular printing. See **Merge printing**.*

You can align paragraphs automatically after substitutions during find and replace operations by using the **A** option on the Find and Replace screen. See **Finding and replacing**.

Alternate type. See **Pitch** and **Fonts**.

Annotations. See **Footnotes and endnotes.**

ASCII

ASCII (American National Standard Code for Information Interchange) is a standard file format that lets different types of computers interpret information in the same way.

Files in ASCII format do not include formatting such as justification or word wrap. WordStar nondocument files are ASCII files. Using WordStar, you can create ASCII files or convert files from document format to ASCII format.

Creating ASCII files

To create an ASCII file, you must open a nondocument file. To do this, choose **Open a nondocument file** from the File pull-down at the Opening screen, or press **N** at the classic Opening Menu.

*CAUTION Don't add print enhancements (such as boldfacing) to a nondocument file; you're likely to get unexpected results if you do. Also, should you open an ASCII file in document mode by mistake, exit the file without saving it (^**KQ**). If you save it, WordStar adds formatting codes to the file.*

For more information, see **Documents and nondocuments.**

Converting files to ASCII format

To convert a document file to ASCII format, print the file to disk. Use one of the print commands to display the Print dialog box. At the *Printer name* prompt, choose ASCII. At the *Redirect output to* prompt, type the name you want to give the ASCII file. Press **F10** or ^**K** to start printing.

If you don't type a filename, the file is named ASCII.WS. See also **Printing to disk.**

Converting ASCII files to document files

To convert an ASCII (or nondocument) file to a document, reopen it as a document. To make paragraphs, press ^**6** at each line, except at the last line of each paragraph and the blank lines between paragraphs. (Use the 6 at the top of the keyboard and not the 6 in the numeric keypad.) This changes hard carriage returns to soft returns. Then align the entire file (^**QU**).

Auto-align. See **Aligning text.**

Auto-hyphenation. See **Hyphenation.**

Auto-indent

Auto-indent is available only for nondocuments. As lines are typed, this feature indents them automatically. Auto-indent is especially useful for programming in languages such as C, since the practice in structured programming is to indent the same amount for each level of nesting.

To turn auto-indent on, use the ^**6** command. Hold down **Ctrl** and type the number **6.** (Use the number key above the letter keys; do not use the number on the numeric keypad.) When auto-indent is on, *Auto-In* appears in the status line. Press the **Tab** key, ^**I**, or the **Spacebar** to move the cursor to the column to which you want subsequent lines to be indented. Begin typing. Each time you enter a carriage return, WordStar begins the next line at the column you chose.

To increase the amount of the indent, add blanks or tabs at the beginning of the line where you want the increased indent. To decrease indenting, erase blanks and tabs. WordStar indents the next line with exactly the same number of tabs and spaces as the previous line.

To turn auto-indent off, press **^6** again.

For information on indenting the first line of every paragraph in a document, see **Paragraph margins**.

B

Background printing. See **Printing a file**.

Backup files

Each time you save a file, WordStar saves the previous version of the file as a backup and gives the backup filename a .BAK extension.

TIP *While you're working in a file, it's a good idea to periodically save the work you've done so far. Choose* ***Save file, resume editing*** *from the File pull-down, or press* ***^KS****. If your working file is damaged, you can use the backup version. For important files, it's also a good idea to keep extra copies of your files on separate disks in case the original disk is lost or damaged. See* ***Copying****.*

Note: On some computers, you can have WordStar back up your file automatically every few minutes. Use WSCHANGE to choose this option.

If you open a .BAK file, you'll be in Protected Mode. (The word *Prtect* appears in the status line.) You can view the file but not edit it. See **Protecting a file**. To edit a .BAK file, you must first rename it with a different extension. See **Renaming a file**.

Bidirectional printing

Many printers can print lines while the printing element is moving to the left. On some printers, you can turn bidirectional printing off to improve print quality, or on to speed up printing.

The default setting for bidirectional print is on. You can turn bidirectional printing on or off using the **.bp on** and **.bp off** dot commands.

TIP ***.bp 0*** *(zero) is the same as* ***.bp off****;* ***.bp 1*** *(one) is the same as* ***.bp on****.*

You can change the default setting for each of your printers with PRCHANGE.

Binding space

The binding space command (^**PO**) keeps two words together on the same line. To insert a binding space between two words in your text, press ^**PO** between the words instead of pressing the **Spacebar**. On the screen, the binding space is displayed as ^O when display is on. You can insert binding spaces between a string of words to keep a phrase together on the same line. See also **Aligning text**.

Blank lines

To insert a blank line in your text, be sure that insert is on, move the cursor to column 1, and press ↵. The hard carriage return symbol (<) appears in the flag column, and the cursor goes to the beginning of the next line. You can also press ^**N** to insert a blank line and leave the cursor at its original position.

If the text is single-spaced, ↵ inserts one blank line. If multispacing is turned on with ^**OS** or **.ls**, ↵ adds the appropriate number of lines, with the first one having a soft carriage return at the end; for example, if text is double-spaced, ↵ inserts two blank lines. You can customize this feature with WSCHANGE to make ↵ create one blank line in double-spaced text. See also **Line spacing**.

Block math

You can total the numbers in a marked block, even if the block has words in it. First mark the block. Then choose **Block math (add numbers)** from the Other pull-down, or press ^**KM.** WordStar displays the total at the top of the screen. Press **Esc** to return to editing.

To insert the last math total in your document, press **Esc** and then = (or **Esc $** for dollar amounts). See also **Shorthand**.

WordStar uses the following rules to determine whether digits it encounters in a marked block are part of a number:

- A number is any set of digits (the characters 0–9).
- A hyphen in front of a digit is considered a minus sign.
- A period is considered a decimal point when the character immediately after it is a digit.
- The letter "e" surrounded by digits is considered scientific notation (for example, "2e25" means 2×10^{25}).
- The maximum number of digits in a number is 30.
- A number within parentheses is considered negative.

Numbers in dot command lines are ignored.

Answers have a maximum precision of 12 digits. If the answer is longer, WordStar gives the closest answer it can, using scientific notation.

See also **Blocks** and **Column blocks**.

Blocks

A block is text that you mark so you can perform a task on it, such as delete, move, or copy it. It can be one character, a phrase, or pages long. You can also mark a column as a block. See **Column blocks**. The maximum block size depends on your computer.

To create a block, mark its beginning by placing the cursor there and choosing **Begin block**. Then place the cursor at the end of the block and choose **End block**. These commands are on the Edit pull-down. The corresponding classic commands are **^KB** (beginning) and **^KK** (end).

TIP *It's a good idea to turn display on (**^OD**) before you mark a block to see what commands you're including in the block. For example, if you mark boldfaced text, be sure to include both the beginning and end boldface commands.*

When you mark a block, the marker for whichever end you mark first appears. The marker <B> appears at the beginning of the block or <K> at the end. On most computers, once you've marked both ends of the block, the marker disappears and the block is highlighted. The B and K flags appear in the flag columns of the lines containing the beginning and end of the block.

TIP *If both markers appear in your text and the block isn't highlighted, you may not have marked the block correctly. Make sure the beginning marker precedes the end marker. If column mode is on, be sure the end marker is to the right of the beginning marker. See also **Column blocks**.*

Only one block at a time can be marked in each window. To move a marker (and change the beginning or end of the block), move the cursor to the new location and use the begin block or end block command again.

To include the carriage return in the last line of a block, place the end marker at the beginning of the next line.

To erase a marker, use the same marker command with the cursor immediately to the right of the marker.

WordStar deletes block markers from a file when you exit it.

TIP *Operations with two or more small blocks can be faster than with one large block. The distance involved in block operations can also affect the speed of the operations. For example, when you need to move a block a distance of 25 pages, writing the block to a new file, then reading in the file at the new location may be faster than moving the block.*

Block commands

The chart below shows the commands for manipulating blocks of text.

COMMAND	FUNCTION
These commands are on the Edit pull-down or the Block & Save classic menu:	
^KB	Marks the beginning of a block.
^KK	Marks the end of a block.
^KH	Hides the block markers (and block highlighting) on the screen. Use **^KH** again to make them reappear. If you hide a block or a marker, and then mark a new block, WordStar displays the new block. At all help levels but 0, hiding the markers is also a safety measure. At these levels, WordStar won't move, copy, erase, or write blocks when the markers are hidden.
^KC	Copies a block to the current cursor position in the same window.
^KV	Moves a block to the current cursor position in the same window.
^KY	Deletes a block. The cursor doesn't have to be anywhere near the block. After deleting, the cursor is positioned where the block used to be. You can restore an erased block using the undo command (**^U**). See **Undo and unerase**.
^KW	Stores (writes) the block on a new file on the disk, or appends the block to an existing file. If the file already exists, WordStar asks if you want the existing file to be replaced with the new block or if the block should be added to the end of the existing file. The original block remains in your working file.
^KR	Inserts (reads) a file into the document you're currently editing. This command is useful for inserting standard paragraphs, combining documents, or inserting spreadsheets. See **Inserting text and files.** You can also use **^KR** to insert a copy of the current file into itself. The inserted text is the original version of the document before you started editing, or the version you saved with the most recent save and continue command (**^KS**).
^KN	Turns column mode on or off, allowing you to work with column blocks. See **Column blocks**.
^KI	Turns column replace on or off, changing the way column blocks are handled. Column replace works only if column mode is on.

COMMAND	FUNCTION
These commands are on the Window pull-down or the Block & Save classic menu:	
^KA	Copies a block from one window to the current cursor position in the other window. See **Windows.**
^KG	Moves a block from one window to the current cursor position in the other window.
This command is on the Other pull-down or the Block & Save classic menu:	
^KM	Totals the numbers in the block and displays the result. You can then insert the result into the document by pressing **Esc** and then =. See **Block math** and **Shorthand.**
These commands are on the Go To pull-down or the Quick classic menu:	
^QB	Moves cursor to the beginning of block.
^QK	Moves cursor to the end of block.
These commands are on the Block & Save classic menu:	
^KZ	Sorts lines in the block alphabetically. See **Sorting text.**
^K'	Converts all characters in the block to lowercase. See **Case conversion.**
^K"	Converts all characters in the block to uppercase. See **Case conversion.**
^K.	Converts the case in the block so the first letter of each sentence is uppercase and all other text is lowercase. See **Case conversion.**
^K?	Displays the number of words and characters in a block. See **Word count.**

See also **Block math** and **Column blocks.**

Boldface

To boldface text (as in **this example**), place the cursor where you want the boldfacing to start and choose **Bold** from the Style pull-down, or press **^PB**. The symbol ^B appears on your screen but is not counted as a character space in the status line. Any text after the ^B is highlighted on the screen.

To mark the end of the boldfacing, place the cursor where you want boldfacing to end, and use the boldface command again. The highlighting stops. The printer boldfaces the highlighted text.

To delete boldfacing, place the cursor on the ^B and press **Del** or **^G**. Be sure to remove both the beginning and end boldface markers.

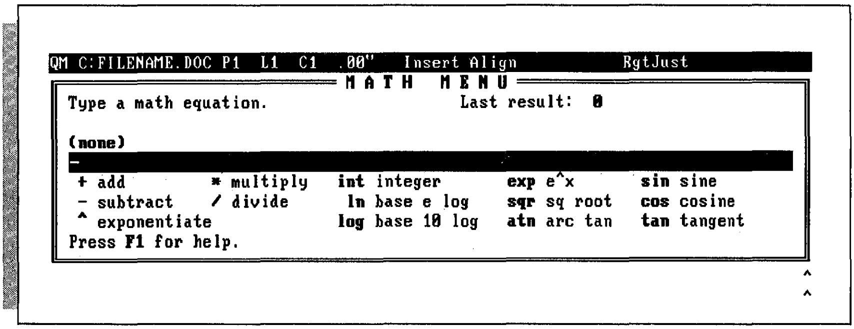
Note: With many proportional fonts, bold characters are larger than regular characters, so you may not get as many characters on a line.

See also **Double strike**.

C

Calculator

To use the onscreen calculator while you are editing, choose **Calculator** from the Other pull-down, or press ^**QM**. WordStar displays the Math Menu.



```
QM C:FILENAME.DOC P1  L1  C1  .00"  Insert Align          RgtJust
                         M A T H   M E N U
  Type a math equation.                 Last result:  0

  (none)
  -
  + add        * multiply  int integer    exp e^x     sin sine
  - subtract   / divide    ln base e log  sqr sq root cos cosine
  ^ exponentiate           log base 10 log atn arc tan tan tangent
  Press F1 for help.
```

Type the equation you want to solve and press ↵. (Do not type an equal sign (=) at the end of the equation.) WordStar displays the answer.

When you're done with the calculator, press ^**U** (or press ↵ again) and WordStar returns you to editing.

At the Math Menu, you can use ^**R** to reenter the previous equation. You can then edit the equation and recalculate it.

The Math Menu provides all the usual mathematical operations: addition, subtraction, division, multiplication, and exponentiation. It also provides natural and common logarithms, square root, integer, and the trigonometric functions sine, cosine, tangent, and arctangent, which work with angles in degrees; for example, to find the sine of 45 degrees, type **sin(45)**. (Do not type a space before the parentheses.)

Equations are normally evaluated from left to right, except that exponentiation takes precedence over multiplication and division, which take precedence over addition and subtraction. You can change the order in which WordStar performs operations by using parentheses ( ) to enclose operations that are to be done first. Be sure to use parentheses in pairs. For example:

500*.001*(((.001+1)^180)/(((.001+1)^180)–1))

WordStar always performs the operation within the innermost set of parentheses first. WordStar uses its normal order of precedence when performing the operations within parentheses. You can nest up to 32 pairs of parentheses; however, the equation can become too complicated for WordStar before that level is reached. If an equation is too complicated, a message appears.

You can use scientific notation to enter a long number. For example, 1.23e25 represents the number 12300000000000000000000000. Answers have a maximum precision of 12 digits. If an answer is longer, WordStar gives the closest answer it can, using scientific notation. The largest number WordStar can work with is 1e63. The smallest number is 1e-63, which is written out as a decimal point followed by 62 zeros, then a 1. (WordStar uses 14-digit BCD floating-point math internally.)

After you return to editing, you can enter the result of the last calculation (or the last equation itself) into your text at the cursor position with one of the three shorthand commands described below.

COMMAND	FUNCTION
Esc =	Enters the number result of the last calculation.
Esc $	Enters the number result formatted as a dollar amount; for example, 12345 would change to 12,345.00. (You can use WSCHANGE to change the format of the number displayed for **ESC $**.)
Esc #	Enters the last equation.

For information about performing calculations on merge-printed variables, see **Merge printing**.

Canceling a command. See **Undo and unerase**.

Caps Lock key

Press the **Caps Lock** key to type text in capital letters. Press the key again to return to lowercase. The **Caps Lock** key affects only the alphabetical keys on the keyboard. It does not affect the number keys or symbol keys.

Case conversion

You can convert all the letters in a block to lowercase or all to uppercase, or you can convert all letters to lowercase except the first letter of every sentence. After you mark a block (**^KB**, **^KK**), press **^K"** to convert to all uppercase letters. To convert to lowercase, press **^K'**. To convert to sentence case, press **^K.**. When you convert to sentence case, the first letter following a period, question mark, or exclamation point and a space is capitalized. All others, except the letter I when it appears by itself, are lowercase. Do not hold down the **Ctrl** key when you press " or ' or **.**. See also **Blocks**.

Centering text

To center a line of text, place the cursor anywhere on the line and choose **Center line** from the Layout pull-down, or press **^OC**. WordStar centers all the characters on the line between the current margin settings. Spaces before or after the text are ignored.

If you add or delete characters on a centered line, use **^OC** again to center the edited line.

If you later want a centered line to align on the left margin, move the cursor to column 1 and press **Del** or **^G**.

To center a group of lines, type **.oc on** on the line above the lines you want centered and **.oc off** on the line following the lines you want centered. To center existing text, place the cursor on the first line to be centered and use **^B** or **^QU** after you enter the dot commands. Centered lines must end in a hard return. To delete centering, remove the dot commands and realign the text.

You can also center data during merge printing by using a special formatting command. See **Merge printing variable formatting**.

Chaining files. See **Nesting and chaining**.

Character width

Character width is the amount of horizontal space taken up by each character in a nonproportional font. In a proportional font, where characters take up different amounts of space, the character width is an average.

The easiest way to change character width is to choose a font with the desired character width. See **Fonts**.

You can also use the **.cw** dot command. The **.cw** command measures character width in units of 1⁄120 inch. For example, 12⁄120 inch (10 characters per inch) is written as **.cw 12**.

Character width has a direct effect on the number of characters you can fit on a line. The following table shows several settings for the **.cw** command, and the resulting number of characters per inch.

DOT COMMAND	CHARACTERS/INCH
.cw 6	20
.cw 7.5	16
.cw 10	12
.cw 12	10
.cw 15	8
.cw 24	5

TIP *You can use* ***.cw*** *to specify your two most frequently used fonts, then quickly change fonts using* ***^PN*** *and* ***^PA****. See also* ***Fonts****.*

If you're using a proportional font, changing the character width may cause WordStar to select a different font that more closely matches the new character width.

Clearing the screen

Although it happens rarely, electrical interference or a message from the operating system can cause extra characters to be displayed on your screen. They're not actually in the file—they're only onscreen. To clear the screen and redisplay everything correctly, press ^\.

To clear the screen for printing messages, use the **.cs** dot command. For more information, see **Messages while printing.**

Color

To print text in a different color (if you have a color printer), place the cursor where you want the new color to start and press **^P–**. You'll see the color currently in effect and a list of 16 standard colors. Move the highlighting to the color you want and press ↵. If display mode is on, a command tag stating the color (for example, <RED>) appears on your screen. Text following the command tag prints in the new color until you change the color again.

To remove the color, place the cursor on the command tag and press **Del** or **^G**.

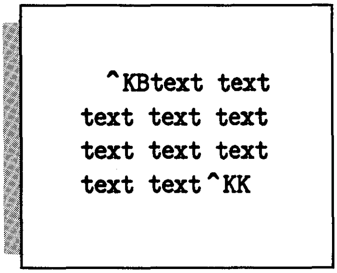
If your printer isn't capable of printing the color you choose, the tag will be ignored at print time. If you have a laser printer that can't print colors, the text prints in reverse or with different background patterns. See your printer manual for more information on the colors available on your printer.

You can set the default color in WSCHANGE.

If you have a color monitor, you can use WSCHANGE to change the colors of the WordStar menus and other items onscreen.

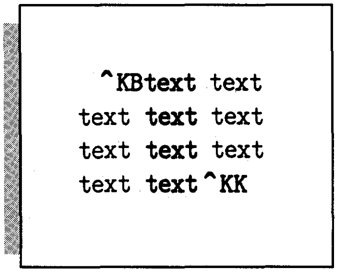
Column blocks

In column mode, you can perform block operations with column blocks, as opposed to regular blocks. When you mark a block with column mode on, the beginning and end block markers define the top left and bottom right corners of the block.



^KBtext text
text text text
text text text
text text^KK

column mode off



^KBtext text
text **text** text
text **text** text
text **text^KK**

column mode on

You could use column mode, for example, to switch two columns of information in a table.

TIP *If your text contains print control characters (such as ^B for bold), turn on the display of print controls (**^OD**) before marking the block to be sure you include the print controls in the block. (If the last character in a column block is a print control character, place the cursor directly after the control character before marking the end of the block.) Then turn off the display of print controls to make sure you have included all the columns you intend.*

A dot command is not considered to be a part of a column block. If you move or delete a column block, a dot command within the block remains at its original location.

When working with column blocks, use the regular block commands for your block operations.

CAUTION *When you insert a file (**^KR**) in column mode, WordStar expects the file being read to be a column (that is, it inserts the file one line at a time, and it expects all the lines to be the same length). If a line in the block is not the same length as the previous lines, WordStar stops and warns you.*

When sorting a column block, WordStar uses the highlighted portion of each line to determine how to sort the entire line. See **Sorting text**.

The commands used for column blocks (described below) are on the Edit pull-down.

COMMAND	FUNCTION
^KN	Turns column mode on and off. If there are block markers in the text, the display changes to show the new mode. When column mode is on, the word *Column* appears in the status line.
^KI	Turns column replace on and off. Column replace is effective only when column mode is on. When column replace is on, *ColRepl* appears in the status line, and a moved, copied, or inserted block replaces any text at the cursor. If a block is moved or deleted, spaces replace the block at its original location, leaving a "hole." If column replace is off, a moved, copied, or inserted block pushes over any text at its new location. For a moved or deleted block, surrounding text fills in the space that was originally occupied by the block.

When column replace is on, you can use the undo command (^**U**) to restore any text that was replaced by the block most recently moved, copied, or inserted. For example, you can use ^**U** if you moved a column and intended to insert it, but forgot that column replace was on.

CAUTION *When you delete text that's too long to fit in the undo buffer, WordStar usually displays a warning message and gives you a chance to cancel the command. If a block that is erased during a column replace operation is too long, no message appears and you can lose text. See also **Undo and unerase.***

Columns

You can use two types of columns, tabbed columns (good for charts and tables) and newspaper-style columns (good for newsletters).

Tabbed columns

Use tabbed columns to type charts or tables. First set tab stops where each column of text is to begin. If you're typing columns of numbers, you probably want to set decimal tabs for each column. Decimal tabs align all the numbers by their decimal points.

TIP *If you type the same type of chart often, you can set up a customized ruler line that automatically sets tabs for the chart. See **Ruler lines.***

Use either **^I** or the **Tab** key to move the cursor to the beginning of each column and type the text for that line. You may want to turn word wrap off (**.aw off**) when you type a chart so text doesn't accidentally wrap to the next line.

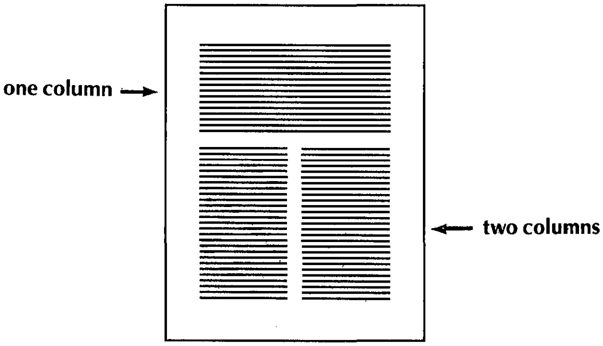
TIP *When you proofread columns, it helps to turn off the display of print control characters (**^OD**) so you can see how your text will line up.*

Newspaper-style columns

Newspaper-style columns are used for newsletters. To turn on newspaper-style columns, type **.co** and a number from 1 to 8 to specify how many columns you want. You can also add a comma and the amount of space you want between columns. For example, **.co4,2** gives you four columns of text with two tenths of an inch between them. You can specify this space in columns (2) or inches (.2").

Each column is as wide as the current ruler line and uses the margin and tab settings in effect when you enter the column command.

When you fill the first column on a page with text, WordStar enters a column break and wraps text to the next column. The column break appears onscreen as a dashed line with a C in the flag column. To show what column you're in, one arrow appears at the beginning of each line in column 1, two arrows in column 2, and so on. When you fill the last column on a page, WordStar starts a new page.



T I P *The columns do not appear next to each other onscreen. To see how they will look when printed, use the page preview feature (if you have a graphics monitor). For information, see* ***Page preview****.*

If you edit your document, column breaks adjust as necessary. If you want to keep a number of lines together in the same column, for example, a holiday schedule, use a conditional column break. Type the dot command **.cc** directly above the lines you want kept together, then type the number of lines. For example, **.cc4** keeps the next four lines together in the same column.

To start a new column before the end of the page, type the dot command **.cb**. If you type **.cb** in the last column on a page, WordStar starts a new page. This kind of column break does not move when you make changes in your document.

To turn off newspaper-style columns and begin regular page layout, type the dot command **.co1** or **.co** at the top of the next page.

To change existing newspaper-style columns to regular page layout, remove the **.co** command and any **.cb** and **.cc** commands you might have entered, and realign the text.

If you use newspaper-style columns, any footnotes within the columns will become endnotes.

See also **Column blocks, Decimal tabs,** and **Tabs**.

Command files

Command files contain only dot commands and no text; they can be very useful for merge printing and for chaining files. Command files often contain merge print dot commands, commands that display messages while you print (**.dm**), and the **.fi** (insert a file) command.

The example below is a sample command file for chain printing several files and displaying messages as you print.

```
.fi cover.let
.dm The letter is printed . . .
.fi proposal.doc
.dm The proposal is printed . . .
.fi spec.doc
.dm The specification is printed. Printing is finished.
```

If any of the inserted files contain merge printing variables, be sure to use merge print to print the command file. The actual command file is not printed because it has nothing in it but dot commands.

See also **Dot commands**, **Merge printing**, **Messages while printing**, and **Nesting and chaining**.

Comment lines

You can enter comments and instructions that appear on the screen but are not printed. Unprinted comments are useful for reminders about what print wheel to put in the printer, when the document was created, who processed it, and what page formatting commands were used, as well as questions for reviewers.

To insert a comment in your text, place the cursor where you want the comment to begin and press **^ONC**. Type the comment in the new window at the bottom of the screen. When you finish typing the comment, choose **Close and save window** from the Window pull-down, or press **^KD**. The window disappears. When display (**^OD**) is on, the first few words of the comment appear in a tag onscreen to remind you of its contents. If display is off, the tag does not appear.

To view or edit the contents of a comment, turn display on, move the cursor to the comment tag in your text, and press **^OND**.

TIP *Any comment entered with ^ONC can be converted to a footnote, endnote, or annotation. For more information, see* ***Footnotes and endnotes****.*

If you want to enter short comments that appear onscreen even when display is off, type the dot command **..** (or **.ig**) followed by the text of the comment. Word wrap doesn't affect dot commands, so you can make the line as long as you want. See also **Dot commands**.

Control key

The key labeled **Ctrl** on your keyboard is used with other keys to form WordStar commands. On menus and in documentation, the control key is shown by the caret symbol (^). To issue a control command, hold down the **Ctrl** key while you press the letters of the commands.

Copying

You can copy blocks of text and files. Copying makes an exact duplicate of whatever is being copied; the original is preserved, not erased.

Copying a file

To copy a file, choose **Copy a file** from the File pull-down (Opening or Edit screen). The classic commands are **O** at the Opening Menu or ^**KO** while you're editing. Type the name of the file to be copied and press ↵. Type the name of the file to copy to and press ↵.

Unless you specify otherwise, WordStar assumes the file you name to be copied is on the current drive and directory. You can copy a file that is on another drive or directory by typing the path with the filename. You can also put the copy on another drive or directory by typing the path with the filename.

You can use the same filename if you copy from one drive or directory to another. But you cannot have two files with the same name in the same directory.

If the filename you give for the new copy already exists, WordStar asks if you want to replace the old file with the new copy. If you answer **Y**, WordStar deletes the old file and replaces it with the new file. If you answer **N**, WordStar does not copy the file. You can start again and use a different filename.

Copying text

To copy text, first mark the text as a block. Then use one of these commands:

- To copy the block within a document, choose **Copy block** from the Edit pull-down, or press ^**KC**.
- To copy a block from a window, choose **Copy block from other window** from the Window pull-down, or press ^**KA**.
- To copy a block from a document into a new file or to append the block to an existing file, choose **Write block to file** from the Edit pull-down, or press^**KW**.
- To copy an entire file into the current document, choose **Insert a file** from the Edit pull-down, or press ^**KR**.

See also **Blocks**, **Windows**, and **Inserting text and files**.

Creating a document or nondocument

To create a document, choose **Open a document file** or **Speed Write** from the File pull-down (Opening screen). The classic commands are **D** or **S** at the Classic Opening Menu. If you choose **Open a document file** (**D**), you name the file before you open it; if you choose **Speed Write** (**S**), you name the file when you save it. See also **Speed Write**.

To create a nondocument (a program or data file), choose **Open a nondocument file** from the File pull-down or press **N** at the classic Opening Menu. (To have **Speed Write (S)** open a nondocument file, use WSCHANGE to make nondocument the default file format.)

The following explanation applies to both documents and nondocuments.

At help level 2 or above, when you give a name for the file that's not in the current directory, WordStar asks, *Create a new one?* WordStar doesn't assume you want to create a new document, since there's a chance you mistyped the name of an existing one or the file is on a disk or in a directory other than the one you specified. (At help level 0 or 1, WordStar opens a new document without asking.)

When you open a new file, it's blank. You can begin typing or insert other files.

You can also open a file without going through the Opening screen. When you start WordStar, name the file at the operating system prompt as shown in the example below.

```
A>ws first.doc
```

If necessary, include a drive letter or directory path:

```
A>ws c:\ws5\letters\first.doc
```

Files you open from the operating system prompt are always documents. To open a file in nondocument mode, type an **n** after the filename:

```
A>ws first.doc n
```

To change the default file format to nondocument, use WSCHANGE.

See also **Documents** and **nondocuments** and **Starting WordStar**.

Cursor

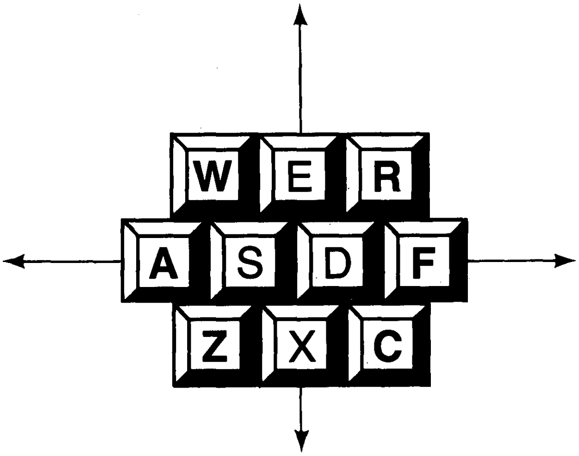
The cursor is a small blinking rectangle or line on the screen that marks your place. Whatever you type appears where the cursor is.

TIP *Some monitors have difficulty displaying some cursor shapes. To change the shape of the cursor, use the WSCHANGE program.*

Cursor diamond

You can move the cursor in your document without moving your fingers from the home keys on your keyboard.

The four basic keys that are used with the **Ctrl** key as commands to move the cursor up one line (^**E**), left one character (^**S**), right one character (^**D**), and down one line (^**X**) form a diamond on the keyboard. The keys used with the **Ctrl** key as extended movement commands radiate out from the center of the diamond.



See also **Cursor movement keys** and **Cursor movement and scrolling**.

Cursor movement keys

The cursor movement keys are used to move the cursor. Depending on your keyboard, they may be located on the numeric keypad or at another location on the keyboard.

TIP *If the cursor movement keys on the numeric keypad don't work, press the* ***Num Lock*** *key. The* ***Num Lock*** *key switches between the cursor movement commands and the numbers on the keys.*

Most of the cursor movement keys work one way when pressed alone and another way when pressed together with the **Ctrl** key. Each cursor movement key command can also be entered using the cursor control commands on the cursor diamond. The chart below shows all the cursor movement key commands, their functions, and the corresponding cursor control commands.

CURSOR MOVEMENT KEY	WHERE THE CURSOR MOVES	COMMAND
Home	column 1 in first onscreen line	**^QE**
^Home	beginning of file	**^QR** (also on the Go To pull-down)
↑	up one line	**^E**
PgUp	previous screen	**^R**
^PgUp	scroll up	**^W**
←	left one character	**^S**
^←	left one word	**^A**
→	right one character	**^D**
^→	right one word	**^F**
End	left end of last onscreen line	**^QX**
^End	end of file	**^QC** (also on the Go To pull-down)
↓	down one line	**^X**
PgDn	next screen	**^C**
^PgDn	scroll down	**^Z**

See also **Cursor diamond** and **Cursor movement and scrolling.**

Cursor movement and scrolling

When you're editing, you can use the cursor movement keys and the cursor control commands to move the cursor and to scroll the text. Scrolling allows you to move another portion of text onto the screen, either vertically or horizontally. The cursor commands move the cursor across text. Moving the cursor does not change the text in any way.

The cursor cannot move into parts of the screen where you haven't already typed a character (a blank space you enter with the **Spacebar** is considered a character). For example, if the cursor is at the end of a line of text, and you use **^X** to move the cursor down, it usually doesn't go straight down. Instead, it moves to the end of text on the lower line.

You can use the cursor control commands combined with **^Q** for quick movement and scrolling.

The chart below describes all commands used for cursor movement and scrolling, including the **^Q** quick movement commands.

TO MOVE	PRESS
Up:	
one line	**^E** or ↑
to col. 1 in first onscreen line	**^QE** or **Home**
one line (scroll up)	**^W** or **^PgUp**
line by line to beginning of file	**^QW** (0–9 for speed)
to previous screen	**^R** or **PgUp**
directly to beginning of file	**^QR** or **^Home** (also on the Go To pull-down)
screen by screen to beginning of file	**^QQ^R** (0–9 for speed)
Left:	
one character	**^S** or ←
one word	**^A** or ^←
to column 1 of current line	**^QS** (also on the Go To pull-down)
Right:	
one character	**^D** or →
one word	**^F** or ^→
to end of current line	**^QD** (also on the Go To pull-down)
Down:	
one line	**^X** or ↓
to last onscreen line	**^QX** or **End**
one line (scroll down)	**^Z** or **^PgDn**
line by line to end of file	**^QZ** (0–9 for speed)
to next screen	**^C** or **PgDn**
directly to end of file	**^QC** or **^End** (also on the Go To pull-down)
screen by screen to end of file	**^QQ^C** (0–9 for speed)
Other:	
to marker (previously set)	**^Q 0–9**
to beginning of marked block	**^QB** (also on the Go To pull-down)
to end of marked block	**^QK** (also on the Go To pull-down)
to page or line (number)	**^QI*n*** (also on the Go To pull-down
to next page	**^QI +** ↵
to previous page	**^QI –** ↵
to previous position	**^QP**

TO MOVE	PRESS
Other: *continued*	
to last block location or find string	**^QV**
to specified letter (forward)	**^QG***x*
to specified word or phrase	**^QF *word or phrase*** (also on the Go To pull-down)
to paragraph end	**^QG** ↵ (also on the Go To pull-down)
to specified letter (backward)	**^QH***x*
to next font change	**^Q=** (also on the Go To pull-down)
to next note	**^ONG**
to other window	**^OK** (also on the Window pull-down)

Note: To move the cursor forward or back a specified number of pages, press **^QI + *n*** or **^QI − *n***. For example, **^QI + 6** moves the cursor forward six pages.

See also **Scrolling** and **Finding and replacing**.

Custom print controls

The custom print controls let you take advantage of your printer's special features. For example, you can use the custom print controls to get double-width printing or to change the font socket on your printer. Once you define them, **^PQ**, **^PW**, **^PE**, and **^PR** add the specified command to your document whenever you use them. You define **^P!** each time you use it.

Before you use the custom print controls, you need to define them. (For some printers, the print controls are already set up for features on your printer. Refer to the information screen when you install your printer to see how these commands are set up for your printer.)

To define a custom print control, you tell WordStar the printer code for the special feature you want the command to enter in your text. You can define the custom print controls two ways: by using PRCHANGE or by using dot commands in your document. When you use PRCHANGE, you can customize the controls for each of your printers. When you use dot commands, they override PRCHANGE for that document only.

The dot commands **.xq**, **.xw**, **.xe**, and **.xr** each define the corresponding **^P** custom print control command. For example, the **.xq** dot command defines the **^PQ** print control command.

Each custom print control dot command can be followed by up to 24 hexadecimal character codes.

For example, if you want **^PQ** to turn on double-width printing on an Epson printer (look in the printer manual to find out what the printer codes are for your printer), you would type:

.xq 1B 0E

When you press **^PQ** below this dot command in your file, ^Q appears on your screen and WordStar inserts the Epson code for double-width printing at print time.

If you type a dot command without hex codes, the corresponding print control is disabled.

You can redefine the print controls as many times as you wish in a document. If you print a document that doesn't have dot commands redefining the custom print controls, WordStar uses the customizations from PRCHANGE if there are any.

TIP *If you want the custom print controls to issue codes that are more than 24 hexadecimal characters long, you can use PRCHANGE to type a longer code.*

^**P!** is useful for codes you use only once in a document, such as a special print command. Each time you press **^P!**, you are prompted for the print code. To include a control character, type a caret (^) before the character. To include a caret, type **%^**. To include a percent sign, type **%%**. To include an escape, type **^[**.

To use the hexadecimal code for the characters, type **%x** before the hex code. For example, to type the hex code FB, type **%xfb**.

When you use any of the custom print controls, keep these points in mind:

- Control codes for different brands and models of printers are usually different. Custom print controls that work on one printer may not work properly on another.
- Don't use the custom print controls for standard print features like boldface and underscore.
- There may be interactions between the print controls you are using and the printer description file (PDF). In fact, the PDF may inadvertently cancel your print control. If you need more control over your printer than the custom print controls allow, you can experiment with the CUSTOM and SIMPLE PDFs.

See also **Dot commands**, **Printer description files**, and Appendix C, "Customizing WordStar."

Customizing WordStar

WordStar has two programs that let you easily customize how WordStar works: WSCHANGE and PRCHANGE.

Use WSCHANGE to tell WordStar about your computer or to change the default settings; for example, you might want to change WordStar so that justification is normally off instead of on, or you might want to change the default left or right margin. The menus in WSCHANGE allow you to change a number of settings easily.

WSCHANGE has a feature called the auto-patcher that lets you save all or any portion of the settings you've customized so that you can easily transfer them to a fresh copy of WordStar. If you make extensive customizations, it can be very convenient to use the auto-patcher so that you don't have to reenter all of your changes in WSCHANGE.

Use PRCHANGE to customize how WordStar works with your printer and to change the default printer settings; for example, you can specify a different port for each printer or turn form feeds on for a laser printer.

For information on using WSCHANGE and PRCHANGE, see Appendix C, "Customizing WordStar."

D

Data files

A data file is a nondocument file that holds information to be merged into a document using merge printing. For example, you can merge data from a mailing list into a form letter.

A data file consists of a series of records. Each record consists of several fields, or items of information. For example, a mailing list has one record for each person, and each record has a field for name, a field for address, and fields for city, state, and ZIP code.

You can create your own data files, or you can use data files from dBASE, Lotus 1-2-3, Symphony, or MailList™. For information on creating your own data files, see the section below. For information on using other data files, see **Merge printing**.

Creating data files

To create a data file, choose **Open a nondocument file** from the Opening screen File pull-down, or press **N** at the classic Opening Menu. Then type your information.

Make sure that the fields are in the same order in all records. Separate fields with commas or carriage returns. If a field contains a comma, enclose the entire field in quotation marks. If a field is empty (you have no information for it in this record), indicate the blank field with a comma. You can enter blank spaces at the beginning and end of any fields if you want; they will be ignored when you use the data file for merge printing. Do not use dot commands in a data file.

CAUTION *The rules above are very important. If you enter any records incorrectly, you will not be able to merge print correctly.*

The example below shows a data file with three records. Each record has seven fields: last name, first name, first address line, second address line, city, state, and ZIP code. Note that in the first and second records, the blank second address line is shown with commas, and in the second record, the first name field is enclosed in quotation marks because it contains commas.

Weiss, Steven, 702 Rosemund Place, , Sebastopol, CA, 95472
Praskin, "Alan, Laurie, & Elena", 25 Oak St., , Salem, MA, 01976
Jaffe, Joe, 1120 25th Ave., Suite 155, San Diego, CA, 90010

If a field contains both a comma and quotation marks, you can use apostrophes to enclose the field. For example:

'John "Bud" Moore, Jr.'

You can select another character, such as the asterisk (*), to use instead of the comma as the data separator character. Use WSCHANGE to change the default data separator for all data files. You can also use the **.df** command. Before you use **.df**, create the data file using the data separator character you want. Then use **.df** in the document file you are using with the data file for merge printing. Normally **.df** is followed by the filename. If the file uses a different data separator than the default, follow the filename with a comma and the data separator character. In the example below, the data file MAILING.LST uses the / character as the data separator.

.df MAILING.LST, /

The rules given above for commas apply to any data separator character.

See also **Merge printing**.

Decimal tabs

A decimal tab stop allows you to vertically align the decimal points in a column of numbers. The example below shows a column aligned using a decimal tab.

1234.56
$432,697
.99
1.414679
3,419,733.00

TIP *You can also use decimal tabs to right-align columns of one word per line. The column aligns on the first space after the word.*

To set a decimal tab stop, choose **Margins and tabs** from the Layout pull-down and move the cursor to the *Tabs* field, or press **^OI**. To specify a decimal tab, type # before the tab location. For example, **#3** sets a decimal tab at 3 inches.

When you type new tab settings, the previous tabs are erased. To restore the existing tabs to the *Tabs* field, press **^R**. To clear all tabs, type **0** as the new tab setting.

You can also set a decimal tab by typing a # in a **.rr** ruler line or before a column number in a **.tb** command.

When you use **^I** or **Tab** to move the cursor to a decimal tab stop, the word *Decimal* appears in the status line. Each number (or other character) that you type is inserted to the left of the cursor until you type a decimal point or press the **Spacebar**. If no space remains to the left of the cursor, the decimal tab function is turned off. When you type a decimal point, *Decimal* disappears from the status line, and characters you type are added to the screen as they normally are.

See also **Ruler lines** and **Tabs**.

Defaults

Almost every option in WordStar has a preset, or default, setting. You can leave the settings as they are, change them for the file you're working in, or change them permanently.

To change settings within a document, use control commands or dot commands. For example, the default setting for justification is on. You can use **.oj off** to turn justification off for the current document.

You can use WSCHANGE to permanently change the default settings for many options.

Delays

In WordStar, a delay is a pause before an instruction is executed. WordStar uses delays for your convenience. For example, you may notice a one-second delay between pressing **^P** and the appearance of the classic Print Menu. This delay allows you to press the other key in the command, so WordStar can perform the command without displaying the menu. And, as you edit existing text, you notice a delay before the paragraph realigns.

You can change the length of the delays with WSCHANGE. Note that setting the delays to zero slows down WordStar because all menus will be displayed no matter how fast you type.

Delete key

The Delete key is marked **Del** on most keyboards. Press **Del** to delete the character at the cursor position. Hold down **Del** if you want to delete multiple characters.

After you delete characters to the end of a line, pressing **Del** deletes the carriage return. The next line jumps up to the cursor, and you continue to delete the characters in the new line.

Deleting text

The chart below shows the commands for deleting text.

TO DELETE	FOLLOW THESE INSTRUCTIONS
character, space, or print control at cursor	Press **^G** or **Del**.
previous character, space, or print control	Press **^H** or **Backspace**.
word	Place cursor on first character to delete and choose **Delete word** from the Edit pull-down, or press **^T**.
carriage return	Place cursor at end of line and choose **Delete word** from the Edit pull-down, or press **^G**, **Del**, or **^T**. To change a hard return to a soft return, press **^6** (using the 6 at the top of the keyboard and not the 6 on the numeric keypad).
line, blank line, or dot command line	Choose **Delete line** from the Edit pull-down, or press **^Y**.
line right of cursor	Press **^QY**.
line left of cursor	Press **^Q Del**.
from cursor to specific character	Press **^QT** and type the character.
sentence	Press **^QT** and type a period.
paragraph	Press **^QT** and press ↵.
page or text block	Mark beginning (**^KB**) and end (**^KK**) of block, then choose **Delete block** from the Edit pull-down, or press **^KY**.
file	Choose **Delete a file** from the File pull-down, or press **Y** at the classic Opening Menu or **^KJ** while editing.
footnote	Place cursor on tag and press **Del** or **^G**.

Note: If you want the **Del** key to delete the previous character, as it does in older versions of WordStar, you can change its function using WSCHANGE. You can also change the **Backspace** key to move left without deleting.

When you delete a file, you can use the * wild-card character to delete several files at once. For example, if you type ***.BAK** at the prompt, WordStar erases all backup files. You can also use the **?** wild-card character unless you have DOS 2.1, which doesn't recognize it.

TIP *Choose **Undo** from the Edit pull-down or press ^U to restore the last text deleted (except for single characters and files). See **Undo and unerase**.*

Dialog boxes

Dialog boxes appear onscreen when you have choices to make. Each dialog box contains one or more fields where you can enter information. For example, if you change the font in your document, the Font dialog box shows you the current font and a list of the fonts available on your printer. You choose the new font you want.

If a dialog box has more than one field, you can use **Tab** and **Shift-Tab** to move forward and backward among the fields, or use the arrow keys.

If a field offers choices from a directory, such as choosing a filename, use the arrow keys to move the highlighting to the name you want from the directory, then press ↵ to move the highlighted name to the field.

To accept the current answers in a dialog box, press **F10** or **^K**. If the cursor is in the last field on the screen, you can press ↵ to accept all the answers.

To abandon any changes and keep the original settings, press **F2** or **^U**.

Directories

A DOS directory is an area of a disk that you can create for storing files. When you first install WordStar, you create a directory (usually WS5) on your hard disk to store your WordStar files.

The directory display is a list of the files and subdirectories on a disk or in a directory. At the WordStar Opening screen, the directory display shows the files and subdirectories on the logged drive or directory in alphabetical order. To the right of each filename is the number of kilobytes the file takes up. Subdirectories are displayed above the filenames. To the right of each subdirectory is a backslash (\). If there are more files and subdirectories than can be displayed at one time, you can scroll the list using **^W** and **^Z**.

If you have more files than WordStar's directory storage area can hold (370), three dots (**. . .**) appear as the last item in the directory display.

Sorting the filenames in alphabetical order can take several seconds in a large directory. If you like, you can use WSCHANGE to permanently turn the sorting off.

Some files shouldn't be edited with a word processing program. These include command files (with the **.COM** or **.EXE** extension), program overlay files (**.OVR**), and temporary files (**$?$**, where **?** can be any character). WordStar does not list files with these extensions in its directory display even though the files are on the disk. You can change the filename extensions to be excluded using WSCHANGE.

You can press **F** at the classic Opening Menu to turn the directory display on and off. You can also use WSCHANGE to change the default setting for directory display to off. When you turn the display on, WordStar asks for a file specification for the directory display. You can use a wild-card file specification to display only certain filenames. For example, X*.LTR displays only filenames that begin with X and have the .LTR extension.

If you are editing and want to see the directory display, press the command to copy or rename a file. When you are finished looking at the filenames, cancel the command.

If you change the logged drive or directory (^**KL**), the directory display changes to show the files on the new logged drive and directory.

See also **Logged drive and directory** and **Paths**.

Displaying print codes

Print control characters show you which commands are in effect in your document. However, they take up space onscreen and may make text appear out of line. You can remove these codes from the screen while you edit. (Note that the commands remain in effect even when the codes aren't displayed.)

To remove print controls from the display, choose **Hide/display controls** from the Style pull-down, or press ^**OD**. Use the command again to redisplay the print controls. You can edit text with the display on or off.

Documents and nondocuments

Document files are usually text files, such as letters, memos, reports, or chapters in a book. Nondocument files are ASCII files, such as data files or computer programs.

When you work with documents, you can use all of WordStar's word processing capabilities, such as aligning, word wrap, and justification. With nondocuments, you cannot use many of these word processing features.

You open a document or nondocument from the File pull-down at the Opening screen. The classic commands are **D** for a document and **N** for a nondocument at the Opening Menu.

To choose a filename, use the cursor movement keys to move the highlighting to the filename and press ↵. You can also type the filename. If the file is on a different drive or directory, be sure to type the complete path and filename.

To go directly to a new document file without specifying a filename, choose **Speed Write** from the File pull-down, or press **S** at the classic Opening Menu. You'll be prompted to name the file when you save it. For more information, see **Speed Write**.

TIP *To go directly to a specific file when you start WordStar, type the filename on the command line. For example, type* ***ws \ws5\status.jan*** *to go directly to the STATUS.JAN file. For a list of options you can specify on the command line, see* ***Starting WordStar.***

Before editing a document in nondocument mode, you should convert the file to an ASCII file. Before editing a nondocument in document mode, you should change the hard carriage returns to soft returns. For more information, see **ASCII**.

The differences between documents and nondocuments are described below.

Menus Documents have the complete menus; nondocuments have abridged menus. In a nondocument, the **^O** command sets tab width rather than starting the onscreen format commands, and the **^6** command turns auto-indent on and off rather than changing hard carriage returns to soft returns.

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

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

Cursor Indicator In documents, the indicator on the status line shows page, line, and column. In nondocuments, the indicator shows only line and column.

Dot Commands WordStar checks dot commands in documents and changes the screen display accordingly. WordStar does not check dot commands in nondocuments.

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

Find The **Go to page** command on the Go To pull-down (**^QI**) finds a page number in documents; it finds a line number in nondocuments.

Note: WordStar marks the end of a file with a ^Z code. If you're creating nondocuments for use with a program that doesn't accept the ^Z code, use WSCHANGE to tell WordStar not to add this code.

Dot commands

Dot commands perform a variety of functions, mostly related to formatting. They are also used for merge printing, indexing, and creating tables of contents. You can enter a dot command on any line in a document. Type a period (dot) in column 1 and follow it with the command code and any other information that goes with it. (WordStar doesn't distinguish between uppercase and lowercase letters in dot commands.) Press ↵ to end the line. The line remains in your file but does not appear in the printout.

Note: Some dialog boxes and control commands automatically add the correct dot command to your file.

TIP *To have the dot commands in your file appear in the printout, print the file as a nondocument. See **Printing a file**.*

CAUTION *A dot command must start in column 1, and the line above it should end in a hard return.*

When you type a period in column 1, a question mark appears in the flag column. This is replaced by a colon, a period, or a 1 as soon as you type the second letter of the command. If you mistakenly type an invalid dot command, the question mark stays, but the line still isn't printed.

TIP *Sometimes a period within your text falls in column 1. This may happen when you use ellipses or decimals. WordStar interprets the line as a dot command and does not print it, unless you precede the period with two print control commands that cancel each other out, such as **^PB ^PB** for beginning and ending boldface. The print control commands do not affect the printed page, and the period prints in column 1.*

For dot commands that require additional information, you can put a space between the command code and the other information, but it isn't required. If you don't enter a number where a number is required, zero is used. Where on or off is required, you can also use 1 for on and 0 for off.

In a header or footer line, if you put more than one space between the dot command and the text, the extra spaces will appear in the header or footer.

"Applications" and the lessons in the "Training Guide" give examples of how dot commands work.

Note: Dot commands are not included as part of a column block.

The lists below show each dot command with the type of additional information required (if any), a brief description of the command's function, and the heading where you can find more detailed information. The commands are grouped by function.

Print formatting dot commands

These dot commands affect the printout but have no effect onscreen. WordStar flags these commands with a colon (:) in the flag column.

COMMAND	ADDITIONAL INFORMATION	FUNCTION
.bn	*number*	Selects a sheet feeder bin number, 1 through 4. See **Sheet feeders**.
.bp	on/off	Turns bidirectional print on and off. See **Bidirectional printing**.
.cv	x > x	Converts notes of one type to another at print time. See **Footnotes and endnotes**.

.fo	*text*	Gives the text for the first line of a footer. Type an **o** or an **e** after the dot command to specify separate footers or odd and even pages. See **Headers and footers.**
.f1	*text*	Same as **.fo.**
.f2	*text*	Gives the text for the second line of a footer. See **Headers and footers.**
.f3	*text*	Gives the text for the third line of a footer. See **Headers and footers.**
.fi	*filename*	Inserts the named file while printing. See **Nesting and chaining.**
.fm	*number*	Sets a footer margin. See **Headers and footers.**
.he	*text*	Gives the text for the first line of a header. Type an **o** or an **e** after the dot command to specify separate headers for odd and even pages. See **Headers and footers.**
.h1	*text*	Same as **.he.**
.h2	*text*	Gives the text for the second line of a header. See **Headers and footers.**
.h3	*text*	Gives the text for the third line of a header. See **Headers and footers.**
.hm	*number*	Sets a header margin. See **Headers and footers.**
.l#	*style spacing, column*	Turns line numbering on and off and can specify whether numbers are continous or restart on each page, whether numbers are single or double spaced, and where numbers print. Type **.l#0** to turn line numbering off. See **Line numbering.**
.op		Turns off page number printing. See **Page numbering.**
.pc	*number*	Specifies where to print page numbers. Type **0** to center page numbers. See **Page numbering.**
.pe		Specifies the location to print endnotes. See **Footnotes and endnotes.**
.pg		Turns on page number printing when it was turned off. See **Page numbering.**

.pn	*number*	Changes the page numbering, using the specified number for the current page. See **Page numbering**.
.po	*number*	Sets the page offset from the left edge of the paper. Type an **o** or an **e** after the dot command to specify separate page offsets for odd and even pages. See **Margins**.
.rp	*number*	Prints the file the specified number of times.
.sr	*number*	Sets a subscript/superscript roll in 48ths of an inch. See **Subscript and superscript**.
.uj	on/off/dis	Turns microjustification on and off or leaves it to the discretion of the printer. See **Microjustification**.
.ul	on/off	Turns underlining of spaces on and off. See **Underlining**.
.xe	*text*	Defines the custom print control turned on and off with ^**PE**. See **Custom print controls**.
.xl	*text*	Defines the form feed string. See **Form feeds**.
.xq	*text*	Defines the custom print control turned on and off with ^**PQ**. See **Custom print controls**.
.xr	*text*	Defines the custom print control turned on and off with ^**PR**. See **Custom print controls**.
.xw	*text*	Defines the custom print control turned on and off with ^**PW**. See **Custom print controls**.
.xx	*character*	Redefines the strikeout character. See **Strikeout**.

Onscreen formatting dot commands

These dot commands affect both the onscreen display and the printout. WordStar flags these commands with either a period or a 1. The 1 means the dot command is most effective if it's placed at the top of the page.

COMMAND	ADDITIONAL INFORMATION	FUNCTION
..	*text*	Enters a comment line. See **Comment lines**.
.aw	on/off	Turns word wrap and aligning on and off. See **Aligning text** and **Word wrap**.
.cb		Inserts a column break. Text after the column break will print in the next column. See **Columns.**
.cc	*number*	Sets a conditional column break, which keeps the specified number of lines in the same column. See **Columns.**
.co	*number, spacing*	Turns on multiple columns with the specified number of columns. You can also specify the spacing between columns. See **Columns.**
.cp	*number*	Sets a conditional page break, which keeps the specified number of lines on the same page. See **Page breaks**.
.cw	*number*	Sets character width, in 120ths of an inch. See **Character width**.
.e#	*value*	Sets the starting value for endnotes. Values can be numbers, letters, or symbols. See **Footnotes and endnotes**.
.f#	*value*	Sets the starting value for footnotes. Values can be numbers, letters, or symbols. See **Footnotes and endnotes**.
.ig	*text*	Enters a comment line. See **Comment lines**.
.lh	*number*	Sets the line height in 48ths of an inch. See **Line height**.
.lm	*number*	Sets a new left margin. See **Margins**.
.lq	on/off/dis	Turns near letter quality printing on and off. See **Near letter quality printing**.
.ls	*number*	Sets line spacing. See **Line spacing**.
.mb	*number*	Sets the bottom margin. See **Margins**.
.mt	*number*	Sets the top margin. See **Margins**.
.oc	on/off	Turns centering of lines on and off. See **Centering text**.

.oj	on/off	Turns right justification on and off. See **Justification**.
.p#	*value, style*	Sets the starting value and style for paragraph numbers. Values can be numbers or letters. See **Paragraph numbering**.
.pa		Inserts a page break. See **Page breaks**.
.pl	*number*	Sets the page length. See **Page length**.
.pm	*number*	Sets a paragraph margin. See **Paragraph margins**.
.ps	on/off	Turns proportional spacing on and off. See **Proportional spacing**.
.rm	*number*	Sets a new right margin. See **Margins**.
.rr	*text*	Inserts an embedded ruler line. See **Ruler lines**.
.rr	*number*	Inserts a preformatted ruler line. See **Ruler lines**.
.tb	*numbers*	Sets new tab stops. See **Tabs**.

WordStar keeps track of the dot commands that affect the margins and page length so that, as you move through the document, it can change the margins and page length accordingly. WordStar sets aside 2000 bytes of memory, which is partly used for storing these dot commands while you are editing. If you use more dot commands than fit in this memory, the message *Dot-Limit* appears in the status line. If this happens, the screen display may be wrong, but the document will print correctly. You can set aside more memory with WSCHANGE.

Merge print dot commands

These dot commands are used only for merge printing. WordStar flags them with a colon (:), indicating that the printout is affected but not the onscreen display. See **Merge printing** and **Merge printing conditional commands** for more information on these commands.

COMMAND	ADDITIONAL INFORMATION	FUNCTION
.av	*"text",variable*	Uses this text to ask for this variable.
.df	*filename*	Reads the named data file or spreadsheet.
.ei		Ends a conditional merge print statement.
.el		Specifies a conditional alternative (ELSE) in merge printing.
.go	top/bottom	Skips to the beginning or end of file.

COMMAND	ADDITIONAL INFORMATION	FUNCTION
.if	*text*	Begins a conditional statement in merge printing.
.ma	*variable = equation*	Gives a math equation for merge printing.
.pf	on/off/dis	Aligns while printing. The **dis** setting means discretionary; aligning is done only where merge print variables are inserted.
.rv	*variable1, variable2,* etc.	Reads the variable(s) in the data file using these variable names. Use the * option to have WordStar read the data file record by record.
.sv	*variable = text*	Sets the value of a variable.

Other dot commands

This group includes commands that control the way WordStar displays information onscreen while it is printing, and commands used for indexing and creating tables of contents. WordStar flags these commands with a colon (:).

COMMAND	ADDITIONAL INFORMATION	FUNCTION
.cs	*text*	Clears the screen and displays the text, if any, as a message. See **Messages while printing**.
.dm	*text*	Displays the text as a message. See **Messages while printing**.
.ix	*text*	Creates an index entry. See **Indexing**.
.tc	*text*	Creates a table of contents entry. See **Table of contents**.

Double spacing. See **Line spacing**.

Double strike

When you use the double strike command (^**PD**), the printer strikes each character twice to produce a light boldface for emphasizing words or phrases. Place the cursor where you want the double striking to start and press ^**PD**. The symbol ^D appears on your screen but is not counted as a character space in the status line. Any text after the ^D is highlighted on the screen. To mark the end of the double striking, move the cursor to where you want it to end and press ^**PD** again.

To delete double striking, place the cursor on the ^D and press **Del** or **^G**. Be sure to remove both the beginning and end markers. See also **Boldface**.

Drawing

You can easily draw lines and boxes using function keys. When used with the **Alt** key, ten of the function keys are preset to produce a line-drawing character. You can use these characters to draw lines and boxes. The function key settings are shown below:

Alt-F1	│	**Alt-F2**	─
Alt-F3	┌	**Alt-F4**	┐
Alt-F5	└	**Alt-F6**	┘
Alt-F7	┬	**Alt-F8**	┴
Alt-F9	├	**Alt-F10**	┤

As with all function key settings, you can change these using WSCHANGE.

A file named BOX is supplied on your WordStar Program disk. It consists of a box drawn with the function key characters. This box is 23 columns wide and 7 lines deep. You can use it to enclose a title or text up to 21 columns wide and 5 lines long. You can insert this box into a file with the insert a file command (^**KR**).

When you edit inside a box, turn insert off. With insert on, characters and spaces you type push the right side of the box to the right on the line you're editing. Use column blocks to move text inside a box. Also be careful when using the **Backspace** and **Del** keys. If you accidentally erase a character that's part of the box, you can replace it with the appropriate function key character. You should also use the **.aw off** command before a box in your text to be sure the box is not accidentally realigned.

You may want to use a nonproportional font before a box. Otherwise, the right side of the box may be uneven when it's printed.

TIP *To quickly add height to an existing box, place the cursor on one row of the box and remove the line (^**Y**). Then use the undo command (^**U**) to restore the row. Continue to use undo until the box is as high as you want. To change the width of a box, use column blocks to add or delete characters.*

If you use certain boxes or line drawings frequently, keep each one in a separate file. You can then insert the files when you want them (^**KR**).

You can define a shorthand character to insert a box or line file. For example, you could define the shorthand character D to insert the file BOX. The definition would be **^KR box** ↵. If you use a shorthand character to insert a file, either make sure the file is always on the current logged drive and directory or specify the drive letter or directory path in the shorthand definition.

The characters that make up the lines and boxes you print depend on your printer. If your printer cannot draw the graphics characters, WordStar instructs it to use the available characters that are most similar to the graphics characters.

You can use any special line drawing characters your printer has by specifying the extended character code. For information, see **Extended character set**.

E

Editing

Editing is the process of making changes to the content or appearance of an existing document. Adding, deleting, and moving text, and boldfacing a heading are examples of editing.

To edit an existing document, choose **Open a document file** from the File pull-down at the Opening screen. If you're using the classic menus, press **D** at the Opening Menu. To edit a nondocument, choose **Open a nondocument file** from the File pull-down or press **N** at the classic Opening Menu. Then move the highlighting to a filename or type the filename, and press ↵. When the document appears on the screen, use any of the WordStar commands to edit it.

TIP *When you do extensive editing in one session, it's a good idea to save your work periodically. Use the **Save file, resume editing** command on the File pull-down or press **^KS**.*

You can use any special line drawing characters your printer has by specifying the extended character code. For information, see **Extended character set.**

```
A> ws   first.doc
```

If necessary, include a drive letter or directory path:

```
A> ws   c:\wp\letters\first.doc
```

WordStar takes you straight to the file. See also **Documents and nondocuments** and **Starting WordStar**.

You can edit two files at the same time by opening a window on the second file. See **Windows**.

Endnotes. See **Footnotes and endnotes**.

Enter key

The **Enter** or **Return** (↵) key (or the command **^M**) moves the cursor to the next line. When insert is on, ↵ inserts a hard carriage return (the symbol < in the flag column) at the end of the line. When insert is off, ↵ moves the cursor to the next line.

Note: As you type, the cursor moves to the next line when it reaches the right margin. This type of return is called a soft carriage return. Don't press ↵ at the end of a line unless you want a hard return. (You can use **^6** to change hard returns to soft returns.)

You also press ↵ to signify the end of your response to a WordStar prompt.

Erasing. See **Deleting text.**

Error messages

When an error occurs, WordStar displays a message to explain what has happened. The message often suggests what to do next. Most errors are minor; you can correct them and proceed. A few are serious and can mean that you've lost work.

See Appendix A, "Error Messages," for a list of these messages and their meanings.

Exiting

To exit a document, you can use any of the following commands:

- **Save file, go to Opening screen** (**^KD**) or **Save file, exit WordStar** (**^KX**) on the File pull-down save the work you've just done on your file.
- **Save and name file** (**^KT**) on the File pull-down saves the changed file under a new name or names a Speed Write file.
- **Abandon changes** (**^KQ**) returns you to the Opening screen without saving your latest changes. See also **Saving a file**.

To exit WordStar, choose **Exit WordStar** from the File pull-down at the Opening screen or press **X** at the classic Opening Menu. If you're printing in the background when you issue the exit command, the Printing screen appears. You must finish or quit printing before you exit WordStar. See **Printing a file**.

Extended character set

Some printers can print special characters such as graphic characters, Greek letters, and letters with accent marks. These special characters are called the extended character set. However, because there is no standard for these characters, they may vary from printer to printer.

To print a character from the extended character set, check your printer documentation to find the corresponding ASCII character code. WordStar recognizes all codes between 0 and 255. To enter the code, hold down the **Alt** key and press the number on your numeric keypad. When you release the **Alt** key, a character appears on the screen. Depending on your computer, the character that appears may not be the same one that prints.

TIP *If your printer uses the IBM extended character set, you can choose extended characters from a menu. Press **^PO** to see a menu of the codes for extended characters. Then type the code for the character you want and press ↵. WordStar enters the code into your text.*

See also Appendix D, "ASCII Conversion Chart," and your printer documentation for more information.

F

Files and filenames

Files contain documents you've typed, computer programs, or other types of information. You assign a name to every file you create so you can find and use it later. A filename can have up to eight characters and an optional three-character extension. Type a period between the name and extension. Don't use spaces between characters.

WordStar doesn't distinguish between uppercase and lowercase letters in filenames. Filenames can include letters, numbers, and the following symbols:

$ & # @ ! % ' ' ( ) – _ ^ ~

Use filenames to remind you of what's in your files. For example, you can give all your letters the extension .LTR or give a file the extension .915 if you revised it on September 15. Files with the extensions .COM, .EXE, .OVR, and .$?$ (where ? can be any character) do not show up in WordStar's directory, so don't use them to name your text files.

For help in locating files on your disk, use the file catalog. For more information, see the "ProFinder" tab section in this book.

Finding and replacing

WordStar can find, find and replace, and find and delete any word or phrase in a file.

To locate text, choose **Find text** or **Find and replace text** from the Go To pull-down, The classic commands are **^QF** to find text and **^QA** to find and replace. At the Find screen, type the text to find, the text to replace it with (if you're finding and replacing), and choose any options you want. Then press **F10** or **^K** to start the find operation.

If you use the find text command, WordStar moves the cursor to the next occurrence of the text and returns you to the editing screen. You can then choose **Repeat previous find/replace** from the Go To pull-down or press **^L** to find the next occurrence.

If you use the find and replace command, WordStar finds the next occurrence of the text, asks you whether you want to replace it, replaces it if you answer yes, then returns you to the editing screen. You can then find and replace the next occurrence (**^L**). If you use the **G** or **R** option, WordStar finds and replaces all occurrences of the text without pauses for editing.

To interrupt a find or find and replace operation, press **^U**.

Typing text to find or replace

The text to find or replace can be any sequence of characters, including spaces and control characters. To specify a control character, use the **^P** (literal) command to signify "Accept the next character literally." For example, to find the **^B** boldface command, hold down the **Ctrl** key and press **PB**. You can use **^P^M ^P^J** to find hard carriage returns (hold down the **Ctrl** key and press **PMPJ**). The text can be up to 65 characters long.

You can use the question mark (**?**) as a wild-card character. For example, to find all occurrences of **Suzy**, **Susy**, and **Suzi**, type **Su??**.

To delete text, use the find and replace command. At the *Replace* prompt, press **^Y** ↵ to replace the string with nothing.

CAUTION *When you type the text to find, you must be precise because WordStar will search for exactly what you type. If you put an extra space after a word, WordStar will find it only if you used an extra space in the text too.*

Refer to the chart below to see how to find elements in your text.

TO LOCATE	**TYPE**
footnote, endnote, comment, or annotation	**^ONG**
soft hyphen (end of line)	**^QF ^P^ –**
soft hyphen (middle of line)	**^QF ^P^6**
font change	**^Q=**
hard carriage return	**^QF ^P^M^P^J**

Options

When you find or find and replace text, you can choose from a number of options. You can choose as many options as you want. Just type them one after another and press **F10** or **^K** when you finish. The options are explained below.

OPTION	**RESULT**
W	Searches for whole words only. For example, if you're locating "can" and you don't use this option, WordStar finds "can," "can't," "canned," "American," and "scandal."
U	Ignores the case of the characters (uppercase or lowercase). Use this option to find text regardless of whether any letter is capitalized or not.
B	Searches backward from the cursor toward the beginning of the file.

OPTION	RESULT
?	Treats the **?** character in the search string as a wild card, matching it with any character in that position. If you don't use this option and use a **?** in the text, WordStar searches for the **?** character.
A	Aligns paragraphs after replacement. After reaching the end of the paragraph, WordStar returns the cursor to the spot where the replacement was made. If the **G** or **R** option is also selected, WordStar continues finding and replacing, aligning after each replacement. If you don't use the **A** option, you may need to go back and align the paragraphs after replacing text. ***TIP*** *You can use the **.aw off** dot command to prevent alignment of text (such as tables) you don't want realigned. See **Aligning text.***
M	The replacement text uses the same case as the text you're replacing.
n	With **Find text** (**^QF**), this option moves the cursor to the *n*th occurrence of the text. For example, to find the fifth occurrence of the word "the" in your document, type the number **5** as an option. With **Find and replace text** (**^QA**), this option indicates how many occurrences of the string are to be replaced. For example, to replace the next five occurrences of "the" with "a," type the number **5** as an option. (This option is not displayed on the screen.)
G	Moves to the beginning (or end, if the **B** option is also used) of the file before beginning the search. With **Find and replace text** (**^QA**), searches globally (for all occurrences of the string) through the entire file starting from the beginning (or end).
N	Replaces the text without asking if you want to make the replacement. The replace operation is displayed onscreen so you can keep track of it. Unless you are also using the **G** or **R** option, WordStar stops after the first replacement, with the cursor at the beginning of the replacement text, and you have to find and replace the next occurrence (**^L**).
R	Searches through the rest of the document for all occurrences of the text. This option works only with the **Find and replace text** (**^QA**) command.

You can set default options with WSCHANGE. If you don't select any options at the *Options* prompt, WordStar uses the default options you set in WSCHANGE. (If you do select any options, none of the default options are used unless you specifically select them.) If you press the **Spacebar** and ↵ at the *Options* prompt, WordStar doesn't use any options. If you use WSCHANGE to select the **N**, **A**, or **R** options as defaults, WordStar ignores them when it is finding without replacing.

TIP *When you use the **G** or **R** option with the **N** option, you can turn off the display of replacements to speed up the operation. Just press the **Spacebar** after you see the operation start on the screen.*

Finding your place

Several commands move the cursor to a particular place in the text. These commands are described below.

COMMAND	FUNCTION
These commands are on the Go To pull-down:	
^QB	Goes to the beginning of the marked text block.
^QI	Goes to the page (or line, in nondocuments) whose number you type at the prompt. You can also type + or – to go to the next or previous page. To go forward or backward a specified number of pages, type a number after the + or –. After you type the page number and press ↵, WordStar searches and stops on the page. If it's searching forward, it goes to line one. If it's searching backward, it goes to the last line of the page.
^QK	Goes to the end of the marked text block.
These commands are not found on pull-down menus:	
^Q 0–9	Goes to a marker that you previously set with **^K 0–9**. See **Place markers**.
^QG ***character***	Goes to the next occurrence of the specified character.
^QH ***character***	Goes to the previous occurrence of the specified character.
^QP	Returns the cursor to its location before the previous command. Press this immediately after the previous command is executed.
^QV	Goes to the most recent find string or to the previous location of the most recent marked block.

Flag column

On the right side of the screen, WordStar displays a "flag" for each line to remind you what you typed on the line. Flags are displayed automatically. The flags and their meanings are listed below.

FLAG	MEANING
<	This line ends with a hard carriage return.
	A blank space in the flag column means the line ends with a soft carriage return produced by word wrap within a paragraph.
P	This is a page break; a new page begins below this line.
F	This line ends with a form feed produced by the **^PL** command.
C	This is a column break.
^	The file ends on or above this line.

FLAG	MEANING
+	Text on this line extends beyond the right edge of the screen.
.	The dot command on this line changes the onscreen format and the printout.
:	The dot command on this line changes only the printout.
?	The dot command on this line is not recognized by WordStar.
1	The dot command on this line changes the onscreen format and the printout; it works best if it's placed at the beginning of a page.
–	This line ends with a carriage return but without a line feed (produced by **^P** ↵); it will be overprinted by the next line.
J	The line ends with a line feed but without a carriage return (produced by **^PJ**); the next line will print on the line below, but may not begin at the left margin.
B	The beginning block marker is in this line.
K	The end block marker is in this line.

Fonts

A font is a particular size and style of type, for example, pica, expanded print, or Helvetica 10 point. Some printers let you choose from a number of fonts. Below are some examples of fonts.

EXAMPLE

Courier 10 point
Helvetica 10 point
Helvetica 12 point italic
Times Roman 18 point bold

Changing fonts

To print text in a different font, place the cursor where you want the new font to start and choose **Choose font** from the Style pull-down or press **^P=**. WordStar shows you the font currently in effect and a list of the fonts available on your printer. For non-proportional fonts, the font name shows the pitch of the fonts, for example, 10 pitch or 12 pitch. For proportional fonts, the font name shows the typeface of the fonts, such as Times Roman or Helvetica, and the size of the fonts, such as 10 point. On some printers, the font name may also show the cartridge where the font is located.

Move the highlighting to the font you want and press ↵. If display (**^OD**) is on, a command tag showing the font name appears in the text (for example, <HELV 10 pt>). Text following the command tag prints in the new font until you change the font again. Text that you type after the command tag displays the correct line breaks and page breaks for the font you choose. The highlighting in the ruler line shows where the character at the cursor will print on the page. For example, if you use a small font, the highlighting moves slowly across the ruler line. Each column on the ruler line represents one-tenth of an inch. You can use WSCHANGE to alter how much space each column represents.

TIP *You can use* ***^PA*** *and* ***^PN*** *to quickly change to the fonts you use most frequently. To change the font used for* ***^PN*** *and* ***^PA*** *in a document, use the* ***.cw*** *dot command. This command sets the character width for whichever command is in effect when you type the dot command. For example, to set the alternate font to 12 characters per inch, press* ***^PA*** *and type* ***.cw 8*** *on the next line. You can set new normal and alternate fonts as often as you want in your document. To change the default fonts for* ***^PN*** *and* ***^PA****, use WSCHANGE.*

Existing text is not affected by a font change until you align the text (**^B** or **^QU**) or make changes in it.

If you choose a font that can fit many characters per inch, text may extend past the right side of the screen. As you type the text, the screen scrolls so you can see the portion you're typing. For more information, see **Scrolling**.

TIP *If you change fonts in the middle of a document and need to change the print wheel or cartridge on you printer, use the* ***^PC*** *command to pause printing. For more information, see* ***Pause printing.***

To remove the font command, place the cursor on the command tag and press **Del** or **^G**.

If you print your document with a different printer than the default printer, WordStar tries to match both typeface and style. If that's not possible, WordStar maintains the line breaks and adds soft spaces to justify the new font to the margins.

You can customize the list of available fonts (choosing up to 255 fonts) in PRCHANGE. See your printer manual for more information on the fonts available on your printer.

To see a list of fonts for a different printer, change the default printer. Press **^P?** and choose the printer you want, then choose **Choose font** or press **^P=** to see a list of fonts for the new printer.

To move the cursor to the next font change in a file, choose **Go to next font** from the Go To pull-down, or press **^Q=**.

Proportional versus nonproportional (fixed pitch) fonts

In a nonproportional font, each character takes up the same amount of space on the page. Nonproportional fonts are measured in pitch, or characters per inch. For example, a COURIER 10/in font is a nonproportional font with 10 characters per inch (pica); in COURIER 12/in, there are 12 characters per inch (elite). On dot matrix printers, expanded print is usually 5 characters per inch and compressed print is 17 characters per inch.

In proportional fonts, different letters take up different amounts of space; for example, an "m" takes up more space than an "i." Proportional fonts are usually measured in points. For example, standard text characters are 10 points, but footnotes might be in a smaller size, such as 8 points. For more information, see **Pitch** and **Proportional spacing**.

Footers. See **Headers and footers**.

Footnotes and endnotes

When you add a footnote or endnote to your text, WordStar automatically numbers it and puts it in the proper place. Commands let you design the note's style, switch footnotes to endnotes or vice versa, locate notes, and more.

Footnotes appear at the bottom of a page; endnotes appear on the last page. There are two other kinds of notes to choose from: annotations, when several entries in a chart or table refer to the same note at the bottom of the page; and comments, for notes that appear onscreen (when display is on) but don't print. All four kinds of notes can appear in the same document.

Creating notes

To create a note, place the cursor where you want the reference to the note to appear in the text and choose **Footnote/endnote** from the Other pull-down or press **^ON**. Then type **E** (for endnotes), **F** (for footnotes), **A** (for annotations), or **C** (for comments). Type the note in the window at the bottom of the screen.

When you finish typing the note, choose **Close and save window** from the Window pull-down, or press **^KD**. The window disappears. When display (**^OD**) is on, the first few words of the note appear in a tag onscreen to remind you of its contents. If display is off, only the highlighted reference to the note appears.

When you print the document, the reference to the note is superscripted. Footnotes and endnotes are numbered. If you want to use some other sequencing method, you can specify it with one of these dot commands:

.e#	specify endnote initial value
.f#	specify footnote initial value

You can choose from these sequencing methods:

alpha	A B . . . Z	AA BB . . . ZZ	AAA . . .
	a b . . . z	aa bb . . . zz	aaa . . .
numeric	1 2 3 . . .		
symbol	* ** ***		

For example, to get lettered footnotes, place the dot command **.f# A** at the beginning of your file. You can also determine the value to be used for marking the first note. To begin your footnotes with 4 rather than 1 (if, for example, your chapter is divided into two files), use the dot command **.f# 4**.

You specify the reference for an annotation when you create the note. Comments are not referred to in the text.

References to notes print in the current font for that point in the text. The notes themselves print in the default font, unless you select a different one when you create or edit the note, or specify a different font in WSCHANGE.

Footnotes are separated from the text by a line of 20 dashes. If a footnote doesn't fit at the bottom of the page, the continued text is printed in the footnote area at the bottom of the next page (except after the last page of regular text, where footnotes are printed at the top of the page).

A minimum of three lines of regular text are printed on a page regardless of the size of the footnote area except on the last page of the document.

Editing and removing notes

When display (^**OD**) is on, the first few words of each note appear onscreen to remind you what the note is about. To see the full text of a note, or to edit a note, move the cursor to the note and press **^OND**. To see or edit a comment, first turn display on, then move the cursor to the reminder in brackets and press**^OND**. You have WordStar's full editing capabilities available for editing notes, including changing margins and tabs, choosing fonts, and using the spelling corrector. (To check the spelling in your notes, press **^ONL**. For more information, see **Spelling check**.)

If you change margins and tabs for a note and want to realign all subsequent notes, press **^ONU**.

To locate a note, press **^ONG**. You are prompted for the type of note, the note number, or the text of the note you want to locate.

To remove a note, delete its reference (number, letter, or symbol). All subsequent notes of that type are automatically renumbered. To restore a note you've deleted accidentally, use the undo command (^**U**).

Converting notes

You can convert one type of note to another. For example, you can convert a footnote to an endnote, or vice versa. Place the cursor on the note number and press **^ONV**.

You can also print all notes of one type as another type. For example, if you have both footnotes and endnotes in one document, you can print all the notes as footnotes and they will be numbered consecutively. These are the dot commands to use (placed at the beginning of your file):

.cv f>e	print footnotes as endnotes
.cv e>f	print endnotes as footnotes
.cv c>f	print comments as footnotes
.cv c>e	print comments as endnotes

To make endnotes print anywhere other than at the end of the file, put the dot command **.pe** where you want the endnotes to print. This is useful when you have more than one chapter in a file. For example, if you have three chapters of a book in one file, you can type **.pe** at the end of each chapter. That way all the endnotes for that chapter will print at the dot command.

In WSCHANGE you can set defaults for note margins, spacing, line height, position on page, font, title line, separator and continuation lines, and a number of other formatting options.

Index entries

You can create an index entry by using the command **^ONI**. At the prompt, type the entry the same as you would when using the **.ix** command. Nothing appears in the text if display is off. If you turn display on (**^OD**), you see a reminder in brackets containing the first part of your index entry. See **Indexing** for more information.

Formatting

The format of a document is its design or appearance. You can change document format with onscreen format commands, and with dot commands. You can also insert a preformatted ruler line into your document to change tabs and margins.

See the following entries for information on the corresponding format elements: **Aligning text**, **Centering text**, **Hyphenation**, **Indenting**, **Justification**, **Line height**, **Line spacing**, **Margins**, **Page breaks**, **Page length**, **Ruler lines**, **Tabs**, and **Word wrap.**

Form feeds

To begin a new page without moving the cursor to a new line, press **^PL** where you want the page and line to end. The symbol ^L appears, followed by a line of hyphens. The letter F appears in the flag column. When you print the document, the ^L causes the printer to move to the start of the next page, but not return to the left margin. The footer, footnotes, and page number for this page are not printed.

Note: Your printer must be capable of accepting form-feed characters in order to use this feature.

The dot command **.xl** is used to define the form-feed string. Use it only if your printer requires a different form-feed string than the printer description file uses.

See also **Page breaks**.

Form letters. See **Merge printing**.

Function keys

The function keys, which are usually labeled **F1**, **F2**, **F3**, and so on, enable you to execute the most often used WordStar commands with a single keystroke.

You get four different commands when you press a function key alone, or with one of these keys: **Shift**, **Ctrl**, or **Alt**. For example, pressing **F9** is the same as choosing **Save file, resume editing** (**^KS**) from the File pull-down. Pressing the **Shift** key and **F9** is the same as choosing **Begin block** (**^KB**) from the Edit pull-down. Pressing the **Ctrl** key and **F9** is the same as choosing **Go to line beginning** (**^QS**) from the Go To pull-down. Pressing **Alt** and **F9** inserts a box-drawing character. (See **Drawing**.)

At help levels three and below, two function key settings for each key are shown on the bottom of the screen while you are editing. The lower one is for the key when pressed alone, and the upper one is for the key when pressed with the **Shift** key.

See *Pocket WordStar* or the keyboard overlay for a complete list of the function key settings. You can use WSCHANGE to change any of the function key settings or to suppress or change the onscreen display of the settings.

H

Headers and footers

A header is text that prints at the top of every page; a footer prints at the bottom of every page. You can use headers and footers to print information such as document title, page number, author, or date.

You can define up to three lines each for headers and footers and specify different headers and footers for odd and even pages.

If you don't define a footer in your file, WordStar prints the page number centered on the page. (You can turn off the page number by using **.op**, omit page number, or change its placement using **.pc**. See **Page numbering**.)

To define headers and footers, use these commands, followed by the text for the header or footer.

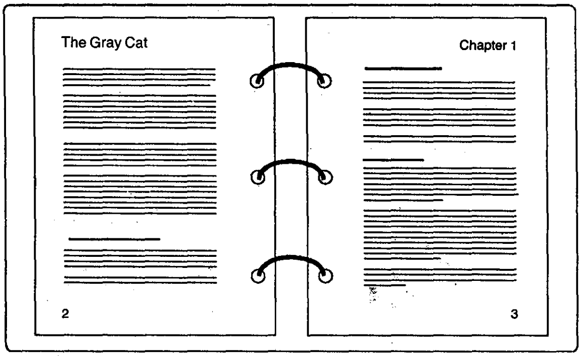
COMMAND	DESCRIPTION
.he or **.h1**	First header line
.h2	Second header line
.h3	Third header line
.fo or **.f1**	First footer line
.f2	Second footer line
.f3	Third footer line

Note: The pull-down commands for the first line of a header or footer are on the Layout pull-down.

To specify different headers or footers for odd or even pages, type an **o** (for odd) or an **e** (for even) after the dot command, for example:

.heo Chapter 1
.hee The Gray Cat

"Chapter 1" will print at the top of every odd page and "The Gray Cat" will print at the top of every even page.



If you don't type an **o** or an **e**, the header or footer prints on all pages.

To turn off a header or footer, type the same dot command that began it (without any text), then press ↵. If you turn off all footers, the default page number footer is restored.

To include the page number in a header or footer, use the # character. For example, **.fo Page #** prints as **Page 1** on the first page. To print the # character itself rather than the page number, precede it with a backslash. For example, **.he Draft** \**#2** prints as **Draft #2**. To print a backslash, use two backslashes (\\\\).

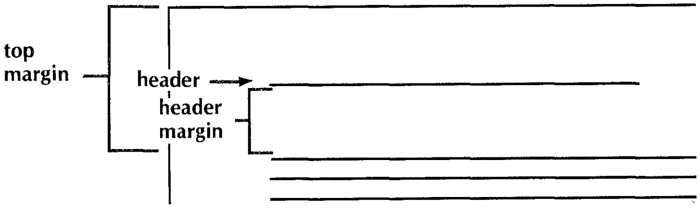
You can use print enhancements such as boldfacing and underlining in headers and footers. These features print; however, the marked text is not highlighted on the screen. Print enhancements you add to headers and footers do not affect text in the rest of the document, nor do print controls in the rest of the document affect headers and footers.

To put a blank line between two header or footer lines, add the text on lines 1 and 3 and define the second line as blank. For the blank line, type **.h2** or **.f2**, press the **Spacebar** twice, then press ↵.

On the printed page, the amount of space between the command and the text in a header or footer determines the position of the header or footer on the page. If you type no spaces (**.fotext**) or one space (**.fo text**) the footer or header text will begin at column 1. To see how headers and footers will look when printed, use the page preview feature (if you have a graphics monitor). For information, see **Page preview**.

Headers or footers print using the font and line height in effect where you enter the **.fo**, **.f1**, **.he**, or **.h1** dot command. You can change the font within the header or footer.

To change the amount of space between the header or footer and the text of the document, change the header or footer margin.



The default top margin of .5" and header margin of .33" leaves you only .17" (one line) for header text. If you want a header with two or three lines, use a larger top margin or a smaller header margin. See also **Margins** and **Page length**.

WordStar prints a maximum of 100 characters in a header or footer, including carriage returns, extended characters (which count as three characters), and control characters. This length can be changed with WSCHANGE. If you are using wide paper, you may want to set it higher, for example, 150.

See also the "Applications" tab section.

Help levels

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

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

You can set help levels by choosing **Change help level** at the Other pull-down. If you're at level three or below, press **J** at the Opening Menu, or press **^J^J** while editing a document. The help levels are described below.

HELP LEVEL	DESCRIPTION
4	Pull-down menu names are displayed in the menu bar at the top of the screen. To see a menu, hold down the **Alt** key and press the first letter of the menu. All prompts are displayed. Help level four is the default setting.
3	All classic menus and prompts are displayed.
2	The classic Edit Menu is not displayed, but prompts are displayed. This gives a full-screen display of the document. Other classic menus will be displayed if you pause after pressing the menu letter (**^K**, **^O**, **^P**, **^Q**).
1	No menus are displayed during editing unless you ask for help. Prompts asking you to confirm a response are not used either.
0	Menus are not displayed unless you ask for help. Confirmation prompts are not displayed. You can move, copy, and delete hidden blocks.

At help levels two and below, you can display the classic Edit Menu by pressing **^J**.

You can change the default help level with WSCHANGE.

For more information on classic and pull-down menus, see **Menus** and the "Overview" section in "Starting."

Help messages

You can get onscreen help for every command. When using pull-down menus, press **F1** or **^J** for help with the highlighted command.

With classic menus, press **F1** or **J** at the Opening Menu, then the command you want help with. To get help while editing a document, press **F1** or **^J**, then the command you want help with.

While editing, you can also press **^J?** for help with the screen display and **^J.** for help with dot commands.

Hyphenation

You can have WordStar hyphenate words at the ends of lines when aligning text. Autohyphenation is on by default; use **^OH** to turn it off (and on again).

The hyphens you type yourself during editing are hard hyphens. They stay in the text until you erase them. The hyphens WordStar adds during auto-hyphenation are called soft hyphens because they're printed only when a word breaks at the end of a line.

Using WSCHANGE, you can change how WordStar decides which words to hyphenate and change the default setting of auto-hyphenation to off.

To specify that a word can be hyphenated even when auto-hyphenation is off, or to change the location of a soft hyphen, place the cursor where you want the word to be hyphenated and press **^OE**. This adds a soft hyphen to the word. If this word extends past the right margin, WordStar hyphenates it at the location you specified.

If subsequent alignment moves a soft hyphen away from the end of the line, it's displayed onscreen as an equal sign (=), but it's not printed. You can change the = to another character with WSCHANGE.

TIP *To specify that a word not be hyphenated, place the cursor on the first character of the word, and press* ***^OE****. Even if the word contains a hard hyphen, the entire word always remains on the same line.*

Soft hyphens disappear when display (**^OD**) is off.

I

Indenting

WordStar has five ways to indent. Use whichever method works best in your situation.

- Press the **Spacebar** to add a hard space. The cursor moves right one space each time it's pressed. This method is efficient for indents of one or two spaces. See **Inserting**.

  TIP *Keep in mind that a space may be different sizes in different fonts. If you change fonts in your document, it's best to use tabs or change margins to indent text.*

- Press the **Tab** key to indent an individual line without changing the left margin.
- Use the temporary indent command **^OG** to indent the left margin to the next tab stop (excluding decimal tabs). The margin returns to its original setting after you press either ↵ at the end of a paragraph you're typing or **^B** to align an existing paragraph. If you press **^OG** once, the left margin indents to the first tab stop; if you press **^OG** twice, the left margin indents to the second tab, and so on. The temporary margin is indicated by a V in the ruler line.

- Change the left margin to indent a number of paragraphs or an entire file. Choose **Margins and tabs** from the Layout pull-down or press **^OL**, and enter the new left margin. This command is stored with your text, allowing you to maintain the new left margin when you align paragraphs in subsequent editing sessions. Reset your original left margin when you finish typing the indented part of your text. See also **Margins**.
- Set a separate margin for the first line of each paragraph by setting a paragraph margin. Choose **Margins and tabs** from the Layout pull-down and go to the *Paragraph* field, or use the **.pm** dot command. For example, if you type **.pm .5"** and your left margin is at 0, the first line of each paragraph is indented half an inch and the following lines start at the left margin.

  The paragraph margin command is also useful for entering numbered lists where you want the numbers to hang out to the left of the text. If you set the paragraph margin at 0 and the left margin at .5", the first line of each paragraph starts to the left of the rest of the paragraph. See also **Paragraph margins**.

Indexing

WordStar can create an index for a document. You can choose specific entries for the index, or you can index every word in the document except those you put on an exclusion list.

Choosing specific entries

You can mark index entries in your text by pressing **^PK** at the beginning and end of each word or phrase you want to include in the index.

If the word or phrase doesn't appear in your text as you want it to appear in the index, you can type the word or phrase to be indexed using one of the following methods.

- Place the cursor at the beginning of the information you want to index. Choose **Index entry** from the Other pull-down or press **^ONI**. Type the entry at the prompt and press ↵.
- Place the cursor in column 1 on the line just before the paragraph that contains the topic to index. Type **.ix** followed by the index entry and press ↵.

When typing an entry, first type the main entry. Then, if you want to add a subreference, type a comma and the subreference, for example:

Phrase to index, subreference

The subreference is optional. When you print the index, a subreference appears under the main reference, indented two spaces, as shown below:

Phrase to index
  subreference, 17

Capitalize the entry the way you want it to appear in the index.

To boldface the page number for an entry, type a plus (+) before the text in the entry. For example:

+ Files, naming

When WordStar creates the index, the page number for this entry will be boldfaced.

For a cross-reference, type a hyphen (–) before the word or phrase, as shown below.

– Naming files, see Files

When WordStar creates the index, it won't add a page number for this entry.

When you use **^ONI** to create an index entry, the first few characters of the entry appear on screen to remind you of its contents (if display is on). To view or edit the complete entry, place the cursor on the reminder and press **^OND**.

The maximum length of a phrase to be indexed is 50 characters including the subreference. Extra characters are ignored.

TIP *To quickly add entries for every occurrence of a specific word, type the first entry for the word, and mark the entry as a block. Then locate every other occurrence of the word, and copy the marked block to each location.*

Indexing every word

You can tell WordStar to index all the entries you've typed, the phrases you've marked, and all the words in the document minus any words that appear in exclusion lists.

An exclusion list is a nondocument file that contains an alphabetical list of words to exclude from an index. WordStar uses two exclusion lists. The general exclusion list is named WSINDEX.XCL and is supplied with WordStar. It contains a list of the most common words in English (articles, pronouns, prepositions, conjunctions, and so on) that are rarely indexed.

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

When you create the index, type **Y** at the *Index every word* field.

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

Creating the index

To make an index, choose **Index** from the Additional pull-down at the Opening screen. Classic menu users type **I** at the Opening Menu. At the prompt, type the document name and press ↵. Use **Tab** and **Shift-Tab** to move around in the dialog box. The default at the *Index every word* field is **N** (you can change this with WSCHANGE), which causes WordStar to index only the words and phrases you've marked or entered. Type **Y** if you want to index every word, minus the words that appear in the exclusion lists. The default at the *Page numbers* field is all pages. To index a portion of the document, type the starting and ending page numbers for that section. Press **F10** or **^K** when you're finished with the dialog box.

WordStar creates an index file that has the same filename as the document, but with a .IDX extension. All entries are sorted in alphabetical order with the page numbers added, and duplicate entries are combined into one listing. Once the index is created, you can edit the index file to make any formatting corrections or changes.

See also **Table of contents**.

Inserting text and files

You can insert characters, lines, blocks of text, even whole files into the current document.

Press either **^V** or the **Ins** (Insert) key to turn insert on and off. When insert is on, new characters you type are inserted between previously entered characters. When insert is off, new characters type over previously entered characters, erasing them. When insert is on, the word *Insert* appears in the status line.

The default for insert is on. You can change the default using WSCHANGE. When insert is on, use the commands in the chart below for inserting text.

TO INSERT	FOLLOW THESE INSTRUCTIONS
a line above the cursor	With cursor at the beginning of the line, press **^N** or ↵.
a line below the cursor	With cursor at the end of the line, press **^N** or ↵. See **Blank lines**.
a block from another file	Choose **Open/switch windows** from the Window pull-down or press **^OK**. See **Windows**.
a dot command or print command	Type the command. (A dot command must begin in column 1 and end with ↵.)

When you're working in column mode, column replace affects block insertion. See **Column blocks**.

Inserting files

You can insert an entire file into your document. To do this, place the cursor where you want the file inserted and choose **Insert a file** from the Edit pull-down or press **^KR**. At the prompt, type the name of the file you want to insert, including a drive or path if necessary, and press ↵.

If column mode is on, the file is inserted as a column at the cursor position. Text to the right of the column moves right if there is room within the margins. Otherwise, the text moves down to make room for the column. For more information, see **Column blocks**.

You can also insert a file at print time using the **.fi** command. See **Nesting and chaining** for more information.

Inserting a spreadsheet

To insert a Lotus 1-2-3, Symphony, or Quattro® worksheet into your document, place the cursor where you want the worksheet inserted and choose **Insert a file** from the Edit pull-down or press **^KR**. At the prompt, choose the name of the worksheet. WordStar then prompts you for the range to insert. If you have assigned range names to the worksheet, these names are displayed for your selection. To insert the entire worksheet, press ↵. If you want to insert only part of the worksheet, type the range of cells or a range name and press ↵, or move the cursor to the highlighted range name you want and press ↵.

If you created additional windows in the worksheet file, select the window to use for inserting data into your document. If you restricted a window in Symphony, only the restricted area is imported. If the window you select is smaller than the range you select or vice versa, you will be limited by the smaller of the two.

TIP *Be sure you're in a nonproportional font before you insert the worksheet. You can change back to a proportional font at the end of the worksheet. Also, use the dot command* ***.aw off*** *before the worksheet and* ***.aw on*** *after the worksheet to prevent realigning.*

Installing WordStar

See the "Starting" tab section for instructions on installing WordStar. Normally, you go through the WINSTALL installation program only once, before you use WordStar for the first time. However, if you change computers, printers, or other features of your computer system, you should repeat the installation procedure to tell WordStar the new information.

WordStar also has two customization programs, WSCHANGE, which allows you to set up advanced features and to change defaults, and PRCHANGE, which lets you customize how WordStar works with your printer. See Appendix C, "Customizing WordStar," for information on WSCHANGE and PRCHANGE.

Italics

If your printer supports italics, place the cursor where you want the italics to start and choose **Italics** from the Style pull-down or press **^PY**. The symbol ^Y appears on your screen. To mark the end of the italics, place the cursor where you want the italics to end and use the command again.

To delete italics, delete both ^Y symbols.

J

Justification

When justification is on, WordStar adds spaces to the text so all lines extend to the right margin. When justification is off, the right margin is ragged.

To turn justification on or off in a document, choose **Right justify text** from the Layout pull-down or press **^OJ**. WordStar adds a **.oj on** or **.oj off** dot command to your file. (You can also type the dot command directly in your file.)

To change the justification for existing text, first set justification to the setting you want, then align the text using **^B** or **^QU**.

The default setting for justification is on. You can change the default setting using WSCHANGE.

See also **Microjustification** and **Soft spaces and carriage returns**.

K

Keyboard

Keyboards differ slightly from one computer to another. The positions and names of some of your keys may be different from those described in this manual, but they have the same functions.

The numeric keypad on the right side of most keyboards can be used either to move the cursor around or to enter numbers. Press the **Num Lock** key to switch between the two modes. See **Cursor movement keys** for a description of the keys used to move the cursor.

The keys labeled **F1**, **F2**, and so on are the function keys. For an explanation of these, see **Function keys**.

Other special keys are described below.

KEY	DESCRIPTION
←	Backspace key. Moves the cursor one space to the left and erases the character there.
Caps Lock	Caps Lock key. Shifts letter keys to uppercase (doesn't shift number, punctuation, or symbol keys). Press it once to turn it on and again to turn it off.
Ctrl	Control key. Signals the computer that the next character to be typed is a command. This key is shown in documentation as a caret (^). It must be held down while the next character is typed.
Del	Delete key. Erases the character at the cursor.
Esc	Escape key. Used when WordStar prompts *Press Esc to continue* or to start a shorthand operation. It is sometimes used to back out of a situation.
↵	Enter key. Inserts a hard carriage return in the text or marks the end of your response to a prompt. It's sometimes called the Return key.
⇧	Shift key. Allows you to type uppercase letters and the upper set of characters on other keys.
↹	Tab key. Moves the cursor to the next tab stop to the right.
Ins	Insert key. Turns insert on and off.
Alt	Alternate key. At help level 4, used to display the pull-down menus. Used with the function keys for special functions that you can set up with WSCHANGE. Also accesses the extended character set.

Switching the Ctrl and Caps Lock keys

On some keyboards, the **Ctrl** key and the **Caps Lock** key are in different positions than your fingers are used to. You can use the SWITCH.COM program supplied with WordStar to exchange the functions of these two keys. (This does not affect the **Ctrl** key on the right side of the keyboard.) Follow these steps:

1. Type the word **switch** on a separate line in your AUTOEXEC.BAT file.
2. Copy the SWITCH.COM file from the Installation disk to your root directory.
3. Reboot your computer by pressing **Ctrl-Alt-Del**. (For this one time, use the **Ctrl** key on the right side of the keyboard.)

From now on, you can use the new **Ctrl** key exactly as you used the old key with one exception: when you press **Ctrl-Break**, use the **Ctrl** key on the right side of the keyboard.

You may want to put stickers on the **Ctrl** key and **Caps Lock** key to remind yourself of their new functions.

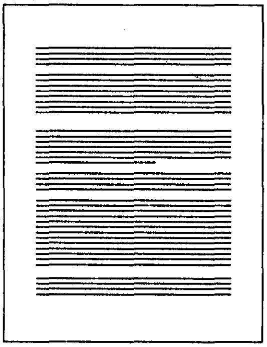
To set the **Ctrl** key and **Caps Lock** key back to the way they were before you switched them, log on to your root directory and type **switch /x**. This is effective only until you reboot the computer. If you want to change the keys back permanently, remove the line "switch" from your AUTOEXEC.BAT file.

Note: When you use certain programs (for example, Microsoft Windows), the switch is ignored.

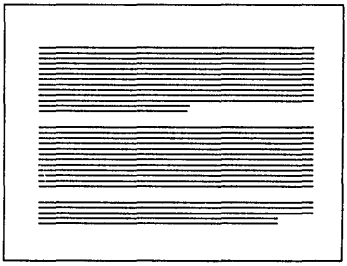
L

Landscape and portrait mode

To print in landscape mode (lengthwise on the page), type **.pr or=l** on the first line of the page. To return to normal printing (portrait mode), type **.pr or=p**. (Landscape mode is not available on all printers.)



portrait



landscape

Printers can't combine landscape and normal mode on a single page.

When you print in landscape mode, be sure to change the right margin and page length accordingly. For 8½-by-11-inch paper, set the right margin to 9.6 inches and set the page length to 8.5 inches. Remember to change the right margin and page length back when you return to portrait mode.

Line feeds

To insert a line feed, press **^PJ**. The cursor moves to the beginning of the next line, and the letter J appears in the flag column. When the printer encounters the line-feed symbol, it moves down a line without returning to the left margin and prints in the column following the one that contains the line feed.

Line height

The distance between lines of print is called the line height. It is measured from the bottom of one line to the bottom of the following line.

Line height is measured in 48ths of an inch. WordStar's default line height is $\frac{8}{48}$ inch, which means there are six lines per inch.

To change the line height, type **.lh** followed by the number of 48ths of an inch for the new line height. For example, to change the line height to $\frac{16}{48}$ (three lines per inch), type **.lh 16**.

TIP *You can use **.lh 16** to print a document double-spaced.*

Line height can vary between 2 and 255, although these extremes are not very useful. The chart below shows the relationship between several different settings for the **.lh** command and the number of lines per inch in the printout.

COMMAND	LINES/INCH
.lh 5	9.6
.lh 6	8
.lh 7	6.8
.lh 8	6 *(standard line height)*
.lh 10	4.8
.lh 12	4
.lh 16	3
.lh 24	2

If a printer can't move in increments of 48ths of an inch, WordStar uses the closest line height available on the printer.

Changing the line height affects the number of lines that can be printed on a page. The onscreen display changes to show where the new page breaks fall, but does not show the new line height. To see how the line height will look when printed, use the page preview feature (if you have a graphics monitor). For information, see **Page preview**.

See also **Line spacing** and **Page length**.

Line numbering

You can have line numbers print in the left margin of your document. This makes your document look like legal pleading paper. Line numbers do not appear on screen; they appear only on the printed page.

Type **.l#** in column 1 on the line above the first line to be numbered. Use the following format:

.l# *style spacing, column*

To set the style of numbering, type **p** to have numbers restart on each page, or **d** to have continuous numbering throughout the document. If you don't specify a style, WordStar restarts numbers on each page.

To set the spacing, type **1** for single spacing or **2** for double spacing. If you don't type a number, or if you type 0, line numbering is turned off.

You can set the column where line numbers will print by typing a comma followed by a number. This number represents columns to the left of column 1. The default is 3.

For example, **.l# d2,4** turns on line numbers that print continuously throughout the document, double-spaced, four columns to the left of column 1.

To turn off line numbering, type **.l# 0**. If you place the command to start or stop line numbering in the middle of a page, the command does not take effect until the next page.

If your page offset does not allow room for the page numbers to be placed there, WordStar increases the page offset. You can change the default style and placement of the numbers with WSCHANGE.

Line spacing

Line spacing allows you to print your text double-spaced, triple-spaced, and so on. Choose **Single/double spacing** from the Layout pull-down or press **^OS**. This takes you to the Margins & Tabs dialog box. Move the cursor to the *Line spacing* field and type a number from 1 to 9. Typing **1** gives you single spacing (no blank lines between the lines of text), **2** gives you double spacing (one blank line between text lines), and so on. WordStar enters the dot command **.ls** in your document. You can also type the dot command (followed by the spacing number) directly in your document.

When you change line spacing, you see the new spacing onscreen. When you change line height, you do not. For example, **.lh16** (line height) and **.ls2** (line spacing) both give you a double-spaced printout, but you see the double spacing onscreen only when you use line spacing. Using a line-spacing command to get double- or triple-spaced text takes up more room on disk than changing line height, because the blank lines become part of your file. Whichever method you use, WordStar adjusts the page breaks accordingly and shows the correct page breaks onscreen.

If you change both line spacing and line height, the blank lines added for line spacing are at the specified line height; for example, if you enter both **.lh16** and **.ls2**, you get quadruple spacing.

The message *LinSp-n* (*n* represents the spacing number) appears in the status line for anything other than single spacing.

If you change the line spacing for existing text, realign the text to reflect the new spacing (**^B** or **^QU**).

To see how line spacing will look when printed, use the page preview feature (if you have a graphics monitor). For information, see **Page preview**.

See also **Line height**.

Logged drive and directory

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

WordStar displays the logged drive and directory in the directory heading and displays the logged drive in the status line while you're editing.

The command to change the logged drive or directory is on the File pull-down. You can also press **L** at the classic Opening Menu or **^KL** while editing. Type the name of the new drive at the prompt. To change the logged directory, move the highlighting to the name of a subdirectory in the file listing (indicated by a backslash after the name) and press ↵ or type the path (for example, \DOC). Include the drive letter if you also want to change the drive (for example, C:\DOC).

When you choose a file (for example, to open or erase it), WordStar assumes the file is on the logged drive and directory. If the file is on a different drive or directory, you have to include the drive or path with the filename (for example, A:MEMO.DOC, C:\WS5\02751.BID or \DOC\TOM.MEM). Include the drive or directory to copy a file to another drive, too.

CAUTION *When you change disks in the floppy drive, log on to the drive again. If you don't, your operating system may refuse to write to the disk, or it may even destroy data on your new disk.*

See also **Directories** and **Paths**.

Lotus 1-2-3 and Symphony

You can insert Lotus 1-2-3 or Symphony worksheets directly into your WordStar documents or use the worksheet as a data file for merge printing. For information, see **Inserting text and files**, and **Merge printing**.

M

Macros. See **Shorthand**.

MailList

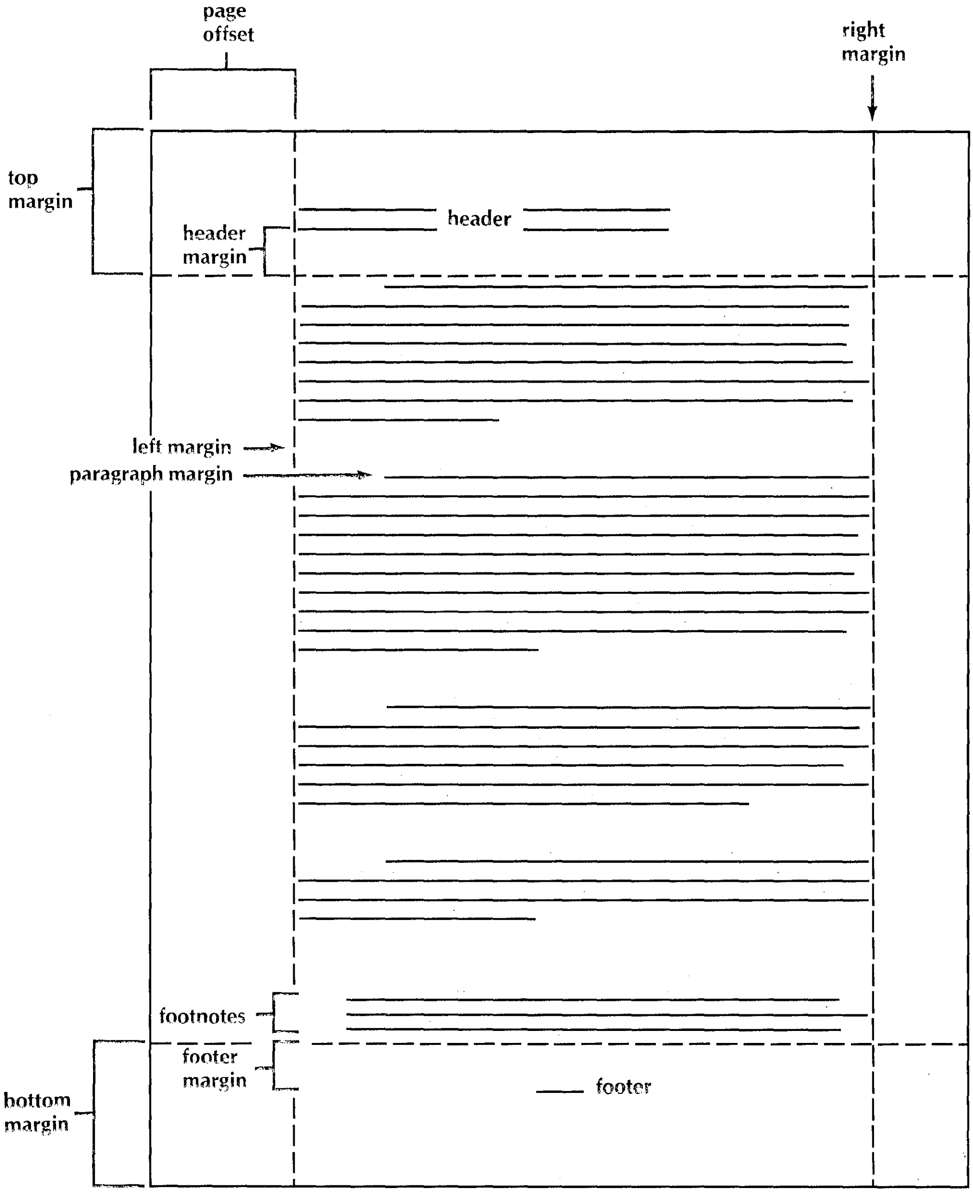
MailList lets you easily create, update, and sort mailing lists and inventories by providing you with ready-made forms on which to enter your data. You can then print letters, reports, or lists using this data. For information, see the "MailList" tab section.

Margins

The margins in a document specify the limits of the text area. WordStar has eight margins.

MARGIN	**DEFAULT VALUE**
left margin	0.0″
right margin	6.4″
page offset	.8″
top margin	.5″
bottom margin	1.33″
header margin	.33″
footer margin	.33″
paragraph margin	off

Refer to the following graphic to see how the margins affect your page.


page offset
right margin
top margin
header
header margin
left margin
paragraph margin
footnotes
footer margin
footer
bottom margin

You can change the margins in a document using the commands described below, or you can change the defaults using WSCHANGE.

To see how the margins affect your printed page, use the page preview command. See **Page preview**.

The Margins & Tabs dialog box

When you choose **Margins and tabs** from the Layout pull-down, or press any of the margin control commands such as **^OL**, the Margins & Tabs dialog box appears. This screen shows the current setting for each margin and for tabs, page length, and line spacing. It also shows the corresponding dot command for each setting.

To change a setting, use **Tab** and **Shift-Tab** or the up and down arrow keys to move forward and backward to the item(s) you want to change, then type a new number for the setting. For example, to set the left margin at half an inch, type **.5**.

To exit the Margins & Tabs dialog box after making your changes, press **F10** or **^K**. To exit and abandon your changes, press **F2** or **^U**. See also **Dialog boxes.**

WordStar adds the appropriate dot command in your document when you change a setting. You can also change a setting by typing the dot command directly in your document.

Left and right margins

The left and right margins are text boundaries. They're shown in the ruler line as L and R.

You can set the left margin to any values between 0 and 25.4", and the right margin between 1" and 25.5", but there must be at least .2" between them.

To change a margin, choose **Margins and tabs** from the Layout pull-down and move the cursor to the correct field, or press **^OL** to set the left margin and **^OR** to set the right margin. Type in the new value for the margin and press **F10** or **^K** to leave the screen. WordStar adds the appropriate **.rm** or **.lm** dot command to your file. For example, if you type **4** as the new right margin, WordStar adds the dot command **.rm 4"**. You can also type the dot command directly in your text.

Note: If you set the left or right margin at the Margins & Tabs dialog box, WordStar adds the inch indicator to the dot command. If you type the dot command directly, be sure to type the inch indicator to set inches. Otherwise, WordStar assumes the number represents columns. For example, **.lm 7** sets the left margin at column 7; **.lm 7"** sets it at 7 inches.

TIP *You can change your margins by moving them a specified distance from the current margin. For example, **.lm +.5"** sets the left margin half an inch to the right of the current margin. With this method, all indented material maintains the correct relationship to the margin if you then change the original left margin.*

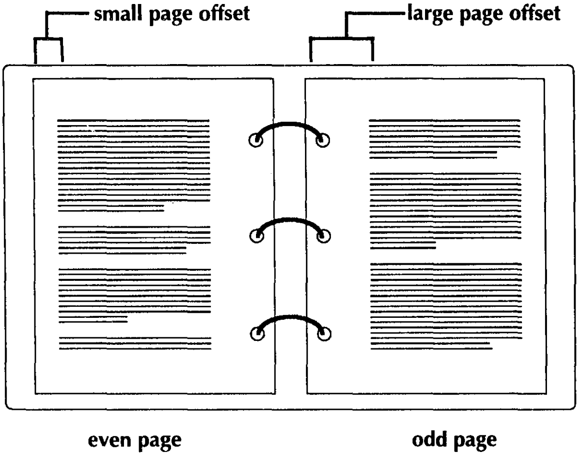
As an alternative, you can add a preformatted ruler line (**.rr**) to change the left and right margins. See **Ruler lines**.

To temporarily type outside the left and right margins, use the margin release command, ^**OX**. This command turns the release on and off. When margin release is on, *Mar-Rel* appears in the status line. Margin release works only as long as the cursor is on the line and outside the margin. If you move the cursor back within the margin or to another line, margin release is turned off.

Page offset

Page offset is the amount of space between the left edge of the paper and column 1 of your text. The default page offset is .8 inch. If you want to print closer to the left edge of the paper, make the page offset smaller.

For some documents, you may want to set different page offsets for odd and even pages. For example, if you'll be putting the pages in a binder, you'll want a bigger page offset on odd pages to leave room for the binder holes.



Refer to the section above for information on typing numbers at the dialog box.

To set different page offsets for odd and even pages, use **.poe** for even pages and **.poo** for odd pages. For example, **.poe .5**″ and **.poo 1**″ gives you a page offset of half an inch for even pages and an inch for odd pages. Use **.po** to set a page offset for all pages.

Top and bottom margins

Even though they aren't shown on the screen, the top and bottom margins affect the screen display by changing where page breaks occur.

Larger top and bottom margins result in fewer lines of text on a page and more frequent page breaks. For example, on a normal 8½-by-11-inch page, if the top margin is .33" and the bottom margin is 1.33", the space for text is 11" minus 1.66", or 9.33". At the default line height, you can get 55 lines of text. Larger or smaller line heights decrease or increase the number of lines of text.

The dot commands for changing the top and bottom margins are **.mt** and **.mb**.

Header and footer margins

The header margin is the space between the last header line and the first line of text. The header plus the header margin must fit into the top margin. If they are larger, your text may "creep" down the page as it's printed because there will be extra text lines on a page.

The footer margin is the space between the last line of text (on a full page) and the first footer line. Again, to prevent creeping, the footer plus the footer margin must fit into the bottom margin.

If you use a footer margin of 0, be sure to turn page numbering off (**.op**).

Header and footer margins aren't displayed onscreen. To see how your margins will look when printed, use the page preview feature (if you have a graphics monitor). For information, See **Page preview**.

The dot commands for header and footer margins are **.hm** and **.fm**.

See also **Headers and footers**.

Paragraph margins

Paragraph margins set a separate left margin for the first line of each paragraph. This is useful for indenting the first line, or for outlines where you want the first line of a paragraph to hang out to the left of the text. For information, see **Paragraph margins**.

Math. See **Block math**, **Calculator**, and **Merge printing**.

Maximum document size

Files are stored in random-access memory (RAM) while you're working on them. When you're editing a document and less than 3K bytes of RAM are left, WordStar displays the message *Large-File* in the status line and stores some of the document in temporary files on disk.

In general, a file is too long when it takes up more than one third of the total space on the disk. Because WordStar needs room for the temporary files it creates, the available disk space must be at least twice the size of the document. For example, if you are editing a 120K file, you must have an additional 240K free. If less space is available, WordStar may be unable to store all your work. You may have to erase other files in order to save it.

See also **Memory usage** and **Temporary files**.

Memory usage

WordStar is loaded into the computer's random-access memory (RAM). If there is enough memory (and you have asked WordStar to do so), the spelling dictionary is also loaded into RAM the first time you use the spelling checker.

WordStar uses any remaining memory to hold the text being edited. The more memory that is available, the less WordStar needs to use the disk to handle the portion of the document that won't fit, and the faster the program runs.

You can also use DOS to allocate more memory for buffers. This lets programs run faster. For more information, see your DOS manual.

If your computer does not have enough available memory to load WordStar, it displays a message then returns you to the operating system.

TIP *To find out how much RAM is used by WordStar and your text and data files, choose* ***Display RAM usage*** *at the Other pull-down, or press* ***?*** *at the classic Opening Menu.*

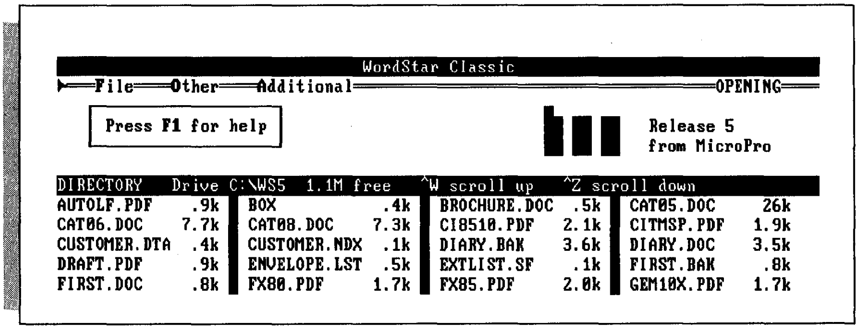
See also **Temporary files**.

Menus

A menu is a list of commands from which you choose the task you want to do. WordStar has two types of menus: pull-down and classic.

Pull-down menus

Pull-down menus contain WordStar's most-used control commands and dot commands. You'll see a menu bar at the top of the Opening and Edit screens. This bar lists the menus available at that screen. The menu bar on the Opening screen looks like this:



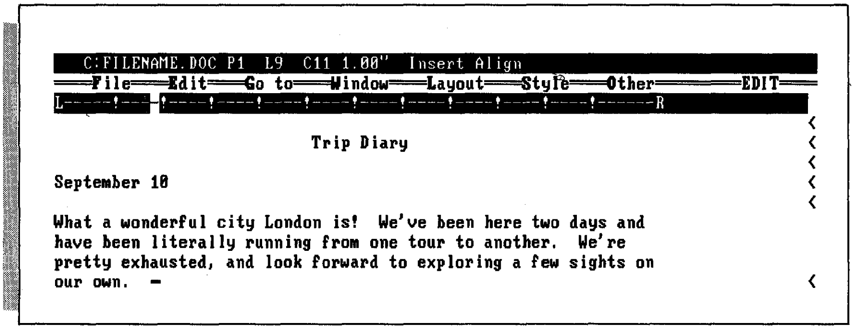
```
                              WordStar Classic
▶══File══Other══Additional═══════════════════════════════════OPENING══

   Press F1 for help                                Release 5
                                                    from MicroPro

DIRECTORY    Drive C:\WS5  1.1M free    ^W scroll up    ^Z scroll down
AUTOLF.PDF     .9k  BOX              .4k  BROCHURE.DOC  .5k  CAT05.DOC     26k
CAT06.DOC     7.7k  CAT08.DOC       7.3k  CI8510.PDF   2.1k  CITMSP.PDF   1.9k
CUSTOMER.DTA   .4k  CUSTOMER.NDX     .1k  DIARY.BAK    3.6k  DIARY.DOC    3.5k
DRAFT.PDF      .9k  ENVELOPE.LST     .5k  EXTLIST.SF    .1k  FIRST.BAK     .8k
FIRST.DOC      .8k  FX80.PDF        1.7k  FX85.PDF     2.0k  GEM10X.PDF   1.7k
```

To display a pull-down menu at the Opening screen, press the first letter of the menu you want. You can move between menus using the right and left arrow keys or **^S** and **^D**.

When you're editing a file, you see the Edit screen:


C:FILENAME.DOC P1 L9 C11 1.00" Insert Align
File
Edit
Go to
Window
Layout
Style
Other
EDIT
L----!----!----!----!----!----!----!----!----!----!------R

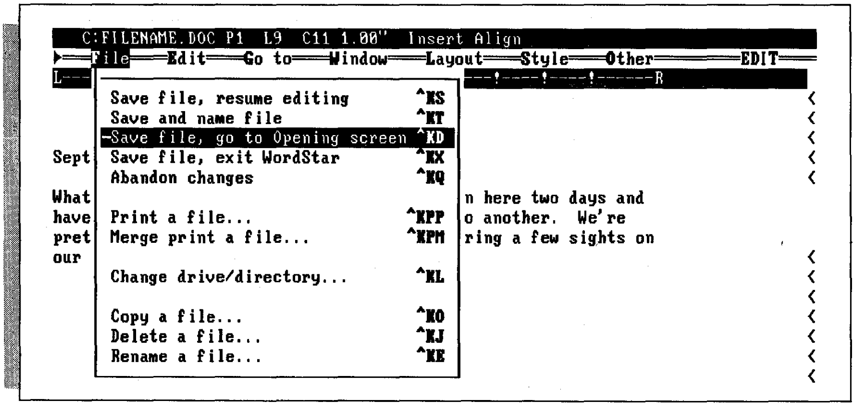
Trip Diary

September 10

What a wonderful city London is! We've been here two days and have been literally running from one tour to another. We're pretty exhausted, and look forward to exploring a few sights on our own.

At the Edit screen, press **Alt** and the first letter of a menu. You can also press **Alt** and the **Spacebar** to move the highlighting to the menu bar. Use arrow keys to move the cursor to the menu you want.

Once a menu is displayed, use the right and left arrow keys or **^S** and **^D** to move between menus. To choose a command, use the up and down arrow keys or **^E** and **^X** to move the highlighting to a menu choice and press ↵. In this example, if you pressed ↵, you would save your file and return to the Opening screen.


C:FILENAME.DOC P1 L9 C11 1.00" Insert Align
File
Edit
Go to
Window
Layout
Style
Other
EDIT
Save file, resume editing ^KS
Save and name file ^KT
Save file, go to Opening screen ^KD
Save file, exit WordStar ^KX
Abandon changes ^KQ
Print a file... ^KPP
Merge print a file... ^KPM
Change drive/directory... ^KL
Copy a file... ^KO
Delete a file... ^KJ
Rename a file... ^KE

To leave a pull-down menu without choosing a command, press **Esc**.

Prompts and Help

Some commands are followed by three dots (. . .). This means that you'll be asked for information if you choose one of these commands. For example, if you choose **Copy a file**, you're asked for the name of the file to copy from and the filename to copy to.

If you need help, highlight the command you want information about and press **F1**. WordStar displays a screen of information about that command.

Accelerator commands

Every pull-down command has an accelerator command listed next to it. For example, the accelerator command for opening a document file is **D**. An accelerator command is a shortcut. Instead of moving the highlighting to the function you want, you can press the accelerator command to choose it.

You can choose any command from the pull-down menu by pressing its accelerator command. The accelerator commands at the Opening screen are single letters. The accelerator commands at the Edit screen are either control commands or dot commands. The accelerator commands are the classic WordStar commands.

Note: Some accelerator commands can't be used while the pull-down menu is displayed. These commands appear dim onscreen. To use these accelerator commands, press **Esc** to leave the pull-down menu, then press the accelerator command.

Once you've learned accelerator commands, you can skip most of the pull-down menus entirely. The accelerator commands work even when the menus are not displayed.

A control command uses the **Ctrl** key. You hold down the key marked **Ctrl** and press the letter or letters of the command. For example, to boldface text, you hold down **Ctrl** and press **PB**. The control key is usually shown in text as a caret (^), for example, **^PB**.

A dot command begins with a period and is on a line by itself. The period must be in column 1 of the line. Type the period, the two- or three-letter code, and whatever text or setting is required. For example, to turn right justification on, you would type **.oj on**. To put a header line into a document, you would type **.he** and the text of the header, for example, **.he Casper Project: Initial Proposal**.

As you become more familiar with WordStar, you'll use accelerator commands more often. At that point, you may want to learn more of WordStar's commands that don't appear on pull-downs.

Classic menus

When the help level is set at three or below, the pull-downs don't appear, and the classic Opening Menu is displayed when you start WordStar. It lists commands for operations such as editing, printing, and deleting files.

The other classic menus are displayed when you are editing a file. When you open a document, the Edit Menu is displayed. It contains basic editing commands, including the commands to display the other classic menus.

The Block & Save Menu lists commands for operations on blocks of text and files. The Onscreen Format Menu lists formatting commands. The Print Controls Menu lists commands for printing enhancements. The Quick Menu lists commands for quick versions of editing commands, finding and replacing, math, and spelling checking. The Shorthand Menu allows you to use shorthand versions of common command sequences or phrases.

To see the classic menus, hold down the **Ctrl** key and press the command for the menu you want. For example, to see the Print Controls Menu, press **^P**. You can then choose any item on the menu by pressing the appropriate letter, for example, **B** for boldface. Once you're familiar with the commands, you can press the entire command at once, for example **^PB**.

To cancel a menu without choosing a command, press the **Spacebar**.

You can choose which menus you see by changing the help level. For example, if you choose help level 3, all the classic menus are displayed, but if you choose help level 2, the Edit Menu isn't displayed, so you have more room onscreen for your document. Choose help level 4 to use the pull-down menus. No matter which level you choose, all the control commands work.

If you're working in a protected file, the menus don't list any commands that can modify the file. Menus are also slightly different in nondocument mode.

See also **Help levels**, **Protecting a file**, and **Documents and nondocuments**.

Merge printing

Merge printing is the process of inserting information into a document while it's being printed. The most common uses of merge printing are form letters and mailing labels. Other applications include invoices, contracts, reports, and any other standard document that requires you to "fill in the blanks."

To merge print you need a master document that contains both the text of the document and the instructions for inserting the merged information. These instructions include variables and merge print dot commands.

A variable is information that changes from one copy of a document to another, for example, a name or an address. When you merge print, WordStar merges the information for the variables into the copies of the document. This merged information can come from various places. It can come from a data file, such as a mailing list. Or you can specify the information when you print the document. You can use data files from Lotus 1-2-3, Symphony, dBASE, Quattro, and MailList, or you can create your own. For more information, see **Data files**.

Variables

Master documents contain variables wherever data is to be inserted. You assign a name to each variable. At the spot in the text where you want to insert variable data, type the variable name with ampersands (&) before and after it. For example, to insert the contents of the name field from your mailing list, type **&name&**. You can place a variable within a paragraph or on a line by itself.

A variable name can contain up to 39 characters. You can use uppercase and lowercase letters interchangeably, and you can put a space between the name and the ampersands. For example, &address&, &ADDRess&, and & address & are all the same to WordStar. You can't use a comma in a variable name, but you can use other punctuation marks.

To use a variable name with two or more words, use a hyphen (–) or underline character (_) where the space would otherwise be, for example, **&first-name&**.

If the data file doesn't contain any information for the variable, WordStar doesn't print anything in the document; for example, if you typed **&name& &title&**, and the person didn't have a title, WordStar would print just the person's name. However, if the variable is the only text on a line, as in an address, the line probably also contains a carriage return. In this case, if the variable is empty, the printout will include a blank line. To avoid leaving a blank line, use the **/o** (omit) option at the end of the variable name. (This is the letter o—uppercase or lowercase—not a zero.)

For example, it's common for some addresses on mailing lists to have more lines than others. The **/o** option allows you to use an extra line of address where needed without having a blank line for shorter addresses. The example below shows how an address would be specified with variable names without the **/o** option, and how it would print for one mailing list record.

&name&	**Richard Kelley**
&address1&	**72 Live Oak Dr.**
&address2&	
&city&, &state& &zip&	**Novato, CA 95390**

The next example shows how the same record prints using the **/o** option.

&name&	**Richard Kelley**
&address1&	**72 Live Oak Dr.**
&address2/o&	**Novato, CA 95390**
&city&, &state& &zip&	

For **/o** to work, the variable name must be alone on the line in the master document.

You can also include formatting information with the variable by inserting a slash (/) and the number of a format you have predefined. See **Merge printing variable formatting** and **Merge printing variable number formatting**.

There are four predefined variables. Data for these variables is supplied by WordStar when you print; you need to enter only the variable name.

VARIABLE	DESCRIPTION
&#&	Inserts the current page number.
&_&	Inserts the current line number.
&@&	Inserts today's date. The format for the date is the same as for the shorthand date and can be changed with WSCHANGE.
&!&	Inserts the current time. The format for the time is the same as for the shorthand time and can be changed with WSCHANGE.

If you use these variables in a document, be sure to print using **Merge print a file (M)**.

You can use variable formatting with predefined variables to control the way the data is inserted in your form documents. See **Merge printing variable formatting**.

See also **Shorthand**.

Merge print dot commands

You type dot commands in the master document to tell WordStar the variable names and where to get the data that goes with them. If you use variable names in your document but don't define the variables, WordStar will print the variable name instead of the data.

You cannot use a piece of data that is longer than 255 characters. In addition, the total number of characters in all the data inserted in any one copy of the document during merge printing cannot be more than 4,000.

Be sure to end each master document with a page break (**.pa** ↵) so that each copy of the document starts printing on a new page. To check this, move the cursor to end of the file (**^QC**). The cursor should be in column 1 on the line following the page break.

To merge data from a data file into your document, use the **.df** and **.rv** commands in the master document. If you want to insert variable data into a document without using a data file, use the **.av** or the **.sv** dot command in the master document.

The .df (Define file) command This command tells WordStar what data file to use; for example, **.df wslist.dta**. Include a drive letter or directory path if necessary, for example, **.df b:wslist.dta** or **.df \lists\wslist.dta**.

You can use the **change** (or **c**) option to indicate that you need to change disks while printing, to access the data file. For example, type **.df b:wslist.dta change** to say that the data file named WSLIST.DTA will be on drive B, but it's not there now. When you merge print, WordStar asks you to change the disk before it reads the data file.

You can also use **.df** to tell WordStar that the data file uses a character other than the comma as the data separator. This is useful if your data contains many commas. For example, if the data file STAR.DTA uses the asterisk (*) as the data separator, you would type

```
.df star.dta, *
```

You can use dBASE, Lotus 1-2-3, Symphony, Quattro, or MailList files as data files. See "Using data files from other programs," later in this section.

The .rv (Read variable) command This command tells WordStar the variable names for the fields in your data file. The **.df** and **.rv** commands are always used together in a master document, and **.df** must come first. The example below tells WordStar to read the data from the WSLIST.DTA file and use it to replace the variables name, address1, address2, city, state, and zip.

```
.df wslist.dta
.rv name,address1,address2,city,state,zip
```

When you merge print, WordStar keeps putting data in copies of the form document until all the data is read from the data file. The **.rv** command must name all the fields in the data file, and name them in the same order in which they appear in each data file record. Even if data from a field is not used in a form document, you must name the field in the **.rv** command. You must also be sure that all records in the data file have the same number of fields.

If the **.rv** command and the data file records don't correspond exactly, WordStar reads the wrong data. This happens because WordStar counts the number of variable names in the **.rv** command and then reads that many fields. Because fields can be separated either by commas or carriage returns, WordStar reads fields from the next line (or record) if there aren't enough fields in the current line (or record).

You can use more than one **.rv** to refer to the same data file. For example, the commands below have the same effect as the one in the previous example.

```
.df wslist.dta
.rv name,address1,address2
.rv city,state,zip
```

If you want to use only the first few fields from each record, use the **.rv*** command. This command tells WordStar to get the named fields, then go to the next line. (The **.rv*** command works with comma-delimited data files and won't work with data files that use a hard return to separate each field.)

To use this command, type **.rv*** and specify all the fields up to the last field you want to include; for example, if each record in your data file contains 15 fields, but you want to use only items from the first, second, and fifth fields, type **.rv*** ***name1, name2, name3, name4, name5***. Note that you must list each field up to the last field you want. When you merge print, WordStar reads only the first five fields in each record.

Note: If you use more than one **.rv*** command in a single master document, be sure to give each variable a different name. For example, if you have a data file that lists the sales for each month, you could print a report listing sales for the quarter by using a separate **.rv*** command for each month in the quarter:

```
.rv* distA1, distB1, distC1
.rv* distA2, distB2, distC2
.rv* distA3, distB3, distC3
```

You can use **.rv** and **.rv*** commands to specify up to 4000 characters in a single master document.

The .av (Ask for variable) command This command tells WordStar to pause during printing and ask you for the data to use to replace a variable. For example, if you want to insert a different name in each document, type

```
.av name
```

When you merge print this document, WordStar pauses in each document and asks *NAME?*

You then type the name and press ↵. Wherever &name& appears in the document, WordStar replaces it with the data you typed.

This is a convenient for contracts, where you can specify the person's name once at the beginning of the file, and have WordStar fill in this name wherever the variable occurs in the file. With the **.av** command, you can also include a prompt for WordStar to display when it asks for the data. This prompt could be instructions to whoever prints the file. Type the prompt after the **.av** and before the variable name. Enclose it in quotation marks and follow it with a comma. To add a prompt to the example above, you could type

.av "Type the full name of the client: ", name

If you use quotation marks within the prompt, enclose the prompt in apostrophes:

.av 'Enter the "Schedule B" rate: ', rate

A prompt or question and its answer cannot be more than one line long because the cursor will stop when it reaches the right edge of the screen. This limits the size of answers, so if you want to leave room for longer answers, keep your prompts short.

TIP *For a long prompt, use the* ***.dm*** *command to display the prompt message, then use* ***.av*** *with no message or a short message. See* ***Messages while printing****.*

When WordStar encounters the **.av** command, it displays the *Print wait* message in the status line. To enter the data for the variable, choose **Print a file** from the File pull-down, or press **P** at the classic Opening Menu or **^KP** at the editing screen.

The .sv (Set variable) command This command allows you to include in a master document the data you want to replace a variable with. It is useful in documents where a frequently used word changes from copy to copy of the document. Type **.sv** followed by the variable name, a comma or equal sign, and the data.

For example, you might have a contract between two people, referred to in the master contract as party1 and party2. Each time you print the contract, you want to use new names. At the beginning of the document, enter two **.sv** commands. Each time you need a new contract, edit the master document to enter the appropriate names in the **.sv** command. For one contract, the commands might read

.sv party1, Roberta Kachinsky
.sv party2, Anna Marie Casini

WordStar ignores any spaces after the comma or equal sign. If you want to include leading or trailing spaces in data in the **.sv** command, enclose the variable in quotation marks or apostrophes. In the example below, there are four blank spaces before the name, so four spaces will be inserted at the beginning of the data.

.sv company="   MedCom,Inc."

The .ma (Math) command This command enables you to perform calculations while you are merge printing. It lets you define a variable in terms of an equation that uses information from other variables. For example, you could total the dollar amounts of a customer's monthly purchases and insert a different total for each customer.

The **.ma** command is used in the following format:

.ma *variable = equation*

The equation is written like equations used with the onscreen calculator, except that you can use merge print variables. So, the merge print variable that contains the total amount of a customer's purchases could be calculated during merge printing by using the dot command shown below.

.ma total = &item1& + &item2& + &item3& + &item4&

You can use the comma instead of the equal sign, as shown below.

.ma total,&item1& + &item2& + &item3& + &item4&

Notice that the merge print variables to the right of the comma (or equal sign) are surrounded by ampersands (&), while the variable to the left of the comma (or equal sign) is not. This is because the ampersands mean "substitute the data here."

When you print, WordStar reads data for the variables item1, item2, item3, and item4 from a data file, adds them, and inserts the total in the text as the data for the total variable. You can then go on to use the total variable in another equation (&grandtotal&= &total& * .06 + &total&). You also need to use the **.df** and **.rv** dot commands. (As an alternative, you could supply data without a data file using the **.av** or **.sv** dot command.) See **Calculator**.

The .pf (Print time reformatting) command Your master document includes variable names that are replaced by actual data when you print. The data may be different lengths in each copy of the document, so the length of lines changes as data is inserted. WordStar can align each document at print time to format the text around the data.

.pf on aligns every paragraph in the document. **.pf off** turns print time reformatting off. **.pf dis** aligns paragraphs at WordStar's discretion, meaning that WordStar reformats only the paragraphs where data has been inserted in a variable. The aligning begins at the line where the insertion occurred. **.pf dis** is the default; if you don't use the **.pf** command in your form document, WordStar will use discretionary (dis) reformatting.

The example below shows text from a master document and actual printed text for one copy. The data in the printed document is longer than the variable names in the master. WordStar reformatted the text as it printed so it stayed within the margins.

This contract is entered into on the &day& day of &month&, &year& between &party1& and &party2&.

This contract is entered into on the twenty-seventh day of
September, 1988 between Roberta Kachinsky and Anna Marie Casini.

If you are printing data that may extend beyond the text margins, you may want to use **.pf off** so that your lines won't wrap. As an alternative, you can use **.aw off** to mark sections of text that you don't want aligned (see **Aligning text**).

TIP *Reformatting may change page breaks. Use the* ***.cp*** *command if you want to keep certain lines of text together on the same page. See* ***Page breaks****.*

When WordStar reformats, it uses the margins and line spacing that are in effect at that point in the document.

Printing a form document

To merge print, choose **Merge print a file** from the File pull-down. The classic commands are **M** at the Opening Menu or **^KP** at the editing screen. Type the master document name and press **F10** or **^K** to begin printing. See **Printing a file** for information on print options.

If you use the **Print a file** command to print a document that contains merge print variables and dot commands, WordStar does not substitute data for variables, and the **.av**, **.sv**, **.df**, **.rv**, and **.ma** dot commands do not work.

Using data files from other programs

You can use files from Lotus 1-2-3 (all versions except 3), Symphony, Quattro, dBASE II®, III, or III Plus, and MailList as data files for merge printing.

To specify the worksheet or database, type **.df *filename*** in your WordStar master document, using the database or worksheet filename. WordStar treats the rows and cells in the spreadsheet as records and fields, respectively.

When you use a spreadsheet as a data file, WordStar ordinarily uses the entire spreadsheet and window 1 (or the MAIN window for Symphony). You can specify a different range or window. For example, to use just the range H3 to T33 and window 2, type **.df *filename,* h3...t33, 2**. Keep these points in mind:

- You can specify the range by using range names or cell numbers. If you use cell numbers, you can type an asterisk to represent the last cell in the worksheet; for example, A3.. * specifies a range from A3 to the end of the worksheet.
- If you want to specify just a window, type two commas before the window number, for example, **.df *filename,,*2**.
- If the data file is on a separate disk and you want WordStar to prompt you to insert the disk at print time, use the **c** option. Type the **c** after the filename and before the range or window, for example, **.df *filename* c, he..t33**. Don't type a comma before the **c**.
- If you specify a Symphony worksheet and don't specify a window, WordStar looks for the window called MAIN. If you've deleted or renamed this window, be sure to specify a different window name.

After you use the **.df** command to specify the data file, use the **.rv** command to name the variables.

If you specify a dBASE data file, type **.rv*** and don't type any variable names. WordStar automatically picks up all the dBASE names for the fields. Be sure the variables in the text of the master document match the dBASE field names.

dBASE III Plus™ lets you create memo fields of unlimited length. You can name a memo field as a variable and thus include a customized sentence or paragraph in each letter at print time.

If you specify a worksheet as a data file, you can name the variables as in a regular **.rv** command, or you can use the * option and specify selected columns, rows, or cells from the worksheet.

To specify columns, type a dollar sign ($) in front of each column letter; for example, if you want to use only information from columns C, J, and M, type **.rv* $C,$J,$M**.

If you're using a column-major (vertically based) worksheet, specify the selected rows, for example, **.rv* $1,$5,$7,$25**. You can't select both columns and rows in the same **.rv*** command.

When you're specifying either columns or rows, you can also specify a specific cell reference, for example, **.rv* $C,$J,$K,$T$33**. This is useful if your worksheet contains a constant, such as an hourly wage or a unit price, that you want to use in all the form letters.

Note: When you type the variable names in your master document, be sure to include the dollar sign before the row and before the column, for example, **&$J&** or **&$T$33&.**

By using data from dBASE or worksheet files, you can print reports from spreadsheet results, use 1-2-3 as a mailing list manager, compile reference lists for footnotes and bibliographies, or print invoices based on data in these files. See the "Applications" tab section for more information.

For information on MailList data files, see the "MailList" tab section.

See also **Command files**, **Data files**, **Merge printing conditional commands**, **Merge printing variable formatting**, **Merge printing variable number formatting**, **Messages while printing**, and the "Applications" tab section.

Merge printing conditional commands

WordStar's conditional merge print dot commands allow you to use the same master document to produce letters that contain different types of data, depending on conditions you set. For instance, you can use one master document and one data file to generate letters that each contain one of four customized paragraphs depending on where the recipient lives.

There are three conditional merge print dot commands: **.if** for "if," **.ei** for "end if," and **.el** for "else."

The IF condition

WordStar usually determines if a condition is met by comparing one item with another. The items can be data items taken from a data file or items that never change (constants). For example, you can send letters only to clients who purchased more than $1000 worth of merchandise, or only to clients who live in New Jersey. Typically, one item is a data item and the other is a constant, but you can use any combination.

WordStar can compare items to determine whether or not they are the same (for text) or equal (for numbers), or if one comes before or after the other in alphabetical or numerical order. You tell WordStar how to compare items by using one of the following symbols, called operators.

OPERATOR	MEANING
=	is the same as
<	comes before (alphabetically)
>	comes after (alphabetically)
<=	comes before or is the same as (alphabetically)
>=	comes after or is the same as (alphabetically)
<>	is not the same as (alphabetically)
#=	is equal to (numerically)
#>	is greater than (numerically)
#<	is less than (numerically)
#>=	is greater than or equal to (numerically)
#<=	is less than or equal to (numerically)
#<>	is not equal to (numerically)

The most common way to specify a condition to be evaluated with the **.if** command is to use the following format.

.if *item1 operator item2*

For example, you can compare a merge print variable to a constant (a word, phrase, or number that does not change) as shown below.

.if &PET& = dog

In this example, the condition is met if the data item for the variable PET is dog.

The operators that begin with the # symbol are used with numbers rather than with words. It is possible for either number item being compared to contain nonnumeric characters, but before WordStar proceeds with the comparison, it removes all the nonnumeric characters except the minus sign (–) and the period (.).

So, numerically the following items are equal because WordStar ignores all nonnumerals.

```
12.45
$12.45
abc1d2.dcs45
```

If each of these three items is in the &amt& field, and you use the following dot command, all three items meet the condition.

```
.if &amt& #= 12.45
```

However, if you use the operator without the # symbol, only the first item would meet the condition because numerals are considered to be alphabetic characters that come before A. Generally, it is best to use the operators with the # symbol when comparing numbers.

You can also compare one data item with another, as in the examples below.

```
.if &VAR1& > &VAR2&
.if &VAR1& #> &VAR2&
```

The condition in the first example is met if the data for VAR1 comes after the data for VAR2 in alphabetical order. In the second example, the condition is met if the number in VAR1 is greater than the number in VAR2.

Normally, WordStar ignores any spaces that come between the operator and the following item. The following commands are equivalent.

```
.if &PET&=dog
.if  &PET&  =        dog
```

In order for two items to be the same (=), they must have exactly the same characters (differences in uppercase and lowercase are ignored). If you know that a data item from a data file has spaces in front of the letters, you need to include the leading spaces in the comparison. To include spaces, enclose both the variable and the constant in quotation marks (or apostrophes). Thus, the condition shown below will be met only if the data in &PET& is dog preceded by eight spaces.

```
.if "&PET&" = "        dog"
```

To use quotation marks in the constant along with leading spaces, enclose the entire item in apostrophes. To use an apostrophe in the constant along with leading spaces, enclose the entire item in quotation marks, as in the example below.

```
.if "&PET&" = "        dog's"
```

You cannot have quotation marks, apostrophes, and leading spaces in the same constant. If the constant has no leading spaces, you can use quotation marks and apostrophes freely anywhere.

Words are compared in alphabetical order. The word "cat" comes before the word "catalog" in alphabetical order, so the following conditions are true:

.if cat < catalog
.if catalog > cat

In alphabetical order, numbers come before the letter A. For example, the following condition is true:

.if 2 < apple

You can also use the **.if** command with just one variable name, as in the example below:

.if &PET&

Notice that there is no operator. The condition is met if the data for &PET& is not zero and not blank.

The END IF command

The **.if** dot command is followed by the action to be taken when the condition is true. If there is text after the dot command, that text will be printed only if the condition is true. If there is another dot command after the **.if** command, the new dot command will be performed if the condition is true. To indicate the end of the conditional text or commands, use the dot command **.ei** (End If).

What comes between .if and .ei?

Almost anything can come between a **.if** command and its corresponding **.ei**. In the following example, a paragraph of text is printed in the letter when the condition specified in the **.if** command is true.

.if &PET& = dog
We know that your dog will love new BEEFO dog food, made from the highest quality beef and beef by-products. As an inducement for you to come in and look over our new facility, we are offering a 25-pound bag of BEEFO for just 10 cents, this week only.
.ei
.if &PET& = cat
Your cat will just love new FISHO cat food, made from real fish and aromatic herbs. Come in, look over our new facilities, and take home a 50-pound bag of FISHO for just 25 cents, this week only.
.ei

If the client has a dog, the first paragraph will print in the document. If the client has a cat, the second paragraph will print.

You can also insert text from other files; for example, a retailer could include free delivery information only for customers within certain ZIP codes.

TIP *By keeping often-used conditional paragraphs in their own files, you can easily insert them into different master documents.*

The ELSE condition

The previous example uses two IF statements to take advantage of two possible conditions (that is, if the variable PET is dog or if it's cat). You can combine these two IFs into one. First, in English:

If the data for the variable PET is dog, insert a paragraph about dog food, or else, insert the paragraph about our low prices for all pet food.

Notice that there is a slightly different meaning here. The second paragraph will be inserted if the variable is anything other than dog, for example, if it's fish or if the data is missing.

The phrase "or else" translates into the **.el** merge print dot command as shown below.

```
.if &PET& = dog
We know that your dog will love new BEEFO dog food, made from the highest
quality beef and beef by-products. As an inducement for you to come in and look
over our new facility, we are offering a 25-pound bag of BEEFO for just 10 cents, this
week only.
.el
We are proud to carry quality pet food at low prices. As an inducement to visit our
new store, present this letter to get 10% off your first purchase.
.ei
```

The .GO command

The **.go top/bottom** command tells WordStar to skip to the beginning or end of a file and then resume printing. It can be useful for conditional merge printing as shown in the example below.

```
.if &PET& <> dog
.go bottom
.ei
```

In this example, if the data for the variable &PET& is not dog, the rest of the text in the master document is not printed in the current letter, and WordStar skips to the bottom of the file before it starts printing again. Add these commands before any text if you want a document printed for certain people only.

The command **.go t** is the same as **.go top**. The command **.go b** is the same as **.go bottom**.

Nested .if commands

You can use conditional merge print commands to have WordStar choose among three or more alternatives by nesting the commands. For example, you might want to have a special dog paragraph in your letters to dog owners, a special cat paragraph to cat owners, and a general paragraph to all the other pet owners on your list. So your conditions are

If the data for the variable &PET& is dog, insert the file DOG.DOC; or else, if the data is cat, insert the file CAT.DOC; or else, insert the file ANIMAL.DOC.

The commands for the conditions are shown below.

```
.if &PET& = dog
.fi dog.doc
.el
.if &PET& = cat
.fi cat.doc
.el
.fi animal.doc
.ei
.ei
```

Every **.if** command must have a corresponding **.ei** command. The **.if** command may or may not have a corresponding **.el** command.

TIP When you type nested conditional commands, you may want to indent each nested condition. Indenting can make it easier to work with nested IFs. However, if you indent, you must delete the indents before you print, because all dot commands must begin in column 1. The example below shows how the commands shown above appear with indenting. Note that each column begins with the ***.if*** *command and ends with the* ***.ei*** *command.*

```
.if &PET& = dog
.fi dog.doc
.el
     .if &PET& = cat
     .fi cat.doc
     .el
     .fi animal.doc
     .ei
.ei
```

The example below shows another way to use nested IFs. You want to send a letter to everyone on your list who lives in St. Louis, Missouri except for the people who live around the University of Missouri. ZIP codes in St. Louis range from 63101 to 63199, and the ZIP code for the university is 63121. You would create a command file with the following conditional merge print commands.

```
.if &zip& #<= 63199
.if &zip& #>= 63101
.if &zip& #<> 63121
.fi letter.doc
.ei
.ei
.ei
```

The first **.if** command eliminates ZIP codes greater than 63199, and the second eliminates codes less than 63101. The third **.if** eliminates the 63121 ZIP code. Only ZIP codes that meet all three conditions generate letters. All others are ignored.

See also **Command files, Nesting and chaining**, and the "Applications" tab section.

Merge printing variable formatting

Variable formatting allows you very close control of the appearance of your form documents, especially those that use merge print variables in tables or charts.

For variable formatting, you must first define formats for variables. Use the **.sv** dot command to define each format. You can then include any format with any variable in the master document. After the variable name, but before the closing ampersand, type a slash (**/**) and the format name. For example, if you define a format named 6 and you want to use it with the name variable, when you enter the variable in the master document, type **&name/6&**.

You cannot use variable formatting and the **/o** option with the same variable. See **Merge printing**.

The sample format definition below defines the format named 6.

.sv 6=LLLLLLLLLLLLLLLLLLLL

After the **.sv** comes the format name (6), followed by either an equal sign or a comma, then the format definition. You can use any digit or letter (except the letter o) as a format name. WordStar does not distinguish between uppercase and lowercase letters in format names.

The number of characters in a format definition sets the number of spaces in the format. Each character in the definition represents one character space. In the example above, the format is 20 spaces wide because there are 20 Ls. So the total number of spaces and characters used to replace the variable in the form document is 20.

The first letter in a format definition sets how the data will be justified within the format. It is either L, R, or C. L means that data is to be inserted into the format flush left, or left-justified. R means that data is to be inserted flush right, or right-justified. C means that the data is to be centered in the format. Again, WordStar does not distinguish between uppercase and lowercase letters. If the format definition does not begin with one of these characters, then WordStar assumes that the format is for numbers. See **Merge printing variable number formatting**.

If a data item is longer than the format, WordStar truncates the data item. If the field is left-justified or centered, WordStar truncates any data left over at the right end of the data item. If the field is right-justified, WordStar truncates from the left end of the data item.

If the first character is L, each L in the format definition will be substituted with data or, if there is no data for the corresponding position, with a space. If the first character is R, each R will be substituted with data or space, and likewise for C.

Any character (including a space) that is different from the first character in the field format definition is printed literally even if there is data for that position. For example, if the format is LLXL and the data item is 1234, WordStar prints 12X4. The X is different from the L so it is printed literally.

This process is called masking because characters in the format definition mask out characters in the data item. The most common masking character is the space. You can use spaces in a format definition to the left of the first L or R in the definition. (Any other character used to mask can't be the first character in the format definition.) In order to include leading spaces in the format definition, you must enclose the definition in apostrophes or quotation marks. In the example below, there are two spaces between the initial quotation mark and the first L.

.sv 6 = " LLLL"

If the data is 1234, the variable in the form document is replaced with:

(two spaces)**34**(two spaces)

The leading spaces in the format definition mask out the first two characters of the data item. The last two Ls in the format definition are replaced with spaces because the field is six characters long and the data is only four characters long.

Masking works only with left- and right-justified fields. When C is the first character in the definition, characters other than C are inserted into the data but do not replace any characters in the data.

Merge printing variable number formatting

You can use variable formatting to control the appearance of numeric data items that replace variables in your form documents. You can read the numeric data from a data file or use the WordStar **.ma** command to calculate numbers during merge printing.

First, you must set up formats for numeric variables using the **.sv** dot command. You can then include any format with any variable in the master document. After the variable name, but before the closing ampersand, type a slash (/) and the format name. For example, if you set a format named 3 and you want to use it with the amount variable, when you enter the variable in the master document, type **&amount/3&**.

The sample number format definition below defines the format named 3.

.sv 3 = $$,$$$.99

After the **.sv** comes the format name (3), followed by either an equal sign or a comma, then the format definition. You can use any digit or letter (except the letter o) as a format name. WordStar does not distinguish between uppercase and lowercase letters in format names.

The number of characters in a format definition sets the number of spaces in the format. Each character in the definition represents one character space. In the example above, the format is nine spaces wide because there are nine characters. So the total number of spaces and characters used to replace the variable in the form document will be nine.

Numbers are always right-justified in their formats. Several different symbols are used in number formats to specify what to do with any extra spaces at the left of the format (for example, print zeros or print spaces) and where to put decimal points and commas.

The chart below shows characters you can use in a number format and how they work.

CHARACTER	DESCRIPTION
9	Substitutes a digit here. If there is no digit in the data item for this position, substitutes a zero. For example, if you use the format **99999.99**, the data **74.97** prints as **00074.97**.
Z	Substitutes a digit here. If there is no digit in the data item for this position, or if the digit is a leading zero, substitutes a space. For example, if you use the format **ZZZZZ.ZZ**, the data **74.97** prints as **(three spaces)74.97**.
*	Substitutes a digit here. If there is no digit in the data item for this position, or if the digit is a leading zero, substitutes an asterisk (or a zero after the decimal point). For example, if you use the format *****.**, the data **74.97** prints as ***74.97 and the data **74** prints as ***74.00
$	Substitutes a digit here if the digit is not a leading zero; otherwise, substitutes a space. Places a dollar sign to the left of the first digit. For example, if you use the format **$$$$$.99**, the data **74.97** prints as **(two spaces)$74.97**. Note that in this example, you can only use numbers up to 9999.99. In other words, with the **$**, you must have one more character in your number format than the largest number you expect to have as data.
–	Substitutes a digit here if the digit is not a leading zero; otherwise, substitutes a space. Places a minus sign directly before the first digit if the number is negative. For example, if you use the format **–$$$$$.99**, the data **–24.41** prints as **(two spaces) –$24.41**. As with the **$**, be sure to leave enough spaces in the format for the largest number you expect to have plus the minus sign and the **$** if you use it.
.	Puts the decimal point here. If the data has more decimal places than the format, the data is truncated (the extra digits are not printed). For example, if you use the format **9999.999**, the data **4.7885** prints as **0004.788**. If the data does not include a decimal point, the whole number is printed to the left of the decimal point. For example, with the same format, the data **1111** prints as **1111.000**.
,	Puts a comma here. For example, if you use the format **99,999**, the data **7497** prints as **07,497** and the data **74** prints as **00,074**.

CHARACTER	DESCRIPTION
( )	Puts parentheses around a number if it is negative; otherwise, substitutes spaces. The parentheses must be the first and last characters in the format definition. For example, if you use the format (****.99), the data **–74.97**prints as **(two spaces)(74.97)**. As with the **$** and **–**, be sure to leave enough spaces in the format for the largest number you expect to have plus the minus sign and the **$** if you also use it. For example, in order for the data **–12345.67** to print correctly as a dollar amount, the format must have six characters within the parentheses before the decimal point. The shortest format for this example would be **($$$$$$.99)**.

The characters above are the only characters you can use in a number format. If you use other characters, the results are unreliable.

If data is longer than the format specified for it (except for extra digits after the decimal point), WordStar prints a series of question marks the width of the format in the form document.

Messages while printing

You can use the **.dm** and **.cs** dot commands in a document to affect the screen display while you print the document. They are useful for displaying messages that explain what's going on while you're printing. **.cs** clears the screen and **.dm** displays a message. These commands allow you to do the following:

- Show how much of a document has been printed.
- Display the data that's being inserted into variables during merge printing.
- Give reminders and instructions to the person doing the printing.

For example, you can type the following dot command at the beginning of Chapter 3 of a document.

```
.dm Chapter 3 is being printed now.
```

The following example shows how you can use these commands in merge printing when you have a long question or answer.

```
.cs Type the data for "union name" after the question mark.
.av "? ",union-name
.dm Thank you.
```

During printing, when WordStar encounters the **.cs** command it clears the screen and displays

```
Type the data for "union name" after the question mark.
?
```

After you type the data and press ↵, it displays

```
Thank you.
```

Messages are displayed only on the Printing screen. You don't ordinarily see these screens during background printing. To display the Printing screen, choose **Print a file** from the File pull-down or press **P** at the classic Opening Menu or ^**KP** at the editing screen as soon as printing begins. If you display messages for most of your files, you may want to use WSCHANGE to change the background printing default.

See also **Merge printing**.

Microjustification

When text is justified, microjustification spreads the white space between words (and sometimes between the letters of each word) as evenly as possible.

This makes text look more even, but on some printers, it slows down printing. WordStar turns microjustification on or off depending on your printer.

If you have a slow printer, but you want microjustification, use the **.uj on** command to turn microjustification on. To turn it off, type **.uj off**. To let WordStar determine whether to use it, type **.uj dis**.

You can use PRCHANGE to permanently change the default for each of your printers.

Moving text

After you mark a block of text, you can move it to a new location in the same file or to a file in a different window.

To move text in the same file, place the cursor where you want the text to appear, and choose **Move block** from the Edit pull-down or press ^**KV**. To move text from a different window, choose **Move block from other window** from the Window pull-down or press ^**KG**. For more information, see **Blocks** and **Windows**.

N

Naming a file. See **Files**.

Near letter quality printing

Many dot matrix printers have both a draft quality print and a high quality print that is referred to as "near letter quality" or "correspondence quality."

If your printer has this capability, you can turn letter quality off by typing **.lq off** at the beginning of the file. This is useful for quickly printing a draft of your document. To turn letter quality on for the final draft, type **.lq on**. Keep in mind that near letter quality printing is often slower than draft quality printing.

The default setting is **.lq dis** (discretionary), where the setting is determined by the fonts you use. You can change the default with PRCHANGE.

TIP ***.lq 0*** *(zero) is the same as* ***.lq off****;* ***.lq 1*** *(one) is the same as* ***.lq on****.*

Nesting and chaining

Use the **.fi** dot command to link files for printing. You can chain them so that they print one after the other, or nest them, inserting one inside the other. The files are connected only for printing; their contents remain separate. (For information on permanently adding a copy of one file to another, see **Inserting text and files**.)

TIP *Use* ***.fi*** *to create indexes and tables of contents for a document that is made up of several files.*

To insert a file, place the cursor at the start of the line where you want the inserted file to print, and type **.fi** followed by the name of the file you're chaining or nesting. If the file is on a different drive or directory, include the drive letter or directory path:

```
.fi b:part2.pkg
.fi \doc\part3.pkg
.fi d:\work\part4.pkg
```

If the file is on a different disk, use the **c** (**change**) option to tell WordStar to pause during printing and prompt you to insert the new disk. For example:

```
.fi b:addendum.pkg c
```

To chain files, put the **.fi** command for the next file at the end of each file. If you want the next document to begin on a new page, add a **.pa** command to insert a page break just above the **.fi** command. See **Page breaks**.

TIP *WordStar automatically numbers all the pages in order. If you want an inserted file to use different page numbers, assign a starting page at the beginning of the inserted file. For more information, see* ***Page numbering****.*

To nest files, type the **.fi** command where you want the next file to be inserted into the present one. Once the nested file is printed, printing of the original file resumes where it left off.

You can nest one file inside another, and those two inside a third, and so on, up to eight levels.

Note: The nesting level is very important when you merge data files and documents. The printout repeats only the file containing the **.df** command and any files nested within this file.

To print the files, type the name of the first file in the series. The **.fi** commands tell WordStar to insert all the other files on cue.

You can create a command file containing only the **.fi** commands instead of putting the commands at the end of each document. For example, if you have a document with five chapters, you can create a command file called BOOK.ALL, as shown below:

```
.fi b:chapter1
.fi b:chapter2
.fi b:chapter3
.fi b:chapter4 c
.fi b:chapter5
```

To start the printout, print the command file, BOOK.ALL. WordStar reads the file and prints each chapter on cue. In this example, Chapters 1, 2, and 3 are on the first "b:" disk, and chapters 4 and 5 are on the second. The **c** option tells WordStar to prompt you to change disks. Because you need to change the disk in drive B while printing, the BOOK.ALL command file can't be on drive B.

See also **Command files** and **Merge printing**.

Newspaper-style columns. See **Columns**.

Nondocuments. See **Documents and nondocuments**.

Numbering. See **Line numbering**, **Paragraph numbering**, **Paragraph margins**, and **Page numbering**.

O

Opening a file. See **Creating a document or nondocument**, **Editing**, and **Speed Write**.

Overprinting

You can overprint a character using the ^**PH** command, and you can overprint a line using the ^**P** ↵ command. These commands are described below.

COMMAND	DESCRIPTION
^**PH**	Two characters are printed in one space. After you type the first character, press ^**PH**. The symbol ^H appears at the cursor position. Then type the second character. When you print the document, the character after the ^H prints on top of the previous character. For example, if you type **c**, then press ^**PH**, then type |, you'll see c^H| onscreen, but it will print as ¢. To overprint more than two characters, press ^**PH** again before each additional character. *Note:* If you frequently overprint with the same characters you can use WSCHANGE to have WordStar automatically overprint the characters. Once you enter a character into the auto backspace table, WordStar automatically adds ^**PH** to the character so that it overprints the previous character.
^**P** ↵	Two complete text lines are printed on top of each other. First, type either of the lines. Don't let the line wrap to the line below; instead, end the line by pressing ^**P** and then ↵. A hyphen appears in the flag column. Type the next line, and end it by pressing ↵. When you print, the two lines print on the same line. ***TIP*** *To make sure the two lines line up correctly, turn microjustification off (**.uj off**). For more information, see **Microjustification**.* To overprint more than two lines, press ^**P** ↵ between the lines to be overprinted.

P

Page breaks

A page break is the division between two pages. It's shown onscreen as a line across the screen ending with a P in the flag column. This line doesn't print. The line right after the onscreen page break prints as the first line of the next page.

WordStar inserts page breaks automatically when the text fills a page. If you're using newspaper-style columns, WordStar inserts the page break when the last column is filled. These are "soft" page breaks. If you later add or delete text, the soft page breaks move accordingly.

You can insert hard page breaks anywhere you want to begin a new page. Hard page breaks stay with specific text and don't move when you edit the document.

To insert a hard page break, place the cursor on the first line you want to appear on the next page, and choose **New page** from the Layout pull-down. WordStar inserts a **.pa** command and a page break indicator line in your text. (You can also type the dot command directly in your text.)

To delete a hard page break, delete the **.pa** command.

You can also insert a conditional page break, which tells WordStar to insert a page break only if necessary to keep a certain number of lines together. Use conditional page breaks to keep a table or chart on one page or to prevent a paragraph from breaking at the wrong place.

To insert a conditional page break, place the cursor on the first of the lines you want to keep together, and choose **Conditional new page** from the Layout pull-down. Then type the number of lines you want to keep together. WordStar inserts the **.cp** command in your text. (You can also type the dot command directly in your text.) For example, **.cp 4** keeps the next four lines together on the same page. If there isn't enough room for all four lines to print on this page, the lines will move together to the next page.

Remember that if you chain or nest files, or use print formatting commands for merge printing, the soft page breaks onscreen may not match those on the printout. This is because WordStar has no way of knowing how many lines are in the inserted files or data.

See also **Page length** and **Columns**.

Page length

Page length is the total length of the paper. WordStar is set up for standard 8½-by-11-inch paper. If you use paper of a different size, change the page length setting.

To change the page length, choose **Margins and tabs** from the Layout pull-down or press **^OL**. Move the cursor to the *Page length* field and type the new number in inches. Press **F10** or **^K** when you're finished. WordStar adds a **.pl** dot command to your file. (You can also type the dot command directly.) For example, **.pl 14"** sets the page length to 14 inches for legal-size paper.

You can use WSCHANGE to change the default page length.

TIP *If you have standard margins and line height, you'll get 55 lines of text per page.To change the number of lines of text you can fit on a page, change the size of the top or bottom margins. You can also use larger or smaller line heights. For more information on changing the amount of text per page, see **Line height** and **Margins**.*

See also **Page breaks**.

Page numbering

WordStar keeps track of a document's page numbers during editing and printing. When you edit, the current page number is displayed in the status line, following the letter *P*. Page breaks show where each page ends and the next begins. (Page breaks and numbers are not used with nondocuments.)

To move to a specific page, choose **Go to page** from the Go To pull-down or press **^QI**. Then type the page number and press ↵. Instead of typing the page number, you can type + to go to the next page or − to go to the previous page. If you type a number after the + or −, the cursor moves forward or backward that number of pages. For example, **^QI+3** moves the cursor forward three pages.

To change the page number that will be printed on a page, use the **.pn** dot command. Type **.pn** followed by the new page number; for example, **.pn 21** sets the page number to 21.

This command is useful if you split a document into several files and want to set consecutive page numbers from one file to the next. It can also restart page numbers at 1 after a table of contents or another unnumbered section. You can use as many **.pn** commands in a file as you want.

If you use the **.fi** command to insert another file during printing, or if you use print time reformatting for merge printing, page numbers on the screen won't necessarily match those printed because WordStar doesn't know how many pages are in the inserted file.

WordStar usually prints the page number in the footer line. Four dot commands control the printing of this default page number. These dot commands are described below.

COMMAND	DESCRIPTION
.pc *n*	Prints the page number at the specified location. Type **.pc** followed by the column number or by the number of inches using the inch symbol, for example, **.pc 1.5"**. To center the page number between the current margins, type **.pc0**. The default is centered.
.op *or* **Omit page numbering** (on Layout pull-down)	Omits printing of page numbers.
.pg	Turns printing of page numbers back on. This command is needed only if you previously used **.op** to turn printing of page numbers off.
.pn *n*	Restarts the page numbers at the specified number. Type **.pn** followed by the starting number. If you previously used **.op**, this command also turns printing of page numbers on.

If you enter your own footer, printing of the default page number is automatically turned off. However, you can print page numbers in your footers or headers. Type the number symbol (**#**) in the footer or header text where you want page numbers to print.

See also **Headers and footers.**

Page offset. See **Margins.**

Page preview

Advanced Page Preview™ lets you see onscreen exactly how your document will look when printed. The preview includes columns, headers, footers, footnotes, endnotes, fonts, line spacing, and so on. (This feature works only on graphics monitors.)

To start page preview, choose ***Page preview*** from the Layout pull-down or press **Alt-1** or **^OP**. You see the current page onscreen. You can choose from a number of views; for example, you can zoom in to magnify a section of the page, or you can zoom out to see more than one page.

To change the view, press **Alt-V** to see the View pull-down. If you want to make the page larger, choose **2x zoom** or **4x zoom**. Zooming in is useful to see exactly how text will align on the page.

TIP *To check alignment, you can display a grid across the page. Choose* ***Grid display*** *from the Options pull-down.*

When you zoom in, your monitor can't display the entire page onscreen. Use the cursor movement keys to move the display window to a different portion of the page. For example, press ↓ or **^X** to move the window down.

You can also move the window on the page by choosing **Adjust window** from the View pull-down. You'll see a small picture of your page with a box showing where the window is currently placed.

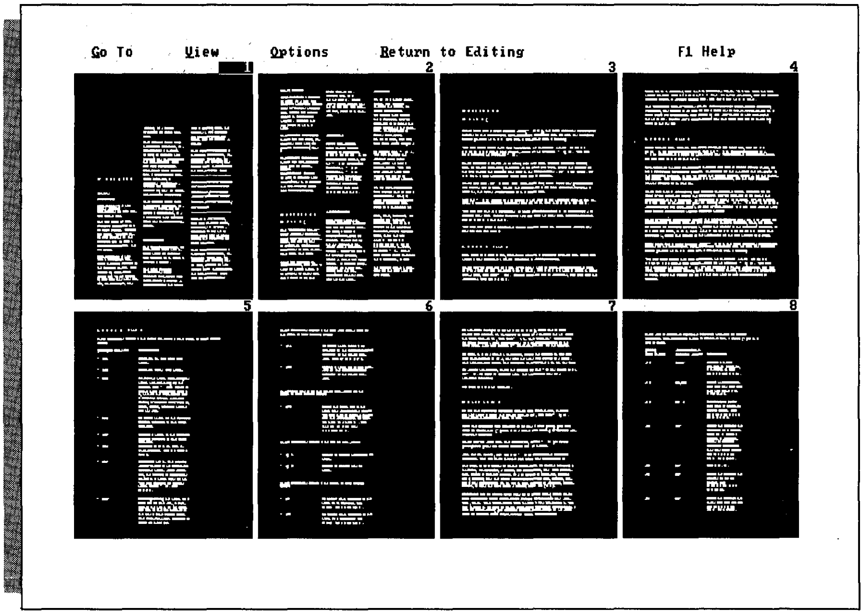
Use the arrow and cursor movement keys to move the window on the page, or use the arrrow keys with the **Shift** key to move the window directly to a portion of the page. For example, **End** moves the window down and to the left; **Shift-End** moves the window directly to the lower-left corner of the page. When the window is where you want it, press **Esc** to return to the page. The screen displays the portion of the page you selected.

To zoom out, you can choose from three views:

Facing pages This view shows you two pages next to each other. It's good for seeing how a book or newsletter will look when opened to those two pages.

Multiple pages This view shows between four and ten pages, depending on your monitor and the page size. It's good for checking page breaks and general layout.

Thumbnail display This view shows ten or more pages, depending on your monitor and the page size. It's good for looking at the overall layout of a document.



At any of these views, press **PgDn** or **PgUp** to see the next or previous set of pages. Press **Home** or **End** to see the first or last page of the document.

To zoom back in to a specific page, use the arrow keys to move the highlighting to the page number, then use the View pull-down to choose the magnification. (If the highlighting is on the menu bar, press **Esc** to move it down to the page numbers.)

TIP *You can quickly change the magnification by using the + or – keys. For example, if you're at the thumbnail display, press + to see the multiple pages display.*

To move the preview to a specific page, choose **Specified page** from the Go To pull-down, type the page number, and press ↵. If you're in a view that displays more than one page, the page you specify will be the first page at the top of the screen.

To scan your document, choose **Automatic scan** from the Options pull-down. WordStar continuously displays the document until you press **Esc**. You can scan a specified number of pages by choosing **Scan range**.

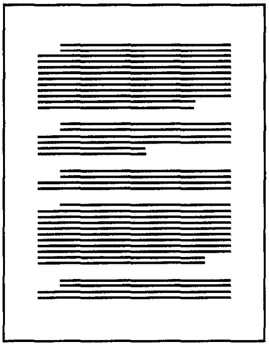
TIP *To quickly locate a portion of your document, scan the document in thumbnail view, then press **Esc** when you see the page you want. Move the highlighting to that page number and press **Alt-1** to quit page preview.*

When you quit page preview, you can return to editing the current page or your original page. To return to editing the page you're currently viewing in page preview, press **Alt-1** or choose **Current page** from the Return to Editing pull-down. If you're in a view that displays more than one page, you'll return to the page whose number is highlighted. To return to the page you were editing before you started page preview, press **Alt-2** or choose **Original page** from the Return to Editing pull-down.

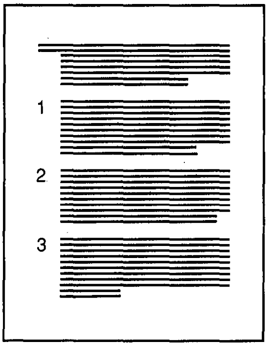
Paper trays. See **Sheet feeders**.

Paragraph margins

The paragraph margin is a special left margin used only for the first line of paragraphs. It is useful both for indenting the first line of each paragraph and for hanging indents, where you want numbers or other characters to hang out to the left of the rest of the text.



paragraph indentation



hanging indent

To set a paragraph margin, choose **Margins and tabs** from the Layout pull-down or press **^OL**, then move the cursor to the *Paragraph* field. Type the number in inches where you want the first line of each paragraph to begin and press **F10** or **^K**. WordStar adds a **.pm** command to your document. (You can also type this command directly in your document.) For example, if you set **.pm .5**" and your left margin is at 0", the first line of each paragraph is indented half an inch.

To set a hanging margin, set the paragraph margin to a lower number than the left margin. For example, with a left margin of .4" and a paragraph margin of 0", the first line of each paragraph starts to the left of the rest of the paragraph. This command is useful for outlines and numbered lists where you want the numbers to stand out to the left of the text.

TIP *If you type a + in front of the number, the paragraph margin will indent that distance from the previous paragraph margin. For example,* ***.pm*** *+.3" indents the first line of every paragraph three tenths of an inch more than the previous paragraph margin.*

Note: If you set the paragraph margin at the Margins & Tabs dialog box, WordStar adds the inch symbol (") to the dot command. If you type the dot command directly in your text, you must type the inch symbol yourself to indicate inches. Otherwise, WordStar assumes you are specifying columns.

To stop using the paragraph margin, delete the number in the *Paragraph* field or type **.pm** in your text.

TIP *You can use a temporary indent (^****OG****) to quickly change the margins for a paragraph of text. For information, see* ***Indenting****.*

Paragraph numbering

Paragraph numbers are useful for proposals and legal contracts. To number paragraphs, place the cursor where you want the number to appear and choose **Paragraph numbering** from the Layout pull-down, or press ^**OZ**. The prompt displays the number for the current paragraph. For the first paragraph you number in a document, 1. is the default value. For subsequent paragraphs, the prompt displays the number of the previous paragraph (for reference) and the next consecutive number. Press ↵ to accept the number, or use the left arrow key or ^**S** to move up in the levels, or the right arrow key or ^**D** to move down in the levels, then press ↵ when you're finished.

For example, if the previous paragraph was number 2.1.1, these are some of the possibilities:

↵	2.1.2
←	2.2
←←	3
→	2.1.1.1

When you press ↵, a command tag appears in your text showing the paragraph number. To change a paragraph number, place the cursor on the number, use the paragraph number command again, and choose a new number. To delete a paragraph number, place the cursor on the number and press **Del**. WordStar automatically renumbers subsequent paragraphs when you change or delete a paragraph number.

To specify a different starting number, use **.p#** and type the new starting number. For example, **.p# 3.3** starts the paragraph numbers at 3.3.

Normally, paragraph numbers contain only numerals up to eight levels deep. You can change the numbering system to include uppercase and lowercase letters and Roman numerals or to be a different number of levels. To specify a different numbering system, use the dot command **.p#**. Type a **9** wherever you want numerals to appear. Type a **Z** where you want uppercase letters, a **z** where you want lowercase letters, and **I** and **i** for uppercase and lowercase Roman numerals. For example, **.p# Z.9.z** would use a numbering system that started with A, then A.1, then A.1.a.

If you include other characters in the **.p#** command, WordStar assumes you want to print those actual characters as part of the paragraph number. For example, if you type **.p#** {**Z.9.Z**}, the paragraph numbers will be enclosed in braces.

TIP *You can use your printer's extended characters to add the paragraph symbol (¶) or the section symbol (§). If your printer uses the IBM extended character set, the paragraph symbol is* ***Alt-20*** *and the section symbol is* ***Alt-21****. For more information, see* ***Extended characters****.*

To change both the starting number and the style, list the starting number first, then the style, for example, **.p# 3.3, Z.9.z**.

You can use WSCHANGE to change the default starting number and style.

Paths

You can divide a disk into directories and subdirectories. This lets you put files into separate sections on your disk. Directories are used primarily on hard disks.

The basic directory is called the root directory, with other directories forming a tree structure off the root directory. Each directory can contain files and other directories.

The directories you go through from the root directory to a specific file is the path to that file. To specify a file in a different directory, list the complete path to the file, separating each directory name with a backslash (\ ) character. When the backslash is the first character after the drive letter in a path, it signifies the root directory.

If the file is on a different drive, start the path with the drive letter. For example, the path for a file called REPORT.DOC in the WS5 directory on drive C is C:\WS5\REPORT.DOC.

To log on to a particular drive or directory, choose **Change drive/directory** from the File pull-down, or press **L** at the classic Opening Menu or **^KL** while you're editing. In response to the prompt, move the highlighting to the directory name you want, or type the path to the drive or directory, and press ↵.

See also **Logged drive and directory**.

Pause printing

Occasionally you may want your printer to pause at a specific location in your document. For example, you might want to change the print wheel before you print a title, or insert an envelope before you print an address.

To pause printing, press **^PC** at the spot in your document where you want printing to pause. ^C appears on the screen. When WordStar prints the file and encounters the ^C, it pauses. If you are printing in the background, the message *Print wait* appears in the status line. To display the Printing screen, choose **Print a file** from the File pull-down, or press **^KP** at the editing screen or **P** at the classic Opening Menu. When you're ready to resume printing, press **C**. Then, to return to the editing or opening screen, press **B**.

You can also pause between pages by answering **Y** at the *Pause between pages* print option when you start printing. (Use PRCHANGE to change the default answer to this question for any of your printers.) When printing pauses, the message *Print wait* appears in the status line. Use the procedure described above to display the Printing screen and to continue printing when you're ready.

PC-Outline

PC-Outline is a comprehensive outlining program you can use to organize information and create outlines to do lists, schedules, and electronic scratch pads. For information see the "PC-Outline" tab section.

Phantom space and rubout

Print wheels on daisy wheel or thimble printers often have a special character or two called phantom characters because they're not shown on standard keyboards. **^PF** prints the phantom character at a print wheel's hex code 20 (space) position. **^PG** prints the character at hex code 7F (rubout) position.

^PF and **^PG** also print special characters on some dot matrix and laser printers. You can change the phantom characters for these printers using PRCHANGE.

When you press **^PF** or **^PG**, ^F or ^G appears on the screen. When you print the file, the phantom character is printed at that location.

Pitch

Pitch is the number of characters in an inch of text. Nonproportional fonts are usually measured in pitch. The standard pitch is 10 characters per inch (10 CPI), or pica type. Elite type is 12 CPI.

Proportional fonts are usually measured in points, which specify the height of the letters.

When you choose a font with a different pitch, WordStar determines how many characters of the new pitch will fit on a line and displays the correct line breaks onscreen. For more information, see **Fonts**.

TIP *If you change fonts in the middle of a document and need to change the print wheel or cartridge on your printer, use the ^PC command to pause printing. For more information, see **Pause printing**.*

Place markers

Place markers are temporary markers you add to your files to help you find your place. Once you set a marker, you can quickly move the cursor to that marker. You can put up to 10 place markers in a file.

To insert a place marker, move the cursor to the spot you want marked. Then press **^K** followed by a number from 0 to 9. The number appears highlighted on the screen.

To move the cursor from anywhere in the file to a place marker, type **^Q** and the appropriate number. The cursor moves to the place marker.

You can hide the display of place markers and block markers by using the command **^KH**. If you set a place marker when you previously used **^KH** to hide the display of a marked block, WordStar redisplays the marked block and all place markers until you press **^KH** again.

If you sort text that contains place markers, the markers stay in their original location and do not move with the text.

To move a place marker, move the cursor to the new location and set the marker there. The marker disappears from the old location.

To delete a place marker, move the cursor to the marker and type **^K** and the number of the marker.

Place markers are in effect only as long as you are editing the file. They are not saved when you exit the file.

Ports

Printers are usually connected by cables to ports at the back of your computer. WordStar looks for printers on the LPT1 port. If your printer is connected to a different port, be sure to specify the correct port during installation.

You can also specify a port at print time. At the *Redirect output to* prompt on the Print dialog box, type the name of the port.

PRCHANGE

You can customize how WordStar works with each of your printers. Use PRCHANGE to specify default settings for your printers. For information on PRCHANGE, see Appendix C, "Customizing WordStar."

Previewing

You can hide the print controls while you edit to see how text will align when printed, or you can preview how an entire page or group of pages will look. For information, see **Displaying print codes** and **Page preview**.

You can also use the PRVIEW printer description file to produce a disk file that serves as a preview of the printed document. See **Printing to disk**.

Printer description files

Each time you install a printer, WordStar creates a printer description file (PDF), a small file that includes the appropriate information to make WordStar work with the printer.

For example, if you install an Okidata Microline 84 dot matrix printer, WordStar creates a PDF that takes advantage of the printer's correspondence mode to produce correspondence quality print.

During installation, you choose a default PDF (see the "Starting" tab section). When you create a file, WordStar assumes you will print it on the default printer. If you choose fonts in the file, WordStar shows you the fonts for that printer. The line breaks and page breaks you see onscreen reflect these fonts.

You can change WordStar's default PDF by using WSCHANGE, or you can change the default PDF for an individual file by pressing **^P?** while editing the file and choosing the new PDF. When you choose fonts in this file, WordStar shows you the fonts for the new PDF.

Each time you print a file, WordStar asks you which printer to use. Press **F10** or **^K** to accept the default printer, or choose a different printer from the list of installed PDFs. If you choose a different printer, WordStar chooses fonts and colors on the new printer that most closely match those specified in the file.

WordStar provides several PDFs that are not for specific printers. These include three "generic" PDFs, DRAFT, TYPEWR, and AUTOLF, for draft, typewriter, and auto line feed printers. With most printers, you can use one of these three PDFs. Two other PDFs, CUSTOM and SIMPLE, allow you to create a customized PDF. For information on customizing PDFs, see Appendix C, "Customizing WordStar."

Four other PDFs, ASCII, PRVIEW, XTRACT, and WS4 are used for printing files to disk. For information, see **Printing to disk**.

Printing a file

To print a file, choose **Print a file** or **Merge print a file** from the File pull-down. The classic commands are **P** (regular printing) or **M** (merge printing) at the Opening Menu or **^KP** while editing. If you press **^KP**, WordStar asks if you want to print or merge print.

Note: You can print any file while editing, but if you print the same file you're editing, the most recent backup copy of the file prints, and you can't save the file until printing is done.

After you press the print command, you see the Print dialog box listing the print options. To accept the default answers to all the questions, press **F10** or **^K**. To change any of the answers, move the cursor to the answer you want to change and type the new information. When you finish making changes, press **F10** or **^K**.

The print options and their defaults are described below.

File Choose the file to print. The default is the last file you edited or printed.

Page numbers Choose which pages to print. *All* prints every page in the file. To specify a range of pages, type the first page number of a sequence, a hyphen, and the last page number in the sequence. To print individual pages, separate page numbers with commas. For example, to print pages 1 through 3 and pages 5 and 7, type **1–3,5,7**. If you've reassigned page numbers in your document, be sure to specify the new page numbers. The default is all pages.

All/even/odd To print only odd or only even pages, type **o** or **e**. The default is all pages.

Printer name Choose which printer to use. A menu of the printers you've installed appears below the prompt. Move the highlighting to the printer you want, or type the printer name, and press ↵. You choose the default printer during installation, or change it while editing. See **Printer description files**.

Number of copies? You can print more than one copy of the document. The default is one copy.

Pause between pages If you need to feed individual sheets of paper to the printer, you must pause between each page, so press **Y** for yes. The default is no. You can use PRCHANGE to specify a different default for each of your printers.

Use form feeds If you want WordStar to use form feeds when moving to the next page of a printout, answer **Y** for yes. To use a laser printer or other sheet feeder, you must answer **Y**. The default is no. You can use PRCHANGE to specify a different default for each of your printers.

Nondocument To print a nondocument, press **Y** for yes. WordStar uses the defaults for the page layout. You can also print a document as if it were a nondocument, in which case all the dot commands are printed and not executed. The default is no.

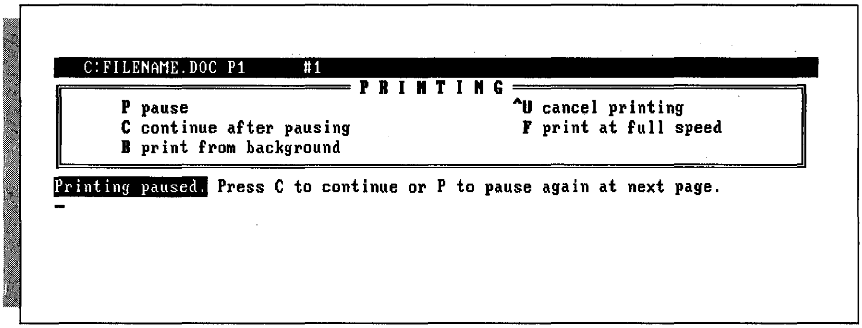
Redirect output to The output normally goes to whatever port you specified for this printer. If you want to redirect the output, type a different port or filename. See also **Printing to disk**.

Note: You can change the default answers to many of the print questions by using WSCHANGE or PRCHANGE.

Printing is normally done in the background. This means that you can continue with what you were doing before you started printing. The word *Printing* appears at the right of the status line. If printing stops during background printing, *Print wait* replaces *Printing*. You can use WSCHANGE to turn background printing off. This makes printing somewhat faster.

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

Messages and commands related to printing are shown on the Printing screen, which is hidden during background printing. You must display the Printing screen before you can see a printing-related message or enter a printing-related command during printing. To display the screen during background printing, choose **Print a file** from the File pull-down or press **P** at the classic Opening Menu or ^**KP** while editing.



```
 C:FILENAME.DOC P1      #1
══════════════════════════ P R I N T I N G ══════════════════════════
      P pause                                   ^U cancel printing
      C continue after pausing                  F print at full speed
      B print from background

Printing paused. Press C to continue or P to pause again at next page.
```

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

COMMAND	DESCRIPTION
P	Pauses printing temporarily.
C	Continues printing after a pause.
B	Starts background printing, and leaves the Printing screen.
^U	Cancels printing completely and leaves the Printing screen.
F	Starts full-speed printing if you used PRCHANGE to install a slower printer speed.

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

Printing multiple copies

You can print more than one copy of a file in one printing session. In most cases, the best way to print multiple copies is to use the *Number of copies* option on the Print dialog box. See **Printing a file**.

The **.rp** (repeat printing) command also prints multiple copies of a file. Add this command to the beginning of the file if you always want the file printed a certain number of times or if you want to print multiple copies of a file that is nested or chained in another file. Type **.rp** followed by the number of times you want the file to be printed, for example, **.rp 5**.

Don't use **.rp** in a master document that uses a data file. If you want to print multiple copies of each version of the document, use the *Number of copies* print option.

Printing to disk

Sometimes you may want to "print" a document into a file on disk rather than printing it on paper. For example, you can use this function to review merge printed form letters onscreen before you print them on letterhead paper.

You can print to disk either by using one of the special printer description files or by typing a filename to redirect the output to. Both methods are described below.

Special printer description files (PDFs)

WordStar allows you to choose any of four "printers" that make disk files rather than sending text to a regular printer. They are named PRVIEW, ASCII, XTRACT, and WS4. You can choose one in response to the *Printer name* option on the Print dialog box.

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

The ASCII PDF produces a file that is an ASCII version of the document, with all print controls, dot commands, and high-order bits on characters removed. Each line ends with a hard carriage return.

The XTRACT PDF produces a file that is similar to the PRVIEW file, but does not contain headers, footers, or page breaks, and has soft carriage returns. This format allows you to perform some simple manipulations on text and data files.

For example, if you had a data file named FORM1.DTA with several fields (such as name, title, company, address, state, and zip), you could use XTRACT to create a data file containing only the information in the name field. Create a file called FORM1.LTR containing these commands:

```
.op
.df form1.dta
.rv NAME,TITLE,COMPANY,ADDRESS,CITY,STATE,ZIP
&NAME&
```

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

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

The WS4 PDF creates a file that is compatible with WordStar Professional, Release 4. For more information, see Appendix B, "Transferring Files Between Releases."

When you use any of these PDFs, specify a name for the output file by typing the new filename at the *Redirect output to* prompt on the Print dialog box. If you don't specify a new filename, the output file is given the same name as the PDF with a .WS extension, for example, ASCII.WS.

Sending printer-formatted output to a file

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

You can use this feature if you're word processing on a computer not connected to the printer. It produces a copy of the document formatted with all the proper codes for the printer. You can then take the file on a floppy disk to a computer connected to the printer and print the file using the DOS COPY command. For example, if the printer is connected to port LPT1, type **copy output.doc lpt1** at the system prompt. For more information on the DOS COPY command, see your DOS manual.

Print options.

See **Printing a file.**

ProFinder

ProFinder helps you manage all the files on your disk. For information, see the "ProFinder" tab section.

Prompts

A prompt is an onscreen message that asks you to type an answer or gives you directions.

In answering a prompt, you can sometimes type as many as 80 characters. When you reach WordStar's limit or the right edge of the screen, the cursor stops.

TIP *Sometimes when the cursor stops at the right edge of the screen, you have not reached the 80-character limit. To enter a long response, you can enter the right portion of the response first. Then use* **^S** *to move to the left and insert the left portion.*

If the screen is a dialog box containing a number of fields (boxes where you can type answers), use **Tab** and **Shift-Tab** or the cursor movement keys to move forward and backward through the boxes. You can also press ↵ to move to the next box. When you're done making changes, press **F10** or **^K** to accept all the answers. If you change your mind, you can press **F2** or **^U** to abandon all your changes. For more information, see **Dialog boxes**.

For many prompts, you can use the **^R** (repeat) command to repeat the information entered the previous time you saw a similar prompt. This command is handy for specifying the same filename for several different operations, or keeping all the existing tabs and adding one more.

Proportional spacing

Proportional spacing means that each character is allocated space that is proportional to the character's actual width. For example, an i is narrower than an m, so it is allocated less space in the line when printed. In nonproportional spacing, such as that used on most typewriters, all characters are allocated the same space regardless of the actual character width.

Because each letter in a proportional font has a different width, the best way to align a column of proportional text is by using tabs. If you set a tab at 1.5 inches, text prints 1.5 inches from the page offset no matter what font you use.

Note: You may notice that a line of proportionally spaced letters appears wider than your margins. Because proportionally spaced letters often take up less space than nonproportional letters, you can fit more characters on a line. The characters you see onscreen will all print within the margins you've specified.

TIP *To see where the characters will print on the page, look at the marker in the ruler line. As you move the cursor across a line of text, the marker shows where the text at the cursor will print on the page.*

To print text in a proportional font (if your printer has this capability), choose **Choose font** from the Style pull-down or press **^P=**, then choose the font you want. For more information, see **Fonts**.

To see how the fonts will look when printed, use the page preview feature (if you have a graphics monitor). For information, see **Page preview**.

Note: You can also use the **.ps on** and **.ps off** dot commands to switch between proportional and nonproportional fonts.

Protecting a file

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

To protect a file or remove protection, choose **Protect a file** from the File pull-down or press **C** at the classic Opening Menu. Then type the filename (including the drive letter or directory path if necessary) and press ↵. WordStar shows whether the file is currently protected and asks if you want to change the setting.

When you edit a protected file, *Prtect* is displayed in the status line. You'll see protected versions of the classic menus that don't contain commands that would change the file.

You can read a protected file and copy it, but you can't add or delete anything. To leave a protected file, choose **Abandon changes** from the File pull-down or press **^KQ**.

Backup files (.BAK) are automatically protected from changes as a safety measure.

Protecting files is useful with a local area network (LAN). If you are running WordStar on a LAN, contact your dealer for information about LANs and site licensing.

Q

Quattro spreadsheets

You can insert a Quattro spreadsheet directly into your WordStar documents or use the spreadsheet as a data file for merge printing. For information, see **Inserting text and files** and **Merge printing**.

R

README

README contains information that came in too late to be included in the manual. For instructions on how to view the README information, see the "Starting" tab section.

Reforming a paragraph. See **Aligning text**.

Renaming a file

To rename a file, choose **Rename a file** from the File pull-down, or press **E** at the classic Opening Menu or **^KE** while editing. When prompted, type the file's current name and press ↵. Include a drive letter or directory path if necessary. Then type the new name and press ↵.

To rename the edited version of the file you're working on, choose **Save and name file** from the File pull-down or press **^KT**, then specify the new filename. The original file is not changed; the edited file is saved to the new filename.

Repeating

The repeat command, **^QQ**, tells WordStar to continuously repeat a single-letter command or a keyboard character until you tell it to stop. You can use this feature for a repetitive task such as scrolling screen by screen toward the end of the file (**^QQ^C**).

To begin the repeat operation, press **^QQ**, followed by the command or character to be repeated.

To stop repeating, press the **Spacebar**.

To vary the speed of the repeat command, use the number keys at the top of the keyboard. Press **0** for the fastest repetition, **9** for the slowest, or another number between 0 and 9 for the speed you want.

*CAUTION Be sure to press **Ctrl** to repeat a command. For example, **^QQ^C** scrolls down screen by screen. **^QQC** repeats the character **C**.*

Replacing. See **Finding and replacing**.

Return key. See **Enter key**.

Ruler lines

The ruler line above the text shows the margins and tab stops that currently apply to your text. The marker on the ruler line shows the position of the cursor on the page and moves as you move the cursor. (Ruler lines are not used with nondocuments.)

In WordStar's default ruler line the left margin is set at 0", the right margin at 6.5 inches, and tab stops every half inch.

```
L----!----!----!----!----!----!----!----!----!----!----!--------R
```

When you change the margin or tab settings in your document, the ruler line changes to show the new settings. The new ruler line affects any text that follows.

The ruler line can contain the following characters.

CHARACTER	MEANING
L	left margin
R	right margin
P	paragraph margin
!	tab stops
#	decimal tabs
–	columns between the margins
V	temporary indent

You can change individual settings on the ruler line by using the margins and tabs commands. See **Margins** and **Tabs**.

You can change all the settings at once by using the **.rr** command to embed a ruler in your document.

There are three ways to use the **.rr** command: you can embed a preformatted ruler, type a new ruler, or use the settings from the current ruler line. These methods are described below. Any text below an embedded ruler uses the settings on the embedded ruler.

- WordStar comes with predefined rulers you can quickly add to your documents. To add a predefined ruler, type **.rr** followed by the number of the ruler. For example, to return to the standard margin settings, type **.rr0**. The chart below shows the predefined ruler settings.

NUMBER	SETTINGS
0	default margins and tabs
1	left and right margins indented .5″ from standard margins; good for quoted material
2	.5″ hanging indent; good for outlines.
3–9	not defined

  To customize your own preformatted rulers, use the WSCHANGE program.

- You can change the margin and tab settings by typing a new ruler in your text. To type a new ruler, type **.rr** followed by the new ruler line, using the symbols shown above. To set the left margin at 0″, type a hyphen immediately after the command; do not use an L. (*Note:* To set the left margin at .1″ or .2″, use an overprinted line (with **^P** ↵) after the dot command, and type the **L** in the desired location.)

  In the example below, the ruler sets the left margin at 0″, a tab at .7″, a decimal tab at 1.1″, and the right margin at 1.4″.

  .RR----!---#--R

- To embed a copy of the current ruler line settings, press **^OO**. (*Note:* Because the first three characters in the ruler line are changed to **.rr**, if the left margin was at .1″ or .2″, it is changed to 0″.)

TIP *You can press* ***^OF*** *when the cursor is in a line of text to change the margins to correspond to the margins of the text line.*

Press **^OT** to turn the display of the ruler line on and off. You don't have to display the ruler line to change it.

See also **Indenting**, **Margins**, and **Tabs**.

Running a DOS command

To run a DOS command without leaving WordStar, choose **Run a DOS command** from the Other pull-down, or press **R** at the classic Opening Menu or **^KF** at the editing screen. WordStar temporarily moves into the background, and you can type the command you want.

For example, while you're editing a file, you can start Lotus 1-2-3 and look up information from a spreadsheet or you can use the DOS CHKDSK command to find out how much free memory you have.

To run a program in a different drive or directory, type the complete pathname for the program.

If you have a two floppy disk system and COMMAND.COM is not on your disk, you'll be prompted to insert your DOS disk.

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

CAUTION *If you plan to use a memory-resident program (such as DOS PRINT or SideKick®) from inside WordStar, be sure to load it from DOS* before *you start WordStar.*

TIP *You can run several DOS commands in a row without returning to WordStar between commands. When you see the system prompt, type* ***command*** *and press ↵ to run the DOS command processor. You can then run as many commands as you want. When you finish with your DOS commands, type* ***exit*** *and press ↵, then press any key to return to WordStar.*

S

Saving a file

Saving a file stores it on the disk.

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

Use the following commands to save your work. These commands are on the File pull-down.

COMMAND	DESCRIPTION
^KS	Saves the file, then resumes editing in the same place. It's a good idea to use this command periodically while you're working in a file to guarantee you won't lose your work if there's a power failure or another problem.
^KD	Saves the file, then goes to the Opening screen.
^KT	Saves the changed file to a new filename and returns to the Opening screen. The original file is unchanged. ***TIP*** *This command is useful if the current disk is full and you want to save the changed file to another disk. Simply specify the new drive as part of the filename, for example,* ***b:filename****.*
^KX	Saves the file, then exits to the operating system.

COMMAND	DESCRIPTION
^KQ	Quits the file without saving any current changes. The saved document is the same as it was before you opened it (or the last time you used **^KS**). If you have made any changes, WordStar asks if you really want to abandon the changes.
^KW	Saves a copy of a block in a separate file. See **Blocks**.

TIP *To save the file, then print it, press **^PrtSc**.*

To save a file in a window, use any of the commands above. Remember that if you have two windows open on the same file, the version you save last overwrites the version you save first.

Scrolling

When you look at a document onscreen, you can see only one screenful of text at a time. To see different parts of your document, scroll the screen.

When you edit a file that is wider than the computer screen, the screen scrolls as you type or move the cursor past the right edge of the screen. To quickly move the cursor back to column 1, choose **Go to line beginning** from the Go To pull-down or press **^QS**; to quickly move the cursor to the right edge of your document, choose **Go to line end** or press **^QD**.

Several commands allow you to scroll up and down in your document, either line by line or page by page.

COMMAND	DESCRIPTION
^W or **^PgUp**	Scrolls up a line (the text moves down).
^Z or **^PgDn**	Scrolls down a line (the text moves up).
^R or **PgUp**	Scrolls up a screenful. The cursor goes to the left margin on the previous screen.
^C or **PgDn**	Scrolls down a screenful. The cursor goes to the left margin on the next screen.
^QW	Scrolls continuously up, one line at a time.
^QZ	Scrolls continuously down, one line at a time.

With **^QW** and **^QZ**, you can control the speed of the scrolling by typing a number, 0 through 9, during scrolling. 0 is fastest; 9 is slowest.

For more information on moving the cursor, see **Cursor movement and scrolling.**

Searching for text. See **Finding and replacing**.

Sheet feeders

Single-sheet printers such as laser printers use sheet feeders to advance the paper.

If you have a sheet feeder on your printer, be sure to install it. If your sheet feeder isn't listed during installation, you can use PRCHANGE to tell WordStar the codes used for each bin on your sheet feeder. For information, see your printer manual.

When you print a file using a sheet feeder, answer **Y** to the *Use form feeds* option on the Print dialog box. You can use PRCHANGE to specify the default answer for each of your printers. See also **Form feeds**.

Because of the way sheet feeders move the paper through the printer, they usually require a shorter page length and a smaller top margin. If you notice that text is "creeping" up or down on the page, try changing the page length. For most sheet feeders, setting the page length to 62 lines, the top margin to 2 lines, and the bottom margin to 5 lines makes the paper feed correctly. If your document requires more room for headers or footers, adjust the margins accordingly.

If your sheet feeder has more than one paper bin, you can use paper from different bins in one document by using the **.bn** command. For example, if you keep letterhead paper in bin 1 and plain paper in bin 2, add a **.bn1** command at the top of page 1 and a **.bn2** command at the top of page 2. The first page will print on the letterhead from bin 1 and all remaining pages will print on plain paper.

Type **.bn0** to disable the sheet feeder.

TIP *If you keep envelopes or other odd-sized paper in a bin, remember to change the page length for the pages that will print from that bin.*

The following example is for a sheet feeder with three bins. Bin 1 contains letterhead, bin 2 contains plain paper, and bin 3 contains envelopes.

```
.mt2
.hm1
.he Document header
.pl 62
.bn 1
This is the first page. It is loaded from bin 1.
.pa
----------------------------------------------P
.bn 2
The second page is loaded from bin 2.
.pa
----------------------------------------------P
The third page is also loaded from bin 2.
.pa
----------------------------------------------P
.bn 3
.pl 20
The fourth page (the envelope) is loaded from bin 3.
.pa
----------------------------------------------P
```

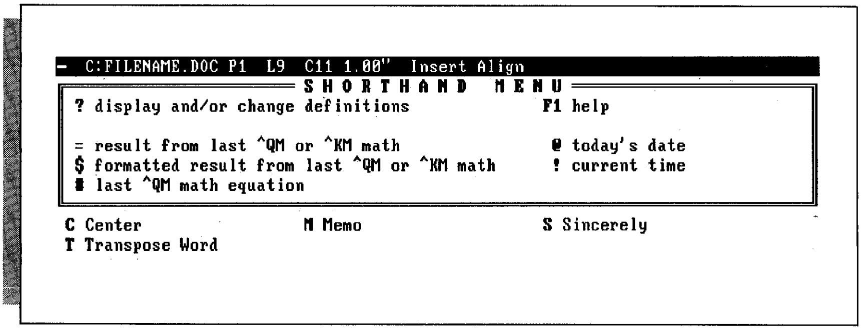
Shorthand

WordStar's shorthand feature allows you to automatically issue a series of customized keystrokes by pressing a two-key code. Whenever your press **Esc** plus a letter or number, WordStar carries out the instruction for that character. For example, you can define a shorthand character to type your name and address, choose fonts, or add print enhancements to text in headings. You can also use shorthand characters to insert special text in your files.

To use a shorthand character while editing, place the cursor where you want to insert the character's definition, press **Esc** or choose **Shorthand macro** from the Other pull-down, then type the shorthand character. WordStar issues the customized definition for that character.

TIP *For information on issuing shorthand commands when you start WordStar, see* ***Starting WordStar****.*

To look at the current shorthand characters or define new ones, use the shorthand command, but don't type the shorthand character. You'll see the Shorthand Menu.



```
-  C:FILENAME.DOC P1  L9  C11 1.00"  Insert Align
                    S H O R T H A N D   M E N U
 ? display and/or change definitions                F1 help

 = result from last ^QM or ^KM math                  @ today's date
 $ formatted result from last ^QM or ^KM math        ! current time
 # last ^QM math equation

C Center                  M Memo                    S Sincerely
T Transpose Word
```

The top of the menu lists the shorthand commands that WordStar offers. The screen also shows any shorthand characters that have been defined followed by a description to help you remember what the character does. (Note that WordStar comes with certain predefined shorthand characters.)

The chart below describes the commands on the Shorthand Menu.

COMMAND	DESCRIPTION
Esc ?	Displays definitions. You can define new shorthand characters, redefine current ones, or look at the current definitions.
Esc ^J *or* **F1**	Displays onscreen help for shorthand.

COMMAND	DESCRIPTION
Esc =	Inserts the result of the last mathematical calculation (^**QM** calculator or ^**KM** block math) into your text. If the cursor is at a decimal tab, the number is aligned at the decimal point.
Esc $	Formats the result of the last mathematical calculation as a dollar amount and inserts it into your text. The dollar format has two digits to the right of the decimal point and commas every three digits to the left of the decimal point. For example, if the last result was **1234.5**, pressing **Esc $** inserts **1,234.50** into the document. You can change the dollar format with WSCHANGE.
Esc #	Inserts the last math equation you entered using the onscreen calculator (^**QM**) into your text.
Esc @	Inserts today's date into your text. (You may need to set the date when you turn on the computer.) An example of the date format is **September 9, 1988**. You can change the date format with WSCHANGE. (The same format is used by the merge print variable **&@&**.)
Esc !	Inserts the current time into your text. (You may need to set the time when you turn on the computer.) An example of the time format is **9:30 AM**. You can change the time format with WSCHANGE. (The same format is used by the merge print variable **&!&**.)

Defining a shorthand character

To define a shorthand character, type **?** at the Shorthand Menu. The shorthand definitions screen appears, displaying a list of all the currently defined shorthand characters, along with their description (the words that appear on the Shorthand Menu) and definition (the actual commands or letters the shorthand adds to your text).

You can choose one of the characters listed and change the description or definition, or you can type a new character to create a new shorthand character. A shorthand character can be any letter or digit.

You can create as many shorthand characters as you want until you run out of letters or run out of memory. The *Bytes available* line onscreen tells you how much memory is left for more definitions. (You can set aside more memory with WSCHANGE. The default size is 512 bytes.)

If all the shorthand definitions don't fit on the screen, use ^**W** and ^**Z** to scroll the display up and down.

Once you choose a character, type a description (up to 50 characters) that will appear on the Shorthand Menu to remind you what the character does. It's best to keep descriptions short to conserve memory.

After you type the description, type the definition of the shorthand character. The definition is the actual text and commands that the shorthand character will enter.

When you type a definition, type the actual letters or commands you want WordStar to type for this character. To enter a control character, press **^P** followed by the control character. The ↵ key is entered as **^P^M**; **Esc** is **^P Esc**.

For example, the description for the **M** shorthand character is **Memo** and its definition is **Memorandum**. When you type **Esc M**, WordStar types **Memorandum** into your text at the cursor location. The description for the **C** shorthand character is **Center** and its definition is **^OC**. When you type **Esc C**, WordStar types **^OC** to center the current line.

When you finish typing the description and definition, press **F10** or **^K**.

When you define a shorthand character, WordStar adds it to the menu in alphabetical order, numbers before letters.

To erase a shorthand character, erase both the description and the definition.

When you finish changing the shorthand characters, press ↵. WordStar asks if you want to save your changes. If you press **Y**, WordStar saves all the current shorthand settings in a file on the disk. You can use them again whenever you run WordStar. If you answer **N**, WordStar saves the changes in memory for this editing session. When you quit WordStar, the changes are erased.

TIP *If you press **N**, but then decide you do want to save the changes for future work sessions, press **Esc ?** to display the definitions screen. Choose one of the existing shorthand characters, and press ↵ twice. When you press ↵ to quit, answer **Y** to save all the changes.*

Soft spaces and carriage returns

When WordStar justifies text, it inserts extra "soft" spaces between words to make the line extend all the way to the right margin. When you edit or align paragraphs, WordStar inserts and removes these soft spaces as needed for indents and justification.

Note: Spaces you enter with the **Spacebar** are hard spaces and are not removed when you align text.

To see which spaces are soft spaces, press **^OB**; each soft space appears as a small dot. Press **^OB** again to turn off the soft-space display. (You can change the soft-space display dot to a different character with WSCHANGE.)

To remove soft spaces from a paragraph, turn justification off and realign the paragraph.

Carriage returns can also be hard and soft. A hard return is one you enter by pressing ↵. A soft return is one that is added automatically when text wraps down to the next line. When you realign paragraphs, soft returns may move to a different location.

A hard return is flagged with a < in the flag column; a soft return is flagged with a blank space.

To change a soft return to a hard return, move the cursor to the end of the line and press ↵. (A blank line may also be inserted.) To convert a hard return to a soft return, place the cursor anywhere on the line, and press **^6**. (Use the 6 key above the letter keys, not the 6 on the numeric keypad.)

See also **Aligning text**, **Justification**, and **Word wrap**.

Sorting text

You can sort lines in your text to put them in alphabetic and numeric order. To sort your text, mark the text as a block, then press **^KZ**. When prompted, type **A** or **D** to choose ascending (A–Z) or descending (Z–A) sort order.

If column mode is on, WordStar determines the sort order based on the highlighted text. If column mode is off, the sort order is based on all the characters on the line. For example, if you want to sort an address list by ZIP code, turn column mode on and mark the ZIP code column as a block. Then sort the text. WordStar rearranges the addresses according to the ZIP codes. In either case, the entire line is moved.

Lines are sorted based on the following sort order:

spaces
symbols
numbers
letters

You can change the sort order using WSCHANGE.

For information on sorting MailList data files, see the "MailList" tab section in this book.

Speed Write

To go directly to the editing screen without choosing a filename, choose **Speed Write** from the File pull-down or press **S** at the classic Opening Menu. When you save or exit the file, you're prompted for a filename. This feature is useful if you want to start typing right away and name the document later.

Speed Write creates a document file. You can change the format to nondocument by using WSCHANGE.

Spelling check

Use the spelling corrector to quickly check and correct the spelling in your documents and to check for double words, such as *the the*. You can check the spelling of your entire document, or of a single word.

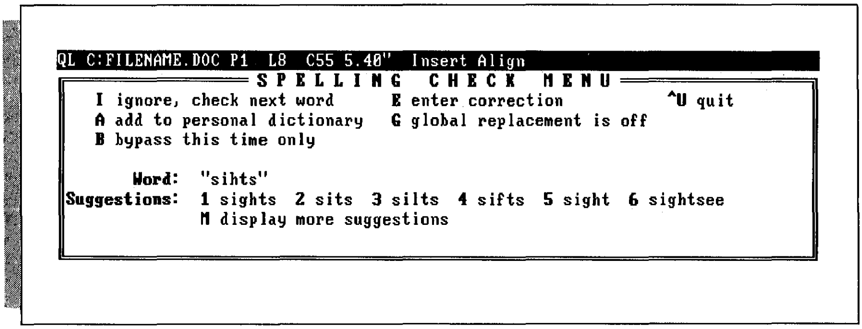
TO CHECK	FOLLOW THESE INSTRUCTIONS
the rest of the document	Choose **Check document spelling** from the Other pull-down or press ^**QL**. The spelling check begins at the current cursor position and goes to the end of the file. To check the whole document, move the cursor to the beginning of the document before starting the spelling check. Words in notes and dot commands aren't checked. Use ^**U** to stop the spelling check before the end of the document.
text in notes	Press ^**ONL**. Because notes often contain proper names, they are ignored during a normal spelling check. Use this command to check just the text in notes, starting at the current cursor position. If you want to use a special personal dictionary for the notes, read the information on personal dictionaries later in this section.
a word	Place the cursor on the word and choose **Check word spelling** from the Other pull-down or press ^**QN**. To check a word that is not in your document, press ^**QO** and type the word. If the word is spelled correctly, WordStar shows you the definition of the word. (Depending on how you've installed WordStar, you may not see the definition.)

TIP *If you're using a two floppy disk computer, you're prompted to insert the dictionary disk when you start a spelling correction. To make your work go faster, check the spelling of the entire document at once rather than checking small sections as you work. If you have enough memory, you can use WSCHANGE to have WordStar load the spelling dictionary into memory so you don't have to swap disks.*

When you start the spelling corrector, WordStar checks each word in the document against its dictionary of over 100,000 words. If the word is not in the main dictionary, WordStar checks the personal dictionary, a customized list of words you use such as proper names or technical terms that are not in WordStar's dictionary. (The personal dictionary contains only the word "WordStar" when you first use WordStar. You can add whatever words you want to this dictionary. For more information, see the section on personal dictionaries below.)

If WordStar finds a word that is not in the dictionaries, it displays the word onscreen along with suggestions on how to correct it. The suggestions match the capitalization and part of speech of the original word. For example, if the original word is plural and capitalized, the suggestions will be plural and capitalized.

A sample Spelling Check Menu is shown below.



```
QL C:FILENAME.DOC P1  L8  C55 5.40"  Insert Align
==================== S P E L L I N G   C H E C K   M E N U ====================
  I ignore, check next word       E enter correction              ^U quit
  A add to personal dictionary    G global replacement is off
  B bypass this time only

       Word:  "sihts"
 Suggestions:  1 sights  2 sits  3 silts  4 sifts  5 sight  6 sightsee
               M display more suggestions
```

A brief description of each command in this menu is given below.

COMMAND	DESCRIPTION
I	Ignores the word and goes to the next word. With ^**QL**, the word is ignored throughout the file. With ^**QN**, WordStar moves to the next word in the text. With ^**QO**, you can type another word to check.
A	Adds the word to your personal dictionary. Once you add a word to your dictionary, WordStar doesn't stop at the word each time it appears.
B	Bypasses this occurrence of the word but stops at subsequent occurrences.
E	Prompts you to type a replacement word. After you type the word and press ↵, WordStar checks the word you've typed.
G	Uses the specified correction throughout the file.
R	Used only with ^**QO**. Inserts the word into your file at the cursor position.

If there are more suggestions than fit on the screen at once, the command *M display more suggestions* appears. Press **M** to see additional suggestions.

To choose a suggestion, press the number of that suggestion. The corrected word replaces the misspelled word in your file. If auto-align is on, WordStar realigns the paragraph after replacing a word.

Personal dictionaries

The personal dictionary contains words you use that are not in the main dictionary, for example, proper names and technical terms. Any time you run a spelling check, you can add a word to the personal dictionary by pressing **A**.

If you'll be adding many words to the personal dictionary, it's a good idea to create a number of smaller dictionaries rather than one large one. A large personal dictionary can slow down the spelling corrector. You can organize words in the personal dictionaries according to the different kinds of documents you work with.

If you want to have more than one personal dictionary, use WSCHANGE to tell WordStar to prompt you for the name of the personal dictionary when you run a spelling check. When you're prompted for a personal dictionary name, you can choose an existing personal dictionary, or type a new name to create a personal dictionary. Any words you add during this spelling check are added to the personal dictionary you specified.

You can also add or delete words from a personal dictionary by editing the dictionary as a nondocument. You can add, change, or delete words, or block insert words from another file, such as names from a data file. Make sure each word is on a separate line and sort the file (^**KZ**) in ascending order when you're finished adding words.

TIP *If you have personal dictionaries from a previous release of WordStar, you can use them with this release. Be sure to edit the personal dictionary as a nondocument file and sort the words (^**KZ**) in ascending order before you use the file with this release. You may want to check that some of the words in your old personal dictionaries are not in the new, larger main dictionary. You can easily do this by running a spelling check on the old personal dictionary and creating a new personal dictionary containing just the words WordStar flags.*

Spreadsheets

You can insert a spreadsheet directly into your WordStar documents or use the spreadsheet as a data file for merge printing. For information, see **Inserting text and files** and **Merge printing**.

Starting WordStar

Before you use WordStar for the first time, follow the installation instructions in the "Starting" tab section.

To start WordStar, type **ws** at the system prompt and press ↵. The first screen that appears shows the version number, serial number, copyright notice, and the names of your computer and printer. Then the Opening screen appears.

TIP *If you press the **Spacebar** as soon as you see the version number, the Opening screen appears sooner.*

You can bypass both the copyright and Opening screens to begin editing a document immediately. To do this, type **ws** followed by the name of the file you want to edit, as shown below.

*A>***ws first.doc**

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

The chart below shows the options you can use.

OPTION	DESCRIPTION
/n	open the named file as a nondocument
/d	open the named file as a document (Use this option if you've changed the default file mode to nondocument.)
/s	open a Speed Write file
/p	print the named file
/m	merge print the named file
/[*shorthand*	execute the shorthand macro
/x	exit WordStar upon returning to the Opening screen (Use with another option; for example, type **filename.doc /p /x** to print the file, then exit WordStar.)
/o *hhh*	go to hex location *hhh* (24-bit)

Status line

The status line appears at the top of the screen when you're editing a file. It shows the cursor location, warnings, and other messages. The status line can be turned off using WSCHANGE.

The status line cursor indicator helps you keep your place in the file. It's helpful if you change fonts often, because it shows you where the text will print on the page. Other messages, like the filename and the words *Insert* and *Prtect,* keep you informed about the current status of the file.

The status line can contain the following information.

ITEM	DESCRIPTION
command	Any command in progress.
filename and drive	Name and location of the file you're editing.
Wait	Displayed in place of the filename during lengthy operations and when WordStar is accessing the disk. If you type quickly while this message is displayed, you may lose some of the characters you type.
cursor indicator	Shows the page, line, column number, and inches of the cursor's present position.
Insert	Indicates that insert is on. (The **Ins** key or **^V** turns on and off.)
Prtect	Indicates that the document you're working on is protected.
Align	Indicates that auto-align is on for this text. (**.aw** switches it on and off.)
RgtJust	Indicates justification is on. (**^OJ**, **.j**, and **Right-justify text** on the Layout pull-down switch it on and off.)

ITEM	DESCRIPTION
Mar-Rel	Indicates that margin release is on. (^**OX** and **Margin release** on the Layout pull-down switch it on and off.)
LinSp-*n*	If the line spacing is anything except 1 (single spacing), indicates the current line spacing.
Column	Indicates you are in column mode.
ColRepl	Indicates you are in column mode and column replace is on.
Decimal	Displayed when you use **Tab** or ^**I** to move the cursor to a decimal tab.
Replace? Y/N	Appears during find and replace operations when you need to decide whether to replace the word at the cursor.
Large-File	Displayed when the document becomes so large that only 3K bytes of working memory are left, or if the document is too large to fit entirely in working memory.
Dot-Limit	Warns you that the number of dot commands in the document is more than the number that WordStar can keep track of during editing. (The document *will* print correctly.)
Printing	Appears when you're printing in the background.
Print wait	Appears when you're printing in the background and printing is paused. When you see this message, choose **Print a file** from the File pull-down or press ^**KP** while editing or **P** at the classic Opening Menu. Then choose the appropriate command when you're ready to resume printing.

In nondocuments, the status line is slightly different. The differences between a nondocument status line and a document status line are described below.

cursor indicator	Because nondocuments have no pages, the indicator shows only line and column numbers. The line number can go as high as 65535, and the column number as high as 999.
Auto-In	Displayed when auto indent is on. (^**6** switches it on and off.)

See also **Ruler line**.

Strikeout

Text you mark for strikeout is overprinted with hyphens, for example, ~~text~~. This is useful for legal documents where you want to cross out text that you propose be deleted.

To strike out text, place the cursor on the first character to be struck out and choose **Strikeout** from the Style pull-down or press ^**PX**. The symbol ^X appears on the screen. To mark the end of the strikeout, move the cursor to the end of the text to be struck out and use the strikeout command again.

To delete strikeout, place the cursor on the^X and press **Del** or^**G**. Be sure to remove both the beginning and end strikeout markers.

To change the character used to strike out text, type **.xx** followed by the new character.

TIP *To get double underline, change the strikeout character to an underscore character (**.xx_**). Then mark the text for both underline and strikeout.*

To permanently change the character used for strikeout, use WSCHANGE.

Subscript and superscript

Subscripted text is printed slightly below the rest of the text on the line, for example, H_2O. To subscript text, place the cursor at the beginning of the text you want subscripted and choose **Subscript** from the Style pull-down or press ^**PV**. The symbol ^V appears on the screen.

To mark the end of the subscripting, move the cursor to the end of the text you want subscripted and use the subscript command again.

Superscripted text is printed slightly above the rest of the text on the line, for example, WordStar®. To superscript text, place the cursor at the beginning of the text you want superscripted and choose **Superscript** from the Style pull-down or press^**PT**. The symbol ^T appears on the screen.

To mark the end of the superscripting, move the cursor to the end of the text you want superscripted and use the superscript command again.

To delete subscripting or superscripting, placed the cursor on the ^V or ^T and press **Del** or ^**G**. Be sure to remove both the beginning and end markers.

On some printers, you can specify how far subscripts and superscripts are printed below or above the rest of the text. This amount is normally 3⁄48 inch. You can change it by typing **.sr** followed by the number of 48ths of an inch of roll you want. For example, to change to 4⁄48-inch roll, type **.sr 4**.

Some dot matrix printers have a special half-high font available specifically for subscripts and superscripts, for example, subscript. If your printer has such a font available, leave the roll set to zero. Otherwise, WordStar will print full size subscripts/superscripts moved up or down as described above.

On other printers, WordStar may have to roll the carriage a whole line in order to print subscripts and superscripts.

T

Table of contents

To create a table of contents, first mark the table of contents entries in your text. Place the cursor at the beginning of the heading line and choose **Table of contents entry** from the Other pull-down. You'll see a **.tc** command in your text. (You can also type the dot command directly in your text.) Type the entire text you want to appear in the table of contents, including punctuation and indentation. To indent an entry in the table of contents, add extra blank spaces before the text. You can add print enhancements such as boldface or italics.

Type the # symbol in the dot command where you want the page number to print. When you generate the table of contents, the # is replaced with the number of the page where the dot command is located. If you use **.pn** to change the page numbers in your document, the table of contents will show the new page numbers. If you want the actual # symbol to appear in the table of contents, precede it with the backslash character (\) in the dot command line.

For example, if you enter this dot command on page 1:

.tc DEFINITION ....#

and this one on page 3:

.tc   Looking It Up ....#

the entries below will appear in the table of contents:

```
DEFINITION.......................................1
   Looking It Up.............................3
```

TIP *Use the ^P. command to insert periods up to the next tab stop.*

To produce the table of contents, choose **Table of contents** from the Additional pull-down or press **T** at the classic Opening Menu. You'll see the Table of Contents dialog box. Choose the file that contains the **.tc** commands, and specify the range of pages you want to create the table of contents for. Then press **F10** or **^K** to begin creating the table of contents.

WordStar reads through the document and finds all the **.tc** commands and notes their page numbers. It places the table of contents entries and page numbers into a new file on the logged drive and directory. The filename is the same as the original document, with the extension .TOC. You can edit the table of contents file.

A variation of the **.tc** command allows you to prepare up to nine additional separate tables of contents from one document at the same time. The variation involves adding a digit from 1 to 9, like this:

.tc1 Figure 1 ....#

When you use this variation, WordStar gathers the entries for all numbered **.tc** commands and places them into separate document files. These files all have the original document filename, but with a numbered extension: .TO1, .TO2, .TO3, and so on.

Tables. See **Columns.**

Tabs

Tab stops provide a convenient way to indent text. You can set a tab stop anywhere except the left and right margins.

To set a tab, choose **Margins and tabs** from the Layout pull-down and move the cursor to the *Tab stops* field, or press **^OI**. Type the settings for the new tab stops in inches. For example, to set a tab at two inches, type **2**. Type **#** in front of a number to set a decimal tab. Press **^R** if you want to keep all of the existing tabs as well. You can edit the list of tabs to include just the ones you want. Separate tab settings with spaces or commas.

When you've set the tabs you want, press **F10** or **^K**. WordStar adds a **.tb** command to your file indicating the new tab settings.

You can bypass the Margins & Tabs dialog box and type the dot command directly into your text. If you type the dot command directly, be sure to type the inch symbol (") after a number to indicate that the number is inches; otherwise, WordStar assumes the setting is in columns.

TIP *You can quickly change tabs to their default settings, or to other customized settings, by using **.rr**. See **Ruler lines**.*

To move the cursor to a tab stop, press the **Tab** key or **^I**. Each time you press the key, the cursor moves to the next tab to the right. When the cursor reaches the last tab stop in a line, it stops.

TIP *Press **^P.** instead of the **Tab** key to have WordStar insert periods instead of blank space. This is useful for tables of contents. You can use WSCHANGE to change the character that **^P.** enters in your text.*

Regular tab stops are shown in the ruler line as exclamation points (**!**). They align columns of text by the first character you type after tabbing. Decimal tabs are shown as number signs (#). They align columns by the decimal point.

To reformat tabbed text to new tab settings, choose **Align paragraphs** or **Align one paragraph** from the Layout pull-down or press **^QU** or **^B**.

For nondocuments, tab stops are at fixed intervals, usually every eight columns. To change this interval, press **^O**, type the new interval, and press ↵. The interval must be a binary multiple (1, 2, 4, 8, and so on). The new interval is in effect only as long as you are editing; it is not saved with the file. You can also use WSCHANGE to automatically set the interval based on filename extensions.

In a nondocument, when you press **Tab** or **^I**, WordStar puts a special nondocument tab character into the text. You can insert this nondocument tab in a document file by pressing **^PI**. This character is very rarely used in documents.

To use regular tab stops in a nondocument, use WSCHANGE.

See also **Columns**, **Decimal tabs**, and **Indenting**.

TelMerge

The TelMerge telecommunications program lets you easily link to telecommunications services such as CompuServe® or electronic bulletin boards. It also lets you send files over your phone lines. For information, see the "TelMerge" tab section.

Temporary files

WordStar creates and uses up to three temporary files while you're editing a document. These files have extensions that start with the dollar sign ($). WordStar uses temporary files to keep track of documents that are larger than the available memory on your computer, and for block move or copy operations. When you finish editing a document, WordStar erases these temporary files.

See also **Memory usage**.

Temporary indenting. See **Indenting**.

Thesaurus

To look up a synonym for a word in your document, place the cursor on the word and choose **Thesaurus** from the Other pull-down or press **^QJ**. You'll see a list of synonyms for that word. If the synonyms don't all fit on the screen, use **PgDn** and **PgUp** (or **^C** and **^R**) to scroll the screen. To select a synonym, move the cursor to the word you want and press ↵.

The word you selected automatically replaces the original word in your document. If auto-align is on, WordStar aligns your text after replacing a word.

The thesaurus contains 220,000 synonyms; usually, the word you want will be among them. However, if WordStar cannot find the word you request, it looks up synonyms for the root word. If it still can't find the word, it displays a list of the closest words alphabetically, with the cursor resting on the word most like the word in your document. Press ↵ to look up synonyms for that word, or move the cursor to another word and press ↵.

Synonyms are grouped according to definition and part of speech. The most commonly used synonyms are listed first. When the synonyms are displayed, you can choose any of the following options.

COMMAND	DESCRIPTION
↵	Replaces the original word in the text with the synonym at the cursor. You can use the cursor keys to move the cursor to the synonym you want before pressing ↵.
L	Displays a list of synonyms for the synonym at the cursor. You can then move the cursor to the synonym you want and press ↵, or press **P** to return to the previous screen.
K	Displays the definition for the word at the cursor. You can move the cursor to the original word in quotes at the upper left of the menu. Press **N** to see the next definition of the word; press **P** to see the previous definition. (Press **^U** to return to the synonym screen.)
I	Type a word to check for synonyms, then press ↵.
P	Returns to the synonyms for the previous word in this session of using the thesaurus. This only works if you have requested synonyms for more than one word in a session.
^U	Returns to the editing screen without choosing a synonym.

If you're using a two floppy disk computer, you're prompted to insert the disk containing the thesaurus when you start the thesaurus. If your computer has enough memory, you can use WSCHANGE to tell WordStar to load the thesaurus dictionary into memory so you won't have to swap disks.

Toggles

A toggle command is like a light switch: Press it once to turn an option off, press it again to turn the option on. For example, the first time you press **^OJ**, you turn justification off; when you press **^OJ** again, you turn justification on.

For most toggle commands, the classic menu tells you what will happen when you press the command. For example, if justification is on when you press **^O**, the menu says: *J turn justification off.*

U

Underlining

To underline text, place the cursor where you want the underlining to start and choose **Underline** from the Style pull-down or press **^PS**. The symbol ^S appears on your screen. To mark the end of the underlining, place the cursor just after the last character you want underlined and use the underline command again.

TIP *You can get double underlining by redefining the strikeout command. For information, see* ***Strikeout****.*

To delete underlining, place the cursor on the ^S and press **Del** or **^G**. Be sure to remove both the beginning and end underline markers.

Usually, spaces between underlined words are not underlined when you print. To underline spaces as well as words, use the **.ul on** dot command. (Spaces are underlined at print time, but do not appear underlined onscreen.) To stop underlining spaces, use **.ul off**. You can change the default setting by using WSCHANGE.

Undo and unerase

You can undo many commands with **^U**. The following list shows some of the ways you can use undo:

- Cancel a response to a prompt before the response is final.
- Stop **^QR** and **^QC** from going all the way to the top or bottom of your file.
- Stop a find or find and replace operation.
- Stop a spelling check.
- Stop printing.
- Restore text.

Restoring text

Undoing an erasure is called unerasing. When you choose **Undo** from the Edit pull-down or press **^U**, the last group of characters you erased is restored to the screen at the current cursor location.

Single characters erased with **^G**, **^H**, **Backspace**, or **Del** cannot normally be unerased (except for note tags). You can use WSCHANGE to specify that they can be unerased.

TIP *Unerasing is an easy way to move a phrase. Erase the text, move the cursor to the new location, and use the undo command.*

Unerasing works because WordStar stores your last erasure in a special memory buffer. Only the last erasure is stored. Each time you erase something, WordStar empties the buffer of what was previously erased and puts the current erasure in its place.

Using **Undo (^U)** copies the contents of the buffer into the text. It does not empty the buffer. You can unerase the same text repeatedly. This can be handy for duplicating words and phrases.

Normally, WordStar unerases a maximum of 500 bytes, but you can change that value with WSCHANGE. Keep in mind that the buffer is in working memory. Therefore, the larger the buffer, the less memory is available for your files.

V

Variables. See **Merge printing.**

W

Windows

Windows let you look at two documents at once, or at two parts of the same document. To open a window when you're editing, choose **Open/switch between windows** from the Window pull-down or press **^OK**. Then choose the name of the second file, either an existing file or a new one. The screen splits in half, with your original file at the top and the new file at the bottom. The cursor is in the new window.

You can edit in either window. To move the cursor to the other window, use **Open/ switch between windows** (**^OK**) again.

The status line at the top of the screen shows a 1 when the cursor is in the top window and a 2 when the cursor is in the bottom window. The status line also displays the name of the file where the cursor is currently located.

You can mark blocks in both windows at once. To move or copy a block from one window to the other, place the cursor where you want the block to appear, then choose **Copy block from other window** or **Move block from other window** from the Window pull-down, or press **^KG** to move the block or **^KA** to copy it.

(To move or copy a block within the same window, use **Copy block** and **Move block** on the Edit pull-down, or press **^KC** and **^KV**. For more information, see **Blocks**.)

TIP *To see an unchanged version of the document you're editing, open a window on the same document. You see the version you saved last, without any of the changes you've made in the current editing session. This is convenient if you've accidentally deleted information. Remember that the window you save last is the one you'll keep on disk. For this reason, it's better to use the second window for information only. If you edit in both windows and want to save both versions of the changes, rename one of the windows when you save it. Otherwise, the version of the file that you save last is the one you will keep on disk.*

To change the size of the windows, choose **Size current window** from the Window pull-down or press **^OM**. When prompted, specify a size for the second window. If you type **0**, each window will take up the full screen. When you move the cursor between windows, the screen will flip from one file to the other. In WSCHANGE you can specify a default window size.

You cannot edit notes while you have a document in the second window.

TIP *If you want to create a nondocument in a window, use WSCHANGE to have WordStar prompt you whether to open a document or a nondocument when you open a window on a new file.*

To close a window, move the cursor to the window and use any of the save or abandon file commands. See **Saving a file**.

Word count

To get a count of the words and characters in a marked block, press **^K?**. If no block is marked, you get a count for the entire file.

While you are editing, you can press **^Q?** to display the number of characters from the beginning of the file to the current cursor position.

Word wrap

As you type, WordStar automatically moves the cursor to a new line when you reach the end of the current line. This is called word wrap. You press ↵ only to mark the end of a paragraph.

When you start WordStar, word wrap is normally on. You can change this default with WSCHANGE.

To turn word wrap on and off while editing, press **^OW**. This is useful for typing tables and charts. When word wrap is off, you can type past the right margin, up to column 255. The computer beeps when you type past the right margin.

You can also turn off word wrap with the dot command **.aw off**, and back on with **.aw on**. These commands allow you to turn off word wrap permanently for a section of a file. It also turns off aligning and justification for this section. For example, you can use **.aw off** before a table and **.aw on** after it. Even if you later realign the document, this section of text won't be changed.

See also **Aligning text** and **Justification**.

WSCHANGE

WSCHANGE is WordStar's customization program. Use it to set up WordStar to run exactly the way you want. You can specify the initial setting for many features, such as margins, justification, and auto-align. You can also customize how WordStar works with your computer, for example, choosing new colors for the screen display or specifying whether to load the spelling dictionary into memory.

For information on how to run WSCHANGE, and a list of the items you can change, see Appendix C, "Customizing WordStar."

TIP *As you use WSCHANGE, descriptions of each item you can change appear on help screens. Be sure to refer to this onscreen documentation for help.*

WordStar's printer customization program, PRCHANGE, is also described in Appendix C.

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Introduction

WordStar® Professional Release 5 includes MailList™, which makes it easy to work with mailing lists. You can use merge printing to insert information from your mailing list into personalized letters for mass mailings. You can also print reports, labels, and envelopes with the information from a mailing list.

With MailList, you can create one or more mailing lists. You just display a form on the screen and type information in the blanks. Besides keeping names and addresses in your mailing list, you can also keep telephone numbers and other information you may want to save. MailList gives you a choice of two forms, one for mailing lists and the other for lists such as inventories. You can update your lists any time and sort them in any order you want.

The MailList documentation is organized into three chapters:

Creating and Updating a Mailing List covers the basic operations for creating and maintaining mailing lists.

Creating Form Letters gives guidelines for using the WordStar merge print commands to create form letters for use with a mailing list.

Printing Envelopes, Labels, and Lists contains instructions for easy printing of envelopes, labels, and reports using the information in a mailing list.

You can run MailList either through WordStar Professional or as a stand-alone program.

If you have a hard disk computer, the MailList files should be in the same directory as your WordStar files (normally \WS5). If you didn't copy these files to your hard disk when you installed WordStar, do so now.

If you have a two floppy disk computer, be sure to make a copy of the MailList disk. Always work with the copy and store the original in a safe place.

Creating and Updating a Mailing List

MailList enables you to create lists of names, addresses, and other information. Each list is kept on disk in a file called a data file. The following pages give step-by-step procedures for creating and maintaining your mailing lists.

Starting MailList™

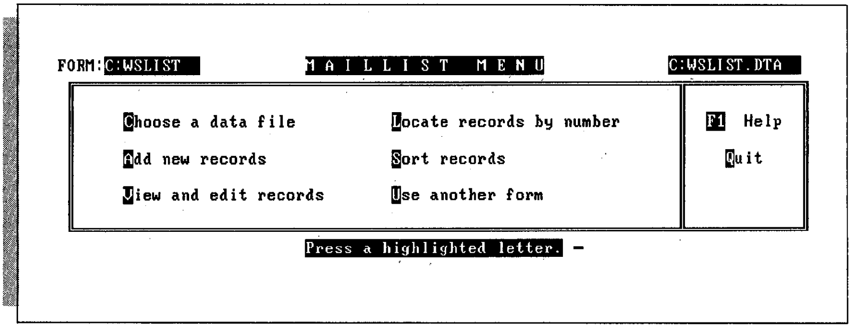
Follow these steps to start using MailList.

1. To start MailList using pull-down menus, select **Additional** at the WordStar Opening screen, then choose **MailList**.

   To start MailList using classic menus, press **A** at the WordStar Opening Menu, then press **L** for MailList.

   To start MailList as a stand-alone program, log on to the disk or directory that contains the MailList files, type **wslist**, and press ↵.

   The MailList Menu appears.


M A I L L I S T   M E N U
Choose a data file
Add new records
View and edit records
Locate records by number
Sort records
Use another form
F1 Help
Quit

FORM: C:WSLIST

C:WSLIST.DTA

Press a highlighted letter. -

2 Press **C** to choose a data file. MailList displays a list of the data files (files with the .DTA extension) in the current directory.

MailList comes with a data file named WSLIST.DTA, which is empty. WSLIST.DTA is the default data file; if you don't choose a data file, this is the file you will work with.

TIP *You can use WSLIST.DTA as your main mailing list file. Just choose it as the data file when you're ready to start your mailing list, then enter your list as described below in "Adding Names and Addresses." If you do this, you won't have to choose a new data file each time you start working on your mailing list.*

If you want to display a list of data files in another drive, type the drive letter followed by a colon and press ↵. To see the list of data files in a different directory, first type \ and press ↵ to display a list of directory names, then move the highlighting to the directory you want and press ↵.

3 Type the name of the data file you want to create or update and press ↵. Include the drive letter or directory path if necessary. You don't have to type the .DTA extension; MailList automatically adds this extension. (If you're updating a mailing list, you can move the highlighting to the filename and press ↵ instead of typing the name.)

CAUTION *To choose a file that you entered using the inventory form rather than the mailing list form, you must first choose the inventory form. Otherwise, when you type the filename, an error message appears. See "Using Another Data Entry Form" in this chapter.*

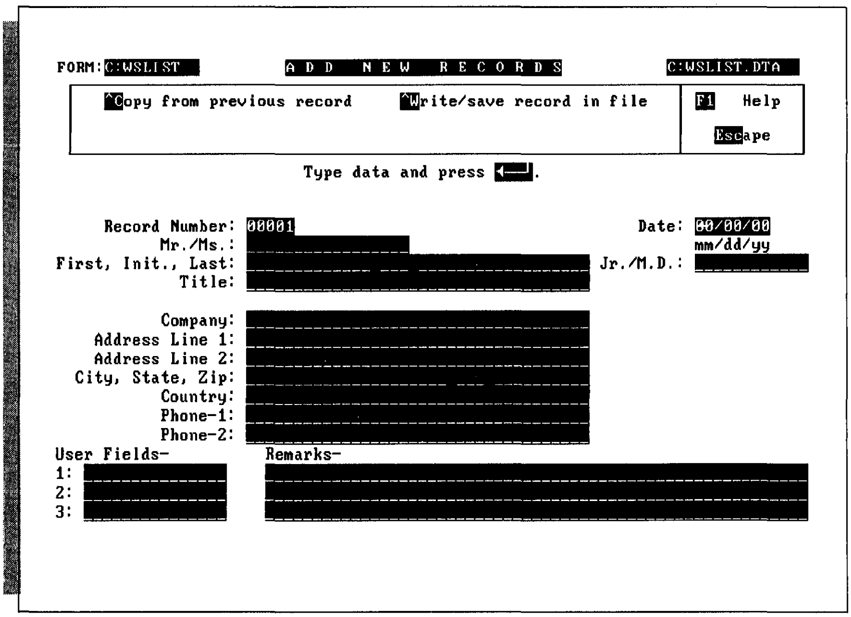
Adding Names and Addresses

You add names, addresses, and other information to your mailing list by filling in an onscreen data entry form. You fill in the form once for each person on the list; the entry for each person is called a record. Each piece of information in a record, such as first name or phone number, is called a field. The information that you enter in a field is called data. The data for the entire mailing list is kept on disk in a data file.

You assign a number, usually 1, to the first record in each MailList data file. MailList sequentially numbers the rest of the records for you.

1 Press **A** at the MailList Menu. The data entry form appears, with the Add New Records Menu at the top of the screen. If this is the first record in a new mailing list, the cursor is in the Record Number field. Otherwise, the record number is the first available number, and the cursor is in the First Name field.

The example below shows the mailing list data entry form, WSLIST.DEF. (Another form, INVNTORY.DEF, is also available. You work with it in the same way as with the mailing list form. It is shown in "Using Another Data Entry Form.")



```
FORM:C:WSLIST          A D D   N E W   R E C O R D S          C:WSLIST.DTA

     ^Copy from previous record      ^Write/save record in file   F1  Help
                                                                  Escape
                          Type data and press ←┘.

      Record Number: 00001                             Date: 00/00/00
            Mr./Ms.:                                         mm/dd/yy
First, Init., Last:                               Jr./M.D.:
              Title:

            Company:
     Address Line 1:
     Address Line 2:
   City, State, Zip:
            Country:
            Phone-1:
            Phone-2:
User Fields-            Remarks-
1:
2:
3:
```

Note: If you keep data files on any disks or directories other than the MailList directory, copy WSLIST.DEF and INVNTORY.DEF to each of these disks or directories.

2 For a new data file, type the number you want the first record to have (generally **1**) and press ←┘.

3 Fill in the data entry form for the first person on your list or the next person you want to add. At each field, type the information and press ←┘. The cursor moves to the next field.

All the fields are optional; you are not required to fill in any field. To skip a field and go on to the next one, press ←┘.

Always start typing in the first space of a field; if the data in the field begins with a blank space, you won't be able to sort it properly.

If you make a typing error, you can erase characters with the **Backspace** key. You can move the cursor around the form using these commands:

Left one character	^**S** or ←
Right one character	^**D** or →
Previous field	^**A** or ^ ←
Next field	^**F** or ^ →
Top (first) field	^**T** or **Home**
Last field	^**L** or **End**

4 When the form is completed, press ↵ after the last field or press ^**W** from any other field. Then press ↵ again to save the data as a record.

A blank form appears, with the next record number already entered.

5 Enter the rest of your records in the same way. Be sure to save each record (using step 4 above) as you complete it. You can't save records in groups.

TIP *At any field, you can copy the same information you previously typed for the field by pressing* ***^C****. For example, if you're adding several records and they all have the same date, type the date in the first record. Then when you get to the Date field in each subsequent record, just press* ***^C****, and the same date is automatically inserted.*

6 After you enter and save all your records, press **Esc** to return to the MailList Menu.

Updating and Correcting a Mailing List

After you create your mailing list, you can look at your records and make changes. To change any information, use the steps below to display the record on the screen, make your changes, and save the updated record.

1 Press **V** at the MailList Menu. The View and Edit Records Menu appears with the first record in your mailing list.

2 Make any changes you want. Use the same cursor commands as you do to add a record.

3 Press ^**W**. Then press ↵ to save the updated record. The next record appears. (If you press ^**W** and then decide you don't want to save the changes, you can press **Spacebar** to return to the record without saving the changes, or you can press **Esc** to abandon the changes and return to the MailList Menu.)

4 Continue editing your records. If you don't want to change a record, you can press ^**N** to display the next record or ^**P** to display the previous record.

5 After you save the last record you want to change, press **Esc** to return to the MailList Menu.

Normally, you view and edit your records in order of record number. However, if you've sorted your mailing list in another order, the records appear in the sorted order. See "Sorting Mailing Lists." You can also view and edit particular records without going through all the records in order. See "Working with a Specific Group of Records" and "Finding a Particular Record."

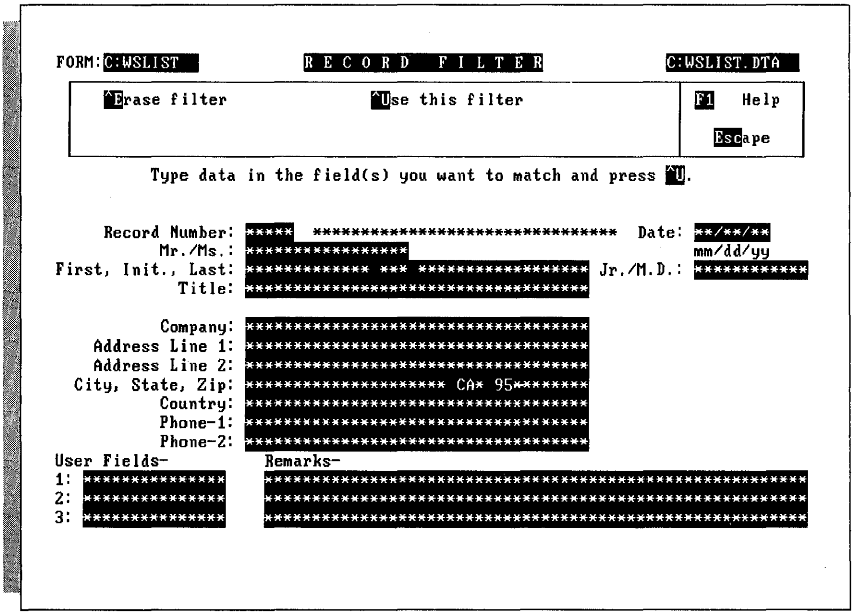
After you edit several records, you should sort your mailing list. See "Sorting Mailing Lists."

Working with a Specific Group of Records

You may want to view or update a specific part of your mailing list, such as all records with the name "Weiss" or all records with the city of "Summertown" in the state of "TN." You can use a record filter to display only certain records. The record filter "filters out" the records you don't want.

1. At the MailList Menu, press **V** to display the View and Edit Records Menu.
2. Press **^C** for Create or Change Filter. The data entry form appears with asterisks in place of the data in each field. The Record Filter Menu is at the top of the screen.
3. Move the cursor to a field you want to use as the filter, and type the information you want to match in that field. If you want to use more than one field, move the cursor to each field you want to use and type the information to match.

   In the following example, two fields are used as the filter, "CA" for state and "95" for the first two digits of the ZIP code.



```
FORM:C:WSLIST             R E C O R D   F I L T E R           C:WSLIST.DTA
     ^Erase filter                ^Use this filter               F1  Help

                                                                  Escape
          Type data in the field(s) you want to match and press ^U.

     Record Number: *****  ********************************  Date: **/**/**
           Mr./Ms.: *****************                              mm/dd/yy
First, Init., Last: ************* *** ****************** Jr./M.D.: ************
             Title: ************************************

           Company: ************************************
    Address Line 1: ************************************
    Address Line 2: ************************************
  City, State, Zip: ********************* CA* 95********
           Country: ************************************
           Phone-1: ************************************
           Phone-2: ************************************
User Fields-          Remarks-
1: ***************    *********************************************************
2: ***************    *********************************************************
3: ***************    *********************************************************
```

4 Press ^**U** to start using the filter. The View and Edit Records Menu appears with the first record that matches the data in the filter.

  You can keep viewing and editing records as usual, except that only the records that match the filter are displayed.

While you are using a filter, you can press ^**C** again at the View and Edit Records Menu to change the filter. To stop using the filter, press ^**E** at the Record Filter Menu. Otherwise, the filter is automatically erased when you exit the current View session.

Finding a Particular Record

You can select a specific record to view or edit by giving its record number.

1. At the MailList Menu, press **L**. The Locate Records by Number Menu appears with a blank data entry form. The cursor is in the Record Number field.
2. Type the number of the record you want to see and press ↵. The matching record appears.
3. You can either edit the record or view other records in numerical order beginning with the record on the screen.

   To edit the record, make changes the same way you do when adding or viewing a record. After you finish editing, press ^**W**, then ↵. A blank record appears again with the cursor in the Record Number field. You can enter another record number to display another record.

   To view other records, press ^**P** to display the previous record or ^**N** to display the next record.
4. When you are finished locating and editing records, press **Esc**. The MailList Menu appears.

Erasing Records

You can erase a record only when it is displayed on the screen.

1. Use either **V** (View) or **L** (Locate) at the MailList Menu to display the record you want to erase.
2. Press ^**E**.
3. Press **R** to confirm that you want to remove the record. MailList removes the record from the mailing list.

After you erase several records, you should sort the mailing list as explained in the following section.

Sorting Mailing Lists

When you view your mailing list, records normally appear in the order in which you entered them. You can sort the mailing list to make records appear in any order you want. After you sort the list, records appear in the sorted order until you sort them again. You can save up to 32 different orders for sorting mailing lists; for example, sometimes you may want to sort by name and other times by date, by state, or ZIP code. (You can also save up to 32 sort orders for the inventory data entry form.)

After you update or erase records, you should sort your list to put the records in the order you want and to use disk space more efficiently. Sorting the mailing list puts the updated records back into place in the data file and erases information left from before you updated the mailing list.

TIP *When you merge print with your mailing list, the form letters (or labels, envelopes, etc.) are printed in the sorted order. Sorting your mailing list before printing enables you, for example, to print labels in ZIP code order.*

To sort your mailing list without changing the sort order, use the following steps:

1. Press **S** at the MailList Menu. The Sort Records Menu appears with a data entry form that shows the current sort order, which is the order you used the last time you sorted a mailing list. If you haven't used any sort orders, the default sort order is in order of record numbers.
2. Press **^U**. MailList sorts the mailing list. When sorting is finished, a message appears.
3. Press **Esc** to return to the MailList Menu.

CAUTION *If you sometimes use leading spaces or zeros in a field, remember that MailList will consider these spaces and zeros when it sorts. Be sure to use these characters consistently so that you can sort the records in the way you want.*

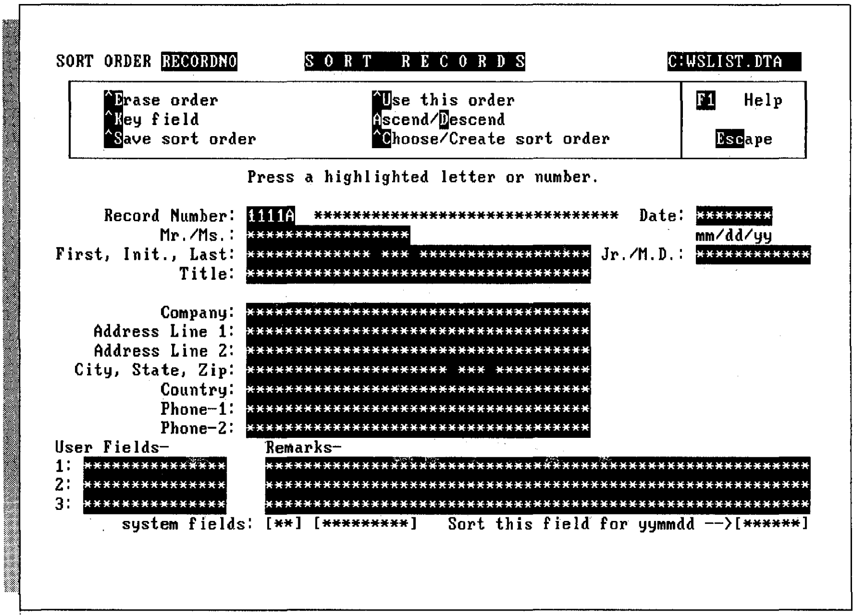
You may want to sort your mailing list into different orders for different purposes. For example, you may want to edit records in order of record number, print out phone lists in alphabetical order, and print labels in ZIP code order. The following sections tell you how to create a new sort order and how to change between sort orders.

Creating a Sort Order

Follow the steps below to create a new sort order.

1. Press **S** at the MailList Menu. The Sort Records Menu appears at the top of the screen.

Below the menu is a data entry form that shows the current sort order. This is the order you used last time you sorted a mailing list. If you haven't created any sort orders, the form looks like the one below. This form shows the default sort order, RECORDNO. The 1111A in the Record Number field means that the list will be sorted in order of record number.



```
SORT ORDER RECORDNO          S O R T   R E C O R D S              C:WSLIST.DTA

     ^Erase order                  ^Use this order                 F1  Help
     ^Key field                    Ascend/Descend
     ^Save sort order              ^Choose/Create sort order       Escape

                     Press a highlighted letter or number.

      Record Number: 1111A  ********************************  Date: ********
            Mr./Ms.: *****************                              mm/dd/yy
  First, Init., Last: ************* *** ****************** Jr./M.D.: ************
              Title: ************************************

            Company: ************************************
      Address Line 1: ************************************
      Address Line 2: ************************************
    City, State, Zip: ********************* *** **********
            Country: ************************************
            Phone-1: ************************************
            Phone-2: ************************************
User Fields-           Remarks-
1: ***************     *********************************************************
2: ***************     *********************************************************
3: ***************     *********************************************************
       system fields: [**] [*********]   Sort this field for yymmdd -->[******]
```

2 Press **^C** to choose a new sort order. A list of the available sort orders appears. If you haven't created any sort orders, the only one listed is RECORDNO.

3 Type the name you want to give to the new sort order and press ↵. A sort order name can have up to eight letters and numbers. The data entry form appears for you to enter the sort order.

The sort order is based on up to nine fields called keys. The first key is the first field that is checked when sorting. If several records have the same information for the first key, the second key is checked, and so on. For example, if the first key is the State field, all the records with AK will be first, those with AL will be next, and so on. If the second key is Last (last name), the records within each state will be in alphabetical order by last name. If the third key is First (first name), whenever more than one record has the same state and last name, those records will be in alphabetical order by the first name.

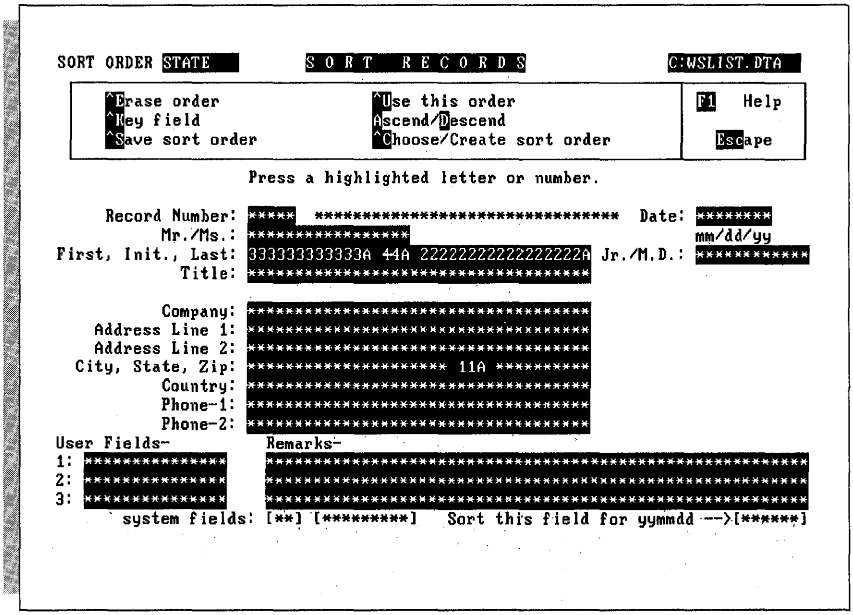
4 Move the cursor to the field you want to be the first key. Use the same keys you use when editing records: **^F** or ^→ to move to the next field and **^A** or ^← to move to the previous field.

5 When the cursor is in the field you want, press **^K**. The field fills with the number 1, except for the last character in the field, which is an A for ascending order.

When MailList sorts, it uses this order for characters: first spaces, then digits starting with 0, then letters starting with A (for each letter, lowercase immediately follows uppercase). This is considered ascending order. You can have MailList sort any key in descending order, which is the opposite order. In descending order, for example, Z is the first letter of the alphabet and A is the last, and letters come before numbers. Just put the cursor in the key field and press **D**. The A that is the last character in the key changes to a D. To change a key back to ascending order when it is in descending order, move the cursor to the key field and press **A**.

6 Move the cursor to the second key field and press **^K**. The field fills up with the number 2, with A as the last character.

Mark the rest of your keys in the same way. When you're finished, your screen should look similar to the following example, in which four keys are used, State, Last, First, and Initial.



```
SORT ORDER STATE          S O R T   R E C O R D S            C:WSLIST.DTA

       ^Erase order                 ^Use this order                F1   Help
       ^Key field                   Ascend/Descend
       ^Save sort order             ^Choose/Create sort order        Escape

                    Press a highlighted letter or number.

     Record Number: *****  **********************************  Date: *********
           Mr./Ms.: *****************                                mm/dd/yy
First, Init., Last: 3333333333333A 44A 22222222222222222A Jr./M.D.: ************
             Title: ************************************

           Company: ************************************
    Address Line 1: ************************************
    Address Line 2: ************************************
  City, State, Zip: ********************* 11A **********
           Country: ************************************
           Phone-1: ************************************
           Phone-2: ************************************
User Fields-           Remarks-
1: ***************     **********************************************************
2: ***************     **********************************************************
3: ***************     **********************************************************
        system fields: [**] [*********]   Sort this field for yymmdd -->[******]
```

7 You can press **^U** to save the new sort order and sort your mailing list, or you can press **^S** to save the sort order without sorting.

8 Press **Esc** to return to the MailList Menu.

Note: To sort by date, you need to choose a special date field. When you enter the date in a record, you enter it as month, day, and year. This date also appears on the bottom right of the sort screen as year, month, and day. This extra field is the one you must use as a key for sorting.

Choosing a Sort Order

To change from one sort order to another, press **^C** (Choose sort order) at the Sort Records Menu. A list of the available sort orders appears. Choose the order you want. A data entry form appears showing the order you chose.

Note: The sort orders you create are stored in a file named MAILSORT.OVR in the current disk or directory. If you don't see the list of sort orders you expect, you may need to copy this file from the disk or directory where you created it.

When the sort order is on the screen, you can use it to sort the mailing list or you can edit or erase the sort order as described below:

- To sort the mailing list using the displayed sort order, press **^U**.
- You can edit a sort order to add keys or to change a key from ascending order to descending order or vice versa. You can't change the order of keys that are already in the sort order, and you can't delete keys. For example, if you have a sort order that has two keys, ZIP code and last name, you can add first name as the third key, or you can change from ascending ZIP code order to descending order. To edit the displayed sort order, just use **^K** and the **A** and **D** commands as you do when creating a sort order. When you finish editing, press **^S** to save the sort order or **^U** to save the sort order and sort the mailing list.
- If you have created the maximum 32 sort orders and want to create another one, you need to erase an existing sort order. You can also erase sort orders you no longer use. To erase the displayed sort order, press **^E**, then answer **Y** to confirm that you want to erase the sort order. After you erase a sort order, it no longer appears in the list you see when you press **^C** to choose a sort order.

Exiting MailList

When you finish working with your mailing list, press **Q** at the MailList Menu to return to WordStar. Be sure to exit WordStar before you turn off your computer. (Using pull-down menus, select **File** at the Opening screen, then choose **Exit WordStar**. Using classic menus, press **X** at the Opening Menu.) If you exit incorrectly, your data file may be damaged.

MailList Index Files

When you create or update a mailing list data file, MailList also creates or updates an index file. The index file has the same filename as the data file with the .NDX extension. For example, if you name your data file CLIENTS.DTA, the index file is named CLIENTS.NDX.

Data files and index files go together. MailList needs to use the index file whenever you work with your mailing list. If you've erased your index file, when you try to work on your mailing list, a message appears telling you that the index file is missing and instructing you to press **R** to rebuild the index file.

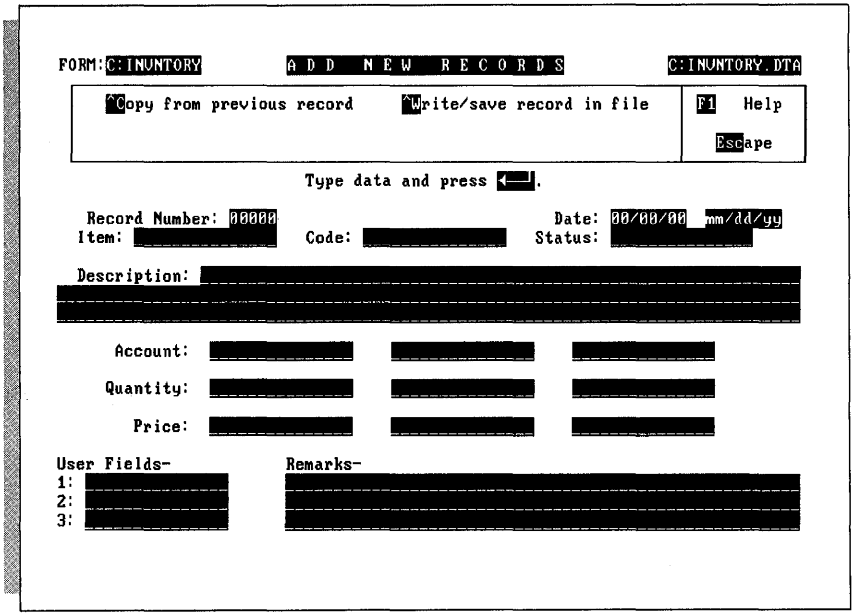
Backing Up Mailing Lists

Make frequent backup copies of your data and index files. Always keep at least one extra copy of your mailing list on a floppy disk. This is your insurance against accidental erasures, damaged disks, and other problems.

Using Another Data Entry Form

In all the examples so far, the mailing list data entry form was used. MailList provides an alternate data entry form that is for lists other than mailing lists. You can use this form for any list that doesn't include name and address information. This form is called the inventory form. You can work with the inventory data entry form the same way you do with the mailing list form.

The data entry forms are stored in files with the .DEF extension. The mailing list data entry form, which is shown in the previous sections, is WSLIST.DEF. The inventory form is INVNTORY.DEF; it is shown below.



```
FORM:C:INVNTORY          A D D   N E W   R E C O R D S          C:INVNTORY.DTA

     ^Copy from previous record      ^Write/save record in file    F1   Help
                                                                     Escape

                          Type data and press ◄┘.

  Record Number: 00000                                 Date: 00/00/00  mm/dd/yy
 Item:                      Code:                    Status:

 Description:



          Account:

         Quantity:

            Price:

User Fields-              Remarks-
1:
2:
3:
```

Each time you start MailList, the WSLIST.DEF form is the current form. This form is used for any mailing list you create unless you select the inventory form.

Follow the steps below to change to the inventory form, or from the inventory form back to the mailing list form.

1 Press **U** at the MailList Menu. A list of the form files appears.

2 Type the name of the form you want or move the highlighting to the name. Press ↵.

The form name you chose is now the current form until you exit MailList or choose another form. If you try to edit a mailing list that uses a form different from the current one, an error message appears, and you must select the correct form before you can edit the list.

Creating Form Letters

You can use information from your mailing list in form letters and other documents. You do this by creating a master document, which contains both the text of the letter and the merge print commands and variables. Before you create a master document for your mailing list, read the **Merge printing** section of the "Reference Guide."

Starting the Document

Use the following steps to create a master document to use with your MailList list.

TIP If you have a two floppy disk system, it's best to create your master document on the disk that contains your data file. You should also make sure this disk contains the MAILLIST.DOT file that came on the MailList disk.

1 Open a WordStar document file. For the filename, type the name you want to give the file and press ↵.

TIP You may want to give all your master documents the same filename extension (for example, .MRG) so that you can easily identify them.

2 Use the command to insert a file (^**KR**). At the *Document?* prompt, type the filename **maillist.dot** and press ↵. If necessary, include a directory path for the MAILLIST.DOT file. (To create a master document for an inventory list, type **invntory.dot** and press ↵.)

Your master document should look like the one below. The document is followed by brief explanations of the commands. For more information on these commands, refer to **Merge printing** in the "Reference Guide." (If you used INVNTORY.DOT, the dot commands contain different information.)

```
.op
.df wslist.dta
.rv x,number,full-name,first,mi,last,Mr-Ms,title
.rv company,addr1,addr2,city,state,zip,country
.rv phone1,date,Jr-MD,user1,phone2,user2,x,user3,remark1,remark2,remark3,ymd

(Type text and variable names here.)

.pa
------------------------------------------------------------
```

The **.op** command omits page numbers, since most form letters don't need page numbers; you can delete this command if you want to print page numbers.

The **.df** command defines the data file as WSLIST.DTA. If you are not using WSLIST.DTA, substitute the name of your data file.

The **.rv** command loads the data from your file into the variable names shown. The names in this command correspond to the MailList fields. Three commands are used so all the fields can be named. All the fields must be named here even if you use only a few of them in your letter.

The line of text is a reminder for you. Be sure to remove this line before you type your letter.

The **.pa** command causes each letter to print on a separate page.

Typing the Document

After you open the document, you can type your text. In each place where you want to use information from your mailing list, type the corresponding variable name, enclosed in ampersands (&). When you finish typing your master document, save it as you would any document. For more detailed information on using variables, see **Merge printing** in the "Reference Guide."

The variable names you can use to enter mailing list information are the same names used in the **.rv** dot commands. These names refer to the fields on your MailList data entry form. The list below shows the variable names in the MAILLIST.DOT file and the names of their corresponding MailList fields.

VARIABLE NAME	MAILLIST FIELD	VARIABLE NAME	MAILLIST FIELD
&number&	Record Number	&state&	State
&full-name&	First, Initial, and Last	&zip&	Zip
		&country&	Country
&first&	First	&phone1&	Phone-1
&mi&	Initial	&phone2&	Phone-2
&last&	Last	&date&	Date
&Jr-MD&	Jr./M.D.	&user1&	User Field 1
&Mr-Ms&	Mr./Ms.	&user2&	User Field 2
&title&	Title	&user3&	User Field 3
&company&	Company	&remark1&	Remark 1
&addr1&	Address Line 1	&remark2&	Remark 2
&addr2&	Address Line 2	&remark3&	Remark 3
&city&	City	&ymd&	*

*The &ymd& variable represents the date in year, month, date format (for example, 880826). MailList generates this field automatically, and you can use it for sorting and with MailMerge conditions.

The variable names for the inventory form and their corresponding fields are shown below.

VARIABLE NAME	MAILLIST FIELD	VARIABLE NAME	MAILLIST FIELD
&number&	Record Number	&qty2&	Quantity 2
&date&	Date	&price2&	Price 2
&item&	Item	&acct3&	Account 3
&code&	Code	&qty3&	Quantity 3
&status&	Status	&price3&	Price 3
&desc1&	Description Line 1	&user1&	User Field 1
&desc2&	Description Line 2	&user2&	User Field 2
&desc3&	Description Line 3	&user3&	User Field 3
&acct1&	Account 1	&remark1&	Remark 1
&qty1&	Quantity 1	&remark2&	Remark 2
&price1&	Price 1	&remark3&	Remark 3
&acct2&	Account 2	&ymd&	*

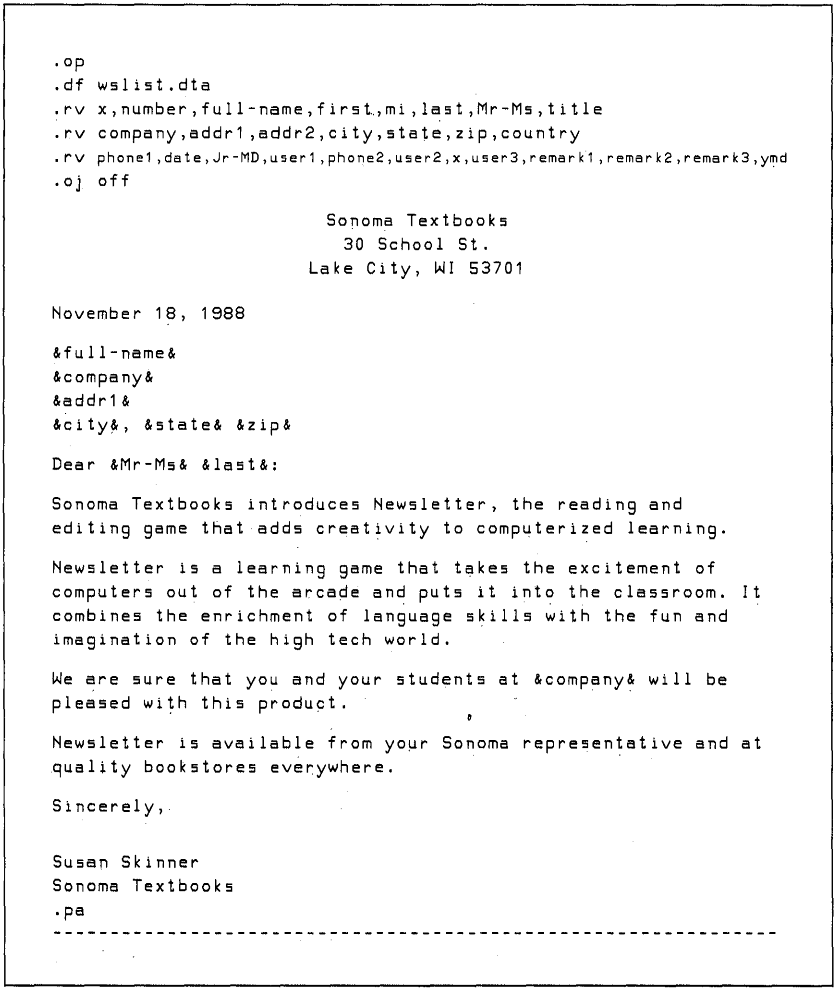
*The &ymd& variable represents the date in year, month, date format (for example, 880826). MailList generates this field automatically, and you can use it for sorting and with MailMerge conditions.

Printing Form Letters

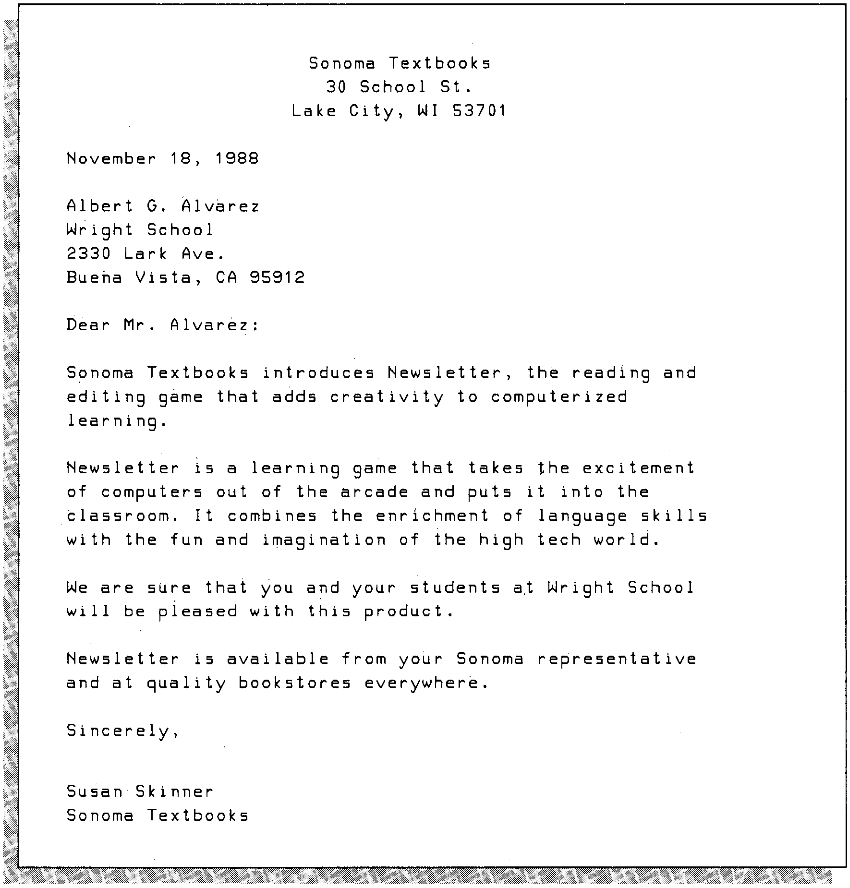
To print a form letter, choose **Merge print a file**. (Using pull-down menus, this command is on the File Menu. Using classic menus, this command is on the Opening Menu.) Type the filename of your master document. Press ^ **K** to start printing, or answer the prompts as you would with any document.

Sample Master Document

The following example shows a master document and two printed letters.



```
.op
.df wslist.dta
.rv x,number,full-name,first,mi,last,Mr-Ms,title
.rv company,addr1,addr2,city,state,zip,country
.rv phone1,date,Jr-MD,user1,phone2,user2,x,user3,remark1,remark2,remark3,ymd
.oj off

                    Sonoma Textbooks
                     30 School St.
                   Lake City, WI 53701

November 18, 1988

&full-name&
&company&
&addr1&
&city&, &state& &zip&

Dear &Mr-Ms& &last&:

Sonoma Textbooks introduces Newsletter, the reading and
editing game that adds creativity to computerized learning.

Newsletter is a learning game that takes the excitement of
computers out of the arcade and puts it into the classroom. It
combines the enrichment of language skills with the fun and
imagination of the high tech world.

We are sure that you and your students at &company& will be
pleased with this product.

Newsletter is available from your Sonoma representative and at
quality bookstores everywhere.

Sincerely,


Susan Skinner
Sonoma Textbooks
.pa
----------------------------------------------------------------
```



Sonoma Textbooks
30 School St.
Lake City, WI 53701

November 18, 1988

Albert G. Alvarez
Wright School
2330 Lark Ave.
Buena Vista, CA 95912

Dear Mr. Alvarez:

Sonoma Textbooks introduces Newsletter, the reading and editing game that adds creativity to computerized learning.

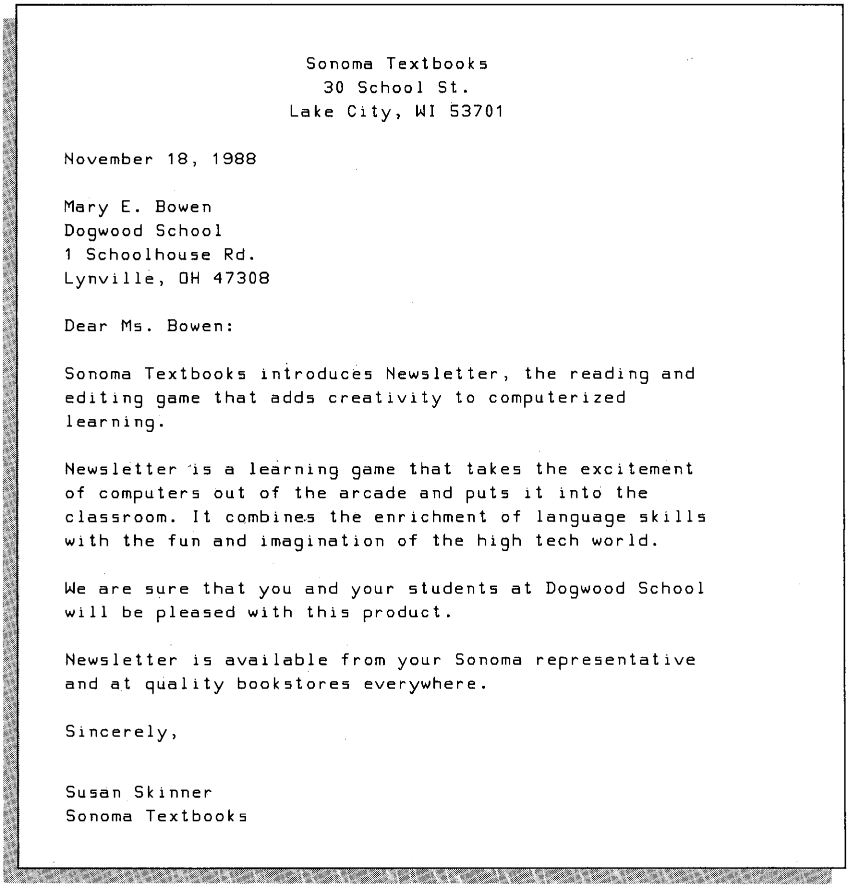
Newsletter is a learning game that takes the excitement of computers out of the arcade and puts it into the classroom. It combines the enrichment of language skills with the fun and imagination of the high tech world.

We are sure that you and your students at Wright School will be pleased with this product.

Newsletter is available from your Sonoma representative and at quality bookstores everywhere.

Sincerely,

Susan Skinner
Sonoma Textbooks



Sonoma Textbooks
30 School St.
Lake City, WI 53701

November 18, 1988

Mary E. Bowen
Dogwood School
1 Schoolhouse Rd.
Lynville, OH 47308

Dear Ms. Bowen:

Sonoma Textbooks introduces Newsletter, the reading and editing game that adds creativity to computerized learning.

Newsletter is a learning game that takes the excitement of computers out of the arcade and puts it into the classroom. It combines the enrichment of language skills with the fun and imagination of the high tech world.

We are sure that you and your students at Dogwood School will be pleased with this product.

Newsletter is available from your Sonoma representative and at quality bookstores everywhere.

Sincerely,

Susan Skinner
Sonoma Textbooks

Printing Envelopes, Labels, and Lists

MailList comes with ready-made files for printing your mailing list on envelopes, labels, and Rolodex® cards and for printing proof reports of your mailing list. These files are WordStar documents that contain the merge print commands to insert the data from your list. Just use the following procedures.

Note: If you want to print envelopes, labels, or lists for only part of your mailing list, you can edit these files and insert the appropriate merge print commands. See "Merge Printing Conditional Commands" in **Merge printing** in the "Reference Guide."

TIP *If you have a two floppy disk system, it's best to keep these ready-made files on the disk that contains your data file. Note, in the procedures below, the names of the files you plan to use, and copy those files to your data file disk.*

Printing Envelopes

You can print standard 4⅛-by-9½-inch envelopes for a mailing list using the ENVELOPE.LST file.

Note: Special files are provided for printing envelopes with Hewlett-Packard® LaserJet® printers. For the LaserJet or LaserJet+, use HP-ENVMM.LST. For the LaserJet Series II, use HP2-ENVM.LST.

If your data file is not named WSLIST.DTA, before you print envelopes, you need to edit the envelope file and substitute your filename for WSLIST.DTA, in the **.df** dot command. If your data file is not in the current drive or directory, you need to edit the envelope file and add the directory path.

1. Choose **Merge print a file.** (Using pull-down menus, this command is on the File Menu at the Opening screen. Using classic menus, this command is on the Opening Menu.)

2 For the name of the document, type **envelope.lst** (or **hp-envmm.lst** or **hp2-envm.lst**) and press ↵. Include a drive letter or directory path if necessary.

3 If you want to change any of the printing defaults, answer the questions as you go through the list. *Don't* start printing yet.

4 Make sure your printer is ready and the paper is removed. Then press ^ **K**.

5 Choose **Print a file** to go to the printing screen. (Using pull-down menus, this command is on the File Menu. Using classic menus, this command is on the Opening Menu.)

A message saying printing is paused appears on the screen.

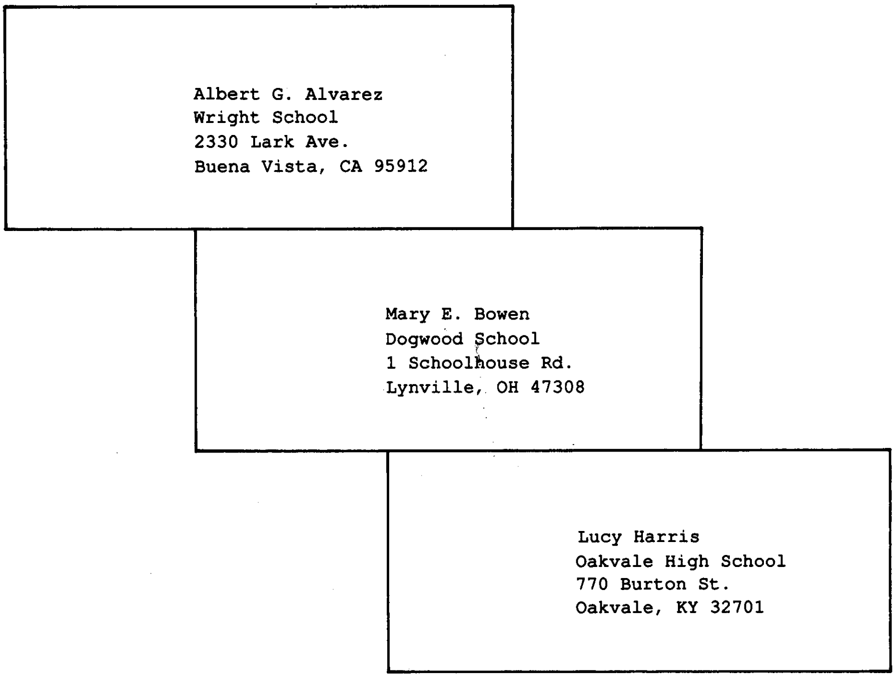
6 Insert an envelope in the printer, rolling the platen until the top of the envelope is just visible. The top of the envelope should be at the same spot as the top of the page is when you align paper. (Don't align the envelope where you want printing to begin. It will advance the correct number of lines before printing.)

7 Press **C** to print the first envelope.

The name and address from the first record are printed on the envelope, and printing pauses.

8 Repeat steps 6 and 7 until you have addressed envelopes for the entire list.

Sample printed envelopes are shown below.



Albert G. Alvarez
Wright School
2330 Lark Ave.
Buena Vista, CA 95912

Mary E. Bowen
Dogwood School
1 Schoolhouse Rd.
Lynville, OH 47308

Lucy Harris
Oakvale High School
770 Burton St.
Oakvale, KY 32701

Printing Labels or Rolodex® Cards

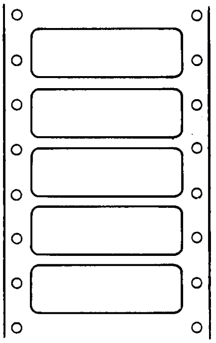
You can print names and addresses from your mailing list on three different sizes of labels. The LABEL.LST file prints on 3½-by-1-inch one-across labels. The LABELXL.LST file prints on 5-by-3-inch one-across labels. The LABEL3.LST file prints on 3½-by-1-inch three-across labels. The LSRLABL3.LST file prints on three-across labels using a laser printer.

You can also print names and addresses on 3½-by-4-inch continuous strip Rolodex cards, using the ROLODEX.LST file.

If your data file is not named WSLIST.DTA, before you print labels or Rolodex cards, you need to edit the label or Rolodex file and substitute your filename for WSLIST.DTA in the **.df** dot command. If your data file is not in the current drive or directory, you need to edit the label file and add the directory path.

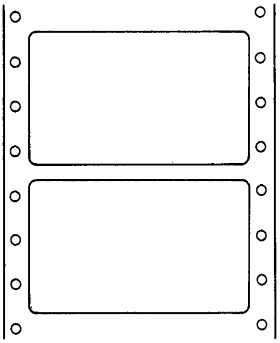
LABEL.LST

3½" × 1" one-wide labels

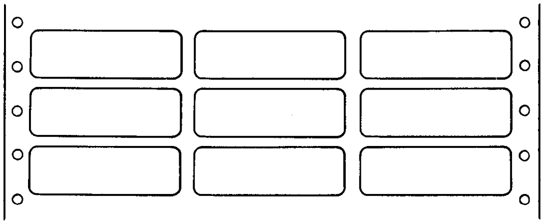


LABELXL.LST

5" × 3" one-wide labels



LABEL3.LST **3½" × 1" three-wide labels**

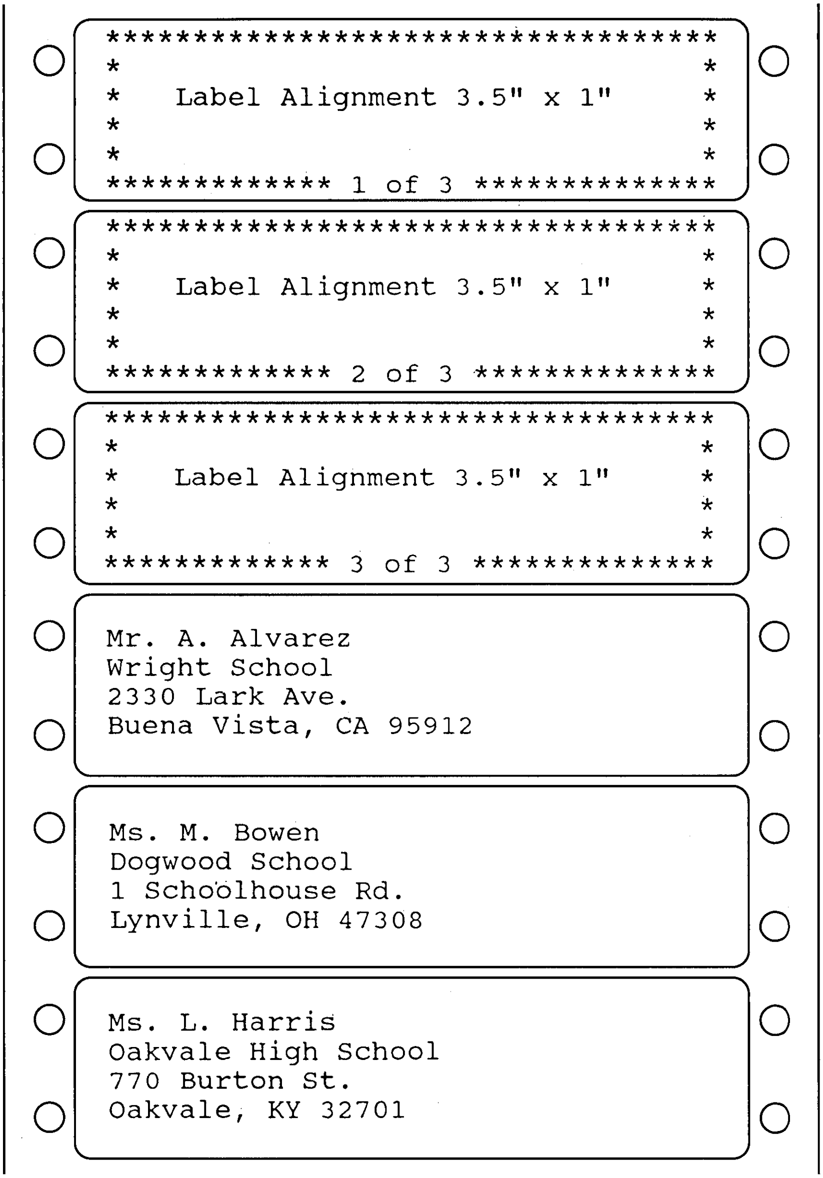


1. Choose **Merge print a file**. (Using pull-down menus, this command is on the File Menu. Using classic menus, this command is on the Opening Menu.)
2. For the name of the document, type **label.lst** for 3½-by-1-inch one-across labels, **labelxl.lst** for 5-by-3-inch one-across labels, **label3.lst** (or **lsrlabl3.lst**) for 3½-by-1-inch three-across labels, or **rolodex.lst** for Rolodex cards, and press ↵. Include a drive letter or directory path if necessary.
3. If you want to change any of the printing defaults, answer the questions as you go through the list. *Don't* start printing yet.
4. Remove the paper from your printer. Insert the labels (or cards), rolling the platen until the top of the label is just visible. The top of the label should be at the same spot as the top of the page when you align paper. (Don't align the label where you want printing to begin. It will advance the correct number of lines before printing.)
5. When the printer is ready, press ^**K**. WordStar prints a sample label (or row of labels) to help you align the labels correctly, then pauses printing.
6. Choose **Print a file** to go to the printing screen. (Using pull-down menus, this command is on the File Menu. Using classic menus, this command is on the Opening Menu.)
7. Check the sample label. If the text is not centered on the label, realign the labels. Press **C** to continue.

   Two more sample labels are printed, with pauses after each one. At each pause, make any necessary adjustments to the alignment, then press **C** to continue printing. After the third sample label, WordStar prints your labels, one for each record in your data file.

   When printing is complete, you are returned to the Opening screen.

Sample printed labels are shown on the following page.



```
***********************************
*                                 *
*   Label Alignment 3.5" x 1"      *
*                                 *
*                                 *
************* 1 of 3 **************
```

```
***********************************
*                                 *
*   Label Alignment 3.5" x 1"      *
*                                 *
*                                 *
************* 2 of 3 **************
```

```
***********************************
*                                 *
*   Label Alignment 3.5" x 1"      *
*                                 *
*                                 *
************* 3 of 3 **************
```

```
Mr. A. Alvarez
Wright School
2330 Lark Ave.
Buena Vista, CA 95912
```

```
Ms. M. Bowen
Dogwood School
1 Schoolhouse Rd.
Lynville, OH 47308
```

```
Ms. L. Harris
Oakvale High School
770 Burton St.
Oakvale, KY 32701
```

Printing Reports

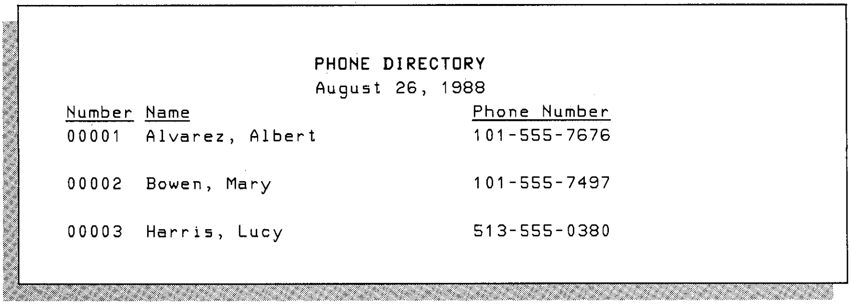
You can print two types of reports that list information from your mailing list. A proof report is a listing of all the information in the mailing list; a phone report is a list of names and phone numbers only. You can also print a proof report for your inventory list.

If your data file is not named WSLIST.DTA, before you print reports, you need to edit the report file (PROOF.LST, PHONE.LST, or INVNTORY.LST) and substitute your filename for WSLIST.DTA in the **.df** dot command. If your data file is not in the current drive or directory, you need to edit the report file and add the directory path.

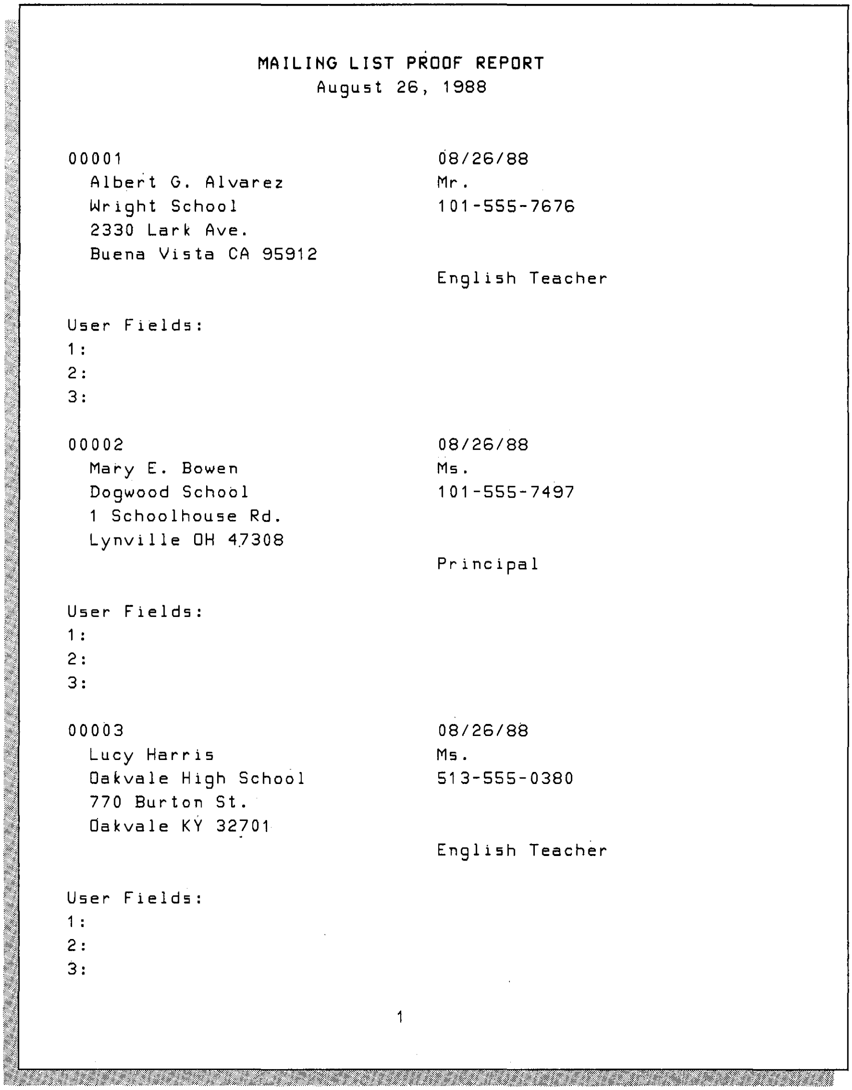
1. Choose **Merge print a file**. (Using pull-down menus, this command is on the File Menu. Using classic menus, this command is on the Opening Menu.)
2. For the name of the document, type **proof.lst** (or **invntory.lst** for an inventory data file) for a proof report or **phone.lst** for a phone report and press ↵. Include a drive letter or directory path if necessary.
3. If you want to change any of the printing defaults, answer the questions as you go through the list, then press ^ **K** to start printing.

   WordStar prints the report.

A sample phone report and a sample proof report for a mailing list are shown below.

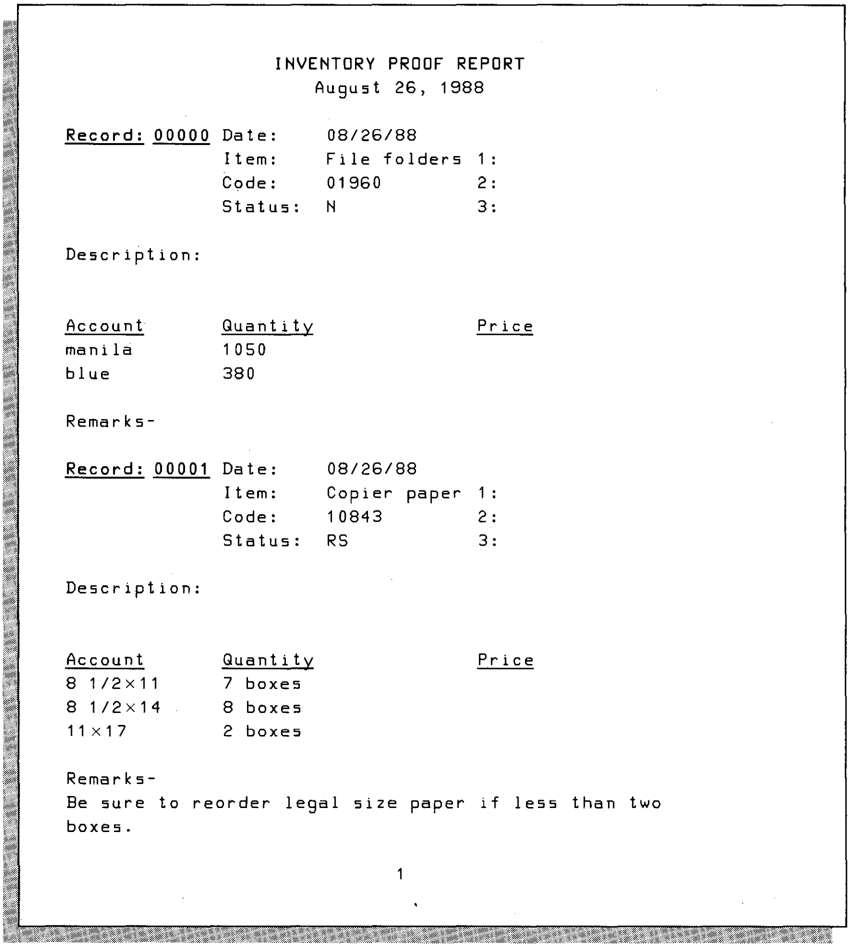


```
                     PHONE DIRECTORY
                     August 26, 1988
Number Name                         Phone Number
00001  Alvarez, Albert              101-555-7676

00002  Bowen, Mary                  101-555-7497

00003  Harris, Lucy                 513-555-0380
```



```
                    MAILING LIST PROOF REPORT
                         August 26, 1988


00001                                  08/26/88
  Albert G. Alvarez                    Mr.
  Wright School                        101-555-7676
  2330 Lark Ave.
  Buena Vista CA 95912
                                       English Teacher

User Fields:
1:
2:
3:

00002                                  08/26/88
  Mary E. Bowen                        Ms.
  Dogwood School                       101-555-7497
  1 Schoolhouse Rd.
  Lynville OH 47308
                                       Principal

User Fields:
1:
2:
3:

00003                                  08/26/88
  Lucy Harris                          Ms.
  Oakvale High School                  513-555-0380
  770 Burton St.
  Oakvale KY 32701
                                       English Teacher

User Fields:
1:
2:
3:

                                1
```

A sample proof report for an inventory list is shown below.



```
                    INVENTORY PROOF REPORT
                       August 26, 1988

Record: 00000 Date:     08/26/88
              Item:     File folders 1:
              Code:     01960        2:
              Status:   N            3:

Description:


Account       Quantity             Price
manila        1050
blue          380

Remarks-

Record: 00001 Date:     08/26/88
              Item:     Copier paper 1:
              Code:     10843        2:
              Status:   RS           3:

Description:


Account       Quantity             Price
8 1/2x11      7 boxes
8 1/2x14      8 boxes
11x17         2 boxes

Remarks-
Be sure to reorder legal size paper if less than two
boxes.

                             1
```

If you want, you can change a proof report to put the information in another order or to exclude information you don't use. Copy PROOF.LST or INVNTORY.LST to a new file, then edit the file as you would a master document so that the variable information you want is in the correct place. (Don't change the **.rv** commands; just change the placement of the variables enclosed in ampersands.)

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Introduction

TelMerge® makes electronic communications easy by enabling your computer to communicate with computers all around the world. You can use TelMerge to

- send and receive electronic mail ("Email")
- check the progress of stocks and bonds with online communications services like MCI^{SM}'s Dow Jones service
- set up a data collection terminal for salespeople in the field
- do computer work at home using dial-up lines to a mainframe
- exchange messages and files with other personal computer users

The TelMerge documentation is organized as follows:

Getting Ready to Use TelMerge explains how to prepare your equipment for TelMerge.

Calling a Service with TelMerge and **Sending and Receiving Electronic Mail** illustrate the most common data communications tasks with basic exercises.

Talking to Other Computers shows how to transfer data files in different ways.

Shortcuts with TelMerge contains tips to speed up and customize the program.

There are also sections listing TelMerge's keywords (special commands), preprogrammed communications services, and function key assignments. If you have a problem using TelMerge, see the **Troubleshooting** section. If you have a two floppy disk computer, see the section called **Using TelMerge with Floppy Disks**.

Getting Ready to Use TelMerge®

What You Need

To run TelMerge, you must have the following:

- An IBM® PC or an IBM-compatible system with at least 128K of internal memory and 90K of available disk space
- A private telephone line with a plug-in connector (RJ11C jack)
- An asynchronous communications card (if you don't have an internal modem)
- A Hayes®-compatible modem

TelMerge may not work if you have any of the following:

- A multiline or "hold button" phone system
- A printer and modem on the same port
- A "call waiting" feature on your phone
- RAM-resident programs running concurrently with TelMerge

Note: In some areas you can turn call waiting off for the duration of a phone call. Call the local business office of your telephone company for details.

Setting Up TelMerge

TelMerge requires no special installation. If you have a hard disk system, the TELMERGE.EXE and TELMERGE.SYS files should be in the same directory as your word processing program files. (If you didn't copy TelMerge onto your hard disk when you installed WordStar Professional, do that now.)

If you have a two floppy disk computer, see "Using TelMerge With Floppy Disks."

You can also run TelMerge as a stand-alone program. Log on to the directory containing the TelMerge files, type **telmerge**, and press ↵.

Setting Up Your Modem

TelMerge is set up to work with the default switch settings on a Hayes modem. (These are the switch settings set by the factory.) Unless your modem has different factory defaults, you don't need to change any switches.

Hayes 300 and 1200

Hayes 300 and 1200 modems are freestanding and require a serial port and a serial cable from your computer. To use these modems without a serial port, you must buy an asynchronous communications adapter card (an "async card"). Follow the directions in the Hayes manual to connect the modem.

Hayes 300 and 1200 Switch Settings

The Hayes 300 and 1200 modems have a row of switches, found behind the front panel, that have the following settings:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	Down	TelMerge ignores the Data Terminal Ready (DTR) signal
2	Up	Puts result codes (CONNECT, RING, etc.) into English words . . .
3	Down	. . . and sends them to your computer
4	Up	Shows modem commands onscreen while dialing
5	Down	Modem doesn't answer incoming calls automatically
6	Down	TelMerge ignores the carrier
7	Up	Sets modem for single-line phone
8	Down	Enables modem command recognition

Hayes 1200B Switch Settings

The Hayes 1200B is an internal modem that plugs into one of your computer's short slots. The 1200B has a row of switches near the top of the card that are set as follows:

NUMBER	SWITCH SETTING	SWITCH FUNCTION
1	On	Selects the communications port [ON = port COM1, OFF = port COM2]
2	Off	Sets modem for single-line phone
3	Off	TelMerge ignores the carrier

If You Have a Phone System with Built-in Modems

Many offices install phones that contain modems so you can use the same telephone line for both voice and data. If you have such a system—and it has a Hayes-compatible mode—you can use TelMerge with it, but it may require special initialization (see **PREMODEM** in the "Keywords" chapter for more information).

Calling a Service with TelMerge

Registering with a Communications Service

You get information for TelMerge from services and networks. The leading services and their phone numbers are listed in the "Communications Services" chapter. To register with a service, call the one you want directly, or ask your local computer store. Either way, when you register with a service, you receive a subscriber package with information for TelMerge.

How to Use TelMerge

There are two ways to call a service with TelMerge:

- You can create individual service files that each contain the information necessary to call one service. If you subscribe to only one or two services, this is the easiest way to use TelMerge.
- You can set up the TELMERGE.SYS control file with the information for several services. Then, when you run TelMerge, you can call any service by choosing it from the TelMerge Communications Menu. If you subscribe to a number of services, this method is more efficient in the long run.

Both methods are described below. Be sure to have your subscriber packages handy.

Creating Individual Service Files

You can create a file for each communications service you want to call.

1. Start TelMerge. Either pull down the Additional Menu at the Opening screen and choose **TelMerge**, or, if you're using classic menus, press **A** at the Opening Menu, then press **T** for TelMerge. You see the TelMerge Communications Menu.

   Note: If you're running TelMerge as a stand-alone program, log on to the directory containing the TelMerge files, type **telmerge**, and press ↵.
2. Press **F5** (Other) at the TelMerge Communications Menu. Any files in the current directory with the extension .TEL are displayed. You can choose an existing .TEL file or create a new one.
3. To create a new one, press ↵. TelMerge asks you for the name of the service to call, your user ID and password, and the service's phone number. This information is contained in your subscriber package.
4. TelMerge also asks for information about your system, like your baud rate, and so on. In most cases, you can use the default settings, which are:

   Modem HAYES specifies that you are connected to a modem. If you are cabled directly to another computer, replace HAYES with the appropriate description. See **MODEM** in the "Keywords" chapter.

   Port COM1 means that TelMerge expects to find a modem connected to the COM1 port on your computer. If you are using a different serial port for your modem, type the correct port number here.

   Baud 1200 means that you will be transmitting and receiving at 1200 bits per second—about 1200 words per minute. You can change to any baud rate that your modem allows. The correct setting for this keyword may vary for different services. Some telexes, for instance, use baud 300.

   Duplex Full means that the remote computer will "echo" your typing back to you. That way, you can be sure it received what you sent. Some services requires half duplex—check your subscriber package.

   Press ↵ to accept the default answer for the current question and go to the next one. If you press **Esc** after giving the phone number, default answers are used for all the remaining questions.
5. Your answers to these prompts are stored in a new file (in the current directory) with the extension .TEL. You can use it again by pressing **F5** (Other) at the TelMerge Communications Menu and then choosing it.

If you need to change a .TEL file later, edit it as you would any nondocument file. You can add any additional keyword commands you like. See the "Keywords" chapter for more information.

Using the TELMERGE.SYS Control File

If you subscribe to a number of services, you can store the information for every service in one file, which is called a control file. This file (TELMERGE.SYS) is already provided for you. All you need to do is fill in the necessary information. For hard disk users, TELMERGE.SYS is usually stored in the \WS5 directory.

The TELMERGE.SYS file contains the TelMerge menu. Below the menu is a series of "scripts" containing information for each service. If you are calling a service that is preprogrammed into TELMERGE.SYS, all you add are the phone number of the service, your user ID, and your password.

Once you add the necessary information to the control file, connecting to a service is simple. You start TelMerge and type the name of the service you want to call when TelMerge asks for it. TelMerge consults the script for that service for the information it needs to make the connection and to log you on.

Note: If you're running TelMerge as a stand-alone program, the TELMERGE.SYS file must be in the current directory or in a directory on your DOS path. To specify a .SYS file to use other than TELMERGE.SYS, type **telmerge *filename*.sys** at the command line.

Adding Information

Adding Information to TELMERGE.SYS

1. Start WordStar and edit the TELMERGE.SYS file in nondocument mode.
2. Press the **PgDn** key until you see the "System Section."

```
;*****************
; System Section
;*****************
;
;The following keywords set the basic defaults for your system.
;The current settings work for most systems. If the setting for
;any keyword here doesn't match your system's requirements, replace
;it with one of the other choices listed for that keyword.
;
;Specify the settings that you will use most of the time. If a
;particular service requires different settings, specify them
;in that service's script. Settings in a script override settings
;in the System Section.
```

Each entry listed in this part of the file is a keyword that tells TelMerge how to work with your system. The default values for these keywords work in most cases. However, check the **MODEM, PORT,** and **BAUD** keywords now to make sure they are set up correctly for your system. See the "Keywords" chapter for a full description of these keywords.

Adding Information about a Service

Once you receive your subscriber package from a service (CompuServe® is used in the example below), you enter information into TELMERGE.SYS.

1 Each preprogrammed service has its own script with the information TelMerge needs to place a call. Press the **PgDn** key a few times until you see the CompuServe script, which starts with LABEL CIS. LABEL CIS tells TelMerge to use this script when you specify CIS as the name of the service to call.

The SERVICE CIS tag tells TelMerge what technical information to send to the service. This information is already programmed into TelMerge.

Fill in the next three lines using the information you received from the communications service.

2 Put the cursor after the word NUMBER, press the **Tab** key twice, and type the telephone number of the service. Type **9** or **1** before the number if your telephone system requires it. You can also include the code to turn call waiting off if you need to.

Note: When you use 9 to get an outside line, type one or two commas after it. Each comma makes the modem wait about two seconds so the second dial tone has time to sound before the modem dials the rest of the phone number.

3 Put the cursor after the keyword USERID, press the **Tab** key twice, and type your user ID.

4 Put the cursor after the keyword PASSWORD, press the **Tab** key twice, and type your personal password. The rest of the CompuServe script is already filled in for you.

LOGFILE CIS.LOG means that if LOGGING is ON, the record of your CompuServe session is saved to a file called CIS.LOG. See "Logfiles" in "Sending and Receiving Electronic Mail."

END tells TelMerge that it has come to the end of the script for CompuServe. Once you finish a CompuServe session, TelMerge returns you to the TelMerge Communications Menu.

Note: Printing is off when you start to use CompuServe even if you changed PRINT to YES. You must press **F8** to turn printing on.

5 Save the file.

Calling a Service through a Network

Many people use commercial data networks to contact databases and services. To call a service through a commercial data network, add the name of the network, change the phone number in the service script, and add the **HOSTID** code provided by the network. This example shows the proper entries.

```
Label       MCI
Service     MCI
Network     Tymnet®
Hostid      MCIMAIL
Number      9,453-5420
Userid
Password
Logfile     MCI.LOG
End
```

Adding a New Service to TELMERGE.SYS

The procedure for adding a new service (one that isn't preprogrammed) to TelMerge is the same as the one discussed in the previous section, with two exceptions:

- You add the service name to the TelMerge Communications Menu.
- You create a new script in TELMERGE.SYS for the new service.

To add a new service to TELMERGE.SYS, follow these instructions:

1. Use WordStar to edit the TELMERGE.SYS file in nondocument mode.
2. Move the cursor to the Menu section in the file, which contains a series of SAY statements. Mark the line containing NEW as a block. Press ↵ to create a blank line and copy the block.
3. Replace NEW with the name of your service.
4. Move down to the Service section and mark the text between LABEL NEW and the next END statement as a block. Move the cursor down one line and copy the block.

Now customize the information in the copied section for your new service:

1. Replace NEW with the name of the new service. This name must match the name you typed on the Menu.
2. Add the phone number, your user ID, and your password.
3. Change any other data that you want to modify.
4. Quit and save the file.

Note: If you want the menu entries you add to be highlighted when you run TelMerge, type a vertical bar (|) before and after the service label.

Adding a Telex Service

You can add any telex service the same way you add other new services, but with these additions:

1. On the line above the phone number, type **INTERACTIVE**, press the **Tab** key twice, and type the phone number of the interactive (real-time) telex service. The service supplies you with this number.
2. On the line below the interactive number, type **ANSWERBACK**, press the **Tab** key twice, and type the answerback name for that service. The service gives you this name when you sign up.

Add the INTERACTIVE and ANSWERBACK responses only if your service provides telex communications. See **INTERACTIVE** and **ANSWERBACK** in the "Keywords" chapter.

Sending and Receiving Electronic Mail

Preparing Messages for Electronic Mail

Most communications services allow you to compose messages online, but you are charged for the time you are connected to the service. It is less expensive to type your messages first, using WordStar. Then, when the service prompts you for your message, press the SEND function key and specify the file containing your message. Your message is sent to the service.

A document file won't always print properly when it's received by the service. For this reason, TelMerge strips most of the print control commands from a file before transmitting it. Tabs, indents, margins, and centering are maintained, though spacing may change slightly. Boldfacing, underlining, and other print features are removed. You can control a file more closely by printing it to disk and then sending the disk file.

Sending Electronic Mail

There are several ways to send electronic mail:

- You can send an **electronic letter** to someone if you both have an account with the same service. You deposit the letter in your correspondent's electronic mailbox.
- You can send a **paper letter**. In this case, you still send the letter electronically, but the service prints and delivers it. This may cost more than regular mail, but it can be much faster.
- If your correspondent has a **telex** machine, you can direct the letter to the telex network. In this case, your mail is printed on your correspondent's telex machine.

Examples of each of these methods follow. Each example shows the use of a particular communications service. Many services offer all of the methods and not just the method shown in the example.

Sending an Electronic Letter

EXAMPLE

To send an electronic letter using CompuServe, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **CIS** (for CompuServe) and press ↵. TelMerge dials CompuServe.

   As TelMerge dials, it counts the seconds it takes to reach that service. At 45 seconds, TelMerge redials the number. After dialing twice, TelMerge gives up. You can change the number of times TelMerge dials with the TRY keyword. See the "Keywords" chapter.

   Note: If TelMerge does not find a phone number for a service you specify, it prompts you for that information. At each prompt, type the required information and press ↵. TelMerge saves the information in a file that you name and calls the service. TelMerge gives the file a .TEL extension and stores it in the \WS5 directory. If you call that service again, press **F5** at the TelMerge Communications Menu and type the .TEL filename. TelMerge calls the service for you.
4. When CompuServe answers, TelMerge automatically issues your password and identification number and logs you on. You are now at the CompuServe Main Menu.

   From the CompuServe Main Menu, go to the Email Menu (see your CompuServe manual). From the Email Menu, enter CompuServe's editing workplace.
5. When you are online in TelMerge, you have two sets of function keys to use. The "TelMerge Function Keys" chapter explains each one and how they are used.

   Press the **F2** function key to see function key set 2 (if it is not already displayed). Then press **F4** to send a file. When prompted, type the full pathname of the file that contains your letter and press ↵. TelMerge transmits your file to CompuServe.
6. Follow CompuServe's instructions to close and send the letter.
7. Exit the Email Menu, then exit CompuServe.
8. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending an Electronic Paper Letter

EXAMPLE

To send an electronic paper letter using MCI Mail®, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.

3 Type **MCI** and press ↵. TelMerge dials the number of MCI Mail and logs you on. You are now at the MCI Mail Main Menu.

See your MCI Mail manual (or follow onscreen instructions) to reach MCI Mail's editing workplace. Type the name and address of your correspondent. MCI Mail prompts you for the letter.

4 Press **F4** of function key set 2 to send a file. Type the full pathname of the file containing your letter and press ↵. TelMerge sends your file.

5 When you are prompted for the end-of-text marker, type a forward slash (/) and press ↵.

6 Select the menu choice that sends your letter. MCI acknowledges receipt of your letter. The letter will be laser-printed and delivered to your correspondent.

7 At the MCI Mail prompt, type **exit** to disconnect from MCI.

8 Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Sending a Telex

Below is a sample telex document. This format is prescribed by ITT. For variations of this telex format, see instructions from your service.

```
0000000+

TO: Barbara Jones
FROM: Andy Smith
DT: 11/21/88

Greetings from the Fall Cookware Show! We have just unveiled
our new food processor. Along with its many powerful features,
this machine kneads dough, grinds meat, and purees vegetables.
To see all of the new features of this state-of-the-art product,
you must try it for yourself.

NNNN

. . . . .
```

In telex messages you put the addressee's number in the top left corner of the document. End-of-document and disconnect signals come at the end. You then use TelMerge to send the document to the telex service.

There are two ways to send a telex document: **store-and-forward mode** and **interactive mode**.

When you use **store-and-forward** mode, you communicate with an intermediate computer system. Your letter is stored temporarily and transmitted later to its destination.

When you communicate in **interactive** mode, you are connected to your correspondent's individual telex machine, which prints each character as you send it. There is no intermediate computer system.

Using Store-and-Forward Mode

EXAMPLE

To send a telex using ITT TIMETRAN®, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **ITT** and press ↵. You see the prompt *What file do you want to send?*
4. Type the full pathname of the file that contains your letter and press ↵.
5. If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **N** for no.

   ITT displays your account number, password, and destination account number, then transmits the file. You receive verification—"CALL ACCEPTED." If you have messages in your mailbox, ITT says "MESSAGES WAITING."
6. Press the SEND function key (**F4** of function key set 2) to see your messages. ITT displays all of your messages. When it has finished, it displays "END OF TRANSMISSION."
7. Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Using Interactive Mode

EXAMPLE

To send a telex using ITT telex, follow these steps:

1. Write the letter with WordStar and save the file.
2. Start TelMerge.
3. Type **ITT** and press ↵.
4. If there is an INTERACTIVE number in your control file script, you see the prompt *Want to access interactive mode? Y/N.* Type **Y** for yes.
5. After the service answers and TelMerge logs you on, type the telex number of your correspondent followed by a + (plus sign). The systems exchange answerback codes.

6 At this point, if your correspondent is there, you could communicate back and forth in real time. Instead, you'll send a prepared document. Press the SEND key (**F4** of function key set 2), type the filename, and press ↵. TelMerge sends your file.

7 Press the WHO ARE YOU key (**F7** of function key set 1). TelMerge verifies that you were connected during the entire session.

8 Press **F10** to hang up. Press **F10** again to exit TelMerge and return to WordStar.

Note: If you have a problem using interactive mode with a particular service, use that service's store-and-forward mode instead.

Receiving Electronic Mail

The way you receive mail varies with different services. With store-and-forward telex services like ITT and RCA, you give a command after you log on to the service. The service then tells you if you have mail waiting.

With menu-driven communications services like CompuServe and MCI Mail, you are told if mail is waiting as soon as you log on to the service.

If you have mail, make sure the TelMerge logging feature is on and then ask the service to send your mail. When logging is on, all mail is saved in a file on the disk. You turn logging on and off by pressing **F7**. With telex services, however, logging is always on. Check the status line to see if logging is on.

CAUTION Make sure you have enough room on your disk for your logfile before you turn logging on. If you run out of disk space during a session, TelMerge immediately disconnects from the service to avoid loss of information. If this happens, make room on your disk and log on to the service again. Your mail is probably not lost; in most cases, the service still has it.

Logfiles

When you turn LOGGING ON, information is saved in a logfile in the current directory (unless you change the pathname for it in your service script). Unless you specify otherwise, the filename is TELMERGE.LOG. (Logfiles for preprogrammed services have been named individually in the TELMERGE.SYS file. For instance, TELMERGE.SYS names a CompuServe session logfile CIS.LOG.) Each session is saved in its own file. Files received by TelMerge can be edited with WordStar in nondocument mode.

When you start a new session, TelMerge saves your previous session by automatically renaming the old .LOG file as .SAV. The new session is then saved in the .LOG file. The contents of the earlier .SAV file are discarded. If you want to save the logfiles of previous sessions, rename the .LOG file at the end of each session. Choose a filename that reflects the date of your session and the service that you used, for example, JUN06.ITT.

You can use the APPEND keyword to have information from each online session added to the existing logfile without creating a new file each time. See **APPEND** in the "Keywords" chapter for more information.

You can also create prompts that ask you for a logfile name each time you call a service. To do this, type a **?** after the keyword LOGFILE in that service's script. Insert a blank line just before the LOGFILE statement and type **say Name for logfile?** See "Shortcuts with TelMerge" for more information.

Printing

If you have a "PRINT YES" statement in a control file script, you can print your session while you're online. Use the **F8** (PRINT) function key to turn printing on or off. To check the current setting, look at the status line. If you have no printer, you can direct the printed output to a disk file. See **PRINT** in the "Keywords" chapter for more information.

Talking to Other Computers

Methods of Data Transfer

If you use TelMerge exclusively for sending Email through an Email service, you don't need to read this chapter. You can always use the **F4** (SEND) function key to transfer data. However, if you intend to call a mainframe or send program files, read on.

There are two general methods of transferring data between computers:

- **ASCII transfer** allows you to send and receive standard text files. This transfer method will not work for files that contain print controls or for binary and program files. All communications programs and commercial communications services support ASCII transfers.
- **Protocol transfer** allows you to send a file with print controls in place. You can also use this method to send and receive program files.

A protocol is a set of conventions for exchanging data between two computers and checking for errors that may occur during transmission. TelMerge uses the CompuServe A, XMODEM checksum, and XMODEM CRC protocols. Both the sending and receiving computers must be running the same protocol for a protocol transfer to work.

The protocol TelMerge uses to send the file depends on the function key you send it with and the service specified in the script.

- If you specify SERVICE TelMerge or SERVICE CIS and press the **F4** (SEND) function key, TelMerge uses the CompuServe A protocol.
- If you specify any other service and press **F4**, TelMerge performs an ASCII file transfer.
- If you press the **F6** (XM SND) function key, TelMerge uses the XMODEM protocol.

Talking to Mainframes

Mainframes expect to be talking to terminals, not to your personal computer. If you are simply using Email or doing ASCII file transfers, this should not be a problem. However, the mainframe may require that your personal computer emulate (behave as) one of the more common terminals. TelMerge can be set up to emulate two terminals:

- **VT100** The DEC™ VT100 is a popular ASCII terminal. This is the default emulation. You don't need to add it to your script.
- **VIDTEX** A VIDTEX™ (or VT52) terminal is the CompuServe standard ASCII terminal. If you specify SERVICE CIS, your personal computer automatically emulates a VIDTEX terminal. If another mainframe requires this emulation, you can put the command **EMULATE VIDTEX** in your control file script.

See **EMULATE** in the "Keywords" chapter for more information.

Note: TelMerge may not support certain communication controls required by mainframes.

Online Databases

Online services such as CompuServe and The Source℠ are large mainframe computers with local nodes distributed throughout the country.

When you send Email and simple text files to an online database, use the **F4** (SEND) function key to send in ASCII mode (without any print controls). When you do a protocol transfer, the service usually asks you which protocol you are using. If you have problems with transmissions (losing characters, etc.) see **BAUD** and **LINEDELAY** in the "Keywords" chapter.

Talking to Another Personal Computer

With TelMerge, you can communicate with personal computers and computer "bulletin boards" that use any asynchronous communications software. You add these services to TelMerge just as you would any other new service. If the other computer is using TelMerge too, see "Talking to Another TelMerge User" later in this chapter.

Use the SEND function key to send ASCII files. For other files, use a protocol transfer (XMODEM CRC or checksum). Modify your TELMERGE.SYS file as follows. First add the new service name (either "ORIGINATE" or "RECEIVE" in our example) to your TELMERGE.SYS menu, then add these scripts:

ORIGINATING COMPUTER

```
Label     ORIGINATE
Say       Originating Computer
Number    (number of other computer)
End
```

RECEIVING COMPUTER

```
Label     RECEIVE
Say       Receiving Computer
Modem     ANSWER
End
```

1 If you are the receiving computer, set the modem switch setting for auto-answer to ON, restart your modem (to reinitialize it), start TelMerge, and type **receive** (or whatever name you chose). Then wait for the originating computer to call and establish communication. The modem is placed in answer mode.

If you are the originating computer, wait until the receiving computer is set up. Then start TelMerge and type **originate** (or whatever name you chose). TelMerge dials the number. The receiving computer answers the call and the two computers connect.

2 To talk with the other computer, type your message. Messages are transmitted.

To send an ASCII file, press the **F4** (SEND) function key, type the name of a file to send, and press ↵.

For protocol transfers, tell the remote system that you are about to send a file. When the system indicates that it is ready, press the **XM SND** function key (**F6** of function key set 2) and type the filename (when prompted).

The default protocol is XMODEM checksum. To use XMODEM CRC protocol, put PROTOCOL XMCRC in the control file script. See **PROTOCOL** in the "Keywords" chapter for more information.

When the transfer is complete, TelMerge indicates that it was successful.

3 Receiving an ASCII file is automatic. To receive a file via protocol transfer, tell the remote system to initiate a file transfer. When the system indicates that it is ready, press the **XM REC** function key (**F5** of function key set 2) and type the filename (when prompted).

4 The originator or receiver presses **F10** twice to disconnect.

With an ASCII file transfer, you can see the text on your screen as it comes from the modem; if you have LOGGING ON, the file is stored to disk. With a protocol transfer, incoming data is captured in a buffer and written to disk without being displayed on-screen. Instead, the status line displays, for example, *RECORD #4.*

Using Your Personal Computer for Data Collection

With TelMerge's auto-answer ability, you can set up your personal computer to receive data automatically. For example, sales staff can call in reports and data.

ASCII File Transfers

To use your personal computer for data collection, add a control file script with this information:

```
Label       COLLECT (or whatever)
Say         Now ready for data collection
Service     TELMERGE
Logfile     COLLECT.LOG
Modem       ANSWER
Duplex      HALF
End
```

With your modem in answer mode, TelMerge treats all incoming calls as one session, adding each call to the same logfile. If your correspondents are using TelMerge and add the following script to their control files, each file they send you creates a new file on your disk. If this is the case, run TelMerge from a directory that has no files in it that you want to save, since files sent to you will overwrite files with the same name on your disk.

```
Label       CALLHOME (or whatever)
Say         Now calling home office for file transfer
Service     TELMERGE
Duplex      HALF
Number      (your phone number)
End
```

Protocol Transfers

In protocol transfers, if a caller tries to send you a filename that already exists on your disk, the file on your disk is overwritten.

CAUTION *If you expect a lot of incoming calls through TelMerge, be sure your disk has plenty of space to accommodate incoming files. If your disk fills up, the caller is disconnected and all subsequent connections fail.*

Talking to Another TelMerge User

If you are communicating with another computer that is running TelMerge, set up your script as follows.

```
Label      TMERGE2
Say        Now connected to another TelMerge user
Service    TELMERGE
Duplex     HALF
End
```

Protocol transfers between two computers running TelMerge use the CompuServe A protocol.

If you are sending files to the other computer, type the name to give to the file when it reaches the remote computer. You can use the wild-card character * to send multiple files with the same extension (*.DOC) or all the files in a directory (C:\DOCS\*.*). During a personal-computer-to-personal-computer transfer, the user who presses the SEND function key provides the filename for the other user.

You can use TelMerge to transfer files directly between computers (without modems) if the serial ports of the computers are connected by a special serial cable adapter. Both computers must have TelMerge. Set up the control file scripts as follows.

```
Label      DIRECT
Say        Now set up for direct connection
Service    TELMERGE
Modem      DIRECT
Duplex     HALF
End
```

The direct transfer procedure is the same as for a transfer over the telephone. See "Talking to Another Personal Computer" earlier in this chapter for more information.

A Summary of Techniques to Send and Receive Files

Send F4 Sends ASCII files. (When contacting another TelMerge user, **F4** uses the CompuServe A protocol.)

XmSnd F6 Uses the current protocol (the one set in the service script) to send a file to a service or to a personal computer that is not using TelMerge.

XmRec F5 Uses the current protocol (the one set in the service script) to receive a file from a service or from a personal computer that is not using TelMerge.

No action is required to receive an ASCII file. When you contact another TelMerge user, no action is ever required to receive a file.

Shortcuts with TelMerge

This section contains some suggestions for customizing TelMerge for your personal needs. The shortcuts are most useful if you are using the TELMERGE.SYS file to call your services. The shortcuts in this section include

- programming function keys
- reprogramming TELMERGE.SYS:
  prompting for a password
  prompting for a logfile name
  prompting for printer or disk output
- automating an online session
- exiting while online
- using Snap Shot and ShoFil

Programming Function Keys

You can customize **F7** and **F8** of the online function key set 2 for each service you use. In this example, the **F7** function key (FK1) is programmed to check mail on CompuServe's EasyPlex^{SM} service.

1. Use WordStar to edit the TELMERGE.SYS file.
2. Page down until you come to the section that begins *Label CIS*.
3. At any point after the *Say* statement, press ↵ to insert a blank line.
4. On the blank line, type **fk1r,email go_mail**.
5. Save the file.

What does **fk1r,email go_mail** mean?

- **FK1** stands for the **F7** function key. The **R** sends a carriage return at the end of the command.
- When you are online with CompuServe, **Email** is the new label for the **F7** function key (at the bottom of your screen).
- **Go_mail** (followed by ↵) is the command issued when you press **F7** while logged on to CompuServe's EasyPlex electronic mail service.

You can program **F7** and **F8** to send commands, passwords, or other information while online. They can have different functions for each service.

Reprogramming TELMERGE.SYS

TelMerge has a built-in scripting language with conditional commands like **IF** and **ELSE**. The following examples demonstrate the use of this scripting language.

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a password.

```
Say Password?
Hold ?
If =MyPassword
Goto GoodPassword
Else
Say Sorry. Incorrect password.
Exit
EndIf

Label GoodPassword
Password !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for a logfile name. Insert the following lines into the appropriate section of your control file just after the Label line that gives the service name.

```
Logfile MYFILE.LOG
Say What would you like to call this session’s logfile?
Say
Say Type a filename and press ←┘,
Say or press ←┘ to use the filename """MYFILE.LOG.’’
Say
Hold ?

Logfile !
```

EXAMPLE

Here is an example of reprogramming TelMerge to prompt you for printer or disk output.

```
Print MYFILE.PRN
Say Type the name to use
Say for the diskfile
Say (Type P to use the printer)
Hold ?
If =P
Print YES
Else
Print !
Endif
```

Automating an Online Session

You can use the TelMerge keywords to issue commands automatically, so you have a minimal amount of typing to do. Here are some examples.

Changing the Log-on Script

TelMerge issues the commands in its control file in a particular order (see the "Keywords" chapter for a full listing). If you have a service that needs information in a different order—or one that calls for input that TelMerge doesn't understand—use the LOGON keyword to customize your log-on sequence.

Suppose that you subscribe to a service that requires you to log on by giving (in order) the network identification number, your first name, your last name, and your password. The LOGON keyword is designed to handle this. You would type the following line into your control file:

LOGON *networkid|firstname|lastname|password*

Each vertical bar ("|") in the LOGON command tells TelMerge to issue a carriage return and wait for a prompt from the service before continuing.

Since LOGON is one of the last keywords that TelMerge checks, remove the lines containing the network identification and your password from the control file script before using this new version.

Automating an Entire Session

TelMerge can automatically call a service and request the information you need. You can even make several automated calls in sequence without pressing any keys in between. The following keywords work together to create an automated session. (They are described in more detail in the "Keywords" chapter.)

KEYWORD	**DESCRIPTION**
CALL	Dials the service now
WAIT *word*	Waits for this word from the remote service (after logging on)
SEND *word*	Sends this word (or words) to the service
PAUSE *secs*	Waits this number of seconds for the service to start sending
QUIET *secs*	Waits until the serial line is quiet for this number of seconds
FILESEND *filename*	Sends the specified file
LOGGING ON or OFF	Turns logging on or off at this point in the session
PRINT ON or OFF	Begins or ends printing at this point in the session
HANGUP	Hangs up the phone

In an automated session, when TelMerge finds a CALL keyword, it dials the service using the preceding information. Then the script keywords are executed. When it reaches HANGUP, it looks at the next script to see if it contains a CALL keyword. If it does, TelMerge calls that service. Otherwise, it exits the service and goes to the TelMerge Communications Menu.

If you press any key but **F10** during an automated session, TelMerge terminates the call and switches to normal interactive mode. If you press **F10** during an automated call, the current script (including any other calls that follow in the script) is canceled, and the phone is hung up. You can automate part of a session and then continue it in interactive mode by leaving out the HANGUP keyword after the last CALL keyword.

EXAMPLE

Here is an example of an automated session.

```
Service mci
Print yes
Number (800)123-4567
Baud 1200
Userid kputman

Logging on
Call
Wait command:
Send dowj
Wait query
Send //djnews
Wait help
Send .I/EDP 01
Pause 2
Quiet 1
Send ^M
Pause 2
Quiet 1
Send //cqe
Wait query
Send mpro
Wait return.
Send f
Pause  2
Quiet 1
Send disc
Wait command:
Send exit
Hangup
```

Exiting While Online

While you're online, you may want to check a file before sending it. With TelMerge, you can exit a service while online without logging off. To do this, press the **F9** (Edit) function key, while you're online. You return to the WordStar Opening screen. When you are ready to reconnect, restart TelMerge and press the **F8** (Go Online) function key. Select the service from the menu. You can skip the automatic log-on process (by pressing any key after you reconnect), since the remote computer thinks you have been logged on all the time.

To go to DOS while you're online, press the **F3** (DOS) function key of set 2. You can use any DOS command or run another program. When you're finished, press **Esc** to return directly to your online session.

Using Snap Shot and ShoFil

Use the **F5** (SnapSh) key to save the current screen in your logfile or in memory. You can save up to five screens in memory, but they are saved for the current session only. Use the ShoFil function key to look at any file while you're online.

You can use Snap Shot during ShoFil. For example, if a service displays a list of files available for downloading, turn logging on, and ask the service to display the list. Logging saves the display on disk. Then press the **F8** (ShoFil) function key and ↵ to view the logfile. Take snap shots of the parts of the list that interest you. Then use the Recall function to display them. Find the file you want to download.

You can use the ShoFil function to create a customized help screen. Edit the previous logfile in WordStar to display the information you want to see while you're online. For example, you can consolidate all the commands for a given service onto one screen. Copy that screenful of information to a file with a descriptive name, like CISHELP.DOC. Then, when you're online with that service, use ShoFil to view the screen whenever you want.

You can also use ShoFil to review the logfile of the current session. To do this, press **F8** (ShoFil) and then press ↵.

Keywords

Keywords determine the actions that TelMerge takes. All the TelMerge keywords are listed in this section, with explanations and examples of their use. See "Calling a Service with TelMerge" for more information on using each keyword. Press **F1** to display the current settings for keywords while you're using TelMerge.

How Keywords Are Sent

This list shows the order of keywords sent in a call. The NUMBER keyword is required; all others are optional. See individual entries for default values for the optional keywords (except USERID, HOSTID, FILESEND, and PASSWORD).

KEYWORD	DESCRIPTION
PREMODEM	
INIT	Modem initialization
INIT2	Additional modem initialization
PREFIX	Dial—default ATDT
NUMBER	Or INTERACTIVE if interactive telex
SUFFIX	Wait for carrier reply from modem
ATTENTION	
ATDELAY	Wait this many tenths of a second
ATTENTION	If more than one in control file
TERMINAL	If network
HOSTID	If network
USERID	Or ANSWERBACK for Telex
PASSWORD	
LOGON	
FILESEND	In a normal session, TelMerge enters interactive online mode. In an automated session, CALL, WAIT, SEND, PAUSE, QUIET, FILESEND, and HANGUP take effect. Press **F10** to hang up the phone, unless there is a HANGUP keyword after the CALL keyword.
HANGCOM	Modem hangs up
POSTMODEM	

Special Characters

The following special characters can be used with TelMerge keywords.

CHARACTER	FUNCTION
{	Subsequent characters on the line are ignored. Use this symbol to add comments to the control file.
?	Waits for your response from the keyboard. If followed by a number, your response is limited to that number of characters. When used with HOLD, puts the character(s) you type into a memory buffer. You can use a **!** to assign these characters later as an entry for a keyword. (See the **HOLD** keyword.)
!	Assigns the contents of the buffer (as described above) to the preceding keyword.

Entries for the modem keywords (INIT, INIT2, PREMODEM, POSTMODEM, HANGUP) and log-on keywords (TERMINAL, HOSTID, USERID, PASSWORD, LOGON) can include the following special characters.

CHARACTER	FUNCTION
\d	Causes a delay of one second.
^	Sends the next character as a control character. **^E** sends a Ctrl-E.
^^	Sends a caret (^) to the remote service. When the caret is the last character of a string, no carriage return is sent after that string. For instance, **SEND Y^** sends the letter Y without a carriage return.

Ctrl-M and a carriage return are interchangeable. To send one carriage return, type **^M^**. Without the last ^, a carriage return is added after the string ^M, resulting in two carriage returns.

Keyword Listing

ANSWERBACK Issues your personal ID code at a *Who are you* request (used by telex systems only).

Usage: ANSWERBACK *string*
Example: ANSWERBACK Charlie

Telex-based services request your user identification to verify that you dialed correctly. The code you type for the answerback string (up to 30 characters) is provided by the service when you register.

APPEND Adds information from new sessions to the named logfile, without starting a new one.

Usage: APPEND YES
APPEND NO (default)

Use APPEND in automated sessions when you make several calls, or to avoid renaming .LOG files to save them.

ATDELAY Pauses before sending first character to a service.

Usage: ATDELAY *tenths of seconds*
Default: ATDELAY 5

Some networks require a delay before the first character (usually the ATTENTION character—see **ATTENTION**) can be received. If the service doesn't respond when you first call, increase the setting to ATDELAY 20 or ATDELAY 30.

ATTENTION Issues any special characters required by a service at the beginning of transmission.

Usage: ATTENTION *character*
Example: ATTENTION ^C
(sends Ctrl-C)

ATTENTION ^M
(sends Ctrl-M or carriage return)

To specify more than one ATTENTION character, put each one on a separate line following the keyword. You can specify a maximum of six. Supplied automatically for preprogrammed services and if NETWORK keyword is used.

AUTOLOG Turns automatic log-on on and off.

Usage: AUTOLOG YES (default)
AUTOLOG NO

If you are testing a new control file script, you may want to disable the automatic log-on process by specifying AUTOLOG NO.

BAUD Sets the rate at which information is transmitted between two devices.

Usage: BAUD 110
BAUD 300
BAUD 1200 (default)
BAUD 2400
BAUD 4800
BAUD 9600

TelMerge can use six different baud rates. The lower the baud rate, the slower the rate of transmission. When an information service supports various baud rates, there may be different phone numbers and charges for each setting.

BITS Sets the number of bits sent for each character.

Usage: BITS 7
BITS 8 (default)

Already set internally for preprogrammed services. Change as needed when you add a new service.

CALL Used instead of END in automated sessions to call the service.

Usage: CALL

All information for contacting a service should be above the CALL keyword in the script. When CALL is encountered, TelMerge calls, attempts to log on, and then executes any subsequent keywords in that script. (See **END**.)

CLS (Clear Screen) Clears the display.

Usage: CLS

Returns the cursor to the upper-left corner of the screen.

DUPLEX Determines which computer controls the onscreen display of characters you type.

Usage: DUPLEX FULL (default)
DUPLEX HALF

Characters you type can be displayed onscreen by your computer or by the host computer. FULL DUPLEX means the host computer "echoes" your characters to the screen as you send them. HALF DUPLEX means your computer echoes the characters. Preprogrammed services already have the proper DUPLEX setting.

ELSE See **IF**.

EMULATE Enables monitors to behave like different terminals.

Usage: EMULATE VT100 (default)
EMULATE VIDTEX
EMULATE NONE

Use this keyword to emulate a mainframe terminal. VT100 (ANSI standard) is a widely used terminal. VIDTEX (VT52) is used by CompuServe. This emulation is already set up in the CIS script. See also **FULLSCREEN**.

VT100 emulation accepts and displays ANSI standard sequences for cursor movement, colors, and special attributes. These sequences include foreground color, background color, high intensity, foreground/background reverse, and underlining. Some electronic bulletin boards use these sequences to display color screens with highlighted text.

VIDTEX (VT 52) emulation accepts and displays sequences for cursor movement and printer enabling and disabling.

END Ignores subsequent commands in a control file script and runs it.

Usage: END

TelMerge starts at the service label, reads in the keyword commands up to the END command, and calls the service. END is similar to the CALL keyword. CALL is used for automated sessions, and END is used for interactive sessions.

ENDIF See **IF**.

EXIT Stops and returns to WordStar.

Usage: EXIT

Use with IF/ELSE to end a session if certain conditions are not met. See **IF**.

FILESEND Sends an ASCII or WordStar file that you specify.

Usage:	FILESEND *filename*
Example:	FILESEND \MEMO.WS

In interactive sessions (no CALL keyword included), the file is sent after you are logged on to the service. In automated sessions, the file is sent when TelMerge encounters the FILESEND command.

FIRST Waits for a particular character from the remote service before displaying characters onscreen.

Usage:	FIRST *character*
Example:	FIRST p

Some services send a series of characters before the prompt you need to read. Use FIRST to specify the first character you want to display. In the example, the first text displayed is *Please log in*, because "p" was specified as the first character to display.

FK Programs a **F**unction **K**ey (**F7** or **F8** of function key set 2) to issue a specified command.

Usage:	FK1,*label space string* FK2,*label space string* FK1R,*label space string* FK2R,*label space string*
Example:	FK1R,Email GO_Mail

In the example, Email defines the screen label for function key **F7**. R sends a carriage return at the end of the command. Go_Mail is the command—go to the electronic mail menu. FK1 represents **F7** and FK2 represents **F8**. Commands can be up to 60 characters long. You can program these keys differently for each service.

FULLSCREEN Works with EMULATE to allow better VT100 or VIDTEX screen emulation.

Usage:	FULLSCREEN YES FULLSCREEN NO (default)

Removes the status line at the top of the screen to display 24 lines. When you toggle logging (**F7**) or printing (**F8**) on or off while in FULLSCREEN mode, the status line is temporarily displayed to show this change. Then the status line is overwritten or scrolls off the screen.

GOTO Goes to a LABEL in the control file.

Usage:	GOTO *label name*
Example:	GOTO Menu

GOTO and LABEL are always used together.

GRAPHIC Uses the extended character set for graphic display.

Usage:	GRAPHIC YES GRAPHIC NO (default)

The extended character set is used by some electronic mail services and bulletin boards to enhance screen displays.

HANGCOM Gives hangup instructions to the modem.

Usage:	HANGCOM *string*
Default:	HANGCOM ATH

The command ATH tells your modem to hang up. If your modem uses a different hangup command, use HANGCOM to specify it in your control file. (See **USEDTR** for more information.)

HANGUP Used in an automated session to hang up the phone.

Usage:	HANGUP

To add another call to the automated session, use the NUMBER keyword after HANGUP. Specify any keywords that differ from those in the last call. Then type the CALL keyword. (See **CALL** for more information.)

HARDCOPY See **PRINT**.

HOLD Waits for user input from the keyboard, and stores the response in a buffer.

Usage:	HOLD ?

A buffer stores information temporarily. Test the buffer contents with the IF and IFNOT keywords. You can use the information in the buffer as the response to another keyword by typing **!** after the keyword. Stores up to 80 characters.

HOSTID Issues the host ID code.

Usage:	HOSTID *string*
Default:	No HOSTID is sent
Example:	HOSTID XYZZY

HOSTID (up to 30 characters) is the network's internal "phone number" for the service you are calling. Include it if you use NETWORK in the script.

IF, IFNOT, ELSE, ENDIF Tests for a specific condition and proceeds accordingly.

Usage:	IF *string*
	IFNOT *string*
	ELSE
	ENDIF

Example:	See "Reprogramming TELMERGE.SYS" in the "Shortcuts with TelMerge" chapter

Use together to create program logic for TelMerge.

IFNOT See **IF**.

INCLUDE Interrupts the current script and runs the script in the included file.

Usage: INCLUDE *filename*
Example: INCLUDE SCRIPT.SYS

Use INCLUDE to pass control between several files. When the included script is completed, TelMerge returns to the original script at the line following the INCLUDE keyword. Use as many INCLUDE statements as you want and nest up to four files.

INIT Initializes the modem before a call is made.

Usage: INIT *string*
Default: INIT ATQ0V1E1F1

Specify the initialization string for your modem if it differs from the default. In the default, AT prepares the modem for a command; Q0 (zero) sends responses from the modem to TelMerge; V1 sends verbal result codes; E1 echoes input to the screen; F1 sets full duplex mode. A carriage return follows the string. A \d with INIT adds a delay of one second. (See "Special Characters" at the beginning of this chapter.)

INIT2 Adds other initialization information.

Usage: INIT2 *string*
Example: INIT2 ATS 7=20

The string sent by INIT2 follows the INIT string. The example sets the number of seconds TelMerge will wait for a carrier signal after dialing. (The Hayes default is 20 seconds.)

INTERACTIVE Specifies the phone number of a telex real-time (interactive) service.

Usage: INTERACTIVE *phone number*
INTERACTIVE P *phone number*
Example: INTERACTIVE 9 (800) 555-1212

Numbers specified can be up to 30 characters long. Include any dialing prefix required by your PBX system and the area code.

The default dialing mode is tone dialing. The "P" preceding the number in the second usage form indicates pulse dialing to the Hayes Smartmodem®.

See your modem manual for information about special punctuation marks. For the Hayes Smartmodem, a comma creates a two-second delay. This is useful for dialing out of a local PBX, which requires a second dial tone.

LABEL Marks a position in the control file as a destination for a GOTO keyword.

Usage:	LABEL *label name*
Example:	GOTO MCI : LABEL MCI

Each GOTO statement must have a corresponding LABEL. Labels can be up to 80 characters long.

LINEDELAY Pauses after each line sent with the **F4** (SEND) function key.

Usage:	LINEDELAY *tenths of a second*
Example:	LINEDELAY 3

Use LINEDELAY if the receiving computer cannot keep up with your SEND speed. In the example, TelMerge waits three tenths of a second after each carriage return before sending the next line.

LOGFILE Names the file that records an online session.

Usage:	LOGFILE *filename*
Default:	LOGFILE *telmerge*.log
Example:	LOGFILE MCI.LOG

With logging on, the online session is recorded in the current directory (unless you specify a pathname for it). The name of the logfile defaults to the service name and a .LOG extension. The previous logfile is saved to a .SAV file. The .SAV file from the session before that is overwritten.

LOGGING Sets the initial status of the logging function.

Usage:	LOGGING ON (default) LOGGING OFF

When logging is on, a logfile is opened and incoming information from an online session is recorded. You can turn logging on or off during any online session with the LOG function key (**F7** of function key set 2).

LOGON Automates the log-on process and much of an online session.

Usage: LOGON *string*|*string*|*string*

Example: LOGON Joe|Smith|*password*|^M^|^M^|f

LOGON replaces the USERID, PASSWORD, TERMINAL, and HOSTID keywords. It automates the session up to the point of logging. You can automate the rest of the session with CALL, WAIT, and SEND. LOGON can have up to 80 characters.

In the example, LOGON logs Joe Smith on to a bulletin board service that prompts with *First Name?, Last Name?, Password?, Want to see bulletins? (carriage return for no), Want messages?,* and, finally, a menu in which " f " goes to the file section. The vertical bar character (|) after each item in the string sends a carriage return and waits for the next prompt. (See the **PROMPT** keyword.)

MODEM Defines the type of modem you are using.

Usage:

MODEM AUTOMATIC (default)
MODEM ACOUSTIC
MODEM DIRECT
MODEM ANSWER
MODEM HAYES
MODEM HAYES 2400

The default is a Hayes Smartmodem that automatically dials and answers. Use MODEM HAYES 2400 if you are using the Hayes Smartmodem 2400.

For an acoustic modem, change the response to ACOUSTIC and dial the service manually. TelMerge resumes operation after the connection is made. *Note:* If the setting is MODEM ACOUSTIC, AUTOLOG is set to NO for that service, even if you specify AUTOLOG YES in that script. Once the telephone connection is made, you must complete the log-on procedure yourself.

For a direct-cabled connection (without modems), change the response to DIRECT.

For a personal-computer-to-personal-computer transfer, change the response to AUTOMATIC or ANSWER. See "Talking to Another Personal Computer."

NETWORK Specifies a network to use to contact a particular service.

Usage:

NETWORK TYMNET
NETWORK TELENET
NETWORK UNINET

A network allows you to reach a service with a local phone call rather than with a long distance one. If you use the NETWORK keyword, you must use HOSTID as well, but you don't need the ATTENTION and TERMINAL keywords.

NUMBER Specifies the telephone number for a service.

Usage: NUMBER *phone number*
NUMBER P *phone number*

Example: NUMBER 9,,(201)555-1212
NUMBER P9,,(201)555-1212

NUMBER can be up to 38 characters long. Include any dialing prefix required by your PBX system and the area code. The commas shown in the examples create two-second delays for a PBX that requires a second dial tone. See your modem manual for more information about special punctuation marks.

If you have call waiting and your local telephone company provides a way to disable it, you can add the call waiting cancel code to the NUMBER string. Put it before the area code of the service number. Call waiting is reinstated as soon as the HANGUP signal is issued.

The default dialing mode is tone dialing. If you have a Hayes Smartmodem, which requires pulse dialing, type a **P** after the NUMBER keyword.

PARITY Specifies an error-checking procedure.

Usage: PARITY NONE (default)
PARITY ODD
PARITY EVEN
PARITY ZERO
PARITY ONE

This keyword is already set internally for preprogrammed services. For new services, change the response to the setting required by that service.

PASSWORD Issues your password to a service automatically.

Usage: PASSWORD *string*

Example: PASSWORD BLUEFOX

Passwords can be up to 30 characters long. If you don't want to include passwords in your control file scripts, type the following to have TelMerge prompt you for your password just before logging on to the service.

```
SAY What is your password
PASSWORD ?
CLS
```

PAUSE Pauses for the number of seconds you specify to allow the remote service to begin sending.

Usage: PAUSE *number of seconds*
Example: PAUSE 3

Use PAUSE in an automated session when you don't know how the service will respond. Use PAUSE in conjunction with QUIET to insure that the service is finished sending characters. In this example, TelMerge waits three seconds before proceeding to the next instruction in your script.

PORT Specifies the port on your computer TelMerge will use to communicate.

Usage: PORT COM1 (default)
PORT COM2

If you use the COM1 port for your printer, connect TelMerge to the COM2 port and change the entry for PORT to COM2.

POSTMODEM Sends a string of characters to an electronic switch after a call is made.

Usage: POSTMODEM *string*
Example: POSTMODEM ATE1V1^M

Use POSTMODEM to initialize the modem for the next user. If a PREMODEM command tells switching equipment to use modem 3, POSTMODEM can unhook modem 3 to make it available.

In the example, "ATE1" leaves the modem in echo mode. "V1" uses long responses (words) instead of single characters. The "^M" is needed because neither PREMODEM nor POSTMODEM automatically sends a carriage return.

PREFIX Specifies a condition for dialing a phone number.

Usage: PREFIX *string*
Default: PREFIX ATDT
Example: PREFIX ATM0DT

The Hayes Smartmodem dials the "Dial String," which consists of the prefix, the number, and the suffix.

Entries for the PREFIX keyword can be up to 30 characters long. Begin each one with AT and end with a dial command (DT for tone dialing or DP for pulse dialing). In the example, M0 (zero) silences the modem's speaker during dialing. Check your modem manual for more information about dialing prefixes.

PREMODEM Sends a string of characters to the communications port before the modem initialization string is sent.

Usage: PREMODEM *string*
Example: PREMODEM ^Z\d\d\d

A premodem command (up to 32 characters) can be sent to an electronic switch connecting several modems, a corporate phone system with built-in modems, or a modem that requires a special command before normal Hayes-type initialization.

Use ^ to specify control characters and **\d** to specify a one-second delay. (See "Special Characters" at the beginning of this chapter.)

In the example, a Ctrl-Z (required by some phones with built-in modems) is sent, followed by a three-second pause (one second for each \d).

PRINT Records an online session on your printer or in a disk file.

Usage: PRINT YES
PRINT *filename*
PRINT *port*
PRINT NO (default)
Example: PRINT LPT2

PRINT YES sends a record of your session to your default printer. PRINT *port* sends the information to a printer connected to a different port. PRINT *filename* sends the information to a disk file with that name.

If PRINT is set to YES, turn printing on and off with the **F8** (PRINT) function key. Before you begin printing, be sure that your printer is ready and has enough paper.

Printing is initially ON for preprogrammed telex services. Printing begins as soon as you connect with the service. You can turn it off and on again with **F8**.

PROMPT Adds new characters to the prompts TelMerge recognizes.

Usage: PROMPT *character*
Example: PROMPT J

A prompt is used by the remote service to tell you that it's waiting for your response. For example, in the phrase "Command :" the colon (:) is a prompt, since it is the service's signal that it is ready for you to respond.

These prompt characters are recognized by TelMerge: @, :, =, !, ?, >,^, and Q. Use PROMPT to add up to nine new prompts. Prompts can be up to 14 characters long.

PROTOCOL Changes the file transfer protocol.

Usage:	PROTOCOL XMCRC PROTOCOL XMCHK (default)

F5 of function key set 2 (XM REC) defaults to XMODEM checksum protocol. To use the CRC protocol, add PROTOCOL XMCRC to the service script.

QUIET Waits until no character has been received from the remote service for a specified number of seconds before sending new information.

Usage:	QUIET *number of seconds*
Example:	QUIET 3

Use in conjunction with PAUSE in automated sessions. In this example, TelMerge waits until no characters have been received for three seconds before following the next instruction in your script.

SAY Displays the subsequent text on that line when you run TelMerge.

Usage: SAY *string*

Example:

```
SAY Check the printer
SAY
SAY and press ↵
SAY to continue
HOLD ?
```

Each SAY command can be up to 80 characters long. Create blank lines by using SAY alone with no text.

SEND Sends a string of characters and a carriage return to the service.

Usage:	SEND *string*
Example:	SEND//NEWS

In the example, the word NEWS is sent to the remote service, followed by a carriage return. (The slashes are part of an MCI command.) Use SEND in automated sessions.

SERVICE Logs on to a particular service automatically.

Usage:	SERVICE CIS	CompuServe
	SERVICE ESL	EasyLink℠
	SERVICE ITT	ITT Telex/TIMETRAN
	SERVICE MCI	MCI Mail
	SERVICE OAG	Official Airline Guides®
	SERVICE ONT	ONTYME® Messaging Service
	SERVICE RCA	RCA Telex/TELEXTRA™
	SERVICE SOU	The Source Telecomputing
	SERVICE Telmerge	Another TelMerge user

SERVICE is a description of your communications service (up to 32 characters long). It appears in the status line when you are connected to that service. Any service not listed here can be added with the SERVICE keyword. (See "Adding a New Service to TELMERGE.SYS.")

If you add a new service without specifying a service name, TelMerge displays *Remote System* when you connect with that service.

STOPS Sets the number of stop bits.

Usage: STOPS 1 (default)
STOPS 2

This keyword is already internally set for preprogrammed services. Check the service requirements for this setting when adding a new service. The default setting works for most services.

SUFFIX Issues a post-dial command to the modem.

Usage: SUFFIX *string*
Default: A carriage return is sent
Example: SUFFIX M1

SUFFIX (up to 30 characters) follows NUMBER. In the example, "M1" turns on the modem speaker after the number is dialed. This is useful if you use PREFIX to tell the modem to be silent *during* dialing, but you want to hear busy or no-answer signals when dialing is completed.

The Hayes Smartmodem dials the "Dial String," which consists of the PREFIX, NUMBER, and SUFFIX keywords. See your modem manual for more information.

TERMINAL Specifies your terminal type.

Usage: TERMINAL *string*
Example: TERMINAL A

During an automatic log-on to a network, TERMINAL (up to 6 characters) specifies the equipment you are using. Do not use TERMINAL with a preprogrammed NETWORK keyword, since these terminal settings are already internally programmed into TelMerge.

TRY Specifies how many times to redial a busy number before giving up and returning to WordStar.

Usage:	TRY *number from 1 to 99*
Default:	TRY 2
Example:	TRY 9

When a number is busy, TelMerge does not redial immediately. It waits until the dialing clock registers about 45 seconds.

USEDTR Controls how TelMerge hangs up the modem.

Usage:	USEDTR YES USEDTR NO (default)

You can use this keyword with modems that have a switch that uses the DTR serial port signal to hang up. The Hayes 2400 modem can use the DTR switch, but it requires special initialization. For this modem, use the INIT2 keyword ("INIT2 AT&D3"). If the phone doesn't hang up when it should, add **USEDTR YES** to your control file script and set the modem switch to use DTR. (See also **HANGCOM**.)

USERID Issues your identifying name when you log on to a communications service.

Usage:	USERID string
Example:	USERID 1456

When you subscribe to a communications service, you receive a user ID code (up to 30 characters long) that you must send each time you call the service.

WAIT Waits for a particular string from the remote service before continuing with the next instruction.

Usage:	WAIT *string*
Example:	WAIT Command:

In this example, "WAIT Command:" tells TelMerge to wait until the word "Command:" is received from the remote service before proceeding. Use WAIT for automated sessions.

Troubleshooting

This section lists some commonly reported TelMerge problems and their solutions.

CAUTION Some problems have been reported in running TelMerge with RAM-resident programs. If you have problems using TelMerge, disable any RAM-resident programs you have. To do this, you may need to remove the commands in your AUTOEXEC.BAT file that start these programs. Then reboot your computer and run TelMerge.

Connection Problems

The modem dials the phone, but there is no answer.

The telephone number in the script for this service is probably incorrect. Be sure to include the appropriate prefix ("9" for a PBX or "1" for long distance) and the area code.

The modem dials and connects, but TelMerge doesn't log on to the service.

There may be something wrong with the script for that service. You may have typed the wrong user ID or password, or specified the wrong baud rate setting for your modem. See the "Communications Services" chapter and edit the control file. You can also try increasing the character delay. Set the ATDELAY keyword to 20 or 30. (See **ATDELAY** in the "Keywords" chapter.)

Transmission is erratic, or is cut off when sending a document to a service.

The end-of-document marker for that particular service may have been inadvertently included somewhere in the text of the message. For instance, MCI uses a slash (/) to indicate the end of a letter. Edit the document and remove the offending character(s). See the information packet from your service for more information.

Also, check the LINEDELAY keyword in your control file script. Try increasing the LINEDELAY setting to 10. (See **LINEDELAY** in the "Keywords" chapter.)

When connecting to a service, everything freezes.

Perhaps the keyword in that script is set for PRINT YES, but when you connect to the service, your printer is turned off. Turn on your printer and try again. This can also happen if you run TelMerge while using a RAM-resident program. Disable any RAM-resident programs, reboot your computer, and run TelMerge again.

Screen Display Problems

During a session, none of the characters typed appear on the screen.

The service you are using requires half duplex. Edit the control file and add the line **DUPLEX HALF** to the service's script.

During a session, each character typed appears twice on the screen.

The service you are using requires full duplex. Edit the control file and replace DUPLEX HALF with **DUPLEX FULL** for that service's script.

The screen fills with random characters when connected to a service.

The baud rate of the service and the baud rate of your computer don't match. The baud rate information for the service is in the packet that the service sent you. Edit the service's script in the control file and specify the proper baud rate.

During a telex service session, lines in the text wrap before the end of the line.

Telex services allow fewer than 80 characters across the page. Use a right margin of 65 in document files to be safe.

File Problems

The logfile is erased each time a new session is initiated.

TelMerge renames the previous logfile *logfile*.SAV at the beginning of each new session. The same logfile name is used for every session and is specified in the script for that service after the keyword LOGFILE. If you want to keep old logfiles, rename the file after each session or add APPEND to the scripts whose logfiles you want to save. (See **APPEND** in the "Keywords" chapter for more information.)

Printing Problems

Documents do not retain print commands like bold, underline, and overstrike when sent.

Because of compatibility constraints, TelMerge strips all print commands from WordStar document files, unless you use a protocol transfer. The balance of the document is transmitted faithfully.

CAUTION *If you are sending files that you created with another word processor, and these files contain print enhancements, you must use a protocol transfer. Otherwise, serious problems could occur.*

During a telex service session, certain punctuation marks don't appear in the document received.

The character set for telex is a subset of the typewriter character set. Generally, lowercase characters are converted to uppercase. Certain punctuation marks are discarded during the transmission, and others are converted. The communications service representative can supply more specific information.

Using TelMerge with Floppy Disks

Be sure to make a copy of the TelMerge disk. Always work with the copy and store the original in a safe place.

To Send a Document File

1. Put your WordStar Program disk in drive A. Put the disk containing your document file in drive B. Start WordStar.
2. Start TelMerge. If you need to change disks, you'll be prompted to do so. Follow the onscreen instructions to display the TelMerge Communications Menu.
3. When you connect with the communications service, press the **F4** (SEND) function key to send the file. You are prompted for the name of the file to send. Type **b:** and the filename.
4. When the letter is sent, type the character required by the service to signal the end of the letter. Log off from the service and press **F10** to hang up. Press **F10** again to return to WordStar.
5. If you need to change disks, you'll be prompted to do so.

To Receive a Document File (or Open a Logfile)

1. Put your WordStar Program disk in drive A and your data disk in drive B.
2. Start WordStar from drive A, log on to drive B, and start TelMerge.
3. If you need to change disks, you'll be prompted to do so. Follow the onscreen instructions to display the TelMerge Communications Menu.
4. When you finish your session, log off from the service and press **F10** to hang up. Press **F10** again to return to WordStar.
5. If you need to change disks, you'll be prompted to do so. The logfile is written to drive B.

Note: When you leave TelMerge, remember you're still logged on to drive B.

TelMerge Function Keys

TelMerge Communications Menu Function Key Assignments

FUNCTION KEY	LABEL	PURPOSE
F1	**Help**	Displays TelMerge function keys and current settings
F5	**Other**	Creates a new service file or allows you to specify an existing one
F8	**Go Online**	Returns to a service after you go offline temporarily
F10	**Exit**	Exits the service

Online Function Key Assignments — Set1

FUNCTION KEY	LABEL	PURPOSE
F1	**Help**	Explains each function key
F2	**Set2**	Switches between function key sets 1 and 2
F3	**UserID/Hereis**	Sends the user identification code you typed in this service's script to the service

(continued)

FUNCTION KEY	LABEL	PURPOSE
F4	**PassWd/Mail**	Sends the password you typed in this service's script to the service. For telex services, gets messages
F5	**SnapSh**	Saves current screen in logfile or in memory. Saves up to 5 screens
F6	**Recall**	Displays screens saved with **F5**
F7	**Log/WRU**	Turns logging on and off. For telex services, issues a WHO ARE YOU command
F8	**Print**	Turns printing on and off
F9	**Edit**	Exits to WordStar while online. Use **F8** (Go Online) to return to the service
F10	**Hangup**	Hangs up the phone. Be sure to log off from your service first if required

Online Function Key Assignments — Set2

FUNCTION KEY	LABEL	PURPOSE
F1	**ShoFil**	Displays any file, including the current logfile
F2	**Set1**	Switches between function key sets 1 and 2
F3	**DOS**	Goes to operating system without disconnecting from service (type **exit** to go back online)
F4	**Send**	Sends a WordStar or ASCII file
F5	**XM Rec**	Receives a file using the XMODEM protocol
F6	**XM Snd**	Sends a file using the XMODEM protocol
F7	**User1**	Can be programmed for your own commands. (See the **FK** keyword)
F8	**User2**	Can be programmed for your own commands. (See the **FK** keyword)
F9	**Break**	Issues an RS-232C break signal (not normally used)
F10	**Hang up**	Hangs up the phone. Be sure to log off from your service first, if required.

Communications Services

This chapter provides information about TelMerge's preprogrammed services. For more information, contact the service directly. When you register with a service, you receive the information required to call that service with TelMerge. See "Calling a Service with TelMerge."

You can also use TelMerge to call services or networks that are not preprogrammed. For instructions, see "Adding a New Service to TELMERGE.SYS." If you use a network to call a service, see **NETWORK** in the "Keywords" chapter.

CompuServe Information Service

5000 Arlington Centre Blvd.
Columbus, OH 43220
(800) 848-8990

TelMerge Service Name: CIS

CompuServe offers an information service as well as electronic mail (EasyPlex and InfoPlex®). CompuServe provides business news, computer games, special interest group bulletin boards, online conferencing, newspapers, and much more. *Note:* When you call CompuServe, TelMerge uses the CompuServe A protocol to exchange files.

EasyLink by Western Union

Western Union Telegraph
4230 Altha Road
Dallas, TX 75244
(800) 527-5184 (Sales); (800) 435-7375 (Help)

TelMerge Service Name: ESL

Western Union offers EasyLink electronic mail service (a store-and-forward system), an information service called FYI, and a Mailgram service. EasyLink cables your message if it can't be delivered by a telex network.

ITT Telex and TIMETRAN

ITT World Communications TelMerge Service Name: ITT
100 Plaza Drive
Secaucus, NJ 07096
(800) 922-0184

ITT offers telex services, a store-and-forward service (TIMETRAN), and a paper mail service. ITT cables your message if it can't be delivered by telex. ITT also offers an information service called UPDATE. TelMerge turns logging and printing on automatically for ITT. If you don't want to print your sessions, change the PRINT setting to NO.

MCI Mail

MCI Mail TelMerge Service Name: MCI
1150 17th St. N.W., 8th floor
Washington, DC 20036
(800) 444-6245; (202) 833-8484 (Washington, DC)

MCI Mail offers an electronic mail service, an information service (in cooperation with Dow Jones News/Retrieval®), and a courier service. Access to telex networks is also available.

Official Airline Guides

Official Airline Guides TelMerge Service Name: OAG
2000 Clearwater Drive
Oak Brook, IL 60521
(800) 323-4000

The Official Airline Guides Electronic Edition provides airline schedules and fares for commercial air carriers.

ONTYME Messaging Service

ONTYME Marketing TYMSHARE TelMerge Service Name: ONT
2560 North First St.
San Jose, CA 95131
(800) 435-8880

ONTYME is an electronic store-and-forward message service that provides worldwide local-call access. You can route messages through the telex networks if you want. TYMSHARE® has another network called TYMNET®.

RCA Telex and TELEXTRA

RCA Global Communications
201 Centennial Ave.
Piscataway, NJ 08854
(800) 526-3969

TelMerge Service Name: RCA

RCA provides real-time telex services, TELEXTRA store-and-forward service, and an information service called HOTLINE^{SM}. RCA Telegram turns your telex into a telegram if necessary. TelMerge turns LOGGING and PRINT on automatically for RCA. If you do not have a printer or prefer not to use one, change the PRINT setting to NO.

The Source Telecomputing

The Source Telecomputing Corp.
1616 Anderson Road
McLean, VA 22102
(703) 734-7500

TelMerge Service Name: SOU

The Source is an information service that also provides an electronic mail service called SourceMail^{SM}. With The Source you can find information on topics ranging from business news to sports to stock quotes and more.

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Introduction

ProFinder™ helps you keep your files and programs organized and accessible. ProFinder displays a file list similar to the one displayed with the DOS DIR command. Besides looking at the filenames, you can

- Scroll up and down through the list
- Assign a descriptive label to each file so you can identify its contents easily
- Sort the filenames so you can see the list, for example, in alphabetical order or by filename extension
- Locate all the files in a directory that contain certain words or phrases
- View individual files and search for text within a file
- Tag any number of files in the directory and perform operations such as deleting or copying quickly
- Print the directory file list
- Run a program by choosing either the program or one of its data files at the file list
- Change with one keystroke to a file list for another disk or directory
- Start WordStar (or another program) from within ProFinder, then use a special "hot key" to flip between ProFinder and WordStar as often as you want while you're working
- Automate frequently performed activities by creating and using personal menus

ProFinder is most useful with a hard disk computer. If you have a floppy disk system with a high capacity disk drive, ProFinder may be useful if you have many files on each disk.

Installing ProFinder

If you have a hard disk computer, the ProFinder files are usually in the same directory as your WordStar files (normally \WS5). If you didn't copy these files to your hard disk when you installed WordStar, do so now. Wherever you choose to keep these files, be sure that this directory is on your DOS path, so that you can start ProFinder from any directory.

If you plan to run ProFinder from a floppy disk computer, be sure to make a copy of the ProFinder disk. Always work with the copy and store the original in a safe place.

ProFinder has its own installation program, PFINST, which contains monitor and color settings and other program configuration settings. Most users don't need to run PFINST, but you may find it helpful. You must run the installation program if:

- You have a gas plasma monitor or other monochrome monitor but have a color graphics board in your computer.
- You move your ProFinder files from one directory to another. (Otherwise, your configuration settings may not be saved and you may not be able to access help.)
- Your computer is not totally IBM compatible and when you run ProFinder, the system freezes or the screen doesn't look right. In this case, set **Speed** on the **Video** submenu to **Slow**.

To run the installation program, type **pfinst** and press ↵. The program asks for the name of the directory that contains the ProFinder files. Press ↵ to accept the displayed name (the current directory), or type the correct directory name and press ↵.

The installation menu appears. To choose an option, move the highlighting to it and press ↵, or just press the first letter of the option. Follow the onscreen instructions. You can press **F1** for help with any option.

Video allows you to change monitor and color settings.

Sort, File, Locate, Options, and **Configuration** allow you to change the same settings you can change in the ProFinder menus with the same names. More information on these options is given later in this manual. Changing settings in PFINST is the same as changing the same settings in ProFinder and choosing **Save all settings**. The **Options** menu has one additional command, **Insert**, which allows you to set the typing mode to insert or overtype for typing information in ProFinder's prompts.

Restore changes settings for all options back to their original settings, whether you've changed them here or from inside ProFinder.

WS5 ↵ pf ^ B: ↵

Using ProFinder™

The instructions in this chapter are for hard disk users. If you are using ProFinder on floppy disks, you'll need to insert the disk that contains the ProFinder files in order to start ProFinder, and you may need to do some disk swapping while you're working.

Running ProFinder

To start ProFinder, type **pf** and press ↵. A list of the files in the current directory appears on the screen. Each file's name, extension, size, date, and time are shown in the same way the DOS DIR command shows them. Disk space information is shown below the last file in the list.

The ten main ProFinder commands are shown on function key tags on the bottom line of the file list screen. To use any of these commands, just press the corresponding function key or the corresponding number key at the top of your keyboard (use **0** for **F10**). You can also hold down the **Alt** key and press the first letter of the command (for example, **Alt-H** for Help).

Some of the ProFinder commands display menus. To choose a command from a menu, either move the highlighting to the command and press ↵, or just press the first letter of the command.

When you are using ProFinder, you can press **.** (period) to go back one step. For example, if you are displaying a submenu, pressing **.** causes ProFinder to go back to the previous menu.

Press **F1** (or **1** or **Alt-H**) whenever you need help for the command you're using. Press **Esc** after you finish reading the help screen to return to where you were.

Working with the File List

When you start ProFinder, the file list is displayed. You can scroll through the file list using the keys shown below.

PRESS	TO
↑ or ^**E**	Scroll up one filename
↓ or ^**X**	Scroll down one filename
PgUp or ^**R**	Scroll up one screenful
PgDn or ^**C**	Scroll down one screenful
Home or ^**QE**	Move the highlighting to the top of the screen
End or ^**QX**	Move the highlighting to the bottom of the screen
^**Home** or ^**QR**	Move the highlighting to the top of the list
^**End** or ^**QC**	Move the highlighting to the bottom of the list
^**Z**	Scroll the screen up one filename (highlighting doesn't move)
^**W**	Scroll the screen down one filename (highlighting doesn't move)

You can also press the first letter of a filename to move the highlighting to the next filename that begins with that letter. Press the **Shift** key plus the first letter of a filename to move the highlighting to the previous filename that begins with that letter.

Using File Titles

On the right side of the file list screen is space for file titles. A file title is descriptive text that further identifies a file. You'll find file titles helpful if you have many files and sometimes can't remember the name of the file you're looking for. To add or edit a file title, move the highlighting to the filename and press → (or **Tab**, ^**D**, or ^**F**). Type the title. You can edit the file title with the WordStar editing commands. When the title is the way you want it, press ↵.

You can move up in the titles column using ↑ or ^**E**; you can move down using ↓ or ^**X**.

ProFinder stores file titles in a file named TITLES.PF. Each directory that contains files with titles has its own TITLES.PF file. When you use ProFinder to copy, move, or delete files, ProFinder also copies, moves, or deletes their titles.

You can remove the display of file titles from the file list. Press **F6** (Options) and choose **Titles**. The default setting for this option is Yes (titles are displayed). Choosing the option changes it to No. You can change back to Yes by choosing this option again. To quit displaying file titles for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Changing to Another Directory

If you are in a subdirectory, the first line of the list says UPDIR in the file size column. This signifies the parent directory. If the directory has any subdirectories, the file size column for each of them says DIR. The table below shows how to change to a listing of another directory or disk.

TO CHANGE TO	**DO THIS**
Another directory	Press \ (backslash) and type the name of the directory
Another disk drive	Press **:** (colon) and type the drive letter, then either press ↵ to accept the default directory path (*.*) or type a new path and press ↵
The parent directory	Press **.** (period), or move the highlighting to the UPDIR line and press ↵, or press the **Backspace** key
A subdirectory	Move the highlighting to the DIR line and press ↵
The root directory	Press ^\ (**Ctrl**-backslash)

Displaying Selected Filenames

To specify which filenames you want to display in the file list, press \, or press **F6** (Options) and choose **Directory list**. The default directory search path is all files (*.*) in the current directory. Edit the search path so that it is the one you want and press ↵. (You can use the WordStar editing commands.) As soon as you enter the new search path, the file list changes accordingly. Some sample search paths are shown below:

C:\WS5\*.DOC	All files in the \WS5 directory with the .DOC extension
C:\MEMO?.*	All files in the root directory with filenames that consist of MEMO and one more character, with any extension
A:WS5.*	All files named WS5 with any extension on the disk in drive A

To display only program filenames (with the .EXE, .COM, and .BAT extensions), press **F6** (Options) and choose **Programs only**. The default setting is No. Choosing the option changes it to Yes.

To display only the names of subdirectories of the current directory, press **F6** (Options) and choose **Subdirs only**. The default setting for this option is No. Choosing the option changes it to Yes.

After displaying selected filenames, you can return to the full file list quickly by pressing * (asterisk), or you can press **F4** or **F6** and choose **List all files**.

Sorting a File List

You can display your directory in several orders.

To sort the current file list, press **F7** (Sort), and choose the options you want from the submenu. The default sort order is by Extension, then Name. The options are described below.

Begin sort sorts the file list in the order shown in the sort order box.

Order of sort allows you to specify a new sort order. The displayed options, Name, Extension, Date/Time, and Size, are the orders you can use to sort. You can use any combination of these options for sorting. For each option you choose, another prompt asks you for the sort direction; choose either the default, **Ascending** (regular alphabetical), or **Descending** (reverse alphabetical). Choose the options in the order you want them used. For example, if you want to sort first by filename, then by extension, choose **Name** first, then **Extension**. After you set the sort order, choose **Resume** or press **Esc** or **.** (period). When you set up a new sort order, it remains in effect until you change it again or exit ProFinder. If you want to keep the sort order longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Auto sort allows you to sort all directories automatically as soon as you change to them. The default is No; choosing this option changes it to Yes. When auto sort is off, if you want to see sorted file lists, you need to sort each list as you display it. When you turn auto sort on, it is in effect until you change it or exit ProFinder. To keep auto sort on for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Using the Hot Keys

ProFinder recognizes two "hot keys." The flip hot key allows you to flip back and forth between WordStar and ProFinder. The copy hot key allows you to copy a block of text from a file you display with ProFinder into a WordStar file.

The hot keys can be very handy. For example, if you're not sure of the name of the file you want to edit, you can use ProFinder to find the file you want, then automatically start WordStar and open the file. While you're editing, you can go back to ProFinder, look through several files to find text you want, and mark it as a block. You can then go back to WordStar and copy the marked block into your document with a single keystroke.

Flip hot key This is the plus key on the numeric keypad. To use it, start at the ProFinder directory display. Move the highlighting to the name of a file you want to edit and press **+**. ProFinder starts WordStar and opens the file you selected. You can now edit the file and do any other WordStar operations (save the file, print, open a new file, and so on).

When you start WordStar using the + key, ProFinder remains in your computer's memory. You can access ProFinder from WordStar by pressing + again. You can flip back and forth between WordStar and ProFinder as often as you like. When you exit WordStar, you return to ProFinder. You can't exit ProFinder until you exit WordStar; if you try, ProFinder displays a message and returns you to WordStar.

You can change the flip hot key from + to another key. You can also use the flip hot key to flip between ProFinder and another program instead of WordStar. For more information, see "Setting the Configuration Options."

Copy hot key This is the minus key on the numeric keypad. It works only when you have started WordStar from ProFinder (using the flip hot key). When you use ProFinder to view a file, you can mark a block in the file (see "Working with Blocks" in "Viewing Files"). After you flip back to WordStar, while you're editing a file, you can press the copy hot key anywhere in the file to copy the marked block. If you are not viewing a file with ProFinder, the copy hot key copies the highlighted filename into WordStar or, if you have tagged filenames, copies each tagged filename in turn. For example, if you want to read several files into a WordStar file, you can tag the filenames in ProFinder, then press **^KR** from WordStar, and press the copy hot key at the filename prompt. Repeat this procedure for each file to be read. Each time you press the copy hot key, the next tagged filename appears.

You can change the copy hot key from the minus key (−) to another key. See "Setting the Configuration Options."

Working with Files

When you're displaying a file list with ProFinder, you can do several operations on the files in the list. These operations are described in the following sections.

You can select, or tag, any number of files for a file operation. Here's how tagging works:

- To tag a file, move the highlighting to the filename and press **F3** or **^K**. You can press **F3** again to untag the highlighted file.
- To tag a group of files, press **F4** (Files), choose **File tag by wild cards**, and type the filename, using the * and ? wild-card characters. For example, to tag all files with the .BAK extension, type ***.bak**.
- To see a file list of only the tagged files, press **F4** (Files), then choose **Select tagged files**. To return to a full directory display, press * or press **F4** or **F6** and choose **List all files**.
- To remove the tags from all files that you have tagged, press **F4** (Files), then choose **Untag all**.
- To retag files that you untagged or that ProFinder untagged after a file operation, press **F4** (Files), then choose **Retag**.

While a file operation such as copying or deleting is in progress, you can press any key to interrupt the operation. A prompt asks whether you want to quit or continue.

Copying and Moving Files

To copy files to another directory, press **F4** (Files), then choose **Copy**. To move files to another directory or to rename files, press **F4** (Files), then choose **Move**.

If you have tagged any files, all tagged files will be copied or moved. If you have not tagged any files, type the name of the file(s) to copy or move at the prompt that appears. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws5*.doc** to specify all the files in the \WS5 directory with the .DOC extension.

At the *Copy to* or *Move to* prompt, type the directory you want the files copied or moved to. If you have not tagged files, you can include the filename if you want the copied or moved file to have a new name. You can use wild-card characters in the filename.

After you enter the file information, you can start copying or moving, or you can set several options. Choose **Begin** to start. The other options have yes/no settings; you just need to choose the option to change the setting. These options are described below.

Confirm overwrites This option determines whether Profinder asks if you want to overwrite an existing file (if you are about to overwrite it in a copy or move operation). The default is No.

Transfer titles This option determines whether ProFinder file titles will be copied and moved with files. The default is Yes.

Verify This option allows you to verify as you copy and move. It is the same as the DOS Verify (/v) option. The default is Yes.

Skip same version If you set this option to Yes, ProFinder won't overwrite an existing file that has the same file size, time, and date as the file you are copying or moving. This can save time. For example, if you are backing up a directory of files to a floppy disk, ProFinder can copy only the files that have changed since you last backed up. The default is No.

If you change any of these settings and want to keep your changes for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

Deleting Files

To delete files, press **F4** (Files), then choose **Delete**.

If you have tagged any files, all tagged files will be deleted. If you have not tagged any files, type the name of the file(s) to delete. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws5*.bak** to delete all the files in the \WS5 directory with the .BAK extension.

At the prompt, press ↵ to begin. The files you tagged or named are deleted.

Changing File Dates and Times

To change the dates and times shown with filenames, press **F4** (Files), then choose **Time/date stamp**.

If you have tagged any files, the date and time of all tagged files will be changed. If you have not tagged any files, type the name of the file to stamp. Include the drive letter or directory path if necessary. You can use the DOS wild-card characters * and ? to name a group of files. For example, you could type **\ws5\*.doc** to change the date and time for all the files in the \WS5 directory with the .DOC extension.

For the date, press ↵ to accept the default, which is the current date, or type another date and press ↵. For the time, press ↵ to accept the default, which is the current time, or type another time and press ↵. (You can type **0** (zero) to omit the time from the list.) At the prompt, press ↵ to begin. ProFinder changes the dates and times.

Printing the File List

To print the file list, be sure your printer is ready. Press **F4** (Files), then choose **Print file list**. ProFinder prints the current file list. If you have tagged any files, they are underlined in the printed list.

Writing Filenames to a File

You can create a file that contains the filenames in the current list. If you have tagged files, the file contains only the tagged filenames. Press **F4** (Files), then choose **Write filenames**. Type the name of the file to write the filenames to and press ↵. If the filename you type is an existing file, a prompt appears. Press **O** to overwrite the file, **A** to append the new filenames to the end of the file, or **Esc** to exit.

Next you can specify up to 20 characters that will appear before (prefix) or after (suffix) each filename in the new file. At each prompt, type the text you want and press ↵. If you don't want a prefix or suffix, just press ↵. As soon as you answer the last prompt, ProFinder writes the filenames to the file you specified.

Viewing Files

You can use ProFinder to look at the contents of any file in the current file list, and you can do several operations with a file you're viewing. To view a file, move the highlighting to the name of the file and press **F5** (View). Pressing ↵ also allows you to view the highlighted file.

While you are viewing a file, you can use the cursor movement keys or the WordStar cursor movement commands to move the cursor around in the file. For a complete list of these commands, press **F1** or **^J** for help while you are viewing a file. You can also locate specific text, mark blocks, and use several other commands. The following sections give complete instructions on how to work with a file you're viewing.

File Format

ProFinder normally assumes the file is in WordStar format. You can usually view ASCII files correctly in WordStar format. However, graphics characters from ASCII files are not displayed correctly, so you may sometimes need to switch from WordStar to ASCII format. You can also view WordStar 2000 files, which have a different format. To switch between formats while you are viewing a file, press **^QG**.

You can change the default format; see "Setting the Configuration Options."

ProFinder also automatically recognizes Lotus 1-2-3 files and displays them in the correct format. When you view a Lotus 1-2-3 file, you can see only the top-left screenful of the file; you can move the cursor through the displayed portion of the file, but you can't scroll to other portions of it.

Finding Text

While you're viewing a file, you can easily find a specific word or phrase. Press **F8** or **^QF** and choose **Text to locate**. ProFinder prompts you for the text to locate. Type up to 20 characters of text and press ↵. You can press ↵ again at the *Begin search* prompt to begin the search, or you can first change any of the search options. To change a search option, choose the option you want to change. The options are described below.

Whole words only specifies that the text to search for must be whole words. The default is No. Thus, if you search for the word "cat" with the No setting, ProFinder will locate "concatenation" or "catered."

Case ignore tells ProFinder to find all instances of the text whether or not any characters are uppercase or lowercase. The default is Yes.

Lightning synonyms is for Turbo Lightning® users. It allows you to use a Turbo Lightning synonym file with your searches. The default is No.

User synonyms lets you use a synonym file that you create yourself. For more information, see "Setting the Configuration Options." The default is No.

Direction lets you run a forward, backward, or global search. The default is global; pressing ↵ toggles among the three choices.

The settings for these options (except for Direction) apply to locating files as well as finding text within a file. If you want to keep your changes longer than the current work session, choose the **Save all settings** option (see "Setting the Configuration Options").

Once you've searched for specific text in a file, you can press **F4** or **^L** to find the next instance of the current search text, and you can press **F3** or **^QV** to find the previous instance.

Working with Blocks

While you're viewing a file, you can mark a block within the file. You can then write the block to another file or use the copy hot key to copy the block to a WordStar file (or to a file in whatever program you use with the flip hot key). See also "Using the Hot Keys."

PRESS	TO
F7 or **^KB**	Mark the beginning of a block.
F2 or **^KK**	Mark the end of a block.
F10	Automatically mark the line the cursor is on as a block (Auto block). Press **F10** again to add the next line to the block. Mark as many consecutive lines as you want. If you mark a line that is not the next line below the current block, that line begins a new block.
^KH	Hide the display of the marked block.
F5 or **^KW**	Write the marked block to a new file. At the prompt, type the name of the file to write the block to and press ↵. If the filename is an existing file, press **O** to overwrite the file, **A** to append the block to the end of the file, or **Esc** to exit. (The block is always written as it is shown on the screen.)
F6 or **^KP**	Print the marked block. At the *Left Margin* prompt, type the number of columns you want the text offset from the left edge of the paper, or press ↵ to accept the default, 0.

Viewing Another File

While you're viewing a file, you can press **F9** or **^OK** to open another file. If the cursor is on a word that is the name of a file in the current directory, ProFinder opens that file. Otherwise, at the prompt, type the name of the file you want to open and press ↵.

When you open a file while viewing another one, you can see both filenames at the top of the screen. When you press **Esc** or **.** (period) to back out of the second file, the first file is displayed again. You can view up to three files in this manner.

Locating Files

ProFinder can find all the files in the current list that contain certain text. For example, you can quickly find all your documents that mention Gerald Seagraves, the Houston contract, or June 4, 1988. You can also search file titles instead of the files themselves. This allows you, for example, to display a list of the files that have "report" or "Fjerstad" in their titles.

Note: When you are searching through WordStar document files, the file format should be set to WordStar (the default) for best results. See "Setting the Configuration Options."

To locate files, press **F2** (Locate) at the file list. Then choose **Search files by text** to search for text in files, or choose **Find files by title** to search in file titles. You can now specify the text and set several options, as described below.

Text to locate You can specify up to three text strings (words or phrases), each up to 20 characters long. After you type each search string, press ↵, or press **Esc** when you're finished entering search strings.

Begin search When you choose this option, ProFinder searches for all files (or titles) that contain any of the search strings you entered. The file list changes so that it displays only the files that contain a search string. It also shows which search strings each file contains. When you use the **View** command to examine any of these files, each instance of a search string in the file is highlighted, and the cursor is on the first instance.

TIP *If you have a lengthy search, you can continue to work while ProFinder searches. Just use any commands you want. The search will resume the next time you're at the file list and you stop using the keyboard for a few seconds.*

Whole words only tells ProFinder that the text to search for must be whole words. The default is No. Thus, for example, if you search for the word "cat," ProFinder will locate "concatenation" or "catered."

Case ignore tells ProFinder to find all instances of the text whether or not any characters are uppercase or lowercase. The default is Yes.

Lightning synonyms is for Turbo Lightning users. It allows you to use a Turbo Lightning synonym file with your searches. The default is No.

User synonyms allows you to use a synonym file that you create yourself. For more information, see "Setting the Configuration Options." The default is No.

The settings for these options apply to finding text in a file while viewing the file as well as to locating files. If you want to keep your changes for longer than the current work session, use the **Save all settings** option (see "Setting the Configuration Options").

After you finish examining the list of files you located, you can return to the full file list by pressing * (asterisk), or you can press **F2** and choose **List all files**.

TIP *To avoid lengthy searches of files that you don't want to include in a search, you can specify up to 15 filename extensions to skip. Press **F2** (Locate) and choose **Extensions to skip**. You see a preset list of 13 extensions: .EXE, .OBJ, .COM, .LIB, .OVR, .BAK, .HLP, .MAP, .DTY, .$$$, .SYN, .DCT, and .ARC. To add or change an extension, move the highlighting to it and type the extension you want. The new extensions you choose are in effect until you exit ProFinder. To make your changes permanent, use the **Save all settings** option (see "Setting the Configuration Options").*

Exiting ProFinder

Press **F8** to exit ProFinder. When you use **F8**, if you've changed from one directory to another since starting ProFinder, you exit to the directory you've changed to. You can also exit by pressing **Esc**. When you press **Esc**, you exit to the directory you were in when you started ProFinder.

If you are running WordStar (or another program) from ProFinder, you can't exit ProFinder until you exit WordStar (or the other program). If you try to exit, you'll find yourself back in WordStar. For more information, see "Using the Hot Keys."

You can also exit by choosing **Quit** from the menu displayed when you run the Menu command (**F10**). For more information about using this menu, see "Creating and Using Menus."

More About ProFinder

This chapter gives information about more advanced ProFinder functions. You should be somewhat familiar with ProFinder before using these functions.

Setting the Configuration Options

The Configuration submenu of the Options Menu contains several options that you can set. To set these options, press **F6** (Options) at the file list, then choose **Configure.** When you change a setting, the new setting is used until you exit ProFinder. To make the setting permanent, choose the **Save all settings** option. The configuration options are described below.

User synonym file This option allows you to give the name of the synonym file used when you use ProFinder to locate files (or file titles) that contain certain text. If your search string contains any word that is the first word in a line of the synonym file, ProFinder will search for all the other words in the line as well.

The default synonym file is USERSYN.PF. You can edit the USERSYN.PF file that comes with ProFinder, or you can create another file. To change to a different synonym file, choose this option and give the name of the synonym file.

The synonym file is an ASCII file, which you can create and edit with WordStar in nondocument mode. It consists of one line for each word for which you are naming synonyms. The line consists of the word followed by all its synonyms. All the words in the line are separated by commas.

Hot key settings This option allows you to change the hot keys, the program started by the flip hot key, and the keyboard delay. The four choices are explained below.

Program is the program that is started when you first press the flip hot key. Normally this is WordStar, in the \WS5 directory. You can change this if you keep WordStar in another directory or if you want to run another program with the flip hot key. The default program command line is c:\ws5\ws~f~e /o~h. The ~f and ~e insert the highlighted filename and extension into the command line. The /o~h tells WordStar to place the cursor at the first instance of ProFinder search text or at the last cursor position used when you viewed the file with ProFinder. For more information on these and other options, see the list in "Creating and Using Menus." If you enter a different program name, you must include the program file extension if it is not .EXE.

Flip hot key and *Copy hot key* allow you to change the + and − hot keys to other keys. When you choose one of these options, press the hot key you want to use. You can use any function key or a combination of the **Alt** key and a letter, number (not those on the numeric keypad), hyphen, or equal sign. The new hot key is in effect as soon as you press it. Take care not to select a hot key that conflicts with a WordStar command or a hot key for a memory-resident program you use.

Keyboard delay allows you to set the speed at which your keyboard copies a block when you use the copy hot key. The default is 0, no delay. This works fine with WordStar. However, if you set up ProFinder so that the flip hot key starts a different program, and you notice that you lose characters when you use the copy hot key to copy a block, you may need to set a keyboard delay. Try increasing the delay to 1 or 2; no system should require a delay greater than 5.

Print margin This option sets the distance from the left edge of the paper where printing begins when you use ProFinder to print a file you're viewing. Enter the number of columns you want for the margin.

File format This option sets the format that ProFinder uses when you view a file. The default is WordStar. You can choose WordStar, ASCII, or WordStar 2000 format. (This setting also changes when you use **^QG** to toggle file format when you're viewing a file.) ProFinder automatically recognizes Lotus 1-2-3 files regardless of which format is chosen.

Tab settings This option determines how document tabs are displayed when you view different types of files. You can have different tab sizes for all files with three specific filename extensions (which you can specify), and one tab size for all other files. The defaults are 4 for files with the .C and .H extensions and 8 for all other files. To change any extension or tab size, move the cursor to the item you want to change and enter the new setting.

Display fast The default for this option is Yes. If you notice "snow" on your screen while you type, you may want to set it to No. When you choose this option, the setting is immediately changed.

About This option displays program information about ProFinder.

Save all settings This option saves all the configuration settings and several other settings. Be sure to choose it if you want the new settings to be permanent. If you don't save your settings, the new settings remain in effect only until you exit ProFinder.

Besides the configuration settings, this option saves the on/off options on the Options Menu, the sort order for sorting, automatic file list sorting, settings for four options for copying and moving files, settings for four options for locating files or text, and the list of extensions to skip while searching for files. If you have changed any of these settings, the new setting will now be the default until you change it again and save the setting. You can also change and save these options using the PFINST installation program. See "Installing ProFinder."

Command Line Options

When you type **pf** to start ProFinder, you can add other information to have ProFinder automatically do certain operations as it starts. The complete command line syntax is

pf *filespec search1 search2 search3 /option*

filespec is the search path for the file list to display; for example, C:\MEMOS\*.MEM, or A:*.*. The default is a file list of all files in the current directory; use a filespec if you want to display a different list. If you want the default directory list and you want to specify a search string or option, you can put a period (.) in the filespec position to indicate *.*.

search1, *search2*, and *search3* are search strings. If you specify any search strings, ProFinder automatically runs its Locate function, and the file list that appears includes only the files that contain any of these strings. If a search string contains any spaces, enclose the string in quotation marks. For example, to search all files in the current directory for the words yacht and party, type **pf . yacht party**. To search all .DOC files for April 9, 1988, type **pf + .doc "April 9, 1988"**

/option is either **/k** or **/m**. **/m** tells ProFinder to display the menu in the file named after the equal sign. **/k** tells ProFinder to run the commands signified by the keystrokes that follow the equal sign. All the keystrokes must be enclosed in quotation marks. For example, you can use the **/k** option to sort a file list; type **pf /k="{F7} {enter}"**. **{F7}** chooses the Sort function, and **{enter}** accepts the default sort order. For more information about these options, see "Creating and Using Menus."

Running Another Program or DOS Command

You can run another program or command from ProFinder in several ways. One simple way is by using the flip hot key; this enables you to run ProFinder and another program (usually WordStar) at the same time. Other ways to run a program or command are described below.

The Go to DOS Command

To go to DOS without exiting ProFinder, press **F4** (Files), then choose **Go to DOS**, and use any DOS commands you want. When you are finished, type **exit** and press ↵ to return to ProFinder. Don't use this command to load a memory-resident program; exit from ProFinder first.

You can't use Go to DOS when you are flipping between ProFinder and WordStar. (You can use the WordStar command to run a DOS command.)

The Run Command

This command allows you to run a program from ProFinder in two ways. You can't use this command while you are flipping between ProFinder and WordStar.

First, when you move the highlighting to a filename with the .EXE, .COM, or .BAT extension and press **F9**, ProFinder exits to DOS and starts the program.

Second, when you press **F9** while highlighting files with certain filename extensions, ProFinder can start the program you use to edit these files. With many programs, it can automatically open the highlighted file. A file named EXTLIST.PF contains a list of extensions and one or more commands to run for each extension.

The EXTLIST.PF file supplied with ProFinder has two extensions. You can add, change, or delete items in this file by editing it in WordStar nondocument mode. Notice that you can give several commands to be run for an extension. Put each command on a new line and indent each of these additional lines at least one column. Use a comma between the extension and the first command. This file is shown below:

```
DOC,c:\ws5\ws~d~p~f~e
WKS,c:
     cd\lotus
     123
     pf ~d ~p
```

The first line in the file tells ProFinder to start WordStar and open the highlighted file when the highlighted file has the .DOC extension and you press **F9**. From the \WS5 directory, it types **ws** followed by the current drive letter (~d), directory path (~p), filename (~ f), and extension (~e).

The rest of the file tells ProFinder to start Lotus 1-2-3 when the highlighted file has the .WKS extension and you press **F9**, and to restart ProFinder on the current drive (~d) and path (~p) after you finish using Lotus 1-2-3.

The next section, "Creating and Using Menus," contains more information on the options you can use in the EXTLIST.PF file.

Creating and Using Menus

You can set up a system of menus of things you can do from ProFinder. To display your main menu, you press **F10** (Menu) at the file list.

TIP *You can have several menus to use in different directories if you want. When you choose **F10**, ProFinder first looks in the current directory for a USERMENU.PF file. If it doesn't find one, it then looks in the directory where you installed ProFinder.*

A sample menu has been set up for you. To choose any option on the menu, move the highlighting to the option and press ↵ or just press the first letter of the option. You can use this menu as it is, or you can change it by adding, modifying, and deleting choices. The menu is in a file named USERMENU.PF, which you can edit as a WordStar nondocument file. The sample file is shown below.

```
>Sample Menu
Documents,/k=“:c {enter} {F3}\doc{enter} {F7} {enter}”
<------Inset------
Inset           ,c:
                cd\inset
                inset
                pf ~d~p
Remove Inset,   c:
                cd\inset
                ri
                pf ~d~p
<------PC-Outline-----
Normal version, c:
                cd\pco
                pco /r
                pf ~d~p
Small version,  c:
                cd\pco
                pco /r /m=20
                pf ~d~p
<------Other------
Lotus           ,c:
                cd\lotus
                123
                pf ~d~p
Quit            ,/m=quitmenu.pf
```

Here is the format for the menu file:

- The menu title ("Sample Menu") begins with a right angle bracket (>). This tells ProFinder to center the title at the top of the menu.
- Each of the lines that is a heading on the onscreen menu begins with a left angle bracket (<). The bracket does not appear on the menu. (The left angle bracket can also be used to create an inactive menu item; the menu line appears dim and the highlighting skips over the line so that you can't choose it.)
- Only the lines that are to appear on the onscreen menu start in the first column. The other lines must be indented at least one space.
- The lines that appear on the onscreen menu can be no longer than 30 characters. Fewer characters are better; ProFinder automatically adapts the size of the menu window to the length of the longest menu line.

- Each line that appears on the onscreen menu is separated from the other information in the file by a comma.
- Each line that appears on the onscreen menu causes ProFinder to run all the commands following it in the file until the next menu (unindented) line. These commands can be any DOS commands.

The commands in the menu file can include several ProFinder options, which are listed below:

~d	This is replaced with the current drive letter and a colon (for example, C:).
~p	This is replaced with the current directory path (for example, \WS5\DOC).
~f	This is replaced with the current filename.
~e	This is replaced with the current filename extension (including the dot).
~h	This is replaced with the hexadecimal offset (position in the file) of the first instance of the search text if you've used the **Locate** command. If you haven't used **Locate** and you've viewed the file since starting ProFinder, the offset used is the most recent cursor location. You can use **~h** with the WordStar /**o** command line option to start WordStar, open a file, and go to this location in the file.
~o	This is replaced with the same offset as ~h, but in decimal notation. You can use it with any program that recognizes a decimal offset.

Three special ProFinder commands enable you to use the menu for advanced ProFinder functions. They are described below.

/**k**= tells ProFinder to close the menu and then do the ProFinder functions signified by the following keystrokes. All the keystrokes must be enclosed in quotation marks (" "). For example, the command for the Documents menu line uses the /**k** command to switch to the \DOC directory and display a sorted file list as explained below.

Documents,/k=":c{enter}{F3}\doc{enter}{F7}{enter}"

The **:** displays the disk drive prompt, and **c**{**enter**} changes to drive C. At this point, the directory path prompt is on the screen. {**F3**} clears the displayed path and **\doc**{**enter**} changes the directory to \DOC. {**F7**} chooses the Sort function, and {**enter**} accepts the default sort order.

Notice that the names of certain keys are enclosed in curly brackets ({ }). The function keys are {F1} through {F10}, the ↵ key is {enter}, and **Esc** is {esc}. (You can use either uppercase or lowercase letters.)

/**f**= tells ProFinder to place the highlighting at the specified filename. For example, **pf ~d ~p /f=~f ~e** would start ProFinder, change to the same directory, and highlight the same filename as when you chose the menu option.

/m= tells ProFinder to close the menu and then display the menu in the file named after the equal sign. For example, the Quit line in the menu reads:

```
Quit,/m=quitmenu.pf
```

This command displays the menu in the QUITMENU.PF file, which is shown below. It works just like USERMENU.PF. It is supplied with ProFinder as an example of a submenu you can construct.

```
>Exit to:
Current directory,/k="{F8}"
Initial directory,/k="{ESC}"
Resume,/k=""
```

The first menu line, Current directory, sends ProFinder the **F8** command, and you exit to the directory of the current file list. The second line sends ProFinder the **Esc** keystroke, and you exit to the directory where you started ProFinder. The last menu line, Resume, sends ProFinder no keystrokes, and you return to the ProFinder file list.

You can construct as many levels of submenus as you like, as long as the main menu is named USERMENU.PF.

Tips for Advanced Users

ProFinder is great for creating and working with a list of files. Here are a few tips you may find useful:

- Need to create a batch file to do something with several files? Tag the files, then choose **F4** (Files) and choose **Write filenames**. Give the filename you want for your batch file and give a prefix or suffix (or both) to put commands or other information into your batch file. For example, to create a batch file to copy a group of files to a floppy disk, use the prefix **copy** and the suffix **a:**. The resulting batch file might look like this:

  ```
  copy file1.ext a:
  copy file2.ext a:
  copy file3.ext a:
  ```

- Here's another way to mark a group of files. Place an identifying tag in the file title of each file; for example, make sure each file title contains the characters **#1**. Then, whenever you want to do something with these files, press **F2** (Locate) and choose **Find files by title**. Specify **#1** as the text to locate. The new file list will include only this group of files, and you can copy, move, or do another operation with them.
- It's easy to back up your files to floppy disks. First, tag all the files you want to back up. (Use **F3** or **File tag by wild card** on the **F4** Files Menu.) Then press **F4**, choose **Copy**, and name your floppy disk drive. ProFinder copies the files. When the floppy disk is full, copying automatically pauses to let you insert another disk.

- The example below shows how a programmer can quickly locate and edit all the C source files that reference a certain procedure whose argument list has changed.

  1. To see a list of the source files, start ProFinder by typing **pf *.?** to display all the .C and .H files.
  2. To list only the source files that reference a specific procedure, press **F2** (Locate) at the file list and choose **Search files by text**. Use the name of the procedure or other identifying text as the text to locate, and run the search.
  3. To note which of these files require changes, move the highlighting to each filename in turn and press ↵ or **F5** (View). When you view each file, the cursor is on the first instance of the search text. You can scroll through each file if necessary to find if you need to change it. If you need to change the file, when you return to the file list, press **F3** to tag the filename.
  4. When you finish viewing and tagging files, move the highlighting to the first filename you tagged and press the flip hot key (the + key unless you've changed it). ProFinder starts WordStar and opens the highlighted file. (The default hot key program is WordStar; if you have changed it, you must change it back for this step to work.) Edit the file to make your changes, then save it.
  5. Choose the WordStar command to open a file. At the prompt for the file to edit, press the copy hot key (the – key unless you've changed it). ProFinder copies the next tagged filename from the file list. Edit the file, and repeat this procedure until you've edited all the tagged files. While you're editing files, you can use the flip hot key at any time to flip back to ProFinder to check something about your files, then flip back into WordStar right where you left off.

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Getting Started

Introduction

You're about to discover one of the easiest, most comprehensive outlining programs available on the market today. With PC-Outline™ by Brown Bag Software® you can quickly arrange large amounts of information into an easy-to-use structure. Once your outline structure is in place, finding the information you need is a snap.

With PC-Outline you can enter your information in any order, and the program keeps track of each piece. When you're ready to organize those pieces, PC-Outline provides an impressive list of functions to help you. Once your information is organized into an outline format, you can use PC-Outline to view or find your information in a variety of ways.

Because PC-Outline keeps track of not only the information, but also the relationships to other information, your job is made easier.

PC-Outline is more than just an outlining program. Its uses are limited only by your needs and your imagination. Here is a list of just a few of the ways you can use PC-Outline:

- To-do lists
- Project planner
- Daily scheduler
- Writing tool
- Word processor
- Procedure writing

- Class notes
- Law case preparation
- Project proposals
- Screenplay writing
- Electronic scratch pad

The chapter "Applying PC-Outline to Your Needs" illustrates some of these uses.

To use PC-Outline, you need an IBM PC or an IBM-compatible system with at least 128K of internal memory and a copy of DOS 2.0 or greater.

To install a printer see Appendix B, "Additional Printer Information." To install a monitor, see Appendix C, "Command Parameter Options."

Installing PC-Outline™ by Brown Bag® Software

Note: If your copy of PC-Outline came with WordStar 2000, you can install it as an additional feature of WordStar 2000. Follow the instructions in the "Starting" section of the WordStar 2000 documentation.

IF YOU HAVE A HARD DISK COMPUTER

This section explains how to install PC-Outline on a hard disk using either 5¼-inch or 3½-inch disks. You'll need the disk containing PC-Outline.

1. Turn on and boot your computer so that the operating system prompt (C>) is on the screen.
2. Type **md\pco** (or any other name you choose) and press ↵ to create the directory for PC-Outline.
3. Type **cd\pco** (or other directory name) and press ↵ to change to the PCO directory.
4. Insert the PC-Outline disk into your floppy disk drive.
5. Type **copy a:\*.*** (or the appropriate drive letter) and press ↵ to copy all files on the disk into the PCO directory.
6. Remove the disk from the floppy drive and store it in a safe place.

IF YOU HAVE A FLOPPY DISK COMPUTER

This section explains how to install PC-Outline on a floppy disk system using either 5¼-inch or 3½-inch disks. You'll need the disk containing PC-Outline, a copy of your DOS disk, and one blank formatted disk.

1. Insert your DOS disk in drive A and turn on and boot your computer.
2. Remove your DOS disk and insert the disk from your PC-Outline package into drive A.
3. Insert the blank formatted disk into drive B.
4. At the operating system prompt (A>), type **copy a:*.* b:** and press ↵.
5. Remove the original disk from drive A and store it in a safe place.
6. Remove the copy from drive B and use it as your working copy of PC-Outline.

Starting PC-Outline

Note: If you installed PC-Outline to run as an additional feature of WordStar 2000, choose **Additional features** at the Opening Menu. You'll see a list of programs that you installed with your word processing software. Choose **PC-OUTLINE.**

You can load PC-Outline as a non-memory-resident program or as a memory-resident program. These instructions tell you how to load PC-Outline as a non-memory-resident program. If you want to use PC-Outline as a memory-resident program, read the section following these instructions.

IF YOU HAVE A HARD DISK COMPUTER

1. Turn on the computer.
2. At the system prompt (C>), type **cd\pco** (or the name of the directory you created) and press ↵ to change to the directory containing the PC-Outline files.
3. Type **pco** and press ↵.
4. After the program is loaded, you'll see the PC-Outline Opening Menu.

IF YOU HAVE A FLOPPY DISK COMPUTER

1. Turn on and boot your computer.
2. Insert your copy of the PC-Outline disk into drive A.
3. At the operating system prompt (A>), type **pco** and press ↵.
4. After the program is loaded, you'll see the PC-Outline Opening Menu.

Loading PC-Outline as a Memory-Resident Program

When PC-Outline is loaded as a memory-resident program, it is loaded into your computer's memory once and remains there running in the background while you run other software programs. When you want to use PC-Outline, you just press a special key combination, and PC-Outline will be displayed right in the middle of your other application program.

Note: If you plan to run the memory-resident version of PC-Outline, load PC-Outline before you start up your word processing software. You may want to add the PC-Outline loading command line to your AUTOEXEC.BAT file, if you use one.

To load PC-Outline as a memory-resident program, follow the start-up instructions above for your type of computer, with one exception. At the operating system prompt, type **pco/r** instead of just **pco**.

This loads the program into memory and displays a short message on your screen. You then return to the operating system prompt.

Once PC-Outline is loaded as memory resident, you can activate it at any time from any program by pressing ^\ (**Ctrl-Backslash**). When you quit PC-Outline, you'll be returned to whatever you were doing before you invoked PC-Outline. You can move quickly back and forth between your program and PC-Outline by pressing ^\ at any time.

Note: Sometimes when you press ^\ it doesn't work. When this happens, press ↵.

TIP *If you want to change ^\ to another shortcut keystroke, use the KEYSET.COM utility program provided on your PC-Outline disk.*

Removing PC-Outline from Memory

If you want to completely remove PC-Outline from memory, follow these steps:

1. Save all outlines.
2. Exit PC-Outline and return to your other application.
3. Exit your other application to return to the DOS prompt.

4 Load PC-Outline and position the cursor in the main editing mode where you can type into an outline (not in a menu or option box).

5 Press ^**Backspace** three times in a row. PC-Outline is removed from memory. The memory it occupied is recovered by DOS only if there were no other memory-resident programs loaded after PC-Outline.

CAUTION Don't use this command if another memory-resident program is loaded after PC-Outline.

Where to Go from Here

This manual is divided into four main chapters. Where you start depends on your level of familiarity with computers, outlining, and PC-Outline in particular.

If you're familiar with several software packages, but are new to outlining, start with the "Trying It Out" chapter. This guides you through the creation of an outline and covers all the options you'll need to make PC-Outline a useful tool.

If you're familiar with other outlining software packages but are new to PC-Outline, go directly to the "Reference" chapter. This chapter contains detailed information about every menu and function in PC-Outline.

If you're already familiar with how to use PC-Outline and you want to explore some real-life applications, start with the "Applying PC-Outline to Your Needs" chapter. This chapter will guide you through several useful applications that demonstrate many of the program's features.

Included with this manual are several sample files that are designed to be used without the manual to help demonstrate key features of PC-Outline. You can either read the manual alone, work through the manual in conjunction with the disk-based outlines, or load the disk-based outlines and experiment from there. The choice is yours.

Trying It Out

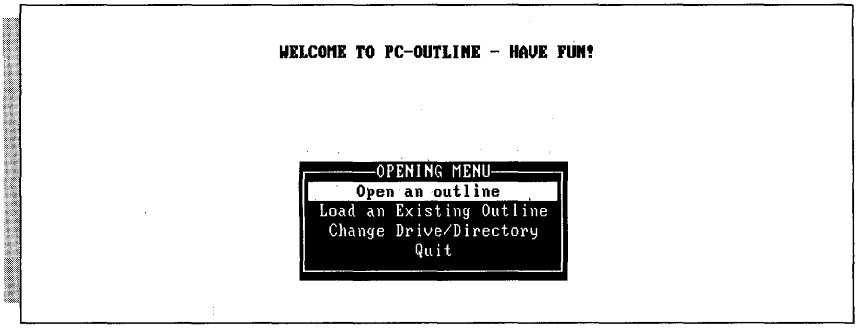
If you've installed PC-Outline properly for your computer, you're ready to try it out.

In the next few pages, you'll learn some of the basics of PC-Outline, create a new outline, work with and change the outline, and print your document.

If you haven't already done so, start PC-Outline following the directions for your type of computer shown in the previous chapter.

The Opening Menu

The first screen you see is the Opening Menu.



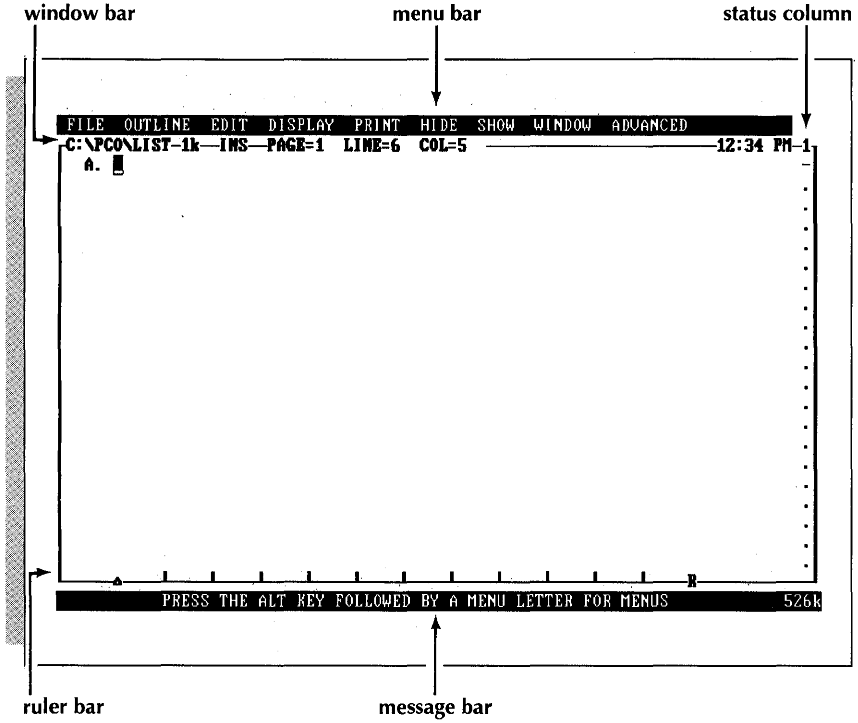
WELCOME TO PC-OUTLINE - HAVE FUN!

The command you want is the first one on the Opening Menu, **Open an Outline**. If the highlighting is not on **Open an Outline**, use ↑ or ↓ to move the highlighting to it. Press ↵ to choose this command.

The PCO File screen then appears. Type the name of your new outline and press ↵. The filename can be any legal DOS path and/or filename *without* an extension. The extension .PCO is automatically appended to the filename you specify.

The Working Screen

After you enter a filename, the working screen is displayed. This screen is the same for all work you do with PC-Outline. See the "Reference" chapter for an explanation of the different parts of the screen.


window bar
menu bar
status column
FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
ruler bar
message bar

```
C:\PCO\LIST-1k—INS—PAGE=1 LINE=6 COL=5 ——————————12:34 PM-1
 A.
PRESS THE ALT KEY FOLLOWED BY A MENU LETTER FOR MENUS        526k
```

Typing with PC-Outline

Typing with PC-Outline is much the same as typing with a conventional word processor. Characters are inserted into your outline at the cursor location as you type them. If a line gets too long, it automatically wraps to the next line.

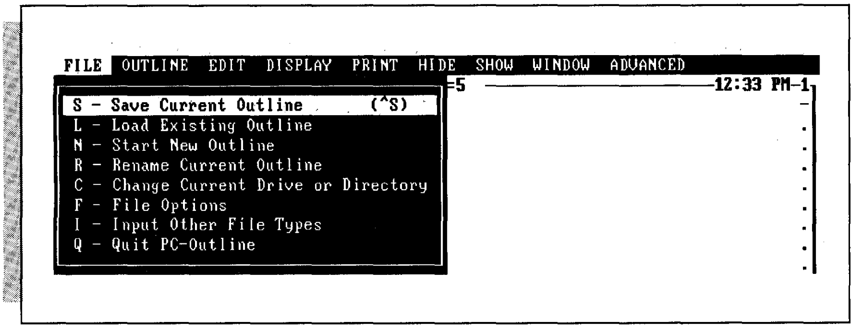
The cursor in PC-Outline is indicated by a reverse video rectangle. The cursor moves as you type, or you can move it by using special cursor movement keys located on the numeric keypad of your computer's keyboard. These keys are **PgUp**, **PgDn**, **Home**, **End**, ↑, ↓, ←, and →.

PC-Outline has several keys to help speed up editing the text of a document. A complete list of these can be found in the "Editing in PC-Outline" section of the "Reference" chapter. Two of the most commonly used editing keys are

- **Del** Deletes the character on which the cursor is currently located, including carriage returns. All other text is adjusted accordingly.
- **Backspace** Deletes the character immediately preceding the cursor, including carriage returns. All other text is adjusted accordingly.

Using Menus

The program options available in PC-Outline appear in one of the nine pull-down menus, an example of which is shown below. The title of each of these menus appears across the top line of the screen in the menu bar.


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
5
12:33 PM-1
S - Save Current Outline (^S)
L - Load Existing Outline
N - Start New Outline
R - Rename Current Outline
C - Change Current Drive or Directory
F - File Options
I - Input Other File Types
Q - Quit PC-Outline

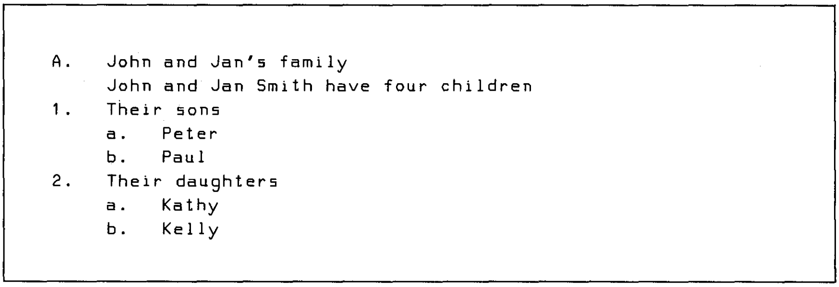
Before you create your first outline, remember these points about using menus:

- **Choosing a Menu** One way is to press the **F10** key. This displays the first menu, the File Menu. Another way is to press the **Alt** key and the first letter of the menu name simultaneously.
- **Changing Menus** To choose one of the other menus, use ← or →.
- **Choosing an Option** To choose a function on any menu, move the highlighting to your selection using ↑ or ↓ and press ↵. You can also press the letter preceding the option you want.
- **Leaving a Menu without Choosing an Option** At any time before choosing an option, you may bypass all options by pressing **Esc**. This will return you to the current outline with no changes made.
- **Shortcut Keystrokes** PC-Outline also offers a complete set of shortcut keystrokes that can accomplish many of the functions contained in the menus. These keys are displayed to the right of the function in the menus. See Appendix A, "Quick Key Reference" for a list of all the shortcut keystrokes.

For more information about using menus and screens, see the "Reference" chapter.

Terminology Used in PC-Outline

This manual and some PC-Outline function names contain special terminology to describe an outline structure. The terminology compares an outline to a family tree where each member in the family has both parents and children. An outline about a family might look something like this:



```
A.    John and Jan's family
      John and Jan Smith have four children
1.    Their sons
      a.    Peter
      b.    Paul
2.    Their daughters
      a.    Kathy
      b.    Kelly
```

The terminology you'll encounter is as follows:

- **Element or Entry** An element or entry is any single portion of an outline, for example, "John and Jan's family," "Paul," and "Their daughters."
- **Text** All text that follows the first line of an element is referred to simply as the element's text. The sentence "John and Jan Smith have four children" is the text of the element "John and Jan's family."
- **Family** Elements are arranged in families that consist of the head of the family and all of its children, grandchildren, etc.
- **Children** Children are subelements grouped under an element. The element "Their sons" is a child of "John and Jan's family," and the elements "Peter" and "Paul" are children of "Their sons."
- **Parent** Parent is the element under which all elements on a level are grouped. The element "Their daughters" is a parent of the elements "Kathy" and "Kelly." In turn, the element "John and Jan's family" is a parent of the elements "Their sons" and "Their daughters."

Creating Your First Outline

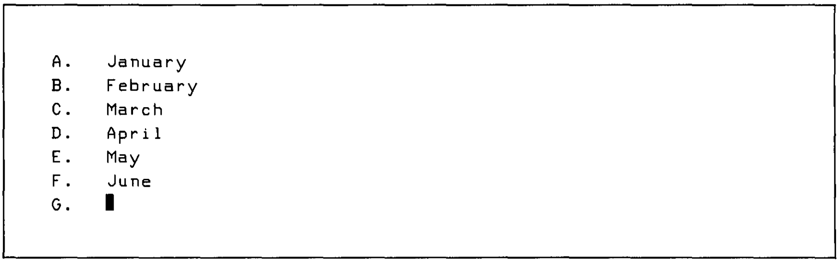
Now it's time to build your new outline. You should have a blank working screen on your monitor with "A." in the left-hand corner of the screen. Follow these steps to create the outline:

1. Type the word **January**.
2. Press the **F10** key, use the cursor keys to display the Outline Menu, and choose **Create New Outline Entry**.

3 Type **February** next to "B."

4 Continue to enter the months March through June. You can create new elements as you did in step 2 above, or you can use the shortcut keystrokes ^↵ or ^**N**. (Be sure to press ^↵ after typing the word "June.")

Your outline should now look like this:



```
A.    January
B.    February
C.    March
D.    April
E.    May
F.    June
G.    █
```

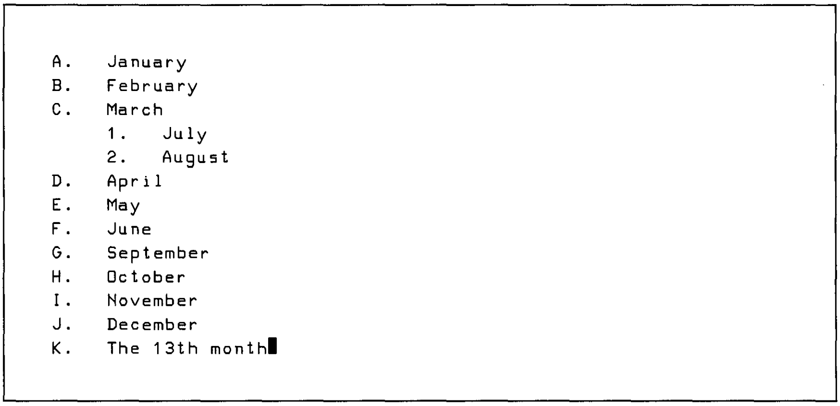
5 Use ↑ to move the cursor to the position directly below March, then press→ once. You'll notice that this creates the subelement "1."

6 Type **July** and press ^↵. Notice that a new subelement is created at the same level as 1. By using the cursor keys before you type anything into an element, you can change its level.

7 Type **August** and press ^↵.

8 Move the cursor to the position below June (G.).

9 Finish typing the outline so it looks like this:



```
A.    January
B.    February
C.    March
      1.    July
      2.    August
D.    April
E.    May
F.    June
G.    September
H.    October
I.    November
J.    December
K.    The 13th month█
```

Hiding and Showing Text and Children

PC-Outline has the ability to hide and show (unhide) various parts of the outline. Using the sample outline you've created, follow these steps:

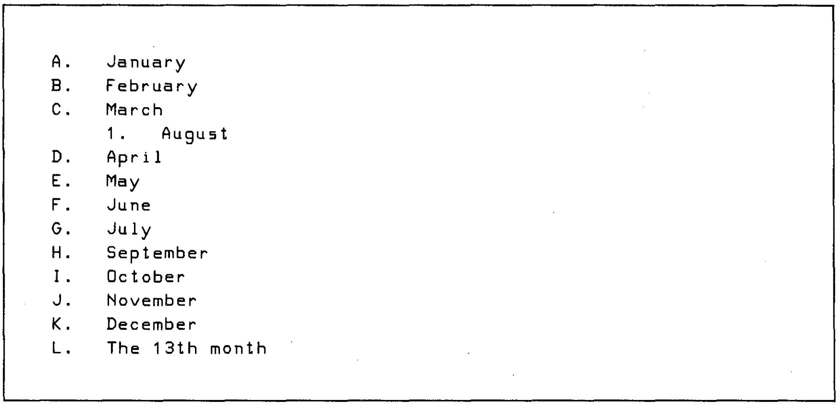
1. Move the cursor up to "March."
2. Display the Hide Menu and choose **Current Entry's Children**. Notice that "1. July" and "2. August" disappear from the screen. These elements still exist; they are just hidden until you decide to show them again.
3. You can also hide and show outline elements using the gray + key to the right of the numeric keypad. Press the gray + key twice. "1. July" and "2. August" will reappear and then disappear again.
4. Display the Show Menu and choose **Current Entry's Children**. "1. July" and "2. August" reappear.

As you can see, there are many different ways to hide and show outline elements.

Moving Elements

Since the months still aren't in order, follow these steps to rearrange them:

1. Move the cursor to "1. July" if it isn't already there.
2. Choose **Move Outline Entries** from the Outline Menu. The element number and the element itself will be highlighted.
3. Using the cursor keys, position "July" under "June." Notice that PC-Outline automatically renumbers the outline as you move the element.
4. When the element is positioned properly, press ↵. The highlighting disappears, and your outline should look like this:



```
A.   January
B.   February
C.   March
     1.   August
D.   April
E.   May
F.   June
G.   July
H.   September
I.   October
J.   November
K.   December
L.   The 13th month
```

5. Now repeat the same steps to move "August" to its proper place.

Deleting Elements

You can also delete elements that you don't want. Since there are only twelve months, eliminate the last outline entry by following these steps:

1. Move the cursor to the last line in the outline.
2. Choose **Delete Outline Entries** from the Outline Menu.
3. You will see a message asking you to confirm this deletion. This gives you a chance to change your mind since you could accidentally delete an element and all of its children with this command. Move the highlighting to "Yes" and press ↵ to delete the last line.

Printing an Outline

When you are finished creating an outline, you'll probably want to print it. To print the outline you just created, follow these steps:

1. Make sure your printer is connected to your computer, loaded with paper, turned on, and online. If you don't know how to do any of these things, refer to your printer manual.
2. If any of your outline elements are hidden, choose **All Text and Children** from the Show Menu to expose the entire outline. Parts of the outline that are hidden will not print unless you first show them on screen.
3. Choose **Go Start Printing** from the Print Menu. Your printer should respond quickly. If it doesn't, press **^Break** (this stops printing) and then repeat all of these steps.

Note: The printing in PC-Outline is designed for quick, draft printing. If you want to take advantage of more elaborate print functions, use the **Set Device for Output** function on the Print Menu. This function allows you to convert your outline to various file formats. See "Set Device for Output" in the "Using the Print Menu" section in the "Reference" chapter.

Saving an Outline

Now that you've created and printed your outline, you should save it to disk the way you'll save all the outlines that you create in the future. Choose **Save Current Outline** from the File Menu to save your outline. For more information about this function, see the "Reference" chapter.

Quitting PC-Outline

When you're finished using PC-Outline and have saved all work you want to keep, choose **Quit PC-Outline** from the File Menu.

Once your work is saved, you'll be returned to the operating system prompt or to the other program that was running when you started PC-Outline.

TIP *Remember that you can also return to your other program by pressing* ^\.

What's Next?

At this point, you know everything necessary to use PC-Outline. Try creating several outlines that you find useful. If you run into trouble, refer to this chapter or read about a particular function in the "Reference" chapter.

Once you're comfortable with PC-Outline, move on to the "Applying PC-Outline To Your Needs" chapter. This chapter contains several applications designed to demonstrate new uses for PC-Outline. See if some of these meet *your* needs.

Reference

The first few pages of this chapter tell you how to use the menu system and how to enter necessary information. The second part describes the functions that appear on each menu.

Using the Menus and Screens

The next few pages explain the methods and options for using the menus and screens in PC-Outline.

Choosing a Menu

You can use two methods to choose a menu:

- One way is to press the **F10** key. This displays the first menu, the File Menu. From the File Menu, you can use ← and → to move from one menu to another. To choose a function from a menu, use ↑ and ↓ to move the highlighting to that function and press ↵.
- Another quick way to display a menu is to press the **Alt** key in combination with the first letter of the menu you want. For example, to display the Window Menu, press **Alt-W**.

Choosing a Function from a Menu

Once you're in a menu, you can use one of these two methods to choose an item:

- Use ↑ and ↓ to move the highlighting to the function you want and press ↵.
- Press the letter preceding the function you want.

You can also select a function directly from the working screen by pressing the **Alt** key with the menu and function letters. For example, press **Alt-FS** to choose **Save Current Outline** from the File Menu.

Leaving a Menu without Choosing an Option

At any time before choosing a function from a menu, you may bypass all options by pressing the **Esc** key. This returns you to the current window without making any changes.

Shortcut Keys

Many of the more common menu options also have shortcut keystrokes that complete the same function. These keystrokes are listed to the right of the option shown on the menu. For example, the shortcut for the **Current Paragraph Style** function on the Display Menu is **^T**.

TIP *You can add shortcut keys or change the existing ones using the built-in macro facilities. For more information, see "Key Definition" in the "Using the Advanced Menu" section of this chapter. For a complete list of original key assignments, see Appendix A, "Quick Key Reference."*

Option Boxes

Some menu selections lead to an option box from which you may change several program settings at once. All of these boxes work the same way:

- To move from one setting to another, use ↑ and ↓.
- To change a setting, put the cursor on the desired option. The message bar (the bottom line of the screen) indicates what you should do to change the current option. There are three types of options:

  Choices Using → or the **Spacebar**, cycle through the predefined choices for this particular option. Use ← to cycle through the choices in reverse order. You can also press the first letter of the desired option to choose it directly.

  Numbers Enter the new number by typing it over the existing number. If you hear a beep when you try to leave a number option, it is because you entered an invalid number.

  Text Enter the appropriate new text.

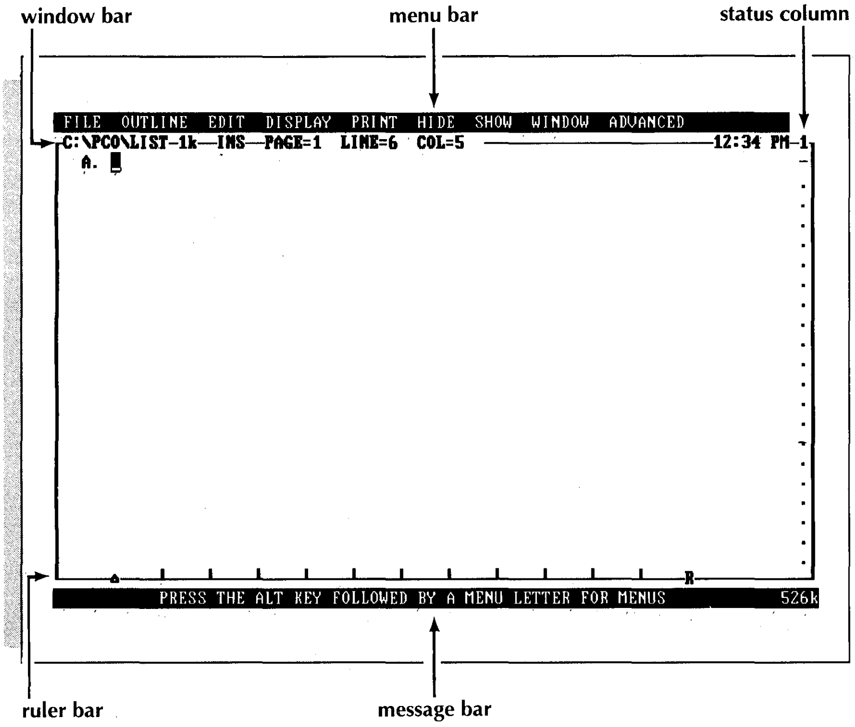
- To confirm a new setting, simply move to another option or press ↵ if you're finished with all options. If you move to another option, an arrow appears beside the setting to indicate that it has been changed.
- To avoid changing a setting, press **Esc** or ↵ before you move to a new setting.
- To save your changes to the program start-up file so they will be active the next time you start PC-Outline, press **F10**.
- To exit an option box, press ↵.

Specifying Ranges

Many of PC-Outline's functions require that you specify a range, or portion of the outline, for use with the function. For example, the **Copy Block** function requires that you mark the range of text to be copied. To specify the range, position the cursor at one end of the range and then choose the function you want. The range begins at the location of the cursor when the function is chosen. To extend this range, use the standard cursor movement keys (↑, ↓, **PgUp**, **PgDn**, etc.). The range you define is always highlighted.

If you decide you want to cancel the currently selected function while marking the range, just press **Esc**. When you're finished specifying the range, press ↵ to complete the operation.

The Working Screen



```
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5 ————————————12:34 PM-1
A.
PRESS THE ALT KEY FOLLOWED BY A MENU LETTER FOR MENUS        526k
```

The screen shown here will be the same for all work you do with PC-Outline. The important parts of this screen are as follows:

- **The Menu Bar** This is the top line of the screen. Each of the words you see is the title of a menu. To view these menus, see "Choosing a Menu."

- **The Window Bar** This is the line immediately below the menu bar. This line contains information about the current window: the complete DOS path and filename for this outline, the size of the outline in bytes, the insert or overstrike mode indicator, the cursor position, the system clock time, and the window number.

  Note: On some IBM-compatible systems, the time may not be the same as your system time. If this is the case, you must run the program GOODCLK.COM each time you boot your computer before you run PC-Outline.
- **The Status Column** This is the column on the right, just inside the window border. This column can contain the following symbols: (1) a highlighted down arrow directly across from the bottom of an element indicates that there are hidden children of this element, (2) a dash means there are no children, and (3) a highlighted dash means that there is hidden text.
- **The Ruler Bar** This line is located just above the message bar at the bottom of the screen. The ruler bar shows the margins, tab stops, and cursor position.
- **The Message Bar** This line appears at the bottom of the screen and contains helpful information about what you are currently doing. If you get stuck, look at this line for help.

Editing in PC-Outline

PC-Outline has just one editing mode, whether you're editing text or your outline structure. There are different keystrokes available to edit text and outlines.

Editing Text

Use the following keys to edit text in PC-Outline:

KEYS	FUNCTION
↑ ↓ ←→	Move through text like word processor
Shift-→	Deletes word to the right
Shift-←	Deletes word to the left
^→	Moves cursor to right one word
^←	Moves cursor to left one word
^Home **Shift-Home**	Move cursor to beginning of outline
^End **Shift-End**	Move cursor to end of outline
^Y	Deletes text line
Shift-Del	Deletes to end of line

Editing Outlines

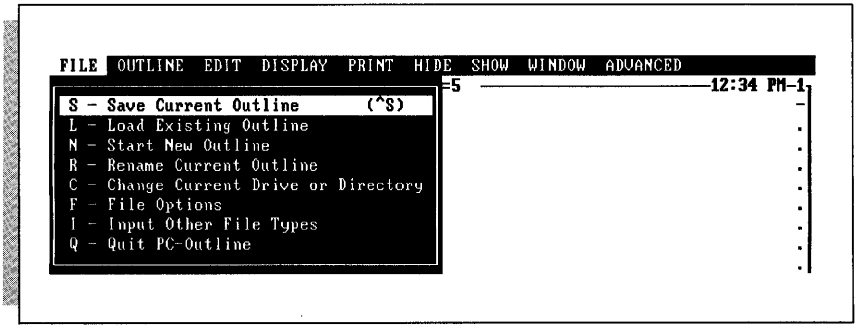
Use the following keys to edit the outline structure in PC-Outline:

KEYS	FUNCTION
↑ ↓	Move a family being moved with ^**M** or an empty inserted heading up or down from heading to heading
Shift-↑	Moves cursor up from heading to heading on the same (if it exists) or higher level
Shift-↓	Moves cursor down from heading to heading on the same (if it exists) or higher level
Shift-PgUp **Shift-PgDn**	Move cursor up or down from paragraph to paragraph
^PgUp	Moves cursor up to parent heading
^↵ **or** ^ **N**	Create entry at same level. Immediately press ← or → to change the entry level.

See Appendix A, "Quick Key Reference," for a complete list of all editing and shortcut keystrokes.

Using the File Menu

The File Menu contains the following functions:


FILE
OUTLINE
EDIT
DISPLAY
PRINT
HIDE
SHOW
WINDOW
ADVANCED
5
12:34 PM-1
S - Save Current Outline (^S)
L - Load Existing Outline
N - Start New Outline
R - Rename Current Outline
C - Change Current Drive or Directory
F - File Options
I - Input Other File Types
Q - Quit PC-Outline

Save Current Outline (^S)

This function saves the current outline under the filename displayed in the upper left corner of the window bar. The filename extension .PCO is added to the name.

Each time you save a file, PC-Outline saves the previous version as a backup file and gives the backup filename a .BAK extension. To recover a backup version, rename it to change its extension from .BAK to .PCO.

T I P *The automatic backup feature can be turned off using the* ***Configuration Settings*** *option on the Advanced Menu.*

Load Existing Outline

Use this function to load a file into the current window from a list of all outlines in the current directory. This function replaces the contents of the current window.

If there are no outline files in the directory, you will be prompted automatically for a new filename (see "Start New Outline").

T I P *The list of files is sorted in date and time order, the newest files first. If you set the DOS time and date correctly, you will find the outlines you worked on most recently are the first ones in the list.*

Start New Outline

Use this function to create a new outline in the current window. The contents of the current window are replaced with the new outline. You can enter just a DOS filename or a complete path and filename, but *do not* enter a filename extension.

B: Space Filename

If the filename you type does not exist, a new blank outline is created in the current window. If the file does exist, it is loaded from disk.

Rename Current Outline

Use this function to rename the outline in the current window.

To save an outline to a disk drive other than the default drive, simply rename the outline by specifying the new drive with the same filename.

Change Current Drive or Directory

Use this function to specify a new default drive or directory name. You may specify just the new drive, for example, **C:**, or a complete directory path name, for example, **C:\OUTLINE\TODO**.

Outlines in existing windows are still saved to the directory from which they were loaded regardless of the current default directory. To save them to a different location, use the **Rename Current Outline** function.

Note: You can always start from the same directory by specifying the directory name using the **Configuration Settings** function on the Advanced Menu. If no value is specified, the starting current directory will be set to the DOS current directory when PC-Outline is loaded.

File Options

This function displays a submenu of options for directory maintenance.

Pick a Subdirectory

Use this function to choose a new current directory from a list of the subdirectories in the current directory.

Set Parent Directory

Use this function to make the current directory be the directory above the current directory in the directory tree.

Create New Subdirectory

Use this function to create a new subdirectory in the current directory.

Erase an Outline

Use this function to delete an outline from the current directory. You must confirm your choice.

Input Other File Types

Use this function to read other files into an outline in PC-Outline.

Read In an ASCII File

This function inserts the contents of the ASCII file you specify at the cursor position in the current window.

Read In a WordStar Professional 4.0 File

This function inserts the contents of the WordStar Professional 4.0 file you specify at the cursor position in the current window.

Read In a Structured File

This function inserts the contents of the file you specify at the cursor position in the current window. This type of file is compatible with ThinkTank™ and Ready!™ and contains outline structure.

To transfer information from another PC-Outline file, ThinkTank, or Ready! to PC-Outline, save an outline in ThinkTank to structured format (or just save an outline normally in Ready!), create a blank outline in PC-Outline, and then read the file into the blank outline with this function.

Note: If you want to read in a PC-Outline file, first write the file to a structured format using **Set Device for Output** at the Print Menu. Then read in the structured file using **Input Other File Types** as described here.

Read In a WordStar Classic 5.0 File

This function inserts the contents of the WordStar Classic Release 5.0 file you specify at the cursor position in the current window.

TIP *The structured file format has several other uses because it is both an ASCII format and it maintains the outline format. One way to check spelling in an outline is to write it to a structured file format (see "Set Device For Output" in the "Using the Print Menu" section), check the spelling, and then read the corrected file back into PC-Outline. Because the normal outline file format is not ASCII, it cannot be checked for spelling directly.*

Read In a WordStar 2000 File

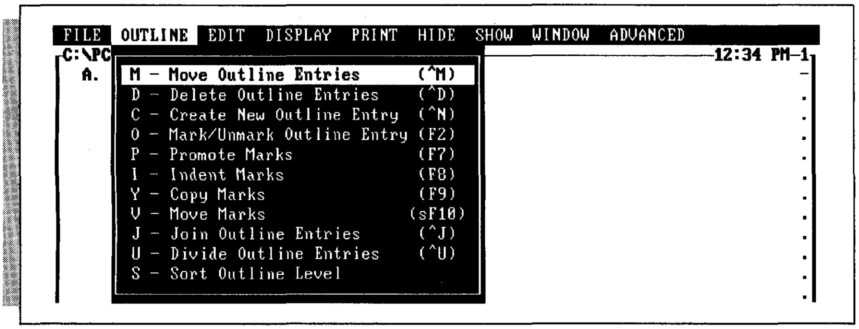
This function inserts the contents of the WordStar 2000 file you specify at the cursor position in the current window.

Quit PC-Outline

Use this function to exit PC-Outline. In the memory-resident version, this function just returns you to the application that was active when you started PC-Outline. You can also leave the memory-resident version of PC-Outline by pressing ^\.

Using the Outline Menu

The Outline Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PC
12:34 PM-1
A.
M - Move Outline Entries (^M)
D - Delete Outline Entries (^D)
C - Create New Outline Entry (^N)
O - Mark/Unmark Outline Entry (F2)
P - Promote Marks (F7)
I - Indent Marks (F8)
Y - Copy Marks (F9)
V - Move Marks (sF10)
J - Join Outline Entries (^J)
U - Divide Outline Entries (^U)
S - Sort Outline Level

Move Outline Entries (^M)

Use this function to move the current element and all of its children to a new location in the outline. After selecting the function, you will be prompted to move the entry to a new location with the cursor keys. When the element moves, the outline numbering is automatically adjusted to reflect its new location.

Note: When you start this function, the children and text of the element are temporarily hidden to give you a clear view of where you are moving the outline family.

TIP *To move a number of outline elements all at once, use the* ***Mark/Unmark Outline Entry*** *and* ***Move Marks*** *commands also located on the Outline Menu.*

Delete Outline Entries (^D)

Use this function to delete an outline entry and all of its children.

Note: You'll be prompted for confirmation before the entry is actually deleted. If you don't want to be prompted for confirmation, you can start PC-Outline with the **/p** command parameter. See Appendix C, "Command Parameter Options," for more information.

Create New Outline Entry (^↵ or ^N)

Use this function to create a new outline element after the current element at the same outline level.

After you've created the element, but before you've typed anything into it, you can move the element to a new location using the ←, →, ↑ or ↓ keys. Pressing any other key cancels this movement mode. For example, to create a new outline element that is a child of the current element, press ^↵ or ^ N and then press → to indent the new entry to the next level.

Mark/Unmark Outline Entry 2

Use this function to mark or unmark an element and all of its children. Once an element is marked, you can promote, indent, copy, or move it using one of the other Outline Menu commands.

Marking an element marks the entire outline family, and you can mark several elements before you actually perform some movement activity. You are not allowed to mark or unmark any children of a marked entry because they are already marked by virtue of their parent being marked.

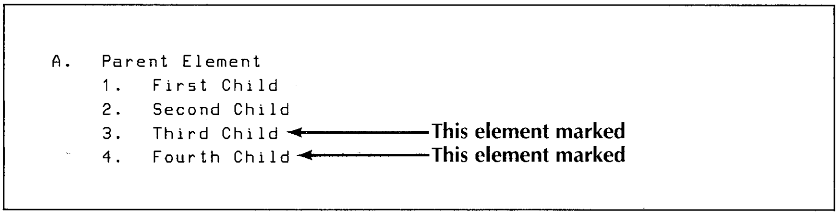
To unmark a marked entry, position the cursor at the top of the marked family and repeat this function.

Promote Marks (F7)

Use this function to move all marked outline elements one outline level to the left.

EXAMPLE

Before promoting marks:



```
A.   Parent Element
     1.   First Child
     2.   Second Child
     3.   Third Child ◄———————— This element marked
     4.   Fourth Child ◄———————— This element marked
```

After promoting marks:

```
A.   Parent Element
     1.   First Child
     2.   Second Child
     B.   Third Child◄————————This element promoted
     C.   Fourth Child◄———————This element promoted
```

Note: Only the last element on a level or a series of last outline elements on a level can be promoted. If you are trying to promote an illegal entry, PC-Outline ignores the command.

TIP *To promote an element in the middle of a level, you must first indent all the elements on the same level.*

Indent Marks (F8)

Use this function to move all marked outline elements one outline level to the right.

EXAMPLE

Before indenting marks:

```
A.   Parent Element
     1.   First Child
     2.   Second Child
     3.   Third Child◄————————This element marked
     4.   Fourth Child◄———————This element marked
```

After indenting marks:

```
A.   Parent Element
     1.   First Child
     2.   Second Child
          a.   Third Child◄———This element indented
          b.   Fourth Child◄——This element indented
```

All elements but the first one on a level may be indented. If you are trying to indent an illegal entry, PC-Outline ignores the command.

Copy Marks (F9)

This function copies all marked outline entries to the location following the current element at the same outline level. **Copy Marks** is useful for duplicating a series of outline entries several places in the outline.

Note: You cannot use **Copy Marks** to copy outline entries to a location within a currently marked family. This prohibits you from copying an outline family to the position immediately after a marked family. To accomplish this task, simply copy it before the marked family. If you just want to duplicate the marked element, the order will not matter (they are duplicates of each other). If you want to copy it after a marked element that isn't the same, copy the original to a location before the location you want, and then move it to the location you want using **Move Outline Entries**.

Move Marks (Shift-F10)

This function moves all marked outline entries to the location immediately following the current element at the same outline level.

Note: You cannot use **Move Marks** to move outline entries to a location within a currently marked family.

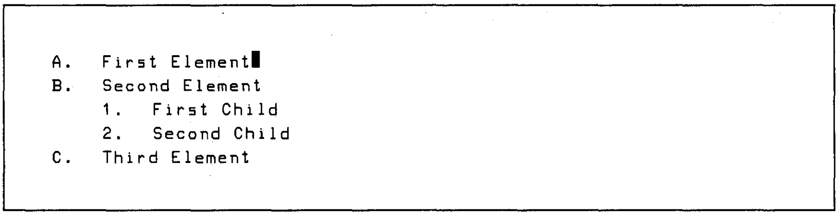
TIP Move Marks *is useful as an information-gathering function. You can browse through your outline, marking all the elements that you want to gather at a new location, and then move them to the new location with one keystroke.*

Join Outline Entries (^J)

This function joins the current element to the next sequential outline element at the same level to form one new element.

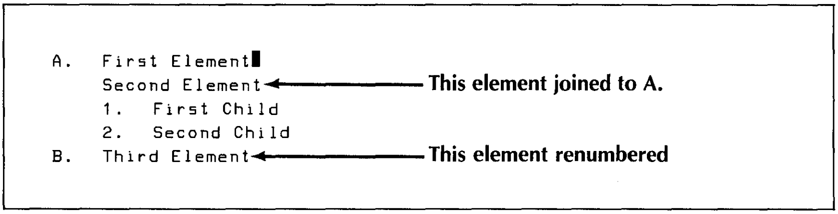
EXAMPLE

Before joining elements A. and B.:



```
A.   First Element█
B.   Second Element
     1.   First Child
     2.   Second Child
C.   Third Element
```

After joining elements A. and B.:



```
A.   First Element█
     Second Element
     1.   First Child
     2.   Second Child
B.   Third Element
```

This element joined to A.
This element renumbered

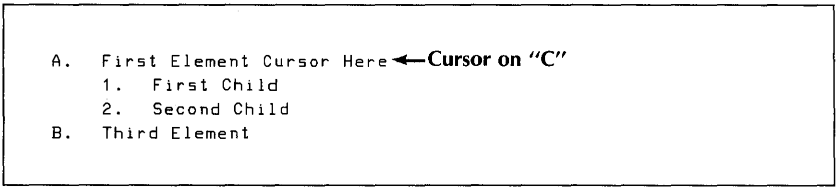
Note: The **Join Outline Entries** function works only when two sequential elements are on the same level and the first element does not have any children.

Divide Outline Entries (^U)

This function divides one outline element into two elements. Any children of the original element are reassigned to the new element.

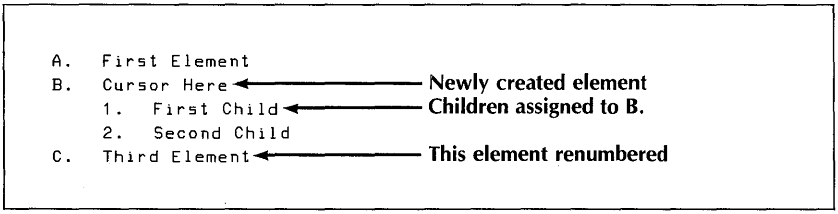
EXAMPLE

Before element A. is divided:



```
A.   First Element Cursor Here
     1.   First Child
     2.   Second Child
B.   Third Element
```

After element A. is divided:



```
A.   First Element
B.   Cursor Here
     1.   First Child
     2.   Second Child
C.   Third Element
```

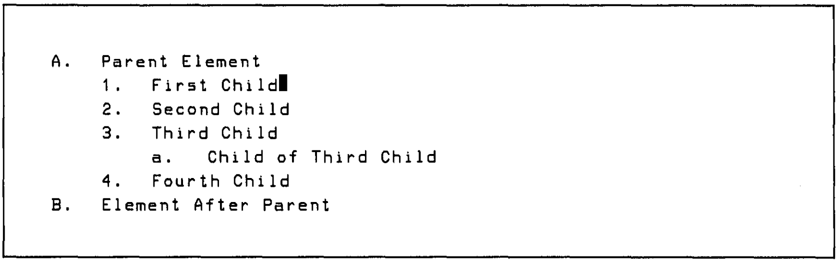
Newly created element
Children assigned to B.
This element renumbered

Sort Outline Level

Use this function to sort all outline elements in one family on one particular level of the outline. For example, a sort of the following outline with the cursor positioned as shown would sort the elements First, Second, Third, and Fourth Child.

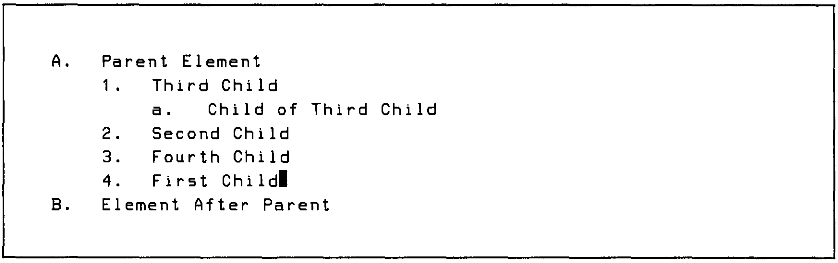
EXAMPLE

Before sorting:



```
A.   Parent Element
     1.   First Child█
     2.   Second Child
     3.   Third Child
          a.   Child of Third Child
     4.   Fourth Child
B.   Element After Parent
```

After a decreasing order sort:



```
A.   Parent Element
     1.   Third Child
          a.   Child of Third Child
     2.   Second Child
     3.   Fourth Child
     4.   First Child█
B.   Element After Parent
```

Note: When an outline level is sorted, the children of each element remain attached to it and move along with it in the sort.

Sorts are controlled by the following settings:

- **Sort Direction** Can be either increasing or decreasing order.
- **Type of Sort** Can be either (1) Dictionary order: punctuation, numbers, letters (without regard to uppercase/lowercase), blanks; or (2) Pure ASCII order: blanks, punctuation, numbers, uppercase letters, lowercase letters.
- **Field Number to Sort** Can be 0 through 9.

A field begins immediately after a colon. For example, there are three fields in the outline in the example below. The 0 field starts at the beginning of each outline entry, and each new field begins after a colon.

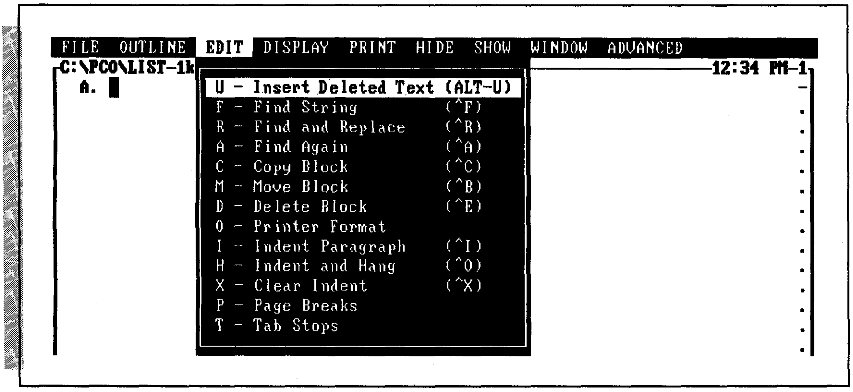
EXAMPLE

```
A.  Parent Element                         (Field #1)   (field #2)
    1.  First Child                        :Name1       :Address1
    2.  Second Child                       :Name2       :Address2
    3.  Third Child                        :Name3       :Address3
        a.  Child of Third Child
    4.  Fourth Child                       :Name4       :Address4
```

If you sort by the Field 1, the sort is done based on the characters following the first colon. When fields are used to their best advantage, they can give PC-Outline some simple database capabilities.

Using the Edit Menu

The Edit Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k
12:34 PM-1
A.
U - Insert Deleted Text (ALT-U)
F - Find String (^F)
R - Find and Replace (^R)
A - Find Again (^A)
C - Copy Block (^C)
M - Move Block (^B)
D - Delete Block (^E)
O - Printer Format
I - Indent Paragraph (^I)
H - Indent and Hang (^O)
X - Clear Indent (^X)
P - Page Breaks
T - Tab Stops

Insert Deleted Text (Alt-U)

Use this function to restore the last characters you erased or deleted. You can undo the deletion if you used commands to delete a block, a word, a line, or the rest of the line.

Find String (^F)

Use this function to search an outline for the first occurrence of any word or phrase (string) you specify. There are three settings that control a search:

- **Search for what string?** Type the exact string to be searched for. A **?** may be used as a wild-card character to match any character. For example, if you want to find all occurrences of either "play" or "pray," you could search for "p?ay." Do not put a **?** at the beginning of a search word because the first character matches everything and will significantly slow down the search.
- **Force case to be the same?** A "Yes" answer finds a match only if capitalization matches perfectly; a "No" answer finds a match regardless of capitalization.
- **Search scope?** Choose **Only ON entries** to search only the portions of the outline that are not hidden. Choose **All entries** to search the entire outline and unhide any parts where a match is found.

Searches are circular. If you start the search near the end of the outline and no matches are found, the search will continue at the beginning of the outline. If no matches are found on a search, you will just hear a beep.

Find and Replace (^R)

This function works exactly the same as the **Find String** function except that it allows you to replace the matching string with another string. Use these three settings, plus those described for **Find String**, to control this function:

- **Replace with what string?** Type the exact string you want as a replacement for the matched string.
- **Ask before replacing?** Specify whether you want to be prompted for confirmation before each replacement.
- **All Occurrences?** Specify whether you want to replace all matches or just the next match.

Find Again (^A)

Use this function to find the next match of the last string specified with **Find String** during this session.

Note: The **Find Again** function uses the same settings you selected for the original **Find String** operation.

TIP *This function is useful for moving around in the outline. For example, you could mark a number of places in your outline with four asterisks (****). You could then search for "****" and use the **Find Again** function to move from one place to the next.*

Copy Block (^C)

Use this function to copy a block of text (not outline structure) from one outline location to another. Follow these steps to copy a block of text:

1. Position the cursor at the start or end of the block of text you want to copy.
2. Choose **Copy Block** from the Edit Menu or press **^C**.
3. Position the cursor at the other end of the block (the text between the two ends will be highlighted).
4. Press ↵ to finish marking the block.
5. Position the cursor where you want the marked text copied. You can switch windows with the **Alt-#** command if you want to copy text to another window.
6. Press ↵ to complete the copy.

Note: The **Copy Block** function works on text only. A marked block may span outline boundaries, but outline structure is not copied, only the text in each outline entry.

Move Block (^B)

This function works just like **Copy Block** except the text is moved instead of copied (the original copy of the text is deleted after the new copy is inserted).

Delete Block (^E)

This function works the same as the **Move Block** and **Copy Block** functions except that the block is deleted instead of copied or moved.

If any outline elements are left empty after a **Delete Block** (and they don't have any children or their children are also empty), they are deleted from the outline structure.

Printer Format

This function allows you to make use of your printer's special features like boldface, underline, italics, etc., by inserting codes into your outline that instruct your printer where to start one of these special features and where to end it. These are the settings to use:

FUNCTION NAME	FUNCTION KEY
Underline On	**^F1**
Underline Off	**^F2**
Boldface On	**^F3**
Boldface Off	**^F4**
Italics On	**^F5**
Italics Off	**^F6**

FUNCTION NAME	FUNCTION KEY
Superscript On	**Shift-F7**
Superscript Off	**Shift-F8**
Subscript On	**^F7**
Subscript Off	**^F8**
Double Strike On	**Shift-F5**
Double Strike Off	**Shift-F6**

To use one of these features, position the cursor first at the beginning and then at the end of where you want it to take effect, and either choose the appropriate menu option or press the function key combination you want.

The codes appear in one of three ways in your outline:

- If the cursor is positioned over the character where the code was inserted, the bottom line of the screen tells you what the code is (for example, "BOLDFACE ON").
- If the cursor is not positioned over the character and printer code display is turned off, the character where the printer code is inserted appears in a different intensity than the rest of the text. (See also "Printer Code Display" in the "Using the Print Menu" section.)
- If the printer code display is turned on, the printer code is displayed as a graphics character. You can then edit the graphics character just like any other character. Graphics characters pointing to the right mean a print feature is on, and graphics characters pointing to the left mean a print feature is off.

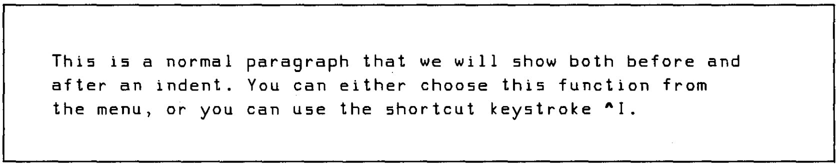
TIP *The best approach is to turn on the display so you can then edit the codes as if they were normal characters.*

Indent Paragraph (^I)

Use this function to move the left margin of the current paragraph to the next tab stop.

EXAMPLE

Before indenting:



```
This is a normal paragraph that we will show both before and
after an indent. You can either choose this function from
the menu, or you can use the shortcut keystroke ^I.
```

After indenting:

```
     This is a normal paragraph that we will show both before
     and after an indent. You can either choose this function
     from the menu, or you can use the shortcut keystroke ^I.
```

Repeat this function to indent more than one tab stop. If you want to indent a number of paragraphs at once, use **Range Paragraph Style** on the Display Menu.

This function can be undone with **Clear Indent** (^X).

Indent and Hang (^O)

This function works exactly like the **Indent Paragraph** function except that the first line of the paragraph is not indented. This is useful for creating hanging indents as shown below.

EXAMPLE

These next two paragraphs contain examples of hanging indents:

```
This paragraph and the one below both contain hanging indents.
     The first line has a left margin of 1 while the rest of
     the lines have a left margin of 6.

1) This is also a type of hanging indent. The first line is
     not indented so we can type the number where we want it,
     but the rest of the lines are indented to give this
     effect.
```

TIP *You can undo a hanging indent by choosing* ***Current Paragraph Style*** *from the Display Menu and setting First Line Alignment back to SAME AS REST OF PARAGRAPH and the Left Margin back to 1.*

Clear Indent (^X)

Use this function to undo an **Indent Paragraph** command and set the left margin back to 1.

Page Breaks

This function allows you to insert two types of page break controls into your outline to divide it into separate pages during printing.

Hard Page Break

A hard page break instructs PC-Outline to start a new page wherever you insert the break. To insert a hard page break, choose this function and type **.P**.

A page break appears in your outline in one of three ways:

- Whenever you position the cursor anywhere in the line where a hard page break is located, a ".P" is displayed on the bottom line of the screen.
- If the page break is not located on an empty line, the page break location is displayed in reverse video.
- The left-hand column of the screen always contains a square bullet (or quad) on the line where the page break is located.

To delete a page break, position the cursor exactly on the location where you inserted it, choose the **Page Break** function, delete the ".P", and press ↵.

Conditional Page Break

A conditional page break allows you to specify that a certain number of lines of text must stay together on one page. If the lines won't all fit together at the end of the current page, a new page will be started before them and all the lines will appear together on the top of the next page.

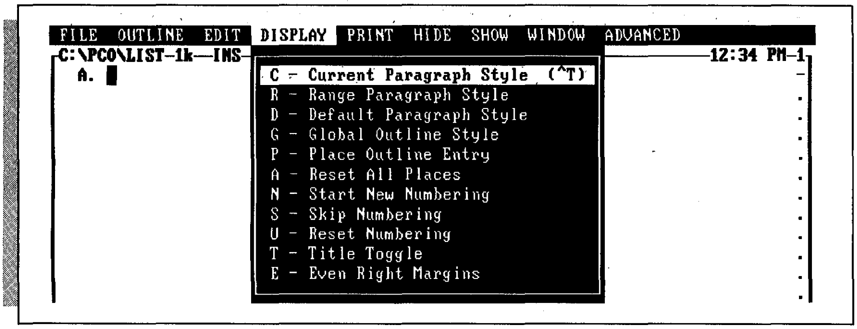
To insert a conditional page break, position the cursor at the top of the range to keep together, choose the **Page Break** function, and type **.C *n*** (*n* is the number of lines to keep together).

Tab Stops

Use this function to set tab stops wherever you want. Move the cursor along the ruler line when it appears, and set or clear tab stops where you want them. The ruler is saved with your outline and affects the entire outline. There is only one ruler per outline.

Using the Display Menu

The Display Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS
12:34 PM-1
A.
C - Current Paragraph Style (^T)
R - Range Paragraph Style
D - Default Paragraph Style
G - Global Outline Style
P - Place Outline Entry
A - Reset All Places
N - Start New Numbering
S - Skip Numbering
U - Reset Numbering
T - Title Toggle
E - Even Right Margins

Current Paragraph Style (^T)

Use this function to control the format of the current paragraph. These optional five settings appear in the Current Paragraph Style option box:

- **Paragraph Alignment** Choose one of these four options to control the paragraph alignment:

  Left Aligned: Left edge even, right edge ragged.

  Justified: Left and right edges even. Extra spaces are inserted between words to align justified paragraphs.

  Centered: Left and right edges ragged. Extra spaces are added before and after the line to center it between the margins.

  Right Aligned: Left edge ragged, right edge even.
- **First Line Alignment** Controls the left margin setting for the first line of a paragraph. Choose one of these two options: (1) keep the first line the same as the rest of the paragraph, or (2) make the first line flush left.
- **Left Margin** Controls the starting left column for each paragraph. Left margin values are always relative to the start of the outline entry. For example, a left margin of 1 always starts in the first column of the outline entry regardless of how far indented the outline entry is. If the outline entry is indented 12 spaces, a left margin of 1 starts in column 13 (12+1).
- **Right Margin** Allows you to change the right margin. Like the left margin, the right margin is relative to the start of the outline entry. For example, a right margin of 65 in an outline element that is indented 12 spaces is actually in column 77 (12+65).

See "Even Right Margins" for a discussion on how to set the right margin to an absolute column (instead of a relative column as described above). See "Range Paragraph Style" for a discussion on how to set several paragraphs all to the same format.

- **Make Default Settings** Use this function to make the default paragraph settings the same as the current paragraph settings. This setting is an easy way to change the default settings and works just like the **Default Paragraph Style** function.

*TIP When you first start a new outline, choose **Current Paragraph Style** and set the margins you want for the current document. Then answer "Yes" to this question, and all subsequent paragraphs will get the new format.*

Range Paragraph Style

This function works just like the **Current Paragraph Style** function except that it prompts you to mark a range and modifies the paragraph format for the entire range.

The settings in the Range Paragraph Style option box are identical to those in the Current Paragraph Style option box except that this function does not include the default settings choice. See the previous discussion on "Current Paragraph Style" for a description of each setting.

Note: Only the settings that you actually change (marked with an arrowhead) will be applied to the range. If you want a setting that is already correct to be applied to the range, you must reenter the setting. For example, if the right margin already says 70 and you want it to be 70, you *must* reenter the 70 before it will work properly.

Default Paragraph Style

This function controls the format of all future paragraphs created whenever you press the ↵ key. The settings are the same as those for **Range Paragraph Style** and **Current Paragraph Style**. See those previous sections for a discussion of the settings.

Pressing **F10** in this option box saves the current settings to the configuration file PCO.CFG so that they will be loaded automatically the next time you start PC-Outline.

Global Outline Style

This function leads to an option box that contains 20 settings that control the outline format.

Indent Per Outline Level

Use this setting to specify the number of spaces of indent per outline level. The default value is 3 spaces per level. You can change this setting to any value between 0 and 20.

Spaces For Numbering

Use this setting to specify the indent for the top outline level (the numbers for the top outline level have to fit in this number of spaces). This defaults to a value of 4. If you set it to less than 4, some of the numbers may be truncated.

TIP *Roman numerals in particular require a setting of at least 6. If you ever get a numbering sequence that looks like I, II, II, it is probably because you haven't increased the spaces for numbering to 6 and the leftmost I in III is being truncated.*

First Entry Number

This setting allows you to control the beginning number of the top level of your outline. A setting of 1 starts the top level with 1 or A or I, etc., depending on which numbering type you choose. A setting of 3 starts the top level with 3 or C or III, etc.

Note: This setting is provided in order to allow you to link the numbering styles of several outlines. For example, because each outline is limited to 64K, you could divide a very large outline into several smaller outlines and specify their first entry numbers accordingly.

Numbering Type

This setting gives you global control over the type of numbering scheme. The global options are as follows:

- **Sequential Numbering: A, 1, a,...** When you select sequential numbering, the numbering style for each level of the outline is determined by the eight levels of letters and punctuation you set. You can choose from five different letter or number combinations for each level. You can then specify the punctuation you want for each level. For example, you could set sequential numbering as follows:

EXAMPLE

```
A.   First Level
     1.   Second Level
     2.   Second Level
          a)   Third Level
          b)   Third Level
B.   First Level
```

- **Procedural Numbering: 1.2.2.1.3** Use this option to set the entire outline to procedural numbering.

EXAMPLE

```
1.0   First Parent
 1.1   First Child
 1.2   Second Child
  1.2.1 Child of Second Child
2.0   Second Parent
3.0   Third Parent
```

- **Bullets** This option sets the entire outline to bullet numbering. This option is included only for compatibility with earlier versions and should no longer be used. Marks will not show up in your outline if you are using this setting. The best way to achieve bullet numbering on all levels is to set this option to sequential numbering and set all eight levels to bullets.
- **None** This option turns all numbering off and has the same effect as setting the indent per level to 0 and spaces for numbering to 0.

Place Outline Entry

This function gives you ultimate control over the left/right placement of each outline entry. Follow these steps to place an outline element:

1. Position the cursor on the element to be placed.
2. Choose the **Place Outline Entry** function.
3. Using ← and →, position the outline element where you want it.
4. Press ↵ when the element is properly positioned.

Note: The distance you move an outline entry is always relative to its default position. If you move it three spaces to the left of its default position, it will always be in that relational position even if you change the default position.

TIP *This function can be combined with* ***Skip Numbering*** *to add nonoutline formatted text in the middle of an outline formatted document.*

You can undo a **Place Outline Entry** by either placing it back to its default location or resetting all places with the **Reset All Places** function.

Reset All Places

This function resets all outline element place values to their default locations.

Start New Numbering

This function restarts the numbering of the current element so that this element is numbered as the first element on that level.

Note: This function affects appearance only. Functions such as **Sort** and **Hide** ignore **Start New Numbering**.

Skip Numbering

Use this function to skip the numbering of the current element. To undo this function, use Reset Numbering.

TIP *This function can be very useful for inserting nonoutline formatted text in an outline structure. You can also combine this function with **Place Outline Entry** to insert nonoutline formatted text in an outline structure that is not indented with the rest of the structure.*

Reset Numbering

This function resets the numbering of the current element to its default appearance by undoing **Start New Numbering** and **Skip Numbering**.

Title Toggle

Use this function to skip numbering on the first outline element. This works as a toggle. If the first element is numbered, its numbering will be turned off and vice versa.

Once you set the title on, you may type the title as if PC-Outline were a word processor. In fact, if you start a blank outline and turn the title on immediately, PC-Outline will work just like a simple word processor.

Even Right Margins

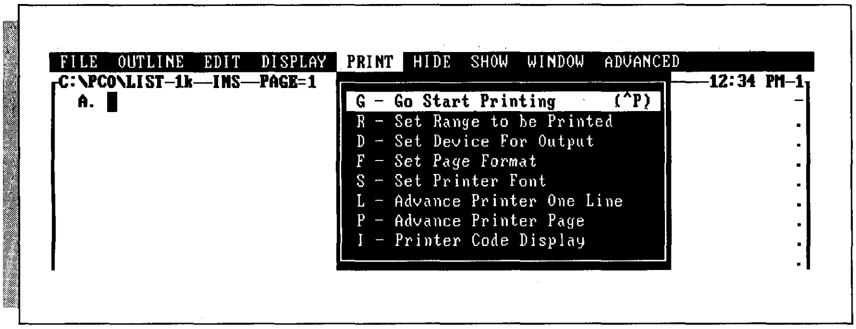
Use this function to align the right margins of a number of differently indented outline entries, usually before printing. This function prompts you first for a range over which you want to align the right margin and then for the new right margin.

Note: Unlike other right margins that are relative to the start of the outline entry, this right margin is an absolute column number. This function goes through each paragraph in the range and calculates where to set the relative right margin in order to have it appear in a particular printed column.

TIP *During the normal process of creating an outline, you will end up with a right margin that moves further to the right as the indentation in the outline increases. To align the right margin right before printing, choose **Even Right Margins**, mark the whole outline, and enter the right margin you want.*

Using the Print Menu

The Print Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1
12:34 PM-1
A.
G - Go Start Printing (^P)
R - Set Range to be Printed
D - Set Device For Output
F - Set Page Format
S - Set Printer Font
L - Advance Printer One Line
P - Advance Printer Page
I - Printer Code Display

Go Start Printing (^P)

This function starts printing the current block. If no range is marked, the entire outline is printed.

Note: Some printers do not print bullets correctly. If you experience problems printing, either create a printer substitution file to correctly print bullets or remove the bullets. See Appendix B, "Additional Printer Information," to solve other printer problems.

Set Range to Be Printed

This function allows you to specify only a portion of the outline to be printed. After you select this function, you're prompted to mark a range to be printed.

Set Device for Output

This function allows you to specify the destination for printing. You will usually use this function to write outlines to other files as described below.

- **Send to Printer** Prints normally to the printer.
- **Send to File** Sends the exact same information that would have gone to the printer to a file instead. The file will automatically have the same root name as the outline, but with the extension .PRN. You can then use the DOS print command to print this file.
- **Send to ASCII File** Strips out all printer information and other non-ASCII characters, such as page breaks, page numbering, etc., and sends the output to an ASCII file. Every line in the outline is terminated with a hard carriage return. When you choose **Go Start Printing**, you're prompted for a filename. This option can be useful for transferring outline formatted material to your word processor.

- **Send to WordStar Professional 4.0 File** This option converts the outline to WordStar Professional Release 4 file format. Save the converted file in WordStar before printing it.
- **Send to WordStar Classic 5.0 File** This option converts the outline to WordStar Classic Release 5 file format. Save the converted file in WordStar before printing it.
- **Send to Structured File** Creates a specially formatted ASCII file that has ASCII outline formatting information embedded in it describing the outline structure.
- **Send to WordStar 2000 File** This option converts the outline to WordStar 2000 file format. WordStar 2000 high bits are retained for paragraph formatting when reading the file into WordStar 2000. Save the converted file in WordStar 2000 before printing it.

Note: After you execute a **Go Start Printing** function, the **Device for Output** is set back to the printer.

Set Page Format

Use this function to select settings for many of the page formatting options like page size, margins, etc. The settings are as follows:

- **Top Margin** Sets the number of blank lines at the top of each page. The top margin must be less than the number of lines per page minus the bottom margin.
- **Bottom Margin** Sets the number of blank lines at the bottom of each page. The bottom margin must be less than the number of lines per page minus the top margin.
- **Lines per Page** Sets the total number of lines per page, including top and bottom margins. A standard printed page is 66 lines long with 53–55 lines actually printed. The number of lines per page must be greater than the top margin plus the bottom margin.
- **Left Print Margin** Sets the number of blank columns at the left side of each page. Although the default value is 5, setting this to 0 allows you full access to the whole page.
- **Printer Feed** You have two choices based on the type of printer you have: (1) *Continuous* prints the entire document on continuous feed paper without interruption, and (2) *Pause after each page* pauses at the end of each printed page for inserting a new sheet.
- **Page Numbering** You have five options for page numbering: left, right, centered, manually specify the column number for the page number, and off (don't print any page numbers).
- **Page Column for Numbering** If page numbering is set to Manually Specified, this option controls the starting column of the page number.
- **Start Page Numbering With** Starts page numbering with this value. Typically this is set to 1.
- **Page Breaks** Determines whether you produce a document with page breaks or a continuous document with no top or bottom margins and no page breaks.

Set Printer Font

This function sends a code sequence directly to your printer to set it to a certain type characteristic. The built-in options are as follows:

- Boldfaced
- Italics
- Double strike
- Condensed
- Elite

Note: This function immediately sends your printer a printer code and changes the mode of the printer for all subsequent printing. You can use it for printing an entire document in a particular font or for changing your printer so that some other program will print in the desired font. Don't confuse this function with **Printer Format** in the Edit Menu which is used for actually embedding print commands within a document.

See Appendix B, "Additional Printer Information," to customize these options for your printer.

Advance Printer One Line

This function sends a line feed to the printer.

Advance Printer Page

This function sends a form feed to the printer.

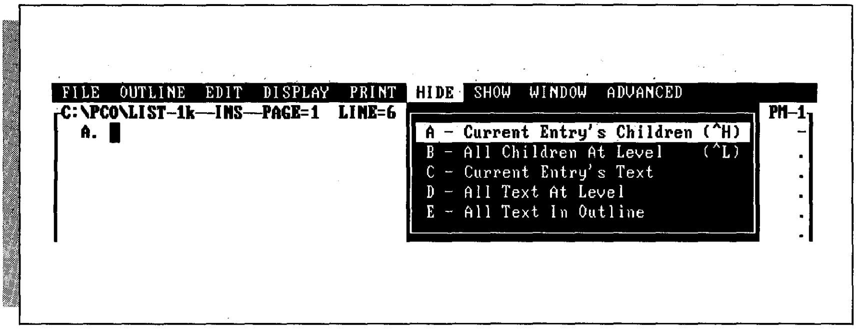
Printer Code Display

Use this function to display or hide (toggle with **Alt-F1**) the embedded printer codes on the screen. These are the Printer Format codes available from the Edit Menu.

Note: This option distorts the onscreen location of certain parts of your outline, since the codes take up space onscreen that they don't take up in printing.

Using the Hide Menu

The Hide Menu contains the following functions:

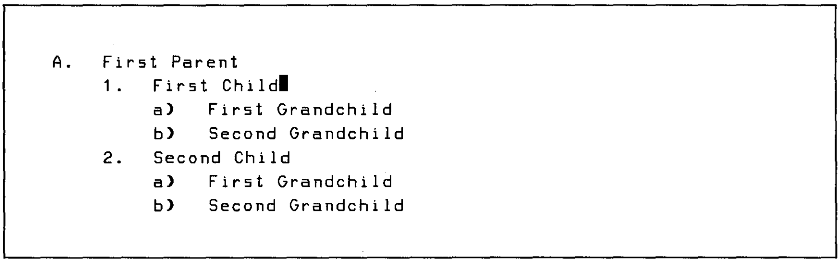

FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1 LINE=6
PM-1
A.
A - Current Entry's Children (^H)
B - All Children At Level (^L)
C - Current Entry's Text
D - All Text At Level
E - All Text In Outline

Current Entry's Children (^H)

Use this function to hide all the children of the current element. You can also use the gray + key as a toggle to hide and show the children.

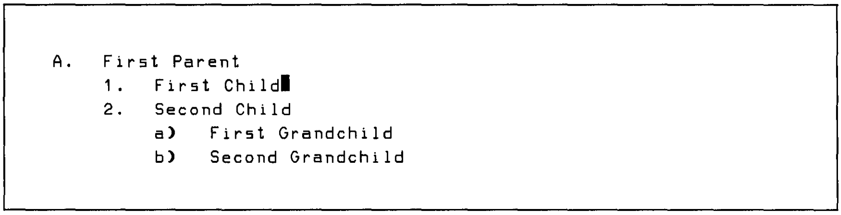
EXAMPLE

Before hiding the children of First Child:



```
A.   First Parent
     1.   First Child█
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
          a)   First Grandchild
          b)   Second Grandchild
```

After hiding the children of First Child:



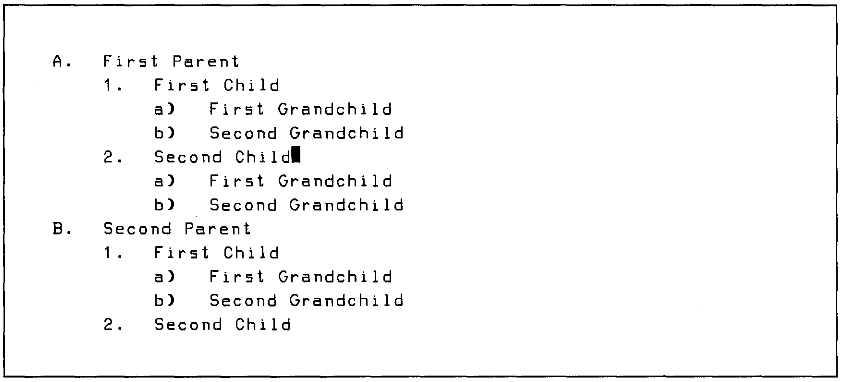
```
A.   First Parent
     1.   First Child█
     2.   Second Child
          a)   First Grandchild
          b)   Second Grandchild
```

All Children at Level (^L)

Use this function to hide all the children of all the outline elements at the same level within the same family as the current element.

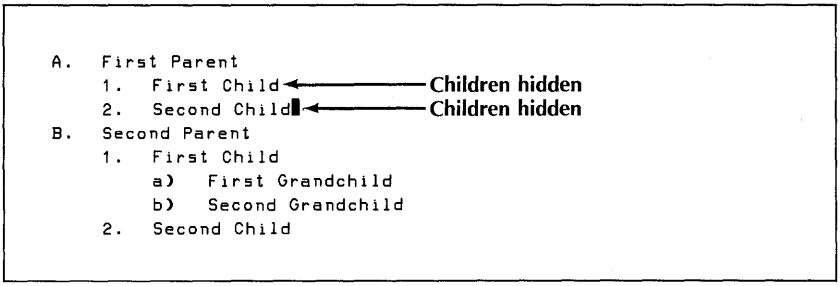
EXAMPLE

Before hiding all children at level:



```
A.   First Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child█
          a)   First Grandchild
          b)   Second Grandchild
B.   Second Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
```

After hiding all children at level:



```
A.   First Parent
     1.   First Child
     2.   Second Child
B.   Second Parent
     1.   First Child
          a)   First Grandchild
          b)   Second Grandchild
     2.   Second Child
```

Children hidden
Children hidden

Note: This function can be reversed using **All Children at Level** on the Show Menu.

Current Entry's Text

Use this function to hide all text following the first line of the current element. You can also use **^PgDn** as a toggle to hide and show all text following the first line of the current element.

All Text at Level

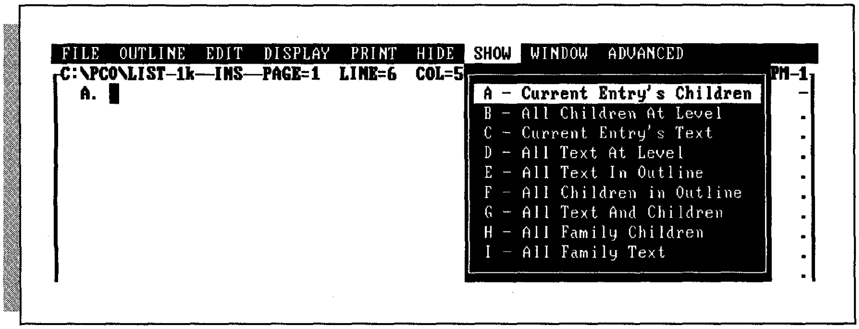
Use this function to hide all text at the current level. This function operates on the same outline entries as **All Children at Level** except that text is hidden instead of children.

All Text in Outline

Use this function to hide all text in the outline.

Using the Show Menu

The Show Menu contains the following functions:



FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1 LINE=6 COL=5
PM-1
A.
A - Current Entry's Children
B - All Children At Level
C - Current Entry's Text
D - All Text At Level
E - All Text In Outline
F - All Children in Outline
G - All Text And Children
H - All Family Children
I - All Family Text

Current Entry's Children

Use this function to show all the children of the current element. You can also use the gray + key as a toggle to show and hide the children.

All Children at Level

Use this function to show all the children of all the outline elements at the same level within the same family as the current element. This function is the reverse of **All Children at Level** on the Hide Menu.

Current Entry's Text

Use this function to show all text following the first line of the current element. You can also use **^PgDn** as a toggle to show and hide all text following the first line of the current element.

All Text at Level

Use this function to show all text at the current level. This function operates on the same outline entries as **All Children at Level** except that text is shown instead of children.

All Text in Outline

Use this function to show all text in the outline.

All Children in Outline

Use this function to show all children in the outline.

All Text and Children

Use this function to show everything in the outline.

All Family Children

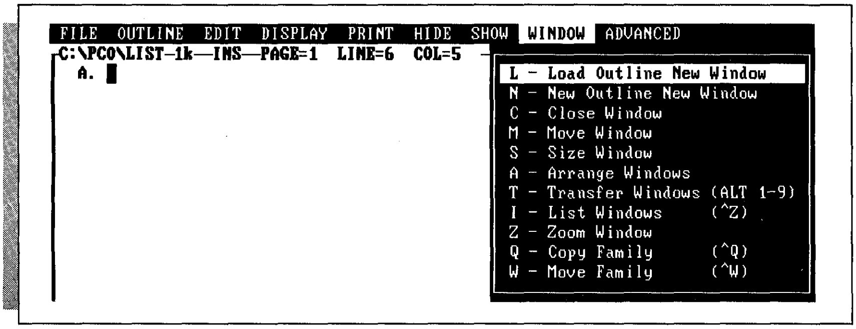
Use this function to show all children, grandchildren, etc., of the current element.

All Family Text

Use this function to show all text in each of the children, grandchildren, etc., of the current element.

Using the Window Menu

The Window Menu contains the following functions:



```
FILE  OUTLINE  EDIT  DISPLAY  PRINT  HIDE  SHOW  WINDOW  ADVANCED
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5
  A. 
                                    L - Load Outline New Window
                                    N - New Outline New Window
                                    C - Close Window
                                    M - Move Window
                                    S - Size Window
                                    A - Arrange Windows
                                    T - Transfer Windows (ALT 1-9)
                                    I - List Windows      (^Z)
                                    Z - Zoom Window
                                    Q - Copy Family       (^Q)
                                    W - Move Family       (^W)
```

Load Outline New Window

This function works exactly like **Load Existing Outline** on the File Menu except that the outline is loaded into a new window. Both the current outline and any other outlines already open are all open at once. You can have up to nine windows/outlines open at one time.

The window number appears in the upper right corner of the window. You can switch directly between windows by either pressing the **Alt** key and the number of the window you want or by using the **Transfer Windows** function on the Window Menu.

New Outline New Window

This function works exactly like the **Start New Outline** function on the File Menu except that the outline is started in a new window.

Close Window

Use this function to close the current window and release its memory for use by other windows. If you have made any unsaved changes to the current window, PC-Outline will prompt you to save these changes.

Note: You cannot close the last remaining window because there must always be at least one window open.

Move Window

This function allows you to reposition the currently active window on your screen using the cursor keys. Since the window can't be moved off the screen, you must first reduce its size before you have any room to move it. Use the **Size Window** function or the **Zoom Window** function to reduce the window size.

Size Window

Use this function to change the size of the currently active window. Use the cursor keys to move the lower right corner to the new size.

Note: You cannot make a window smaller than 4 lines high by 7 columns wide.

Arrange Windows

Use this function to return all windows to their default size and position. When windows are in their default position, they line up neatly in overlapping fashion showing you the top line of every open window.

Transfer Windows (Alt 1–9)

Use this function to switch directly to the specified window.

List Windows (^Z)

Use this function to list all the open windows, their window number, their memory size, and whether any unsaved changes have been made to the window.

Zoom Window

Use this function to shrink (or expand) the currently active window from full screen size to partial screen size (or vice versa). You can use the gray – (minus) key to toggle the screen sizes.

TIP *The best way to use the* ***Zoom Window*** *function is to use the* ***Arrange Windows*** *function to unzoom all the windows, switch to the window you want, and then zoom it to full size for working. When you want to go to another window, unzoom the current one, switch to the window you want, and zoom again.*

Copy Family (^Q)

Use this function to copy the entire family (the element, all children, all grandchildren, etc.) of the current element and make it a child of the location you specify. Follow these steps to use this function:

1. Position the cursor at the top of the family you want to copy.
2. Choose this function.
3. Move the cursor to the new location for the family. You can even switch windows (press **Alt** and the window number to switch to).
4. Press ↵ to start the copy.

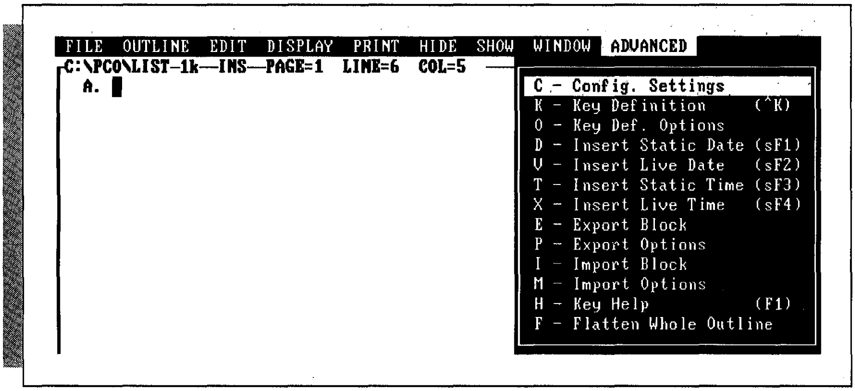
Note: This function is primarily designed for copying families of outline structure between windows. The Mark functions on the Outline Menu are usually easier to use for copying within the same outline.

Move Family (^W)

This Function works exactly like the **Copy Family** function except the family is moved instead of copied.

Using the Advanced Menu

The Advanced Menu contains the following functions:


FILE OUTLINE EDIT DISPLAY PRINT HIDE SHOW WINDOW ADVANCED
C - Config. Settings
K - Key Definition (^K)
O - Key Def. Options
D - Insert Static Date (sF1)
V - Insert Live Date (sF2)
T - Insert Static Time (sF3)
X - Insert Live Time (sF4)
E - Export Block
P - Export Options
I - Import Block
M - Import Options
H - Key Help (F1)
F - Flatten Whole Outline

```
C:\PCO\LIST-1k—INS—PAGE=1  LINE=6  COL=5
  A.
```

Configuration Settings

This function allows you to change 13 of PC-Outline's default settings. To permanently save the settings to the configuration file, press the **F10** key from within the Configuration Settings option box.

The configuration settings are:

- **Cursor Delay** Specify "Yes" if you want to change the cursor delay, or "No" if you don't want to change it.
- **Speed of Cursor 1–240** You can type a number between 1 and 240 to change the speed of the cursor movement in PC-Outline. The fastest speed is 1 and the slowest speed is 240.
- **Starting Directory Path** Sets the starting directory for PC-Outline files. If this field is blank, the DOS current directory will be used as the starting directory. If you always keep your outlines in the same directory, enter that directory here. The name entered in this field must be a complete DOS directory name (including optional path).
- **Macros File/Path** Sets the path/filename for macro files. This defaults to PCOMAC.CFG (in the current directory). If you want to keep your macro files in a directory other than the current directory, enter that name here. The name entered in this field must be a complete DOS directory name (including optional path).

- **Printer Description File** Sets the path/filename for the printer description file. The name entered in this field must be a complete DOS directory name (including optional path). See Appendix B, "Additional Printer Information," for more information.
- **Configuration File/Path** Sets the path/filename for the configuration file PCO.CFG. Use this option if you want to keep your configuration file in a location other than the current directory. When PC-Outline starts up, it looks for its configuration file in three places:

  1. In the current directory.
  2. In the directory and filename specified in the environment with the "SET PCO=<path/filename>" command.
  3. In the directory and filename specified as a command parameter with the "/L=<path/filename>" command.

  If a valid configuration file isn't found in any of these places, PC-Outline starts up with built-in default values for all configuration settings.

- **Automatic Timed File Saving** If this is set to "Yes," the current outline will be saved at regular intervals as determined by the value entered in Time Between Automatic Saves. The outline will not be saved if no changes have been made. Only the current window is saved; other changed windows are not saved.
- **Time Between Automatic Saves** If Automatic Timed File Saving is set to "Yes," this value determines how long a time interval passes between automatic saves.
- **Create Automatic Backup Files** If this is set to "Yes," each time you save an outline, the previous version becomes the backup file.
- **Prompt Before Overwriting** If this is set to "Yes," you are prompted for confirmation before an existing file is overwritten during a save operation. If this setting is set to "No," no warning will be given.
- **Video Retrace** This setting is provided to speed up screen performance on some computers. If you have a monitor capable of displaying graphics, experiment with setting this on "No." If you see snow on the screen every time you type, you cannot use this setting and should set it back to "Yes." If you don't see any snow on the screen, you can use this setting and should leave it set to "No." You can also set video retrace to "No" by using the command parameter "/S."
- **Printer Port** Sets the printer port for all printing in PC-Outline. The possibilities are LPT1, LPT2, LPT3, COM1, COM2, and COM3.
- **Force Black and White** If you have a graphics monitor that isn't color, PC-Outline will try to use color attributes on it. If you would prefer to only use black and white attributes, set this option to "Yes." You can also set this to "Yes" by using the command parameter "/B."

Key Definition (^K)

This function allows you to redefine keys on the keyboard by assigning from one to several thousand keystrokes to a single key. This function is useful for either changing the meaning of PC-Outline's keys or for recording frequently used phrases and attaching them to a single key.

Follow these steps to reassign a key:

1. Choose **Key Definition** from the Advanced Menu or press ^**K**.
2. Respond to the prompt by pressing the exact keystroke that you want to redefine. For example, if you want **Alt-N** to type your name, press **Alt-N** here. The cursor changes in size.
3. Now type the exact keystrokes that you want to be assigned to **Alt-N**. Using the previous example, type your name.
4. When you finish typing the keystrokes to assign, press ^**Break**. The cursor returns to normal size.
5. To save the key definition permanently, press **Alt-A**, then press **O** (Key Definition Options), and **S** (Save All Key Definitions). (Otherwise this key definition would be in effect only during the current PC-Outline session.)

Now whenever you press **Alt-N** (or whatever key you reassigned), PC-Outline repeats the keystrokes you recorded and types your name (or whatever keystrokes you assigned to it).

Note: While you are defining a key, no other key definitions are in effect (you must use the original meanings of all redefined keys). This permits you to swap the definitions of two keys, which otherwise would be impossible.

Key Definition Options

This function presents a submenu with the following four options:

- **Clear a Key Definition** Prompts you for a key definition to clear if you want to unassign a definition to a key.
- **Save All Key Definitions** Saves all currently defined keys to a disk file called PCOMAC.CFG (unless you have changed the name in the Configuration Settings option box). These definitions will be loaded automatically the next time you start PC-Outline. You must save the definitions in order for PC-Outline to remember them.
- **Inhibit All Key Definitions** Temporarily suspends all key definitions.
- **Restart All Key Definitions** Reverses the **Inhibit All Key Definitions** function.

Insert Static Date (Shift-F1)

This function inserts the current DOS system date.

Insert Live Date (Shift-F2)

This function inserts and continuously updates the current DOS system date. The screen and printing always represent the current system date.

Insert Static Time (Shift-F3)

This function inserts the current DOS system time.

Insert Live Time (Shift-F4)

This function inserts and continuously updates the current DOS system time. The screen is updated every time it is redrawn (almost every time you press a key), and printing is always updated.

Export Block

This function exports a block of an outline directly into another program. You can use this function only if you've loaded the memory-resident version of PC-Outline.

CAUTION Make sure you have set the export options correctly before you start the exporting process. See "Export Options" below for more information.

Follow these steps to export a block from an outline:

1. Position the cursor where you want the exported text to go in the other program.
2. Invoke PC-Outline and load or create the text to export.
3. Position the cursor at the beginning of the block of text you want to export.
4. Choose this function.
5. Move cursor to end of text you want to export.
6. Press ↵ to signify you have completely marked the block (**Esc** cancels the command), and exporting begins.

Export Options

When exporting files, you have to determine how the text is to be exported. You can pick a predefined mode containing certain settings or you can manually create your own.

After you choose **Export Options** at the Advanced Menu, you'll see an option box where you choose the export mode. If you pick any mode other than "Manual," the rest of the settings in the option box are automatically set when you press **F10** to save the options. In Manual mode, you have to pick each setting yourself.

Once you save your settings with **F10**, they remain the same until you change them again. All exported files will use these same settings. The modes available and their default settings are listed below.

Word Wrap Mode

Use word wrap mode for programs that support word wrap. Soft carriage returns (where word wrap occurred) are typed as a space in order to let the receiving program format the word wrap itself. Text is exported as follows:

- Hard carriage return = hard carriage return
- Soft carriage return = space
- Soft space = nothing
- Leading space = nothing
- Start each line with = nothing

Line-By-Line Mode

Use line-by-line mode for programs that require a hard carriage return at the end of each line. Text is exported as follows:

- Hard carriage return = hard carriage return
- Soft carriage return = hard carriage return
- Soft space = space
- Leading space = space
- Start each line with = nothing

Spreadsheet Mode

Use spreadsheet mode for a spreadsheet that requires a ↓ at the end of each line. Text is exported as follows:

- Hard carriage return = ↓
- Soft carriage return = ↓
- Soft space = nothing
- Leading space = nothing
- Start each line with = apostrophe

Manual Mode

Use manual mode if you want to individually set each of the five settings. Any time you change one of the settings, it will automatically switch into manual mode. These are the options for each setting:

- Hard carriage return = hard carriage return or ↓
- Soft carriage return = hard carriage return, ↓, or space (simulate word wrap)
- Soft space (from justification) = nothing or space
- Leading space (from paragraph indents) = nothing or space
- Start each line with = nothing, apostrophe ('), quotation mark ("), caret (^), or plus sign (+)

Export Speed

Use this option with any of the four modes described above to set the speed of exporting keystrokes to slow, medium, or fast. The default is medium because some programs can't handle very fast typing. Most applications can handle the fast speed, so it's probably worth your while to try it.

Import Block

Use this function to copy information from another program's screen into PC-Outline. This function works only with the memory-resident version of PC-Outline and does not work properly with applications running in any graphics modes.

CAUTION *Make sure you have set the import options correctly before you start the importing process. See "Import Options" below for more information.*

Follow these steps to import information from another program:

1. In your other program, display the information that you want to copy into PC-Outline.
2. Invoke PC-Outline.
3. Position the cursor in PC-Outline where you want the text to be inserted.
4. Choose the **Import Block** function.
5. You will be shown your previous program's screen. Position the cursor in the upper left corner of the text you want to import and press ↵.
6. Position the cursor in the lower right corner of the text you want to import and press ↵.

Import Options

When importing files, you have to choose whether each line of imported text should be ended with a hard carriage return or with word wrap.

After you choose **Import Options** at the Advanced Menu, you'll see an option box where you choose the import mode. Once you save your import mode with **F10**, it will remain the same until you change it again. All imported files will use this same setting.

Key Help (F1)

This function displays a help screen containing the function of most of the special keys used in PC-Outline.

Flatten Whole Outline

Use this function to flatten the entire outline, promoting all elements up to the top level.

CAUTION *This function is not reversible and should be used with great caution.*

Applying PC-Outline to Your Needs

Now that you're familiar with the basics of outlining, it's time to learn some of PC-Outline's many features. These features are designed to provide a complete, efficient program for you to use to develop your ideas and organize your thoughts.

This chapter is divided into five applications. Each application demonstrates several of PC-Outline's features while introducing a new way of using PC-Outline to accomplish your daily tasks.

Note that each application starts by listing the features introduced in that section. The text is designed to allow you to learn the features by reading or by following along in PC-Outline.

The five applications are

- **To-Do Lists** How to organize your daily activities.
- **Sorted Lists** How to use PC-Outline as a simple database to keep track of contacts, phone numbers, and other information.
- **Templates and Macros** How to create frequently used pieces of outline structure and store them for repeated use. Also shows you how to customize shortcut keystrokes.
- **Project Management** How to use PC-Outline as a simple project manager.
- **Using Windows** How to use several windows to your advantage in all your other applications.

Application 1: To-Do Lists

Features covered in this section include

- Using the Title Toggle function
- Creating outline elements
- Moving outline elements
- Marking/unmarking outline elements
- Moving marked outline elements

One of the most valuable uses of PC-Outline is management of your daily tasks. By taking just a few minutes every morning to add new items to your list and to generate a list of today's activities, you can control even the most hectic jobs. Try the following method to get your day under control.

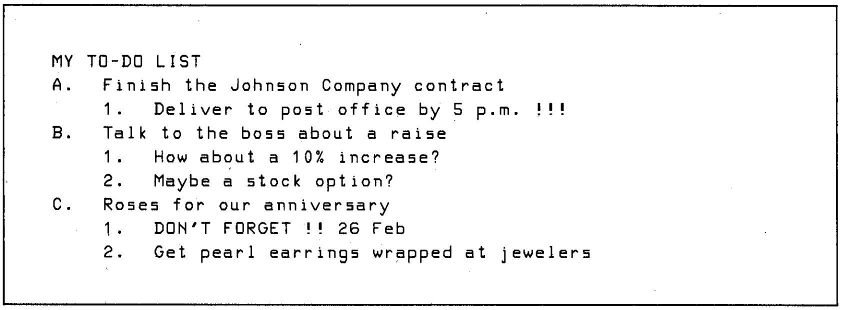
List Making

On the first level of the outline, keep your list of tasks to do. Whenever you think of a new task, just add it using **Create New Outline Entry** from the Outline Menu (or ^**N** or ^↵). As children of each of these tasks, keep the subtasks or the little tidbits of knowledge that you'll need to remember.

If you're using PC-Outline in the memory-resident mode, just press ^\ from within your other software, and PC-Outline will pop up instantly. In this mode, you'll be able to jump in and out of your to-do list whenever a new idea strikes.

By just jotting down tasks as you think of them, you might end up with a to-do list like the one shown below. Try putting together your own to-do list in this format.

TIP *If you want the title of your list, "MY TO-DO LIST," to be unnumbered, use **Title Toggle** on the Display Menu to turn numbering off for the first element.*



```
MY TO-DO LIST
A.   Finish the Johnson Company contract
     1.   Deliver to post office by 5 p.m. !!!
B.   Talk to the boss about a raise
     1.   How about a 10% increase?
     2.   Maybe a stock option?
C.   Roses for our anniversary
     1.   DON'T FORGET !! 26 Feb
     2.   Get pearl earrings wrapped at jewelers
```

Prioritizing Your List

Now you can prioritize your tasks using **Move Outline Entries** (^**M**) from the Outline Menu. Don't worry about the subtasks; PC-Outline will automatically move them with the task. In fact, to help you move an element quickly around a complicated outline, PC-Outline will hide all the text and subtasks while you manipulate the position of the main level task.

Prioritizing could help make your outline more orderly like this:

```
MY TO-DO LIST (ranked in order of importance)
A.   Roses for our anniversary
     1.   DON'T FORGET !! 26 Feb
     2.   Get pearl earrings wrapped at jewelers
B.   Finish the Johnson Company contract
     1.   Deliver to post office by 5 p.m. !!!
C.   Talk to the boss about a raise
     1.   How about a 10% increase?
     2.   Maybe a stock option?
```

Remembering Today's Tasks

If you use a to-do list frequently, you may find that certain items become important each day and have to be done that day. Every morning after you enter any new tasks, just browse through the outline and use **Mark/Unmark Outline Entry** from the Outline Menu (or the **F2** key) to mark any items that require attention today. PC-Outline uses the concept of marks to allow for faster editing of multiple elements. Note that a marked element's number will appear in reverse video.

Then, at the top of the outline, create a new element called "TODAY'S LIST." Remember to use **Title Toggle** to turn off numbering for this line. You can then use **Move Marks** from the Outline Menu to gather all of today's high priority items in one place. Notice that these elements are on the same level as the element they were copied to. To make them children of "TODAY'S LIST," mark these same two again and choose **Indent Marks** (**F8**) from the Outline Menu.

```
MY TO-DO LIST
A.   TODAY'S LIST
     1.   Roses for our anniversary
          a)   DON'T FORGET !! 26 Feb
          b)   Get pearl earrings wrapped at jewelers
     2.   Finish the Johnson Company contract
          a)   Deliver to post office by 5 p.m. !!!
B.   ITEMS FOR LATER CONSIDERATION
     1.   Talk to the boss about a raise
          a)   How about a 10% increase?
          b)   Maybe a stock option?
```

Application 2: Sorted Lists

Features covered in this section include

- Sorting an outline level
- Hiding and showing children and text

You can use PC-Outline like a simple database to keep track of categories of data. For example, the sample file shown below keeps track of prospective customers and some pertinent data pertaining to each of them. The colons (:) indicate the start of a new field of information.

```
PROSPECTIVE CUSTOMERS
                                  Talked to     Ordered
Name                Phone#        Last Week     Last Month
A. Sue Smith        :555-9316     :Yes          :Yes
B. Jim Johnson      :555-6133     :Yes          :No
C. Pam Miller       :555-0456     :No           :No
```

Now, when you get ready to make your weekly sales calls, you can quickly sort through all your prospective customers and call those you haven't talked to in the last week. Or, using **Sort Outline Level** from the Outline Menu, you can sort the last field to see who hasn't ordered for over a month. This would leave the outline looking like this:

```
PROSPECTIVE CUSTOMERS (Organized by important contacts to make)
                              Talked to    Ordered
Name Phone#      Last Week    Last Month
A. Pam Miller    :555-0456    :No          :No
B. Jim Johnson   :555-6133    :Yes         :No
C. Sue Smith     :555-9316    :Yes         :Yes
```

As you get ready to call each person on your list, just use **Current Entry's Text** from the Show Menu to display any information you recorded about this individual. These hidden notes could help you be a better salesperson.

In the expanded form for a specific customer, your outline might look something like this:

```
PROSPECTIVE CUSTOMERS (with some notes to help you make the
sale to Pam Miller)
                              Talked to    Ordered
Name             Phone#       Last Week    Last Month
A. Pam Miller    :555-0456    :No          :No
   During our previous phone call, Pam preferred XYZ Company's
   lower prices. Be sure to tell her about our new quantity
   discounts that make our prices lower than XYZ!
B. Jim Johnson   :555-6133    :Yes         :No
C. Sue Smith     :555-9316    :Yes         :Yes
```

Application 3: Templates and Macros

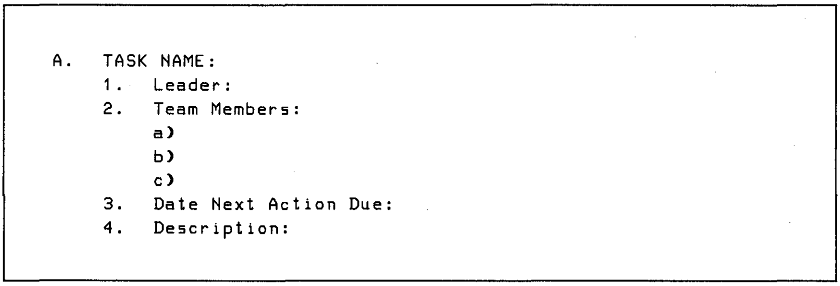
Features covered in this section include

- Copy marks
- Writing and reading structured files
- Creating and using redefined keys

Some of your uses of PC-Outline may call for a repetitive pattern of keystrokes. These patterns usually fall into one of two categories: (1) a form (called a "template") that allows you to just fill in the blanks, or (2) a set of keys that either form a series of commands or a text string (called a "macro"). In this section, you'll learn how to create both templates and macros.

Using Templates Repetitively in an Outline

Some outlines may call for the repetitive use of certain groups of elements. If so, try organizing your outline so that all elements in a series are members of the same family. For a simple project management exercise, you might organize elements like this:



```
A.   TASK NAME:
     1.   Leader:
     2.   Team Members:
          a)
          b)
          c)
     3.   Date Next Action Due:
     4.   Description:
```

To use this family as a template, choose **Mark/Unmark** (**F2** key) from the Outline Menu to mark this entire family. Then move up to the title element (since you can't copy an element onto itself) and choose **Copy Marks** (**F9** key) from the Outline Menu to reproduce this simple template. By repeating this several times, you can generate plenty of templates, each ready for you to enter only the pertinent new information without having to retype the pattern each time.

TIP *Don't forget to keep an extra blank copy of the template at the bottom of your document so you'll still have a blank template left to copy.*

Using Templates to Form an Entire Outline

If you use a general purpose outline like the weekly form memo shown below, you can create an outline template to be used each week. To build the outline template, use **Set Device for Output** from the Print Menu and **Input Other File Types** from the File Menu.

To begin typing this memo, choose **Title Toggle** on the Display Menu. Type the top part of the memo, pressing ↵ at the end of every line. When you're ready to turn outline numbering back on, press ^↵, and finish the memo.

```
MEMO

To:       Distribution
From:     Joe Team Leader
Date:
Subject:  Weekly Project Meeting Notice

The next meeting will be held ____________________
in the ____________________conference room.

A.   Old Business
     1.
     2.
     3.
B.   New Business
     1.
     2.
     3.
C.   Distribution:
     1.   Manufacturing Manager
     2.   Q.A. Manager
     3.   Engineering Manager
```

After typing the memo, save it to disk by choosing **Set Device for Output** from the Print Menu. Since you want the structure of the outline to be maintained for future use, choose the **Structured File** option from the submenu. When you choose **Go Start Printing**, you'll be prompted for a filename for the outline.

Now the next time you have another meeting and want to use the template, choose **Input Other File Types** from the File Menu. Choose **Structured File** again, and when you are prompted for a filename, type the name you used to file the outline originally.

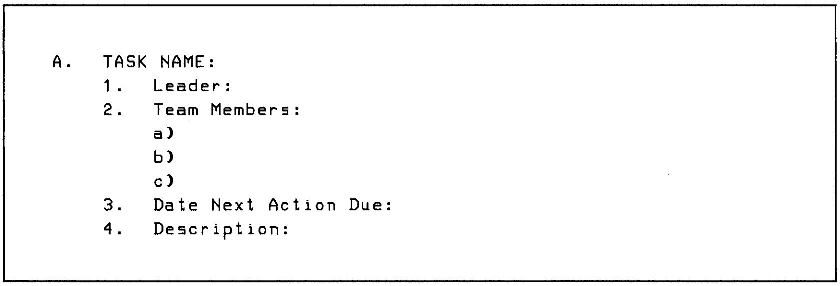
Creating Macros by Redefining Keys

PC-Outline provides a Key Redefinition function you can use to assign any series of keystrokes to a single key. For example, you could create the same outline family that is shown in "Using Templates Repetitively in an Outline," and assign it to a single keystroke.

To redefine a key, choose **Key Definition** (^**K**) from the Advanced Menu. Then choose a key to define. You can choose any single keystroke to define or any key together with Shift, Alt, or Ctrl. For this example, the **F3** key will do.

Notice that the cursor is now a blinking half cursor. This is to remind you that you are in the Key Definition mode and that every key you press is being remembered by PC-Outline.

You can type just about anything into a macro that you could normally type. The only restriction is that you can't redefine another key. For this example, create the same outline family that is shown in "Using Templates Repetitively in an Outline."



```
A.   TASK NAME:
     1.   Leader:
     2.   Team Members:
          a)
          b)
          c)
     3.   Date Next Action Due:
     4.   Description:
```

Note: If you make a mistake, press **^Break** and start over.

When you're done, press **^Break** to tell PC-Outline to stop remembering keys. Press **Alt-A**, **O**, and **S** to save the new key definition permanently. Now whenever you press the **F3** key, all the keys that you typed will be inserted into PC-Outline. You don't even have to keep a copy of the template around. Just press the **F3** key and you'll have a new copy.

TIP *You may want to reassign the cursor diamond keys—^E, ^S, ^X, and ^D—to work as they do in WordStar. Follow the steps above, pressing the appropriate arrow key. Remember, however, that once you've created macros for these keys, you can no longer use the original functions for these commands. Disregard the "shortcut" references to these keystrokes on the menus.*

Application 4: Project Management

Features covered in this section include

- Creating outline elements
- Moving outline elements
- Sorting outline levels
- Finding strings

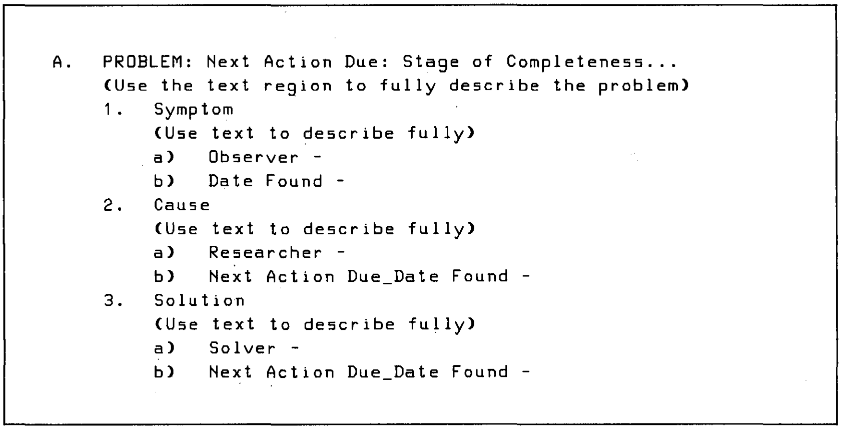
In the early stages of a project, many people find that the most difficult task is getting the jumble of ideas, tasks, resources, and time durations organized into a legible and sensible order. As the project progresses, it becomes necessary to track progress and figure out how things are going on a regular basis. You may find that PC-Outline offers a very simple and convenient solution to both of these problems.

Start your project by letting your ideas flow into PC-Outline. Just create a new element for each idea using **Create New Outline Entry** (^↵) from the Outline Menu. Once you have all or most of your ideas out of your head, you can think about organizing them. You can use the straightforward method of moving individual elements around with **Move Outline Entry** (^M) from the Outline Menu, or you can try using a more efficient method like sorting.

Take a look at a couple of methods of organizing a project. Your projects might require different formats for organization, but these examples will help you think of just what you need to track and how best to track it.

Tracking Solutions to Problems

For tracking the solution of several problems, try this format:



```
A.   PROBLEM: Next Action Due: Stage of Completeness...
     (Use the text region to fully describe the problem)
     1.   Symptom
          (Use text to describe fully)
          a)   Observer -
          b)   Date Found -
     2.   Cause
          (Use text to describe fully)
          a)   Researcher -
          b)   Next Action Due_Date Found -
     3.   Solution
          (Use text to describe fully)
          a)   Solver -
          b)   Next Action Due_Date Found -
```

Note: Save this file on filename PROJECT. You'll need it to complete the next application.

Tracking and Sorting Tasks

For tracking tasks, try this format:

```
A.   TASK        :Date Due   :Person Responsible
     (Use text to describe task fully)
1.   Subtask A   :Date Due   :Person Responsible
     (Use text to describe subtask fully)
2.   Subtask B   :Date Due   :Person Responsible
3.   Subtask C   :Date Due   :Person Responsible
4.   Subtask D   :Date Due   :Person Responsible
```

As your project list gets longer, you can become more efficient by using the sort function. In the above example, you can use **Sort Outline Level** from the Outline Menu to sort by any of the fields preceded by a colon (:).

To quickly find all the tasks that involve a specific item, use **Find String** (^**F**) from the Edit Menu to locate the first mention of that item. Just follow the instructions and answer the questions that appear on your screen, and PC-Outline will start the search and find the first occurrence of the string you specify.

To find the next occurrence, use **Find Again** (^**A**) from the Edit Menu. This will repeat **Find String** using the same settings.

Application 5: Using Windows

Features covered in this section include

- Opening new windows
- Switching between windows
- Using multiple windows
- Transferring text and elements
- Closing windows

In this application, you'll open two windows containing two different outlines and share information between them. This application uses the file you created in Application 4 in addition to the new file you'll create in this application.

Opening New Windows

To get started, load the file PROJECT into PC-Outline. Then choose **New Outline New Window** from the Window Menu. When you're prompted for a filename, type **list**.

You'll then see the familiar working screen with the "A." that indicates the start of a new outline document. Although it appears that you've just replaced the PROJECT outline with a new blank outline, notice the "2" in the upper-right corner of the screen. This indicates that you've opened up a second window in PC-Outline.

Each window contains a separate outline file. By repeating the above process, you can load up to nine windows into PC-Outline at one time, provided your computer has sufficient memory. Note that by using **Load Outline New Window** from the Window Menu, you could also load an existing file into a new window.

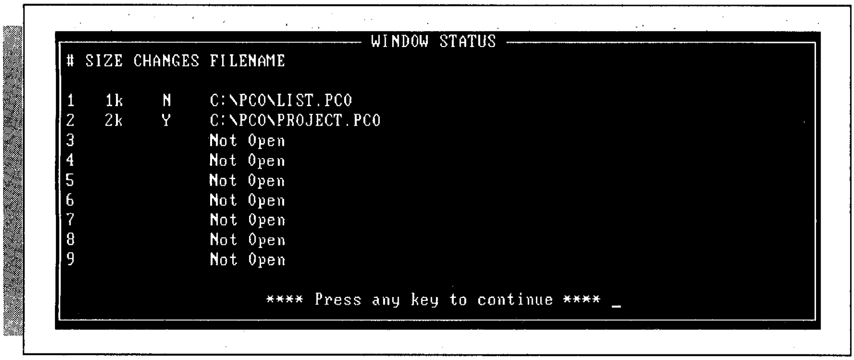
Switching between Windows

Multiple windows allow you to switch between outline files and exchange material between them. Use **Transfer Windows** from the Window Menu (or **Alt-1**) to switch back to the first window, where the PROJECT file is located. Your screen reverts to the outline from the previous application. Use **Transfer Windows** again (or **AH-2**) to return to the LIST window.

Listing and Arranging Windows

Before entering any information into this outline, briefly examine a few of the features that will help you use windows efficiently in PC-Outline.

To see a list of the windows in use, choose **List Windows** from the Window Menu. This list shows all windows and the files they contain, whether any unsaved changes have been made to them, and their current file size. The following example shows what **List Window** would show if you had two windows open.

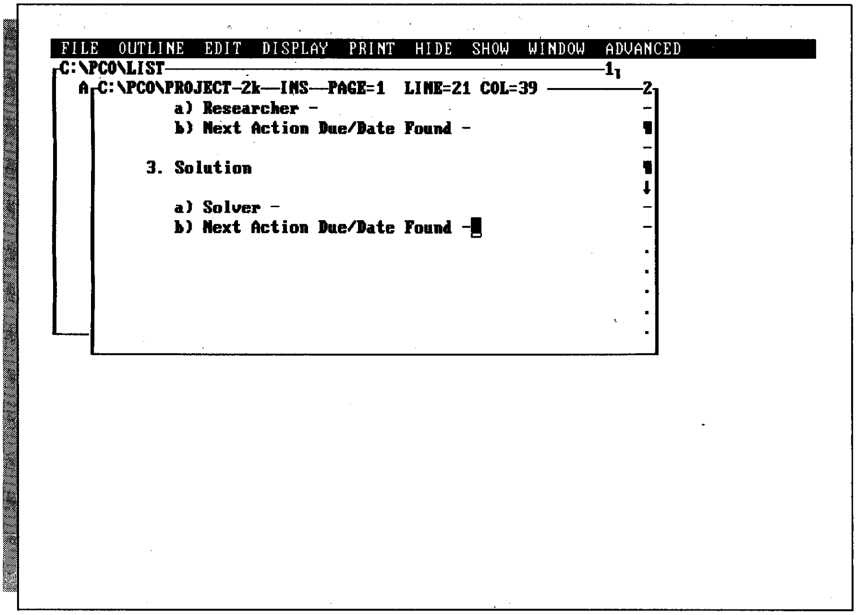


```
                         WINDOW STATUS
# SIZE CHANGES FILENAME

1  1k    N    C:\PCO\LIST.PCO
2  2k    Y    C:\PCO\PROJECT.PCO
3             Not Open
4             Not Open
5             Not Open
6             Not Open
7             Not Open
8             Not Open
9             Not Open

                **** Press any key to continue **** _
```

To view all currently open windows, choose **Arrange Windows** from the Window Menu. The open windows will be displayed in an orderly fashion as shown below, with the window bar of each outline displayed.



```
C:\PCO\LIST
A C:\PCO\PROJECT-2k—INS—PAGE=1  LINE=21 COL=39
          a) Researcher -
          b) Next Action Due/Date Found -

       3. Solution

          a) Solver -
          b) Next Action Due/Date Found -
```

Changing the Size of Windows

Although a window fills up the entire screen, you can use **Size Window** from the Window Menu to change a window's size. You can change the size of a window from full screen all the way down to just a very small rectangle. By using this feature, you can see the contents of one or more other windows while working in your current window.

Once you have a window adjusted to a smaller size, you may want to bring it back to full size, work in it, and then reduce it to its original size. To do this, choose **Zoom Window** from the Window Menu. You can also use the gray – (minus) key to toggle between the full screen and its reduced size.

Finally, to make this process of using multiple windows easier, you can move a window to any location on the screen as long as the window is always visible and is not full size. Just choose **Move Window** from the Window Menu, and use the cursor keys to move the window. Once you have it where you want it, you can lock it into place by pressing ↵.

Transferring Information between Windows

Now that you know how to use multiple windows, you can share material between them. First, create the following heading in LIST.

```
A.  TRACKING PROJECT XYZ
```

Now use **Transfer Windows** to move back to the PROJECT outline. Then copy the entire PROJECT outline to LIST as a child of this element. To do this, put the cursor on the top line and press **^Q (Copy Family)**. Then press **Alt-1**, position the cursor under the heading in LIST, and press ↵. The result should look like this:

```
A.  TRACKING PROJECT XYZ
    1.  PROBLEM: Next Action Due: State of Completeness...
    a)  Symptom
        1)  Observer -
        2)  Date Found -
    b)  Cause
        1)  Researcher -
        2)  Next Action Due/Date Found -
    c)  Solution
        1)  Solver -
        2)  Next Action Due_Date Found -
```

Closing Windows

In this application, you've learned how to create a window, how to manipulate information within a window, and how to exchange information between windows. There is only one other item to learn about windows: how to close them.

First, save the new outline by choosing **Save Current Outline** from the File Menu. Then choose **Close Window** from the Window Menu to close the currently active window. You cannot close the last open window. But if you want to get rid of an outline in the last open window, just use **Load Existing Outline** or **Start New Outline** from the File Menu to replace the existing outline with the new one.

APPENDIX A

Quick Key Reference

FUNCTION	KEY
Block, copy	**Alt-EC** or **^C**
Block, delete	**Alt-ED** or **^E**
Block, move	**Alt-EM** or **^B**
Boldface, begin	**^F3**
Boldface, end	**^F4**
Change current drive/directory	**Alt-FC**
Children hide/show toggle	**Gray +**
Clear all marks	**Alt-F2**
Code display toggle	**Alt-F1**
Configuration settings	**Alt-AC**
Copy block	**Alt-EC** or **^C**
Copy family	**Alt-WQ** or **^Q**
Copy marks	**Alt-OY** or **F9**
Cursor left one word	^←
Cursor right one word	^→
Cursor to beginning of line	**Home**
Cursor to bottom of screen	**End End**
Cursor to end of file	**^End** or **Shift-End**
Cursor to end of line	**End**
Cursor to end of paragraph	**Shift-PgDn**
Cursor to next element on same level	**Shift↓**
Cursor to parent	**^PgUp**
Cursor to previous element on same level	**Shift-↑**
Cursor to top of file	**^Home** or **Shift-Home**
Cursor to top of paragraph	**Shift-PgUp**
Cursor to top of screen	**Home Home**

(continued)

FUNCTION	KEY
Date, insert live	**Alt-AV** or **Shift-F2**
Date, insert static	**Alt-AD** or **Shift-F1**
Delete block	**Alt-ED** or **^E**
Delete line	**^Y**
Delete outline family	**Alt-OD** or **^D**
Delete to end of line	**Shift-Del**
Delete word left	**Shift-←**
Delete word right	**Shift-→**
Directory/drive, change	**Alt-FC**
Display codes	**Alt-PI** or **Alt-F1**
Display menus	**F10** or **Alt-*menu letter***
Divide outline element	**Alt-OU** or **^U**
Double strike, begin	**Shift-F5**
Double strike, end	**Shift-F6**
End of file	**^End** or **Shift-End**
Export block	**Alt-AE**
Export options	**Alt-AP**
Family move	**Alt-WW** or **^W**
File options	**Alt-FF**
Find and replace	**Alt-ER** or **^R**
Find string	**Alt-EF** or **^F**
Find string again	**Alt-EA** or **^A**
Flatten outline	**Alt-AF**
Font select	**Alt-PS**
Format page	**Alt-PF**
Hanging indent	**Alt-EH** or **^O**
Help	**Alt-AH** or **F1**
Hide all text entries	**Alt-HE**
Hide children	**Alt-HA** or **^H**
Hide level children	**Alt-HB** or **^L**
Hide/show children toggle	**Gray +**
Hide text toggle	**^PgDn**
Hide this text entry	**Alt-HC**
Hide this text level	**Alt-HD**
Import block	**Alt-AI**
Import options	**Alt-AM**
Indent and hang	**Alt-EH** or **^O**
Indent, clear	**Alt-EX** or **^X**
Indent current entry	**F6**
Indent marks	**Alt-OI** or **F8**
Indent paragraph	**Alt-EI** or **^I**
Ins/overwrite toggle	**^G** or **Ins**
Insert deleted text	**Alt-U** or **Alt-EU**
Insert live date	**Alt-AV** or **Shift-F2**

FUNCTION	KEY
Insert live time	**Alt-AX** or **Shift-F4**
Insert non-break space	**^F10**
Insert static date	**Alt-AD** or **Shift-F1**
Insert static time	**Alt-AT** or **Shift-F3**
Italics, begin	**^F5**
Italics, end	**^F6**
Join outline elements	**Alt-OJ** or **^J**
Jump to parent	**^PgUp**
Key, define	**Alt-AK** or **^K**
Key definition options	**Alt-AO**
Line, delete	**^Y**
Line feed, printer	**Alt-PL**
List windows	**Alt-WI** or **^Z**
Load existing outline	**Alt-FL**
Load outline new window	**Alt-WL**
Mark/Unmark	**Alt-OO** or **F2**
Marks, clear all	**Alt-F2**
Marks, copy	**Alt-OY** or **F9**
Marks, indent	**Alt-OI** or **F8**
Marks, move	**Alt-OV** or **Shift-F10**
Marks, promote	**Alt-OP** or **F7**
Menu display	**F10** or **Alt-*menu letter***
Move block	**Alt-EM** or **^B**
Move family	**Alt-WW** or **^W**
Move marks	**Alt-OV** or **Shift-F10**
Move outline elements	**Alt-OM** or **^M**
Move cursor word left	**^←**
Move cursor word right	**^→**
New outline elements	**Alt-OC** or **^N**
New window new outline	**Alt-WN**
Numbering, reset	**Alt-DU**
Numbering, skip	**Alt-DS**
Numbering, start new	**Alt-DN**
Page advance, printer	**Alt-PP**
Page break control	**Alt-EP**
Paragraph down	**Shift-PgDn**
Paragraph indent	**Alt-EI** or **^I**
Paragraph style	**Alt-DC** or **^T**
Paragraph up	**Shift-PgUp**
Place outline entry	**Alt-DP**
Print	**Alt-PG** or **^P**
Print code display	**Alt-PI**
Print destination	**Alt-PD**
Print range	**Alt-PR**

(continued)

FUNCTION	KEY
Printer formatting	**Alt-EO**
Promote current entry	**F5**
Promote marks	**Alt-OP** or **F7**
Quit PC-Outline	**Alt-FQ**
Read other file types	**Alt-FI**
Rename current outline	**Alt-FR**
Replace	**Alt-ER** or **^R**
Reset outline places	**Alt-DA**
Right margins, even	**Alt-DE**
Save outline	**Alt-FS** or **^S**
Show all children	**Alt-SF**
Show all children at level	**Alt-SB**
Show all family text	**Alt-SI**
Show all offspring	**Alt-SH**
Show all text at level	**Alt-SD**
Show entry's children	**Alt-SA**
Show text, current entry	**Alt-SC**
Show text, whole outline	**Alt-SE**
Show whole outline	**Alt-SG**
Sort outline entries	**Alt-OS**
Space, insert non-break	**^F10**
Start new outline	**Alt-FN**
Style, default set	**Alt-DD**
Style, global set	**Alt-DG**
Style, range set	**Alt-DR**
Subscript on	**^F7**
Subscript off	**^F8**
Superscript on	**Shift-F7**
Superscript off	**Shift-F8**
Switch to window number	**Alt-WT** or **Alt-1-9**
Tab set	**Alt-ET**
Time, insert live	**Alt-AX** or **Shift-F4**
Time, insert static	**Alt-AT** or **Shift-F3**
Title, add	**Alt-DT**
Top of file	**^Home** or **Shift-Home**
Underline, begin	**^F1**
Underline, end	**^F2**
Undelete	**Alt-Eu** or **Alt-U**
Unindent paragraph	**Alt-EX** or **^X**
Up one entry same level	**Shift-↑**
Window arrange	**Alt-WA**
Window close	**Alt-WC**
Window family copy	**Alt-WQ** or **^Q**

FUNCTION	KEY
Window family move	**Alt-WW** or ^**W**
Window list	**Alt-WI** or ^**Z**
Window move	**Alt-WM**
Window number, switch to	**Alt-WT** or **Alt-1–9**
Window size	**Alt-WS**
Window zoom	**Alt-WZ**
Word left	^-←
Word right	^-→
Zoom/unzoom toggle	**Gray–**
Zoom window	**Alt-WZ**

APPENDIX **B**

Additional Printer Information

Installing Printer Description Files

IF YOU HAVE WORDSTAR2000 RELEASE 3

You must install a printer description file (.PDF). There are .PDF files for some of the more popular printers on your PC-Outline disk.

If you've installed WordStar 2000, you can use the same .PDF for both programs.

Follow these steps to install a printer description file:

1 Log onto the directory containing the PC-Outline files (usually \PCO). Type **pco** and press ↵ to start PC-Outline. Open an outline.
2 Choose **Configuration Settings** at the Advanced Menu.
3 Type the full pathname and file for your printer description file at the *Printer Description File:* prompt.
4 Press **F10**, followed by ↵, to save your changes.
5 Exit PC-Outline.

Note: If you have WordStar 2000 installed on a hard disk computer, the .PDF files are located in the \WS2000\PRINTER subdirectory (or directory where you installed WordStar 2000). If you installed WordStar 2000 on a 3½-inch dual floppy system, the .PDF files are located on your WordStar 2000 Program & Help disk.

IF YOU HAVE WORDSTAR PROFESSIONAL RELEASE 5

If you are using PC-Outline with WordStar Professional Release 5, you must use one of the two .PRN files on the PC-Outline disk: PCOSTAN.PRN or PCODAISY.PRN. Choose PCOSTAN.PRN for printing on a dot matrix printer or any laser printer. Choose PCODAISY.PRN for printing on a daisy wheel printer.

Follow these steps to install a printer description file.

Note: If you are installing WordStar on a hard disk, first copy the .PRN file(s) to the directory that contains your PC-Outline files (usually \PCO).

1. Log onto the directory containing the PC-Outline files. Type **pco** and press ↵ to start PC-Outline. Open an outline.
2. Choose **Configuration Settings** at the Advanced Menu.
3. Type the full pathname and filename for the appropriate .PRN file at the *Printer Description File:* prompt.
4. Press **F10**, followed by ↵, to save your changes.
5. Exit PC-Outline.

Printing on a LaserJet®

To print on an HP® LaserJet (and most other laser printers) from PC-Outline, follow these steps:

1. Choose **Set Page Format** at the Print Menu.
2. Set the page length to 60.
3. Set the top margin to 3.
4. Set the bottom margin to 3.
5. Save these new settings to the configuration file by pressing **F10** in the Set Page Format option box.

The configuration file affects only newly created outlines. To change the above settings on existing outlines, you must change them for each outline and then resave the outline.

Note: If you are using WordStar Professional, choose the PCOLASER.PRN file. If you are using WordStar 2000, choose either the PCOLASER.PRN file or an appropriate .PDF file.

Printer Problems

PC-Outline supports most printers. However if you have installed PC-Outline as directed and some of the print attributes don't work correctly (for example, boldface doesn't print), try printing your files through your word processor. Follow these steps:

1. Press **Alt-P** (Print).
2. Press **D** (Set Device for Output).
3. Choose your word processor.
4. Press **G** and type a filename.
5. Exit PC-Outline and print the file using your word processor.

Most printer problems are caused by one of these situations:

- The printer is not connected properly. Make sure you're using the correct printer port and that it's linked properly. Make sure the printer is turned on and is online. If you're on a network, make sure your printer is linked whether you're using the network or not.
- You don't have the correct printer driver installed. If you're using WordStar 2000, you must either install the correct printer description file or use one of the two .PRN files supplied with the program. If you're using WordStar Professional, you must use one of the two .PRN files. The internal default file works on most printers. See "Installing Printer Description Files" at the beginning of this appendix.
- Your printer cannot print bullets and you have bullet numbering set in your outline. There are several symptoms of this problem. You may see some nonsensical character printed instead of bullets, or your printer may mysteriously change fonts in the middle of an outline. To fix these problems, either change the bullet numbering to some other type of numbering or follow the steps above to print the file through your word processor.

  TIP *If you have WordStar 2000 or WordStar Professional, you can use Find and Replace to change the bullet character to any character you want. You must first convert the file to WordStar Professional or WordStar 2000 format. See "Set Device for Output" in the "Reference" chapter for more information.*
- If your printer prints part of your outline and then stops, you may have a particular hardware/printer combination that is causing the problem. If this is the case, you need to use the DOS MODE command before printing to set the printer for infinite retry. See your operating system manual for details on how to do this.
- If all else fails, it is possible that you either embedded a printer code in your outline that is not set up correctly for your printer (turn printer codes on with **Printer Code Display** on the Print Menu and look for graphics characters in your outline), or your outline could be corrupted in some way. To rid your outline of all unwanted characters, write it to a structured file and then read it back as a structured file. This will preserve 95% of the outline structure but will clean out all paragraph and printer formatting.

APPENDIX **C**

Command Parameter Options

There are a number of command parameter options you can use when starting PC-Outline. These options control how the program will work. To use a command parameter, type the parameter as shown below after the program name in DOS. For example, you would type **pco/p** to suppress the deletion confirmation message in PC-Outline.

These are the command parameter options and their functions:

PARAMETER	FUNCTION
/R	Loads PC-Outline as a memory-resident program.
/S	Uses fast video (for graphics video cards not requiring retrace synchronization).
/M=xx	Specifies the amount of data memory to reserve for your outlines. For example, **/M=30** would reserve 30K of memory for your outlines. This value defaults to 64K and can be set to anything between 20 and 640.
/B	Black and white only, no color.
/L=xx	Specifies the location of the configuration file by typing **/L**=<***path and filename of configuration file***>.
/D	Ignores the starting current directory in the configuration file and uses the DOS current directory as the starting directory. (You must have a path statement telling DOS where to find PCO.EXE.)

(continued)

PARAMETER	FUNCTION
/K	Gets keys directly from the keyboard buffer to bypass keyboard enhancers. If you have redefined some keys using a keyboard enhancer, the redefinitions may confuse PC-Outline. If you want the redefinitions to normally be active for your other programs, but not for PC-Outline, then use this option. The use of **/K** provides special built-in support for ProKey™ and SuperKey® that will detect their presence and deactivate them temporarily whenever you are in PC-Outline. This support is necessary because these programs will not let PC-Outline get keys directly from the keyboard buffer.
/T	Updates the onscreen time only when a key is pressed. This option is provided for non-IBM video cards that cause snow on the screen. By using this option, you will prevent continuous snow and will get snow only when you press a key. *Note:* If you have snow, first try setting Retrace to ''Yes'' in the Configuration Settings option box on the Advanced Menu.
/I	Uses low-intensity video instead of high-intensity video. You may want to use this option if you're running PC-Outline on an IBM monochrome monitor.
/P	Skips the confirmation prompt when you're deleting outline entries with the ^**D** command. If you use the **/P** parameter, you will not be prompted before potentially large deletions.

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Introduction

The purpose of a word processing program is to make your work easier and faster. While a program may have many exciting features, they aren't much help unless you know how to use them for the work you do every day.

This is a how-to instruction section. It tells you how to use the WordStar Professional feature set to do office-related tasks. In using it, you'll learn many "tips and tricks" of word processing in general, and WordStar in particular. You can use these techniques in every document you create.

A chart on the following pages lists the major tasks that are covered and indicates which application handles them. For instance, if you use boilerplate text often, you will find tips on that subject under "Contracts," even if you aren't interested in contracts specifically.

As with any how-to book, the instructions may require some adaptation. Your printer may not be able to do some of the things we describe here, or your needs may be slightly different. But the instructions should give you some good ideas about how to make WordStar work for you.

Each application in this section is independent: you can go directly to the one you want without reading the others. All the information, commands, and so on, are included, so you won't need to refer to other books. Where applicable, there are pictures of the finished product, too.

Note: Although this section provides step-by-step instructions for each task, the applications are sophisticated, and the instructions assume an understanding of the program. If you want instructions for simpler tasks, see the "Training" section of *Starting and Learning*. It's also advisable to run the onscreen tutorial, which allows you to experiment with the program itself.

We welcome your comments. If there are other applications you'd like to see in the future, or if you create an application of your own, please let us know. Send your ideas to: Technical Communications, MicroPro International Corporation, 33 San Pablo Ave., San Rafael, California 94903.

Finding a Particular Task

This chart lists the major tasks covered in this booklet and indicates which application handles them.

TASK	WHERE TO FIND IT
Alphabetizing	Phone Directories
Block math	Invoices, Loans and Interest
Boilerplate text	Contracts
Bulleted lists	Meeting Minutes
Business letters	Business Letters and Envelopes
Chain printing files	Long Documents
Changing fonts	Newsletters
Changing page numbering	Meeting Minutes
Compound page numbering	Long Documents
Conditional text	Contracts, Invoices
Controlling page breaks	Long Documents
Copying a block from one file to another	Meeting Minutes
Copying one file into another	Meeting Minutes
dBASE	Invoices
Displaying onscreen messages	Invoices, Long Documents
Double underlines	Newsletters
Envelopes	Business Letters and Envelopes, Form Letters and Mass Mailings
Figuring interest	Loans and Interest

TASK	**WHERE TO FIND IT**
Footers	Meeting Minutes
Form letters	Form Letters and Mass Mailings
Headers	Business Letters and Envelopes, Meeting Minutes
Keeping sections of text on a page	Long Documents
Landscape mode	Phone Directories
Line and box drawing	Organization Charts
Lotus 1-2-3	Invoices
Macros	Meeting Minutes, Phone Directories
Mail merge	Form Letters and Mass Mailings, Invoices, Loans and Interest
Math	Invoices, Loans and Interest
Newspaper-style columns	Phone directories
Numbered lists	Meeting Minutes
Omitting page numbers	Meeting Minutes
Opening a window on the same file	Long Documents
Organizing files	Long Documents
Orphan/widow control	Long Documents
Outlining	Meeting Minutes
Overprinting several lines	Newsletters
Page breaks	Long Documents
Page numbering	Meeting Minutes, Long Documents
Pausing the printer	Form Letters and Mass Mailings
Printing labels	Form Letters and Mass Mailings
Printing on letterhead	Business Letters and Envelopes
Putting commands in macros	Meeting Minutes, Phone Directories
Recovering deleted text	Long Documents
Right-aligning text	Newsletters, Meeting Minutes
Snaking columns	Phone Directories
Sorting a list	Phone Directories
Standard paragraphs	Contracts
System date	Meeting Minutes
Two-column or three-column text	Phone Directories
Variable number formatting	Invoices, Loans and Interest
Variable text formatting	Invoices
Variables specified at print time	Invoices

Business Letters and Envelopes

You probably already use WordStar for your business correspondence. This application illustrates some new techniques you can use to make your letters look more professional, and make more efficient use of your time.

This application will show you how to print business letters on letterhead paper and how to set up a file for printing envelopes for each letter. You can use the resulting files as "formats," with the proper page settings in place. Just change the text and the addressee for new letters.

Designing the First Page of the Letter

1. Begin a new file and name it something descriptive, like BUSLETR.
2. Press ^**OL** to see the Margins & Tabs dialog box. Specify the following:

Left margin	.10″
Right margin	6.50″
Top margin	1.00″
Bottom margin	.50″
Tabs	.3,.9,1.5,2.1,2.7,3.3,3.9
Page offset	1.00″

   When you're finished changing settings, press **F10.**
3. Since this is a business letter, omit page numbers from the first page. Press ↵ to begin a new line and type **.op**.

Designing Subsequent Pages

The subsequent pages of a business letter are usually printed on blank paper, instead of letterhead. This means that there is room for several header lines and the top margin can be made smaller. Also, subsequent pages will be numbered (on the first page, numbers were omitted).

1. To start page numbering, move the cursor to the first line after the page break. Type **.pg**. Page numbers are centered. If you want the numbers to print in a different location, use a **.pc** command.
2. If you want headers that print on each subsequent page, set them up here. Type **.h1** and the text of your header. If the header is longer than one line, use the **.h2** and **.h3** commands.
3. Set a smaller top margin, now that you don't need to leave room for the letterhead. Type **.mt 6**.

   TIP *You might want to save this format on disk as a document. Every time you type a letter, use **^KR** to insert the document into the letter.*

4. When you print your letter, select the printing option that lets you pause between pages. Replace the letterhead paper with blank paper after the first page is printed. (Your printer must be capable of printing one sheet at a time to do this.)

Printing a Standard Business Envelope

To print an envelope, set a shorter page length and special margins. You can create a standard format for envelopes and store the format in a separate file. Then, when you want to print an envelope, you can read in the format file after the last page of your letter with the **^KR** command.

The format in the example below is suitable for a standard 9½-by-4-inch business envelope, printing 10 characters per inch.

1. Begin a new page by typing **.pa**.
2. Press **^OL** to see the Margins & Tabs dialog box. Specify the following:

Top margin	2.00″
Bottom margin	0.00″
Page length	4.00″
Page offset	4.00″

3. Omit page numbers from the envelope (**.op**).

If you use different sized envelopes, you can create your own formats using different values for these dot commands.

Follow these steps to print your envelope:

1. At the end of the letter file, turn off any headers or footers you included. To do this, type the same dot command you used to begin the header or footer (without any text) and press ↵.
2. Bring the envelope file into the letter at the end with ^**KR**. The **.pa** at the beginning of the envelope format ends the letter.
3. Type the name and address for the envelope beginning in line 1, column 1 (immediately below the dot commands). Alternately, use block commands to mark and copy the name and address from the beginning of your letter.
4. Save the document with ^**KD**.
5. Print the file, selecting the print option to pause between pages, so you can replace the stationery with an envelope at the appropriate time.

Form Letters and Mass Mailings

WordStar's powerful merge printing feature allows you to easily create a form letter to send to your entire mailing list. In this application you'll learn how to set up the master document for a form letter. There are also instructions for merge printing envelopes and three-across labels.

This application assumes that you've created a data file containing the names and addresses of the addressees. This data file can be created with the WordStar MailList program, with WordStar (as a nondocument file), with dBASE, Lotus 1-2-3, or with any program that creates a comma-delimited ASCII data file.

Creating a Master Document

You'll type the commands and text for a form letter to all the customers in your data file.

1. Begin by typing the commands that tell WordStar the data file to use and the names of the variables. Remember, each dot command must be on its own line, and must begin in column 1.

   In our example, the data file is called SERVICE.DTA. *Note:* the variables used here are just examples—your variable names may be different.

```
.df service.dta
.rv Mr-Ms,full-name,address1,address2,address3
```

2 If you like, you can add some information that is displayed onscreen when you print this file, but that won't be printed. For example, type

```
.cs Printing letter to &full-name&.
.dm Make sure there is room for logo on letterhead.
```

3 Add commands to change the design of your page. For example, you can increase the top margin to leave room for a letterhead (**.mt 3"**). You might also want to omit page numbers in a formal letter (**.op**).

4 Now, type the text of the letter. Each variable (a word surrounded by ampersands) will be replaced by actual data when the file is printed. If you type **/o** after a variable, the line won't be printed if there's no data in that field. Here's an example of the letter text.

```
&Mr-Ms& &full-name&
&address1/O&
&address2/O&
&address3/O&

Dear &full-name&:

Thank you for your recent purchase at our store. I know that
you will be satisfied for many years. However, if a problem
ever arises, remember that our customer service department is
located at

           1234 Van Ness Avenue
           San Francisco, CA 94900

You can also call us at (415) 123-1212 during normal business
hours.

Sincerely,

Charles Darwin, Customer Service Manager
.pa
```

5 To include the current date in your letter, type the system date variable, **&@&**.

Now, when you print this file, WordStar will print one letter for each customer in the data file you specified. The information in each record will replace the variables in the letter. The current system date will replace the &@& variable.

Merge Printing Envelopes for a Mass Mailing

You can use the data file in the previous example to print envelopes for your mailing. Follow these instructions to create a master document for printing standard envelopes.

Note: If you used MailList to create your data file, you must use MailList's .LST files to print envelopes or labels. This technique is described in detail in the MailList documentation. However, if you created your data file manually, or with another program, you can use the techniques described here unless you have a laser printer. With a laser printer, use the envelope .LST files supplied with WordStar.

1. Start by opening a new document file from the opening screen in WordStar.
2. Turn page numbering off by typing **.op** on the first line of the file.
3. Type the dot commands to select the data file and read the data variables. In our example, we use the same data file (SERVICE.DTA) and variables that we used in the previous example. For example, type

```
.df service.dta
.rv Mr-Ms,full-name,address1,address2,address3
```

4. You must pause before each envelope is printed so you can put in a new envelope. You'll use a **.av** command to do this. The "X" variable in the **.av** command below is not really used. It's there because the **.av** command requires a variable for its answers. Using **.av** is a trick to make the printer pause. For example, type

```
.av "Put envelope in printer. Press Enter when ready.",X
```

5. Type **.cs** to clear the screen after the **.av** message is displayed.
6. Now, set the page length, offset, and top and bottom margins for your envelope. Press **^OL** to see the Margins & Tabs dialog box. Specify the following for a standard 9½-by-4-inch envelope:

Top margin	2.00"
Bottom margin	0.00"
Page length	4.00"
Page offset	4.00"

7 Use variables to print the name and address from the data file. The command **.pa** starts a new envelope. For example, type

```
&full-name&
&address1/O&
&address2/O&
&address3/O&
.pa
```

Your envelope file should look like the one shown here:

```
.op
.df service.dta
.rv Mr-Ms,full-name,address1,address2,address3
.av "Put an envelope in the printer now. Press Enter when ready.",X
.cs
.pl 4.00"
.mt 2.00"
.mb 0
.po 4.00"
&full-name&
&address1/O&
&address2/O&
&address3/O&
.pa
```

Use this file to print an envelope for each record in your data file. When printing pauses, read the message, insert an envelope, and press ↵ to continue. The **.cs** command clears the screen after you insert each envelope and press ↵

Merge Printing Three-Across Mailing Labels

This example shows you how to set up a format for merge printing names and addresses from a data file onto mailing labels. The commands used here are appropriate for three-across, general purpose labels measuring 3½-by-15⁄16-inches, printed with 10 characters per inch and 6 lines of text per inch.

Note: If you created your data file with MailList, you must use the .LST files supplied with MailList to print labels. If you created your data file with another program, you can use the procedures in this example. Alternately, you can use the MailList .LST files and change the **.df** and **.rv** commands to match your data file.

1 Start by creating a new document file from the opening screen in WordStar.

Name it MLMIBL3.LST

2 At the beginning of the file, type the following commands to set the offset, page length, and top and bottom margins. Note that page length is set to 1″ (each row of labels is considered to be a page).

```
.po .2"
.pl 1.00"
.mt 0
.mb 0
```

3 Type the commands to omit page numbers (**.op**) and turn print-time formatting off (**.pf off**).

4 You want each line to line up on the left side of the label. You'll use a **.sv** command to do this. Set up a format named **L** to left-justify fields. Each such field can be 30 characters wide. Type the **.sv** command below. (There are 30 Ls.)

```
.sv L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
```

5 Type the dot commands to select the data file and read the data variables. For example, type

one for each MSTRLIST

```
.df label.dta
.rv name1,address1,city1,state1,zip1
.rv name2,address2,city2,state2,zip2
.rv name3,address3,city3,state3,zip3
```

6 You'll use a special trick to combine three different variables into a new one.

The last line of each label must be the same width as the other two lines. You could define formats for the city, state, and zip variables, so their combined widths would be 30 characters. However, the method shown here is easier. Type these commands:

```
.sv cityline1=&city1&, &state1& &zip1&
.sv cityline2=&city2&, &state2& &zip2&
.sv cityline3=&city3&, &state3& &zip3&
```

Ref P 432
8 Mn-Mos/6 P

7 Type the variables for the labels. Type 5 spaces between each variable on each line. The spaces will position the printer at the left side of the next label. For example, type

```
&name1/L&     &name2/L&     &name3/L&
&address1/L&     &address2/L&     &address3/L&
&cityline1/L&     &cityline2/L&     &cityline3/L&
```

8 Insert a page break to go to the next set of three labels. (Do not use form feeds when you merge print.)

Your file should now look like this:

```
.op
.pf off
.po .2"
.pl 1.00"
.mt 0
.mb 0
.sv L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
.df label.dta
.rv name1,address1,city1,state1,zip1
.rv name2,address2,city2,state2,zip2
.rv name3,address3,city3,state3,zip3
.sv cityline1=&city1&, &state1& &zip1&
.sv cityline2=&city2&, &state2& &zip2&
.sv cityline3=&city3&, &state3& &zip3&
&name1/L&     &name2/L&     &name3/L&
&address1/L&     &address2/L&     &address3/L&
&cityline1/L&     &cityline2/L&     &cityline3/L&
.pa
```

What if Some Records Have Missing Data?

What happens if there is no street address for someone in a mailing list? A row of labels might look like this:

```
Franz Reichsman         Roland Tums             Rebecca Fies
12345 Healing Street                            54321 Dolphin Drive
Marlboro, VT 05301      Tinyhamlet, MO 64423    Santa Fe, NM 85102
```

The middle label would be more professional looking if the city, state, and ZIP appeared on the second line, like this:

```
Roland Tums
Tinyhamlet, MO 64423
```

If this were a letter, you could use the "/o" option to leave out the line if there is no data for the variable. However, /o won't work for these mailing labels, because the variable is not the only text on the line.

The problem can be solved by using conditional dot commands. You can ask WordStar to check for missing data in a particular variable. If the data is missing, WordStar can replace the data for that variable with the data from another variable.

The mailing list record consists of a name, street, city and state, and ZIP code. The variable most likely to have missing data is the street.

After WordStar has read all the variables from the data file for a row of labels, it can check to see if any street addresses are missing. If they are, WordStar can move the data from name1 into the street address space. Then the data from name1 is removed. The result is an empty line at the top of the label, instead of in the middle. For example,

name1	(which is now empty)
address1	(which now contains the data that was in name1)
cityline1	(which is not affected)

WordStar will check each address in your mailing list the same way.

To set this up in your file, follow these steps.

1. Move the cursor just before the first line of labels (that is, to the line above &name1/L&).
2. Type the first conditional command, as shown here. When you include a variable surrounded by ampersands (&) in an **.if** command, WordStar checks the data contained in that variable. Type **.if &address1& =** .
3. Now move that data into the variable called address1. (Both name1 and address1 will contain the same data.) Type **.sv address1,&name1&**.
4. Finally, remove the data from the NAME1 variable and make it an empty field. Type **.sv name1**.
5. End the condition by typing **.ei**.
6. Repeat these steps for the remaining two lines of variables. When you're finished, the added commands in your file should look like this:

```
.if &address1&=
.sv address1,&name1&
.sv name1
.ei
.if &address2&=
.sv address2,&name2&
.sv name2
.ei
.if &address3&=
.sv address3,&name3&
.sv name3
.ei
```

If the ADDRESS field is empty, the NAME field information is moved to the ADDRESS position, and the NAME field is left empty. When there is data for all three ADDRESS variables, the **.if** commands are skipped. You can use more **.if** commands to modify this basic procedure if two or more variables are missing.

TIP *You might want to create a "dummy" data file of three names and addresses that you print just before printing your real data file. That way, you can check the position of the labels in the printer and make any necessary adjustments.*

Meeting Minutes

Creating a Boilerplate Format

In this application you'll set up a file as a boilerplate format. This file contains the page layout settings and standard text for the minutes of a regularly scheduled meeting. You need to create the boilerplate format only once. Then you can read it in every time you type the minutes.

The boilerplate format shown in this example is designed for a Hewlett-Packard LaserJet+ printer with several sizes of Helvetica and Times Roman type. Adapt the format for your own printer.

Setting Up the Parameters

You'll create a new file that contains settings especially for use with your meeting minutes.

1. From the opening screen in WordStar, open a new document file.
2. Type a name for the new file. For instance, type **meeting.for** and press ↵.
3. Choose a font for your minutes. Press ^**P**= and select a font. Text, headers, and footers will appear in this font unless you change it later. In this example, choose **TmsRmn 10 pt.**
4. Now, set the margins for your document. Use the following list as a guideline. The list shows the settings you need to change and the commands to change them. The values shown for page margins are appropriate for most laser printers. Adapt them for your printer if necessary. Remember that each dot command must be on its own line, and must begin in column 1.

Top margin	**.mt**	.10″
Bottom margin	**.mb**	.50″
Page length	**.pl**	11.00″
Text ragged right	**.oj off**	

Adding Text

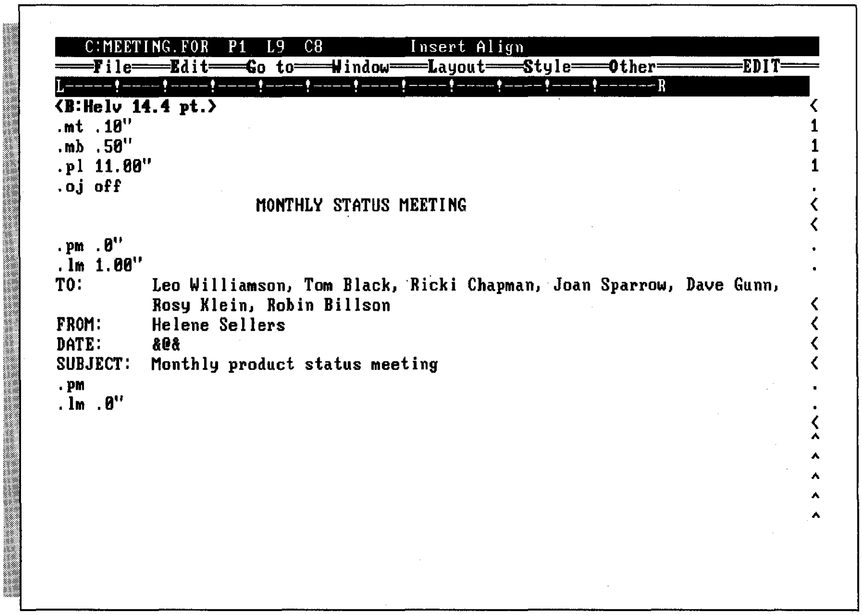
Your boilerplate format sets up the basic page design for your meeting minutes. It can also include text. When you read the boilerplate format file into any new document file, both the page design and text are inserted into the new file. This is useful for meeting minutes, where you have things that don't change from meeting to meeting.

Start by creating a template that includes the distributor, distribution list, date, and so on.

1. On the first text line of the file, center the title for your meeting minutes. In our example, type **MONTHLY STATUS MEETING** and press ^**OC**. Use ^**PB** to boldface this title.
2. Skip a line and type **TO:**, **FROM:**, **DATE:**, and **SUBJECT:**, each on its own line. Fill in these entries with the appropriate names and information.
3. Skip a line and use the shifted hyphen key (underbar) to draw a line across the page.
4. You can set up a hanging indent if your distribution list is more than a line long. A hanging indent means that the first line of a paragraph starts at the left margin, but the other lines are indented.

   To do this, move the cursor to the beginning of the line just above TO. Set a paragraph margin by typing (**.pm 0″**). Now, the first line of each paragraph will begin in column one. Indent the rest of the paragraph by changing the left margin. Do this by typing **.lm 1.00″**.
5. Move the cursor to the end of the file by pressing ^**QC**. Change your margins back to normal by typing **.pm** and **.lm 0″**.

   In our example, the file now looks like this:



```
   C:MEETING.FOR  P1  L9  C8          Insert Align
═══File═══Edit═══Go to═══Window═══Layout═══Style═══Other═══════EDIT═══
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!------R
<B:Helv 14.4 pt.>                                                        <
.mt .10"                                                                 1
.mb .50"                                                                 1
.pl 11.00"                                                               1
.oj off                                                                  .
                        MONTHLY STATUS MEETING                           <
                                                                         <
.pm .0"                                                                  .
.lm 1.00"                                                                .
TO:         Leo Williamson, Tom Black, Ricki Chapman, Joan Sparrow, Dave Gunn,
            Rosy Klein, Robin Billson                                    <
FROM:       Helene Sellers                                               <
DATE:       &@&                                                          <
SUBJECT:    Monthly product status meeting                               <
.pm                                                                      .
.lm .0"                                                                  .
                                                                         <
                                                                         ^
                                                                         ^
                                                                         ^
                                                                         ^
                                                                         ^
```

6 You can either leave the space for the date blank (and fill it in for each report), or you can type the merge-print variable **&@&**. If you use the merge-print variable, the current system date is inserted when you print the file. (Make sure you leave enough room, because the actual date takes up more space when it's printed than the variable does onscreen.)

Meeting minutes often have a standard opening and closing paragraph, as well as a regular agenda. You can add this text to the boilerplate format too.

1 Make sure the cursor is on the blank line below the last text in the file. Type the standard opening. In our example, type

```
The product status meeting was called to order at 3:00 p.m. on
Wednesday. The president and vice-presidents of Product Develop-
ment, Product Marketing, and Sales attended, as well as representa-
tives from Documentation, Support, and Testing.
```

2 Skip a few lines and type the standard closing paragraph. In our example, type

```
Written status reports were presented by each representative
(attached). This group will reconvene on the second Wednesday of
next month. The agenda will be circulated a week before the meet-
ing. If you have items to add to the agenda, please send them to
Helene Sellers within the next three weeks.
```

Adding a Header to the Boilerplate Format

If there is information you want to include on every page, set up headers and footers so you don't have to retype the information each time.

1 Move the cursor to the beginning of the file by pressing **^QR**.

2 To create a header that prints on each page, type **.h1**.

3 On the same line, type the text for the header. In our example, type **Monthly Status Report**, then press the **Tab** key to move to the right side of the line and type **Big Business, Inc.** (The number of tab stops between the sections of text will vary, depending on your margin settings and font size you're using.)

Omitting the Page Number from the First Page

You may want to use the first page of your meeting minutes as a cover memo. In that case, you would omit the page number on the first page. You can begin the text of your minutes with page number 1 (even though this is actually page 2 of the document). To do this, follow these directions:

1. With the cursor on the first line of the file, type **.op**.
2. Move the cursor to the line just above the first paragraph. Type **.pa** to insert a page break. Move the cursor to the first line on the second page.
3. Press ^**N** to insert a blank line. On the blank line, type **.pn 1** to have this page numbered as page 1. Subsequent pages will be numbered consecutively.

Creating a Footer for the Boilerplate Format

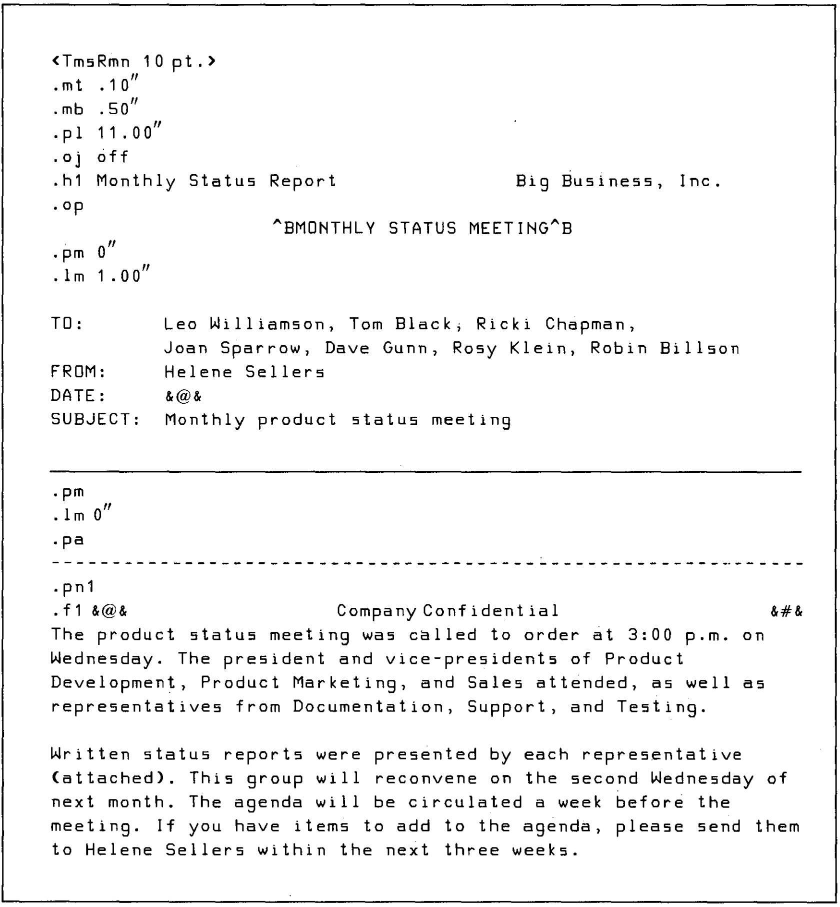
1. Press ^**N** to insert another blank line.
2. To create a footer that prints on each subsequent page, type **.f1**.
3. On the same line, type the text for the footer. The text for this footer includes the **&#&** merge print variable, which prints the correct page number on each page. Remember to leave enough room for the printed date after the **&@&** variable. The footer line should look like this:

```
.f1&@&              Company Confidential              &#&
```

Finishing the Boilerplate Format

You've finished setting up the boilerplate format for the meeting minutes. From now on, every time you type the minutes, you'll use this file. You can either read the file (^**KR**) into a new document file, or you can open this file, add new information, and save the changed version with a different name (^**KT**).

The file in our example now looks like this (with display on):



```
<TmsRmn 10 pt.>
.mt .10″
.mb .50″
.pl 11.00″
.oj off
.h1 Monthly Status Report               Big Business, Inc.
.op
                   ^BMONTHLY STATUS MEETING^B
.pm 0″
.lm 1.00″

TO:       Leo Williamson, Tom Black; Ricki Chapman,
          Joan Sparrow, Dave Gunn, Rosy Klein, Robin Billson
FROM:     Helene Sellers
DATE:     &@&
SUBJECT:  Monthly product status meeting

_________________________________________________________________
.pm
.lm 0″
.pa
-----------------------------------------------------------------
.pn1
.f1 &@&                 Company Confidential                 &#&
The product status meeting was called to order at 3:00 p.m. on
Wednesday. The president and vice-presidents of Product
Development, Product Marketing, and Sales attended, as well as
representatives from Documentation, Support, and Testing.

Written status reports were presented by each representative
(attached). This group will reconvene on the second Wednesday of
next month. The agenda will be circulated a week before the
meeting. If you have items to add to the agenda, please send them
to Helene Sellers within the next three weeks.
```

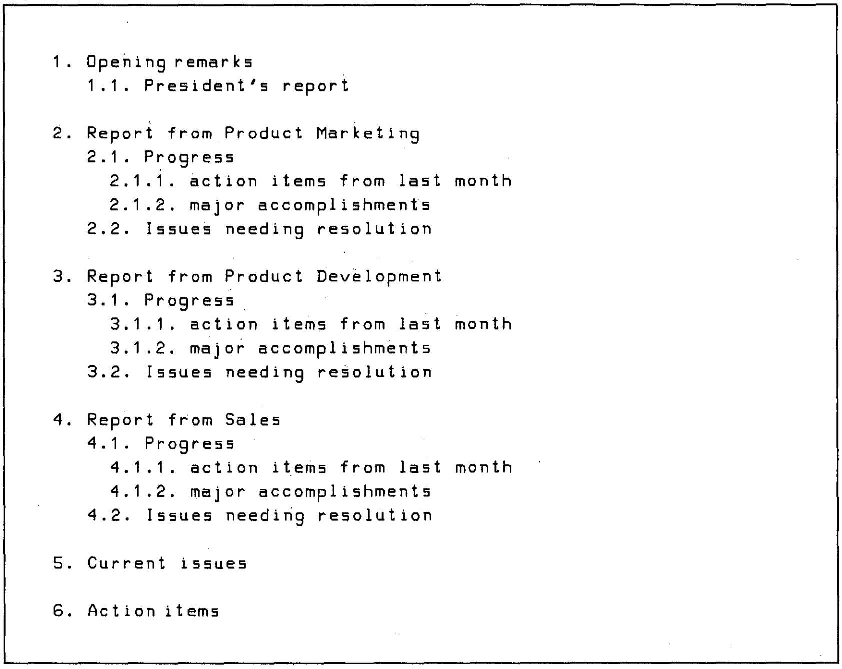
Look over your text. If it is just the way you want it, save the file.

1 Press **^KD** to save the document.

Outlining an Agenda

A meeting agenda is often structured like an outline. You can use WordStar's paragraph-numbering feature to construct a standard meeting agenda. You can easily read the agenda into a WordStar file to distribute it and to use the outline as the basis for your minutes.

1. Open a document file and name it something descriptive. For instance, call it **c:\ws5\agenda.**
2. Create the agenda in outline form. Press ^**OZ** for each consecutive number. Use the right arrow key to move in a level. Use the left arrow key to move out a level. Press ↵ to accept the displayed level. In our example, the resulting outline looks like this:



```
1. Opening remarks
   1.1. President's report

2. Report from Product Marketing
   2.1. Progress
     2.1.1. action items from last month
     2.1.2. major accomplishments
   2.2. Issues needing resolution

3. Report from Product Development
   3.1. Progress
     3.1.1. action items from last month
     3.1.2. major accomplishments
   3.2. Issues needing resolution

4. Report from Sales
   4.1. Progress
     4.1.1. action items from last month
     4.1.2. major accomplishments
   4.2. Issues needing resolution

5. Current issues

6. Action items
```

Updating and Distributing the Agenda

Often, when it's time to send out the agenda, there are changes to incorporate. In our example, the vice-president of Sales is out of town and won't present a report; the representative from Testing has a presentation to make; and the president wants to have a special discussion on documentation.

You can make changes to the agenda and send it to everyone on the distribution list.

1. At the opening screen in WordStar, open the file containing your agenda.
2. Press ^**KR** and read in the MEETING.FOR file you created for meeting minutes. This file has the correct distribution list; you just need to delete the text pertaining to minutes.

Adjusting the Boilerplate Information

Although this document is a boilerplate format designed for the meeting minutes, it can easily be adapted for use as the agenda. Make the following adjustments:

1. The title of the document, "MONTHLY STATUS MEETING," is still appropriate since this is the agenda for that meeting. However the text of the header, "Monthly Status Report," is not.
2. Move the cursor to the header line. Change "Monthly Status Report" to **Agenda for Monthly Status Meeting**.
3. Mark the two paragraphs as a block (^**KB** to begin the block and ^**KK** to end the block). Delete the block by pressing ^**KY**.

Now make any necessary changes to the agenda items. In our example, delete the section about the report from Sales and add two specific items under "Current issues."

1. Move the cursor to the section beginning "4. Report from Sales." Mark the section between that line and the next agenda item ("5. Current issues") as a block. Delete the block.
2. Move down to the blank line below "5. Current issues." Type the following text, using the ^**OZ** command to number each entry.

```
5.1. Report from Testing
5.2. Discussion of documentation
```

Next, you'll add a title to the agenda and make the important items stand out with print enhancements.

1. Add a few blank lines above the agenda outline. On the top blank line, type **AGENDA**. Press ^**OC** to center the line. Boldface or underline the title to make it stand out.
2. On the second blank line, type the name and date of the meeting. In our example, type **Monthly Status Meeting, 12/11/88**. You can center this line, too.
3. You can also boldface each of the major outline entries.
4. Add any other pertinent comments. For instance, you might want to add a note about where the meeting is and mention that the vice-president of Sales won't be able to attend.
5. Save and print the memo.

Typing the Minutes

After the meeting, use the boilerplate format you created to type the minutes. In this section, you'll see some of WordStar's features that help make this task efficient and easy, while producing an impressive result.

Using the Boilerplate Format You Created

1. At the WordStar opening screen, open a new document. Name it something descriptive, for example, 121188.MTG.
2. Press ^**KR** and read in the MEETING.FOR file that you created for meeting minutes.
3. The original text, headers, and footers you created appear in the new file.

Using the Agenda Outline to Organize Your Minutes

You can use the agenda of the meeting as an organizational outline for your minutes. You'll copy the outline from the memo you sent out to announce the meeting and add your notes to each category.

1. Press ^**OK** to open a window on the file containing your agenda. In our example, choose **AGENDA.MEM** as the file to open.
2. Mark the agenda as a block and copy it into the meeting minutes file.
3. Under each heading in the outline, add your notes on the meeting. For instance, under the first heading ("Opening remarks; president's report"), you might type

```
Leo Williamson reported that the company stock has risen to a
new high this quarter. He also announced that the documentation
for the last release won an award for excellence and has
received rave reviews. He said that the second half of the
meeting would be devoted to discussing the design for the
documentation of the new product.
```

Making the Minutes Look Professional

When you've finished typing the proceedings of the meeting, you can add boldfacing, underline, and font changes to emphasize different parts of the minutes.

Here are some WordStar features you may want to use in your meeting minutes.

Paragraph Margins

A paragraph margin sets the left margin for the first line of each paragraph.

1. To indent the first line of each paragraph, type **.pm .50"**. If your left margin is set at 0", the first line of each subsequent paragraph is indented half an inch.
2. To turn paragraph margins off, type **.pm**.

Numbered Lists

You can also use paragraph margins to begin the first line of every paragraph at the left margin and indent the rest of the paragraph. This is useful for creating numbered lists. Follow these directions to create a numbered list:

1. Set the paragraph margin at 0" and the left margin at .50". The commands to do this are **.pm 0"↵** and **.lm .5"**.
2. Type the numbered list. At the beginning of each numbered item, press **^OZ**. This inserts variables in your file that are replaced by consecutive numbers, beginning with 1.
3. At the end of the numbered list, set your margins back to normal. For example, type **.pm** ↵ and **.lm 0"**.

Bulleted Lists

A bulleted list is much like a numbered list. You can use a Shorthand key macro to set up your bulleted list.

1. From the editing screen, press **Esc ?** to define a new Shorthand character.
2. For the Shorthand character to define, type **o** and press ↵.
3. Type a descriptive name for the Shorthand character.
4. Define the Shorthand character as follows. (Each control command is preceded by **^P**.)

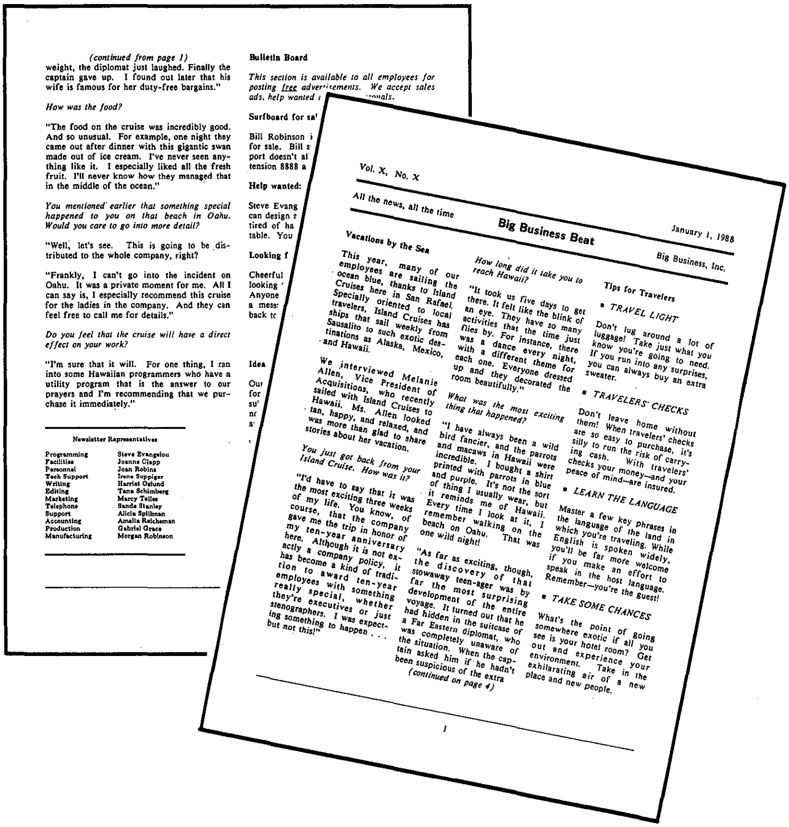
```
.pm .1"^P^M.Lm.5"^P^M^P^PBo^P^PB^P^I
```

The commands in the Shorthand character do the following:

.pm .1"	Starts the first line of the paragraph at column 1.
^P^M	Moves the cursor to the next line.
.lm .5"	Indents the rest of the paragraph to half an inch.
^P^M	Moves the cursor to the next line.
^P^PB	Turns boldfacing on.
o	Types a lower case o for the bullet. (If your printer can print a square bullet, you can type **^P^P0** (zero) and type the decimal code for the square instead of using the o.)
^P^PB	Turns boldfacing off.
^P^I	Moves to the first tab stop (same as pressing **Tab**).

5. Press ↵ to end the definition.
6. Whenever you want to create a bulleted list, press **Esc** and type **o**.

Newsletters



(continued from page 1)

weight, the diplomat just laughed. Finally the captain gave up. I found out later that his wife is famous for her duty-free bargains."

How was the food?

"The food on the cruise was incredibly good. And so unusual. For example, one night they came out after dinner with this gigantic swan made out of ice cream. I've never seen anything like it. I especially liked all the fresh fruit. I'll never know how they managed that in the middle of the ocean."

You mentioned earlier that something special happened to you on that beach in Oahu. Would you care to go into more detail?

"Well, let's see. This is going to be distributed to the whole company, right?

"Frankly, I can't go into the incident on Oahu. It was a private moment for me. All I can say is, I especially recommend this cruise for the ladies in the company. And they can feel free to call me for details."

Do you feel that the cruise will have a direct effect on your work?

"I'm sure that it will. For one thing, I ran into some Hawaiian programmers who have a utility program that is the answer to our prayers and I'm recommending that we purchase it immediately."

Newsletter Representatives

Programming	Steve Evangelou
Facilities	Joanne Clapp
Personnel	Joan Robins
Tech Support	Irene Suppiger
Writing	Harriet Oslund
Editing	Tana Schimberg
Marketing	Marcy Tellez
Telephone	Sande Stanley
Support	Alicia Spillman
Accounting	Amelia Reichsman
Production	Gabriel Grace
Manufacturing	Morgan Robinson

Bulletin Board

This section is available to all employees for posting ***free*** *advertisements. We accept sales ads, help wanted*

Surfboard for sa

Bill Robinson i
for sale. Bill s
port doesn't al
tension 8888 a

Help wanted:

Steve Evang
can design a
tired of ha
table. You

Looking f

Cheerful
looking
Anyone
a mess
back tc

Idea

Our
for
su
nc
a

Vol. X, No. X

All the news, all the time

Big Business Beat

January 1, 1988

Big Business, Inc.

Vacations by the Sea

This year, many of our employees are sailing the ocean blue, thanks to Island Cruises here in San Rafael. Specially oriented to local travelers, Island Cruises has ships that sail weekly from Sausalito to such exotic destinations as Alaska, Mexico, and Hawaii.

We interviewed Melanie Allen, Vice President of Acquisitions, who recently sailed with Island Cruises to Hawaii. Ms. Allen looked tan, happy, and relaxed, and was more than glad to share stories about her vacation.

You just got back from your Island Cruise. How was it?

"I'd have to say that it was the most exciting three weeks of my life. You know, of course, that the company gave me the trip in honor of my ten-year anniversary here. Although it is not exactly a company policy, it has become a kind of tradition to award ten-year employees with something really special, whether they're executives or just stenographers. I was expecting something to happen . . . but not this!"

How long did it take you to reach Hawaii?

"It took us five days to get there. It felt like the blink of an eye. They have so many activities that the time just flies by. For instance, there was a dance every night, with a different theme for each one. Everyone dressed up and they decorated the room beautifully."

What was the most exciting thing that happened?

"I have always been a wild bird fancier, and the parrots and macaws in Hawaii were incredible. I bought a shirt printed with parrots in blue and purple. It's not the sort of thing I usually wear, but it reminds me of Hawaii. Every time I look at it, I remember walking on the beach on Oahu. That was one wild night!

"As far as exciting, though, the discovery of that stowaway teen-ager was by far the most surprising development of the entire voyage. It turned out that he had hidden in the suitcase of a Far Eastern diplomat, who was completely unaware of the situation. When the captain asked him if he hadn't been suspicious of the extra

(continued on page 4)

Tips for Travelers

- *TRAVEL LIGHT*

Don't lug around a lot of luggage! Take just what you know you're going to need. If you run into any surprises, you can always buy an extra sweater.

- *TRAVELERS' CHECKS*

Don't leave home without them! When travelers' checks are so easy to purchase, it's silly to run the risk of carrying cash. With travelers' checks your money—and your peace of mind—are insured.

- *LEARN THE LANGUAGE*

Master a few key phrases in the language of the land in which you're traveling. While English is spoken widely, you'll be far more welcome if you make an effort to speak in the host language. Remember—you're the guest!

- *TAKE SOME CHANCES*

What's the point of going somewhere exotic if all you see is your hotel room? Get out and experience your environment. Take in the exhilarating air of a new place and new people.

1

WordStar can make any newsletter look crisp and professional. You can use print enhancements, different fonts, and special features to give your newsletter an exciting look. You'll also make the job of typing the newsletter a lot easier and faster by using some shortcuts.

In this application, you'll create a special file that sets up the page design for a newsletter. Then you'll add some text to that file. Whenever you want to type a new issue of the newsletter, you can easily read in this file, with its pretyped page layout commands, banner, and staff credits.

The example is set up for a Hewlett-Packard LaserJet+ printer with several sizes of Times Roman and Helvetica type. Adapt the format to your printer.

Setting Up the Parameters

You'll start by setting up the page layout for your newsletter.

1. At the opening screen in WordStar, open a new document file.
2. Name the file something descriptive, like **NEWS.FOR**.
3. Decide on a font to use for your newsletter. Press **^P=** and choose a font. Text, headers, and footers will appear in this font unless you change it later. In this example, choose **TmsRmn 10 pt**.
4. Now, set the margins for your document. Use the following list as a guideline. The list shows the settings you need to change and the commands to change them. The margin settings are appropriate for most laser printers. Adapt these values for your printer. Remember that each dot command must be on its own line and must begin in column 1.

Top margin	**.mt**	.3"
Bottom margin	**.mb**	1.00"
Page length	**.pl**	11.00"
Text right-justified	**.oj on**	

5. You can also set the tab stops you're likely to need for the newsletter. For example, type **.tb** and set tabs at .5" and 5.00".

Adding Text to the Format File

You'll use the format file to set up the basic page design of a document. It can also include text. Any text you include will appear in a new file when you read in the contents of this format file. This feature is useful for a newsletter, where you always want to have the same banner and credits.

Start by creating the banner for your newsletter. In our design, the banner looks like this:

Vol. X, No. X January 1, 1988

All the news, all the time **Big Business Beat** Big Business, Inc.

To create a banner like this one, follow these steps:

1. Type **Vol X, No. X.**
2. You'll right-align the next phrase. Press the **Tab** key to go to the tab at 5″. Then type the correct date for the newsletter. For example, type **January 1, 1989**. Move the cursor to the first character in the date, and use the **Spacebar** to move the date as close to the right margin as it can be without wrapping to the next line.

Creating a Double Line

1. To create the double line in the sample banner, change to a larger font. Press ^**P=** and choose **Helv 14 pt**. Use the shifted hyphen key (underbar) to type a line all the way across the page.
2. Underline the line by pressing ^**PS** at its beginning and end. Press ↵ twice to insert a blank line.

Note: If this technique doesn't work on your printer, there is an alternate way to get a double underline. Follow these steps instead:

1. Use the shifted hyphen key to type a line across the page.
2. Instead of pressing ↵ at the end of the line, press ^**P↵**. This causes the next line to overprint the first line.
3. Type another line across the page and super- or subscript it by pressing ^**PT** (or ^**PV**) at the beginning and end of the line.

Overprinting Several Lines for a Special Effect

1. In our banner, the name of the newsletter is centered between phrases that align at the left and right margins. To do this, you'll overprint three different lines. Skip a line and type the title of the newsletter. (You should still be using the large font you used for the underline.)
2. To center the newsletter name, press ^**OC**. Make a note of where the text on this line begins and ends.
3. Overprint the next line. After the newsletter title, instead of pressing ↵, press ^**P**↵. The cursor moves to the left margin of the next line.
4. To type the other phrases in the banner, switch to a smaller font. Press ^**P** = and choose **TmsRmn 10 pt**.
5. Type **All the news, all the time**. Check the inch indicator to be sure this text won't overprint the newsletter name.
6. Type **Big Business, Inc.**, and use the **Tab** key and the **Spacebar** to align the phrase at the right margin. Check the inch indicator to be sure this text won't overprint the newsletter name.
7. To copy the double line, press ↵ to leave a blank line, then move the cursor back to the double line. Make sure the underlining and font commands are on that line. Press ^**Y** to remove the line. Without moving the cursor, restore the line with ^**U**. Move to the end of the banner (^**QC**) and restore it again by pressing ^**U** a second time.

   Note: If you used the alternate way to get the double underline (using two overprinted lines), don't use ^**Y** and ^**U**. Instead, block copy both lines, making sure to include all print controls.
8. Change the font back to the smaller size. For instance, press ^**P** = and choose **TmsRmn 10 pt**.

When you print the newsletter, the two phrases will align at the left and right margins, with the name of the newsletter centered between them in a larger typeface.

A Format for the Credits

In the example, the editors and contributors are credited on the last page. Their names appear in a smaller font, surrounded by a smaller version of the double underline, as follows:

Newsletter Representatives

Programming	**Steve Evangelou**
Facilities	**Joanne Clapp**
Personnel	**Joan Robins**
Tech Support	**Irene Suppiger**
Writing	**Harriet Oslund**
Editing	**Tana Schimberg**
Marketing	**Marcy Telles**
Telephone	**Sande Stanley**
Support	**Alicia Spillman**
Accounting	**Amelia Reichsman**
Production	**Gabriel Grace**
Manufacturing	**Morgan Robinson**

To reproduce this effect, follow these steps:

1. Type **.pa** to start a new page.
2. Type a line with the shifted hyphen key. End the line when the inches indicator in the status line says 2.3". Use **^PS** to underline the line.
3. Use the **.tb** command to set a tab for the title at .6" and a tab for the representatives' names at 1.2".
4. Choose a smaller font. Press **^P=** and choose **TmsRmn 8 pt**.
5. Change the line height, since you are working with a smaller font. Type **.lh 6**.

Typing the Credits

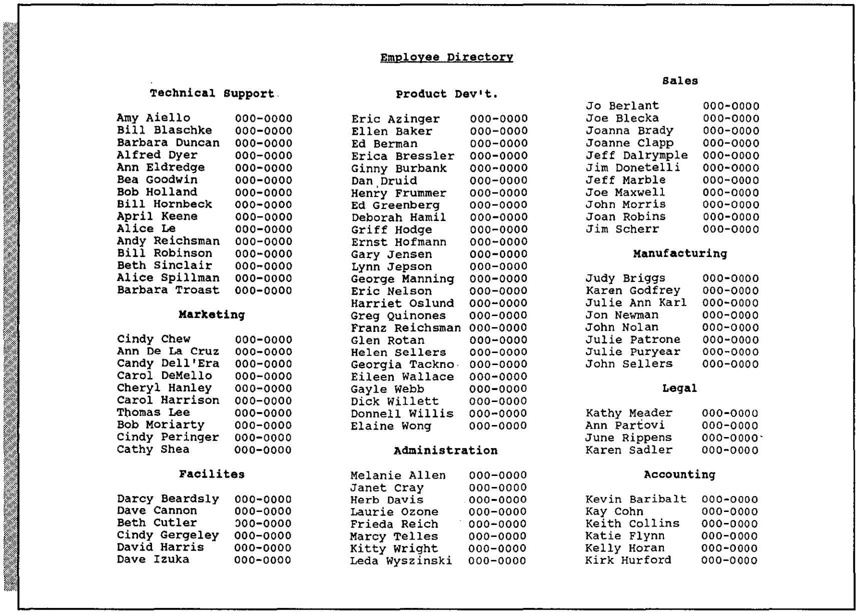
1. Tab to .6" and type **Newsletter Representatives.**
2. Skip a line, type the name of the first department, and tab to 1.2". Type the name of the representative.
3. Type the name of each department and representative on its own line.
4. Skip a line and change to the font you used for the first double line. Then block copy the double line.

Now, whenever it's time to create a new issue of the newsletter, open a new document, press ^**KR**, and read in NEWS.FOR. The settings and text you created will be inserted into your new file. You can edit this text in each issue of the newsletter; for instance, you can update the volume number and date. You can also reedit NEWS.FOR and permanently change the text; for instance, if a new representative is added to the list.

Here are some tips about newsletter style:

- Decide on a font and style for headings and bylines. For example, headlines might appear in Times Roman 12 pt., boldfaced. Bylines might appear in Times Roman 10 pt., italicized. You can put these commands in the format if you like, followed by some sample text, like, "This is the first heading," or "This is a byline."
- If possible, make your newsletter an even number of pages. Then you can copy it two sides to a sheet of paper.

Phone Directories



Employee Directory

Technical Support

Amy Aiello	000-0000
Bill Blaschke	000-0000
Barbara Duncan	000-0000
Alfred Dyer	000-0000
Ann Eldredge	000-0000
Bea Goodwin	000-0000
Bob Holland	000-0000
Bill Hornbeck	000-0000
April Keene	000-0000
Alice Le	000-0000
Andy Reichsman	000-0000
Bill Robinson	000-0000
Beth Sinclair	000-0000
Alice Spillman	000-0000
Barbara Troast	000-0000

Marketing

Cindy Chew	000-0000
Ann De La Cruz	000-0000
Candy Dell'Era	000-0000
Carol DeMello	000-0000
Cheryl Hanley	000-0000
Carol Harrison	000-0000
Thomas Lee	000-0000
Bob Moriarty	000-0000
Cindy Peringer	000-0000
Cathy Shea	000-0000

Facilites

Darcy Beardsly	000-0000
Dave Cannon	000-0000
Beth Cutler	000-0000
Cindy Gergeley	000-0000
David Harris	000-0000
Dave Izuka	000-0000

Product Dev't.

Eric Azinger	000-0000
Ellen Baker	000-0000
Ed Berman	000-0000
Erica Bressler	000-0000
Ginny Burbank	000-0000
Dan Druid	000-0000
Henry Frummer	000-0000
Ed Greenberg	000-0000
Deborah Hamil	000-0000
Griff Hodge	000-0000
Ernst Hofmann	000-0000
Gary Jensen	000-0000
Lynn Jepson	000-0000
George Manning	000-0000
Eric Nelson	000-0000
Harriet Oslund	000-0000
Greg Quinones	000-0000
Franz Reichsman	000-0000
Glen Rotan	000-0000
Helen Sellers	000-0000
Georgia Tackno	000-0000
Eileen Wallace	000-0000
Gayle Webb	000-0000
Dick Willett	000-0000
Donnell Willis	000-0000
Elaine Wong	000-0000

Administration

Melanie Allen	000-0000
Janet Cray	000-0000
Herb Davis	000-0000
Laurie Ozone	000-0000
Frieda Reich	000-0000
Marcy Telles	000-0000
Kitty Wright	000-0000
Leda Wyszinski	000-0000

Sales

Jo Berlant	000-0000
Joe Blecka	000-0000
Joanna Brady	000-0000
Joanne Clapp	000-0000
Jeff Dalrymple	000-0000
Jim Donetelli	000-0000
Jeff Marble	000-0000
Joe Maxwell	000-0000
John Morris	000-0000
Joan Robins	000-0000
Jim Scherr	000-0000

Manufacturing

Judy Briggs	000-0000
Karen Godfrey	000-0000
Julie Ann Karl	000-0000
Jon Newman	000-0000
John Nolan	000-0000
Julie Patrone	000-0000
Julie Puryear	000-0000
John Sellers	000-0000

Legal

Kathy Meader	000-0000
Ann Partovi	000-0000
June Rippens	000-0000
Karen Sadler	000-0000

Accounting

Kevin Baribalt	000-0000
Kay Cohn	000-0000
Keith Collins	000-0000
Katie Flynn	000-0000
Kelly Horan	000-0000
Kirk Hurford	000-0000

Creating a Phone List in Landscape Mode

In this application you'll create a directory of people and their phone numbers. You'll use a special page design and newspaper-style columns to divide sections of the list.

Landscape mode prints text across the length of the page, as opposed to portrait mode, which prints text across the width of the page. Landscape mode can be a more efficient use of space when you're printing a phone directory.

Note: Not all printers support landscape mode printing. Some printers that support landscape mode may have special requirements for its use. For example, you may need to use a particular font or character set when you print in landscape mode. Refer to your printer manual for more information.

Setting Up Parameters

The settings for a landscape document are very different from those for a regular, portrait mode document.

1. At the WordStar opening screen, open a new document file. Name the file something descriptive, like LAND.FOR.
2. Specify a font to use. For some printers, the fonts available in landscape mode are more limited than the ones available in portrait mode. Make sure to specify a nonproportional font that is available in landscape mode. In this example, choose Courier 10.
3. Now, set the margins for your document. Use the following list as a guideline. The list shows the settings you need to change and the commands to change them.

   Note: You can change most of these settings at the Margins and Tabs dialog box.

   The values for the margins are appropriate for most laser printers. Adapt these settings for your printer if necessary. Remember that each dot command must be on its own line and begin in column 1.

Top margin	**.mt**	.2″
Bottom margin	**.mb**	.5″
Right margin	**.rm**	9.0″
Page length	**.pl**	8.5″
Text ragged right	**.oj off**	
Omit page numbers	**.op**	
Use landscape mode	**.pr or=L**	
Auto-align off	**.aw off**	

Typing the Phone Directory

First, you'll center the title of the phone list. Then you'll use WordStar's column feature to create a phone list in three newspaper-style columns.

1. Type the title (in this example, type **Employee Directory**). Use **^PB** to boldface the title.
2. Center the title. Press **^OC**. Then press ↵ twice to insert a blank line below the title.

Adjusting the Tab Settings

You need to adjust the tab settings for the phone numbers. You'll create a new ruler line with the settings you need.

1. Insert a copy of the current ruler line into your text by pressing **^OO**.
2. Turn insert off by pressing the **Ins** key. Delete all the tabs on the ruler line by replacing the **!** characters with hyphens. Set a new tab by typing a **!** character at column 19.
3. Turn insert back on by pressing the **Ins** key.
4. Change to newspaper-style columns by typing **.co 3, 2**. This creates three columns separated by two tenths of an inch.

Typing an Alphabetized List

You can use WordStar's block sort feature to alphabetize each sublist in your phone directory. There is no limit to the number of lines you can sort.

Decide (before you type the list) whether you want the list alphabetized by first name or by last name.

If you want the list alphabetized by first name, follow these steps:

1. Type each name in the first sublist. After each name, press **Tab**, type the phone number, and press ↵.
2. Move the cursor to the top of the list.
3. Mark all the names as a block. Move the cursor to the first letter of the first name and press **^KB**. Then move the cursor to the end of the last phone number. Press **^KK**.
4. Press **^KZ** to sort the lines in the block. Indicate ascending order when you are prompted.

To alphabetize the list by last name, follow these steps:

1. Type each name in the first sublist (last name first, with no commas in between) and type the phone number. Separate the last name, first name, and phone number with a space; don't press the **Tab** key. For example, type

```
Reichsman Anna 555-1200
```

2. Move the cursor to the top of the list.
3. Mark all the names as a block. Move the cursor to the first letter of the first name and press **^KB**. Then move the cursor to the end of the last phone number on the list. Press **^KK**.

4 Press **^KZ** to sort the lines in the block. Choose ascending order at the prompt.

To reverse each name so it reads in the correct order, you'll use the Shorthand function.

5 First, move the cursor to the first name on your list.

6 Press **Esc ?** to create a new Shorthand character. Choose a character for this Shorthand macro. In our example, we chose **a** for "alphabetize."

7 Choose a descriptive name for the Shorthand character.

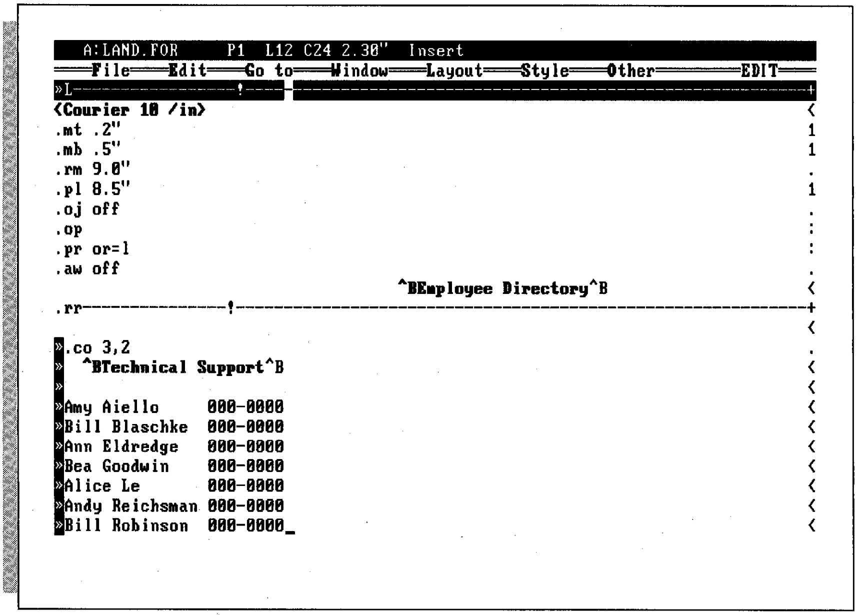
8 You'll type a set of keystrokes to delete the last name, move past the first name and restore the last name, tab the phone number over, and move to the next line. Type the Shorthand definition as shown. (Each control command is preceded by **^P**.) Note that the last command in the Shorthand definition uses **^[** for the **Esc** key. This invokes the Shorthand macro (**Esc a**). This is a trick to get the macro to repeat over and over again.

```
^P^T^P^F^P^U^P^F^P^I^P^QD^P^D^P^[a
```

9 Press ↵ to end the Shorthand definition.

10 Press **Esc** and the Shorthand character for this macro to begin alphabetizing your list. For example, press **Esc a**. When the macro reaches the last name in the sub-list, press **^U** to stop it.

When you're finished, your file should look like this one (with display on):



```
»L-----------------!------------------------------------------------------------+
<Courier 10 /in>                                                               <
.mt .2"                                                                        1
.mb .5"                                                                        1
.rm 9.0"                                                                       .
.pl 8.5"                                                                       1
.oj off                                                                        .
.op                                                                            :
.pr or=1                                                                       :
.aw off                                                                        .
                                    ^BEmployee Directory^B                     <
.rr--------------!-------------------------------------------------------------+
                                                                               <
».co 3,2                                                                       .
»  ^BTechnical Support^B                                                       <
»                                                                              <
»Amy Aiello     000-0000                                                       <
»Bill Blaschke  000-0000                                                       <
»Ann Eldredge   000-0000                                                       <
»Bea Goodwin    000-0000                                                       <
»Alice Le       000-0000                                                       <
»Andy Reichsman 000-0000                                                       <
»Bill Robinson  000-0000_                                                      <
```

Contracts

In this application, you'll create a library of standard paragraphs you can add to any document. You'll also create a master document for a contract.

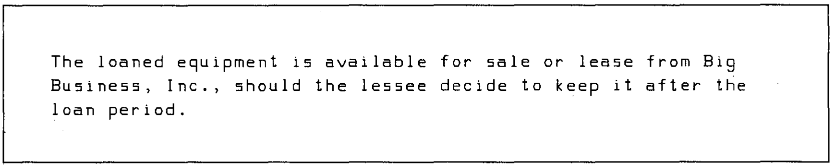
Creating a Library of Standard Paragraphs

In your business, you probably use some standard paragraphs over and over. Rather than retyping these paragraphs each time, you can create a library of paragraphs that you add to your documents whenever you need them. In this example, you'll create two standard paragraph files for an equipment lease agreement. You can substitute names and text appropriate for your business.

1 To create the first entry in your library, create a new document file from the opening screen.

2 Choose a descriptive name for the file. In this example, name the file LEASEOP.PAR.

3 Type this text in the file:



```
The loaned equipment is available for sale or lease from Big
Business, Inc., should the lessee decide to keep it after the
loan period.
```

4 Press ^**KD** to save this file.

Next, you'll create the second standard paragraph file.

1. From the opening screen, create another document file.
2. Name this file PROBLEMS.PAR.
3. Type this text in the file:

```
Because of past problems with prompt return of equipment, the
lessee agrees to pay a fee of $10.00 per day after the agreed
date, if the equipment is not returned on time.
```

4. Press ^**KD** to save this file.

TIP *If you use a lot of standard paragraphs in your work, it might be helpful to make a library of them. Print each paragraph and label it with its filename. Store the paragraphs in a file folder or binder. Then, if you can't remember the correct filename for the paragraph you want, you can refer to the binder. You can also use the ProFinder feature to find, organize, and rename all the relevant files. See the ProFinder documentation for details.*

When you've finished your standard paragraphs, you're ready to create your contract.

Creating a Master Document for a Contract

A master document contains variables instead of actual names. When you print the master document, WordStar asks you what names you want to use in the document, and it substitutes this information for the variables. You can print the master document many times and substitute different information each time.

In this example, you'll create the master document for an equipment lease contract. Start by typing the text of the contract.

1. Create a new document file from the opening screen.
2. Name this file LEASE.CTR.

3 Type this text in your document:

```
                         Lease Agreement
This form shall constitute a formal agreement between
&lessee& (the lessee) and Big Business, Inc. (the lessor).
Under the terms of this agreement, the lessee agrees to the
following conditions:

&lessee& will receive, on loan, the &equipment& for the
purpose of evaluation and testing.

&lessee& agrees to be responsible for the &equipment&'s safe
return to Big Business, Inc., in good working order, with
allowances for normal wear and tear.

In addition, the following clauses apply:
```

Note: The ampersands around a word tell WordStar that this word is a variable.

Next, you'll add clauses to the contract by drawing on your library of standard paragraphs. In this example, you'll use conditional commands to tell WordStar to print the problems paragraph only if there have been problems in the past with recovering equipment on time from this lessee.

First, have WordStar ask you at print time whether the lessee has been a problem in the past.

1 Type **.av problem**.

When you merge print this file, WordStar pauses at this command and asks *PROBLEM?* You can answer **Y** (for yes) or **N** (for no).

Now you'll tell WordStar to print the problem paragraph only if you answer **Y** to the above question.

1 Type **.if &problem& = Y** to tell WordStar to follow the next instruction only if you answer "yes" to the problem prompt.

2 Type **.fi problems.par** to insert the problem paragraph. (Include a complete pathname, if necessary.)

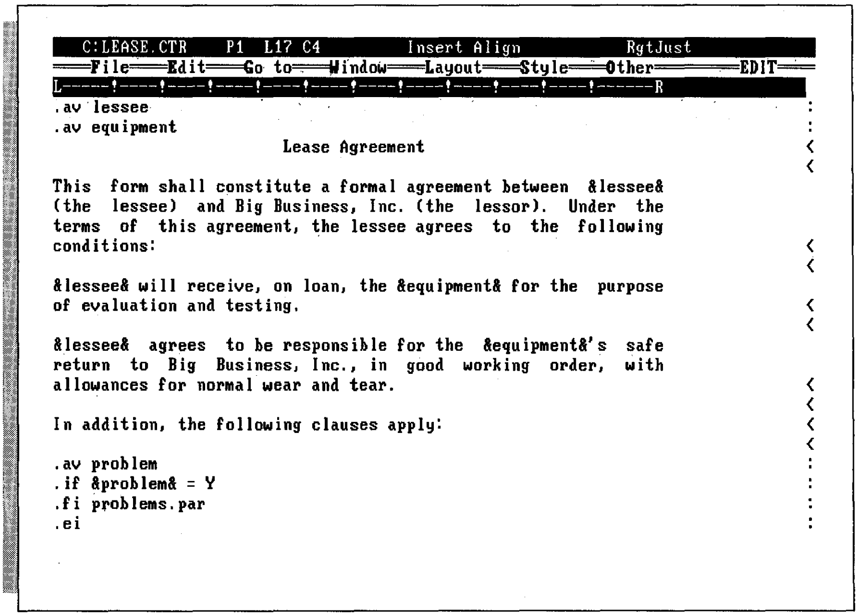
3 Type **.ei** to tell WordStar this is the end of the condition. WordStar will insert the paragraph whenever you answer **Y** to the problems question.

You can add similar sections to have WordStar insert other paragraphs.

As a final step, you'll tell WordStar to ask you at print time for the name of the lessee and the type of equipment being leased.

1. Move your cursor to the beginning of the document and type **.av lessee**.
2. When you merge print this file, WordStar pauses at this command and asks *LESSEE?* You type the name of the lessee.
3. Type **.av equipment**.
4. When you merge print this file, WordStar pauses at this command and asks *EQUIPMENT?* You type the name of the equipment being leased.

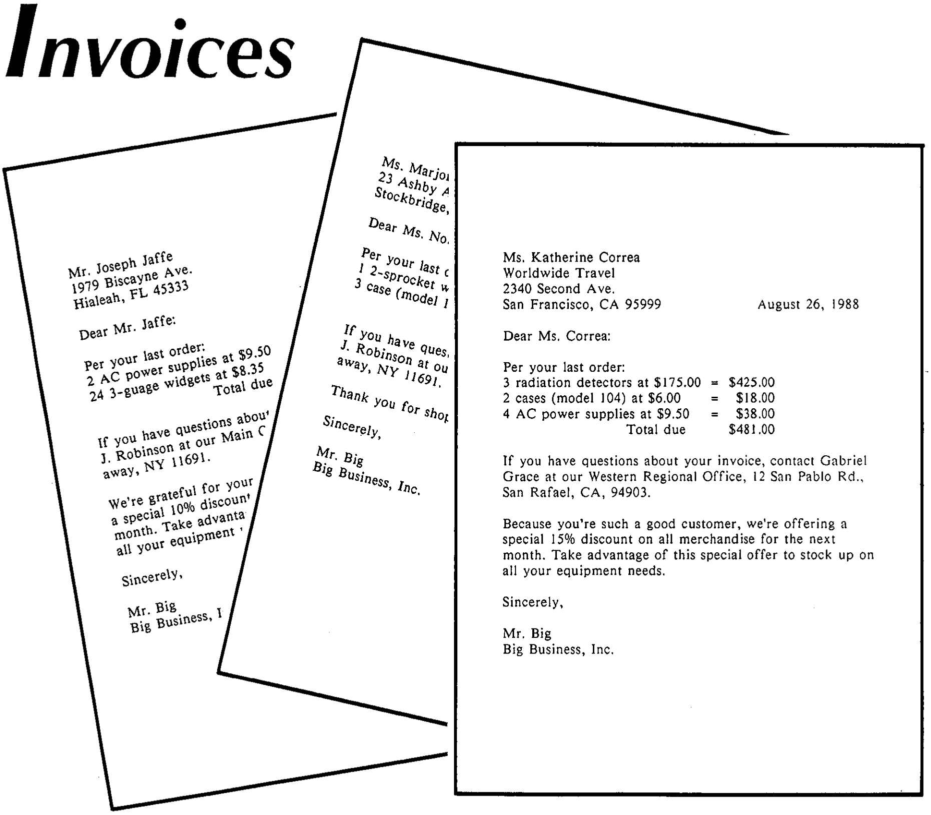
Your document should now look like this onscreen:


C:LEASE.CTR P1 L17 C4 Insert Align RgtJust
File
Edit
Go to
Window
Layout
Style
Other
EDIT
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!------R

```
.av lessee                                                          :
.av equipment                                                       :
                    Lease Agreement                                 <
                                                                    <
This  form shall constitute a formal agreement between  &lessee&
(the  lessee) and Big Business, Inc. (the  lessor).  Under  the
terms  of  this agreement, the lessee agrees  to  the  following
conditions:                                                         <
                                                                    <
&lessee& will receive, on loan, the &equipment& for the  purpose
of evaluation and testing.                                          <
                                                                    <
&lessee&  agrees  to be responsible for the  &equipment&'s  safe
return  to  Big  Business, Inc., in  good  working  order,  with
allowances for normal wear and tear.                                <
                                                                    <
In addition, the following clauses apply:                           <
                                                                    <
.av problem                                                         :
.if &problem& = Y                                                   :
.fi problems.par                                                    :
.ei                                                                 :
```

Whenever you merge print this file, WordStar asks you the name of the lessee and the type of equipment being leased. Your responses to these prompts will be inserted in place of the &lessee& and &equipment& variables. It will also ask you about problems (recovering equipment on time from this lessee). If you answer **Y** to the *PROBLEMS?* prompt, WordStar inserts the problems paragraph. Otherwise, the paragraph won't be added.

Invoices



Mr. Joseph Jaffe
1979 Biscayne Ave.
Hialeah, FL 45333

Dear Mr. Jaffe:

Per your last order:
2 AC power supplies at $9.50
24 3-guage widgets at $8.35
Total due

If you have questions abou
J. Robinson at our Main C
away, NY 11691.

We're grateful for your
a special 10% discoun
month. Take advanta
all your equipment

Sincerely,

Mr. Big
Big Business, I

Ms. Marjo
23 Ashby A
Stockbridge,

Dear Ms. No

Per your last c
1 2-sprocket w
3 case (model 1

If you have ques
J. Robinson at ou
away, NY 11691.

Thank you for sho

Sincerely,

Mr. Big
Big Business, Inc.

Ms. Katherine Correa
Worldwide Travel
2340 Second Ave.
San Francisco, CA 95999 August 26, 1988

Dear Ms. Correa:

Per your last order:
3 radiation detectors at $175.00 = $425.00
2 cases (model 104) at $6.00 = $18.00
4 AC power supplies at $9.50 = $38.00
Total due $481.00

If you have questions about your invoice, contact Gabriel Grace at our Western Regional Office, 12 San Pablo Rd., San Rafael, CA, 94903.

Because you're such a good customer, we're offering a special 15% discount on all merchandise for the next month. Take advantage of this special offer to stock up on all your equipment needs.

Sincerely,

Mr. Big
Big Business, Inc.

Creating an Invoice with Data from a dBASE or Lotus File

Preparing a series of invoices involves combining text and data. You need the customer's name and address and the amount due. You may also need some other specialized information, such as which regional office the customer should contact if he or she has any questions. You may have individualized notes to add to certain customers' invoices.

WordStar imports information from many database programs, which makes preparing a series of invoices easy, efficient, and accurate. WordStar's ability to import database information (without converting the files first) makes it possible for you to add data about a particular customer without editing the file each time and eliminates the possibility of typographical errors. You can even have WordStar figure the total due at print time.

This application uses a dBASE III example. To follow the instructions exactly, you'll need a dBASE III file containing customers' names, addresses, and account data. If you use Lotus 1-2-3, or another program, adapt the instructions as necessary.

Creating an Invoice Document

You'll create a form letter to serve as an invoice. WordStar "fills in the blanks" at print time to create an individual invoice for each customer. To create the form letter, follow these steps:

1. At the opening screen in WordStar, open a new document file. Name the new file INVOICE.DOC.
2. On the first line of the file, type **.df** and the name of the dBASE file containing your customer information. Include a full path to this file. Remember that each dot command you use must be on its own line and must begin in column 1.
3. Now type **.rv*** to use all the predefined field names in your dBASE file as WordStar variables. If you prefer, you can type **.rv** and type the variable names yourself, in the same order as they appear in the data file.
4. Type the text for your invoice, as shown in the example below. Use your dBASE field names, instead of the ones shown here.

   Ampersands (&) around text indicate a variable. Variables are replaced by actual data at print time. Add the "/O" parameter to the customer address fields. This ensures that lines won't be left blank, even if some customers don't have a second address line.

   The &@& date variable is a system variable. That means the information for that variable is inserted automatically from your computer's memory. If you entered the correct date when you booted your computer, today's date replaces this variable when the invoice is printed. Remember to leave enough room for the actual date to be printed, since it needs more space than the variable does.

```
&Mr-Ms& &full-name&
&addr1-O&
&addr2-O&
&city&, &state& &zip&                               &@&

Dear &Mr-Ms& &full-name&:

Per your last order:
&units1& &equip1& at &costper1& =
&units2& &equip2& at &costper2& =
&units3& &equip3& at &costper3& =
Total due

Sincerely,

Mr. Big
Big Business, Inc.
.pa
```

Determining Totals at Print Time

You can use WordStar's math features to determine the subtotals and grand total due. These operations are done by WordStar at print time, and the correct results are printed for each invoice.

1. Move the cursor to the line in your file just below the **.rv*** command.
2. Use the **.ma** command to determine the subtotals. Type the names of the variables you want to multiply, but include only the variables that are numbers. In our example, type

```
.ma total1 = &units1& * &costper1&
.ma total2 = &units2& * &costper2&
.ma total3 = &units3& * &costper3&
```

The **.ma** command creates new variables, total1, total2, and total3, which represent the subtotals for each item ordered.

3. Move the cursor to the space after the first = (equal sign) in the text of the letter. Press the **Spacebar** and type **&total1&**. Then move down to the space after the next =, press the **Spacebar** and type **&total2&**. Do the same for the third subtotal.

You can add another **.ma** command to find the grand total due. You'll have WordStar print this amount on the line that represents the total due.

1 Press ↵ to create a blank line and type

```
.ma gtotal = &total1& + &total2& + &total3&
```

2 Move the cursor just after the words "Total due."

3 Press the **Spacebar** and type **&gtotal&**.

Variable Number Formatting

Now you'll add some commands to tell WordStar how to print the numbers that are inserted at print time.

1 Move the cursor to the line just after the **.ma** command.

2 Type **.sv 1=($$$,$$$.99)**.

This format tells WordStar to put a dollar sign in front of variables with this parameter. If the number is over 999, a comma is inserted after the thousands place. If the number is lower than 1,000, the dollar sign will be preceded by spaces. If the number is less than zero (for instance, if the customer has a credit), the number will be in parentheses.

3 Move the cursor to all variables that represent a dollar amount. In our example, this includes the three &costper& variables and the &total& variables. Add the /**1** parameter. For example, the &total1& variable would now look like this:

```
&total1/1&
```

Variable Text Formatting

You can also control the format of variables that are printed as text. In this example, you'll left-align the &equip& variables.

1 Move the cursor to the line just below the **.sv** command. Press ↵ to create a blank line.

2 Type **.sv 2=LLLLLLLLLLLLLLL**. (There are 15 Ls.)

This tells WordStar to allow 15 spaces for the name of each kind of equipment purchased. The equipment name will be left-aligned. If the equipment name is less than 15 spaces long, it will be followed by as many spaces as necessary to fill the 15-character space.

3 Move the cursor to the &equip& variables in your text. Add the /**2** parameter to each one. For example, the &equip1& variable would now look like this.

```
&equip1/2&
```

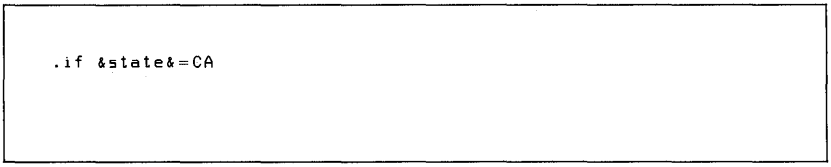
Using Conditional Statements

Sometimes the information you send to customers varies, depending on where they live, the amount of their balance, or the date the invoice is sent. In this application you'll add a paragraph telling customers which regional branch of your company to contact, depending on their address.

Follow these steps to add a conditional paragraph:

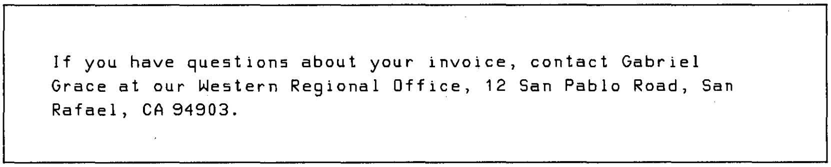
1 Move the cursor to the blank line above the word "Sincerely."

2 To include your Western Regional Office information for customers living in a particular state, add a **.if** command:



```
.if &state&=CA
```

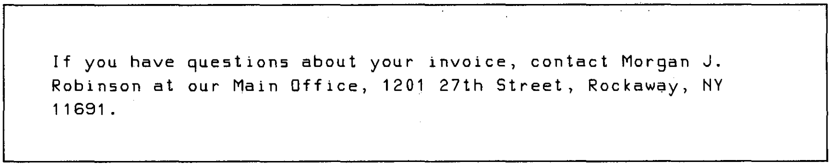
3 Type the paragraph containing information about the Western Regional Office. For instance, type



```
If you have questions about your invoice, contact Gabriel
Grace at our Western Regional Office, 12 San Pablo Road, San
Rafael, CA 94903.
```

4 On the line after the end of that paragraph, type **.el** to specify the paragraph to print if the customer lives in another state.

5 Type the information for the other customers. For example, type



```
If you have questions about your invoice, contact Morgan J.
Robinson at our Main Office, 1201 27th Street, Rockaway, NY
11691.
```

6 End the condition by typing a **.ei** command.

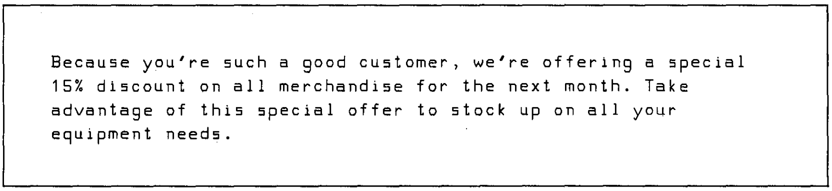
Every customer in California will receive an invoice containing the Western Regional Office address. Other customers will be told to contact the Main Office.

Conditional Paragraphs Based on the Balance Due

You may want to use your invoices as an opportunity to announce a special offer or sale. You can add a paragraph announcing a variable discount for customers, depending on their balance due.

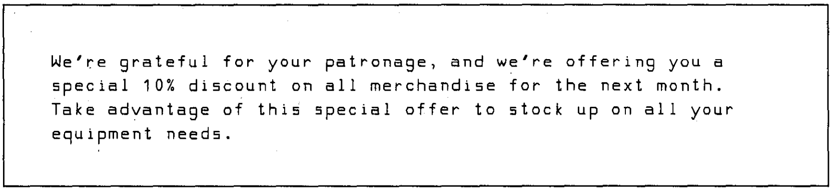
1. Customers who are paying the highest amount will receive the biggest discount. You'll add a conditional statement that offers a 15% discount to customers whose balance is higher than $300.00.

   Move the cursor to the line just above "Sincerely."
2. Set up the condition. For example, type **.if &gtotal& #> 300.00**.
3. Type the paragraph offering the discount. For instance, type



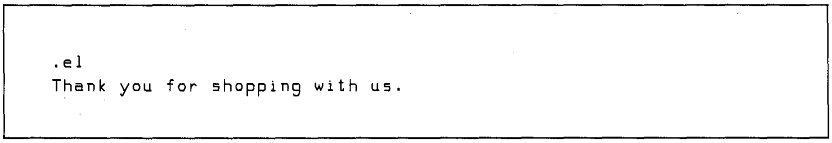
```
Because you're such a good customer, we're offering a special
15% discount on all merchandise for the next month. Take
advantage of this special offer to stock up on all your
equipment needs.
```

4. Now tell WordStar what to type if the customer spent less than $300.00 but more than $200.00. Type **.el**. Then type **.if &gtotal& #> 200.00**.
5. Type a paragraph offering a lower discount for these customers.



```
We're grateful for your patronage, and we're offering you a
special 10% discount on all merchandise for the next month.
Take advantage of this special offer to stock up on all your
equipment needs.
```

6. Then type a paragraph for those who don't earn a discount.



```
.el
Thank you for shopping with us.
```

7. End the conditions by typing two **.ei** commands. Each one must be on its own line.

Skipping Records in the Data File

You don't want to print an invoice for customers who have no balance due. You can skip these customers by using the following technique.

1. Move your cursor to the line below the last **.sv** command. Type **.if &gtotal& #> 0**.
2. Now press **^QC** to move the cursor to the end of the file (after the page break). Type **.el**.
3. You can display a message to tell you that this customer's record won't be printed. To do this, type **.dm &full-name& has no balance due. No invoice will be printed**.
4. Type **.ei** to end the conditional statement.

Now, when WordStar finds a customer with no balance due, you'll see the message and no invoice will be printed.

Including dBASE III Memo Fields

The dBASE III and dBASE III PLUS programs have a memo field feature that allows you to make extensive notes about each record in your data file. If you want to include these notes for each customer, follow these steps:

1. Move the cursor to the place in your invoice where you want the memo field to print.
2. The memo field must be called NOTE. Therefore, the variable for that field is &note&. Type this variable name in your file. The entire memo field will be printed.

Your document should now look like the following:

```
.df c:\dbase\customers.dbf
.rv*
.ma total1=&units1& * costper1&
.ma total2=&units2& * &costper2&
.ma total3=&units3& * &costper3&
.ma gtotal=&total1& + &total2& + &total3&
.sv 1=($$$,$$$.99)
.sv 2=QLLLLLLLLLLLLLLL
.if &total& #> 0

&Mr-Ms& &full-name&
&addr1/O&
&addr2/O&
&city&, &state& &zip&                             &@&

Dear &Mr-Ms& &full-name&:
```

(continued)

```
Per your last order:
&units1& &equip1/2& at &costper1/1& = &total1/1&
&units2& &equip2/2& at &costper2/1& = &total2/1&
&units3& &equip3/2& at &costper3/1& = &total3/1&
                              Total due &gtotal/1&
.if &state&=CA
If you have questions about your invoice, contact Gabriel
Grace at our Western Regional Office, 12 San Pablo Road, San
Rafael, CA, 94903.
.el
If you have questions about your invoice, contact Morgan J.
Robinson at our Main Office, 1201 27th Street, Rockaway,
NY 11691
.ei
.if &gtotal& #> 300.00
Because you're such a good customer, we're offering a special
15% discount on all merchandise for the next month. Take
advantage of this special offer to stock up on all your
equipment needs.
.el
.if &gtotal& #> 200.00
We're grateful for your patronage; and we're offering you a
special 10% discount on all merchandise for the next month.
Take advantage of this special offer to stock up on all your
equipment needs.
.el
Thank you for shopping with us.
.ei
.ei
Sincerely,
Mr. Big
Big Business, Inc.
&note&
.pa
.el
.dm &full_name& has no balance due. No invoice will be printed
.ei
```

A copy of the invoice is printed for each customer with a balance due. If the customer lives in California, the paragraph about the regional office is printed. Otherwise, the paragraph about the main office is printed. If the customer has a balance due of $300.00 or more, a 15% discount is offered. If the customer has a balance between $200.00 and $300.00, a 10% discount is offered. If no balance is due, no invoice is printed, and you see a message onscreen to that effect.

Loans and Interest

If you're involved in calculating percentages and equations, WordStar's print-time math abilities can help you immensely. The following application shows how to figure out the total amount of interest a customer will pay on a large purchase, and what the monthly payments for the purchase will be. It is set up in merge-print format, assuming that the letter will go out to a group of customers.

Setting Up the Merge Printing Parameters

You'll start by giving the commands to set up your page design and read in the proper data from your data file.

1. Open a new document file from the opening screen of WordStar.
2. On the first line of the file, type **.oj off** to turn justification off. This makes the insertion of data at print time easier. Remember that each dot command you use must be on its own line and must begin in column 1.
3. Type **.op** to omit page numbers, since this is the first page of a letter.
4. Type **.df** and the name of your data file.
5. Type **.rv** and the names of the variables in your data file. If all the variables don't fit on one line, create a second **.rv** command.

   For this application, your data file must include variables for the amount of the purchase or loan, the interest rate being charged, and the total number of payments (the length of the loan). In our example, these variables are:

amount of purchase	&purch&
interest rate	&int&
number of payments	&numpay&

Calculating Interest Rates

The following equation is used to determine the monthly payment when you know the amount being financed, the interest rate, and the terms of the purchase.

$P = A * i * (i + 1)^n/((i + 1)^{n-1})$

In the equation

P	is the amount of each payment.
A	is the amount being financed.
i	is the interest rate. To find the interest per payment, **i** is divided by the number of payments per year and must be converted from a percentage to a decimal.
n	is the total number of payments. For example, monthly payments for fourteen years total 168 payments.

1. Start by converting the interest rate from a percentage amount to a decimal figure. Then you'll determine how much interest is charged per monthly payment. Type **.ma i=&int&/1200**.
2. Now determine the amount of the monthly payment. Type

```
.ma P=&purch&  *  &i&  * ((&i&+1)^&numpay&)/(((&i&+1)^&numpay&)-1)
```

Setting Variable Formats

You'll determine the format for the variables that contain numeric values.

1. First, create a format that puts a dollar sign in front of the number and a comma after the thousands place. Type **.sv a=$$$,$$$.99**.
2. Now, indicate which variables will be printed with the dollar sign format. Type

```
.sv &purch&=&purch/a&
.sv &P&=&P/a&
```

Typing Your Letter

Now that you've defined the variables and created the equations you need, type the letter to your customers.

1. Start by typing the salutation, using the variable names in the **.rv** command you typed at the beginning of the file. Note that the /o parameter is used so lines won't be left blank if there is no data in certain fields. For example, type

```
&Mr-Ms& &full-name&
&addr1/O&
&addr2/O&
&city&, &state& &zip&

Dear&Mr-Ms& &full-name&,
```

2. Type the text for the letter, using the new &P& and &i& variables you created with the **.ma** commands. For example, type

```
You recently purchased a &equip1& from our company. The total
purchase price of the &equip1& was &purch&. This letter is to
confirm the interest rates and payment schedule for your
purchase.

The interest rate for your purchase is &i&%. This works
out to &numpay& payments of &P& each.

If you have any questions, please don't hesitate to contact
me at our main office.

Sincerely,

Mr. Small, Credit Manager
```

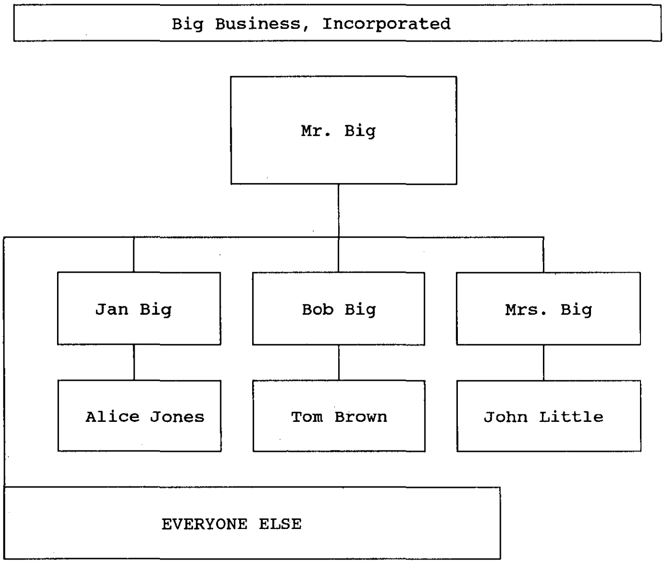
3. Type **.pa** to insert a page break.

Your letter should look like the one in the following example.

```
.oj off
.op
.df finance.dta
.rv Mr-Ms,full-name,addr1,addr2,city,state,zip
.rv purch,int,numpay
.ma i=&int&/1200
.ma P=&purch&*&i&*((&i&+1)^&numpay&)/(((&i&+1)^&numpay&)-1)
.sv a=$$$,$$$.99
.sv purch=&purch/a&
.sv P=&P/a&
&Mr-Ms&. &full-name&
&addr1/O&
&addr2/O&
&city&, &state& &zip&

Dear &Mr-Ms& &full-name&,

You recently purchased a &equip1& from our company. The total
purchase price of the &equip1& was &purch&. This letter is to
confirm the interest rates and payment schedule for your
purchase.

The interest rate for your purchase is &i&%. This works out
to &numpay& payments of &P& each.

If you have any questions, please don't hesitate to contact me
at our main office.

Sincerely,

Mr. Small, Credit Manager

.pa
```

Using this form letter, you can calculate the monthly payments and interest rates for all the customers in your data file.

Organization Charts


Big Business, Incorporated
Mr. Big
Jan Big
Bob Big
Mrs. Big
Alice Jones
Tom Brown
John Little
EVERYONE ELSE

With WordStar's line- and box-drawing feature, you can create many different graphs and charts. In this application, you'll create an organization chart. Note that boxes look best printed on a printer that uses the IBM character set. If line-drawing characters are not available, WordStar uses the most similar available characters.

Creating a File for the Chart

1. Start by opening a new file for your organization chart. At the opening screen, create a new document file. Name it something descriptive. Be sure to use a nonproportional font.
2. Turn automatic aligning off with the **.aw off** command. Remember that each dot command you use must be on its own line and begin in column 1.
3. Display the print controls (if they aren't already displayed) by pressing **^OD**.

Working with Boxes

The instructions below tell you how to import boxes into your file, how to add boxes and connect them, how to enlarge and shrink boxes, and how to type text in boxes.

Importing the Boxes

WordStar comes with a file containing a ready-made box. You'll open this file and copy the box. (You can also draw boxes yourself with the box-drawing characters.)

1. Press **^OK** to open a window into the sample file. Choose **\WS5\BOX** as the file to edit.
2. Mark the box as a block. Press **^OK** to move back to your original file and copy the block into your original file with the **^KA** command.

Making More Boxes

You can copy boxes wherever you need them for your chart.

1. Turn on column block mode by pressing **^KN**.
2. Mark the box as a block.
3. Move the cursor to a blank space. Copy the block by pressing **^KC**.

   Repeat this procedure as many times as necessary. Be careful not to go past the right margin of your file.

Connecting the Boxes

Use the line-drawing characters to connect the boxes. For information on these characters, see **Drawing** in the "Reference Guide."

Making Boxes Smaller or Larger

To make a box larger or smaller, start by moving it to its own space. You can open a window into another file, or move the box to a blank area at the end of your current file. When the box is the right size, move it back to its previous location. Be sure to widen your right margin if you widen the box.

Follow these steps to change the size of a box:

1. Move the cursor to the top line of the box. If you're not already using column mode, change to column mode by pressing **^KN**. Mark the beginning of a block in the middle of the line.
2. Move the cursor to the bottom line of the box. Mark the end of the block on the bottom line, a few characters right of the block beginning.
3. To narrow the box, delete the marked block by pressing **^KY**. To widen the box, move the cursor to the top line of the box and copy the block by pressing **^KC**.
4. Turn column mode off by pressing **^KN**.

To make a box taller or shorter, change the sides of the box.

1. Move the cursor to any line between the top and bottom of the box.
2. To make the box shorter, delete the line by pressing **^Y**.
3. To make the box taller, mark the line as a block, press ↵, and copy it (**^KC**).

Typing Text inside the Boxes

Now you'll fill in each of the boxes you created.

1. First, turn insert off by pressing **Ins** (or **^V**), so you don't destroy the alignment of the boxes when you type.
2. With the cursor keys, move the cursor inside the top box. Type the name of the company president.
3. Move down a line with the down arrow key. Type the president's title under the name.
4. Repeat this process for each member of the organization.

Long Documents

This chapter contains some tips that are particularly effective when you're working with long or complex documents.

Recovering Deleted Text

You can immediately restore the most recent block of text you deleted with the **^U** command. Usually, you cannot restore previously deleted text. This technique allows you to recover previously deleted text under certain circumstances.

If you previously saved the file you're working on, you can open a window into the last version of that file. If you opened an *existing file* and then made extensive changes, you can recover text from the previous version of the file this way.

To use this technique, follow these steps:

1. To open a window on the current file, press **^OK**.
2. Specify the filename of the file you're editing.
3. Move the cursor to the section of text you want to recover. Use the **^KB** and **^KK** commands to mark the text as a block.
4. Move the cursor to the first window by pressing **^OK**. Block copy the text into the first window with the **^KA** command.
5. Move the cursor back to the second window by pressing **^OK** again.

   Remember that the file you save last will overwrite the other file unless you rename one of them. If you think you might want more of the old file's information, use the **^KT** option to save the old version of the file with a different name.

Chain Printing Files

WordStar makes editing a long document very efficient, since you can move to different locations in the file quickly and easily. However, there are times when you want to divide one file into smaller pieces (like chapters) and make each chapter its own file. For example, if different writers produce each chapter, dividing the file makes it easier to keep their work separate and to distribute the chapters for review.

Once you have created the smaller files, you can chain print them with a simple command.

To divide a large document into several smaller ones, follow these steps:

1. Block mark a section of the large document. This can be as large as an entire chapter. (The maximum size for a block depends on disk space.)
2. Press ^**KW** to write the block to another file.
3. Type a new filename for this section of text and press ↵.
4. Repeat this process for each section of text.

Some tips on organizing the files you've created:

- Name the files systematically. For example, use the same three-letter file extension for each one, or number them (for example, FILE1.DOC, FILE2.DOC, and so on). Later, if you perform the same operation in each file, it will be easier to find them if they're systematically named.
- Make sure all the resulting files are in the same subdirectory. You can create a separate subdirectory just for these files. To do this, use the **Run a DOS program** command to go to the operating system. Then type **md** and the name for the new subdirectory and press ↵. Press any key to return to WordStar. Tag and move the files into this new subdirectory with the ProFinder feature.
- Use the ProFinder feature to organize the files in the new subdirectory.

To chain print the files, follow these steps:

1. Open the file that contains the beginning of the document.
2. Press ^**QC** to go to the end of the file.
3. Type **.fi** and the name of the next file in your document. Remember that each dot command you use must be on its own line and begin in column 1.
4. Repeat this process in each subsequent file until you've specified the last file for the document.

Compound Page Numbering

When you chain print files, they are automatically numbered consecutively. However, this may not always be what you want. For instance, you may want to use a compound numbering system, where each section is numbered according to its chapter number and each chapter begins with page 1 (1-1, 2-1, and so on). Follow these steps to produce compound page numbers:

1. Edit each file in the chain-printed document.
2. At the beginning of the file, type **.pn** and type **1** to have page numbering for this file begin with 1.
3. Type **.fo** to create a footer that prints on all pages.
4. For the text of the footer, type the chapter number, a dash, and the page number system variable. For example, in the file containing chapter 1, type **1-&#&**.
5. Press **^KD** to save the file.

Displaying Onscreen Messages When You Print

You can display messages onscreen when you print a file or a series of files. This is helpful if you want to know where you are in the printing process. For example, you can add a message to the beginning of each chain-printed file that says, "Now printing *filename*," (you replace *filename* with the actual name of the file). These messages are not printed; they are displayed onscreen only while printing takes place.

To display onscreen messages while printing, follow these steps:

1. Open the first file of the document.
2. At the beginning of the file, type **.dm**.
3. On the same line, type your message. It can be up to 79 characters long. For example, type **Now printing *filename***, where ***filename*** is the name of the file.
4. Repeat this process for each file that makes up the document. The message is displayed for each one at print time.

Controlling Page Breaks (Orphan/Widow Control)

When you chain print several documents, the location of your page breaks will change unless you put a page break between each file. You can end up with awkward breaks in your text. You can control this.

You can make sure that certain sections of text (like charts) are not separated by page breaks. You can also make sure that certain multiword phrases (like product names) are not separated by line breaks.

To keep a section of text on one page, follow these steps:

1. Move the cursor to the beginning of the section of text.
2. Count the number of lines in the section to be kept together.
3. Type **.cp** and the number of lines to keep together.

Now, if the section would normally span two pages, WordStar will print the entire section on the following page. Note that this won't work if the section has more lines than can fit on a single page.

To keep a multiword phrase on one line, follow these steps.

1. Move the cursor to the end of the first word in the phrase.
2. Delete the space between the first and second word of the phrase by pressing the **Del** key or **^G**.
3. Press **^PO** to keep the two words together with a binding space.
4. Repeat this process between each word of the phrase.

Appending Files

You may prefer to append the files that make up your document. When the files are in their final form, you can consolidate them into one file with the append option. To do so, follow these steps.

1. Open the second file that makes up your document.
2. Mark the entire file as a block.
3. Press **^KW** to write the block to a new file. You are prompted for a filename to write to.
4. Specify the first file in your document as the file to write to.
5. You are asked if you want to append the new file to the end of the first one, or overwrite the first file. Indicate that you want to append the file.
6. Repeat this process for each subsequent file in the document. In each case, specify the first file as the file to write to.

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APPENDIX A

Error Messages

This appendix lists error messages that may appear on your screen as you work with WordStar. Messages are listed alphabetically. Each explanation includes a suggested solution for the problem. Most error messages are followed by the prompt, "Press **Esc**ape." Escape clears the error message, but does not correct the error.

The word filename when underlined here is a substitute for an actual filename WordStar will display in the message.

A filename is required.

Type a filename to continue with the command, or press **Esc** to cancel.

A printer driver is memory resident.

You have selected a function (such as indexing or tables of contents) that uses a special printer driver. The driver cannot be loaded into memory because you have installed WordStar to use only the default printer driver. Use WSCHANGE to change WordStar so that you can use more than just the default printer driver.

A word is too long to fit within the margins.

A word in a paragraph you have just aligned is too long to fit between the margins. Unless you hyphenate the word, it will print beyond the right margin.

Arithmetic error.

Something in your **^QM** or **.MA** equation produces an invalid result; for example, division by zero, the square root of a negative number, or use of a nonnumeric variable.

Background printing is turned off.

Either background printing is turned off in WSCHANGE or you have insufficient memory. Finish editing the file you're in, then print the other file from the Opening screen.

Can't create output file.

WordStar can't create the print-to-disk file. Make sure there is enough room on your disk. If there is enough room, check your CONFIG.SYS file to make sure it contains a FILES=20 statement. If you need to add a FILES=20 statement, remember to reboot your computer afterward.

Can't delete or rename the file being edited.

Before you can delete or rename the file, end the edit session with **^KQ**, **^KD**, or **^KX**.

Can't delete that file. Operating system error.

Exit WordStar and delete the file using DOS.

Can't edit temporary files ($ in filename extension).

You cannot edit the temporary files that WordStar uses while editing. These files have extensions beginning with .$A, .$B, or .$C. If you want to edit the file and are sure that you won't create problems, you can rename the file or copy it to a new file, then edit it.

Can't execute command. Your computer may not have enough memory.

The operating system is unable to run a DOS command. Remember, WordStar stays resident in memory while the DOS command is running, so there must be enough memory for both WordStar and the command. Exit WordStar before running the command.

Can't find COMMAND.COM. Check the boot (system) disk.

WordStar can't find the DOS program COMMAND.COM to run your DOS command. WordStar looks on the drive from which you first booted your system and on the default drive, which is the first one in the legal drive list. You can change the default drive with WSCHANGE.

With a two floppy disk system, you may need to insert your boot disk to run a DOS command. With a hard disk system, be sure that COMMAND.COM is in a directory that is searched.

Can't find file on disk.

Be sure the filename is typed correctly. Include a drive letter or directory path if the file isn't on the logged drive or directory.

Can't find that file. Create a new one (Y/N)?

This is a notification that you typed a new filename. If you want to create a new file, press **Y**. If you want to edit an existing file, press **N**, then type the correct filename. If the file is on a different drive or directory, be sure to type the correct path before the filename.

Can't find that file. Press C to continue anyway or ^U to stop.

When printing or merge printing, WordStar couldn't find the file referred to with **.fi**, **.df**, or another dot command. Be sure you typed the filename correctly in the dot command and that you included a drive letter, directory path, or **change** command if the file is not on the logged drive, directory, or disk. If you want to continue printing without using the file, press **C**. Otherwise, press **^U** to quit printing, then correct the error.

Can't find the file filename.

If you have a two floppy disk computer, make sure you have the correct disk in the drive and that you have specified the correct location for WordStar program files. If you have a hard disk computer, make sure the files are in the \WS5 directory. If they are in a different directory, use WSCHANGE to tell WordStar the new path to these files.

Can't insert a password protected worksheet.

You are trying to insert a spreadsheet program worksheet that is password protected. You must remove the protection before you can insert the worksheet.

Can't insert a squeezed worksheet.

You are trying to insert a spreadsheet program worksheet that has been squeezed (compressed). WordStar does not accept squeezed worksheets.

Can't move to undefined marker.

Use **^K0–9** to set the marker before trying to move to it.

Can't print. PDF or driver files couldn't be found.

If you're using a two floppy system, be sure that the printer description file (PDF) and necessary driver files are on the program disk. If you're using a hard disk system, check whether the path to your \WS5 directory is set correctly.

Can't save file until printing is finished.

You tried to save a file that is currently being used by background printing (for merge printing or printing to disk, for example). Wait until WordStar is finished printing this file, then save it.

Can't store results. Disk full or file type conflict.

WordStar can't create the index (.IDX) or table of contents (.TOC) file because your disk is full or your file uses the extension .IDX or .TOC. Create room on your disk by moving or deleting files, or rename the current file with a different extension.

Can't update dictionary. Disk may be full, protected, not in the drive, or may not exist.

WordStar was unable to add a word to the personal dictionary (PERSONAL.DCT). Be sure the correct disk is in the drive. If necessary, delete files to make room. Don't keep PERSONAL.DCT on a write-protected disk.

Change disk. Press C when ready to continue.

The file you are printing contains a command to insert a file from another disk. Put in the correct disk for the inserted file.

Changes have been made. Abandon anyway (Y/N)?

You pressed **^KQ** to exit the file without saving changes. If you want to abandon the changes, press **Y**. If you don't want to abandon the changes, press **N**. Then press **^KD** to exit the file and save the changes.

Cursor is not on a note.

The note command you are using requires that the cursor be on the note. Move the cursor to the note and try again.

End of block is at or before start of the block.

The beginning block marker (**^KB**) must be before the end block marker (**^KK**) in your text. In column block mode, the beginning block marker must be to the left of the end block marker.

End of block not below and to right of start of block.

The block markers do not mark a valid column. Set the beginning marker (**^KB**) at the upper-left corner, and the end marker (**^KK**) at the lower-right corner when working with column blocks.

Equation is too complex.

Your math equation is too complicated for WordStar to handle. Reword the equation in several smaller equations.

File access denied by DOS. Check subdirectory & device names.

DOS is preventing you from opening a file because it has the same name as a subdirectory or DOS device. Rename the file and try again.

File already exists. Overwrite (Y/N) or append (A)?

Press **Y** (for yes) if you want WordStar to erase the contents of the existing file and insert the new contents. Otherwise, press **N** (for no) and specify another filename, or press **A** (for append) to add the new text at the end of the existing file.

File error. The disk may be full, or there is a disk write error, or CONFIG.SYS on your boot (system) disk lacks the line FILES=20.

If necessary, delete files (**^KJ**) to make room. You may want to copy one or more files to another disk (**^KO**) before deleting them. Be sure that the CONFIG.SYS file on the boot disk contains the statement FILES=20.

File won't rename.

There are two possible reasons for this message to appear:

- You specified a path or drive letter for the new file that is different from the original file. Rename the file without specifying a directory or drive, or press **O** to copy the file to a new drive or directory.
- The operating system won't let WordStar rename the file. The name you chose is probably already being used by a hidden file, a directory, or another system file. Choose a different filename.

Global replacement word list is full.

To clear the buffer, stop the spelling check (noting how far you got) and save the file. Then reopen the file, move to the spot where you left off, and begin the spelling check there.

Help messages are not available. Either WordStar was unable to find the WSHELP.OVR file, or you have used WSCHANGE to turn help off or make messages memory resident.

Make sure the WSHELP.OVR file is on your disk. Then use WSCHANGE to turn help on or to remove messages from memory.

Ignore replacement word list is full.

To clear the buffer, stop the spelling check (noting how far you got) and save the file. Then reopen the file, move to the spot where you left off, and begin the spelling check there.

Incorrect printer name or not enough memory.

WordStar loads either the default printer driver or the one you named at the **Printer name** prompt. Either the driver is not valid or there is not enough memory available to hold it.

Make sure you specify a valid driver name. You can check WordStar memory usage by pressing **?** at the Opening Menu. If you are running a memory-resident program with WordStar, exit WordStar, then the other program.

Insufficient memory for background printing.

Wait until you finish editing, then print the file from the Opening Menu.

Invalid expression.

You have typed incorrect information in a dialog box. Reenter the information.

Line is too short to use as a ruler.

You pressed **^OF** on a line containing less then two characters. WordStar uses the default ruler line instead. If you want to use the line as a ruler line, type more than two characters on it, then press **^OF** again.

Merge print information is missing or incorrect. Press C or ^U.

Some of the necessary dot command information, such as a variable name, is missing or is invalid. Press **^U** to stop printing, then correct the error; or press **C** to continue printing despite the error.

Mismatched parentheses.

The number of left parentheses does not match the number of right parentheses. Check your equation and correct it.

No block defined yet.

Define both the beginning (**^KB**) and end (**^KK**) of the block before you copy it, delete it, move it, or write it to disk.

No numbers in block to add or subtract.

Before you use **^KM**, be sure to mark the block correctly. You can't use the block math feature if there are no numbers in the block you've marked.

No second window.

No second window is open. There might not be enough available memory to open the window, or you have turned off the window feature in WSCHANGE.

Not a valid directory path.

The path you entered is misspelled, incomplete, or doesn't exist on the specified drive. Enter the correct path.

Not a valid filename.

Type the filename correctly. Include a drive letter or directory path if the file is not on the logged drive or directory.

Not a valid worksheet range.

The range you specified for the spreadsheet program worksheet doesn't exist. Check the worksheet and reenter the range information.

Not a valid worksheet window.

The window you specified for the spreadsheet program worksheet doesn't exist. Check the worksheet and reenter the window information.

Not enough memory for nested file insertion (.FI).

You can reduce WordStar's size slightly in WSCHANGE. If you are running a memory-resident program along with WordStar, you may need to remove the other program from memory. You can also restructure your document to use fewer nested **.fi** commands.

Not enough memory to continue.

Your computer has just enough available memory to start WordStar, but not enough to create necessary buffers and to load printer information. Press **X** to exit WordStar. You can reduce WordStar's size slightly in WSCHANGE. If you have other programs running in the background, exit some of these programs before you start WordStar again.

Not enough space to store shorthand macro.

You've used up all shorthand definition space. Delete some shorthand definitions, make some definitions smaller, or use WSCHANGE to increase the total amount of space available.

Not in the directory.

The font, range, window, or color you have specified is not available. Choose one that is listed in the directory on the screen.

Please enter something.

Enter some information at the prompt to continue with the command, or press **Esc** to cancel.

Printer may not be ready. Press C to continue.

The printer may be offline, out of paper, or at the end of its ribbon. Press **C** when you want to continue. If you get this message frequently for no apparent reason, increase the value of the print timeout delay (PRNDLY) with WSCHANGE.

Save your work before printing this file.

When using background printing for the file you are currently editing, WordStar prints the backup (.BAK) version of the file. The latest changes to this file have not been saved. Press **^KS** to save the changes. Then print the file.

Second window is in use, or there is insufficient memory.

Either you are trying to create a note when you have two windows open, or there is not enough memory to execute the command.

Someone else may be using that file. Try again later.

WordStar cannot save the file because someone else is either printing this file or using it with another program. Try again in a few minutes.

Spelling check or thesaurus temporarily disabled. Cannot change disks while background printing is in progress.

The spelling check requires you to take out your Program disk and insert your Dictionary disk. Because you are printing in the background you cannot remove your Program disk. Wait until printing is done before checking spelling.

That drive is not on the list of legal drives.

Type a legal drive letter. You can add drives to the list of legal drives in WINSTALL or WSCHANGE. When typing a filename, be sure to follow the drive letter with a colon.

That drive is write-protected.

Remove the write-protect tab or copy the file to a disk that is not write-protected.

That file is being edited. Temporary files with the same name exist. You can look at the file, but you can't change it. (You can look at only part of very large files.)

Look at the protected file (Y/N)?

The logged drive/directory contains one or more files with the same name as the one you specified, but with an extension that begins with .$A, .$B, or .$C.

This condition occurs primarily on LAN systems. Another user may be working with the file you want to edit, or may be editing another file with the same name but a different extension. (The temporary files for these two files would have identical filenames.) The temporary file(s) also could be left from a previous editing session that was aborted by a system failure.

Press **Y** to view the protected file. If you want to edit the file, wait until the other person is done. If no one else is editing the file, check for the temporary files and erase them. If this condition is caused because two files have the same name but different extensions, change a filename or move a file to a different directory.

That filename contains invalid characters.

Type a filename that conforms to WordStar's rules for naming files.

This command is unavailable during background printing.

Wait until you finish printing, then execute the command.

Too large to undo later. Delete anyway (Y/N)?

This text is so large that you won't be able to restore it using the undo command. Erase the text only if you are sure you won't want to restore it. You can change the size of the unerase buffer in WSCHANGE.

Too many different and/or long merge print variables.

You defined more merge print variables than WordStar can keep track of in memory. Reduce the number of different variables you use or use the same variable names for different functions. You could also use shorter variable names or use **.SV** to make variables hold nothing while they aren't being used.

Wrong version filename.

This file is from a previous release of WordStar. If you have more than one release of WordStar on your disk, make sure the program files for Release 5 are in the \WS5 directory. If you want them to reside in another directory, use WSCHANGE to specify where. If you're not using the previous release of WordStar, erase the old program files. See the "Starting" section of the manual for a list of version 4.0 files to erase, and see README for a list of files from version 3.3.

APPENDIX **B**

Transferring Files Between Releases

You can transfer documents easily between different releases of WordStar Professional. You can use all of your existing WordStar documents directly with Release 5.

To use Release 5 documents with a previous release of WordStar, you need to follow a simple conversion procedure that removes all the new commands.

For a complete list of the new features in WordStar Professional Release 5, refer to the *What's New* booklet. For information on installing Release 5, refer to the "Starting" tab section.

Using WordStar Documents from Previous Releases with Release 5

If you have WordStar documents and nondocuments from a previous release of WordStar, you can use all of these files directly with Release 5; you do not need to convert them. However, you may need to modify some ruler line settings.

In previous releases, the width of a ruler line column was determined by the size of the font. In Release 5, each ruler line column is a standard width, independent of the size of the font. If you used dot commands to change margins or tabs (**.rm**, **.lm**, **.pm**, **.rr**, **.po**, or **.pc**), you'll need to modify these dot commands based on the new column width.

For example, if you used a small font in a previous release, you may have set the right margin to 80 (**.rm 80**) to have text extend 6.5 inches across the page. In Release 5, you set the left margin at 65 columns or 6.5 inches (**.rm 65** or **.rm 6.5"**), regardless of the the font you're using, to have text extend 6.5 inches across the page.

TIP *You can use the find and replace command (**^QA**) to locate every occurrence of **.rm 80** and replace it with **.rm 6.5"**.*

If you're not sure how the old dot command settings translate into inches, multiply the old setting by the character width in effect, and divide by 12. For example, if the old margin was 84 and the character width was set at 10, multiply 84 by 10 to get 840, then divide by 12 to get 70. Set the new margin at 70 (7.0").

Note: Because of the new printer information in Release 5, the **.cw** commands may choose different fonts than in Release 4. For best results, delete the **.cw** command and choose the font using the **^P=** command.

Using Personal Dictionaries from a Previous Release

You can use your old personal dictionaries with the new release, but you need to sort the words into alphabetical order.

To sort a personal dictionary, open the dictionary as a *nondocument* file, mark the entire file as a block, and press **^KZ** to sort in ascending order. Then save the file.

Note: Be sure to read the installation instructions for setting up the spelling and thesaurus dictionaries. The procedures and dictionaries are different for this release.

Transferring Customizations

If you made customizations in Release 4 that you want to transfer to Release 5, you can use the auto patcher feature in WSCHANGE. See Appendix C, "Customizing WordStar." Some customizations can't be transferred because the program has changed in those areas. Refer to README for a list of the user area labels that have changed since Release 4.

Using WordStar Release 5 Documents with Previous Releases

To use Release 5 files with a previous release of WordStar, you must first convert the files. (If you don't convert the files, you may damage them if you try to edit them.) When you convert a file, WordStar creates a new version of the file that is compatible with Release 4; the original file is not changed.

(If you have a two floppy disk computer, copy the WS4.PDF and the DRIVER4.OVR files from the printer data disk to your working copy of the Release 5 Program disk.)

To convert a document, follow these steps:

1. Start WordStar Professional Release 5.
2. At the Opening screen, press **P** to print a file or choose **Print a file** from the File pull-down. (WordStar doesn't print the file to a printer; it "prints" it to a new file on your disk.)
3. Type the name of the file you want to convert.
4. Choose **WS4** as the printer.
5. Type a name for the new file at the *Redirect output to* prompt.
6. Press **^K** or **F10.**

WordStar creates a new file compatible with Release 4. Release 5 commands that are not compatible with Release 4 are deleted from the new file, and comments are added to the file to let you know where these commands were located.

Note: After conversion, tab and margin settings are set for 10 characters per inch and may need to be adjusted if you use other fonts in your document. See the Release 4 *Reference Guide* for information on setting tabs and margins.

APPENDIX **C**

Customizing WordStar

WordStar comes set up to work the way most users prefer, but you can easily customize it to fit your needs exactly.

When you first install WordStar, you use WINSTALL, a simple installation program that sets up WordStar to work with your computer. See the "Starting" tab section for information on using WINSTALL.

This appendix tells you how to use WSCHANGE and PRCHANGE.

WSCHANGE includes all the customizations from WINSTALL, plus many more. Using WSCHANGE, you can make WordStar work *exactly* the way you want; for example, you can change the default settings for things like auto-align, justification, or the help level, or you can change the colors on a color monitor.

The section on WSCHANGE includes a menu map showing how the program is organized, a chart that shows you where to find the most common changes, and a few examples showing how to use the program.

TIP *WSCHANGE has extensive online help that explains each of the choices on every menu. Be sure to look at the help screen if you have questions about what a menu item does.*

For the more advanced users, there is a section on patching WordStar.

PRCHANGE is WordStar's printer customization program. You can tell WordStar what printers you have and specify different settings for each printer.

The section on PRCHANGE explains how to make WordStar take best advantage of your printer. (This section also includes information on the PDFEDIT program.)

WSCHANGE

Starting WSCHANGE

To start WSCHANGE, follow these instructions.

IF YOU HAVE A TWO FLOPPY DISK COMPUTER

1 Put your copy of the Program disk in drive A and the Installation disk (which contains the WSCHANGE.EXE and WSCHANGE.OVR files) in drive B.

2 Type **b:** and press ↵ to log on to the B drive. *B>* should appear on your screen.

3 Type **wschange a:ws** and press ↵. You'll see the Main Installation Menu.

IF YOU HAVE A HARD DISK COMPUTER

1 Log on to your \WS5 directory.

2 Type **wschange ws** and press ↵. You'll see the Main Installation Menu.

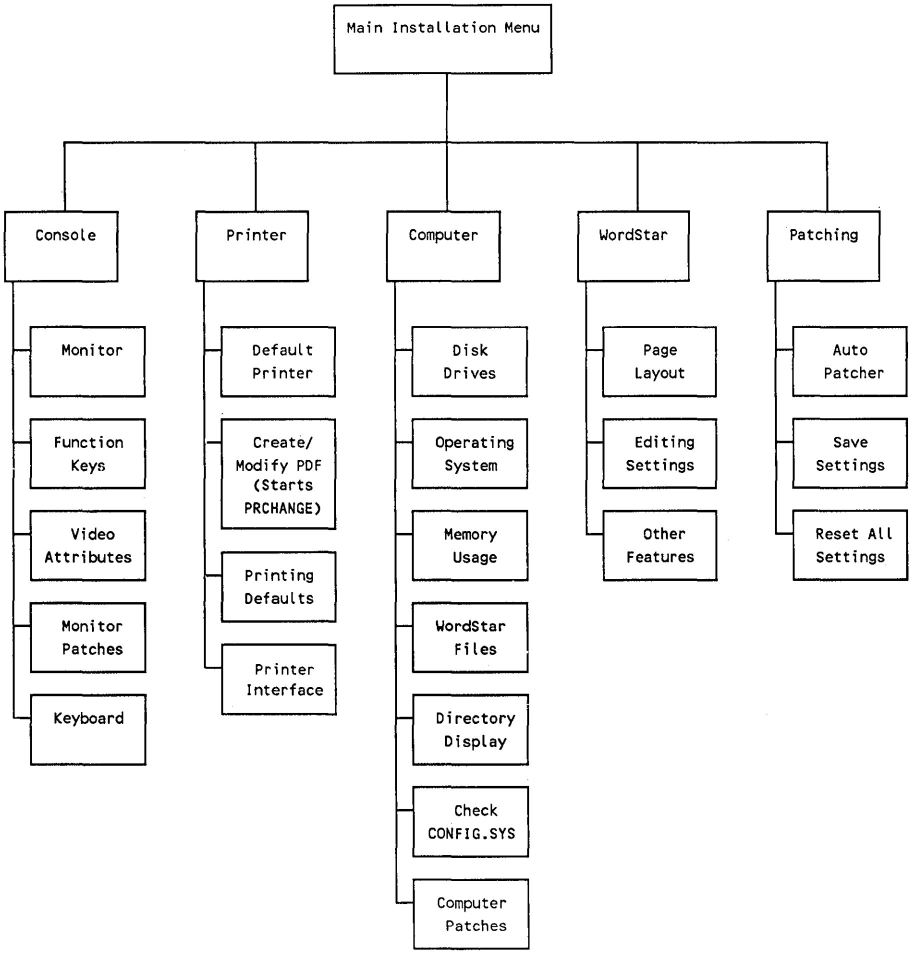
Creating more than one customized version You can create more than one customized version of WordStar; for example, you could create one version with the defaults set for legal documents and one with the defaults set for other documents.

To create additional versions of WordStar, start WSCHANGE by typing only **wschange**. You'll be prompted for the name of the file you want to start with and the name of the file where you want to save the changes. When you quit WSCHANGE, all of the new settings will be saved to the filename you specify.

To start this new version of WordStar, remember to type the name of the new file; for example, if you save the legal version in a file called WSLEGAL.EXE, you would type **wslegal** to start this version of WordStar.

Overview of WSCHANGE

Once you start WSCHANGE, you see the Main Installation Menu. WSCHANGE is divided into categories to help you find the item you want to change.


Main Installation Menu
Console
Printer
Computer
WordStar
Patching
Monitor
Function Keys
Video Attributes
Monitor Patches
Keyboard
Default Printer
Create/ Modify PDF (Starts PRCHANGE)
Printing Defaults
Printer Interface
Disk Drives
Operating System
Memory Usage
WordStar Files
Directory Display
Check CONFIG.SYS
Computer Patches
Page Layout
Editing Settings
Other Features
Auto Patcher
Save Settings
Reset All Settings

Each category on the Main Installation Menu contains a different type of customization.

Console This section lets you tell WordStar about your monitor and keyboard. For example, you can specify what type of monitor you have, or customize your function keys or, if you have a color monitor, you can change the menu colors.

Printer This section lets you specify a default printer and start PRCHANGE, the printer customization program.

Computer This section lets you tell WordStar about your computer; for example, you can specify what drives your computer has, and customize how you use the memory on your computer and where you store the WordStar files.

If your computer has extra memory, you can use the memory to make WordStar run faster; for example, if you have a two floppy disk computer you might want to load the spelling dictionary into memory. Then when you run a spelling check, you won't have to swap disks every time.

WordStar This section lets you customize many of the initial settings for WordStar's features; for example, if you mostly use legal paper, you can set the default page length to 14 inches instead of 11. Or, you can change the default menu display level to level 3, so the pull-downs aren't displayed.

Remember that the default settings are the settings in effect when you start WordStar. You can also change many of these settings while you're using WordStar. But any changes you make to the settings while editing are temporary changes; the next time you start WordStar, your default settings will again be in effect.

Patching This section lets you transfer customizations to other copies of WordStar, or reset all the items to their original settings. Technically oriented people can also use this section to patch WordStar directly.

Choose the area you want to change by pressing the appropriate letter from the menu; for example, if you want to customize WordStar settings, press **C**. Many of the choices on this menu lead to submenus with more specific choices.

TIP *Much of the information about WSCHANGE is online. That is, you can see it onscreen while you're using the program. At most menus, press the* ***?*** *key to see a help screen that explains the choices on the menu.*

Changing a Setting

To change a setting, go to the menu that contains that setting; for example, to change the right margin, press **D**, **A**, and **A** to get to the Page Sizing and Margins Menu.

The menu shows a list of items you can change and the current settings for the items; for example, the Page Sizing and Margins Menu shows the current default setting for all the margins. (Some menus may also show codes in the right column. These codes are the user area labels, and are for advanced changes using the patching menus.) Press the letter for the item you want to change, and WSCHANGE prompts you for the new setting.

For some settings, WSCHANGE checks that your answer falls within limits; for example, if you type a number for the right margin that is too large, you'll see the message, *Out of range . . . must be 00.12"–31.87"*. Type a new number that is inside the limits. Remember that WSCHANGE can't check everything, so use common sense.

The sections that follow tell you step by step how to change the most common settings.

TIP *You can press* ***^X*** *at any menu to save the changes you've made so far and leave the installation program. You can press* ***^C*** *to leave the installation program without saving any changes.*

Changing the Function Keys

You can change the 40 function keys to issue whatever commands or letters you like. You can change the labels that appear at the bottom of the editing screen or you can turn these labels off. You can also reset the keys to match their settings in WordStar 3.3.

To change the function keys, follow these steps:

1. At the Main Installation Menu, press **A** to see the Console Menu.

2. Press **B** to change the function keys.

3. Follow the instructions onscreen to change any function keys you want.

4. When you finish changing a function key, you'll be prompted to change the label for the function key.

5. When you're finished, press **X** twice to return to the Main Installation Menu.

To set the function keys back to their settings in WordStar 3.3, follow these steps:

1. At the Main Installation Menu, press **E** to see the Patching Menu.
2. Press **A** to choose auto patcher.
3. Type the filename **WS3KEYS.PAT** and press ↵. (This file comes on your Installation disk.)
4. Press any key.
5. Press **X** to return to the Main Installation Menu.

Changing the Help Level

You can change the default help level to 4 (pull-down menus are displayed), 3 (all classic menus are displayed), 2 (the classic Edit Menu is not displayed, so you have more room for typing), 1 (no menus are displayed), or 0 (no menus or prompts are displayed). Here is an example of changing the default help level to 2:

1. At the Main Installation Menu, press **D** to see the WordStar Menu.
2. Press **B** to see the Editing Settings Menu.
3. Press **A** to see the Edit Screen Menu.
4. Press **A** to change the help level.
5. Press **2** to specify the default level.
6. Change any other editing screen defaults you want, then press **X** three times to return to the Main Installation Menu.

Changing Colors on a Color Monitor

If you have a color monitor, you can change the colors for the WordStar menus, status line, and other screen displays. To change the colors, follow these steps:

1. At the Main Installation Menu, press **A** to see the Console Menu.
2. Press **C** to change video attributes.
3. Press **A** to select colors individually.
4. Follow the instruction on the screen to choose the new colors you want.
5. When you're through making changes, press **X** two times to return to the Main Installation Menu.

Changing Margins

You can change most of the WordStar initial margin settings. Here is an example of changing the default top margin:

1. At the Main Installation Menu, press **D** to see the WordStar Menu.
2. Press **A** to see the Page Layout Menu.
3. Press **A** to see the Page Sizing and Margins Menu. This menu offers you choices of page length, margins, and page layout.
4. Press **B** to choose top margin. You'll see the prompt, *Currently: .5". Enter new value (or ↵ if no change).*
5. Type the new top margin you want as the default and press ↵.
6. Change any other items you want on this menu, then press **X** three times to return to the Main Installation Menu.

Returning to Original Settings

You can return all the settings to the way they were when you first purchased this release of WordStar. Follow these steps:

1. At the Main Installation Menu, press **E** to see the Patching Menu.
2. Press **C** to choose reset all settings.
3. Press **Y** to confirm that you want to reset all settings.
4. Press **X** to return to the Main Installation Menu.

Path to Common Changes

The chart on the following pages shows you the path to the most common changes; for example, if you want to change the default help level, look up "Help level" in the chart below. It shows the path from the Main Installation Menu to the help level customization. Simply press the letters shown in bold on the chart (**D, B, A, A**), then type the new setting. Press **^X** ↵ to save your changes and leave the installation program.

Path to Common Changes

The following chart shows the path to the most commonly used customization options in WSCHANGE.

SETTING	PATH			
Auto patcher	**E** (Patching)	**A** (Auto patcher)		
Automatic backup	**D** (WordStar)	**C** (Other features)	**G** (Miscellaneous)	**J** (Auto backup)
Colors on color monitor	**A** (Console)	**C** (Video attributes)	**A** (Select colors individually)	
CONFIG.SYS	**C** (Computer)	**F** (Check CONFIG.SYS)		
Copy settings from file	**E** (Patching)	**A** (Auto patcher)		
Dictionary name/location	**D** (WordStar)	**C** (Other features)	**A** (Spelling checks)	**B** (Main spelling dictionary file)
Directory display	**C** (Computer)	**E** (Directory display)		
Disk drives	**C** (Computer)	**A** (Disk drives)	**A** (Valid disk drives)	
Display print codes	**D** (WordStar)	**B** (Editing settings)	**A** (Edit screen)	**F** (Normally show print controls)
Dollar format	**D** (WordStar)	**C** (Other features)	**D** (Shorthand)	**E** (Dollar format for numbers)
Exit from WSCHANGE	**^X**	**Y**		
Exit without saving changes	**^C**			
Filenames	**C** (Computer)	**D** (WordStar files)		
Find and replace options	**D** (WordStar)	**B** (Editing settings)	**G** (Find and replace)	
Footnotes	**D** (WordStar)	**A** (Page layout)	**D** (Endnotes and footnotes)	
Function key labels displayed	**A** (Console)	**E** (Keyboard)	**A** (Function keys)	**G** (Onscreen function key labels)
Function keys	**A** (Console)	**B** (Function keys)		
Headers and footers	**D** (WordStar)	**A** (Page layout)	**B** (Headers and footers)	
Help level	**D** (WordStar)	**B** (Editing settings)	**A** (Edit screen)	**A** (Help level)
Hyphen help on/off	**D** (WordStar)	**B** (Editing settings)	**C** (Paragraph alignment)	**C** (Hyphen help)
Indexing defaults	**D** (WordStar)	**C** (Other features)	**C** (Indexing)	

Initial logged drive/directory	**C** (Computer)	**E** (Directory display)	**E** (Initial directory log-on)	
Insert on/off	**D** (WordStar)	**B** (Editing settings)	**B** (Typing)	**B** (Insert characters)
Justification on/off	**D** (WordStar)	**B** (Editing settings)	**C** (Paragraph alignment)	**A** (Right justification)
Margins	**D** (WordStar)	**A** (Page layout)	**A** (Page size and margins)	
Memory defaults	**C** (Computer)	**C** (Memory usage)		
Menu level	**D** (WordStar)	**B** (Editing settings)	**A** (Edit screen)	**A** (Help level)
Merge print defaults	**D** (WordStar)	**C** (Other features)	**E** (Merge printing)	
Monitor type	**A** (Console)	**A** (Monitor)	**A** (Monitor selection)	
Nondocument settings	**D** (WordStar)	**C** (Other features)	**B** (Nondocument mode)	
Notes	**D** (WordStar)	**A** (Page layout)	**D** (Endnotes and footnotes)	
Page length	**D** (WordStar)	**A** (Page layout)	**A** (Page size and margins)	**A** (Page length)
Page number location	**D** (WordStar)	**A** (Page layout)	**B** (Headers and footers)	**C** (Position of page number)
Page numbers on/off	**D** (WordStar)	**A** (Page layout)	**B** (Headers and footers)	**B** (Print page numbers)
Path	**C** (Computer)	**D** (WordStar files)	**A** (File search path)	
Personal dictionary name	**D** (WordStar)	**C** (Other features)	**A** (Spelling checks)	**D** (Personal spelling dictionary file)
Personal dictionary location	**D** (WordStar)	**C** (Other features)	**A** (Spelling checks)	**E** (Dictionary usage)
Printer, default	**B** (Printer)	**A** (Default printer)		
Printer, installing (PRCHANGE)	**B** (Printer)	**B** (Create/modify PDF)		
Printing defaults	**D** (WordStar)	**B** (Editing settings)	**I** (Printing defaults)	
Release 3.3 settings	**D** (WordStar)	**B** (Editing settings)	**H** (WordStar 3.3 compatibility)	
Restore original settings	**E** (Patching)	**C** (Reset all settings)		
Ruler lines	**D** (WordStar)	**A** (Page layout)	**E** (Stored ruler lines)	
Save color settings in file	**A** (Console)	**D** (Monitor patches)	**D** (Save colors)	
Save function key settings	**A** (Console)	**E** (Keyboard)	**C** (Save function keys)	
Save installation changes in file	**E** (Patching)	**B** (Save settings)		
Screen size	**A** (Console)	**A** (Monitor)	**C** (Screen sizing)	
Shorthand defaults	**D** (WordStar)	**C** (Other features)	**D** (Shorthand)	
Soft space display	**D** (WordStar)	**B** (Editing settings)	**A** (Edit screen)	**D** (Soft space display)
Spelling defaults	**D** (WordStar)	**C** (Other features)	**A** (Spelling checks)	
Strikeout character	**D** (WordStar)	**B** (Editing settings)	**I** (Printing defaults)	**I** (Strikeout character)
Tab stops	**D** (WordStar)	**A** (Page layout)	**C** (Tabs)	
Window, open as doc/nondoc	**D** (WordStar)	**C** (Other features)	**G** (Miscellaneous)	**H** (Prompt for other window)

Transferring Customizations (Auto Patcher)

The auto patcher section of WSCHANGE lets you transfer some or all of your customizations to another copy of WordStar.

This is very useful if you get an upgrade of the program and want to customize it without rechoosing every item step by step, or if you want to trade customizations with another WordStar Professional Release 5 owner.

The auto patcher lets you specify which customizations you want to save and then saves these changes in a nondocument file. You can then use WSCHANGE again to copy these customizations into the other copy of WordStar.

Saving Customizations

To save your customizations to an auto patcher file, follow these steps:

1. From the Main Installation Menu, press **E** to see the Patching Menu. (There are also choices in the function key and screen areas of WSCHANGE to save your function key and screen color settings.)
2. Press **B** to choose Save settings.
3. When prompted, type a filename where you'll save the customizations.
4. When prompted, press ↵ to save the entire user area, or specify the location of the information you want to save.

   You can specify either the address or the label. We strongly recommend that you specify the location by label whenever possible. This is especially important if you want to copy your customizations to a new release of WordStar.
5. When prompted, press any key to return to the Patching Menu.
6. Press **X** to return to the Main Installation Menu.

Note: When you use the auto patcher to transfer changes, WSCHANGE creates the special auto patcher files for you. Some programmers (or other technically minded people) may want to create or edit the auto patcher files themselves. For information, read the section on patching below, especially the section on auto patcher files.

Copying Customizations

To copy an auto patcher file into your WordStar program file, follow these steps:

1. From the Main Installation Menu, press **E** to see the Patching Menu.

2 Press **A** to choose Auto patcher.

3 When prompted, type the name of the auto patcher file you want to copy and press ↵.

4 Press any key to return to the Patching Menu.

5 Press **X** to return to the Main Installation Menu.

WSCHANGE has transferred all the changes to this copy of WordStar.

Patching

To patch the program, choose one of the menu entries with the word "patches" in its name.

CAUTION *Be careful when using patches from a previous release of WordStar. Patches that refer to data addresses may have disastrous results in this release since data has moved. However, patches that refer to user area labels rather than to addresses may work on this release since most labels have not changed. Try the patch on a* copy *of the program. (See README for a list of the changed or deleted labels.)*

Making patches is a very technical procedure. Rather than answering questions and letting WSCHANGE make the changes for you, you will actually type in the hexadecimal codes yourself.

Because mistakes can have some far-reaching effects on WordStar, be sure to make a copy of the WS.EXE program before you begin. That way, if your patches don't work out as expected, you can go back to your original version.

The User Area

All the customizations to WS.EXE are made in a special area of the file called the "user area."

The user area is made up of many small sections, each of which affects a certain part of the program such as the left margin or the function keys.

Many of these small sections are given labels, such as LGLDRV or HITE. Each label refers to a specific section in the user area; for example, the label LGLDRV refers to the legal disk drives section and the label HITE refers to the screen height section.

Each of these sections contains data. Some sections have only one data item; some contain more than one. The label is associated with the first data item in the section.

In addition to labels for sections of the user area, each data item in the user area has its own address. These addresses are simply consecutive hex numbers for each piece of information; for example, the label INIEDT has a hex address of 0C80.

Note: While the address is based on the location of the data and can change if the data is moved between releases of WordStar, labels always refer to specific data and move with that data when it moves.

TIP *To help you make changes, we've provided a readable copy of the user area in the PATCH.LST file (on the Advanced Customization disk). Before you begin making changes, print this file and determine what areas you want to change. Because this file has a large right margin, print it in a smaller font, or print it sideways on the page if your printer allows. Remember, the PATCH.LST file is just a readable copy of the user area; the actual user area is part of the WS.EXE program file.*

Here is a sample of the user area listing:

```
; When WordStar opens a file for editing, it uses the
; following initial conditions.
;
0C80    FF INIEDT   DB    TRUE    ; Right justification when
                                    typing
0C81    FF          DB    TRUE    ; Word wrap when typing at
                                    end of line
0C82    FF          DB    TRUE    ; Insert on
0C83    FF          DB    TRUE    ; Print controls displayed
0C84    00          DB    FALSE   ; No hyphen help
0C85    FF          DB    TRUE    ; Ruler displayed
0C86    00          DB    FALSE   ; Not column mode
0C87    00          DB    FALSE   ; Column replace off
0C88    01          DB    1       ; Single spacing
```

The user area is a combination of program code and English words.

At the far left side is the **address** that indicates where in the user area the data appears. The addresses are in ascending order and appear on the listing as a hexadecimal number. If a line has more than one data item, the next address is incremented accordingly.

Immediately to the right of the address is the hex equivalent for the data stored there.

Sometimes a **label** is shown next. When you patch WordStar, you can specify either the label or the address. Because the label applies only to the first data item in a section, some data items don't have labels associated with them. You can refer to these data items by using labels such as INIEDT+1 and INIEDT+2.

The **DB** or **DW** shown on each line is the assembler directive that actually defines the data. DB stands for "define byte" and DW stands for "define word;" for example, DB 3 means to define a byte that contains the number three. Similarly, DW 1 means to define a word that contains 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 a DB or DW can be one of four things:

- **A number**
- **TRUE or FALSE** TRUE is the same as hex FF; FALSE is the same as hex 00.
- **A string** A string is several characters whose ASCII codes are stored in successive bytes. Strings are shown in the user area listing surrounded by quotation marks; 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).
- **Duplicated** If the word DUP follows a DB or DW, the value within parentheses is to be duplicated several times; for example, 10 DUP (0) means that the value zero is to be duplicated ten times.

The last thing on each line in the example above is a **comment** that begins with a semicolon and describes the data in plain English. In most cases, these comments provide the most technical and most detailed information about the data.

Using Patching Menus

To patch changes in the user area, choose one of the patching menus in WSCHANGE. You'll see a menu of items from that part of the user area. Select one of the items from the menu or press the equal sign (=) to go to any other location in the user area.

If you press =, you'll be prompted for an address or label from the user area. Since the address for information may change from one release of WordStar to another, it's best to signify location using labels. (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, for example:

```
0575 02 00 41 03 02 11 10 02 00 42 04 11 13 0F 0F 02..A......B......
```

WSCHANGE always displays 16 bytes of information, regardless of the actual size of the data you're changing. If the data you are changing is only six bytes long, you'll see those six bytes plus ten bytes from the next data. The address at the left of the screen is for the first of the sixteen bytes displayed onscreen.

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

The cursor is positioned under the first digit of the first byte at the address shown. Change the byte above the cursor (or leave it unchanged) by typing any of the patch commands (these are also shown onscreen):

COMMAND	DESCRIPTION
' (single quote)	To change the value of the digit-pair above the cursor to that of any other ASCII character, type a single quote (') and then the character, for example, 'A. WSCHANGE translates this into the proper ASCII code equivalent (in this case, hex 41).
0–9, **A–F**	To type a new hex value to replace the current value, type two digits. Each hex digit must be either a number or a letter between A and F.
. (period)	To redisplay the line showing any changes you've made, type a period.
↵	To leave the byte above the cursor unchanged and advance to the next byte, press ↵.
X	To save your changes and return to the menu, press **X**.
← (Backspace) or **^H**	Press ← (Backspace) or **^H** to correct typing errors.
^C	To cancel all your changes so far and return to the operating system, press **^C**.
^X	To quit WSCHANGE and save your changes, press **^X**.

After you change the 16th byte, the next 16 bytes are displayed. (You could actually go through the entire user area, 16 bytes at a time, but we don't recommend it.)

Creating or Editing Auto Patcher Files

If you want to transfer your changes to another copy of WordStar, use the auto patcher. For information on saving changes to an auto patcher file and copying these changes to another copy of WordStar, see the "Transferring Customizations (Auto Patcher)" section above.

You can also create and edit auto patcher files yourself. An auto patcher file is a nondocument file that lists the starting location for the customization information, then the information for that location. Use WordStar nondocument mode to edit an existing auto patcher file or to create one of your own.

Here is an example of an auto patcher file that patches the 20 bytes starting at the label INIDOC in the user area:

```
INIDOC=03,08,42,01,00,FF,1C,02,02,07
=08,FF,FF,00,0C,08,0C,0A,03,08
```

The label INIDOC followed by an equal sign (=) indicates where the patch starts. You can also use an address calculation such as INIDOC+5 or a hex address.

Note that the second line of the example begins with an equal sign rather than an address. This signifies that it is a continuation of the previous line. Since the auto patcher can only handle lines shorter than 128 characters, use this method to break up long patches. The hex values for each byte follow the equal signs.

Add strings to the file by surrounding them by either single or double quotes, for example:

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

WordStar evaluates the values between commas to the right of the equal sign as byte values. They are always evaluated modulo 256. However, all arithmetic is done with words (16-bit values), and all numbers are assumed to be hexadecimal.

You can use these operators in calculations:

+	add
–	subtract
*	multiply
/	divide
|	and
^	or

Calculations are evaluated strictly from left to right and cannot use parentheses.

Leaving WSCHANGE

When you are finished with an item, press **X** to go back one menu. When you are through making changes, press **^X** to leave WSCHANGE and save your changes. (If you just want to leave WSCHANGE without saving your changes, press **^C**.)

PRCHANGE

PRCHANGE is the printer customization program. Use it to install printers and to customize default printer settings such as what port your printer is attached to, what fonts are available on your printer, or whether form feeds are on or off.

Starting PRCHANGE

You can start PRCHANGE while you are running either of the installation programs (WINSTALL or WSCHANGE), or you can start it directly from the system prompt.

To start PRCHANGE while running WINSTALL, choose **Install Printer** from the Main Installation Menu. You'll go directly to the Printer Selection Menu. To see the PRCHANGE Main Menu, press **Esc**.

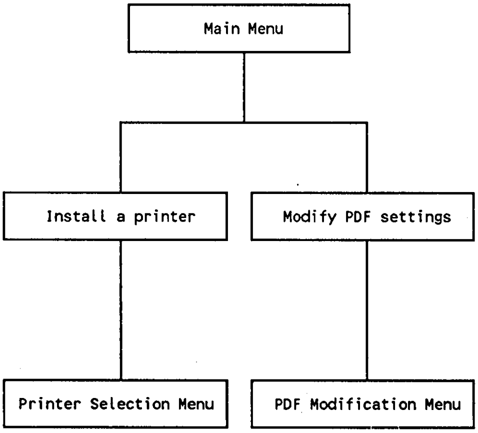
To start PRCHANGE while running WSCHANGE, choose **Printer** from the Main Installation Menu, then choose **Change/modify PDF**. You'll see the PRCHANGE Main Menu.

To start PRCHANGE from the system prompt on a hard disk computer, log on to the WordStar directory (\WS5), type **prchange**, and press ↵. You'll see the PRCHANGE Main Menu.

To start PRCHANGE from the system prompt on a two floppy disk computer, put your working copy of the Program disk in drive A and the Installation disk in drive B. Type **b:** to log on to drive B, then type **prchange** and press ↵. You'll see the PRCHANGE Main Menu.

Overview

Once you start PRCHANGE, you see the PRCHANGE Main Menu. At the Main Menu you can install a printer to create a new printer description file (PDF), or you can modify an existing PDF.



For information on installing a printer, see the "Starting" tab section. The sections below give information on modifying a PDF.

Printer Description Files (PDFs)

WordStar stores information on more than 100 printers in the printer data files. When you install a printer, the information about your printer is copied from the printer data files to a separate little file called a printer description file (PDF). When you print a document, WordStar uses the information in the PDF to produce print enhancements and select fonts on your printer.

Use one of these methods to create a PDF for your printer:

- If your printer is on the Printer Selection Menu, simply choose it from the menu. The exact information for your printer is copied from the printer data files to a new PDF. This information lets WordStar take full advantage of your printer's features.
- If your printer isn't listed on the Printer Selection Menu, check the *Printer Information* booklet to see if it works like another printer. If it does, choose the

other printer from the menu. The PDF that is created will work with your printer.

- If your printer is not on the menu and isn't listed in the *Printer Information* booklet, you can use one of the generic PDFs:

  The DRAFT PDF is designed for printers that can perform a carriage return without a line feed. This PDF allows a printer to produce most of WordStar's print enhancements by overprinting a line.

  The TYPEWR PDF is designed for printers that can backspace one character at a time. It also allows a printer to produce most of WordStar's print enhancements by overprinting characters.

  The AUTOLF PDF is designed for printers that always advance the paper one line by issuing a line feed when the carriage is returned. In order to produce WordStar print enhancements, the printer must be able to backspace. WordStar normally produces line feeds itself. This PDF tells it not to send line feeds because the printer does it.

  These generic PDFs are designed to work with any printer, but they may not be able to use the fonts and other print enhancements available on your printer. You can use these PDFs without running PRCHANGE.

  Note: More advanced users should refer to the "Editing a PDF" section later in this appendix for information on creating a PDF by typing in the printer codes for your printer.

No matter which method you use to obtain a PDF, you can modify the PDF to work the way you want; for example, you can specify the port your printer is attached to, customize the list of fonts, or change the default printing settings.

Modifying a PDF

To modify a PDF, choose **Modify PDF settings** from the PRCHANGE Main Menu. You're prompted to choose the PDF you want to modify.

Move the highlighting to the name of the PDF you want to modify and press ↵. You see the PDF Modification Menu.

Choose any items you want from this menu. For information about the items, refer to the online help and the *Printer Information* booklet.

When you finish making changes, return to the Main Menu. You can modify another PDF or quit PRCHANGE.

If you started PRCHANGE from within WINSTALL or WSCHANGE, you'll return to that program when you leave PRCHANGE.

Editing a PDF

Advanced users can edit a PDF and customize all the codes in the PDF. These customizations are generally needed only if your printer isn't on the menu of printers and you want to create a PDF that will take advantage of all your printer's features.

To create a PDF to edit, you can either install a printer that is similar to yours and modify the PDF to fit your printer, or you can start with the CUSTOM or SIMPLE PDF and add the codes for your printer. Use the PDFEDIT program to edit the PDF.

To start PDFEDIT on a hard disk computer, log on to the WordStar directory (\WS5), type **pdfedit**, and press ↵.

To start PDFEDIT on a two floppy disk computer, make sure the appropriate PDF and driver are on the working copy of the Program disk. Put the Program disk in drive A and the Advanced Customization disk in drive B. Type **b:** to log on to drive B, then type **pdfedit** and press ↵.

Choose the PDF that you want to edit. WordStar comes with two PDFs for you to customize: SIMPLE and CUSTOM.

The SIMPLE PDF really is simple. As it encounters print controls in the text, it sends to the printer the control sequence that you have defined for that control. SIMPLE makes one pass through the line from left to right. Many printers, however, aren't quite that easy to use. There are interactions between the various print controls, so if the SIMPLE PDF doesn't produce the results you want, try the CUSTOM PDF instead.

The CUSTOM PDF is more sophisticated than the SIMPLE PDF in that it usually can compensate for a missing control sequence. For example, if you don't define control sequences for turning boldface on and off, the CUSTOM PDF will instead overstrike the line several times. The SIMPLE PDF, on the other hand, would not be able to print any boldface at all.

When you type the codes, check your printer manual very closely for the correct sequences.

TIP *If someone has created a customized PDF for your printer already, you can simply copy that PDF into your WordStar directory.*

You can also use this program to tell WordStar about any new features your printer has.

For information about the items on the menu, refer to the online help and the *Printer Information* booklet.

APPENDIX D

ASCII Conversion Chart

This chart shows decimal, hexadecimal, and ASCII values for all characters. The characters with decimal values above 127 are the extended character set.

Dec	Hex	CHR	Dec	Hex	CHR	Dec	Hex	CHR
000	00	NUL	024	18	↑	048	30	0
001	01	☺	025	19	↓	049	31	1
002	02	☻	026	1A	→	050	32	2
003	03	♥	027	1B	←	051	33	3
004	04	♦	028	1C	∟	052	34	4
005	05	♣	029	1D	↔	053	35	5
006	06	♠	030	1E	▲	054	36	6
007	07	•	031	1F	▼	055	37	7
008	08	◘	032	20	SPACE	056	38	8
009	09	○	033	21	!	057	39	9
010	0A	■	034	22	"	058	3A	:
011	0B	♂	035	23	#	059	3B	;
012	0C	♀	036	24	$	060	3C	<
013	0D	♪	037	25	%	061	3D	=
014	0E	♫	038	26	&	062	3E	>
015	0F	☼	039	27	'	063	3F	?
016	10	►	040	28	(	064	40	@
017	11	◄	041	29	)	065	41	A
018	12	↕	042	2A	*	066	42	B
019	13	!!	043	2B	+	067	43	C
020	14	¶	044	2C	,	068	44	D
021	15	§	045	2D	−	069	45	E
022	16	▬	046	2E	.	070	46	F
023	17	↨	047	2F	/	071	47	G

Dec	Hex	CHR	Dec	Hex	CHR	Dec	Hex	CHR
072	48	H	134	86	å	196	C4	─
073	49	I	135	87	ç	197	C5	┼
074	4A	J	136	88	ê	198	C6	╞
075	4B	K	137	89	ë	199	C7	╟
076	4C	L	138	8A	è	200	C8	╚
077	4D	M	139	8B	ï	201	C9	╔
078	4E	N	140	8C	î	202	CA	╩
079	4F	O	141	8D	ì	203	CB	╦
080	50	P	142	8E	Ä	204	CC	╠
081	51	Q	143	8F	Å	205	CD	═
082	52	R	144	90	É	206	CE	╬
083	53	S	145	91	æ	207	CF	╧
084	54	T	146	92	Æ	208	D0	╨
085	55	U	147	93	ô	209	D1	╤
086	56	V	148	94	ö	210	D2	╥
087	57	W	149	95	ò	211	D3	╙
088	58	X	150	96	û	212	D4	╘
089	59	Y	151	97	ù	213	D5	╒
090	5A	Z	152	98	ÿ	214	D6	╓
091	5B	[	153	99	Ö	215	D7	╫
092	5C	\	154	9A	Ü	216	D8	╪
093	5D	]	155	9B	¢	217	D9	┘
094	5E	^	156	9C	£	218	DA	┌
095	5F	_	157	9D	¥	219	DB	█
096	60	`	158	9E	Pt	220	DC	▄
097	61	a	159	9F	ƒ	221	DD	▌
098	62	b	160	A0	á	222	DE	▐
099	63	c	161	A1	í	223	DF	▀
100	64	d	162	A2	ó	224	E0	α
101	65	e	163	A3	ú	225	E1	β
102	66	f	164	A4	ñ	226	E2	Γ
103	67	g	165	A5	Ñ	227	E3	π
104	68	h	166	A6	ª	228	E4	Σ
105	69	i	167	A7	º	229	E5	σ
106	6A	j	168	A8	¿	230	E6	µ
107	6B	k	169	A9	⌐	231	E7	τ
108	6C	l	170	AA	¬	232	E8	Φ
109	6D	m	171	AB	½	233	E9	θ
110	6E	n	172	AC	¼	234	EA	Ω
111	6F	o	173	AD	¡	235	EB	δ
112	70	p	174	AE	«	236	EC	∞
113	71	q	175	AF	»	237	ED	∅
114	72	r	176	B0	░	238	EE	∈
115	73	s	177	B1	▒	239	EF	∩
116	74	t	178	B2	▓	240	F0	≡
117	75	u	179	B3	│	241	F1	±
118	76	v	180	B4	┤	242	F2	≥
119	77	w	181	B5	╡	243	F3	≤
120	78	x	182	B6	╢	244	F4	⌠
121	79	y	183	B7	╖	245	F5	⌡
122	7A	z	184	B8	╕	246	F6	÷
123	7B	{	185	B9	╣	247	F7	≈
124	7C	¦	186	BA	║	248	F8	°
125	7D	}	187	BB	╗	249	F9	●
126	7E	~	188	BC	╝	250	FA	•
127	7F	DEL	189	BD	╜	251	FB	√
128	80	Ç	190	BE	╛	252	FC	n
129	81	ü	191	BF	┐	253	FD	²
130	82	é	192	C0	└	254	FE	■
131	83	â	193	C1	┴	255	FF	blank 'FF'
132	84	ä	194	C2	┬			
133	85	à	195	C3	├			

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