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How to Use This Manual
Welcome to Apple Writer! You don’t have to read this book end to end. This manual covers the Apple Writer program in detail and is intended to be used for reference. This manual teaches you about Apple Writer’s features and adds to what you learn from the Apple Presents Apple Writer II training disk.

To get an overview of Apple Writer
Run the Apple Presents Apple Writer II disk.

To find out what you need to know before you can begin using Apple Writer
Read the preface of this manual.

For some hands-on practice
Follow the tutorial in Chapter 1, “Learning the Basics Step by Step.”

For quick reference
See the reference card which summarizes the commands used with Apple Writer.

For more complete information about an Apple Writer command
Read the appropriate section in this manual.

To learn about Apple Writer’s Word Processing Language
Read the Apple Writer II Word Processing Language manual.

How to Use This Manual
Using Apple Presents Apple Writer II

Before you begin using Apple Writer, it's a good idea to run through the training disk. Apple Presents Apple Writer II is an interactive disk for the ProDOS version of Apple Writer II. It gives you an overview of the kinds of things Apple Writer can do. With this disk, you will learn the basic features of Apple Writer II—how to create, edit, save, and print text. You'll also learn about some of the more advanced functions of the program. Why not get started right now?

By the Way: Apple Presents Apple Writer II is written for a 40-column TV display or an 80-column monitor display.

An Apple IIe with an 80-column text card will display 80 columns on a monitor. If, however, you are using a TV set or want to see a 40-column display on a monitor, don't use the 80-column card.

If you have an Apple IIc, set the 40/80 column switch to match your display device.

Getting Ready to Run the Disk

To use the Apple Presents Apple Writer II disk, you need

- an Apple IIe or IIc computer
- a video monitor or TV set
- at least one disk drive. (If you're an Apple IIc owner, you'll use your built-in drive.)
The display device and disk drive should be connected to your computer. The computer’s and the display device’s power cords should be plugged into a grounded outlet. If you haven’t gotten this far, go back to the installation instructions that came with your computer.

Assuming the Apple and the display are turned off, here’s what to do:

1. Find the disk labeled *Apple Presents Apple Writer II*.

*Figure P-1. The Disk Label*

![Disk Label](image)

2. Open the door of drive 1.

   **IIe**: If you’re a IIe owner, drive 1 is your first external disk drive.

   **IIc**: If you’re a IIc owner, drive 1 is your built-in disk drive.

3. Hold the disk with your thumb on the label as pictured in Figure P-2.

   **Side 1/Side 2**: If you’re using a TV set or want to see the 40-column version of the disk with a monitor, hold Side 1 up. If you’re using the 80-column version, hold Side 2 up.
Figure P-2. Inserting the Disk

4. Insert the disk gently into the drive all the way, and close the door.

5. Turn on the video monitor or TV set.

6. Turn on your Apple. The on/off switch is located on the back of the computer at the lower left.

Figure P-3. Turning On the Computer
7. The disk drive will whir and its light will come on. In a few moments, you will see the title display.

Figure P-4. The Title Display

If you don't see the title display, refer to the next section, "In Case of Trouble."

8. After a brief pause, the Lesson Menu will replace the title display.

9. Select the first lesson, "Introduction," and then follow the instructions on the screen.
Now you can set this book aside and spend some time with the training disk. When you're finished, come back here to find out more about how to use Apple Writer and this manual.

**In Case of Trouble**

If you do not see a display of any sort, it may be that

- The display device is still off;
- The contrast and brightness of the display are turned down;
- The display device is not properly connected to the computer.

If the disk drive keeps whirring, it may be that the disk is not in the drive properly. Turn off the computer, remove the disk and start again at step 3.
If you see the message I/O ERROR, it may be that

- The door to the disk drive is not closed;
- The disk is damaged;
- There is a machine failure.

By the Way: If you think your disk is damaged, or your computer is broken, see your dealer.

Getting Ready to Use Apple Writer

Welcome back! Now that you've finished running the training disk, continue reading this preface to find out how this manual is organized. Then, if you'd like more hands-on practice, go through Chapter 1, “Learning the Basics Step by Step.”

To use Apple Writer, make sure you have

- the Apple Writer II Version 2.0 Master disk
- formatted blank disks.

Your utilities manual tells you how to format new disks to receive information. You'll want to keep a couple of formatted disks handy so you can save your Apple Writer documents as you create them.

Later on, when you learn more about Apple Writer, you'll find out how to format disks from within the program. In any case, it's always a good idea to have some formatted disks on hand before you begin a work session. That way you don't have to stop what you're doing to look for extra disks.

Now is a good time to make a backup copy of the Apple Writer master disk, just in case you lose or damage the original disk. You can copy it by using your utilities disk.
Ile: Use the ProDOS User's Disk and ProDOS User's Manual that came with your Disk II drive and controller card to format a blank disk and back up your Apple Writer master disk.

Ilc: Use the System Utilities disk and the System Utilities book that came with your computer to back up your Apple Writer master disk.

40 and 80 Columns
Apple Writer will work whether your computer displays 40 or 80 columns.

Ile: If you're an Apple Ile owner and don't have an 80-column text card, don't worry—Apple Writer will work just fine in 40 columns. However, Apple Writer's display margins are set up for an 80-column display. If you're displaying 40 columns, you'll probably want to change your display margins so that your text will be more readable. See "Left and Right Margins for a 40-Column Display" in Chapter 5.

Ilc: If you're an Apple Ilc owner and you're using a monitor, make sure your 40/80 switch is in the 80-column position before starting up Apple Writer. If you're using a television set as a display device, make sure the switch is in the 40-column position before starting up Apple Writer.

Slots and Ports
There's a fundamental design difference between the Apple Ile and the Apple Ilc; the Apple Ile is designed with internal slots where you connect interface cards to run your printer, modem, and so on. The Apple Ilc is designed with external ports where you connect cables for your printer, modem, and other peripheral devices. This doesn't affect the way Apple Writer works at all. If you're an Apple Ilc owner, just be aware that slots are something found on an Apple Ile. If you're an Apple Ile owner, be aware that ports are found on an Apple Ilc. Both terms are used throughout this manual.
Aids to Understanding

Computer terms in this manual with which you may be unfamiliar appear in **boldface**.

A special type is used for what you type and what you see on the display:

*It looks like this.*

When you see brackets ([]) around a character, it means to hold down the `CONTROL` key while you press the character, usually a letter, in the brackets. For instance, when you see `[L]`

you should hold down `CONTROL` while you press `L`. You can type the letter in uppercase or lowercase when you give the command, although it's always shown in uppercase in this manual.

When you see a hyphen joining two keys, it means to press the keys simultaneously. For instance, `ALT`-`C` means you should press and hold down `ALT`, and then while still holding down `ALT`, press `C`.

Several special symbols are used as aids to understanding in this manual.

**By the Way:** The gray box is used to clarify information or to remind you about some useful technique.

**Warning**

*Warnings about potential problems and advice about how to avoid them appear in boxes like this one.*
Screen boxes represent information as it will appear on the computer's display screen. Most of the screens shown in this manual are from an 80-column display. If you are displaying Apple Writer in 40-columns, your screens will look slightly different.

**How to Use This Manual for Reference**

Chapter 1 is a hands-on tutorial and its instructions are self-explanatory. After you work through that chapter, you'll probably use the rest of this manual for reference only. Chapters 2-5 are divided into two sections:

- The first section tells you what you need to know before you use the chapter's commands. It gives you important background information.
- The second section tells you about the commands. It covers the information about each command in detail.
In the Commands Section

The commands are not in alphabetical order, but in order of function: those used most frequently are first, those used less frequently are last.

For each command, the keys to press are called out in a column format, like this

To Do This Press This

or like this:

To Do This Press This Then Type This

Sometimes there are several ways to do one thing. In these cases, more than one command will be listed. If more than one command is listed, select the one that best suits the task you want to perform. Don’t enter all of the commands in sequence!

The main command is followed by its options, and sometimes by an example.

Diagram of Key Menus

Figure P-6 shows all of Apple Writer’s menus, the keys to press to get them, the type of information they cover, and where to look for more information. To leave any menu and return to the editing display, press [RETURN].
Figure P-6. A Menu Roadmap

Press G For Help Screen Menu
See "How to Get Help" in Chapter 2.

Press CONTROL O For ProDOS Command Menu
See "The ProDOS Commands Menu" in Chapter 3.

Press CONTROL P For Print Command Menu

Press CONTROL Q For Additional Functions Menu
See "Using Apple Writer's Additional Functions" in Chapter 2.

A Command Summary
B Cursor Movement
C Upper/Lower Case Change
D Delete/Retrieve Text
E Tabs
F Glossary
G Saving Files
H Loading Files
I Find/Replace Text
J Print Format Commands
Learning the Basics Step by Step
This chapter will give you practice with the Apple Writer program. If you've already gone through the training disk, *Apple Presents Apple Writer*, you may want to skim this for a review. With this tutorial you'll learn

- how to create something on the screen
- how to erase it
- how to get information already on a disk into the computer
- how to change information on the screen
- how to save what you've created on the disk.

### What You Need

To use Apple Writer you'll need

- an Apple Ile or IIc
- at least one disk drive
- a monitor or television set
- the *Apple Writer II Version 2.0 Master disk*
- a ProDOS formatted disk.

See your utilities manual to learn how to format a disk.

### A Few Tips

Since this reference manual is written for both the Apple Ile and IIc, the expression *drive 1* refers to the internal drive on the IIc and the first external drive on the Ile.
Throughout the manual, when you see the symbol [L]
it means hold down the CONTROL key and press the L key, then release both.

The screen representations you’ll see in this chapter show a screen that displays 40 characters across. If you have a monitor that displays 80 characters, what you see on the monitor will look slightly different.

**Important:** The Apple Writer master disk is perishable. You should make a copy of it before you begin these exercises. The process is pretty simple. See your utilities manual for instructions.

---

**A Word About the Keyboard**

This tutorial assumes that you’ve enjoyed some practice with the keyboard. If you’re unfamiliar with the keyboard, study Figure 1-1 for a moment. Or if you have the *Apple Presents Apple* disk (an introduction to the keyboard), treat yourself to that. The steps for starting up a disk are outlined in the next section.

*Figure 1-1. The Keyboard*
1. The (RESET) key, when held down with the (CONTROL) key and the (CONTROL) key, restarts the computer system.
2. The (ESC) key usually takes you back to another place in the program.
3. The (CONTROL) key is used with other keys to issue commands to the program.
4. When you press the (SHIFT) key and type a letter, the letter is displayed in uppercase.
5. When you press down the (CAPS LOCK) key and type letters, they are all displayed in uppercase.
6. Holding down the (CONTROL) key while pressing (HELP) gives you a help menu. When held down with (RESET) and (CONTROL), you can restart the computer system.
7. The (SPACE) bar gives you a space between characters.
8. The (CONTROL) key is often use with other keys to make them behave differently than they do alone.
9. The arrow keys move the cursor in the direction of the arrow.
10. The (RETURN) key moves the cursor down to a new line of text.
11. The (DELETE) key erases characters to the left of the cursor.

Starting Up Apple Writer

Before you proceed, make sure your system is set up properly and plugged in.

The following steps describe how to start up the Apple Writer master disk. The steps for starting up any disk would be the same—only the name on the disk would be different.

To start up Apple Writer
1. Open the disk drive door.
2. With your thumb on the disk label and the label facing up, put the disk labeled Apple Writer II Version 2.0 Master into drive 1 and close the drive door.
3. Turn on the monitor or television set.
4. Turn on the computer.

In about 15 seconds, the opening display with a copyright appears.

*Figure 1-2. The Opening Display*

Apple Writer //
Version 2.0
Copyright 1984, Paul Lutus
Copyright 1984, Apple Computer, Inc

(For HELP while editing, press A-?)
Press RETURN :)

---

**What's on the Screen**

Press (RETURN) to get to the text screen.

You'll see an inverse bar at the top of the screen and a blinking cursor just underneath it. The cursor marks your place. It's where the next thing you type will be displayed or where the next command will take effect.
The inverse bar is called the **data line**. It tells you such things as how much memory (Mem) in characters you have available, what tab setting you are on, and the name of the file you’re working with. See Chapter 2 for more information on each symbol.

### Creating Information

Now you’re ready to try out Apple Writer by typing on the keyboard. Don’t worry about typing mistakes yet; you’ll learn how to correct mistakes shortly.

**40-Column Display:** If you’re using a TV set or a screen that displays 40 letters or characters horizontally, you will notice an interesting characteristic of Apple Writer: when you move toward the right edge of the screen, some text on the left edge disappears. This is called **horizontal scrolling.** Don’t worry. Your creation is still there. Scrolling just lets you go beyond the window of the screen. Figure 1-3 illustrates how.

Type in the following phrase, or one of your own, but **don’t press the **RETURN** key as you type. Keep an eye on the screen as you type.**

*Jesse was sprawled face down in the hot sand. His horse, Beulah, was nowhere in sight.*

**By The Way:** If you’re anxious to correct mistakes, you can use the **DELETE** key to erase characters just to the left of the cursor.
Figure 1-3. What a Screen Can Display

Jesse was sprawled face down in the hot sand. His horse, Beulah

Notice that even without pressing the (RETURN) key, the cursor moves down another line. This is called word wraparound. It frees you from watching out for the right edge of the text.

Now press (RETURN) to move the cursor to a new line and type something new like:

The sheriff and posse were in hot pursuit. But his only thought was to find water before the noon day sun baked the desert, and him.

40-Column Display: If you’re working with a screen that displays 40 characters, as the text scrolls by horizontally, you may find yourself a little lost. There is a way to adjust the margins so that none of the text moves off of the screen. See Chapter 5, “Left and Right Margins for a 40-Column Display,” for instructions on how to do this.

Since you don’t need to use (RETURN) when you’re typing a paragraph, when do you use it?

- to create a blank line between paragraphs
- to move down a line before you reach the right edge
Clearing the Screen and Memory

Ordinarily, when you've finished creating some document or you want to take a break for a while, you'll save that document on a disk. This process is explained a little later. For now, to start again with a clean slate, without saving what you just created,

1. Press [N] that is, hold down the CONTROL key and press N.

At the bottom of the screen, you'll see the message:

[N]ew (Erase memory) Yes/No?

2. Type Y to confirm that you want to erase.

3. Press RETURN

What you have done is empty out the "container" in the computer called memory. Memory collects what you have created on the screen. The screen then displays as much of your creation in memory as it can. So the screen is really your window into memory.

Information in memory can come and go. Use [N]Y to clear both the screen and memory.

Loading a Document

Loading brings information that is already on a disk into the computer's memory and displays it on the screen. That way you can make changes to it.


You're going to load a document called PAPERSAVER that's already on the Apple Writer master disk, so

2. Type PAPERSAVER to specify the name of the document.

3. Press RETURN

The document appears on the screen with the cursor at the end of the text.
Moving Around in the Text

In order to make changes to the document, you need to move the cursor to the place you want to change. This is easy using some commands and the arrow keys.

Try moving to the beginning of the text with the following command.

1. Press [B] that is, hold down the (CONTROL) key and press [B] for beginning.


The commands [B] and [E] are the fast track to the beginning and end, but for moving around in the middle, use the arrow keys.

3. Press the \( \uparrow \) key three times to move to the end of the second paragraph.

4. Now hold down the ( \( \leftarrow \) ) key and watch the text scroll horizontally and vertically.

80-Column Display: If you’re using a monitor that displays 80 characters across, you will see the text scroll vertically only.

Take a minute to try out all the arrow keys and watch the screen as the cursor moves through the text.

Changing Text

Now to make some changes to the text,

1. Press [B] to get to the beginning of the text.

2. Press the (\( \leftarrow \)) key until the cursor is just to the right of Supervisors in the first line.

3. Press the (DELETE) key several times and erase the words Line Supervisors

4. Type your own name in place of Line Supervisors.

Chapter 1: Learning the Basics Step by Step
Now to correct a typing error left in the last line,

5. Press [E] to go directly to the last sentence.

6. Press ← to position the cursor on the Y in mony.

7. Type e to correct the spelling.

8. Now press ← twice to position the cursor after the last word.

You've now made some simple changes to the text. You've used the arrow keys to move around, the (DELETE) key to erase words, and the letter keys to enter some new information. It's a good time to practice saving this new text on a disk.

Saving Information

When you save a copy of your work on a disk, it is stored on that disk in a file. You give the file a name at the time you save it. Disks also have names. For example, the name of the Apple Writer master disk is AW2MASTER. You assign names to disks when you format them.

Since you'll want to save your document on a disk other than the Apple Writer master disk, you'll need to know the name of that disk.

By The Way: If you don't have a ProDOS formatted disk handy, get a blank disk or one whose contents you no longer want. Then refer to the section “Formatting Disks” in Chapter 3.
Finding Out a Disk's Name

To find out the name of the formatted disk, follow the steps in one of the following sections, depending on whether you have one disk drive or two.

With One Drive

If you have one drive, follow these steps to find out the name of the disk.

1. Remove the Apple Writer master disk from drive 1 and replace it with the formatted disk.
2. Press [O] to display the ProDOS Commands Menu.
3. Type F to List Volumes On-Line.
4. Notice the name of the disk to the right of the words Slot 6 Drive 1. This is the name you'll use when saving your document.
5. Now press [RETURN] twice to return to the text.

With Two Drives

If you have two disk drives, follow these steps to find out the name of a disk.

1. Put the formatted disk in the second drive.
2. Press [O] to display the ProDOS Commands Menu.
3. Type F to List Volumes On-Line.
4. Notice the name of the disk to the right of the words Slot 6 Drive 2. This is the name you'll use when saving your document.
5. Now press [RETURN] twice to return to your text.

By The Way: It's a good idea to write the name of your disk on the diskware label. You'll save time looking it up later.
Saving the Document

To save this document on a disk


At the bottom of the screen you'll see the message:

[S]ave : paper saver

2. Type / to begin the new disk name.

3. Type the name of the disk you found when you listed volumes on-line.

4. Type another / to separate the name of the disk from the name of the document.

5. Type NEWPAPER to save the document with a new name on the disk.

Look at the data line at the top of the screen. You'll see the new file name there. This lets you know that the file NEWPAPER has been saved on the disk that you named.

Summary

When you use Apple Writer in your own work, you'll go through the following sequence of steps:

- Start up Apple Writer.
- Create your text or load something you've already worked on.
- Save your work in a file on a disk.

Remember: You need to know the name of your disk before you can save files on it. You can find this out with Apple Writer, or write it down when you format the disk.
You’ve just scratched the surface of the things you can do with Apple Writer. You can move words, sentences, and whole paragraphs around easily; you can put parts of several documents together without having to retype; you can add page numbers, headers, and footers to your text easily. You can even use Apple Writer to communicate with data banks and other computers with a modem and Apple Writer’s terminal mode function.

All of this and much more is explained in the next few chapters of this manual. Check the table of contents and the index to find the sections that describe the functions you want to learn.
This chapter explains the Apple Writer commands that create and edit a document while it's in memory. If you have not read "How to Use This Manual for Reference," in the preface, do so before you begin this chapter.

### What You Need to Know Before Editing

Read this section carefully before you use the editing commands.

### Starting Up

You start up Apple Writer by putting the Apple Writer master disk (the one marked *Apple Writer II Version 2.0 Master*) in disk drive 1 and turning on the computer's power. When you do this, the Apple Writer program is loaded into the part of memory that is reserved for it and the display in Figure 2-1 appears.
By the Way: Some computers show the 'A' symbol, while others show 'A'. It doesn't matter which one you see—they are equivalent in Apple Writer.

When you press \( \text{RETURN} \) from this display, the normal or default settings for tab positions and format commands are loaded from the Apple Writer master disk into the tab and print value buffers—parts of memory that hold the current tab and format settings.

If you want to, you can modify Apple Writer so that it automatically does the following when you press \( \text{RETURN} \) from the opening display:

- Loads your own tab positions instead of loading the system tab positions. More about this in "Saving Tabs in a File" later in this chapter.
- Loads your own settings of the format commands instead of loading the system settings. More about this in "Saving and Loading a Print Value File" in Chapter 5.
- Runs a Word Processing Language (WPL) program of your choice. More about this in the \textit{Apple Writer II Word Processing Language} manual.

Chapter 2: Editing
Because the entire Apple Writer program resides in memory after you start it up, you don't have to keep the Apple Writer master disk in drive 1. If you want to, you can remove that disk and insert your own data disk—that is, any ProDOS-formatted disk. If you don't know how to format a disk, see "Formatting Disks" in Chapter 3.

There are only four times when the Apple Writer master disk must be in drive 1. They are when you

- start up Apple Writer
- use the help screens (more about these later)
- modify the print and tab files (more about these later)
- run the WPL programs that are on the Apple Writer master disk.

---

**The Editing Display**

In Apple Writer, the display usually shows either the document in memory or a menu. We refer to the display that shows the document in memory as the **editing display** because you can edit text when it is displayed.

When you press **RETURN** from the opening display, the editing display is blank—except for the cursor and a highlighted line of text at the top.

---

**The Data Line**

The highlighted line of text at the top of the display is called the **data line**. Figure 2-2 shows the data line—your data line may look slightly different depending on the amount of memory available on your Apple.
The first column of the data line shows the direction arrow:

\(<\text{ or }\)\>  
The direction of this arrow determines whether Apple Writer searches forward or backward through a document and whether text is deleted or retrieved. When you start up Apple Writer, the direction arrow points to the left (\(<\)).

Sometimes a U or an L appears in the first column of the data line, indicating that case-change mode is turned on. More about this in “Changing Case Automatically” later in this chapter.

Columns 3, 4, and 5 tell you which options are currently being used. The letter that stands for the option is shown when the option is selected; when the option is not selected, the column is blank.
V in column 3 means that control-character insertion mode is on. When this mode is on, the control characters that you press are put into the document in memory as if they were text, rather than executed immediately as commands.

When column 3 is blank, control-character insertion mode is off, and the control characters that you type are executed immediately as commands.

R in column 3 means that replace mode is on. When replace mode is on, characters that you type are written over the current text at the position of the cursor. In other words, the new text that you type replaces the old text in memory.

When column 3 is blank, replace mode is off. Text that you type is inserted into the current text instead of replacing it.

* in column 4 means you are typing faster than Apple Writer can show the characters on the display. Don’t worry! Apple Writer will catch up when you stop typing or slow down.

Z When Z appears in column 5, the word wraparound option is on. Word wraparound means that if a word is too long to fit on the end of a line, the entire word is wrapped around to the beginning of the next line.

When column 5 is blank, the word wraparound option is off. This means that words that are too long are split at the right display edge: part of the word is on one line and part is on the next line.

Here's what the other entries on the data line mean:

**Mem:** Shows how many characters of memory are available for the document in memory.

To estimate the amount of available memory *in pages of printed text*, divide the number of characters shown after **Mem:** by 2500.

**Len:** Shows the total length, in characters, of the document in memory.
Pos: Shows the current cursor position, in number of characters, from the beginning of the document.

Tab: Shows the current cursor position, in number of characters, from the last RETURN.

File: Shows the name of the document in memory.

You can also display the current tab positions on the data line or turn the data line off. To find out more, see “Turning Off the Data Line” later in this chapter.

---

**Apple Writer Modes**

Most of the time when you issue a command in Apple Writer, it performs a single task. Then, when the task is completed, Apple Writer automatically returns to the state it was in before you issued the command.

But a few of Apple Writer’s commands do something different: they cause some of the other keys on the keyboard to take on new meaning—to temporarily be interpreted differently than they were before. Each of these different states of the system is called a **mode**. Even Apple Writer’s normal state—the one it’s in when you’re typing text—is a mode: it’s called **text entry mode**.

A **mode** determines how Apple Writer interprets commands.

Apple Writer is almost always in **text entry mode**.

In text entry mode

- any character that you type is shown on the display at the position of the cursor
- control characters are treated as commands to Apple Writer.

You'll do most of your work in text entry mode, but sometimes you will need to use other modes. Figure 2-3 shows Apple Writer’s other modes.
Figure 2-3. Apple Writer's Modes

<table>
<thead>
<tr>
<th>Name of Mode</th>
<th>Where to Find Out More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case-Change Mode</td>
<td>&quot;Changing Case Automatically&quot;</td>
</tr>
<tr>
<td>Replace Mode</td>
<td>&quot;Replacing Text by Typing Over It&quot;</td>
</tr>
<tr>
<td>Terminal/Printer Mode</td>
<td>&quot;Terminal Mode: Connecting the Keyboard to a Modem&quot; and &quot;Typewriter Mode: Connecting the Keyboard to a Printer&quot;</td>
</tr>
<tr>
<td>Control-Character Insertion Mode</td>
<td>&quot;Inserting Commands in Text&quot;</td>
</tr>
</tbody>
</table>
How Memory Is Divided

When you type text at the keyboard, it is put into the text buffer—the part of the computer’s memory that is reserved for your document.

In Apple Writer, memory is divided into several parts, or buffers, each of which is reserved for a specific purpose and holds a particular kind of information. Some of these buffers hold information that is used by the Apple Writer program; others hold data that you use when editing. In this and the following chapters, you will learn several commands that put information into buffers and take information out of them. It will help you to use these commands effectively if you picture each buffer as a storage area that has a definite size and if you keep in mind that the behavior of buffers is predictable. Figure 2-4 shows how Apple Writer divides memory into buffers.

Figure 2-4. How Memory Is Divided
Here's where you can find out more about each buffer:

<table>
<thead>
<tr>
<th>Name of Buffer</th>
<th>Where to Find Out More</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character Deletion Buffer</td>
<td>&quot;Retrieving Deleted Text From the Buffer&quot; in Chapter 2</td>
</tr>
<tr>
<td>Word and Paragraph Deletion Buffer</td>
<td>&quot;Retrieving Deleted Text From the Buffer&quot; in Chapter 2</td>
</tr>
<tr>
<td>Tab Value Buffer</td>
<td>&quot;Using Tabs&quot; in Chapter 2</td>
</tr>
<tr>
<td>Print Value Buffer</td>
<td>&quot;How to Change Print Command Values&quot; in Chapter 4</td>
</tr>
<tr>
<td>Glossary Buffer</td>
<td>&quot;Making and Using a Glossary&quot; in Chapter 2</td>
</tr>
<tr>
<td>Footnote Buffer</td>
<td>&quot;Formatting Footnotes&quot; in Chapter 5</td>
</tr>
</tbody>
</table>

The Editing Commands

The rest of this chapter tells you how to use each editing command. First, we'll discuss a few commands that operate behind the scenes, then all other editing commands, starting with the most common and ending with the least common.

Learn These Commands First

There are three commands you should learn before the rest: those that get help, set the direction for editing commands, and change what's shown on the data line.

How to Get Help

If you need help, display the Help Screen Menu.

To Do This

<table>
<thead>
<tr>
<th>To display the Help Screen Menu</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To do this</td>
<td>(5) (7)</td>
</tr>
</tbody>
</table>

You must hold down (5) while you press the question mark (?).
By the Way: You can also press \((\text{Alt}+\text{F1})\) to get the Help Screen Menu.

By the Way: If your prefix is set to a data disk, rather than the Apple Writer master disk, help won't be available. For more information on prefixes, see "Setting the Prefix" in Chapter 3.

![Figure 2-5. The Help Screen Menu](image)

HELP SCREEN MENU

A. Command Summary  
B. Cursor Movement  
C. Upper/Lower Case Change  
D. Delete/Retrieval Text  
E. Tabs  
F. Glossary  
G. Saving Files  
H. Loading Files  
I. Find/Replace Text  
J. Print Format Commands

Press RETURN to Exit  
Enter Your Selection (A - J) : B

When the Help Screen Menu is displayed, type the letter that corresponds to the group of commands that you need help with, then press (RETURN). A help screen with a summary of the commands is displayed. (If you want to return to the editing display from the Help Screen Menu, just press (RETURN).)
When you're finished using a particular help screen

**To Do This**                       **Type This**
To return to the Help Screen Menu                          C

Then, press (RETURN). To select another help screen, type the letter that stands for it, and press (RETURN).

**To Do This**                       **Type This**
To leave a help screen and resume editing                E

Then, press (RETURN).

When you leave any of Apple Writer's menus, you return to the editing display.

---

**Setting Direction for Editing Commands**

The direction arrow, 〈 or 〉, is the first character on the data line. The direction of this arrow affects several editing commands that are discussed in this chapter. It sets the direction for finding and replacing text, and it determines whether some commands delete or retrieve text.

**To Do This**                       **Press This**
To change the direction of the direction arrow            [D]

Notice that each time you press [D], the arrow alternates between 〈 and 〉.
Changing the Data Line

You have three options with the data line.

- You can display the full data line, which looks like this:

- You can display the current tab positions as highlighted boxes, with each character position displayed as a period, each fifth position as an apostrophe, and each tenth position as a number, like this:

- You can turn off the data line entirely.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display the current tab positions</td>
<td><strong>ESC</strong></td>
</tr>
<tr>
<td>To turn off the data line</td>
<td><strong>ESC</strong></td>
</tr>
<tr>
<td>To turn on the data line</td>
<td><strong>ESC</strong></td>
</tr>
</tbody>
</table>

Notice that **ESC** is like a three-way switch—each time you press **ESC**, a different option takes effect.

By the Way: 0 (rather than 1) is the leftmost character position on the data line.

By the Way: If you change your margins to take advantage of Apple Writer's 240 horizontal spaces, every fifth tab position between columns 100 and 200 will be displayed on the data line as an exclamation point (!). Every fifth tab position between columns 200 and 240 will be displayed as a vertical line (|). For more information about changing the width of your display, see “Setting the Left and Right Margins” in Chapter 5.
Entering and Inserting Text

To enter text, just start typing! (If a menu is displayed, first press [RETURN] to get rid of the menu and return to the editing display, then start typing.) You don’t have to press [RETURN] at the end of each line, just at the end of a paragraph.

To insert text, move the cursor to the position where you want to add the text and start typing.

In Apple Writer, all characters except the one (usually a backslash) that marks the beginning and end of text to be underlined and control characters entered with [V] are printed just as they appear on your display.

Getting uppercase and lowercase characters in Apple Writer is just like getting them with a typewriter: use [SHIFT] to capitalize a single character; use [CAPS LOCK]—which is just like the shift lock key on a typewriter—to capitalize several characters. However, [CAPS LOCK] capitalizes only alphabetic characters. It does not give you the character in the upper position on the numeric and special character keys. For those characters, you still must use [SHIFT].

Moving the Cursor

There are several ways to change the position of the cursor: you can move it in a direction by pressing the arrow keys, or the [↑] and arrow keys, and you can move it to the beginning or end of a document by pressing [CONTROL][B] and [CONTROL][E].

The Apple Keys: You cannot use the [↑] and [↓] keys interchangeably. Each key has its own purpose within Apple Writer.

Horizontal Scrolling: You can change the margins to take advantage of Apple Writer’s wide display capability. For more information, see “Tabbing Past Column 80” later in this chapter.

Moving in a Direction

To move the cursor in a direction, press the arrow key that points in that direction. For longer leaps, hold down [←] while you press the appropriate arrow key.
To Do This                        Press This
To move up 1 line                1
To move down 1 line               2
To move left 1 character          6
To move right 1 character         7
To move left 1 word or 24 characters 8
To move right 1 word or 24 characters 9
To move 22 lines forward (11 lines on a split screen) 8-1
To move 22 lines backward (11 lines on a split screen) 8-7

By the Way: The cursor moves straight up or down until it comes to a shorter line. Cursor movement is sometimes more uniform when word wraparound is off. To find out more about word wraparound, see “Word Wraparound” later in this chapter.

---

Moving to the Beginning and End

Here’s the quickest way to move the cursor to the beginning or end of a document.

To Do This                        Press This
To move to the beginning of the document  [B]
To move to the end of the document       [E]

[B] automatically sets the direction arrow to >.
[E] automatically sets the direction arrow to <.
Deleting Text

With Apple Writer, you can delete a character, a word, or a paragraph at a time.

Deleting Characters

There are two ways to delete characters. You can delete characters and retrieve them (in case you change your mind) or you can delete characters permanently.

Try this to remove some characters for good. First, move the cursor immediately to the right of the character(s) you want to delete. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To delete a single character</td>
<td>DELETE</td>
</tr>
</tbody>
</table>

▲

Warning

When you use the DELETE key, you cannot retrieve the deleted text. It’s gone forever!

To delete one or more characters temporarily try this: move the cursor immediately to the right of the character(s) you want to delete. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To delete characters</td>
<td>aimore</td>
</tr>
</tbody>
</table>

That is, hold down a while you press to delete as many characters as you want. To retrieve characters deleted with a, hold down a and press n.

Deleting Words and Paragraphs

Apple Writer lets you delete a word or a paragraph at a time—a handy feature when you want to get rid of a lot of text quickly.

First, move the cursor to the right of the text to be deleted. Then, make sure the direction arrow is pointing to the left (RETURN); if it isn’t, press [D]. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To delete a word</td>
<td>W</td>
</tr>
<tr>
<td>To delete a paragraph</td>
<td>X</td>
</tr>
</tbody>
</table>
[W] deletes the text that lies between the cursor position and the previous space.

[X] deletes the text that lies between the cursor and the previous RETURN. [X] can delete only 1024 characters at a time; to delete paragraphs larger than this, press [X] more than once.

Retrieving Deleted Text From the Buffer

If you delete some text by mistake, you can get it back without retyping it (unless you deleted it with the DELETE key). This is possible because the text is not thrown away immediately when it is deleted. Instead, it is put into a buffer—a part of memory that is reserved for temporary storage. The deleted text remains in the buffer until later deletions fill up the buffer and write over the text.

In Apple Writer, two separate buffers hold deleted text. Text deleted with [DELETE] is put into a buffer that can hold up to 128 characters. Text deleted with [W] and [X] is put into a separate buffer that can hold up to 1024 characters. Figure 2-6 shows the buffers the deletion commands use.

Figure 2-6. Deletion Commands and Buffers

To Do This  Press This
To retrieve character(s) deleted with [DELETE]  (.DELETE)
That is, hold down [DELETE] while you press (DELETE).
To retrieve text deleted with [W] and [X], first point the direction arrow to the right (•) by pressing [D]. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To retrieve word(s) deleted with [W]</td>
<td>[W]</td>
</tr>
<tr>
<td>To retrieve paragraph(s) deleted with [X]</td>
<td>[X]</td>
</tr>
</tbody>
</table>

Deletion buffers: Last in, first out.

When you retrieve text from either buffer, the last text deleted is the first text retrieved.

Figure 2-7 summarizes deleting and retrieving.

*Figure 2-7. Summary of Deleting and Retrieving*

When deleting and retrieving text, use only one command at a time. Don’t delete a word with [W], then a paragraph with [X], and then try to retrieve the word and paragraph together. If you do, the retrieved text will have extra spaces and/or carriage returns in it.

You may, however, delete an entire paragraph with [X], then retrieve the part of it that you want a word at a time with [W].

Remember, when you use **DELETE** to delete characters, you cannot retrieve them.
Copying Text

Here’s how you can use Apple Writer’s word and paragraph deletion buffer to copy text without actually deleting it.

First, place the cursor at the end of the text to copy and set the direction arrow to the left (▼). Then

To Do This                      Press This
To copy a word into the buffer  ( )-[W]
To copy a paragraph into the buffer  [ ]-[X]

Then move the cursor where you want to copy the text, set the direction arrow to the right (►), and press either [W] or [X]—whichever corresponds to the command you used to copy the text.

A copy of the text appears at the cursor’s position.

Moving Text

You can move text by deleting it (which puts it into the word and paragraph buffer) and then retrieving it at a new location.

To do so, delete the text at its original location, using [W] or [X], then move the cursor to the new location, change the direction of the arrow, and retrieve the text, using [W] or [X].

The word and paragraph buffer can hold up to 1024 characters.

To find out how many characters are in a paragraph, place the cursor to the right of the last character of the paragraph and read the number after Tab: on the data line.

Move paragraphs larger than 1024 characters in segments: move the last 1024 characters of the paragraph first, then the previous 1024 characters, and so on, until the entire paragraph is moved.

By the Way: If you feel uneasy about moving part of a carefully crafted document by deleting it, you can copy the text instead.

To do so, copy the text into the buffer by pressing ( )-[W] or ( )-[X]. Then move the cursor to the new position for the text and retrieve it. Don’t forget to go back and delete the text at its original position.

Chapter 2: Editing
Replacing Text by Typing Over It

Normally, when you type characters, they are inserted into the text at the position of the cursor. However, you can also type over the text at the position of the cursor by entering replace mode.

By the Way: This function is called overstrike or exchange in some other editors.

First, put the cursor at the beginning of the text you want to type over. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enter replace mode</td>
<td>[R]</td>
</tr>
</tbody>
</table>

When you see R on the data line, type the new text over the old.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To leave replace mode</td>
<td>[R]</td>
</tr>
</tbody>
</table>

[R] is a toggle command—the same keys alternately turn it on and off.

By the Way: When changing a table, don’t delete the old part and insert the new—use replace instead. Unlike when you insert or delete text, replace does not rearrange the text in the table.

Finding and Replacing Text

The Find command can be used for two purposes: to move the cursor quickly to a specific word or phrase and to find and replace text.

Find always begins at the current cursor position and searches in the direction of the direction arrow.
Finding a Word

Here's how to move the cursor quickly to a specific word or phrase.

First, check the direction of the direction arrow: if it is not pointing toward the word(s) you want to find, change its direction by pressing [D]. If you want to search through the entire document, press [B] or [E] to put the cursor at the beginning or end of the document and to automatically set the direction of the arrow correctly. Then

**To Do This** | **Press This** | **Then Type This**
---|---|---
To move the cursor to the first occurrence of the specified text | [F] | /word(s) to find/

Then press [RETURN].

The text to find must be typed exactly as it appears in the document. Pay attention to capitalization. The slash (/) is used to mark, or **delimiter**, the beginning and end of the phrase.

When Apple Writer finds the word or phrase, you'll see [F]ind: RETURN=Proceed. Then

**To Do This** | **Press This**
---|---
To move to the next occurrence of the word(s) | [RETURN]
To exit the Find command at the present position | [SPACE] bar

**By the Way:** You can exit from the Find command by pressing any key except [RETURN]. The [SPACE] bar is designated because it is most convenient.

If you press [RETURN] when there are no more occurrences of the word or phrase in the document, the prompt disappears and the cursor stops at whichever end of the document the direction arrow was pointing toward.

To find a phrase that has a slash (/) in it, you must use a character other than the slash as the delimiter. You may use any character, even a space, as the delimiter in a Find command: the delimiter is the first character that you type after pressing [F].
For Example

Here's how to find the first occurrence of the phrase *million-dollar merger* if it is in the document in memory.

First, press [B] to move the cursor to the beginning of the document and to change the direction of the direction arrow to ›. Then press [F] and type

/million-dollar merger/

The bottom of the display shows:

[F]ind:/million-dollar merger/II

When you press (RETURN), the cursor moves to the first occurrence of the phrase.

Finding and Replacing All Occurrences

Here's how to replace all occurrences of a word or phrase with another word or phrase.

First, check the direction of the direction arrow: make sure it's pointed toward the word(s) you want to find. If you want to make the replacement throughout the entire document, move the cursor to the beginning or end of the document. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To replace all occurrences of word(s) with new word(s)</td>
<td>[F] /word(s)/new word(s)/A</td>
<td></td>
</tr>
</tbody>
</table>

Then press (RETURN).

It makes no difference whether you type the A in uppercase or lowercase. Either way, it means "replace all occurrences automatically."

Remember: Capitalization of the text to find must exactly match that of the text in the document.
Warning

When you replace all occurrences of a word, be sure that you want to replace all of them—because the word will be changed even when it occurs within another word. To replace all occurrences of a word except those within another word, type a space character at the beginning and end of the word to find and the word to replace it with.

For Example

Here's how to find all occurrences of substantial loss and replace them with profit.

Press [B] to move the cursor to the beginning of the document and to point the direction arrow toward the end of the document. Then press [F] and type

/substantial loss/profit/A

and press [RETURN].

Here's an example of how automatic find and replace can make unintended changes in your text.

If you press [F] and type

/other/all/a

with this text in memory

Teaching Milton to type is a bother; other trainees are doing well.

the text changes to

Teaching Milton to type is a ball; all trainees are doing well.

To avoid these unintended changes, put a space at the beginning and end of the word to find and the word to replace. For instance, to change just the word other to all, press [F] and type

/other/all/a
**Finding and Replacing Selectively**

If you want to replace some occurrences of a word or phrase, but not all of them, follow these directions.

First, check the direction of the direction arrow; make sure it's pointed toward the word(s) you want to find. If you want to search through the entire document, move the cursor to the beginning or end of the document. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To selectively replace occurrences of word(s) with new words</td>
<td>[F] \textit{/words(s)/new word(s)/}</td>
<td></td>
</tr>
</tbody>
</table>

Then, press \texttt{(RETURN)}.

When the cursor moves to the first occurrence of the word(s), you'll see \texttt{[F]ind: RETURN=Proce}ed \texttt{Y=Replace.} Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To move to the next occurrence of word(s)</td>
<td>\texttt{RETURN}</td>
</tr>
<tr>
<td>To replace this occurrence of the word(s)</td>
<td>\texttt{Y}</td>
</tr>
<tr>
<td>To exit at the present cursor position</td>
<td>\texttt{SPACE} bar</td>
</tr>
</tbody>
</table>

**Remember:** You may press any key except \texttt{RETURN} to exit from the Find command—the \texttt{SPACE} bar is used here for convenience.

---

**Resuming the Previous Find Command**

If you accidentally exited from the last Find command before you wanted to (or if you exited to edit the text that you found), you can go back and continue the command where you left off, without retyping it.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To resume the previous Find command without retyping it</td>
<td>[F] \texttt{=}</td>
<td></td>
</tr>
</tbody>
</table>

Then, press \texttt{(RETURN)}.  

The Editing Commands
Neat Tricks With Find

Here are two short cuts you can use with the Find command: moving the cursor a paragraph at a time and deleting text or spaces.

Leaping Whole Paragraphs

You can use the Find command to move the cursor to the beginning of each paragraph or each item in a bulleted list.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To move the cursor a paragraph at a time</td>
<td>[F]</td>
<td>&lt;&lt;&lt;</td>
</tr>
</tbody>
</table>

Then, press (RETURN).
Then each time you press (RETURN), the cursor moves to the next paragraph because it is finding carriage returns—which are symbolized by the carriage return character (>).

By the Way: If each paragraph is separated from the next by a blank line, you must press (RETURN) twice to move the cursor to the next paragraph. This is because the cursor first moves to the end of the blank line, then to the next paragraph.

Deleting With Find

Here’s another time-saving trick with the Find command.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To replace something with nothing</td>
<td>[F]</td>
<td>/something///</td>
</tr>
</tbody>
</table>

Then, press (RETURN).
Here are two examples of how to use this short cut:

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To decrease the number of spaces between columns</td>
<td>[F]</td>
<td>/ ///</td>
</tr>
<tr>
<td>To get rid of a word</td>
<td>[F]</td>
<td>/ word///</td>
</tr>
</tbody>
</table>
Notice in the last example that there's a space between the first delimiter and the word to delete. Always put a space here or between the end of the word and the second delimiter. Otherwise, when the replacement is done, there will be two spaces in the text where the word used to be. Also, you might accidentally delete a word that's part of another word. Example: 

[F]ind : /the/ /A

deletes the in their, there and theatre.

A related trick with the Find command is to replace something with spaces. For example, since the backslash (\) signifies the beginning and end of underlining, you could use the Find command to get rid of underlines.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get rid of underlines</td>
<td>[F]</td>
<td>/\ /A</td>
</tr>
</tbody>
</table>

**Word Wraparound**

In Apple Writer, you do not have to press (RETURN) at the end of each line. When a line is full of text, Apple Writer automatically starts a new line. Because of this feature, called **word wraparound**, your text is automatically formatted so that lines end at word boundaries instead of in the middle of words. When word wraparound is turned on, a word that is too long for the end of a line is wrapped around to the beginning of the next line.

Word wraparound is on when you start up Apple Writer, but you can turn it off (and back on) as you please. This feature is useful for some editing tasks, and not for others.

Word wraparound only affects what you see on the display—whether it is on or off does not affect the way your text looks when it is printed. When text is printed, lines always end at word boundaries.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To turn off word wraparound</td>
<td>[Z]</td>
</tr>
<tr>
<td>To turn on word wraparound</td>
<td>[Z]</td>
</tr>
</tbody>
</table>

Notice that [Z] is a toggle command—you press the same keys to turn it on and off.

*Word wraparound* means that when a word is too long to fit on the end of a line, the whole word is put on the next line, rather than split between the two lines.

[Z] turns word wraparound on: [Z] appears on the data line and lines end at word boundaries.
Figure 2-8 shows how text looks when word wraparound is on. Notice the Z in column 5 of the data line.

Figure 2-8. Word Wraparound On

Turn word wraparound on to make the display easier to read. When word wraparound is off, lines end at the right edge of the display. Figure 2-9 shows how the display looks when word wraparound is turned off. Notice that Z is no longer shown on the data line.

Figure 2-9. Word Wraparound Off

Turn word wraparound off to
- edit text in tables
- cause the display to be updated faster
- make cursor movement more uniform.
Using Tabs

In Apple Writer, you can set your own tab positions. The positions determine where the cursor moves when you press (TAB).

When you start up Apple Writer, tab positions are automatically loaded from a tab file into the tab buffer—the part of memory that is reserved for the current tab positions. The standard tabs are set at every tenth position starting at 0, up to column 69. You can use these tabs, or, if they aren’t convenient for the text that you’re editing, you can clear some or all of them from the buffer and set tabs at other positions. You can also save tab positions in a tab file and later load them into the buffer for use with any document.

Tabbing to a Position

Here’s how to tab to a new position.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To tab to the column in which the next tab is set</td>
<td>(TAB)</td>
</tr>
</tbody>
</table>

When you press (TAB), the cursor moves to the next position at which a tab is set and inserts spaces between the old cursor position and the new one. This is the tab command to use when you are creating new text.

No matter where the cursor is when you press (TAB), it moves to the next tab position. For instance, if the cursor is in column 30 and you are using Apple Writer’s default tab positions (every tenth position), when you press (TAB), the cursor will move to column 39.

**Tab**: on the data line gives the current cursor position in number of characters from the last (RETURN). Tab positions are always counted from the last (RETURN), not from the left display edge. This makes it possible for you to tab to positions past column 80—for instance, to tab to position 240 on a business form. To see where the last (RETURN) is, follow the instructions in “Displaying Carriage Returns” later in this chapter.
By the Way: If you’re using tabs to make a table that has typing in the rightmost column, turn word wraparound off by pressing [Z]—otherwise, the last word on the line will be wrapped around to the next line on your display, making it difficult for you to keep track of the columns in your table.

Adjusting the Margins: The width of the editing display is controlled by the difference between the right and left margins. If you change the margins after you’ve typed a document, you can go back and adjust that document’s margins to fit your new margin settings by pressing [A]. For more information see “Adjusting the Margins” in Chapter 5.

Warning
Be aware that your tab settings are affected when you use [A] to adjust the display margins. This is especially true when you adjust a long line to a shorter line. If you’ve set tabs for a long line, say 120 characters, and then readjust to a 78 character line, the tabs will also readjust, wraparound, and give you some surprises.

Tabbing Past Column 80
Although your screen can only display 80 columns at a time, it’s possible to change the margins to take advantage of Apple Writer’s ability to hold up to 240 columns. If your margins are set to a width greater than 80 columns, you can use \(<\text{TAB}\) as well as \(<\text{→}\) to horizontally scroll across the display. You’ll want to do this if you’re printing on a wide business form or your printer is equipped with extra wide paper. For more information about changing the default margin settings see “Setting the Left and Right Margins” in Chapter 5. Figure 2-10 shows an example of the horizontal scrolling capability.
Figure 2-10. Example of Horizontal Scrolling

This is an example of horizontal scrolling using Apple Writer. You can fit a lot more text onto each line when you readjust your display margins. This is an example of a display where the left margin is 0 and the right margin can display. You can use horizontal scrolling to create and edit columns for spreadsheets.

▲

Warning
Know your limitations! Be careful not to set margins that are wider than the width of your printer. For instance, don’t change your right margin value to 120 and plan on setting tabs all the way to column 100 if your printer can only handle paper that’s 80 columns wide. If you do that, the characters will run right off the edge of the paper, and you’ll lose a lot of your text.

Tabbing Over Existing Text
Here’s how to move the cursor over existing text to the next tab position.

To Do This                      Press This
To tab over existing text to the next tab position  ⌥-TAB

Use ⌥-TAB to edit existing tables.

When you press ⌥-TAB, the cursor passes over existing text as it moves to the next tab position; it does not insert spaces into the text. This is the command to use when editing existing text.
**Clearing Tabs**

Here’s how to clear some of the tab positions in memory, but not all of them.

First, move the cursor to the tab position you want to clear. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use [T]C to clear one tab position.</td>
<td>To clear the tab at the present cursor position</td>
</tr>
</tbody>
</table>

If you don’t want to use any of the current tabs in memory, you can get rid of them all with one command.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use [T]P to purge all tab positions.</td>
<td>To purge all tabs</td>
</tr>
</tbody>
</table>

**Setting Tabs**

To set a tab, follow these instructions.

First, press the (SPACE) bar until the cursor is in the position where you want to set a tab. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use [T]S to set a tab position.</td>
<td>To set a tab at the current cursor position</td>
</tr>
</tbody>
</table>

You can set a maximum of 64 tabs, and they can be at any position up to column 240. Tab positions are purged from the tab buffer—and therefore lost—when you turn the computer off. So if you don’t want to lose your tab positions, save them in a file before you end the session.

**Remember:** To find out which character position the cursor is in, check the number after Tab: on the data line.
**Saving Tabs in a File**

Here’s how to save tab positions in a file that you can load and use with any document.

First, set the positions you want using [T]S. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To save the tab positions currently in the buffer in a tab file</td>
<td>[Q]</td>
<td>B</td>
</tr>
</tbody>
</table>

and type the name of the file to save the positions in. Then press RETURN.

**By the Way:** Apple Writer automatically ends tab filenames with the suffix .TAB. That way, you can give a tab file the same name as the text file it was created for—and the system will not confuse the two files. If you want to delete a TAB file, you must enter the full filename, including the .TAB suffix.

---

**Making Your Tabs the Default Tab Positions**

Apple Writer automatically loads tab positions from the file SYS.TAB from the disk in drive 1 (in most cases the Apple Writer master disk). This happens when you press RETURN from the opening display.

You can get Apple Writer to load tabs that you have set instead of loading Apple Writer’s default tab positions. Just save the tabs that you want Apple Writer to use in a file named SYS.TAB on the Apple Writer master disk.

To save your own tabs in SYS.TAB on the master disk, follow these steps:

1. If you want to keep a copy of the original tab positions for future use, rename the SYS.TAB file by pressing [O]B, typing SYS.TAB, and pressing RETURN. Then type a new name for the file and press RETURN.

2. Press [T]P to purge the present tab positions.

3. Set tabs at the positions that you want to use as the default tab positions.
4. With the Apple Writer master disk in drive 1, save your tabs in the file named SYS.TAB by pressing [Q]B and typing

/AM2MASTER/sys

Remember, Apple Writer adds the .TAB suffix. See the previous section for more information.

5. From now on when you start up Apple Writer, it will automatically load the tabs you set and saved in SYS.TAB.

By the Way: Every volume must have a name. The Apple Writer master disk’s volume name is AW2MASTER. You name your volumes when you format your disks. See your utilities manual for more information. See also the section “Formatting Disks” in Chapter 3 of this manual.

---

**Loading Tabs From a File**

Tab files are loaded into the tab buffer, the same part of memory that holds the tabs that you set with [T]S. So, if you’ve painstakingly set a lot of tabs and don’t want to lose them, save them before loading tab positions from another tab file.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type this</th>
</tr>
</thead>
<tbody>
<tr>
<td>To load tab positions from a file into the tab buffer</td>
<td>[Q]</td>
<td>A</td>
</tr>
</tbody>
</table>

When you see *Enter file name:*, type the name of the tab file, then press **RETURN**.

When you type the name of the file, *do not* type the .TAB suffix. For instance, to load the settings from the tab file named LETTERS.TAB just press [Q]A and type

**LETTERS**

By the Way: If you press [Q]A, but can’t remember the name of your tab file, type a question mark (?) in response to the *Enter File Name* prompt. Then, in response to the *Enter Volume Name:* prompt, type the name of the volume that contains the tab file or press **RETURN** to accept the default volume. You will get a list of the files on the disk. When you press **RETURN** at the end of the list, you will see the *Enter file name:* prompt again.
Using Apple Writer's Additional Functions

Many of Apple Writer's less common functions are listed on the Additional Functions Menu, Figure 2-11.

To Do This                      Press This
To display the Additional Functions Menu         [Q]
To return to the editing display               RETURN

Figure 2-11. Additional Functions Menu

ADDITIONAL FUNCTIONS MENU

A. Load Tab File
B. Save Tab File
C. Load Print/Program Value File
D. Save Print/Program Value File
E. Load (Q)llossary File
F. Save (Q)llossary File
G. Toggle Carriage Return Display
H. Toggle Date Line Display
I. Connect Keyboard to Printer/Modem
J. Quit Apple Writer
Press RETURN to Exit

Enter your selection (A-J) :

To select an option from this menu, type the letter that precedes it. Don't press RETURN after the letter. When you type the letter, a prompt appears, and if you press RETURN after the letter, the program will mistake it for an order to leave the prompt!
Here is a list of what's on the Additional Functions Menu and where to find out more:

<table>
<thead>
<tr>
<th>Function</th>
<th>Where to Find Out More</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Load Tab File</td>
<td>“Loading Tabs From a File” in Chapter 2</td>
</tr>
<tr>
<td>B. Save Tab File</td>
<td>“Saving Tabs in a File” in Chapter 2</td>
</tr>
<tr>
<td>C. Load Print/Program Value File</td>
<td>“Saving and Loading a Print Value File” in Chapter 5</td>
</tr>
<tr>
<td>D. Save Print/Program Value File</td>
<td>“Saving and Loading a Print Value File” in Chapter 5</td>
</tr>
<tr>
<td>E. Load [G]lossary File</td>
<td>“Loading a Glossary So That You Can Use It” in Chapter 2</td>
</tr>
<tr>
<td>F. Save [G]lossary File</td>
<td>“Saving the Contents of the Glossary Buffer” in Chapter 2</td>
</tr>
<tr>
<td>G. Toggle Carriage Return Display</td>
<td>“Displaying Carriage Returns” in Chapter 2</td>
</tr>
<tr>
<td>H. Toggle Data Line Display</td>
<td>“Turning Off the Data Line” in Chapter 2</td>
</tr>
<tr>
<td>I. Connect Keyboard to Printer/Modem</td>
<td>“Typewriter Mode: Connecting the Keyboard to a Printer” and “Terminal Mode: Connecting the Keyboard to a Modem” in Chapter 2</td>
</tr>
<tr>
<td>J. Quit Apple Writer</td>
<td>“Quitting Apple Writer” in Chapter 2</td>
</tr>
</tbody>
</table>
### Displaying Carriage Returns

Sometimes it’s useful to see each place where you have pressed RETURN in a document. Here’s how to get Apple Writer to display a carriage return character at every place in your document where you’ve pressed RETURN.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display each RETURN</td>
<td>[Q]</td>
<td>G</td>
</tr>
<tr>
<td>To turn off display of each RETURN</td>
<td>[Q]</td>
<td>G</td>
</tr>
</tbody>
</table>

[Q]G is a toggle command—the same keys turn it on and off.

**By the Way:** Your computer will display a carriage return as a right bracket (}), the international carriage return symbol (↓), or as an inverse capital M, (M). It doesn’t make a difference which one you see; they all mean carriage return.

### Turning Off the Data Line

In general, you can turn off the data line by pressing ESC. You may also use the Toggle Data Line Display option on the Additional Functions Menu.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display the tab settings on the data line</td>
<td>[Q]</td>
<td>H</td>
</tr>
<tr>
<td>To turn off the data line</td>
<td>[Q]</td>
<td>H</td>
</tr>
<tr>
<td>To turn the data line back on</td>
<td>[Q]</td>
<td>H</td>
</tr>
</tbody>
</table>

### Typewriter Mode: Connecting the Keyboard to a Printer

Typewriter mode makes your computer and printer work like a typewriter. As long as you’ve set Apple Writer’s print destination to be a slot or port where a printer is connected, characters will be printed immediately as you type them or after you press RETURN. (Some printers have line buffers.) Typewriter mode is a handy way to type addresses on envelopes or labels.

---

Print Destination (PD) is discussed in Chapter 5.
If you have a serial printer, make sure it is set up to work with your computer. For more information, see “Setting Your Printer/Modem Interface” in Chapter 3.

First, get your printer ready. Be sure to set up Apple Writer for your printer according to the instructions in “What You Need to Know Before Printing” in Chapter 4. Also, make sure your print destination has been set to the slot or port where your printer is connected.

**Ille:** If you have a printer, we recommend that you install the card in slot 1. If you have a modem, we recommend that you install the card in slot 2.

**Ilc:** If you have a printer, we recommend that you connect it to port 1. If you have a modem, we recommend that you connect it to port 2.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To enter typewriter mode</td>
<td>[Q]</td>
<td>I</td>
</tr>
<tr>
<td>To leave typewriter mode</td>
<td>ESC Q</td>
<td></td>
</tr>
</tbody>
</table>

Be careful! Because typewriter mode makes your computer and printer behave just like a typewriter, you cannot correct mistakes or make other changes to the text after you type it.

You must always press RETURN at the end of each line in typewriter mode. If the paper is not advancing after each line of text, or the paper advances two lines instead of one, you must change the CR (carriage return) setting on the Print Commands Menu to get your text to print correctly.

The options on the first line of the display do not affect typewriter mode, where you are sending data to a printer. They are used only in terminal mode, where you are sending information to a modem.

**A Parallel Printer Tip:** If you are using a parallel printer (for example, the Apple Dot Matrix printer), you may want to insert

[V][I][80N][V]

at the top of each of your Apple Writer documents. This will stop the echoing of characters and minimize the “garbage” shown on your display during file transmission. It also allows escape sequences to be recognized by your printer. The extra characters shown on the display do not affect the actual file being printed.

See Chapter 5 for information about print commands.
Filling in Forms: If you have a letter quality printer like the Apple Daisy Wheel printer, you can also use typewriter mode to fill in forms. Since the print head will move each time you press the [SPACE] bar, it’s easy to position the print head at a particular place on the form.

Terminal Mode: Connecting the Keyboard to a Modem

Terminal mode allows your computer to emulate a terminal, letting you contact information services such as Dow Jones News/Retrieval™, CompuServe® and The Source℠. You can also use terminal mode to link your computer with home banking and electronic mail services, mainframe computers, and other Apple Writer users.

To use Apple Writer’s terminal mode, you need to connect a modem to your computer. A modem lets the computer send and receive signals over telephone lines. You also need to set the print destination to a slot or port where a modem is connected.

When your print destination has been set to a slot or port where a modem is connected, you communicate directly with other systems using commands you enter from the keyboard. When Apple Writer is in terminal mode, the text received is displayed on the monitor. You can also save the text in a file, edit and print it, and use all the other Apple Writer commands.

By the Way: Be sure to refer to the instructions that came with your particular modem and information service. Each service requires specific commands. You’ll usually need a phone number, an account number, and a password.

Warning
Before you use terminal mode, be sure to set your print destination to the slot or port where your modem is connected. Otherwise, your system will “hang” and what you type will not affect the display or the program. To recover from this condition, press [CONTROL] [RESET] to return to the editing display.

First, get your modem ready. Make sure it’s connected properly to your phone line and computer. Be sure to set up Apple Writer for your modem according to the instructions in “Setting the Printer/Modem Interface” in Chapter 3.
To Do This          Press This          Then Type This
To enter terminal mode  [Q]                      I
To leave terminal mode   ESC  Q

Sending Information in Terminal Mode

To send information over the phone lines, make sure your print destination has been set to the port or slot where your modem is connected. If you have a document you want to send, you need to load it so that it’s in Apple Writer’s memory.

When you have your document in memory, enter terminal mode. Call your receiving party using the instructions that came with your modem, and make sure a connection has been made. You are then ready to send your document. Now leave terminal mode and proceed.

To Do This          Press This
To send information over the phone lines  [P]  N  P

When you send a document, if it is not received in its entirety, it could be that characters have been dropped during transmission. This is because your computer can often send information faster than the computer on the receiving end can receive it. If this is the case, you’ll want to increase the delay time after each carriage return so that the receiving computer can keep up.

Most of the time you won’t need to worry about delays because everything will work automatically. However, if you find that you need to increase the delay, change the carriage return setting (CR) on the Print Commands Menu to a higher number as shown in Table 2-1. If it still drops characters during transmission, try another number until you get one that works for you.
Table 2-1. Carriage Return Delays

<table>
<thead>
<tr>
<th>Carriage Return</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>no linefeed</td>
</tr>
<tr>
<td>1</td>
<td>linefeed</td>
</tr>
<tr>
<td>2</td>
<td>40 ms. delay, no linefeed</td>
</tr>
<tr>
<td>3</td>
<td>40 ms. delay, with linefeed</td>
</tr>
<tr>
<td>4</td>
<td>80 ms. delay, no linefeed</td>
</tr>
<tr>
<td>5</td>
<td>80 ms. delay, with linefeed</td>
</tr>
<tr>
<td>6</td>
<td>120 ms. delay, no linefeed</td>
</tr>
<tr>
<td>7</td>
<td>120 ms. delay, with linefeed</td>
</tr>
<tr>
<td>8</td>
<td>160 ms. delay, no linefeed</td>
</tr>
<tr>
<td>9</td>
<td>160 ms. delay, with linefeed</td>
</tr>
<tr>
<td>15</td>
<td>320 ms. delay, with linefeed</td>
</tr>
</tbody>
</table>

ms. = milliseconds

The maximum carriage return (CR) value is 15.

To Do This        | Press This | Then Type |
------------------|------------|-----------|
To change the carriage return setting | [P] | CRn |

where n is the carriage return setting (0-15).
Receiving Information in Terminal Mode

After you enter terminal mode, the display looks like this:

![ESC-R)ecord E)cho F)ilter Q)uit]

When you see this display, the terminal is ready to send and receive data. The options echo and filter are required by various applications and modems. Refer to the manuals for your modem and information service to determine whether or not you need to use them.

The options are turned on and off by pressing (ESC) and typing the option’s first letter. If the option is turned on, the first letter is highlighted like this:

![ESC-R)ecord E)cho F)ilter Q)uit]

R stands for record. (ESC) R makes it possible for Apple Writer to capture files and other information received over the telephone. The information received is stored in the computer’s memory as if you had typed it in. There’s a maximum number of characters available depending on how much memory you have in your computer. The amount of memory available is displayed on the data line. If you want, you can save, edit, and print the information using Apple Writer’s commands.

E stands for echo. You need to press (ESC) E if the characters you type are displayed twice on the screen or if the characters are not displayed at all. The need to turn echo on or off depends on whether you’re communicating with a service that is using full-duplex or half-duplex. (Most information services use full-duplex.) A full-duplex modem will echo every character you transmit back to your video monitor. A half-duplex modem won’t echo the characters you transmit.

F stands for filter. Type (ESC) F to prevent incoming control characters from being displayed on the screen.

Q stands for quit. When you press (ESC) Q to leave terminal mode, you return to the text editing display.
Changing Case Automatically

You can quickly change text from uppercase to lowercase, or vice versa, by entering case change mode, getting the uppercase or lowercase option, and then passing the cursor over the text.

First, place the cursor at the beginning or end of the text to be changed. Then

**To Do This** | **Press This**
--- | ---
To enter case change mode | [C]
To change from the uppercase option to the lowercase option | [C]
To switch options again. | [C]
To leave case change mode | RETURN

Notice that when you press [C], U replaces the direction arrow on the data line. U indicates the uppercase option; L indicates the lowercase option. Once you have entered the case change mode, [C] switches back and forth between the uppercase and lowercase options.

When the option shown on the data line is the same as the case you want to change the text to, use ← and → to move the cursor left or right over the text.

When the cursor moves over the text, the case is changed to that indicated by the option. If the text is already the case of the option, it is not changed.

If you press ↑ and ↓ while in case change mode, you will return to the text entry mode. Use only the ← and → keys to change case. It’s even faster to change case by holding down (6) and pressing ← or →.

Making and Using a Glossary

If there are several phrases that you use again and again in your writing, or if there are a series of commands that you embed or execute frequently, you can put them into a glossary and then retrieve them as you need them—without having to type the entire phrase or command.

A glossary entry consists of two parts: a character and its definition.
In a glossary, each phrase or series of commands is represented by a single character; a character's definition is the phrase or series of commands. Figure 2-12 shows a glossary entry with each part labeled.

*Figure 2-12. A Glossary Entry*

<table>
<thead>
<tr>
<th>Character</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>billions of dollars in assets</td>
</tr>
</tbody>
</table>

Look at Figure 2-13 to get an idea of how using a glossary can save typing. This figure shows the document in memory and what the document looks like after Apple Writer puts in the definition represented by the character b. You'll learn what the command in this figure means shortly.

*Figure 2-13. How Glossaries Save Typing*

Document in Memory

Mr. Hunt has

Document After Definition b Is Used

Mr. Hunt has billions of dollars in assets

Glossary Currently in Buffer

b billions of dollars in assets

There are two ways to make a glossary: you can create a glossary just like any other document—by typing the glossary entries in the text buffer and then saving them in a file, or you can create a glossary by adding each entry to the glossary buffer and then saving the contents of the glossary buffer in a file.
Creating a Glossary in the Text Buffer

If you create a glossary in the text buffer you can define several things at one time and edit them as you go along.

To make a glossary in the text buffer, follow these steps:

1. Clear memory (after saving any important contents on a disk) by pressing [N], typing Y, and then pressing (RETURN).

2. Type a character followed by its definition—the phrase(s) or command(s) that the character stands for. Press (RETURN) after each entry. Start the next entry in column 1 of the next line. The glossary should be laid out like this:

   accounts receivable
   $ billions of dollars in assets

   or like this:

   accounts receivable
   $ billions of dollars in assets

   If you leave a space between the character and its definition, the definition will begin with a space when you add it to a document.

3. When you have typed all entries, save the glossary in a file just as you would save a document in a file—by pressing [S] and typing the name of a file to save it in.

   The glossary is now in a file on the disk that you specified. To use this glossary, you must load it through the Additional Functions Menu with [Q]E. Then you can insert any of your definitions in the text.

   By the Way: Once you have saved the glossary with [S], you can load it with [L] and edit it the way you would any text file.

Creating a Glossary in the Glossary Buffer

If you want to define new glossary entries as you're writing your text, use the glossary buffer. Here's how to create a glossary in the glossary buffer.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To add an entry to the glossary buffer</td>
<td>[G]</td>
<td>?</td>
</tr>
</tbody>
</table>

The Editing Commands
When you see \texttt{Enter new definition:}, type a character followed by its definition, and press \texttt{RETURN}.

When you use \texttt{[G]?}, you must enter each glossary entry separately.

If you've already loaded a glossary file into the glossary buffer, the new definitions you add using \texttt{[G] \?} will be in the glossary buffer along with those loaded from the file.

\textbf{Warning}

\emph{Make sure that you don't use the same character to represent two different definitions. Apple Writer will find only the first definition of a particular character in the glossary buffer: it ignores subsequent definitions of the same character.}

\textbf{Warning}

\emph{Glossary entries are purged from the buffer when you load a glossary from a file or turn off the computer. So, if you want to make the contents of the glossary buffer permanent, you must save them in a file, using the method described in the following section, "\textit{Saving the Contents of the Glossary Buffer}."}

You cannot edit a glossary while it's in the glossary buffer. To edit a glossary created in the glossary buffer, you must save the contents of the glossary buffer in a file and then load the glossary into the text buffer.

\textbf{Saving the Contents of the Glossary Buffer}

If you add some definitions to the buffer and then decide that you want to use them again, save the contents of the buffer in a file.

\begin{tabular}{lll}
\textbf{To Do This} & \textbf{Press This} & \textbf{Then Type This} \\
To save the contents of the glossary buffer in a file & \texttt{[Q]} & \texttt{F} \\
\end{tabular}

When you see \texttt{Enter File Name:}, type the name of the file to save the glossary in, and press \texttt{RETURN}. 

Press \texttt{[Q]} to get the Additional Functions Menu. Option \texttt{F} on this menu is \textit{Save Glossary File}. 

Chapter 2: Editing
By the Way: Once you have saved the contents of the
glossary buffer with [Q]F, you can load the glossary into the
text buffer (using [L]) and edit it like any other document.

---

**Loading a Glossary So That You Can Use It**

To use a glossary that you have saved with either [S] or [Q]F,
you must load it into the glossary buffer.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To load a glossary from a file</td>
<td>[Q]</td>
<td>E</td>
</tr>
</tbody>
</table>

When you see **Enter File Name:**, type the name of the file that you want to load, and press **RETURN**.

---

**Warning**

*When you load a glossary from a file, it writes over anything that was already in the glossary buffer. This means that any entries that were in the buffer are lost.*

---

**Removing Entries From the Buffer**

Here’s how to get rid of all the entries in the glossary buffer.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To purge entries from the buffer</td>
<td>[G]</td>
<td>*</td>
</tr>
</tbody>
</table>

**Remember:** When you purge a glossary file from the buffer, only the copy that is in the buffer is lost—the original file is still safe and sound on your disk.

---

**Using a Glossary**

To put a definition from a glossary into your text, follow these instructions.

First, be sure the definition you want to use is in the glossary buffer. Either load the glossary that you have prepared from a disk with [Q]E, or add the definition to the buffer with [G]?
To Do This
To insert a definition from the glossary into the text at the cursor’s position

Then type the character that stands for the definition you want.

For example, to get the definition that is represented by the character \textit{a}, press \(\text{(a)-a}\)

The definition is then retrieved from the buffer and inserted into the text at the cursor’s position.

\textbf{Remember}: \(\text{(a)-a}\) and \(\text{(A)-A}\) are not the same; they represent two separate definitions.

\textbf{By the Way}: You can also insert a definition from the glossary buffer into your document by pressing [G] and typing the character that stands for the definition.

For Example
Say the glossary in the buffer looks like this:

\begin{verbatim}
FFar-Eastern Westernwear
M Midwestern Datamulch
p PCB International, Inc.
tTRI-SERA-TOPS Corp.
\end{verbatim}

To insert \textit{PCB International, Inc.} into your text, move the cursor to the position where you want to insert the name and press \(\text{(c)-p}\). You must type a lowercase \textit{p} since that’s the character that represents the name.

Voilà! The name appears.

By making an extensive glossary, you can make correspondence a snap. For instance, you could compose many different letters and memos with just a few keystrokes using this glossary:
n non-profit institution
J really can help you get the job done—in a hurry!
+ plus more than five (5!) times the
effectiveness of most other
brands available on the market today
- although it costs a little more
TTThank you for your interest in
! a thermocouple for every occasion!
3 three layers of heavy duty ductile ducts
@Thanks to a secret manufacturing process,
w with a record of achievement in
m Medflies make the best hosts!
p\We believe in our product\n
Notice that some entries are more than one line long. There is no (RETURN) at the end of the first line of a multiline entry—only at the end of the entry.

What You Can Put in a Glossary

Each glossary entry consists of a character followed immediately by its definition. Glossary entries can differ quite a lot in length and content, but each entry starts after a (RETURN) and ends at the next (RETURN).

Observe these rules when making a glossary:

- Use each character to represent only one definition within a glossary. Apple Writer finds only the first definition of a character; it ignores subsequent definitions represented by the same character.

- Use any keyboard or control character to represent a definition, except these:

  * [A] [H] [M] [W] ← (ESC)
  ? [G] [L] [U] [X] ← (TAB)

The Editing Commands
Glossary Definitions

A glossary definition can be

- text
- Apple Writer commands
- printer commands
- commands that get other glossary definitions
- WPL commands.

*Text is inserted into your document* at the position of the cursor when you use the definition. For instance, you could have glossary definitions represented by the lowercase letters *a* and *b* that look like this:

```
 a blue chip stocks
 b plunged to record depths
```

The definition represented by *a* would insert the words *blue chip stocks* at the cursor’s position.

*Apple Writer commands* can be executed in a glossary definition. For example, you might want to check the name of the volume you’re using in order to save a file. To define a glossary entry that would list the volumes on-line, you would enter

```
L [O] f
```

The right bracket indicates a carriage return. Then when you press [G] L , you get a listing of all of the volume names immediately.

*By the Way:* To put a control character command like [L], [S], or [O] in a definition, just type [G] ?, type the character of the definition, and enter the control command like you would on the text editing screen, holding down (CONTROL) and typing the letter. The character appears on the screen in inverse.

*Printer commands* can be inserted in a glossary to activate such things as italics and boldface print. To learn more about this, see “Glossaries With Printer Commands” later in this chapter.
Commands that get other glossary definitions insert, execute, or embed the definitions they represent. If, for example, you have a very long definition that exceeds the single glossary size limit, you can break it into two parts and create another definition that combines them like this:

a (long sentence)
b (another long sentence)
c [G]a[G]b

In the definition represented by the lowercase letter c, [G]a gets definition a, and [G]b gets definition b—so that a whole paragraph might be placed in the text with one glossary command.

⚠️ Warning

If you use characters that represent other glossary definitions in a definition, don’t nest them more than eight deep. Nesting is when a definition refers to another definition, which refers to another definition, and so on. Don’t connect more than eight definitions. If you do, you’ll get this error message:

WPL Error: Glossary nesting (press RETURN)
and the remaining definitions in the sequence will not be executed.

Some WPL commands can be put in definitions. See your Apple Writer II Word Processing Language manual to find out more.

In glossary definitions, the right square bracket (]) always stands for a (RETURN)—don’t use it for anything else. You can use it to put several lines together in one definition. For instance, if you had this in a glossary:

Rod|ext. 2704|Bandolino Bldg.

It would look like this when inserted into a document:

Rod
ext. 2704
Bandolino Bldg.
Glossary Size Limits

Keep your glossaries within these size limits:

- Maximum size of a glossary is 2048 characters.
- Maximum size of each entry created in the glossary buffer is 128 characters.
- Maximum size of each entry created in the text buffer is 2048 characters.
- Maximum number of entries in a glossary is 99.
- No limit to number of glossary files.

Note that you can make a glossary in the text buffer that contains a single entry that is 2048 characters long—but if you do, there won’t be any room for other entries.

Glossaries With Printer Commands

One very handy use of a glossary is with printer commands. Many printers have the capability of doing neat tricks like boldface type, proportional spacing, subscripts and superscripts, and other functions. Often, to do these, you must enter a specific command in the text you want printed that tells the printer which function to perform. Most of these commands are issued by pressing (ESC) and then another key. In order to use (ESC) for a printer command, however, you must enter control-character insertion mode by pressing [V].

For example to tell the Apple Imagewriter Printer to print text in 12 pitch spacing you would type

[V] (ESC) E [V]

You can create a glossary of printer commands using the text buffer or the glossary buffer. The two processes are slightly different.

Printer Commands in the Text Buffer

To insert printer commands in a definition, you need to use [V] before and after the commands so that the commands are embedded in the text rather than executed.

This presents a problem when you are creating a glossary in the text buffer, because when you press [V] it takes you in and out of control-character insertion mode. However, there is an ingenious way to get around this: it’s a little file named CONTROLV that’s on your Apple Writer master disk.
After you have typed the character that represents the definition, load CONTROLV from the Apple Writer master disk by inserting that disk in drive 1, pressing [L], and typing controlv.

This example shows how to define a glossary term for the command to print in boldface type with the Apple Imagewriter Printer. The printer command for boldface type is (ESC)!. First clear the screen. Then follow the instructions below.

1. Type b (the character representing the definition boldface).
2. Load CONTROLV from the Apple Writer master disk.
3. Press [V] to turn on the function.
4. Press (ESC) once.
5. Press [V] to turn off the function.
7. Type !

Now save the file by pressing [S] and typing in a filename. If you have an Apple Imagewriter Printer, you can load the glossary file you just saved through the Additional Functions Menu ([Q]), and enter your new printer command with [G]b.

**By The Way:** Different printers understand different commands. To find the specific commands for your needs, refer to your printer manual for further information. And remember, to put the commands in a text buffer glossary, you must put a [V] before and after the command. Use the CONTROLV file on the Apple Writer master disk to do this.

---

**Printer Commands in the Glossary Buffer**

If you wish to create your glossary definitions one at a time, use the glossary buffer. Here’s how to define a glossary entry that will embed an Apple Imagewriter Printer command to turn off boldface type. The command is (ESC)!.

First clear the glossary buffer by pressing [G], then typing *.

1. Press [G]?
2. Type B (to represent your definition).
3. Press [V]
4. Press ESC once.

5. Press [V]

6. Type ""

7. Press (RETURN)

Now you can save that definition with option F (Save [G]lossary File) from the Additional Functions Menu.

---

**Inserting Commands in Text**

Sometimes you may want to insert commands into a document. For instance, if your printer can print boldface, you must insert commands before and after the part of the text to be printed in boldface. The command for boldface (and most other printer commands) is an escape sequence—that is, you issue it by pressing (ESC) and then another key. To embed an escape sequence or other printer control command, you must enter control-character insertion mode.

First, move the cursor to the place where you want to insert the commands. Then

**To Do This**  
**Press This**

To enter control-character insertion mode  
[V]

When you see V on the data line, type the command.

**To Do This**  
**Press This**

To leave control-character insertion mode  
[V]

Notice that [V] is a toggle command.

Inserted commands appear on the display as characters in inverse, as shown in Figure 2-14. In this example, the commands to make the word *hamster* print in boldface have been embedded in the document.
No pets are allowed inside the rental unit. This includes hamsters, dogs, cats, felines of any sort, rodents, birds, or other animals. Small fish in aquaria are exempt.

⚠️ Warning
When a document containing inserted control characters is printed, the control characters are printed as spaces. To get rid of the spaces, you must insert a backspace character after each inserted control character. For an example of how to insert a backspace character, see the next section.

For Example
Follow these steps to insert a backspace character into your document:

1. Move the cursor to the position where you want the backspace.
2. Press [V] to enter control-character insertion mode.
3. Press ‹ to insert a backspace character.
4. Press [V] to leave control-character insertion mode.

Notice that the backspace character is shown as an inverse H on the display.
A Built-In Glossary of Printer Commands

Included on the Apple Writer master disk is a glossary file named SPECIAL that contains

- special printer commands for the Apple Imagewriter Printer
- commands that generate subscripts and superscripts on the Apple Daisy Wheel Printer
- a command that inserts a backspace in a document.

If you are using either of these Apple printers, the glossary named SPECIAL is already set up for you—just load it and use it. If you’re using another type of printer, stay tuned anyway. SPECIAL is an example of the type of glossary you can create for your printer.

By the Way: A superscript is a character that is printed slightly above the normal line of text, like the letter b in this text:

Studies show that\textsuperscript{b}

A subscript is a character printed slightly below the normal line of text, like the number 1 in this expression:

\[ n_1 + n \]

Table 2-2 lists each printer command contained in SPECIAL, what it does, and which printer uses it. It also shows how the entry looks in the glossary, what to press to insert the command in a document, and how the command looks on the display when it is inserted in a document.
### Table 2-2. What the Commands in SPECIAL Do. A IW stands for "Apple Imagewriter" Printer; ADW stands for "Apple Daisy Wheel" Printer.

<table>
<thead>
<tr>
<th>Printer Commands</th>
<th>What It Does/Printer</th>
<th>Glossary Entry in SPECIAL</th>
<th>What You Press</th>
<th>How It Looks</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{ESC} ) ((\text{D}))</td>
<td>Turns on 17 pitch/AIW</td>
<td>7V[VQ ((\text{G})-7)]</td>
<td>[Q]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{A}))</td>
<td>Turns on 15 pitch/AIW</td>
<td>5V[Vq ((\text{G})-5)]</td>
<td>[q]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{B}))</td>
<td>Turns on 13.4 pitch/AIW</td>
<td>3V[Ve ((\text{G})-3)]</td>
<td>[e]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{E}))</td>
<td>Turns on 12 pitch Elite/AIW</td>
<td>2V[VE ((\text{G})-2)]</td>
<td>[E]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{N}))</td>
<td>Turns on 10 pitch Pica/AIW</td>
<td>0V[VN ((\text{G})-0)]</td>
<td>[N]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{P}))</td>
<td>Turns on Elite proportional/AIW</td>
<td>eV[VP ((\text{G})-8)]</td>
<td>[P]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{P}))</td>
<td>Turns on Pica proportional/AIW</td>
<td>pV[Vp ((\text{G})-p)]</td>
<td>[p]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{D}))</td>
<td>Turns on boldface/AIW</td>
<td>BV[V! ((\text{G})-B)]</td>
<td>[!]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{D}))</td>
<td>Turns off boldface/AIW</td>
<td>BV[V&quot; ((\text{G})-B)]</td>
<td>[&quot;]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{X}))</td>
<td>Starts underline/AIW</td>
<td>_V[VX ((\text{G})-_)]</td>
<td>[X]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} ) ((\text{Y}))</td>
<td>Stops underline/AIW</td>
<td>-V[VY ((\text{G})-_)]</td>
<td>[Y]</td>
<td></td>
</tr>
<tr>
<td>( \text{CONTROL} + \text{H} )</td>
<td>Inserts backspace/any printer</td>
<td>hV[V ((\text{G})-h)]</td>
<td>[H]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} + \text{T} )</td>
<td>Inserts subscript/ADW</td>
<td>KV[VD ((\text{G})-t)]</td>
<td>[D]</td>
<td></td>
</tr>
<tr>
<td>( \text{ESC} + \text{T} )</td>
<td>Inserts superscript/ADW</td>
<td>JV[VU ((\text{G})-t)]</td>
<td>[U]</td>
<td></td>
</tr>
</tbody>
</table>

Here's how to insert one of these commands into the document in memory. With SPECIAL in the glossary buffer, press \((\text{G})\) and then type the character that stands for the command or word. See the column "What You Press" in Table 2-2.

Subscript and superscript commands must be used in pairs. If you insert a subscript command to the left of a character, you must insert a superscript command to the right of it, and vice versa, so that subsequent text will be printed normally. Figure 2-15 shows how this is done.
Figure 2-15. A Pair of Superscript and Subscript Commands

**How It Looks on the Display**

Recent findings\textsuperscript{1}\textsubscript{2}\textsuperscript{U}
suggest that...

Recent findings\textsuperscript{3}\textsuperscript{4}
suggest that...

**How It Looks When Printed**

If you're not using either of the Apple printers, you can still use the SPECIAL glossary, but you must replace its commands with the commands that your printer uses. To do so, follow these steps:

1. Use \texttt{[L]} to load SPECIAL into the text buffer.

2. Leave the character that represents each command intact (that is, \texttt{7}, \texttt{2}, and so on), but delete each command (\texttt{V[VQ}, \texttt{V[VE}, and so on). See the column “Glossary Entry” in Figure 2-2. Then insert the control characters used by your printer.

3. Save the glossary in a file with a different name, using \texttt{[S]}.

4. Then, to use your customized glossary, load it into the glossary buffer, using \texttt{[Q]E}.

To find out the commands for your printer, see your printer manual.

To find out how to insert control characters for printers, see “Printer Commands in the Text Buffer” earlier in this chapter.
Splitting the display lets you see two parts at once.

---

**Editing With a Split Display**

You can compare and edit two different parts of the same document, or two different versions of a document, by splitting the display in two.

---

**Splitting the Display**

Here’s how to split the display horizontally into two 12-line displays.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To split the display</td>
<td>[Y]</td>
<td>Y</td>
</tr>
</tbody>
</table>

and press **RETURN**.

Splitting the display does not affect your text or the commands that you use to edit; it affects only the way the text is shown on the display.

---

**Moving the Cursor Between Displays**

To move the cursor to the alternate display so that you can edit text there, follow these instructions.

With the display split into two

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To move the cursor from one display to another</td>
<td>[Y] <strong>RETURN</strong></td>
</tr>
</tbody>
</table>

Each time you press [Y] **RETURN**, the cursor is activated in the opposite display at the position it last occupied in that display.

---

The Editing Commands
Restoring the Display

Here's how to return the display to normal.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To restore a single</td>
<td>[Y]</td>
<td>N</td>
</tr>
<tr>
<td>display</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

and press (RETURN).

Using a Split Display to Compare and Move Text

Split display is especially useful for comparing two pieces of text and moving text from one place to another.

Comparing Two Parts of a Document

To see two different parts of a document in memory, follow these steps:

1. Split the display, by pressing [Y], then typing Y, and pressing (RETURN).

2. In the display in which the cursor is active, move the cursor so that the part of the document you want to see is displayed.

3. Move the cursor to the other display, by pressing [Y] (RETURN).

4. Move the cursor to the other part of the document that you want to see.

You can edit text in either display, using the same commands that you would use if the display were not split.

By the Way: You can press (6)-1 and (6)-1 to page through each section of the display.

Figure 2-16 shows the beginning of a document in a normal (single) display and how you can use a split display to see the beginning and end of the document at the same time.
Comparing Two Documents

Follow these steps to compare the document in memory with another document:

1. Save the document in memory.
2. Put the cursor at the end of the document.
3. Load the other document from its file. (Don’t clear memory first.)
4. Follow the instructions in “Comparing Two Parts of a Document.”

Warning

The two documents that you started out with became one when you put them in memory together. Do not save this document since this combined document would overlay the contents of the first document.
By the Way: Try loading the second document with the backslash (\) option described in "Peeking at the Contents of a File" in Chapter 3. This lets you see the second document without actually putting a copy of it into memory.

Moving Text With a Split Display

A split display is especially useful when you are rearranging pieces of text that are not adjacent. With a split display, you can see both pieces of text at the same time and move text from one display to another.

For instance, when the display is split, follow these steps to move a paragraph from one display to another:

1. Place the cursor at the end of the paragraph. Check that the direction arrow points left (‹). Then delete the paragraph by pressing [X].

2. Activate the cursor in the other display by pressing [Y] \(\text{RETURN}\). Then move the cursor to the new location for the paragraph.

3. Retrieve the paragraph, by pressing [X] when the direction arrow shown in the same display points right (›).

Delimiters, Wildcards, and Other Characters

A delimiter is a character that marks the beginning and end of a piece of text to find, save, or load. In Apple Writer, the standard delimiter is an exclamation point (!), but several other characters can also be used as delimiters.

For instance, a delimiter commonly used with the Find command is the slash (/), which cannot be used with Save and Load commands since slashes already delimit each part of the name of a file in these commands.

Besides delimiters, there are three types of characters that have special meaning when used with the find command in Apple Writer—wildcard characters, carriage return characters and any length characters. Each of these will be introduced shortly. These three types of characters represent other characters when you use them with delimiters other than the exclamation point or the slash. When you use them with either the exclamation point or slash, they have no meaning.
When to Use the StandardDelimiter

Use the exclamation point (!) as your delimiter, unless

- There’s an exclamation point in the phrase you want to find or in the beginning or ending marker of the text you want to save or load;
- You want to use a wildcard, any length, or carriage return character.

Other Delimiters

If you cannot use the exclamation point as your delimiter, there are several other characters that you can use. These characters are shown in Table 2.3.

The characters shown on the same line and to the right of each delimiter—under the headings “Any Length,” “Carriage Return,” and “Any Character”—have special meanings when they are used with that delimiter in a find command.

So, if you use a delimiter other than the exclamation point or the slash, make sure that the text that you put between the delimiters does not contain any of the three characters shown to the right of the delimiter in Table 2.3.

Table 2.3. Delimiters and Other Characters

<table>
<thead>
<tr>
<th>Delimiter</th>
<th>Any Length</th>
<th>Carriage Return</th>
<th>Any Character (Wildcard)</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>!</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>&lt;</td>
<td>=</td>
<td>&gt;</td>
<td>?</td>
</tr>
<tr>
<td>#</td>
<td>$</td>
<td>%</td>
<td>&amp;</td>
</tr>
<tr>
<td>&amp;</td>
<td>'</td>
<td>(</td>
<td>)</td>
</tr>
<tr>
<td>*</td>
<td>+</td>
<td>,</td>
<td>-</td>
</tr>
</tbody>
</table>

Any length, carriage return, and wildcard characters have no meaning when used in Save and Load commands. However, you can still use any of the delimiters in column 1 of Table 2.3, except the slash (/), in Save and Load commands.
For Example

If you want to use the standard delimiter to find the phrase *market value*, check the direction arrow and cursor position, then press [F] and type

![market value!]

The bottom of the display looks like this:

[F]ind :!market value!■

Then press [RETURN].

To find a phrase that contains an exclamation point, such as *Our’s = top $ value!, you must use another delimiter. In fact, you must use one that also doesn’t have an apostrophe (’), an equal sign (=), or a dollar sign ($) to the right of it in Table 2-3. In this case, you could use the asterisk (*). Check the direction arrow and cursor position, then press [F] and type

*Our’s = top $ value!*

The bottom of the display looks like this:

[F]ind :*Our’s = top $ value!*■

Then press [RETURN].

---

Wildcards

A wildcard is a character that stands for *any character*. When you use a wildcard in a find command, Apple Writer ignores any character found in the wildcard’s position. It means “don’t try to match this character, just accept whatever character is there.” For instance, the question mark (?) wildcard in this command

[F]ind :<an??????<

would find these words and character groups

analyst
anarchy
antacid
chance to
ants in
standard
antarct

if they occurred in your document because this command finds all instances of seven characters that begin with *an.*
Notice that it will find not only *words* that have seven characters, but any seven-character group that begins with *an*. It makes no difference whether one or more of the characters is a space or whether the seven-character group is the beginning of a longer word.

See Table 2-3 to find out what other characters you can use as wildcards and which delimiters, any length characters, and carriage return characters you can use with them.

---

**Any Length Characters**

An any length character is a character that stands for a *character group of any length* when it is used in a Find command. It tells Apple Writer to accept any number of characters found in its position, just as long as all other characters of the group match. For instance, the equal sign (=) any length character in this command

```plaintext
[Fi]nd :<J=1981<
```

would find these phrases

July 31, 1981
January 12th 1981
Jack says sales grew in 1981

if they occurred in your document because the command finds groups of text of any length that begin with the letter *J* and end with the numbers *1981*.

See Table 2-3 to find out what other characters you can use as any length characters and which delimiters, wildcards, and carriage return characters you can use with them.

---

**Carriage Return Characters**

A carriage return character is a character that stands for (RETURN). It is the character to use when you want to put a (RETURN) in a Find command. (If you tried to insert a carriage return by pressing (RETURN), you would exit from the Find command.)
For instance, the percent sign (%) carriage return character in this command

[Find :#%PCB International, Inc.#

would cause Apple Writer to find the name PCB International, Inc. only when it is at the beginning of a paragraph because the command finds all instances of the name that are preceded by a [RETURN].

See Table 2-3 to find out what other characters you can use as carriage return characters and which delimiters, wildcards, and any length characters you can use with them.

Remember: In the section "Leaping Whole Paragraphs" you learned to move the cursor a paragraph at a time by pressing [F] and typing <<>>.

For Example

If you had this list of names in memory

Dr. Mary S. Sciatica
Dr. John Dice
Ms. Melinda S. Jones
Mr. Harvey P. Jowles
Dr. Staff ("Phil") Coccus
Mr. & Mrs. John Q. Worthingham, Jr.

and wanted to find the names of doctors whose first names are four characters long, you would press [F] and then type

<<Dr. ????>

Quitting Apple Writer

Before starting up another program, save the document that's in memory in a file (unless you really don't want to keep it), then quit Apple Writer.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get the option to quit</td>
<td>[Q]</td>
<td>J</td>
</tr>
<tr>
<td>Apple Writer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
When you see

**Quit Apple Writer**

(Will lose memory contents) (Yes/No)?

you have a chance to make a graceful exit from this command, if you pressed it accidentally. If you don’t want to quit Apple Writer after all, you can cancel the command by typing N.

**To Do This**                          **Type This**

To quit Apple Writer                     Y

and press (RETURN).

Then, type the prefix and pathname of your next application. If you don’t know the pathname, insert the disk that contains the program you want to start up, and press (Ô)- (CONTROL)- (RESET).
This chapter explains the Apple Writer commands that you use to clear memory, to manage files, and to save and load documents in files on disks. If you have not read the preface of this manual, do so before you begin this chapter.

### What You Need to Know Before Managing Files

For more information about ProDOS, see the ProDOS User’s Manual (Ile owners) or the System Utilities booklet (Ilc owners).

Syntax refers to the rules that govern how to give a command to the computer.

Apple Writer uses ProDOS (Professional Disk Operating System) to save and load documents in files; to delete, rename, lock, and unlock files; to create subdirectories; to set a prefix; to list volumes on-line, and to format and catalog disks.

When you tell ProDOS to perform one of these functions, you must tell it which file and/or disk to perform it on. You must type this information with the correct syntax—that is, in the correct order with the correct punctuation.

### How to Tell ProDOS Which Disk and File to Use

To tell ProDOS which disk to use, type the name of the disk, which is always preceded by a slash (/).

**Volume name:** The name of the disk is sometimes referred to as the volume name. You give each disk a volume name when you format it.

To tell Apple Writer which file to use, type a slash (/), the name of the disk, followed by a slash (/), and the filename.
For instance, to tell ProDOS to use the file named JUNE24 on the disk named LETTERS, type

\texttt{/letters/june24}

You can type the file and disk names in uppercase or lowercase—it makes no difference.

\textbf{By the Way:} If a disk’s name isn’t written on its label, you can find out what it is by listing the volumes on-line (select option F from the ProDOS Commands Menu) or by cataloging the disk. To find out more, see “Listing Volumes On-Line” and “Cataloging a Disk” in this chapter.

In some cases, especially if you’re using a rigid disk, you may also need to specify the name of a \textbf{subdirectory}—a file that contains a list of other files that can be reached through that subdirectory name.

To tell Apple Writer to use a file in a subdirectory: type a slash, the volume name followed by a slash, the subdirectory name followed by a slash, and the filename.

For instance, to tell ProDOS to use the file named JUNE24 that’s in the subdirectory named MARK on the disk named LETTERS, type

\texttt{/letters/mark/june24}

There are three phrases in this manual that are very similar but which have important distinctions:

- The \textit{filename} is just the last name of the file—it doesn’t include the volume name or subdirectory name.

- The \textit{full name of the file} is its entire name, including the volume name, subdirectory names (if any), and filename.

- The \textit{name of the file} can be the filename, the full name of the file, or something in between—it depends on whether or not you’re using the \textbf{default disk}. (More about this shortly.)

\textbf{By the Way:} In other manuals, the \textit{full name of the file} is sometimes referred to as the \textit{pathname}.

The following example shows the difference between the \textit{filename} and the \textit{full name of the file}. 

\textbf{The default disk} is the disk the system uses automatically unless you tell it to do otherwise.
The Rules and Limits of Names

Table 3-1 shows which characters you may use in volume names, subdirectory names, and filenames, and how long each name may be.

Table 3-1. Volume, Subdirectory, and File Names

<table>
<thead>
<tr>
<th>Must Begin With:</th>
<th>A Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can Contain:</td>
<td>Letters</td>
</tr>
<tr>
<td></td>
<td>Numbers</td>
</tr>
<tr>
<td></td>
<td>Periods</td>
</tr>
<tr>
<td>Cannot Contain:</td>
<td>Spaces</td>
</tr>
<tr>
<td></td>
<td>Any Character That Is Not a Letter, Number, or Period</td>
</tr>
<tr>
<td>Maximum Length:</td>
<td>15 Characters</td>
</tr>
</tbody>
</table>

Here are some names that can be used for disks, subdirectories, and files:

Apple1
Hi.Sue
Laurelei

Table 3-2 shows some names that cannot be used for disks, subdirectories, or files (and the reasons why).

Table 3-2. Illegal Names

<table>
<thead>
<tr>
<th>Illegal Name</th>
<th>Reason Why</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple#1</td>
<td>Special characters like # not allowed.</td>
</tr>
<tr>
<td>3reasons</td>
<td>Doesn't start with a letter.</td>
</tr>
<tr>
<td>hi Ann</td>
<td>Can't contain a space.</td>
</tr>
<tr>
<td>januaryinventory</td>
<td>Too long.</td>
</tr>
</tbody>
</table>
Command Syntax

Figure 3-1 is an example of the syntax of an Apple Writer command—the order and punctuation of the names and options that follow the command—with each part labeled. (We'll explain this command and its options later in this chapter.)

**Figure 3-1. Command Syntax**

![Diagram of command syntax]

The Load command in Figure 3-1 loads the document from a file named *memo* that's on the disk named *susan*. But the command only loads those portions of the document that are between the words *Big picture* and *bottom line*, without loading the words *Big picture* and *bottom line*.

Commands, filenames, volume names, and options may be entered in uppercase or lowercase. But the words between the delimiters—the **markers**—must be typed exactly as they occur in the text; otherwise, Apple Writer won't find them.

The word or phrase between delimiters is called a **marker** because it marks the part to load.

**The Quickest Way to Name a File**

In Apple Writer, there's always a default disk—a disk that the system will use if you don't tell it to use another one.

When you start up the system, the startup disk—in this case, the Apple Writer master disk automatically becomes the default disk. The volume name for this disk is **AW2MASTER**.

However, you can change which disk is the default disk (and you can specify a default subdirectory, too) by setting the **prefix** to the name of a different disk.
You can save a lot of typing—particularly if you have long disk names or if you’re using subdirectories—by setting the prefix to the disk (and, if you like, subdirectory) name that you plan to use most often during a session. Then you’ll only have to type the part of the name that isn’t in the prefix.

**Remember:** Throughout this manual, when we tell you to type the *name of the file*, we mean to type as much of the name as is necessary.

For instance, if the prefix is currently set to ECON and you want to save a document in HORSES/TROJAN, you would have to type out the full name of the file because HORSES is the name of a different disk. But if the prefix is already set to HORSES, all you would have to type is the filename TROJAN.

When the prefix is set, you can still use other disks and files—but you have to type out their full names.

---

**Saving Documents in Files**

Save documents to make them permanent.

To **save** a document in a file means to put a copy of the contents of memory onto a disk. When you save a document in a file, you must give it a name. The rules for Apple Writer filenames are the same as those for ProDOS filenames. The rules are shown in Table 3-1.

You can type filenames in uppercase or lowercase—when it comes to filenames, Apple Writer does not recognize a difference between the two.

There are several ways to save the document in memory: you can save all of it in a file, part of it in a file, or you can save all or part of it onto the end of an existing file.

---

**Saving a Document in a File**

Here’s how to save a copy of the entire contents of memory in a file.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To save the entire document in a file</td>
<td>[S]</td>
</tr>
</tbody>
</table>

---

Saving Documents in Files

85
When you see **Save**, type the name of the file to save the contents in and press **RETURN**.

For instance, to save the document in a file named FEB82 on a disk named INVENTORY, press [S] and type

```
/inventory/feb82
```

If you save the document to the default disk, you do not have to specify the volume name—you can just type the filename by itself. Apple Writer automatically uses the default disk if you do not specify a disk. The only time that you must type the disk name is when you want to use a disk other than the one that is currently the default.

If you save a document using a filename that already exists, Apple Writer will ask you if you want to delete the information that’s already in that file.

For instance, if you try to save a document in a file named FEB82 on the disk named INVENTORY and there’s already a file named FEB82 on that disk, you will see this prompt:

**Delete old Feb82? Y/N?**

With this prompt displayed

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To delete the existing document and save the new one in its place</td>
<td><strong>Y</strong></td>
</tr>
<tr>
<td>To keep the existing document and save the new one in a different file</td>
<td><strong>N</strong></td>
</tr>
</tbody>
</table>

Then press [S] and type a filename that has not yet been used on the disk.

---

**Warning**

*Save a document with a filename that already exists only if you want the present contents of memory to replace the contents of the file on the disk!*  

*You can protect your files by locking them. To find out more, see “Locking a File” in this chapter.*

---

If you don’t remember what files are already on the disk, you can find out easily.
<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get a list of the files on a disk</td>
<td>[S]</td>
<td>?</td>
</tr>
</tbody>
</table>

and press (RETURN).

Then, type the volume name of the disk whose catalog you want to see, and press (RETURN).

When you save a document in a file, its volume name and filename appear on the data line until you erase memory, save to a new filename, quit Apple Writer, or turn off the computer. When the name you want to save to appears on the data line, there's a quick way to save.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To save a document in the file named on the data line</td>
<td>[S] =</td>
<td></td>
</tr>
</tbody>
</table>

and press (RETURN).

[S] = always saves the entire document; you cannot use [S] = to save part of a document.

You can also edit the name which appears on the prompt line, using the → key to move over letters. This can save typing if you want to save with a new, but similar filename.

When you are working on a document, you should save the contents of memory every 15 minutes or so. That way, if there is a sudden loss of power to the computer, you won’t lose a lot of work.

**For Example**

To save the contents of memory in a file named MEMO on the disk named SUSAN, press [S] and type

/susan/memo

The display shows this:

[S]ave :/susan/memo

Press (RETURN) to execute the command.
By the Way: If you accidentally type [S], you can escape simply by pressing (\textsc{RETURN}), even if a filename appears on the prompt line.

\textbf{Saving Part of a Document in a File}\n
You can save part of the document in memory in a file. This is a good way to create a new file from part of an old file. Follow these steps:

1. Place the cursor at the beginning of the text segment to be saved.

2. Press [S] and type the name of the new file.

3. Type, between delimiters, the last word or phrase in the segment to be saved. The word or phrase between delimiters is called a \textit{marker} because it marks the segment to save. The bottom of the display should now look something like this:

   \texttt{[S]}ave :/\texttt{volumename/}filename!\texttt{end marker!}

4. Press (\textsc{RETURN}). The text between the cursor and the ending marker is saved in the named file.

Normally, an exclamation point (!) is used as the delimiter. If the word or phrase that you use as a marker contains an exclamation point, you cannot use the exclamation point as the delimiter for that marker.

\textbf{For Example}\n
Suppose you have this text in memory, loaded from the file named TOOTHPASTE on the disk named LETTERS:

\texttt{Traditionally, Brand X toothpaste has brought us brighter smiles with every quarter. However, Brand X--the industry leader in 1982--has been in steady decline for the last two years. Murten and Roberts believe that at least 50\% of this decline is because of its name.}
To save the second sentence in a new file named BRANDX on the disk named LETTERS, put the cursor on top of H in However, then press [S]. Press → to move the cursor to the right of /letters/ and type

brandx!years.!

The bottom of the display then looks like this:

[S]ave:/letters/brandx!years.!!

Press RETURN to execute the command.

---

**Adding Text Onto the End of a File**

Here's how you can add all or part of the document in memory onto the end of the contents of an existing file, without loading the file.

First, press [S] and type the name of the existing file, the one you want to add the text onto. (If you want to save only part of the document, put the cursor at the beginning of the part to save, then press [S], type the name of the file, then type the ending marker between delimiters.) Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To add all (or the specified part) of a document in memory onto the end of an existing file</td>
<td>+</td>
</tr>
</tbody>
</table>

and press RETURN.

When you see Delete old filename (Y/N) ?, type Y and press RETURN to add the text onto the end of the file.

**For Example**

To add this portion of the text in memory

Traditionally, Brand X toothpaste has brought us brighter smiles

onto the end of a file named OLDBRANDS on the default disk, put the cursor on top of T in Traditionally, then press [S] and type

oldbrands!smiles!+
The bottom of the display then looks like this:

[S]ave :oldbrands!smiles!+

Then press [RETURN] to execute the command, type Y in response to the prompt, and press [RETURN] again.

---

### Clearing Memory for a New Document

Before working on a new document, you should always save the document currently in memory in a file on a disk and then erase memory—unless you want to insert the new document into the document currently in memory.

**To Do This**  
To erase the contents of memory

**Press This**  
[N]

When you see [N]ew (Erase Memory) Yes/No ?, you have a choice.

If you pressed [N] by accident, or decide that you don’t want to erase memory after all, cancel the command by typing N and then [RETURN]. Otherwise, type Y to confirm that you do want to erase memory, and then press [RETURN].

By the Way: [N]Y erases only the part of memory that’s reserved for your document; it does not erase the contents of any of the other buffers.

[N]Y automatically points the direction arrow to the left (🔧).

---

### Loading Documents From Files

*Load* documents when you want to use them.

To *load* a document from a file on a disk means to put a *copy* of the document into memory.

The editing you do on the copy of the document that’s in memory has no effect on the copy that’s in a file on a disk until you save it. Then, the copy in memory writes over the copy that’s on the disk (if you use the same filename). So, if you make a drastic mistake while editing the document in memory, don’t save it in a file! Just clear memory, load another copy of the document, and resume editing. (If you must save it, at least don’t save it in the same file—use a new filename.)
In Apple Writer, there are several ways to load a document: you can load an entire document from a file, part of a document from a file, or all or part of a document from memory. There is also a way to load a document so that you can peek at it, without putting it into memory.

If You Forget the Name of a File

If you’re ready to load a document but can’t remember its name, here’s a quick way to see the filenames of all the documents on your disk.

To Do This

Press This

Then Type This

To display a list of the files on a disk

[L]

?

and press (RETURN).

[L]? gives a list of the files that are on the default disk. To list the files on another disk, press [L]?, then type the volume name.

For instance, to list the files on a disk named LETTERS, press [L] then type ?. Then, in response to this prompt

Enter Volume Name:

type

/letters

By the Way: If you forget the names of your disks, you can use [O]F to get a list of the volumes currently in your disk drive(s).

Loading a Document From a Disk

Here’s how to load a document from a file on a disk.

To Do This

Press This

To load a document

[L]

When you see [L]oad :, type the name of the file that contains the document you want to load, and press (RETURN).
The document is loaded from the disk, and the cursor is at the end of the document.

*If you load a document when there is no other document in memory*—that is, at the start of a session, or after erasing memory with [N]—its filename is displayed on the data line.

*If you load a document when another document is already in memory*, the document that you load is inserted into the document in memory at the position of the cursor, and the name of the document that was already in memory stays on the data line.

**By the Way:** If you load a document when another document is already in memory, there’s a chance that there won’t be enough space in memory for all of the document you’re loading. If there is not enough space, the Apple’s bell will sound, and **Mem: 0** will be displayed on the data line.

At this point, memory contains the document that was originally in memory plus part of the document you were loading.

To recover, break the contents of memory into two files. To do this, delete some of the text in memory (so that you have some room in the document for future editing), save the contents of memory in a file, and clear memory. Then load the document that you were loading when memory overflowed, delete the first part of it (since you already saved it in the first file) and save the rest of it in another file.

When the name of the document that you want to load is already on the data line, there’s a quick way to load the document.

**To Do This**  
**Press This**  
**Then Type This**

To load the document named on the data line  
[L]  
=

and press **RETURN**.

[L]= always loads the entire document; you cannot use it with markers to load part of a document.
For Example

To load a document from a file named MEMO on the default disk, press [L] and type

```
mem
```

The bottom of the display looks like this:

```
[L]oad :memo
```

Then press (RETURN) to execute the command.

If the document is already in memory when you press [L], the entire volume name will appear at the bottom of the display. If you want, you can press → to edit the name and load a different document.

---

**Loading Part of a Document From a File**

To load part of a document from a file, you must specify *markers*—the first and last word(s) of the part to load. Follow these steps:

1. Press [L] and type the name of the file.

2. Type the beginning marker (the first word or phrase of the part to load) between delimiters, then the ending marker (the last word or phrase of the part to load), and a final delimiter. The Load command should look something like this on the display:

```
[L]oad :/volumename/filename!beginning marker!ending marker!
```

3. Press (RETURN) to execute the command.

---

**Warning**

*When specifying a marker, use as many characters or words as are necessary to make the marker unique. If the marker is not unique, you may load the wrong segment.*

---

To find out about other delimiters, see "Delimiters, Wildcards, and Other Characters" in Chapter 2.

If you use an exclamation point in a marker, you cannot use the exclamation point as a delimiter.
To load from the beginning of a document to a specific word or phrase, leave the first set of delimiters empty, so that the Load command looks something like this on the display:

```
[l]oad :/volumeName/fileName!ending marker!#
```

Then press \( \text{RETURN} \).

To load from a specific word or phrase to the end of a document, eliminate the last set of delimiters and the ending marker, so that the Load command looks something like this on the display:

```
[l]oad :/volumeName/fileName!beginning marker!#
```

Then press \( \text{RETURN} \).

When loading part of a document, you can use one or both of the following options. Type \( A \) or \( N \) after the last delimiter, before pressing \( \text{RETURN} \):

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To load all parts of the document that begin and end with the specified markers</td>
<td>( A )</td>
</tr>
<tr>
<td>To load the part of the document specified by the markers, without loading the markers themselves</td>
<td>( N )</td>
</tr>
</tbody>
</table>

**For Example**

To load the first name and address from a file named CLIENTS on the disk named JANUARY that contains these entries

```
<1>Mrs. Ann E. Smith
224 Garden Road
Oley, PA 19606

<2>Mrsrs. Galen and Herman Kirkman
422 Pleasant Oaks Circle
San Francisco, CA 94110

<3>Mr. Charles S. Groton
1306 Hernea Ave.
Birdsboro, PA 24049
```

press [L] and type

/\text{january/clients!}<1>!19606!
The bottom of the display looks like this:

[L]oad :/january/clients!<1>!19606!n

When you press (RETURN), this is put into memory:

<1>Ms. Ann E. Smith
224 Garden Road
Oley, PA 19606

If you want to load a name and address from the same file, but not the bracketed number that precedes it, you can use the bracketed numbers as markers and load with the N option, for “no” markers. To do so, press [L] and move the cursor to the right of /january/clients. Then type

!<1>!<2>!n

The bottom of the display looks like this:

[L]oad :/january/clients!<1>!<2>!n

When you press (RETURN), this is put into memory:

Ms. Ann E. Smith
224 Garden Road
Oley, PA 19606

To load all addresses from the same file without loading their markers, press [L] and move the cursor to the right of /january/clients and type

!>!<!an

The bottom of the display looks like this:

[L]oad :/january/clients!>!<!an

When you press (RETURN), this is put into memory:

Ms. Ann E. Smith
224 Garden Road
Oley, PA 19606

Mssrs. Galen and Herman Kirkman
422 Pleasant Oaks Circle
San Francisco, CA 94110

Mr. Charles S. Groton
1306 Hernea Ave.
Birdsboro, PA 24049
To load from the name Charles to the end of the document, press [L] and move the cursor to the right of /january/clients and type

!Charles!

The bottom of the display looks like this:

[L]oad :/january/clients!Charles!#

When you press [RETURN], this is put into memory:

Charles S. Groton
1306 Hernea Ave.
Birdsboro, PA 24049
<

---

**Copying Text by Loading From Memory**

You can duplicate part of a document by loading it directly from memory. This is useful, for instance, when you want to make a copy of part of a document so that it appears twice in your text.

First, move the cursor to the position where you want the text to be inserted. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To load part of a document directly from memory</td>
<td>[L]</td>
<td>#</td>
</tr>
</tbody>
</table>

Then type, between delimiters, the beginning and ending markers of the part to load. Finally type the options, if any, and press [RETURN].

**For Example**

Here's how to use the Load command to duplicate this segment of text, which is already in memory:

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Social Security No.</th>
<th>Insurance</th>
<th>Referred By</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Press [L] and type

#!Da!By!
The bottom of the display looks like this:

```
[L]oad :#!Da!By!
```

Press *RETURN* to execute the command.

---

**Peeking at the Contents of a File**

If you are editing a document and want to see a document that's in another file, you can do so without disturbing the document that you're editing.

First, press [L] and type the name of the file. Then

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display the document without loading it</td>
<td><code>\</code></td>
</tr>
</tbody>
</table>

and press *RETURN*.

When a document is displayed this way, it scrolls by quickly. If you want to linger at a particular section of the document, you can temporarily halt scrolling.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To stop scrolling the document</td>
<td>[S]</td>
</tr>
<tr>
<td>To resume scrolling the document</td>
<td>[S]</td>
</tr>
</tbody>
</table>

**By the Way:** To compare the document in memory with a second document, first split the display, then use the backslash (`\`) option to peek at the second document.

To find out more, see “Editing With a Split Display” in Chapter 2.

---

**The ProDOS Commands Menu**

In Apple Writer, the commands that manage files—those that delete, rename, lock, and unlock files, list the volumes on-line, set the printer and modem interfaces, create a subdirectory, set a default disk name, catalog and format disks—are contained in the ProDOS Commands Menu, Figure 3-2.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display the ProDOS Commands Menu</td>
<td>[O]</td>
</tr>
</tbody>
</table>

---

*The ProDOS Commands Menu*
ProDOS COMMANDS

A. Catalog
B. Rename File
C. Lock File
D. Unlock File
E. Delete File
F. List Volumes On-Line
G. Create Subdirectory
H. Set Prefix Volume
I. Format Volume
J. Set Printer/Modem Interface

Press RETURN to Exit
Enter Your Selection (A-J) : [Blank]

To select an option from this menu, press the letter that precedes the option. Don’t press (RETURN) after the letter. When you select an option from the ProDOS Commands Menu, a prompt appears, and if you press (RETURN) after the letter, the program mistakes it for a command to cancel the option.

Follow the instructions in the prompt and press (RETURN) to execute the command.

The ProDOS Commands Menu reappears on the display after one of its commands has been executed. Each command is discussed separately in the sections that follow.

Cataloging a Disk

This is the command to use when you want to see what files are on a disk.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To display a list of the files on a disk</td>
<td>[0]</td>
<td>A</td>
</tr>
</tbody>
</table>

When you see Enter Volume Name :, type the name of the disk, and press (RETURN). If you want a list of the files on the default disk, don’t type anything—just press (RETURN).

A catalog, or listing, of the files on the disk is then displayed.

A catalog tells you about the contents of a disk.
A block is a unit of storage that equals 512 characters.

To get a clock card, see your Apple dealer.

The catalog of a disk includes several things: the name of the disk (at the top-left corner); the name, type, and size (in blocks) of each file on the disk; and the number of characters in each file (under the heading Length) will appear. If you have a clock card installed in your computer, the date and time when the file was created and last modified will appear. The number of unused blocks on the disk appears at the end of the catalog.

**By the Way:** The names of files in subdirectories are not automatically shown when you catalog a disk. To see the files in a subdirectory, press [O]A and type a slash (/), the volume name, followed by a slash (/), and the subdirectory name. Then press [RETURN].

To put a copy of the catalog into memory so that you can edit or print it, first save the document that’s currently in memory with [S] and clear memory with [N]Y. Then, press [O]A, type the name of the disk to catalog followed by a number sign (#). The command should look like this:

**Enter Volume Name :/volumename#**

Press [RETURN] to execute the command. After you return to the ProDOS Commands Menu, press [RETURN] to get back to the editing display. You will see the catalog as soon as you return to the editing display. Then edit or print the catalog.

**By the Way:** If you edit and save a catalog in a file, it has no effect on the disk’s directory, the disk’s internal catalog. An edited copy of the catalog is simply put into a file. There is no way to change a disk’s directory without actually changing the files on the disk.

---

**Renaming a File**

This is the command to use when you want to change the name of a file.

**To Do This** | **Press This** | **Then Type This**
--- | --- | ---
To change the name of a file | [O] | B

When you see **Present Name:** type the present name of the file and press [RETURN]. Then when you see **New Name:** type the new name of the file and press [RETURN].
For instance, to rename the file CLIENTS on the disk named JAN.84 to ACCOUNTS, press [O]B and type

```
/jan.84/clients
```

and press (RETURN). Then type

```
/jan.84/accounts
```

and press (RETURN).

---

**Locking a File**

This is the command to use when you want to protect the contents of a file from being written over or deleted. When a file is locked, you can load its contents into memory, but you cannot delete the file or save text in it.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To lock a file</td>
<td>[O]</td>
<td>C</td>
</tr>
</tbody>
</table>

When you see Enter File Name :, type the name of the file to be locked and press (RETURN).

---

**Unlocking a File**

This is the command to use when you want to unlock a previously locked file so that you can edit or delete it.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To unlock a file</td>
<td>[O]</td>
<td>D</td>
</tr>
</tbody>
</table>

When you see Enter File Name :, type the name of the file to be unlocked and press (RETURN).

---

**Deleting a File**

This is the command to use when you want to get rid of a file that you no longer want.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To delete a file</td>
<td>[O]</td>
<td>E</td>
</tr>
</tbody>
</table>

When you see Enter File Name :, type the name of the file to delete and press (RETURN).
Warning
Unlike other commands that cause data to be erased, [OE] doesn’t give you a chance to cancel the command in case you make a mistake. So be careful: once you press [RETURN] after the filename, the file is gone.

By the Way: You must delete all the files in a subdirectory before you can delete the subdirectory.

Listing Volumes On-Line
When you’re working with your Apple Writer files, you may forget the exact names you’ve given your data disks. Since ProDOS requires you to know the exact volume name when working with prefixes, subdirectories, and catalogs, it’s nice to be able to get a listing of the volumes you’re currently using without leaving Apple Writer and starting up your utilities disk.

To Do This                  Press This Then Type This
To get a listing of the volumes on-line [O] F

You automatically get a list of the volume names on line. For example, if the Apple Writer master disk is in drive 1 of your computer, you’ll see this message

Volumes on-line:
Slot 6 Drive 1 /AW2MASTER

Creating a Subdirectory
If you want to put more files on a disk than ProDOS allows (that is, more than 51 files) or if you want to better organize your files, you can do so by creating subdirectories and grouping files under them.

When a disk is formatted, two things happen: the disk’s recording surface is divided into sections where information can be stored, and the disk gets a directory (or catalog). Every file you save on the disk is listed in that directory.
Once your disk is formatted, you can set up subdirectories within the disk directory and group related files together. Before you can put files into a subdirectory, you must create it.

**To Do This** | **Press This** | **Then Type This**
--- | --- | ---
To create a subdirectory | [O] | G

When you see Enter File Name:, type a name for the subdirectory and press **RETURN**.

For instance, if the default disk is named LETTERS and you want to create a subdirectory named MARK on it, type `mark`

in response to the prompt. If you want to create the same subdirectory on a disk named CLIENTS, which is not the default disk, type this in response to the prompt:

```
/clients/mark
```

After you have created a subdirectory, you can save documents in it. To save the document in memory in a subdirectory, press [S] and type the name of the disk and subdirectory, followed by the filename.

To see the names of the files in a subdirectory, use the catalog command, [O]A. Then type a slash and the volume name followed by a slash and the subdirectory name.

You can have more than one level of subdirectories—that is, you may have subdirectories within subdirectories.

---

**Setting the Prefix**

In Apple Writer, there’s always a default disk—a disk that is used if you do not specify another—so why not make use of it to save typing?

When you start up Apple Writer, the master disk, AW2MASTER, automatically becomes the default disk (or prefix volume). If you’re going to use another disk for most of your work in a session, you can make that disk the default disk by setting the prefix to its name. If you’re going to do most of your work in a single subdirectory, include the subdirectory name in the prefix that you set.
To Do This  Press This  Then Type This
To set the prefix to a disk  [O]  H

When you see Enter Volume Name :, type a slash and
the name of the disk (and, if appropriate, the name of the
subdirectory) that you want the prefix to be. Then press
(RETURN).

For instance, to set the prefix to the subdirectory named
BUSINESS on the disk named CLIENTS, press [O]H and type
/clients/business
and press (RETURN).

When the prefix is set to a disk or subdirectory, you can access
a file on the disk or in the subdirectory simply by typing its
filename.

Formatting Disks

To prepare a new volume so that files can be put on it, you
have to format a new blank disk. You can use the utilities disk
that came with your computer or disk drive, or you can choose
option I from the ProDOS Commands Menu.

To Do This  Press This  Then Type This
To get the ProDOS  [O]  I
Commands Menu and
select the Format Volume
option

By the Way: You can format (for ProDOS) any 5-1/4 inch
single-sided flexible disk designed for an Apple II. You can
also format your ProFile or other rigid disk, but you probably
won't want to do that from within Apple Writer, since
formatting erases everything currently on the disk.

We Recommend: Format several disks at once instead of
formatting them one-by-one as you need them. That way
you'll save time and won't be caught short in the middle of
work. Give each disk a different name. For example,
LETTERS, HOMEWORK, and so on.
Warning

Be careful when you specify the disk to format! Formatting destroys any information that's already on a disk. If, for instance, you accidentally format your Apple Writer master disk, you will destroy the information on it!

1. When you see **Enter Slot (1-7)**, type the slot number (1-7) for your disk drive card and press (**RETURN**).

   ![Ilc: The disk drive controller card is most often placed in slot 6.](image)

   **Ilc:** The disk drive controller card is most often placed in slot 6.

   ![Ilc: Your disk drives are not connected to cards placed in slots; the port the drive is connected to is equivalent to slot 6, so type 6 and press (**RETURN**).](image)

   **Ilc:** Your disk drives are not connected to cards placed in slots; the port the drive is connected to is equivalent to slot 6, so type 6 and press (**RETURN**).

2. When you see **Enter drive (1 or 2)**, type the number, and press (**RETURN**).

   ![Ilc: The Apple Ilc's internal drive is drive 1; an external drive is drive 2.](image)

   **Ilc:** The Apple Ilc's internal drive is drive 1; an external drive is drive 2.

3. When you see **Enter Volume Name**, type a name for the disk and press (**RETURN**).

4. You get a chance to confirm that the correct disk is about to be formatted. To begin the formatting, type **Y** and press (**RETURN**). To cancel the formatting, type **N** and press (**RETURN**).

### Setting the Printer/Modem Interface

You may need to read this section if you have a serial printer (Apple Imagewriter or Apple Daisy Wheel, for example) or a modem. If you have a parallel printer (Apple Dot Matrix, Epson, or Centronix, for example), read your printer manual to find out how to set its interface card to work with your computer.

Peripheral devices can be printers, modems, plotters, or any external piece of equipment you connect to your computer.

In most cases, once your peripheral device is set up and properly connected to your computer, it will automatically work with Apple Writer. When you start up your computer, the switches on your serial card (or the Apple Ilc firmware) provide default settings for the slots or ports to communicate with your devices. If your device uses the default settings, you can connect your printer or modem and be ready to go. If your
device doesn’t work with the default settings, you’ll need to set the serial interface so that Apple Writer can communicate with it.

**lle:** Your printer and modem are connected to your computer by cards placed in slots. We recommend that if you have two interface cards, you connect the printer to a card in slot 1 and the modem to a card in slot 2. Refer to your printer and modem manuals for specific instructions about setting the switches on the card to run with your computer. Once they are set, you should not need to make any changes. You can, however, override the switches on your card from within Apple Writer by setting the printer/modem interface. If your printer or modem are connected to a slot other than 1 or 2, you are responsible for setting the correct switches on the card—Apple Writer cannot do it for you.

**llc:** The firmware inside your computer sets the serial ports when you start up your computer. If you find that your printer doesn’t work with Apple Writer, you can set the interface from within Apple Writer or using your Systems Utilities disk. Your peripheral devices are connected to your computer through the serial ports. We recommend that you connect the printer to port 1 and the modem to port 2.

When you set the serial interface values for your printer or modem, you define values for the following:

- baud rate
- data bits
- parity
- stop bits

Here’s a brief explanation of what the different values mean:

**Baud rate:** Computers send and receive information at a speed measured in signal events per second, also known as baud rate. Baud is generally the same as bits per second. This determines how fast your computer can talk with your printer or modem. If the baud rate is set too fast, your printer or modem will lose characters while printing or transmitting, or it will not print or transmit at all. When it is set too low, you’re not using your peripheral device at its maximum efficiency. The most
important thing is that your printer and computer, or your modem, computer, and information service use the same baud rate.

Apple Writer accepts a baud rate of 0 as well as any baud rate between 50 and 19200. A baud rate of 0 tells Apple Writer to use the default settings for baud rate, data bits, parity, and stop bits that were provided by the switch settings on the serial interface card (Apple IIe) or the firmware (Apple IIc).

**Data bits:** This tells Apple Writer how data will be sent from the computer to your device. If you select the wrong number of data bits, your device will not work properly. Apple Writer accepts the numbers 6, 7, and 8. Data bits and stop bits are usually listed together under “data format” in your printer or modem manual.

**Parity:** This allows the printer or modem to check for errors during data transmission. If you select the wrong value for parity, your device will print what is sometimes known as “garbage.” Apple Writer accepts the values None, Even, Odd, Mark, and Space. You only need to type the first character of the value you select.

**Stop bits:** Stop bits and data bits are usually listed in a device's manual under data format. Apple Writer accepts the values 1 and 2.

**We Recommend:** Check your printer and modem manuals to make sure the settings are correct for your peripheral device. If the settings are not correct, you will have trouble printing and transmitting information.

**To Do This** | **Press This** | **Then Type This**
--- | --- | ---
To set your printer/modem interface | [O] | J

Apple Writer then displays the message

**Set Which Slot/Port (1 or 2):**
Type the number that corresponds to the slot or port where your device is connected. If you type 1, you’ll see this message:

```
Format: Baud, Data Bits, Parity, Stop Bits
Enter values: 0, 8, N, 2 (for slot/port 1)
```

If you type 2, you’ll see

```
Format: Baud, Data Bits, Parity, Stop Bits
Enter values: 0, 8, N, 1 (for slot/port 2)
```

The values shown on the display are Apple Writer’s default values. They show that Apple Writer accepts the switch settings on your device’s serial card. You can change any of the values by typing over the ones shown and pressing RETURN. To accept the defaults (and therefore the card settings), just press RETURN.

**For Example**

Suppose your printer is connected to slot or port 1 and the manual for your printer tells you to set the baud rate to 9600, the data bits to 8, even parity, and stop bits to 1.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set the printer’s interface</td>
<td>[0]</td>
<td>J</td>
</tr>
</tbody>
</table>

When you see the message

```
Set Which Slot/Port (1 or 2):
```

Type 1

You’ll see the message

```
Format: Baud, Data Bits, Parity, Stop Bits
Enter values: 0, 8, N, 2
```

The cursor is over the value for baud rate. To change the values simply type 9600, 8, E, 1 and press RETURN.
That was easy, wasn't it? After you've specified a value for each, and pressed (RETURN), you've finished communicating information to Apple Writer about your printer or modem. Press (RETURN) to go back to the ProDOS Commands Menu.

**Print Destination:** Make sure you set your print destination to the correct slot or port before you start printing or using your modem. For more information about the print destination, see “Setting the Destination for Printing” in Chapter 4.

**Saving Your Serial Interface Settings:** After you modify the serial interface settings to run with your particular device, you may want to save the settings in a Print Value file. That way, your new serial interface values can be used every time you start up Apple Writer. To find out how to do this, see “Saving and Loading a Print Value File” in Chapter 5.
Printing
This chapter gives you a quick run-down of how to print a document on paper. To learn how to do more complex printing tasks—such as how to print to devices other than a printer—see Chapter 5. In Chapter 5 you will also learn how to format documents.

What You Need to Know Before Printing

Apple Writer is set up to print to the device installed in slot or port 1. In most cases this will be a printer such as the Apple Imagewriter, Apple Dot Matrix, Apple Daisy Wheel, Apple Silentype, or Apple Scribe printer or a plotter like the Apple Color Plotter.

Some serial printers require specific serial interface settings before Apple Writer can communicate with them. Be sure to set the correct interface values for your particular printer before you try printing a document. For more information, see “Setting the Printer/Modem Interface” in Chapter 3.

\[\text{IIe: If you have a parallel printer (Apple Dot Matrix, for instance), read your printer manual to find out how to set the switches on your interface card to communicate with your computer.}\]

If you have not done so already, turn your computer off and connect your printer to your computer, following the instructions in the manual that came with the printer.
The Print Commands Menu

When text is printed, it is automatically formatted according to the current values of the commands on the Print Commands Menu, Figure 4-1.

Figure 4-1. The Print Commands Menu

Print/Program Commands:

- Left Margin (LM) = 0
- Paragraph Margin (PM) = 0
- Right Margin (RM) = 78
- Top Margin  (TM)  = 1
- Bottom Margin (BM) = 1
- Page Number  (PN)  = 1
- Printed Lines (PL) = 58
- Page Interval  (PI)  = 66
- Line Interval (LI) = 0
- Single Page (SP) = 0
- Print Destination (PD) = 1
- Carriage Return (CR) = 1
- Underline Token (UT) = \n Print Mode (LJ, FJ, CJ, RJ) = LJ
- Top Line (TL) :
- Bottom Line (BL) :

Press RETURN to Exit

(P)rint/Program : 

To Do This       Press This      Then Type This
To display the Print Commands Menu

and press (RETURN).

Notice that this menu shows Print/Program Commands at the top. Print refers to the commands shown on the menu, which determine how text is laid out on a page when it’s printed. Program refers to the Word Processing Language (WPL) commands, some of which can be used when this menu is displayed. Since we are not concerned with the WPL commands in this manual, we will refer to this menu as the Print Commands Menu.

Each command on the Print Commands Menu governs some aspect of formatting or printing. The numbers, letters, or other characters displayed to the right of a command represent the

To find out more about WPL commands, see the Apple Writer II Word Processing Language manual.
current value of the command. The values tell you exactly where (or how) that aspect of formatting or printing will be carried out when your document is printed.

**By the Way:** Notice that we refer to *format* commands and *print* commands. The Print Commands Menu displays both kinds of commands—those that format text and those that communicate with printers. The commands that you use to actually print a document are not listed on the menu.

The values shown in Figure 4-1 are the *default* values of the commands. This means that if you haven’t specified any other values for the commands during a session, Apple Writer will use these values to format and print your document.

You’ll see the Print Commands Menu whenever you press [P]?

---

**How to Change Print Command Values**

When you start up the Apple Writer master disk, the default values displayed on the Print Commands Menu together with the serial interface values for your slots or ports, are automatically loaded into the *print value buffer*—the part of memory that’s reserved to hold the current values of the commands. This means that the values of these commands are independent of the document in memory and are not saved with it. The values that are used when you print a document are always the current values of the commands in the print value buffer.

There are three ways to change the value of a command in the print value buffer:

- You can type the command and a new value for it.
- You can embed a new value for the command in your document, and then print the document.
- You can make your own file of print values and load it into the print value buffer.

In each case, the new value replaces the previous value of a command in the print value buffer. (If the command is a menu command, the new value also appears on the Print Commands Menu.)
Warning

The value of a print or format command stays the same until you change it—it does not automatically change back to the default value when you print a new document. This means that values set or embedded in one document carry over to subsequently printed documents, unless you change the values or turn the computer off.

The first two ways to change the value of a command in the print value buffer—typing a new value for it or embedding a new value for a command in a document—are discussed next. How to make a file of print values and how to load it are discussed in “Saving and Loading a Print Value File” in Chapter 5.

Typing a New Value for a Command

The most common way to change the value of a print or format command is to type the command and a new value for it. You can type the two-letter command in uppercase or lowercase.

To do so, either

- type the command and its new value when the Print Commands Menu is displayed (press [P]? to get the menu),

  or

- press [P] and type the command and its new value.

Use [P]? and get the Print Commands Menu if you want to change several commands at once. The changes are displayed on the menu immediately.

Use [P] if you want to change only one command.

For instance, to change the value of the left margin (LM) to 20, press [P] and type

LM 20

and press RETURN. The space between the command and the value is optional; you can type the command in uppercase or lowercase.
Remember: If you change margin settings after you have created text, you can press [A] from the editing display to reflect the adjusted margins of your text the way it will be printed. For more information, see “Adjusting the Margins” in Chapter 5.

You can also press (CONTROL) (underline) to get an up-to-the-minute page and line count. For more information see “Counting the Pages and Lines” in Chapter 5.

**Embedding a Command in a Document**

When you embed format or print commands in your document, the way the text is formatted when it is printed is controlled from within the document.

For Apple Writer to distinguish an embedded command from the other text in the document, the embedded command (and its value, if any) must

- be on a line by itself
- begin at the left margin
- begin with a period (.)
- be followed by RETURN.

Here’s an example of how embedded commands look in a document:

Here’s our four-pronged approach:

.LM 10
- trim staff
- close plants
- cut office expenditures
- keep thermostat at 68 degrees

.LM 5
And that’s not all.

Follow these steps to embed a print command in a document:

1. Move the cursor to the beginning of the line that you want the embedded command to take effect on.

2. Type a period, followed by the command and its value. Then press RETURN.
Remember: You may type the command in uppercase or lowercase.

Here's an example of text that has left and right margin values (LM and RM) embedded in it:

Our plan worked! Here's what they said in today's Journal:

.LM 15
.RM 60

By instituting a lean management policy and strict conservation measures, Universal Industries has come from behind to capture 60% of the domestic market.

.LM 10
.RM 70

Let's go celebrate! Meet me at Ernie's tonight, about 8:00.

When it is printed, the text looks like this:

Our plan worked! Here's what they said in today's Journal:

By instituting a lean management policy and strict conservation measures, Universal Industries has come from behind to capture 60% of the domestic market.

Let's go celebrate! Meet me at Ernie's tonight, about 8:00.

Any command on the Print Commands Menu can be embedded in a document.

When Apple Writer encounters an embedded command during printing, it replaces the old value of the command in the print value buffer with the embedded value. For instance, if the command .LM 20 is embedded in your document, subsequent text is printed with LM 20, and LM 20 is displayed in the Print Commands Menu.
Warning
Because embedded values update the values in the print command buffer, the value of a command embedded in one document will carry over to subsequently printed documents—unless you change the command’s value or turn the computer off. Always check the current values of the commands on the Print Commands Menu before printing a document.

To quickly restore the default values of these commands, load them from the system print value file SYS.PRT. To do so, put the Apple Writer master disk in drive 1, press [Q]C and type

/ AW2MASTER/ sys

then press RETURN.

Warning
Except when embedding a command, do not put a period immediately after a RETURN. In Apple Writer, any line that is preceded by a RETURN and begins with a period is interpreted as an embedded command; if it is not an Apple Writer command, it is treated as a comment—that is, the line does not appear in the printed document.

If you need to start a line with a period, type a space before the period.

The Commands That Cause Text to Be Printed

The commands that actually print text are not shown on the Print Commands Menu. Here are the commands and what they do:

<table>
<thead>
<tr>
<th>Command</th>
<th>What It Does</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP New Print</td>
<td>Prints document in memory.</td>
</tr>
<tr>
<td>CP Continue Print</td>
<td>Prints document in memory; continues line counting and page numbering from last document. (Prints several files as one document.)</td>
</tr>
</tbody>
</table>

You can also print part of a document using the embedded command .EP, which stands for “enable print.”

See “Printing a Document” later in this chapter.

See “Printing the Contents of Several Files as One Document” later in this chapter.

See Chapter 5, “Commands That Can Only Be Embedded” and “Printing Part of a Document.”
The Print Commands

The rest of this chapter tells you which print values to change to set up Apple Writer for your printer and how to print your text.

How to Communicate With Your Printer

To communicate with your printer, you must change some of the values shown on the Print Commands Menu.

Remember you may also have to change serial interface settings to communicate with your printer. If you have a serial printer, see "Setting the Printer/Modem Interface" in Chapter 3 for more information. If you have a parallel printer, see your printer manual.

Setting the Destination for Printing

Apple Writer is set up to print to or communicate with the device connected to slot or port 1.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To specify the name of the device to print to</td>
<td>[P]</td>
<td>PD</td>
</tr>
</tbody>
</table>

Then type the number of the port or slot your device is connected to, and press (RETURN). Usually, the printer is connected to slot or port 1, the modem to slot or port 2.

If you do not have a printer or if you want to see the formatted document before you print it, you can "print" your document on the display by setting the print destination (pd) to 0.

Setting Line Feed to Suit Your Printer

Apple Writer automatically issues a line feed when you enter a carriage return. If your printer also issues a line feed at the end of each line, you must turn off line feed generation so that Apple Writer doesn't tell the printer to advance to the next line when it is finished printing a line. If you don't turn off line feed generation, you will get extra blank lines between lines of text.
Table 4-1 shows the line feed status of several common printers.

**Table 4-1. Line Feed Status of Printers**

<table>
<thead>
<tr>
<th>Printer</th>
<th>Issues Line Feed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Dot Matrix Printer</td>
<td>Yes</td>
</tr>
<tr>
<td>Apple Imagewriter</td>
<td>No</td>
</tr>
<tr>
<td>Silentype</td>
<td>No</td>
</tr>
<tr>
<td>Apple Daisy Wheel Printer</td>
<td>Depends on Setting of Printer’s Line Feed Switch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To turn on line feed generation</td>
<td>[P]</td>
<td>CR 1</td>
</tr>
<tr>
<td>To turn off line feed generation</td>
<td>[P]</td>
<td>CR 0</td>
</tr>
</tbody>
</table>

and press (RETURN).

**By the Way:** Carriage returns (CRs) can also be used to delay information you’re sending through a modem. If your receiving party is unable to read your files, you’ll want to change your CR setting. See Table 2-1 for the details.

**Single Sheet or Continuous Paper?**

If you want to use continuous fanfold paper, Apple Writer is already set up for you. If you want to print on single sheets of paper, you must change the value of the single page (SP) command, so that Apple Writer temporarily stops printing at the end of each sheet and waits for you to insert the next sheet (and press (RETURN)) before it continues printing.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set up Apple Writer for single-sheet printing</td>
<td>[P]</td>
<td>SP 1</td>
</tr>
<tr>
<td>To set up Apple Writer for continuous-sheet printing</td>
<td>[P]</td>
<td>SP 0</td>
</tr>
</tbody>
</table>

and press (RETURN).

The Print Commands
### Setting Number of Lines per Page

If you want to print the standard number of lines per inch (six) on standard length paper (11 inches), you're all set to print. If you want to use nonstandard spacing or paper of a different length, you must specify the size of a page in number of lines of text per page.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To specify the number of lines of text per page</td>
<td>[P]</td>
<td>PI</td>
</tr>
</tbody>
</table>

Then type the number of lines of text per page, and press (RETURN).

For instance, to print eight lines of text per inch (if your printer has this capability) on paper that is 14 inches long, press [P]

Then type PI 112, and press (RETURN).

### Control Characters at the Beginning of a Line

Some printers—such as the Centronix—require control characters at the beginning of a line. For these characters to be interpreted, the left margin (LM) must be set to zero. If you're using a left margin setting other than 0 for the rest of your text, embed .LM0

on the line before the control characters. Then on the line after the control characters, reset the left margin for the text by embedding .LM followed by the text LM setting.

For instance, to begin a line with the control sequence [I] 80 N

and then return to a left margin setting of 5 for text, put this in your document (using control-character insertion mode, [V], to insert the control characters):

. LM0
I 80 N
. LM5
By the Way: If you see extra characters (also known as garbage) on your display while you are printing, it is not cause for alarm. This garbage is frequently seen if you’re using a parallel printer with Apple Writer. You can simply turn off your television or monitor if it bothers you, or embed the control sequence [V][l]810[V] at the top of each document to minimize the garbage.

Printing a Document

Here’s what to do if you want to print only one document.

First, if the document that you want to print is not in memory, load it. Then press [P]? to check the current values on the Print Commands Menu.

When you have set the commands to the values you want

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To print the document that’s in memory</td>
<td>NP</td>
</tr>
</tbody>
</table>

and press (RETURN).

If the printed text doesn’t look the way you expected it to, check the values on the Print Commands Menu—you may have inherited values from the last document that you printed. Remember: the values of the print and format commands stay in the print value buffer until you change them (by typing, embedding, or loading new values) or turn off the computer.

By the Way: If you know the print values are the ones you want, you can press [P] NP to start printing directly from the editing display.

To print documents automatically, use the WPL program AUTOPRINT.

To print part of a document, you must use the embedded command .EP.

See Chapter 5 to find out how to print part of a document.
Printing the Contents of Several Files as One Document

When you print the contents of several files as one continuous document, Apple Writer continues numbering pages and counting lines from the previous document.

You can print the contents of several files as one document by using the continue print (CP) command. To do so, follow these steps:

1. Embed a form feed (FF) on the last line of the document to be printed. This causes the page footer and footnote (if any) to be printed and positions the carriage at the beginning of the next sheet of paper when printing is finished.

To embed the form feed, put the last document you want to print in memory, move the cursor to the end of it, press \texttt{RETURN} and type

\texttt{.FF}

Don't press \texttt{RETURN} after the form feed. Then save the document in a file.

2. Erase memory by pressing [N]Y.

3. Load the first document to be printed by pressing [L] and typing the name of its file.

4. Check the values of the commands on the Print Commands Menu by pressing [P]?

5. With the \texttt{[P]rint/Program} : prompt displayed, start printing by typing NP and pressing \texttt{RETURN}.

6. When printing stops, erase memory and load the next document to be printed.

7. Continue printing by pressing [P], typing CP, and pressing \texttt{RETURN}. The print command CP keeps track of the current page number and line count.

8. Repeat steps 6 and 7 until you have printed all the parts that make up the document.

Another way to print several documents as one is to use the WPL program CONTPRINT.
Stopping the Printer

If you want to stop the printer during printing, here's how to do it.

**To Do This**  **Press This**

To stop the printer  **ESC**

The printer stops shortly thereafter, and Apple Writer displays the editing display with the cursor at the beginning of the document.

After pressing **(ESC)**, you cannot restart the printer where it left off. Use the NP command or the WPL program AUTOPRINT to start printing from the beginning of the document.
This chapter describes the commands that format a document and tells you how to use these commands to format your document exactly to your specifications.

What You Need to Know Before Formatting

Most of Apple Writer's format commands are on the Print Commands Menu. A few can only be embedded in a document, and are not shown on the menu.

If you haven't done so already, read "What You Need to Know Before Printing" and set up Apple Writer for your printer according to the instructions in Chapter 4.

By the Way: If you're using a printer that allows you to print boldface type or smaller or larger pitch type, such as the Apple Imagewriter Printer, don't overlook Apple Writer's built-in glossary file named SPECIAL. This file has some short cuts for you. To find out more, see "A Built-In Glossary of Printer Commands" in Chapter 2.
### What Each Command on the Menu Means

Most of the commands on the Print Commands Menu are format commands—commands that determine how text is laid out on a page. Here’s a brief explanation of each format command and its default value.

<table>
<thead>
<tr>
<th>Command</th>
<th>What It Does</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LM Left Margin</strong></td>
<td>Sets the first column (counting from left edge of paper) in which text is printed. The default of LM is 0. Apple Writer starts printing each new line of text at the left edge of the paper.</td>
</tr>
<tr>
<td><strong>PM Paragraph Margin</strong></td>
<td>Sets the number of spaces that the first line of text after a <strong>RETURN</strong> is indented or outdented relative to the left margin (LM) setting. The default of PM is 0. Apple Writer prints the beginning of a paragraph at the left margin.</td>
</tr>
<tr>
<td><strong>RM Right Margin</strong></td>
<td>Sets the last column (counting from the left edge of the paper) in which text is printed. The default of RM is 78. You can change the default to any number up to 240.</td>
</tr>
<tr>
<td><strong>TM Top Margin</strong></td>
<td>Sets the number of blank lines between the header, or top line (TL), and the first line of text. The default of TM is 1. Apple Writer leaves one blank line between the header and the text.</td>
</tr>
<tr>
<td><strong>BM Bottom Margin</strong></td>
<td>Sets the number of lines that are left blank between the last line of text and the footer, or bottom line (BL). The default of BM is 1. Apple Writer leaves one blank line between the text and the footer.</td>
</tr>
</tbody>
</table>

---

See “Setting the Left and Right Margins” later in this chapter.

See “Setting a Paragraph Margin” later in this chapter.

See “Setting the Left and Right Margins” later in this chapter and “Tabbing Past Column 80” in Chapter 2.

See “Changing the Vertical Format of a Page” later in this chapter.

See “Changing the Vertical Format of a Page” later in this chapter.
| **PL** Printed Lines | Sets the number of lines that are printed on each page. PL is the sum of the number of lines of text plus the number of lines used by the top line (TL), top margin (TM), footnote, bottom line (BL), and bottom margin (BM).

The default of PL is 58. This means that the total number of lines of text, top line, top margin, bottom line, and bottom margin is 58. |
|----------------------|--------------------------------------------------------------------------------------------------|
| **PI** Page Interval | Sets the total number of lines from the top of one page to the top of the next page. 

The default of PI is 66. This means that Apple Writer is set up to print six lines of text per inch on standard length (11-inch) paper. |
| **LI** Line Interval | Sets the number of blank lines to leave between each line of printed text. 

The default of LI is 0. Apple Writer causes the text to be single spaced with no blank lines between lines of text. |

---

**Justified** refers to how text is spaced between the right and left margins.

Fill Justify is not the same as proportional spacing.

See “Choosing a Print Mode to Justify Text” later in this chapter.

---

**Print Mode:**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LJ</td>
<td>Left Justify — that is, how it is filled in between the left and right margins. The default print mode is LJ. This means that the text is left justified. Each line of text begins at the left margin, but ends on or before the right margin (depending on the length of the last word).</td>
</tr>
<tr>
<td>FJ</td>
<td>Fill Justify</td>
</tr>
<tr>
<td>CJ</td>
<td>Center Justify</td>
</tr>
<tr>
<td>RJ</td>
<td>Right Justify</td>
</tr>
</tbody>
</table>
**TL Top Line**

Puts a header at the top of each new page.

The default of TL is to not have a header.

**BL Bottom Line**

Prints a footer at the bottom of each new page.

The default of BL is to not have a footer.

Figure 5-1 shows a typical page layout and how each format command affects the layout.

*Figure 5-1. What Each Format Command Does*

The main part of the page is the printed text, with a header (TL) and header margin (TM) at the top of the page, and a footer (BL) and footer margin (BM) at the bottom.
There are also a few commands on the Print Commands Menu that act behind the scenes when you print with Apple Writer:

<table>
<thead>
<tr>
<th>Command</th>
<th>What It Does</th>
</tr>
</thead>
<tbody>
<tr>
<td>PN Page Number</td>
<td>Sets the page number for the first page that is printed. PN does not print the current page number, it just keeps track of it. The default for PN is 1. Apple Writer starts counting from page 1.</td>
</tr>
<tr>
<td>SP Single Page</td>
<td>Sets up the printer for either single sheets of paper or continuous paper. The default for SP is 0. This means that Apple Writer is set up to print on continuous sheets of paper.</td>
</tr>
<tr>
<td>PD Print Destination</td>
<td>Tells Apple Writer which device to print to. The default for PD is 1, which means that Apple Writer prints to the device (usually a printer) connected to slot or port 1. Set PD to 0 if you want to print to the display.</td>
</tr>
<tr>
<td>CR Carriage Return</td>
<td>Determines whether or not Apple Writer issues a line feed when it sends a carriage return to your printer. The default for CR is 1. This means that Apple Writer is set up to print to a printer that doesn’t issue a line feed at the end of each line.</td>
</tr>
<tr>
<td>UT Underline Token</td>
<td>Sets the character to be used as the underline token—the character that marks the beginning and end of text to be underlined. The default setting for UT is the backslash (). This means that when Apple Writer prints a document, it underlines all text that begins and ends with a backslash.</td>
</tr>
</tbody>
</table>
Commands That Can Only Be Embedded

A few format and print commands aren’t on the Print Commands Menu. These commands can only be embedded in the text of a document and take effect when the document is printed.

Here’s a brief explanation of each of the embedded commands.

<table>
<thead>
<tr>
<th>Command</th>
<th>What It Does</th>
</tr>
</thead>
<tbody>
<tr>
<td>FF Form Feed</td>
<td>Issues a form feed so that subsequent text is printed on the next page.</td>
</tr>
<tr>
<td>IN Input</td>
<td>Allows you to put a message in your document. When Apple Writer encounters the IN command in a document, it stops the printer, displays the message on the display (but does not print it), and waits for you to press RETURN before it resumes printing the document.</td>
</tr>
<tr>
<td>EP Enable Print</td>
<td>Prints selected parts of a document so that you can print part, rather than all, of a document.</td>
</tr>
</tbody>
</table>

The Format Commands

The rest of this chapter tells you how to use the commands to format a document to your own specifications. It also tells you how to save and load print values from a file.

Underlining Text

To underline text, you must insert an underline token—a character that tells Apple Writer to start and stop underlining—at the beginning and end of the part of the text to be underlined.

Then, when the text is printed, the text between the underline tokens is underlined and each underline token is printed as a space, unless it begins a line. If an underline token begins a line, it is replaced by nothing when printed, so that the line begins at the left margin.
In Apple Writer, the backslash (\) is normally used as the underline token—it's the default setting of the underline token command.

**By the Way:** The backslash underline token doesn't work with every printer. If you get results like this, for instance

c_h_a_r_a_c_t_e_r_s

see your printer manual to find out which control characters you need to embed in your document to underline text.

When the backslash is the default

**To Get This**                                     **Type This**

*We believe in our product.*                       *We\believe\in our product.*

Apple Writer underlines spaces as well as text. For instance, text that looks like this on the display

*We\believe\in our product--\we know it's good*.

looks like this when it's printed:

*We believe in our product--we know it's good.*

To use a different character as the underline token, type UT followed by the character.

**To Do This**                                     **Press This**    **Then Type This**

To use the vertical slash (/) as the underline token

and press (RETURN).

Then, insert a vertical slash at the beginning and end of the text you want to underline.

The UT command can be embedded in a document. So, if you need to print the character that you're using as the underline token, you can change to a different character in the middle of a document by redefining UT.
If you do not want to underline a punctuation mark, put the final backslash before the punctuation mark and insert a backspace between the backslash and the punctuation mark. To do so, place the cursor on top of the punctuation mark, then follow these steps:

1. Press \V to enter control-character insertion mode.
2. Press \(\) to insert a backspace. The backspace appears on the display as an H in inverse.
3. Press \V to leave control-character insertion mode.

For a quicker way to insert a backspace, use the backspace command from the glossary named SPECIAL.

---

Setting the Left and Right Margins

The value of a left or right margin can be expressed in one of two ways in Apple Writer: it can be relative or absolute. A relative margin value is preceded by a plus (+) or minus (-) sign; an absolute margin value is not preceded by a sign.

An absolute margin value specifies the column setting of the margin.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set the right margin in column 72</td>
<td>[P]</td>
<td>RM72</td>
</tr>
</tbody>
</table>

and press \(\) RETURN.\)

A relative margin value specifies the new margin as the number of columns to move to the left (-) or right (+) of the previous margin.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set the left margin three columns to the right of the previous left margin setting</td>
<td>[P]</td>
<td>LM+3</td>
</tr>
</tbody>
</table>

and press \(\) RETURN.\)

So, if the previous setting was LM9, the new setting is LM12.
To Do This  Press This  Then Type This
To set the left margin four columns to the left of the previous left margin setting

and press [RETURN].

If the previous setting was LM9, the new setting is LM5.

Remember: When you type or embed a new value for a format command, it updates the value of the command (from that point on in your document) in the print value buffer.

---

**Left and Right Margins for a 40-Column Display**

Apple Writer’s left and right margins are set up for an 80-column display. If you’re an Apple Ile owner and you don’t have an 80-column text card or if you’re an Apple IIC owner who uses a television set as a display device, you’ll find it easier to use Apple Writer if you change the margin settings.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To change display margins</td>
<td>[P]</td>
<td>?</td>
</tr>
<tr>
<td>To change left margin</td>
<td></td>
<td>LM0</td>
</tr>
<tr>
<td>To change right margin</td>
<td></td>
<td>RM38</td>
</tr>
</tbody>
</table>

Now all your text will fit on the editing display. You will have to press [A] to adjust the margins of your editing display if you changed the margins after you began typing text.

**Television Sets:** If you’re using a television set with your computer, you’ll need to use Apple Writer with 40 columns in order to read your display.

- **Ile:** Don’t use your 80-column text card if you’re using a TV set.
- **IIC:** Set your 40/80 column switch to 40 columns if you’re using a TV set.
Warning

Be careful not to set a right margin that's wider than the width of your printer! For instance, don't set RM to 90 if your printer has a width of 80 columns. If you do, the excess text at the end of the line will be printed on the next line, followed by a carriage return—making your text look rather unusual.

Horizontal Scrolling: You can change the right margin setting to any number up to 240. This allows you to horizontally scroll across the pages of your document. You can use Apple Writer's horizontal scrolling feature to create and edit long columns of text, create headings for spread sheets, or write wide letters (this assumes your printer is equipped with extra wide paper).

Adjusting the Margins

The width of the editing display is controlled by the difference between the right and left margins. If you change the margins on the Print Commands Menu after you've typed a document, you can go back and adjust that document's margins to fit your new margin settings.

To Do This

To adjust the display margins from the editing display

Press This

[A]

You'll see the message

[A]djust display margins (Yes/No)?

Apple Writer gives you a chance to forget about adjusting the margins. If you really do want to adjust the margins, type Y

and press (RETURN). The adjusted margins remain in effect until you change the margin settings or turn off your computer. If you create a new file or load a file from a disk, the margins will reflect the current settings on the Print Commands Menu.

What You See Is What You Get: This feature lets your display show the document the way it will appear when printed on a printer.
Formatting Headers and Footers

To get a name, date, or other information printed at the top of each page as a header or at the bottom of each page as a footer, follow these instructions.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To print a header</td>
<td>[P]</td>
<td>TL</td>
</tr>
<tr>
<td>To print a footer</td>
<td>[P]</td>
<td>BL</td>
</tr>
</tbody>
</table>

Then type the text of the header or footer between delimiters, and press (RETURN).

The delimiters determine how the header or footer is positioned on the page:

/ left part / center part / right part /

The text of the header or footer is then put into the print value buffer and displayed under the TL or BL command on the Print Commands Menu.

The position of headers and footers is determined by the initial left and right margin settings—that is, those in effect when you start printing your document. The text between the first set of delimiters begins at the initial left margin setting; the text between the last set ends at the initial right margin setting. In other words, an embedded margin command does not affect the header or footer.

You can use any character as the delimiter in a TL or BL statement: the delimiter is whichever character you type immediately after TL or BL, even if it's a space character.

If you print a header by embedding .TL at the beginning of your document, the header will not be printed on the first page of the document.
For Example
Here's how to get a footer that looks like this when it's printed:

```
Sept. 12, 1982                BUDGET REPORT                D. Beard
```

Press [P] and type
```
bl/Sept. 12, 1982/BUDGET REPORT/D. Beard/
```
and press (RETURN).

If you want just the name, printed as a footer at the right of the page, press [P] and type
```
bl///D. Beard/
```
and press (RETURN).

Numbering Pages
Apple Writer automatically keeps track of page numbers. It starts counting on page 1—unless you've set a different number for the first page—and it automatically increases the number by one for each subsequent page. However, it prints the numbers on the pages only if you tell it to do so in a top line (TL) or bottom line (BL) command.

How to Print Numbers on Pages
Here's how to get the current page number printed on each page.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get the page number printed in the header</td>
<td>[P]</td>
<td>TL</td>
</tr>
<tr>
<td>To get the page number printed in the footer</td>
<td>[P]</td>
<td>BL</td>
</tr>
</tbody>
</table>

Then, at the place in the header or footer where you want the page number to be printed, type #

When you are finished typing the header or footer, press (RETURN).

Page numbers will then be printed when you print the document.
For Example

To get the current page number printed in the center of a footer on each page, press [P] and type

```
bl//###
```

and press (RETURN). Then print the document.

Here are some other common ways to specify page numbers:

```
bl//page ###
b1//-###/
```

---

**Counting the Pages and Lines**

Apple Writer can give you an up-to-the-minute page count and line count from the editing display. This lets you find out exactly how long your document is while you’re writing it.

**To Do This**

To get a page and line count from the editing display.

**Press This**

```
CONTROL-[
```

(underline)

As soon as you start typing again, the page and line count message disappears.

**By the Way:** The page count and line count are accurate as long as the display’s margins are the same as the margins set on the Print Commands Menu and there are no embedded margin commands or form feeds. If you’re not sure that the margins are the same, you can always press [A] to adjust your display margins. Then, what you see on your display corresponds to what you’ll see if you print your document on a printer.

Lines beginning with a period (.) are not included in the count. The count includes the top and bottom margins and lines per page if any have been set on the Print Commands Menu.

---

**Skipping the First Page When Numbering**

Apple Writer lets you skip the first page when numbering the pages of your document. Here’s how to number all the pages except the first one.
For Example

To get the current page number printed in the center of a footer on each page except the first one, press [P] and type \b1\%#

and press [RETURN].

Then print the document. The backslashes tell Apple Writer you don’t want to include a page number on the first page.

**By the Way:** If you want to underline any text in your header or footer, and also want to skip numbering of the first page, you’ll have to change the default underline token. See “Delimiters, Wildcards, and Other Characters” in Chapter 2 for more information.

---

**If the First Page Is Not Page One**

Apple Writer is set up so that the first page you print is automatically page 1. If you want to start the first page with a different number, use the page number (PN) command.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set the page number for the first page</td>
<td>[P]</td>
<td>PN</td>
</tr>
</tbody>
</table>

Then type the number for the first page, and press [RETURN].

---

**Choosing a Print Mode to Justify Text**

To justify text means to adjust the spacing of the text between the left and right margins. The four ways in which text can be filled in between the margins are:

- left justification (LJ)
- fill justification (FJ) (this is not proportional spacing)
- center justification (CJ)
- right justification (RJ).

Figure 5-2 shows how each type of justification looks.
Figure 5-2. The Print Justification Modes

A change in text justification does not change how the text is shown on the display, it only changes the way it is printed.

Left Justification

When text is left justified, each line of text begins at the left margin and ends at or before the right margin, depending on the length of the words on the line. This type of justification is also called ragged right.

Apple Writer is set up so that your text is automatically left justified when it’s printed—that is, the default value of the print mode is left justification (LJ). If you’ve changed the value of the print mode and now want to left justify your text, here’s how to do it.

To Do This | Press This | Then Type This
---|---|---
To left justify text | [P] | LJ

and press [RETURN].

Fill Justification

When text is fill justified, each line of text begins at the left margin and ends at the right margin, even though the number of characters per line varies from line to line. Apple Writer fill justifies text by putting extra spaces between words to fill out the line. This is not proportional spacing—some of the spaces between words are bigger than others.

To Do This | Press This | Then Type This
---|---|---
To fill justify text | [P] | F J

and press [RETURN].

The Format Commands

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Center Justification

When text is center justified, each line of text is centered on the page. The difference between the number of columns between the left and right margin and the actual number of characters on a line is split and put as spaces at the beginning and end of the line.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To center justify text</td>
<td>[P]</td>
<td>CJ</td>
</tr>
</tbody>
</table>

and press (RETURN).

To center a title on a page, embed .CJ in the text on the line before the title. Then, to return to normal, embed .LJ, .FJ, or .RJ on the next line, depending upon the type of justification you were using.

Right Justification

When text is right justified, each line begins at or to the right of the left margin (depending upon the length of the words in the line) and ends at the right margin. This type of justification is also called ragged left.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To right justify text</td>
<td>[P]</td>
<td>RJ</td>
</tr>
</tbody>
</table>

and press (RETURN).

Changing the Vertical Format of a Page

In Apple Writer, the vertical format of the page is determined by the values of the PL (printed lines), TL (top line), TM (top margin), BM (bottom margin), and BL (bottom line) commands, and by the presence or absence of a footnote.

The number of printed lines (PL) is the frame within which all the other vertical format commands operate. This is because PL is the sum of the lines taken up by everything else:

$PL = TL + TM + \text{text (and footnote, if any)} + BM + BL$
Put another way, the number of lines of the document that are printed on a page is the number of lines left over when the lines used by TL, TM, BM, BL, and the footnote are subtracted from the number of lines in PL:

text = PL - (TL + TM + BM + BL + footnote)

Figure 5-3 shows how each of these commands affects the number of lines of text that are printed on the page.

*Figure 5-3. Format Command Relationships*

Notice that two extra lines of the document are printed on the page if there is no TL or BL.

If there is a footnote, the space for it and for an extra blank line between it and the preceding text is subtracted from the space normally used by the document.

*By the Way:* A .TM command embedded at the beginning of a document will not take effect on the first page of the document—only on subsequent pages.

*Setting the Number of Printed Lines per Page*

If you want to specify how many lines of the document to print on each page, follow these instructions.

First, decide how many lines of the document you want printed on a page. Add that number to the sum of lines taken up by TL, TM, BM, BL, and footnotes. Then use this number to set the total number of printed lines (PL) per page.
To Do This | Press This | Then Type This
---|---|---
To set the total number of printed lines per page | [P] | PL

Then type the number and press \(\text{RETURN}\).

Make sure that the number of lines in PL (printed lines) does not exceed the number of lines in PI (page interval). When PL is less than PI, Apple Writer inserts blank lines after the BL text. If PL is greater than PI, Apple Writer prints as much of the text as will fit on the page, then issues a blank page, and prints the rest of the text on a new page.

**Warning**
*Don’t give PL a value of 0 or 1. If you do, you’ll have to start up Apple Writer again.*

---

**Changing Where Printing Begins**

If you align the carriage of the printer so that it is even with the top edge of the paper and use the default values of the TL and TM commands (that is, no header and top margin is 1), the first line of text is printed on the second line from the top of the page.

If you use the same alignment and TM setting but include a header (TL), the header is printed on the second line from the top of the page.

To change where the first line of text or the header is printed, align the carriage differently on the paper before you start to print. For instance, if you’re using the default values of PL (58) and PI (66), there are eight extra blank lines on the page—so, to center the text on the page, align the printer carriage with the top edge of the paper and then turn the carriage clockwise four lines.
Single, Double, and Triple Spacing

To get single, double, or triple spacing, you must specify the number of blank lines that you want between each line of text. Apple Writer’s default is single spacing (LI=0).

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get single-spaced text</td>
<td>[P]</td>
<td>LI 0</td>
</tr>
<tr>
<td>To get double-spaced text</td>
<td>[P]</td>
<td>LI 1</td>
</tr>
<tr>
<td>To get triple-spaced text</td>
<td>[P]</td>
<td>LI 2</td>
</tr>
</tbody>
</table>

Then press (RETURN).

Formatting Footnotes

To enter a one-line-long footnote so that it is automatically printed at the bottom of a page:

1. Place the cursor to the right of the footnote reference in the text.

2. Type (< followed by the text of the footnote.

3. Type >) at the end of the footnote, followed by a space.

Text that is typed between the footnote symbols, (< >), is automatically put at the bottom of the page as a footnote when the document is printed. To indent a footnote, put the number of spaces that you want it to be indented between the beginning footnote symbol, (<, and the beginning of the footnote text.

To enter a footnote that is longer than one line, break it into one-line segments and treat each segment as a separate footnote. Be careful to leave a space after each end-of-footnote symbol, >).

For instance, say you wanted a footnote that looks like this when it’s printed:

From a conversation with the author at a party given in her honor in New York, January 12, 1964.

Type the footnote in segments like this:

<From a conversation with the author at a party given> <in her honor in New York, January 12, 1964.>
Warning
Footnotes are not automatically formatted to fit between the current left and right margin settings.

To make sure a footnote is formatted between the margins, subtract the current LM (left margin) setting from the current RM (right margin) setting. The difference is the maximum number of characters you should have between each set of footnote symbols, (< >).

For instance, if LM is currently 0 and RM is 50, make the first footnote segment 50 (or fewer) characters long, the next segment 50 (or fewer) characters long, and so on, up to the end of the footnote.

To leave a blank line between two footnotes that are on the same page, separate them with a footnote that only contains spaces (one or more), like this: (< >).

Here's how to get footnotes that look like this when printed:

1. Personal notes, June 23
2. Smiley, Confidential Couriers (Falcon Press, 1975)

Type the footnotes like this in your document:

<<1. Personal notes, June 23>> (< >) <<2. Smiley, Confidential Couriers (Falcon Press, 1975)>>

Warning
Footnotes that appear on the final page of a document are printed only if the document ends with an embedded form feed command (.FF). To find out how to embed a form feed in a document, see “Breaking Pages With Form Feed” later in this chapter.

By the Way: To underline part of a footnote, insert an underline token (usually a backslash) at the beginning and end of the text to be underlined.
A single page cannot have more than 1024 characters of footnote(s). If there are more than this, you will see this message on the display when the text is printed:

**WPL ERROR: FOOTNOTE OVERFLOW.**

To recover, delete part of the footnote or split the footnote between two pages.

Follow these steps to split the footnote between two pages:

1. Divide the footnote into two fairly equal parts.

2. Type the first half of the footnote in the text at the position of the footnote number reference. (Enter it just as you would a normal footnote.)

3. Type the second half of the footnote anywhere on the next page. (If you put it about 50 lines after the first half of the footnote, it should appear on the next page when printed.)

**By the Way:** You may see the footnote overflow message when there are fewer than 1024 characters of footnotes on a page if you are running a large WPL program. Half of the WPL program buffer is shared with the footnote buffer, so the combined size of a WPL program and a footnote that are in the buffer at the same time cannot be greater than 2048 characters—the size of the buffer. To find out more, see the section on WPL error messages in the *Apple Writer II Word Processing Language* manual.

**For Example**

Here’s how to get printed text that looks like this

Subsequent studies (3) do not support this theory.

and the following footnote printed at the bottom of the page and indented six spaces from the left margin


Type the text and footnote so it looks like this on your display:

```
Subsequent studies (3) << 3. James, \The True Meaning of Q\ (Kings Press, New York 1970) >> do not support this theory.
```
Setting a Paragraph Margin

In Apple Writer, you can set a margin for the first line of a paragraph. This margin takes effect on the first line of text after a [RETURN].

Paragraph margins can be used not only to indent paragraphs, but also to "outdent" the first line of a hanging paragraph (one in which all lines except the first line are indented) or an item in a bulleted list.

Indenting Paragraphs

If you want all your paragraphs to be indented when they are printed, set a positive value for the paragraph margin in the print value buffer.

To Do This       Press This       Then Type This
To indent paragraphs       [P]       PM+

Then type the number that tells the number of spaces that you want each paragraph indented from the current left margin (LM) setting, and press [RETURN].

If you want a particular paragraph indented, embed .PM+ and a number that represents the number of spaces to indent the paragraph on the line before the paragraph. Then embed .PM0 on the line after the paragraph so that subsequent paragraphs are printed flush left.

If you enter the PM command and a value without typing a plus or minus sign before the value, Apple Writer assumes that the value is positive and indents the paragraph.

For Example

If the current left margin setting is 9, and you want to indent the first line of each paragraph five spaces from the left margin, press [P] and type

PM+5

or type

PM5

The first line of each paragraph is then indented 14 spaces (9 + 5) from the left edge of the paper.
If you want the first line of just one paragraph indented five spaces from the left margin, embed .PM at the beginning and end of the paragraph, like this:

```
.PM5
I want the first line of this paragraph to be indented five spaces to the right of the current left margin, and all other lines to begin at the left margin.
.PM0
```

Since I embedded PM0 at the end of the last paragraph, this paragraph will begin at the left margin.

The paragraph will look like this when it’s printed:

```
I want the first line of this paragraph to be indented five spaces to the right of the current left margin, and all other lines to begin at the left margin.

Since I embedded PM0 at the end of the last paragraph, this paragraph will begin at the left margin.
```

---

**Making Hanging Paragraphs and Bullets**

When the paragraph margin is used to outdent the first line of a paragraph or bullet in part of a document, it is *always* embedded. In this case, the paragraph margin (PM) is used to outdent the first line to the normal left margin setting, and the left margin (LM) setting is used to indent the rest of the paragraph or bullet.

To make an outdented (or hanging) paragraph or bullet, follow these instructions:

1. On the line preceding the paragraph(s) or bullet(s), embed .LM and the number of the column that you want the body of the text to start printing in.

2. On the line after the embedded .LM setting, embed .PM and the number that represents the number of spaces that you want the first line of the paragraph or bullet to be outdented from the embedded left margin setting.
For Example

Here’s how to get text that looks like this when it’s printed:

This month we are proud to welcome two more distinguished artists to our editorial staff:

JOHN DAVID HOFF will be our fine arts correspondent. Mr. Hoff, whose exquisite renderings of nature won him the 1971 Nephu award comes to us from the University of Reading, Reading, England.

SASHA CONSTANCE IVANOFF will cover the performing arts. Ms. Ivanoff is best known for her stirring evocation of Maid Marian in the ballet ‘Robin Hood.’

Type the text like this in your document:

This month we are proud to welcome two more distinguished artists to our editorial staff:

- .LM+10
- .PM-8
JOHN DAVID HOFF will be our fine arts correspondent. Mr. Hoff, whose exquisite renderings of nature won him the 1971 Nephu award comes to us from the University of Reading, Reading, England.

SASHA CONSTANCE IVANOFF will cover the performing arts. Ms. Ivanoff is best known for her stirring evocation of Maid Marian in the ballet ‘Robin Hood.’

- .LM-10
- .PM0

Here’s how to get a bulleted list that looks like this when printed:

These are the objectives of our newsletter:

- to promote public interest in the arts and encourage participation throughout the community
- to help raise money for local theaters, schools, and conservatories

Type the text like this in your document (LM is already set to 5 in the buffer):

These are the objectives of our newsletter:

- .LM+6
- .PM-2
- to promote public interest in the arts and encourage participation throughout the community
- to help raise money for local theaters, schools, and conservatories

- .LM-6
- .PM0
Printing Part of a Document

To print part of a document, embed the enable print (EP) command.

When the document is in memory,

- embed .EP1 at the beginning of the part(s) you want to print
- embed .EP0 at the beginning of the part(s) you don’t want to print.

Then print the document as usual, using the NP command.

Apple Writer always starts printing at the beginning of the document, unless it encounters an embedded .EP0 there. So, if you don’t want to start printing until later in the document, embed .EP0 at the beginning of the document.

Apple Writer prints all the text from .EP1 to the next .EP0. If it doesn’t encounter an embedded .EP0, it prints to the end of the document.

When you use the EP command, the pages that you print have the same numbers as they would have had if you had printed the entire document. For instance, if you only print page 4 of your text, it will be numbered page 4—not page 1.

By the Way: If you want part of a document to begin at the top of a page when it’s printed, embed a form feed (.FF) before .EP1 and after .EP0.
**Breaking Pages With Form Feed**

Apple Writer automatically breaks each page for you. When a sheet of paper is full of text, Apple Writer automatically issues a form feed and starts printing on the next sheet of paper.

If you want to control how a particular page is broken—for instance, to make sure that a table is not split between two pages when it's printed—you can do so by using the embedded form feed command (.FF). A form feed causes printing to stop on the present sheet of paper and feeds the next sheet of paper into the printer.

An embedded form feed can be either unconditional or conditional.

An **unconditional form feed** is a form feed without a number. No matter how much space is still available on the page, it triggers a form feed.

This is how an unconditional form feed looks when it's embedded in text:

```
We hope that you enjoy this issue of LOCALARTS as much as we do.

.FF

Our next issue will include our annual financial statement and information about funding for the new arts center at Magnolia Grove.
```

When this text is printed, the page is broken right after the first sentence, no matter how many lines are left on the page.

To use an unconditional form feed, embed .FF at the place in your document where you want it to occur.

Use an unconditional form feed to

- force a page break
- end the last page of a complete document
- issue a blank page.
A conditional form feed only advances a page if the number of lines left on the page is less than the number used in the command.

Use an embedded form feed to control where page breaks occur.

A conditional form feed is a form feed followed by a number. It triggers a form feed only if the number of lines needed to fit a particular piece of text on the page (specified by the number) is greater than the number of lines remaining on the page.

Here's an example of how a conditional form feed looks in a document:

```
WE hope that you enjoy this issue of LOCAL ARTS as much as we do.

Our next issue will include our annual financial statement and information about funding for the new arts center at Magnolia Grove.
```

To use a conditional form feed, embed .FF and a number that represents the number of lines needed for the text, right before the piece of text in your document.

Use conditional form feeds to make sure that all the lines of a piece of text are printed together on one page, rather than split between two pages.

**For Example**

To make sure that this table (which, including blank lines, takes up nine lines) is put on one page when it's printed, embed .FF9 at the beginning of the table, like this:

```
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>.FF9</td>
<td>SUBSCRIBERS</td>
</tr>
<tr>
<td></td>
<td>Daily</td>
</tr>
<tr>
<td>1984</td>
<td>105,024</td>
</tr>
<tr>
<td>1983</td>
<td>85,264</td>
</tr>
<tr>
<td>1982</td>
<td>59,389</td>
</tr>
<tr>
<td></td>
<td>Sunday</td>
</tr>
<tr>
<td></td>
<td>87,649</td>
</tr>
<tr>
<td></td>
<td>62,608</td>
</tr>
<tr>
<td></td>
<td>49,520</td>
</tr>
</tbody>
</table>
```
Inserting Messages and Comments

In Apple Writer, you can put a message to yourself in your document. These messages can take two forms: an .IN command or a comment.

The .IN command is especially useful for inserting important messages about the printer. For instance, if you must tighten the platen on the printer before printing a subscript or superscript, you can embed a command that will stop the printer at the appropriate time and display a message on the screen, reminding you to tighten the platen.

When Apple Writer encounters an embedded .IN as it is printing a document, it temporarily stops the printer, displays the message, and waits for you to press (RETURN) before it resumes printing.

To put this kind of message in your document, embed .IN followed by the text of the message at the place in your document where you want the message to occur.

You can also put comments to yourself in a document. A comment is shown only when you’re editing the document; it is not printed.

To put a comment in your document, press (RETURN) and type a period (.), then type the message and press (RETURN) again. Your message can be up to 128 characters long.

By the Way: If you want to print a line that begins with an ellipsis (...), start the line by typing a space, then type the three periods. Otherwise, the line will be treated as a comment and not printed.

For Example

When you print this text

These data are consistent with the recent studies of these .IN Tighten the platen!
phenomena as well as the findings of independent investigators (3).
the printer will print this much of the text:

These data are consistent with the recent studies of these

Then printing will stop and you’ll see this message on the display:

Tighten the platen!

When you press (RETURN), Apple Writer resumes printing.

---

**Printing to the Display**

*Printing* usually means sending a formatted copy of a document to a printer. If you want to see how your printed document will look before you actually print it on paper, you can “print” your document on the display, using the print destination (PD) command. You’ll be able to see centering, footnotes, headers, and so on.

**By the Way:** You may want to adjust the margins before printing to the display so that all of your text will appear. Adjust the margins by pressing [A] from the editing display. Press [—] to get a page and line count.

First, set the value of the right margin (RM) to 78 or less. Remember that the RM setting should never exceed the width of the printer—and the display is now your printer.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Press This</th>
<th>Then Type This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To print to the display</td>
<td>[P]</td>
<td>PD0</td>
</tr>
</tbody>
</table>

and press (RETURN).

Then use NP to print the document, just as you would if you were printing it to a printer.
By the Way: If you print to the display often, here's a way to make the best use of it quickly. Set these values for the commands on the Print Commands Menu:

Left Margin  LM0
Right Margin  RM78
Printed Lines PL22
Page Interval  PI24
Single Page  SP1
Print Destination  PD0
Carriage Return  CR0
Top Line  TL(blank)
Bottom Line  BL(blank)

and save them in a print value file. Then all you'll need to do to print to the display is load this print value file and press [PJNP].

See “Saving and Loading a Print Value File” at the end of this chapter.

When text is printed to the display, it scrolls by quickly. For this reason, it's a good idea to set the value of the single page (SP) command to 1 before printing to the display. This causes printing to stop at the end of each page and wait for you to press RETURN to continue.

To get a better look at the text, you can temporarily stop printing.

To Do This  Press This
To temporarily stop printing to the display  [S]
To resume printing to the display  [S]

That is, hold down CONTROL while you press S.

You also can stop printing and return to the editing display.

To Do This  Press This
To stop printing to the display before it finished and return to the editing display  ESC
Saving and Loading a Print Value File

When you’ve changed the values of the print and format commands in the buffer so that they’re just the way you want them, you can save them in a print value file—then use them again at any time, just by loading the file.

First, change the values of the print and format commands in the buffer to the values that you want to save. Then

To Do This | Press This | Then Type This
---|---|---
To save the print values in a file | [Q] | D

When you see Enter File Name :, type the name of the file to save the print values in and press (RETURN).

Apple Writer automatically ends print value filenames with the suffix .PRT.

By the Way: It’s a good idea to save a print value file—using [Q]D—to the same name as the text file that you plan to use it with. That way, you will remember which print value file goes with which document. Apple Writer will distinguish the print value file from the text file by the .PRT suffix.

To Do This | Press This | Then Type This
---|---|---
To load print values from a file | [Q] | C

When you see Enter File Name :, type the name of the print value file to load and press (RETURN). Just type the filename you gave it, not the .PRT suffix.

By the Way: If you modified the serial interface settings, the new settings will also be saved when you save the print value file.

⚠️ Warning
When you load print values from a file into the print value buffer, the previous contents of the buffer are erased.
Apple Writer automatically loads print values from the file SYS.PRT from the volume used as the prefix disk at the beginning of each session. This happens when you press (RETURN) from the opening display.

You can get Apple Writer to load your own print values instead of the default print values by saving your print values in a file named SYS.PRT on the Apple Writer master disk.

To save your own print values in SYS.PRT on the master disk, follow these steps:

1. If you want to keep a copy of the original SYS.PRT file—in case you might need the print values for the future—rename the file by pressing [O]B, typing SYS.PRT, and pressing (RETURN). Then type a new name for the file and press (RETURN).

2. Use [P] or [P]? to assign new values to the print and format commands that you want to change.

3. With the Apple Writer master disk in drive 1, save the new values in a file named SYS.PRT by pressing [Q]D and typing /aw2master/sys

4. From now on when you start up Apple Writer, it will automatically load the print values you set and saved in SYS.PRT and if you modified the serial interface settings, the device will be ready.

For Example

To make a file of print values that is suitable for letters, change the print values in the buffer by pressing [P]? and (RETURN), and then typing each command and its new value. To save the print values as a file named LETTERS on the default disk, press [Q]D and type

letters

If you catalog the disk (using [O]A), you’ll see your file listed as LETTERS.PRT.

Then when you want to use these values to print letters, use [Q]C to load the values into the print value buffer.
ProDOS Error Messages
This appendix tells you how to recover if you get a ProDOS (Professional Disk Operating System) error message.

**Bad Pathname**
You used an illegal character or too many characters in a pathname.
Enter a legal pathname. See Chapter 3 of this manual for pathname rules.

**Device Not Connected**
The disk drive or printer isn’t connected to the slot or port specified, or isn’t turned on.
Make sure you gave the correct slot or port number where your device is connected.

**Directory Full**
There’s no more room in the directory for the files or directory you want to add. (Maximum number of files per directory is 51.)
Copy the files or create the new directory on another formatted disk, or delete files from the directory to make room for the ones you want to add. You can also make a new subdirectory and transfer files into it from the volume’s root directory.

**Disk Full**
There’s not enough space on the disk for the directory or file you want to add.
Add your new directory or file to another formatted disk or delete files to make room for the directory you want to add.
Disk Not ProDOS
You tried to use a ProDOS command with a disk that wasn't ProDOS formatted.
The disk might be
- DOS 3.3 formatted
- Pascal formatted
- unformatted.
First, make sure you are using the disk you thought you were using. If you use more than one operating system, you should label your disk accordingly (DOS 3.3, Pascal, ProDOS).
If the non-ProDOS disk is a DOS 3.3 disk, use your utilities disk to convert the files. If the non-ProDOS disk is Pascal formatted, use the Apple II Pascal Filer.
If the non-ProDOS disk is unformatted, use your utilities disk to format it.

Duplicate Volume
Two drives contain volumes with the same name. Avoid having volumes with identical names.

File Access Error
The file is locked and cannot be read. Use the Unlock File option on the ProDOS Commands Menu to unlock it.

File Not Found
Apple Writer cannot find the file you specified because
- You misspelled the name of the file;
- You have the wrong disk in the drive;
- The file is not on the default disk and you didn’t specify the volume name.
Check the filename and make sure you have the correct disk in the drive.
Incompatible File
The file you specified is not an Apple Writer file.
Check the filename and try again.

I/O Error
This is a general purpose error message that alerts you to one of the following situations:
- Open drive door. If your disk drive door is open, close it.
- Empty disk drive. If you forgot to put the disk in the disk drive, put it in.
- Unformatted disk. If the disk is unformatted, use Apple Writer or your utilities disk to format it.
- Improperly aligned disk, or a disk with damaged blocks. Use your utilities disk to find out if the disk is damaged. If it is, format another disk and copy the good files onto it. Once you've saved the good files, reformat the damaged disk and check again for damaged blocks.
- Poor connection between the computer and the disk drive.

Turn off the power, remove the cover, and make sure the disk drive controller card is firmly seated in its slot and that the pins connecting the cables to the cards are firmly in place.

Turn off the power and make sure the disk drive's cable is firmly connected to the port.
- Rigid disk not turned on. Turn on your rigid disk.

Volume Not Found
The program can't find the volume name you specified (the first name in the pathname).
- Check your spelling. Check to make sure you put the right disk in the disk drive.
- Make sure the disk drive door is closed.
- Make sure your disk is ProDOS formatted. Use the Catalog option from the ProDOS Commands Menu to catalog the disk. Make sure you got the name right and that the disk is ProDOS formatted. If the disk is not formatted, use Apple Writer or your utilities disk to format it.
Write Protect

The program needs to write something out to the disk, but it can't because you've covered the write-enable notch with a write-protect tab, or the disk was write protected by the manufacturer to keep you from writing on it.

If the disk has a write-protect tab, you could remove it, but think twice. You put the tab there to protect the disk; are you sure you want to remove the protection?
Using Apple Writer With a Profile
If you have a ProFile storage device, you will find it very useful to install the Apple Writer program on it. The program will run faster on the ProFile. This appendix tells you how to install Apple Writer and how to start it up from the ProFile.

## Installing Apple Writer on Your ProFile

Here's an outline of the steps you'll follow to put the Apple Writer program on your ProFile:

- Make a subdirectory for Apple Writer files;
- Copy the files on the Apple Writer master disk into the subdirectory;
- Make a subdirectory called HS4 for the help screens (if you use Apple Writer in 40 columns);
- Copy the help screens from the HS4 subdirectory on the Apple Writer master disk into the new subdirectory, if necessary;
- Copy the files PRODOS and BASIC.SYSTEM into your ProFile's root directory.

The following sections give you step-by-step instructions.
Making a Subdirectory

First make a subdirectory on the ProFile for the Apple Writer files. To do this,

1. Place the ProDOS User's Disk in drive 1 and start up your Apple IIe.

2. Press \(\text{F}1\) to choose the ProDos Filer.

3. Press \(\text{F}2\) again to select File Commands.

4. Press \(\text{M}\) to make a directory.

5. When you see the prompt for the pathname, type

   \(/\text{profile/applewriter}/\)

   **By the Way:** If your ProFile has a volume name other than PROFILE, you'll need to use its name as the first part of your pathname in step 5. To find out the volume name, select Volume Commands, then select List Volumes from the ProDOS Filer. The volume name is displayed next to the number of the slot that holds the ProFile interface card.

6. Press \(\text{ESC}\) after you see the message

   \(\text{MAKE DIRECTORY COMPLETE}\)

You now have a subdirectory called APPLEWRITER on your ProFile.

Transferring the System Files

The next step is to copy the files from the Apple Writer master disk onto the ProFile. To do this:

1. Choose C to copy the files from your Apple Writer master disk.

2. Put the Apple Writer master disk in drive 1 and type

   \(/\text{aw2master}/=\)

   to copy all of the files from this disk. Then press \(\text{RETURN}\).

3. Now type

   \(/\text{profile/applewriter}/=\)

   to copy these files to the ProFile. Press \(\text{RETURN}\).
Making a Subdirectory for the Help Screens

If you have an 80-column text card and are using a monitor as a display device, you can skip ahead to "Transferring BASIC.SYSTEM and PRODOS Files." If you use a television set as a display device or do not have an 80-column text card, you need to make a subdirectory on the ProFile for 40-column help screens.

1. Return to the ProDOS Filer if you’re not already there.
2. Press (F) again to select File Commands.
3. Press (M) to make a directory.
4. When you see the prompt for the pathname, type
   
   /profile/applewriter/hs4

5. Press (ESC) after you see the message
   
   MAKE DIRECTORY COMPLETE

You now have a subdirectory called APPLEWRITER/HS4 on your ProFile.

Transferring the Help Screens

The next step is to copy the help screen files from the Apple Writer master disk into this new subdirectory. To do this:

1. Choose C to copy the files from your Apple Writer master disk.
2. Put the Apple Writer master disk in drive 1 and type
   
   /aw2master/hs4/=  

to copy these files from the master disk. Then press (RETURN).
3. Now type
   
   /profile/applewriter/hs4/=  

to copy these files to the ProFile. Press (RETURN).
Transferring BASIC.SYSTEM and PRODOS

You now have all the Apple Writer files on your ProFile. You'll need to transfer two other files to the root directory of your ProFile if they are not already there—BASIC.SYSTEM from the ProDOS User's Disk and PRODOS from the subdirectory APPLEWRITER. To do this:

1. Select the Copy Files option, if you're not already there.

2. Type
   
   /profile/applewriter/prodos

   to copy PRODOS from the subdirectory APPLEWRITER.

3. Type
   
   /profile/prodos

   to copy PRODOS to the ProFile root directory.

4. Remove the Apple Writer master disk from drive 1 and replace it with the ProDOS User's Disk.

5. Type
   
   /users.disk/basic.system

   to copy BASIC.SYSTEM from the disk.

6. Type
   
   /profile/basic.system

   to copy BASIC.SYSTEM to the ProFile root directory.

You can now run the Apple Writer program directly from the ProFile.
Starting Up Apple Writer

Here's how to start up Apple Writer from your ProFile:

1. Turn on the ProFile and wait for the red light on the front to stop blinking. With the *ProDOS User's Disk* in drive 1, turn on your Apple IIe.

**By the Way:** You can start up Apple Writer without the *ProDOS User's Disk* in drive 1. Just turn on your computer and while the red disk light is blinking, press \(\text{CONTROL} + \text{RESET}\). Then type \text{PR#4} (or the number of the slot where your ProFile card is connected) and type

```
/profile/applewriter
```

and press \(\text{RETURN}\). Now you can skip ahead to step 5.

2. Press \(\text{B}\) to enter BASIC when you see the Main Menu of the *ProDOS User's Disk*.

3. Type \text{PR#4} (or, instead of 4, the number of the slot where the ProFile interface card is installed).

4. In response to \text{Enter Prefix}, type

```
/profile/applewriter
```

and press \(\text{RETURN}\).

5. To run the program, type

```
-aw.system
```

You then see the opening display for Apple Writer.
Files on the Master Disk
These are the files on the *Apple Writer II Version 2.0 Master* disk, AW2MASTER:

<table>
<thead>
<tr>
<th>Filename</th>
<th>What It Is/Does</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRS</td>
<td>Address list; used by AUTOLETTER program to make form letters. See the WPL manual for details.</td>
</tr>
<tr>
<td>ADDRESSES</td>
<td>Address list; used by the WPL form letter demo to make form letters. See the WPL manual for details.</td>
</tr>
<tr>
<td>AUTOLETTER</td>
<td>WPL program; prints form letters using the letter contained in the FORMLETTER file and the addresses contained in the ADDRS file.</td>
</tr>
<tr>
<td>AUTOPRINT</td>
<td>WPL program; prints several files in succession.</td>
</tr>
<tr>
<td>AW.SYSTEM</td>
<td>The Apple Writer program.</td>
</tr>
<tr>
<td>AWB.SYS,AWC.SYS,AWD.SYS</td>
<td>The Apple Writer program.</td>
</tr>
<tr>
<td>CLAUSES</td>
<td>Apple Writer file used in the WPL contract demo.</td>
</tr>
<tr>
<td>CONTRACT</td>
<td>Document used in the WPL contract demo.</td>
</tr>
<tr>
<td>CONTRACTEND</td>
<td>Document used in the WPL contract demo.</td>
</tr>
</tbody>
</table>
CONTPRINT  WPL program; prints the contents of several files together as one document.

CONTROLV  Embeds a [V] in a glossary. Lets you put a [V] character in text when making a glossary definition.

COUNTER   WPL program; counts number of words in a document.

DEMOS     WPL program; displays demo menu and runs the demonstrations in the preface of the WPL manual.

FLETTER   WPL program; runs the FORMLETTER demo in the WPL manual.

FORMLET   Sample letter used by FORMLETTER demo in the WPL manual.

FORMLETTER Sample letter; used by AUTOLETTER program to make form letters.

FORMATTER The ProDOS Disk Formatter.

HE.CAPS   One of the 80-column help screens.

HE.COMMANDS One of the 80-column help screens.

HE.COMMANDS2 One of the 80-column help screens.

HE.CURSOR One of the 80-column help screens.

HE.DELETE One of the 80-column help screens.

HE.FIND One of the 80-column help screens.

HE.GLOSSARY One of the 80-column help screens.
<table>
<thead>
<tr>
<th>File</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE.LOAD</td>
<td>One of the 80-column help screens.</td>
</tr>
<tr>
<td>HE.SAVE</td>
<td>One of the 80-column help screens.</td>
</tr>
<tr>
<td>HE.TAB</td>
<td>One of the 80-column help screens.</td>
</tr>
<tr>
<td>HE.PRINT</td>
<td>One of the 80-column help screens.</td>
</tr>
<tr>
<td>HE.PRINT2</td>
<td>One of the 80-column help screens.</td>
</tr>
<tr>
<td>HELP40</td>
<td>WPL program; displays the 40-column Help Screen Menu.</td>
</tr>
<tr>
<td>HELP80</td>
<td>WPL program; displays the 80-column Help Screen Menu.</td>
</tr>
<tr>
<td>HS4</td>
<td>Directory; contains the 40-column help screens.</td>
</tr>
<tr>
<td>PAPERSAVER</td>
<td>Sample memo; used in exercises in Chapter 1.</td>
</tr>
<tr>
<td>PRODOS</td>
<td>The Professional Disk Operating System.</td>
</tr>
<tr>
<td>SPECIAL</td>
<td>Glossary of special printer commands for Apple Imagewriter and Daisy Wheel printers.</td>
</tr>
<tr>
<td>STARTCON</td>
<td>Document used in the WPL contract demo.</td>
</tr>
<tr>
<td>SYS.PRT</td>
<td>Contains standard print value settings.</td>
</tr>
<tr>
<td>SYS.TAB</td>
<td>Contains standard tab positions.</td>
</tr>
</tbody>
</table>
Vital Statistics
Defaults

Standard Delimiter

Underline Token

Tabs

every ten spaces

Print Values

LM0
PM0
RM78
TM1
BM1
PN1
PL58
PI66
LI0
SP0
PD1
CR1
UT\nPMlj
TL (blank)
BL (blank)
## Buffer Sizes

<table>
<thead>
<tr>
<th>Feature</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tabs</td>
<td>Up to 64 positions</td>
</tr>
<tr>
<td>Character Deletion</td>
<td>128 characters</td>
</tr>
<tr>
<td>Words &amp; Paragraph</td>
<td>1024 characters</td>
</tr>
<tr>
<td>Glossary</td>
<td>2048 characters</td>
</tr>
<tr>
<td>Footnote</td>
<td>1024 characters</td>
</tr>
<tr>
<td>WPL</td>
<td>2048 characters</td>
</tr>
</tbody>
</table>
Summary of Apple Writer Menus
Apple Writer, as you know by now, performs a wide variety of functions. These functions are grouped into categories. You can set in motion any function within a category by pressing (CONTROL) and the character for that category and then typing the specific function command.

For example, to obtain any function within the printing category, press [P] or [P]?. Then type a letter (or pair of letters) to tell Apple Writer what you want to do.

Choosing a function from a particular category is like ordering from a menu—you get to select from several options. And that's why we call these lists of category functions menus.

This appendix has Apple Writer's four menus here in one place, for easy reference.

Summary of Apple Writer Menus
The Help Screen Menu

You can display the Help Screen Menu at any time (as long as your Apple Writer master disk is in drive 1 and the prefix has not been set to some other volume) while editing by pressing \( \texttt{6} \)-\( \texttt{7} \). When the menu appears, type the number to the left of the topic you want to know more about, and press \( \texttt{RETURN} \). A summary of that command will be displayed on the screen.

Figure E-1 shows the Help Screen Menu as it looks on your display.

Figure E-1. The Help Screen Menu

HELP SCREEN MENU

A. Command Summary
B. Cursor Movement
C. Upper/Lower Case Change
D. Delete/Retrieve Text
E. Tabs
F. Glossary
G. Saving Files
H. Loading Files
I. Find/Replace Text
J. Print Format Commands

Press RETURN to Exit
Enter Your Selection (A - J):
The ProDOS Commands Menu

ProDOS (Professional Disk Operating System) gives Apple Writer some handy ways to manage files. Many of the items on the ProDOS Commands Menu are also available on your utilities disk. However, it's nice to not have to change disks once you start working with Apple Writer.

To display the ProDOS Commands Menu, press [0]. To select a function, type the corresponding letter displayed on the menu. To exit the ProDOS Commands Menu, press \( \text{return} \).

If you have questions about any of the ProDOS commands, refer to Chapter 3.

Figure E-2 shows how the ProDOS Commands Menu looks on your display.

Figure E-2. The ProDOS Commands Menu

ProDOS Commands

A. Catalog
B. Rename File
C. Lock File
D. Unlock File
E. Delete File
F. List Volumes On-Line
G. Create Subdirectory
H. Set Prefix Volume
I. Format Volume
J. Set Printer/Modem Interface

Press RETURN to Exit

Enter Your Selection (A - J) :
The Additional Functions Menu

The Additional Functions Menu (Figure E-3) contains many of Apple Writer’s less common functions.

To display the Additional Functions Menu, press [Q]. To select a function, type the corresponding letter displayed on the menu. To exit the Additional Functions Menu, press (RETURN).

To find out more about any of these functions, see Chapter 2.

△ Warning

Don’t press (RETURN) after you type the option’s letter. As soon as you press the key, a prompt appears. If you press RETURN after the letter, the program will mistake your action for an order to exit the menu. (Of course, if you press the wrong letter, you’ll want to exit the menu and then start over by pressing [Q] again.)

Figure E-3. The Additional Functions Menu

ADDITIONAL FUNCTIONS MENU

A. Load Tab File
B. Save Tab File
C. Load Print/Program Value File
D. Save Print/Program Value File
E. Load [G]lossary File
F. Save [G]lossary File
G. Toggle Carriage Return Display
H. Toggle Data Line Display
I. Connect Keyboard to Printer/Modem
J. Quit Apple Writer

   Press RETURN to Exit

   Enter your selection (A - J) :
The Print/Program Commands Menu

The commands listed on the Print/Program Commands Menu affect the way your text looks when it is printed. To display the Print/Program Commands Menu, press [P], then press [RETURN]. You can alter the value of any of these functions by typing the two letters in parentheses next to the function and then the new value.

All of the Print/Program Commands Menu functions are covered in Chapter 5. If you have questions about these commands, refer to that chapter. Figure E-4 shows the Print/Program Commands Menu as it looks on your display.

By the Way: Your display will look slightly different if you've changed your print commands.

Figure E-4. The Print/Program Commands Menu

<table>
<thead>
<tr>
<th>Print/Program Commands:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left Margin (LM) = 0</td>
</tr>
<tr>
<td>Paragraph Margin (PM) = 0</td>
</tr>
<tr>
<td>Right Margin (RM) = 78</td>
</tr>
<tr>
<td>Top Margin (TM) = 1</td>
</tr>
<tr>
<td>Bottom Margin (BM) = 1</td>
</tr>
<tr>
<td>Page Number (PN) = 1</td>
</tr>
<tr>
<td>Printed Lines (PL) = 58</td>
</tr>
<tr>
<td>Page Interval (PI) = 66</td>
</tr>
<tr>
<td>Line Interval (LI) = 0</td>
</tr>
<tr>
<td>Single Page (SI) = 0</td>
</tr>
<tr>
<td>Print Destination (PD) = 1</td>
</tr>
<tr>
<td>Carriage Return (CR) = 1</td>
</tr>
<tr>
<td>Underline Token (UT) = \</td>
</tr>
<tr>
<td>Print Mode (LJ, FJ, CJ, RJ) = LJ</td>
</tr>
<tr>
<td>Top Line (CTL) :</td>
</tr>
<tr>
<td>Bottom Line (BL) :</td>
</tr>
<tr>
<td>Press RETURN to Exit</td>
</tr>
</tbody>
</table>

[P]rint/Program :
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# Apple Writer II Quick Reference Card

**Additional Functions**
- **[Q]** Displays Additional Functions Menu.

**Adjust**
- **[A]** Adjusts display margins.

**Beginning**
- **[B]** Moves cursor to beginning of document.

**Carriage Return**
- **[Q] G** Toggles display of carriage return symbol on and off.

**Case Change Mode**
- **[C]** Use ← and → to move cursor over character to change.

**Catalog**
- **[O] A** Displays catalog of default disk.
- **[O] A#** Puts a copy of the catalog in memory (for printing).

**Clear Memory**
- **[N] Y** Clears memory for a new document.

**Control-Character Insertion Mode**
- **[V]** Lets you insert control characters (commands) in a document.

**Copy Text**
- **⌘-[W]** (with direction arrow ◄)
- **⌘-[X]** (with direction arrow ◄)
  - Copies word into buffer.
  - Copies paragraph into buffer.

**Create Subdirectory**
- **[O] G** Creates a new subdirectory on disk.

**Cursor Movement**
- **[↑]** Moves cursor up.
- **[↓]** Moves cursor down.
- **[←]** Moves cursor left.
- **[→]** Moves cursor right.
- **⌘-[↑]** Moves cursor up 22 lines (11 lines on split screen).
- **⌘-[↓]** Moves cursor down 22 lines (11 lines on split screen).
- **⌘-[←]** Moves cursor left one word.
- **⌘-[→]** Moves cursor right one word.
- **[B]** Moves cursor to beginning of document.
- **[E]** Moves cursor to end of document.

**Data Line Display**
- **[Q] H** or **ESC** Switches between on, off, and displaying tab positions.
Delete and Retrieve

- DELETE
  Deletes character (cannot retrieve).
- [d]→
  Deletes character.
- [W] (with direction arrow <)
  Deletes word.
- [X] (with direction arrow <)
  Deletes paragraph.

- [d]←
  Retrieves character.
- [W] (with direction arrow >)
  Retrieves word.
- [X] (with direction arrow >)
  Retrieves paragraph.

Delete File

- [O] E
  Deletes file from disk.

Direction Arrow

- [D]
  Changes direction from < to > and vice versa on the data line.

Find and Replace

- [F] /word/
  Finds word.
- [F] /word/new word/
  Finds word, replaces with new word.
- [F] /word/new word/A
  Replaces all words with new words.
- [F] =
  Resumes previous find command.

Glossary

- [G] character
  Gets definition represented by character.
- [G] ?
  Sets definition.
- [G] *
  Purges all definitions.
- [Q] E
  Loads glossary from file.
- [Q] F
  Saves glossary in file.

Help

- [E] ?
  Displays Help Screen Menu.

Insert

- Just start typing.

List Volumes

- [O] F
  Lists names of volumes on-line.

Load

- [L] filename
  Loads document from named file.
- [L] =
  Loads document named on data line.
- [L] filemarker!marker!
  Loads part of document.
- [L] file!!last marker!
  Loads from beginning to marker.
- [L] file!first marker!
  Loads from marker to end.
- [L] filemarker!marker!A
  Loads *all* parts automatically.
- [L] filemarker!marker!N
  Loads parts without markers.
- [L] #
  Loads from memory.
- [L] filename\
  Allows you to peek at a document.

Lock file

- [O] C
  Locks file; prevents accidental deletion.

Page Number, Line Count

- [-]
  Displays page number and line count on editing display.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Print Commands</strong></td>
<td>Displays menu; accesses commands.</td>
</tr>
<tr>
<td><strong>Menu</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Print Values</strong></td>
<td>Loads print value file.</td>
</tr>
<tr>
<td></td>
<td>Saves print value file.</td>
</tr>
<tr>
<td></td>
<td>(See also “Printing and Formatting” at end of card.)</td>
</tr>
<tr>
<td><strong>Print Commands</strong></td>
<td>Accesses print and format commands.</td>
</tr>
<tr>
<td></td>
<td>(See also “Printing and Formatting” at end of card.)</td>
</tr>
<tr>
<td><strong>ProDOS Commands</strong></td>
<td>Displays menu; accesses commands.</td>
</tr>
<tr>
<td><strong>Menu</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Quit</strong></td>
<td>Quits Apple Writer.</td>
</tr>
<tr>
<td><strong>Rename File</strong></td>
<td>Renames file on disk.</td>
</tr>
<tr>
<td><strong>Replace Mode</strong></td>
<td>Type over text to replace it.</td>
</tr>
<tr>
<td><strong>Save</strong></td>
<td>Saves document in named file.</td>
</tr>
<tr>
<td></td>
<td>Saves document named on data line.</td>
</tr>
<tr>
<td></td>
<td>Saves part of document (cursor is first marker).</td>
</tr>
<tr>
<td></td>
<td>Saves document in memory onto end of named document.</td>
</tr>
<tr>
<td><strong>Set Prefix</strong></td>
<td>Specifies default disk.</td>
</tr>
<tr>
<td><strong>Split Display</strong></td>
<td>Splits display.</td>
</tr>
<tr>
<td></td>
<td>Activates cursor in other display.</td>
</tr>
<tr>
<td></td>
<td>Restores single display.</td>
</tr>
<tr>
<td><strong>Tabs</strong></td>
<td>Inserts spaces to next tab position.</td>
</tr>
<tr>
<td></td>
<td>Moves cursor over text to next tab position.</td>
</tr>
<tr>
<td></td>
<td>Clears tab at cursor's position.</td>
</tr>
<tr>
<td></td>
<td>Purges all set tabs.</td>
</tr>
<tr>
<td></td>
<td>Sets tab at cursor's position.</td>
</tr>
<tr>
<td><strong>Terminal Mode</strong></td>
<td>Connects keyboard to modem (when the print destination is a slot or port where a modem is connected).</td>
</tr>
<tr>
<td><strong>Typewriter Mode</strong></td>
<td>Connects keyboard to printer (when the print destination is a slot or port where a printer is connected).</td>
</tr>
<tr>
<td><strong>Unlock</strong></td>
<td>Unlocks a file on disk.</td>
</tr>
<tr>
<td><strong>Wraparound</strong></td>
<td>Toggles word wraparound on and off.</td>
</tr>
</tbody>
</table>
## Printing and Formatting

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break Pages</td>
<td>.FF</td>
</tr>
<tr>
<td>Destination for Printing</td>
<td>PD</td>
</tr>
<tr>
<td>Footnotes</td>
<td>(&lt;text&gt;)</td>
</tr>
<tr>
<td>Headers and Footers</td>
<td>BL, TL</td>
</tr>
<tr>
<td>Insert Message</td>
<td>.IN</td>
</tr>
<tr>
<td>Comment</td>
<td>.text of comment</td>
</tr>
<tr>
<td>Margins</td>
<td>LM, RM, PM</td>
</tr>
<tr>
<td>Page Numbering</td>
<td>#(in TL or BL statement), PN</td>
</tr>
<tr>
<td>Run WPL Program</td>
<td>[P] DO name of program</td>
</tr>
<tr>
<td>Set Up for Printer</td>
<td>CR, SP, PI</td>
</tr>
<tr>
<td>Underline</td>
<td>UT character</td>
</tr>
<tr>
<td>Vertical Format</td>
<td>PL, LI</td>
</tr>
</tbody>
</table>