



"SCREEN WRITER II"

FOREWORD

TEXT PROCESSING WITH SCREEN WRITER][

The purpose of this section is to give a brief overview of the mechanics of word processing using Screen Writer][and the Apple][Computer.

DISKETTES

People write words and sentences on pieces of paper to store them for future use. The computer uses magnetic diskettes for the same purpose.

TEXT FILES

We organize our sheets of paper so that we can find the text we wrote yesterday. We tend to keep our written work in notebooks, file folders, or paper clipped piles. We are more successful at finding the paragraph we are looking for if we have labelled the notebook or folder.

The computer organizes the text stored on diskettes into TEXT FILES. It keeps track of which parts of the diskette belong to each file, so that it can get text from or write it to the appropriate file folder."

We don't have to worry about how the computer physically uses the TEXT FILES, any more than we need to worry about how the computer can turn our thoughts into bits and bytes. Our responsibility is limited to providing names that tell the computer which files to use.

SCREEN WRITER][: THE PROGRAM

Screen Writer][is divided into two parts: EDITOR and RUNOFF. These programs are kept on the Screen Writer][Master Diskette.

The Editor

EDITOR allows you to enter your text. It puts your work into Text Files on the Text Diskette. EDITOR provides many tools to help you in the editing process. While you are working with EDITOR, part of your text is displayed on the monitor or TV screen. The rest is stored in the computer's memory and on the Text Diskette.

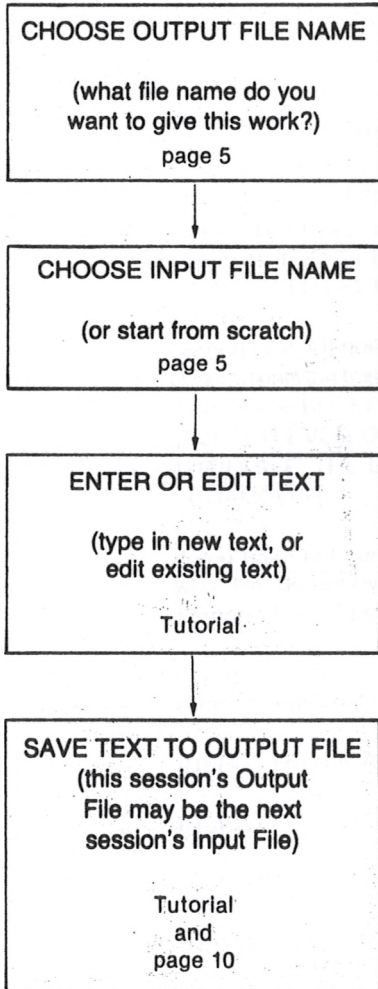
Runoff

RUNOFF reads the Text Files from the Text Diskette and prints the contents in human-readable form.

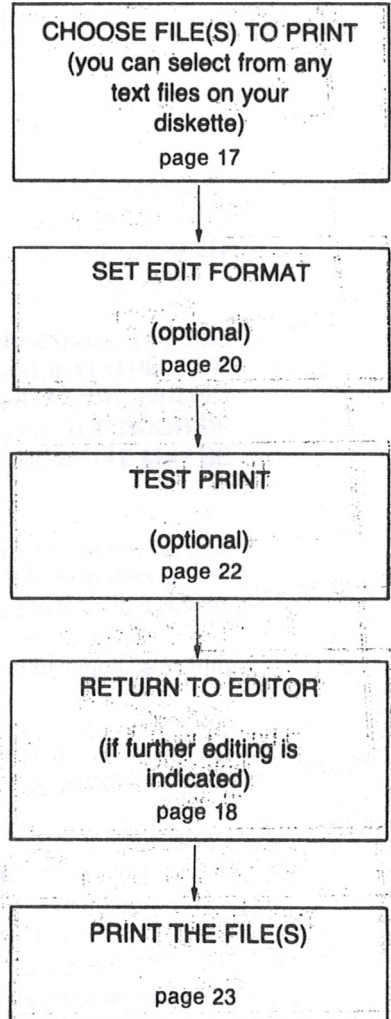
FLOW CHARTS

On the following page, you will find FLOW CHARTS of the primary steps you will follow as you use EDITOR and RUNOFF.

EDITOR FLOW CHART



RUNOFF FLOW CHART



!!! WARNING !!!

NEVER REMOVE THE TEXT DISKETTE FROM THE DRIVE BEFORE YOU HAVE SAVED YOUR FILE UNLESS YOU SEE A PROMPT ON THE SCREEN WHICH TELLS YOU TO DO SO!

Screen Writer][does not update the catalog of the Text Diskette until the text work file is saved. IF YOU REMOVE THE DISKETTE FROM THE DRIVE AT THE WRONG TIME, OR EVEN OPEN AND CLOSE THE DOOR OF THE DRIVE, THE DATA ON THE DISKETTE MAY BE SCRAMBLED.

If you have not completed the process of saving your work file, do not even open the disk drive door unless Screen Writer][provides a prompt to tell you it is safe.

If you see one of the following messages, you may remove your Text Diskette:

INSERT DUPLICATE DISK - HIT RET.

INSERT ORIGINAL DISK - HIT RET.

INSERT COPY FROM DISK - HIT RET.

INSERT COPY TO DISK - HIT RET.

At all other times, the Text Diskette must remain in the drive until you have saved the work file.

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THE MINI-WRITER

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CHAPTER 1

THE EDITOR

GETTING STARTED

This chapter is an introduction to Screen Writer][. Rather than throw everything at you right away, we will introduce you to an important subset of Screen Writer][commands, starting with the EDITOR. You will be pleasantly surprised how much can be done with these very powerful commands.

We will assume you have become familiar with the use of your computer and your disk drive(s) as well as the careful handling of data diskettes. (See Chapter 1 of your DOS 3.3 manual and Appendix A of this manual.)

We recommend that you protect your Screen Writer][Master Diskette with a "write protect tab" before you proceed any further.

You will need at least one initialized diskette on which to save your work. Again, reference your Apple DOS manual for step-by-step instructions on the procedure for initializing diskettes.

To run Screen Writer][it's generally only necessary to place the write protected Master Diskette in Drive #1, carefully close the door, and turn the computer on. In less than ten seconds, you'll be up and running with the Screen Writer][Initial Menu displayed.

If your system doesn't work like this, consult Appendix A of this manual for more detailed startup instructions.

THE INITIAL MENU

After the disk drive stops whirring, you should see the following display on your screen:

```
ON-LINE SYSTEMS
SCREEN WRITER INITIAL MENU
VERSION XX

COPYRIGHT 1982 DAVID KIDWELL

1 EDITOR (NON-RAM CARD VERSION)
2 RUNOFF (NON-RAM CARD VERSION)

3 EXIT

4 EDITOR (RAM CARD VERSION)
5 RUNOFF (RAM CARD VERSION)

6 EXAMINE DEFAULT PARAMETERS
7 ENTER CUSTOMIZE

ENTER YOUR CHOICE
```

This is the "Initial Menu." It's called a menu because you are offered a number of choices. To continue with the program, just enter your choice. For now, let's type:

1 <RETURN>

to enter the EDITOR. This is the part of Screen Writer][that allows you to write and/or change your text and address files.

INPUT AND OUTPUT FILES

Don't let the word "file" throw you. It's just a fancy "computer" word for a place to save your work.

Screen Writer][refers to INPUT FILES and OUTPUT FILES. The program will expect to save your text to an OUTPUT FILE when you are finished with a session. The program is also prepared to start a session by reading text from an INPUT FILE so that you don't have to start from scratch each time.

The screen should now read:

OUTPUT FILE?

This means, what is the name of the file to which you wish to save this session's text? An important thing to remember when using Screen Writer][is not to try to save TEXT Files on your MASTER Diskette. (This is one reason we used the write protect tab.)

Let's tell Screen Writer][to save our OUTPUT FILE on one of those initialized diskettes.

If you only have one disk drive, remove the Screen Writer][Master Diskette and replace it with the Initialized Text Diskette.

If you have a second drive, you may leave the Master Diskette where it is and put the Text Diskette in the second drive, which is referred to as D2.

Choose a useful name for your OUTPUT FILE, something you can easily remember—like TABBY, if you were writing a letter to your cat. Since you are going to use TUTORIAL, which is included on your Master Diskette, let's call it LESSON.

Type the OUTPUT FILE name (in this case, LESSON) and press the <RETURN> key.

If you have two drives, type LESSON,D2 <RETURN> so that Screen Writer][will go to the correct drive.

Note: Screen Writer][will automatically go to Drive #1 unless you add ,D2 to the file name. Be careful not to include any spaces before or after the comma.

The disk drive will whirr some more as Screen Writer][looks for a file named LESSON. When such a file can't be found, you will see this question:

NO SUCH FILE
OK TO CREATE (Y/N)?

Enter a Y. No <RETURN> is needed here. Don't be surprised when your answer doesn't appear on the screen. When Screen Writer][expects a simple Y or N response, it often just "grabs and runs."

The disk will whirr again as Screen Writer][prepares the text file LESSON for use.

Now Screen Writer][will ask where to get the material to work on at this session. The screen displays:

INPUT FILE? - CR IF NONE

if you were working on an existing file, you would enter that file name here. For a new file, you would press <RETURN> to start off with the electronic equivalent of a clean sheet of paper.

To find out what files are available on your diskette, you may type C , for CATALOG.

In this case, we wish to use the TUTORIAL program, which will give you some "hands on" experience with Screen Writer][.

THE SCREEN WRITER][TUTORIAL

Make sure that your Master Diskette is in Drive #1.

If you have only one drive, be certain that the correct diskette is in the drive. Since TUTORIAL is on the Master Diskette, you must put it back into the drive so that Screen Writer][can read TUTORIAL as the INPUT FILE.

To use the tutorial, type:

TUTORIAL <RETURN> in response to
INPUT FILE? - CR IF NONE

The EDITOR will now find and load TUTORIAL as the INPUT FILE. The first lines of the text will be displayed on the top part of the screen.

Single drive users must now remove the Master Diskette from the drive, and put in the Text Diskette. Are you beginning to understand why we recommend using two disk drives?

At the bottom of the screen you will see:

COMMAND:
5 10 15 20 IN:TUTORIAL
25 30 35 40 OUT:LESSON

You can see the names of the INPUT and OUTPUT FILEs which you just specified. The numbers are tab stops, which will be discussed in later chapters of this manual.

Follow all the instructions given by the TUTORIAL, which demonstrates some of the most useful features of the EDITOR.

Note: Whenever more than one key appears inside the brackets (e.g. <CTRL A>) you should press both keys at once.

<CTRL> and/or <SHIFT> keys should be held down while the letter key is pressed. When keys are not enclosed in the same pair of brackets, you press the first one and then the second one (e.g. 2P or <ESC> A).

If you have any problems with TUTORIAL, do the following, in this order:

1. Go back to the beginning of the TUTORIAL and start over, following the directions closely.
2. Return to the beginning of this chapter, and start over.
3. Go to the Apple Computer reference manuals or Screen Writer][Appendices to make sure you are using your equipment correctly. You may wish to run a simple BASIC program, like one of the games on your DOS 3.3 System Master Diskette, to make sure your computer is operating properly.
4. Call your dealer.
5. Please don't call On-Line Systems for assistance until you have exhausted all of these other alternatives.

Welcome back from TUTORIAL.

Let's summarize what you have learned in this exercise.

CURSOR CONTROL

Command Level

- | | |
|----|---|
| nA | Moves the cursor n lines. If n is positive (e.g. 4A), the cursor moves toward the end of the text (down the screen). If n is negative (e.g. -2A) the cursor moves toward the beginning of the text. |
| nP | Moves the cursor n pages. If n is positive (e.g. 4P), the cursor moves toward the end of the text (down the screen). If n is negative (e.g. -2P) the cursor moves toward the beginning of the text. |

<CTRL A>	Moves the cursor one line toward the end of the text.
<SHIFT CTRL A>	Moves the cursor one line toward the beginning of the text, if you have installed the shift key modification as described in Appendix D.
<ESC><CTRL A>	Moves the cursor one line toward the beginning of the text.
<CTRL P>	Moves the cursor one screen page toward the end of the text.
<SHIFT CTRL P>	Moves the cursor one screen page toward the beginning of the text.
<ESC><CTRL P>	Moves the cursor one screen page toward the beginning of the text.
Right Arrow	(→) Moves the cursor one space to the right.
Left Arrow	(←) Moves the cursor one space to the left.

Upper/Lower Case

Characters are normally entered in lower case. Capital letters (upper case) are produced by pressing the <ESC> key before the letter key. If you wish to type in all capital letters, press the <ESC> key twice. Pressing it again will release the shift lock. If you have installed the shift key modification, hold down the <SHIFT> key while pressing the letter key to get a capital letter.

NOTE

When the shift lock is on (indicated by *S* remaining on the lower right of your screen), commands containing <SHIFT> will not function properly. They will act as if the <SHIFT> key had not been pressed.

TEXT PROCESSING

Command Level

I	Enter Insert Mode.
C	Enter Change Mode.
S	Save text to Output File.

Insert and Change Modes

<CTRL C>	Toggle between Insert and Change Modes
<CTRL D>	Delete the character under the cursor (and fill from the right)

<ESC><CTRL D>	(and fill from the left) Delete the character to left of the cursor (and fill from the left)
<CTRL I>	Return to Command Level

ADDITIONAL COMMANDS

Here are some other useful commands you can use with the EDITOR.

nJ	At Command Level moves the cursor to the right n spaces
- nJ	At Command Level moves the cursor to the left n spaces
B	At Command Level or
<CTRL B>	In Insert or Change Mode will return the cursor to the beginning of the text.
E	At Command Level or
<CTRL E>	In Insert or Change Mode will move the cursor to the end of the text.
N	To start a NEW file, type N at Command Level. You will be asked if you have saved your text, because all previous work will be erased to make room for new material in the computer's memory . If you have SAVED your text (or are certain that you don't want to do so) type Y. You will then be returned to the OUTPUT FILE? question.

You will note that at Command Level, the minus sign reverses the direction of a command. In Insert and Change Modes, either the <SHIFT> or <ESC> key reverses direction.

GENERALIZATIONS

	Command Level	Insert and Change Modes
COMMAND	Character	Control character
<RETURN>	Necessary	Not allowed
MULTIPLE COMMANDS	Use number (e.g. 2A)	Multiple commands (e.g. <CTRL A><CTRL A> or <REPT CTRL A>)
REVERSE DIRECTION	Minus sign	<SHIFT> or <ESC>

SAVING TEXT FILES

To save the file you have been editing to the Output File, simply type S at Command Level. To save it to another file, type S(name). To save to a different drive type S,Dd or S,Ss,Dd (where d and s are the new slot and drive numbers).

Examples:

s	will save your text as your Output File
s,s6,d2	will save your text as a file with the same name as your output file to Slot 6, Drive 2
snewfile	will save your text as a file named NEWFILE to the same Slot and Drive as your Output File
senuff,d1	will save your text as a file named ENUFF to the diskette in Drive #1

You may give your Text Files names up to 20 characters long, or up to 26 characters long if you will not be using more than one disk drive for your text.

!!! WARNING !!!

Do not use the SAVE command if you have removed the text diskette from the drive, or even opened and closed the door of the disk drive. If you do you may scramble not only your present work file, but also other text files on the diskette. (The one exception to this rule is when your text in memory is so short that there has been no access to the output file.)

Do not use the same name for your OUTPUT file and your INPUT file, unless they are in different drives. If there is already a file on your Text Diskette by the same name as your OUTPUT file, EDITOR will delete the old version before saving the new version. You run the risk of losing both versions of the file, should there be a power failure or a computer breakdown after the first file has been deleted and before the second one has been saved. While a very unlikely occurrence, this could be disastrous.

Many people call different versions of the same text by suchnames as NAME.1, NAME.2 and NAME.3. Another way to keep track of different versions is to add the date, like NAME.3-2-83.

GET BUFFER

Copying or moving a block of text from one place to another is a very useful feature. Screen Writer][can do both, either at Command Level, or in Insert or Change Mode.

Let's first work at Command Level.

Copy Text Block

To copy a block of text to another part of the file, place the cursor on the first character of the text you want to move, and press G (for GET). (Remember that at command level you must always press the <RETURN> key after the command.) Then move the cursor to the position just beyond the last character to be moved. Press G <RETURN> again. The block of text between the cursor positions has been automatically saved to a special file called the Get Buffer. Now move the cursor to the point where you would like to copy the text. Press W <RETURN>, and the contents of the buffer will be WRITTEN at that location.

Here's an example. Type:

```
ONE TWO THREE FOUR
five six seven
```

Let's copy 'TWO THREE' onto the second line.

Place the cursor on the first character of the text block to be moved, in this case the 'T'. Press G <RETURN>.

Place the cursor at the position just beyond the last character of the text block to be moved, in this case the space between 'THREE' and 'FOUR'. Press G <RETURN>.

Place the cursor at the point where text should go. Let's put it just after 'five'. Press W <RETURN>.

Result:

```
ONE TWO THREE FOUR
fiveTWO THREE six seven
```

Note that the space that was originally between 'five' and 'six' now lies between the second 'THREE' and 'six'.

Move Text Block

To move a block of text from one place to another, the process is very similar. Place the cursor on the first character of the text block to be moved and press G. Move the cursor to the position just beyond the last character and press D (for DELETE, instead

of G for GET). The text will now be written to the Get Buffer and DELETED from its original location in the text file. Move the cursor to the new location and press W. The EDITOR will WRITE it at the new location. (Of course, you can always WRITE it back to the original place if you make a mistake.)

In the example, the result of using G , D and W would be:

```
ONE FOUR  
fiveTWO THREE six seven
```

An inverse G at the lower right of the screen indicates that you have put in a marker for the beginning of the block of text to be transferred to the Get Buffer but you have not yet marked the end. You may abort a GET sequence by clearing the Get Buffer (see below). There is no marker to tell you whether you currently have text in the Get Buffer.

The contents of the Get Buffer can be written out as many times as desired.

Get Buffer Commands

G	Cursor marks start of text block to copy
G	Cursor marks end of text block to copy
D	Cursor marks end of text block to move
W	Cursor marks location for insertion of text block

Clearing the Get Buffer

The Get Buffer can be cleared by any of the following methods:

1. Pressing Y <RETURN>
2. Putting other text into the Get Buffer
3. Saving your file
4. Typing N (for a NEW file) <RETURN>
5. Leaving the EDITOR

Delete Text Block

You can delete a block of text by marking it with G and D without using W to write out the contents of the Get Buffer.

Suggestion:

If you find it difficult to remember where to place the cursor, it may help to think of a 'text pointer' located at the left edge of the cursor.

When marking a block of text, put in the start mark with the cursor placed on the first character (i.e. the text pointer is just to the left of the first character). Place the end mark with the cursor just beyond the last character (i.e. the text pointer is just to the right of the last character). Now all the characters between the two locations of the pointer have been marked.

Insertions take place at the text pointer, and push ahead the character with the cursor on it, as well as all succeeding text. This is why the cursor is found at the end of the insertion after a Write command.

The Get Buffer works in a similar manner in either Insert or Change Mode, using the commands:

<CTRL G>{text block}<CTRL G>	to copy {text block}
or	
<CTRL G>{text block}<CTRL D>	to move {text block}
and	
<CTRL W>	to write {text block}
	at the new location.

These commands can be a little tricky. We suggest you work with them before proceeding. Be particularly careful about the spaces at the beginning and end of the text block.

FIND

A frequent requirement is to locate a specific word or character sequence in the body of your text. At Command Level, place the cursor at the beginning of the file (use B) and type:

F(the word you want)<RETURN>

DO NOT leave a space between the F and the first character, or the space will be considered a part of the FIND target.

In Insert or Change Mode, use <CTRL F>. Just above the word COMMAND you will see the request to type the character, word or phrase you want to find on the Command Line.

WORD TO FIND/REPLACE

Enter the word or character sequence you wish to FIND, followed by <RETURN>.

EDITOR will locate the target character sequence, and place the cursor just after the last character, in the middle of the text screen. If the character sequence cannot be found, the cursor will move to the end of the file.

The FIND command will search for your phrase exactly as you type it, unless you have set the U flag (see Chapter 6), in which case capitalization will be ignored.

You have now worked with the basic Screen Writer][EDITOR commands. There are many more features (as well as extensions of those you already know) which you will discover later, as you explore the many applications discussed in Section II of this manual.

You will find a summary of the EDITOR commands you have used so far on the Mini-Writer Reference Card enclosed with this manual.

Now, let's move on to RUNOFF, so we can print out some work.

CHAPTER 2

RUNOFF

RUNOFF is the part of the Screen Writer][program which formats and prints your text file.

Before you try to print your work file with Screen Writer][be sure that your printer and computer are working together properly. The Screen Writer][Mini-Writer assumes that your printer interface card has been installed in Slot #1 of your Apple.

If you are not absolutely certain that your printer and computer are working together correctly, go to Appendix C for a simple system test.

If your printer is not responding properly to your computer's instructions, you cannot print with Screen Writer][until you have solved the problem. Consult your printer and interface card manuals. If all else fails, get help from your dealer.

ENTERING RUNOFF

There are two ways to enter RUNOFF.

1. From the EDITOR, at Command Level, type:
X <RETURN>.

You will be asked whether you have SAVED your text, because the file in memory will be erased when you leave the EDITOR.

If you answer N to the question, you will be returned to Command Level so that you may save your text file.

If you respond with Y, Screen Writer][will prompt you to place your Master Diskette in Drive 1, and will execute (run) RUNOFF.

2. From the INITIAL MENU you may type 2 to enter RUNOFF directly.

You will hear the customary disk drive noises, after which you will see the RUNOFF MAIN MENU.

```

                                RUNOFF MAIN MENU
                                Copyright 1982 David Kidwell

SELECT:
  1. Display the TEXT FILE PAGE
  2. Display the OUTPUT PAGE
  3. Print the files
  4. Display the EDIT FORMAT PAGE
  5. Display the PRINTER SPECIFICATIONS
  6. Enter the EDITOR
  7. Save default parameters
  8. Exit

Enter a number or DDOS Command
:
```

Because printers vary a great deal in their behavior, we will experiment a bit with yours. First, though, we must select a text file to print.

TEXT FILE PAGE

Select Option 1 to Display the TEXT FILE PAGE.

```

Screen Writer ][
TEXT FILES

FILE:
10:
20:
30:
40:
50:
60:
70:
80:

ADDRESS FILE:
90:

ENTER FILE NAME i.e. 10:FILE NAME,Dn,Sn
:

C-CATALOG      DDOS COMMAND      Q-MAIN MENU

```

A sample text file is included on your Master Diskette.

With the Master Diskette in Drive 1, type C <RETURN> to view the text file catalog.

You will probably see something like:

```

01: EDITOR-HELP
02: TUTORIAL
03: SAMPLE.TEXT
PRESS ANY KEY TO RETURN

```

Remember the number next to SAMPLE.TEXT, and return to the Text File Page by typing <SPACE>.

Next type:

10:3 <RETURN> (assuming SAMPLE.TEXT was number 3).

At the top of the page, SAMPLE.TEXT will be written next to the 10:. That means that it would be the first file to be printed out if you were printing more than one. If you make a mistake, and the wrong file name appears, merely type in the correct entry. The special C (CATALOG) feature eliminates the need to type long file names accurately, for you need only type a number. DO NOT omit the colon or the <RETURN>; they are both required.

PRINTING

To return to the RUNOFF MAIN MENU, type <CTRL Q>.

Now make sure that your printer is turned on, and the paper is properly loaded.

Select 3 on the Menu, Print The Files, and observe the results.

INITIALIZATION STRING

Most printers and printer interface cards have special initialization codes which must be sent by the computer to wake them up and tell them what to do. For example, your printed text may have come out only 40 columns wide, like your monitor or TV screen display.

If so, let's try putting an "Initialization String" of special characters at the beginning of the text file, to tell the printer to print all the way across the paper.

If your printer is already typing a full width page, follow the instructions for putting the file SAMPLE on your Text Diskette, but DO NOT add any characters to the beginning of the file.

Type <CTRL Q> to exit to the RUNOFF MAIN MENU. Now select 6 to reenter the EDITOR.

Let's use SAMPLE as the name for our new Output File. If you are using a two drive system, your Text Diskette should be in Drive #2, so type:

SAMPLE,D2 <RETURN>

If you are using a single drive system, exchange your Master and Text Diskettes prior to typing:

SAMPLE <RETURN>.

With the Master Diskette in Drive #1, respond to

INPUT FILE? - CR IF NONE

with:

C <RETURN>.

Once more, you will see the numbered catalog. Answer the INPUT FILE? question with the number you see to the left of the name SAMPLE.TEXT (and <RETURN>).

You should now see the beginning of SAMPLE.TEXT on the EDITOR's text screen. Our task is to insert the initialization code which we hope will make your printer happy.

At Command Level, enter INSERT mode with I <RETURN>.

The characters which we wish to insert are: <CTRL I>80N<RETURN>.

But you already know that if you type <CTRL I>, you will be taken back to Command Level. What can you do? If you type <CTRL X><CTRL I>, Screen Writer II will place the <CTRL I> directly into the text, rather than treating it as a command.

<CTRL X> is the command which tells the EDITOR to put the next character into the file just as it is typed.

With the blinking cursor at the very beginning of the file, type:

<CTRL X><CTRL I>80N<RETURN>.

The initialization string will now be the first characters seen by your printer interface card when you type to print your text file.

Return to Command Level and SAVE your file to your Text Diskette.

We will no longer tell single drive users when they should swap Text and Master Diskettes.

Dual drive users should continue to use ,D2 after the text file names given to INPUT FILE or OUTPUT FILEs.

From the RUNOFF MAIN MENU, select 1 , Display Text File Page. Type:

C <RETURN> (two drive systems: C,D2 <RETURN>)

to see the numbered catalog of your Text Diskette.

Dual drive users should continue to type ,D2 when using the C command to list the files on the Text Diskette in Drive #2.

Return to the Text File Page and enter the number of your new file, SAMPLE. For example:

10:2<RETURN>

or

10:2,D2<RETURN>.

<CTRL Q> will take you back to the RUNOFF MAIN MENU. Now select 3 , Print the Files.

If you weren't successful in obtaining a full width printout this time, we suggest that you go through this chapter again, using different initialization codes. Look in your manuals; consult with friends, computer club members with similar printers, or your dealer. In addition, there is a discussion of special printer drivers in Appendix E.

EDIT FORMAT PAGE

Now that you have successfully printed the sample text file, let's look at some of the tools which Screen Writer][uses to do its work. Return to the RUNOFF MAIN MENU by using <CTRL Q>, then select 4, Display the EDIT FORMAT PAGE.

```

                                     Screen Writer ][
                                     EDIT FORMAT

MARGIN                                PAGE                                OUTPUT
Left      :10      Length      :66      Justify    :OFF
Right     :70      Width       :80      Fill       :OFF
Top       :6       St #'s      :2       Case        :M
Bottom    :60      No. Type    :D       Hyphen     :OFF
Indent    :5       Spacing     :1       H. Spc.     :5

Page No. Title:3,r,Page

Title:
1:
2:
3:
4:

Date:

A-LEFT  S-RIGHT  W-UP  Z-DOWN  Q-MAIN MENU

```

This page controls the general format of the printed output. Most of the "print constants" (at the top of the screen) are self explanatory. Chapter 12 includes a complete explanation of each entry, but for now, let's look at a few of the more obvious ones.

The margin settings and page dimensions are set for a standard 8-1/2 by 11 inch sheet of paper.

Page Numbers

Page numbering is controlled by three entries:

St. #'s	:2	Number printing will begin on page 2.
No. Type	:D	Page numbers will be decimal, rather than Roman (you might want to use Roman numerals for an introduction).

Page No. Title: 3,r,Page	The page number will be on line 3, positioned on the right side of the paper, and preceded by the word Page (and a space).
--------------------------	--

You can see on the screen that Screen Writer][indicates a <CTRL> character by underlining the character. For example, on the Edit Format Page, the display at the bottom tells you that <CTRL Z> will move the blinking cursor down the screen from one entry field to the next.

Headers

Let's add a couple of title lines. Using the cursor movement commands shown at the bottom of the page, place the cursor just after

Title:

1:

Type in:

3,c,Gettysburg Address<RETURN>

This will place Title 1, "Gettysburg Address" on line 3, in the center of the page.

Let's add a second title:

2:4,c,by Abraham Lincoln<RETURN>

Note that you may use as many as four title lines, each of which must be laid out in this format:

(line number),(position),(text)<RETURN>

You must type the commas as well as the information.

The same format applies to the date entry. Can you figure out how to place today's date on the left side of the page, on line 3? Try it.

The Page Number entry also uses the same format. Remember to leave a space between your {text} and the <RETURN>. How would you change the page number to the bottom of the page?

Note: The line numbers for page numbers, titles and dates must all lie outside the text margins (either above the top or below the bottom).

Type <CTRL Q> to return to the RUNOFF MAIN MENU.

OUTPUT PAGE

From the RUNOFF MAIN MENU, let's select 2 to see the OUTPUT PAGE.

```

This file:
Page Number:1      Bytes Available:0000
Copy Number:1      Record Number:

KEYBOARD COMMANDS:
B-Begin Printing   E-Halt on error
C-Continue Printing I-Ignore commands
J-Eject Page       P-Pause at Page End
R-Skip Address Rec. S-Stop at File End
DDOS COMMAND       T-Test Print
Q-MAIN MENU        W-Wipe Titles
COMMAND:
```

We'll wait until Chapter 12 for a complete explanation of all these entries, but again, many are self explanatory.

The name of the Text File to be printed can be found just under the dividing line, along with the page and copy numbers.

TEST PRINT

Before we print our SAMPLE text file on paper, let's take advantage of a very powerful Screen Writer {} feature, TEST PRINT. Type:

T <RETURN>

and note that a T appears on the lower right side of the screen.

Now type:

B <RETURN>

to Begin Printing. With TEST PRINT turned on, when you enter B, the text file will be printed to the screen instead of to the printer. This option prints only the first 70 columns of text, so some longer lines may be "lopped off." Don't worry, because all of the text will be printed out when you send it to the printer.

If you are using a television set (rather than a wide-band video monitor) for your display, you may find the letters in the 70 column display are too small to be clearly distinguished.

Use the <SPACE> bar to make the listing stop and start, and to return to the OUTPUT PAGE when you see the word DONE on the lower left side of the screen.

PRINT

Note that the T has disappeared from the OUTPUT PAGE. Type:

B <RETURN>

to print out your text file on the printer. You should see your titles and the date, but no page number, since this short file does not require a second page.

Pause

If you wish to print a multiple page document on single sheets of paper, set the PAUSE Flag by typing:

P <RETURN>

before printing. RUNOFF will PAUSE at the end of each page to permit you to insert a fresh sheet of paper. Press <SPACE> to begin printing the next page.

Wipe

When you are finished printing your file, it is a good idea to type:

W <RETURN>

before leaving the output page, in order to WIPE all the titles and dates from the Edit Format and reset the page number default values.

Other Commands

Here are a few more commands which will prove helpful:

<SPACE>	Interrupts the printing at the end of the current line.
C	Continues printing at the beginning of the next line.
J	Ejects a sheet of paper. (You usually eject only the last sheet.)

In Chapters 1 and 2 we have introduced many of the capabilities of the EDITOR and RUNOFF programs. In the next chapter, we will look at some ways in which EDITOR and RUNOFF can work together for even more powerful text processing.

CHAPTER 3

EMBEDDED COMMANDS

COMMANDS IN YOUR TEXT

In the previous two chapters, you were introduced to many of the basic features of EDITOR and RUNOFF. Now it is time to introduce a further dimension of control with Embedded Commands.

Much of Screen Writer]['s power comes from the use of non-printing commands placed in your text at the time of composition. These commands are executed during RUNOFF, while your text is being printed out. In this chapter you will see how these commands can control margins, titles, page numbers and dates.

Simple manuscripts and papers can be printed out using just the "default" format found on RUNOFF's Edit Format Page. Screen Writer]['s Embedded Command capability allows a complicated document to carry its own dynamic formatting and other special instructions.

If things seem to be getting a bit complicated, remember one thing:

You don't have to learn everything to use Screen Writer][

You need only learn those commands which are useful to you in your specific application. Detailed explanations of every command can be found in Section III of this manual. The Screen Writer][Reference Card provides a quick summary of all commands. For most of your work, especially when you are just starting, you will only need the commands summarized on the Mini-Writer Reference Card.

EMBEDDED COMMAND FORMAT

All Embedded Commands have the same basic format:

```
<RETURN>  
.XX<RETURN>.
```

The first <RETURN> may be at the end of the preceding line, paragraph or Embedded Command. It is omitted only if the Embedded Command is at the very beginning of a text file.

Some Embedded Commands have one or more numbers or characters after them.

```
.XX n  
.XX c
```

A space between the command and the other symbols is required for proper operation of the command.

Embedded Commands may be typed in either upper or lower case.

MARGINS

Instructions can be embedded in the text to set margins which are different from the default settings found on RUNOFF's Edit Format Page.

Remember that each Embedded Command must be placed on a line by itself, followed by a <RETURN>. The previous line must end with a <RETURN>. In this manual, we will only present the Embedded Commands themselves.

Here's how to set the right and left, top and bottom margins:

```
.LM 5      Set left margin to 5  
.RM 70     Set right margin to 70  
.TM 10     Set top margin to 10  
.BM 50     Set bottom margin to 50
```

For example, you might wish to indent a portion of your text, as you have seen in this manual. To do this, simply insert:

```
.LM (new margin)<RETURN>  
.RM (new margin)<RETURN>
```

just before the text you wish indented. Then type in the block of text. RUNOFF will continue to keep the margins at these new values until you specify otherwise with further Embedded Commands.

When you wish to return to your original margins, insert (after a <RETURN>, of course):

```
.LM (original value)<RETURN>  
.RM (original value)<RETURN>.
```

Note that while you are using the EDITOR, you will not see changing margins in your text. Embedded Commands are used only by RUNOFF.

Left margins must always be smaller than right margins, and top margins must always be smaller than bottom margins.

Embedded Commands, in general, override the "default" values that are shown on RUNOFF's Edit Format Page. The exception to this rule is the placement of headers, which are controlled by the Edit Format Page margin settings.

SPACING

Control of the spacing between lines is done by another convenient command. Spacing may be set anywhere between 1 and 256 lines. (Default is single spacing.) To change the line spacing inside the text, use the Embedded Command:

.SS (spacing)	Set spacing
.SS 1	Set single spacing
.SS 2	Set double spacing

FORM SIZE

The Edit Format Page has set the default page size for the standard 8-1/2 by 11 inch page. You can vary the length with an Embedded Command or from the Edit Format Page.

For example, you may want to print onto legal size paper, which is 14 inches long, or 84 lines at 6 lines per inch. Or you may be making labels which are only 6 lines long.

The Embedded Command for form length is:

.FL (length in lines)	Set form length
-----------------------	-----------------

HEADERS

Screen Writer][allows you to print headers above and below the regular text on each page.

Titles

Titles can be set at the Edit Format Page at printing time, or they may be embedded in the text itself. Up to four titles can be specified. Once specified, they can be turned on and off individually at any point in the text.

For each title the following information must be given: title number (1-4), line to print it on, position at which to print it, and the text to be printed.

Format: .TI (number),(line),(position},{text}

Example: .TI 1,4,L,RUNOFF

This would cause the word RUNOFF to be printed left justified, on line four of each page (when title 1 is turned on).

Note that the commas must be included in the instruction.

To turn the titles on or off:

.TO 1 Turn on title number 1

.NT 1 Turn off title number 1

The default condition for an embedded title is ON. Once a title has been specified, it will be printed on every page unless it is specifically turned off again.

It is also important to remember to use the Output Page WIPE command after printing anything which has titles, embedded page numbers or dates, as all embedded titles are entered onto the Edit Format Page, and they may surprise you later when you print something else. (Cautious practice might include going to RUNOFF Page 2 to WIPE when you start to print a new file.)

Page Numbers

You may also specify the format for printing page numbers, in much the same way.

Format: .PG (line),(position},{text}

Example: .PG 2,c,page - <RETURN>

would cause "page - n", on line 2, to be the format for page numbering. Note that you must type the space after the hyphen.

The Edit Format Page (Option 4 on the RUNOFF Menu) will start printing the page numbers on page 2 unless you give other directions.

.NU Turn page numbering on

.NN Turn page numbering off

Screen Writer][keeps track of page numbers, regardless of whether you choose to have them printed. This means that you can begin page numbering anywhere in the text, or number only selected pages. (Another useful feature is that you can print whichever page you choose.)

If you wish to start the number count at some number other than one (for example, to continue consecutive numbering as you begin the second chapter in a series), you may do so:

.PN 7 Set the page number to 7

Date

The date can be printed as part of the page format.

To specify the date:

Format: .DT (line),(position),(text)
Example: .DT 62,C,November 16, 1984

This example would print "November 16, 1984" at the center of line 62 on each page.

Like the printing of embedded titles, embedded date printing begins when the date is specified and continues on each page until it is turned off.

.DA Turn date printing on
.ND Turn date printing off

IMPORTANT: ALL dates, titles and page numbers must be printed outside the top and bottom margins of the text page. Only text may fall inside the specified top and bottom margin assignments.

ALL headers must be printed inside the left and right margins which are set on the Edit Format Page. To keep them consistent while text margins change, the headings are controlled by the (constant) left and right margin settings on the Edit Format Page.

NEW PAGE

A new page will start immediately following the New Page command:

.NP Start new page

TABS

Up to 16 tab stops can be set from within the text with an Embedded Command:

Format: .TS (pos1,pos2,pos3,. . .)
Example: .TS 10,20,30,40

This would set tab stops at positions 10, 20, 30, and 40 relative to the left margin.

To use the tab stops, choose a token tab character with the command:

Format: .TC (character)

Example: .TC #

This would set # as the tab token. Try to select some character (like # or %) that you don't think you'll be using for anything else in your paper. (See Chapter 9 for more on this subject.)

Whenever you type your tab token in the text, rather than printing the character, RUNOFF will move to the next tab stop.

For example, if you set your tab token and tab stops:

```
.TC #  
.TS 10,20,20
```

when the following is put into your text:

```
abc #abc #abc #abc
```

RUNOFF will print:

```
abc      abc      abc      abc
```

To summarize the tab commands:

.TS pos1,pos2,...,posn	Set tab stops at pos1, pos2,...,posn
.TC c	Set tab token to c

Line Centering

To center the next line in your text, use:

```
.CE          Center next line
```

Remember that only the next line will be centered.

JUSTIFICATION

Screen Writer][is able to do right justification, left justification, or full justification. With many printers, though, you will have to change the RUNOFF Printer Specifications in order to take advantage of the proportional spacing capabilities offered by Screen

Writer][with full justification. A full explanation of the justification commands appears in Chapter 13, but we suggest that for the present you stay with the default: left justification.

For those who wish to experiment, here are the justification commands:

.RJ Right Justify

.LJ Left justify

Note: .LJ turns off .RJ, and .RJ turns off .LJ. Only one of these may be active at a time.

.JU Full (left and right) justify

.NJ Turn off full justification, returning the format to the default,
left justified

This chapter has provided an introduction to the most commonly used Embedded Commands. The commands discussed here, along with the EDITOR and RUNOFF commands from Chapters 1 and 2, are all summarized on the Mini-Writer Reference Card.

CHAPTER 4

MINI-WRITER WRAPUP

We've carefully walked through The Mini-Writer in the first three chapters of this Reference Manual. Now it's time to wrap up this part of the product with a chapter on some system features that make using Screen Writer][much easier and more enjoyable.

Before continuing, we'd like to suggest review and practice of the material covered up to now. Later chapters assume a certain level of user expertise with the fundamentals introduced in The Mini-Writer section. Jumping into advanced topics without good control of these fundamentals can result in both confusion and errors. Take a little longer working with the basics; it will pay off in the long run.

INITIAL MENU

The first thing that you see when you boot your Screen Writer][diskette is the Screen Writer Initial Menu. In Chapter 1, we started out by using:

1 EDITOR (NON-RAM CARD VERSION)

This option assumes the "standard" Apple computer with 48K of memory. For those users who don't know what this means, let's just say this is the way it comes from the store. Likewise, Option 2 also assumes a "stock" computer.

Option 3 exits the Screen Writer][program. If you exercise this one, you will find yourself faced with a blank screen and a blinking ']' cursor. This option will not be taken very often by most users, except to use the Fix Sector Count utility.

Things get a little more interesting with the next option:

4 EDITOR (RAM CARD VERSION)

What is a RAM card? A RAM or memory expansion card adds more active memory to your computer, basically giving the machine more space with which to think. The most popular of these accessories is the Apple Language Card, which is what you get when you want to run an advanced language like Pascal or Fortran on your Apple.

What does this extra memory do for us? It allows us to load both EDITOR and RUNOFF at the same time, sparing us the necessity of loading first one, then the other program. This can be a great time-saver, especially for the serious professional user, for whom time is money.

Option 5 is the same as Option 4, except that you begin in RUNOFF instead of EDITOR. The last two options will be discussed next.

CUSTOMIZING SCREEN WRITER][

Screen Writer][is divided into two main parts: EDITOR and RUNOFF. In order to use these programs with both large and small Apple computer systems, as well as many different printers and other accessories, there is a third component, CUSTOMIZE.

CUSTOMIZE is a program that walks the user through a series of questions concerning his computer and how he wishes to use it. At the end of the program, a table of "Default Parameters" is computed to alter the program to fit the user's needs, as expressed by his answers to the questions.

The Customize Default Parameters may be examined by selecting Option 6 on the Initial Menu. Before we run Customize (Option 7), let's see what we're starting with. Type:

6 <RETURN> (to EXAMINE DEFAULT PARAMETERS)

You will be shown a rather cryptic table, which we will now discuss. The parameter identifiers are on the left side, separated from the parameters by an equal sign (=).

The first line tells you which version of Basic is up. For example, Applesoft is the 'native' language in the Apple II plus computer.

The next four lines address the assignment of disk drives in a multiple drive system. Here you tell the program that you have more than one drive, and agree to put your Master Diskette in, say, Drive #1, and your Text Diskette in Drive #2. This means that Screen Writer][will always look for programs and other system files in Drive #1, and go to Drive #2 for text files—unless specifically told to do otherwise with the usual ',D1' or ',D2'. This also means that for most disk accesses, you don't have to use these slot/drive identifiers. Saves a lot of typing!

Spooler refers to an advanced printing feature, which is covered in Chapter 14. Let's get some more experience with Screen Writer][before we use that one.

The Shift Key Modification was discussed earlier in this section. Installation instructions can be found in Appendix D. The parameter would be changed only if you had some other use for the default Switch Input #2.

Memory End/256 is the program author's peculiar way of telling the computerists among us where HIMEM is. When the parameter is 150, HIMEM is in its normal location at \$9600. This number is reduced when special printer drivers or the spooling module are loaded above HIMEM. If you don't understand any of this, don't worry. If you're curious, consult your Apple Reference and DOS 3.3 manuals.

The "Address EOR Mark" concerns address files for form letters, a topic which will be discussed in Section II.

The Game Paddle Option allows game paddles or, preferably, a joystick to be used to move the cursor around the screen. If this option is selected, the game paddles or joystick must be plugged in at all times.

CUSTOMIZE allows you to set up your printer initialization parameters once and for all, instead of having to type them in at the beginning of every text file as we have been doing so far in this Section.

Press any key to return to the Initial Menu. Now press 7 to ENTER CUSTOMIZE. The program begins with a chance to stop, in case you made a mistake when you pressed 7. Your 'Y' response will load the program and display an introductory message. Note that <CTRL C><RETURN> is the means by which you can leave the program at any time, returning to BASIC.

Let's continue by pressing another key. If you have two disk drives, answer Y <RETURN> , so that we can assign the second drive to the Text Diskette. Now you are asked to enter the slot (usually 6) and drive (usually 2).

The next question concerns the Master Diskette assignment. Generally, you will leave this one alone, since the default is the booting or startup slot. Press N <RETURN>.

No, we don't want to get into Spooling right now. Press N <RETURN>.

Let's set up the printer initialization parameters. Answer Y <RETURN> . Don't be put off by the instructions that appear on the screen. The numbers you want, the decimal equivalents of your initialization characters, can be found on pages 138-9 of the Applesoft][manual that came with your computer. If you have any questions, call your dealer and ask him to walk you through this next part.

A frequently used setup string is:

<CTRL I>80N

For example, the Apple parallel interface card requires this string to send lines up to 80 characters long to a printer. Lacking these characters, the card will cheerfully chop everything off at 40 characters.

Using Appendix K (on page 138) of the Applesoft manual, we find that the decimal equivalent of <CTRL I> is '9'. Let's press 9 <RETURN>. The next character is '8', and the decimal equivalent is '56'. Press 56 <RETURN>. The number for '0' is '48', and for 'N' it's '78'. Complete the string by pressing 0 <RETURN>.

Let's skip this next one until we get into form letters. Answer N <RETURN>.

The LIST command will be covered in the next chapter. Let's accept the default values until we have reason to change them. Press N <RETURN>.

If you have made, or wish to make, the shift key modification as described in Appendix D, answer 'Y' here. Then select Option 4, unless you have a good reason to avoid Switch Input #2.

If you have a special driver for your printer, the next question will permit you to make room for it in memory. Some interface cards require a special driver for backspacing or proportional spacing. See Appendix E for further information. Answer N <RETURN> unless you have specific cause to do otherwise.

Let's skip the 'mouse' for now. You can always reconfigure your system if you decide to try it out later on.

Now check the Default Values as they are displayed on the screen. If you have any questions, go back to the beginning of this section where we discussed each of these terms in detail. If you are satisfied with your choices, press Y <RETURN> to accept.

When the system has quieted down again, it will have been customized per your choices. When conditions change, and especially as your understanding of Screen Writer][deepens with practice, feel free to reconfigure the system to meet your evolving needs.

MACROS

A very useful feature is the MACRO. This command allows you to replace a lengthy sequence of keystrokes with one. Of course, you lose the original function of the keystroke used as your macro, but that's a small price to pay for the increased convenience gained with this feature.

Here's an example. Imagine that you're writing a Reference Manual for a popular word processor with a long name, like Screen Writer][. You might have noticed that we've used that name from time to time in the text. Would you believe that we've only typed that character sequence once? That was to set up the macro. The rest of the time,

including just above, we just typed <CTRL O>. The <CTRL O> command is not one that we would use in writing a Reference Manual, so we were able to save both time and potential errors by using <CTRL O> as a macro.

Setting up a macro is easy. Let's walk through how we set up our example. Press:

%<RETURN>

You will be asked just above the Command Line what character you wish to replace. Type in either a printing character (such as #) or a non-printing control character. In this case, press:

<CTRL O><RETURN>

Now you are told to input your character string, using <RETURN> to tell the program that you have reached the end of your macro. Type in:

Screen Writer][<RETURN>

Don't be confused or surprised when the prompt message disappears with your first keystroke.

The two brackets are obtained by pressing the following sequence:

<SHIFT CTRL M><SHIFT CTRL I>

(Note that these characters only work with the shift key modification installed.)

You can combine several macro character sequences, up to a total of about 110 characters, into a file called a Macro Table. In preparing this manual, we used a Macro Table containing five macros; three entered frequently used character sequences and two made quick changes in embedded margin commands to indent blocks of text.

Save your Macro Table with:

!{name of macro}<RETURN>

The Macro save and recall commands use the usual slot and drive notation. Macros cannot be saved to your Text Diskette. Usually they are kept on your Master or Library Diskette in Drive #1. To recall a macro, for example after you've just started up, use:

"{name of macro},D1<RETURN>

Make as many Macro Tables as you need to support your different writing environments. You may have only one active Macro Table active at any time; however, this one Macro Table can contain many individual macros, each replacing a different key.

WRAPUP

There you have it—The Mini-Writer. This "subset" of the full SCREEN WRITER][command set is a powerful word processor in its own right, certainly the equal in capability to many other products on the market.

Where do you go from here? Anywhere that involves the handling of text or text files. You name it—short letters, brief papers, complicated reference manuals (like this one), BASIC programs, or EXEC files—all are fair game for SCREEN WRITER][.

In the chapters that follow, we will endeavor to show you, by way of examples and applications, how to extend your knowledge of SCREEN WRITER][. No one expects you to understand and use every command from memory; that's why we've included two command reference cards with this manual. One is for The Mini-Writer, and the other contains the full, unexpurgated SCREEN WRITER][command set. Use these cards regularly; they can save you a lot of uncertainty, especially while you're just beginning to get used to SCREEN WRITER][.

Section II, *The Creative Writer*, was not intended for reading straight through, as was this section. Instead, try to identify your own requirements and start working with those application sections. The first two Creative Writer chapters are important for everyone, as is Chapter 9, which discusses Formatting. But concentrate on learning about what you need to do your job. Then take a look at the rest of the product.

There's a lot here; it should keep you busy for a while.

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CHAPTER 5

INTRODUCTION TO THE CREATIVE WRITER

We have directed this section of the Reference Manual to the serious writer. Whatever your professional or personal goals may be, if you wish to make the most of your writing skills, these chapters were written for you.

PREFERRED HARDWARE CONFIGURATION

Before introducing the topics covered in Section II, let's talk about computer hardware. While Screen Writer][will run quite happily on a "minimum" Apple II system with a single diskette drive, the serious writer should consider these useful system upgrades:

1. Shift Key Modification

This inexpensive, easily installed upgrade allows you to use the Apple II shift key just like that of a standard typewriter. Because we feel that any serious user will make this modification, we will no longer refer to the use of <ESC> for entering <SHIFT> commands. (You may, however, use all the Screen Writer][commands without making the modification.) See Appendix D for installation details.

2. Two Disk Drives

Screen Writer][is a large and complex program which does not permit saving your text files on the Screen Writer][Master Diskette. You will need separate Text Diskettes to store your collection of text files. When you went through the Tutorial in Section I, you saw how often it was necessary to replace diskettes if you were using a single drive system. You can avoid this distraction by assigning the Text Diskette to the second disk drive when you customize your Screen Writer][Master Diskette (Option 7 on the Initial Menu).

3. RAM Card

Expanding your Apple's internal memory from 48K to 64K costs less than \$130.00 and offers several interesting benefits to the serious Screen Writer][user. First, EDITOR and RUNOFF can be co-resident in memory, thus eliminating the wait while one program or the other loads from the Master Diskette. Now it's simply a matter of a few keystrokes and you're there—almost instantly! Further, your RUNOFF defaults won't be wiped out by reloading the program every time you use it.

Second, you may remove your Screen Writer][Master Diskette from Drive #1 and replace it with what we will call a Library Diskette. Instead of saving a small number of system files—macros, RUNOFF defaults, and EDITOR formats—in the limited amount of free space on your Master Diskette, you'll have an entire diskette available for system utility storage.

Third, you can reduce wear on your invaluable Master Diskette, since you will have to only use it once each session, to boot the system and load Screen Writer][.

4. Video Monitor

The crisp, clean display of a good video monitor—especially the "green screen" variety—is vastly superior to that available on a standard television set. Eyestrain is reduced considerably, especially when you use your computer for long periods of time.

All Screen Writer][functions can be used with the minimum hardware—that is, a single disk drive—configuration. THE MINI-WRITER was developed with this in mind, which is why we carefully led you through each of the introductory exercises, including replacement of diskettes in a one drive system.

However, as your needs grow, and as more advanced applications are encountered, you'll find that additional computing resources will rapidly become quite cost-effective.

INITIALIZING TEXT DISKETTES

Initialization of Text Diskettes is the first step in the process of creating a new file. This procedure prepares a blank diskette for storing text files, by recording the physical structure into which your data will be placed by SCREEN WRITER][. This process wipes all previous information, both timing and data, from the diskette. When you reinitialize a Text Diskette, be prepared to throw away everything that had been recorded previously—you'll be starting with a clean slate!

SCREEN WRITER][has two utilities which are used in the preparation of text diskettes. The first is the EDITOR asterisk command:

*** ,Sn,Dm** Initialize the diskette in Slot n (usually 5 or 6) and Drive m (1 or 2). Answer the confirming inquiry 'Y' and the process will begin.

!!! WARNING !!!

DO NOT use the asterisk (*) command with a work file in memory, for you will probably lose most or all of your text. SAVE your work BEFORE initializing new Text Diskettes with this command.

The second utility is FIX SECTOR COUNT on your Master Diskette. This program must be BRUN from Basic (that's a ']' prompt); it will not work with SCREEN WRITER][up and running. The program is self-explanatory. Unless you have a good reason to "boot" your Data Diskettes—for example, you're going to use one for your Library Diskette—take the 'extended' option, which recovers most of the DOS sectors for storage.

Don't wait until you are in the middle of a work session, when you must save your work file or risk losing it. Prepare a box or two of initialized Text Diskettes now, before you begin work.

!!! WARNING !!!

Before you begin, apply a write protect tab to the notch on your Screen Writer][Master Diskette. Don't take any chances! Remove this tab only when it's necessary to save a default set of RUNOFF parameters or to run the customization program. Then use a fresh tab to protect your Master Diskette from those impossible accidents which nevertheless always seem to happen.

1. Set up a 'dummy' work file, using any text file as an Output File, then <RETURN> to obtain an empty work file. On the Command Line, type:
*** ,S6,D2** (to use Drive #2)
2. Place the first diskette to be initialized in Drive #2 and close the gate.
3. Answer 'Y' to begin the initialization process.
4. Repeat for all the diskettes you wish to use as Data Diskettes. With a felt tip pen, identify each diskette as having been initialized. A simple 'I' or 'SW2' would do.

5. When you have finished initializing all the diskettes at hand, Quit SCREEN WRITER][(type 'Q' and answer 'Y'). From Basic, type 'BRUN FIX SECTOR COUNT'.
6. If you haven't used FIX SECTOR COUNT before, select option 3 and read the instructions. Remove your Master Diskette from Drive #1 and replace it with one of the diskettes you just initialized.* Close the gate and press <RETURN> to process the diskette. Repeat as for each of your newly initialized Text Diskettes.

*Select Option 2, 'Expanded Text Disk.'

This completes the initialization procedure. Remember, do not initialize Text Diskettes when you have an active work file in your computer memory.

YOUR PERSONAL TOOLBOX

The Creative Writer shows you how to tailor the vast resources offered by Screen Writer][to meet your personal needs. Few of us will ever find it necessary to use every command and feature in this product. Most likely, you will determine, as you work your way through this manual, what tools work best for you. Picking up these tools and putting them into your toolbox is what this section is all about.

We'll begin with a chapter on Advanced Editing, which introduces those EDITOR commands not covered in THE MINI-WRITER. Then we'll discuss a number of specific applications, with sample formats and setups that you are encouraged to use as starting point in creating your own text processing system. Finally, we'll look at RUN OFF and the Embedded Commands again, this time from the perspective of experience.

A detailed description of every command and menu can be found in Section III, THE COMPLETE WRITER. We suggest you consult this material frequently, as questions arise regarding detailed rules of use, syntax, buffer size and the like.

YOUR LIBRARY DISKETTE

One of the handiest utilities you can build with Screen Writer][is your own Library Diskette. This is your "system storehouse," a place to save the various macros and editing formats that will define and support your working environment.

For example, you might not be completely happy with the Apple II keyboard layout because several key assignments don't agree with those of the "standard" typewriter. No problem—just write a macro that redefines the offending keys and save it on your Library Diskette!

Similarly, you may find several "standard" letter formats useful. You could save them on your Library Diskette as, say, BHEAD (for business letters), PHEAD (for personal letters) and DHEAD (for informal drafts).

If you prepare contracts, reports or proposals that contain frequently re-used blocks of text—often referred to as "boiler plate"—store them on your Library Diskette. Using Screen Writer]['s flexible file merging capability, you can quickly assemble any "custom" combination of stock paragraphs and new text, with a minimum of typing.

Let's prepare a Library Diskette for use on your system:

1. Initialize a fresh, good quality diskette, per the procedure described previously. You may not wish to remove DOS from this diskette, because you will be using some utilities on this diskette independently of SCREEN WRITER][. Further, it will be very handy to be able to boot this diskette.

Label the diskette with the title, "Library Diskette," your initials and the date. (No ball point pens on the diskette, please.)

2. Copy EDITOR-HELP and FIX SECTOR COUNT from your Master Diskette onto your Library Diskette. EDITOR-HELP contains the HELP messages used by the H and <CTRL Q> editing commands. This task can be done most conveniently with FID, the file utility found on the Apple II DOS 3.3 Master Diskette.

3. Print out a Catalog listing and tape it to the Library Diskette envelope, so that you can see at glance what you have saved on this diskette.

The Library Diskette is your personal tool box. In addition to using it to save your RUNOFF formats, EDITOR macros and frequently used blocks of text, you can use your Library Diskette as your RUNOFF spooling diskette. When you wish to save a file segment with the GET command sequence, save it on your Library Diskette; remember, Screen Writer][does not permit saving the contents of the GET Buffer to the Text Diskette containing the current Output File.

One more thing: back up your Library Diskette frequently. Accidents can—and will—happen; it's best to be prepared for them so you're not unpleasantly surprised.

PREFERRED FILE HANDLING TECHNIQUES

Proper file handling is the key to convenient and safe use of SCREEN WRITER][. You have already seen several warnings about keeping support files (such as macros, default RUNOFF parameters and Get Buffer contents) on diskettes separate from those containing your Output Files. This is the principal reason for the use of a Library Diskette.

It would appear that few precautions need to be taken for short letters or papers of just a few pages. This can lead to carelessness when working with large files or crowded diskettes. Prudence dictates that certain precautions be taken at all times. For example, don't use the same text file for both Input and Output. Don't try to fill your diskettes "all the way up." Leave plenty of space for the inevitable expansion of your files. Further, SCREEN WRITER][requires free space on the diskette at least equal to the size of the file that you are trying to save. This means if you wish to save a 50 sector file on a diskette, you should have at least 100 free sectors available, or you will get a DISK FULL error, and risk "trashing" your files. If you wish to check how much space remains on a crowded disk, use FIX SECTOR COUNT to obtain this information, as well as to rationalize the files themselves.

Large files should be broken down into smaller ones which don't exceed a few dozen sectors. As you gain more experience with SCREEN WRITER][, you will find that large files are not as easy to handle as smaller ones. Because of this, there are a number of embedded commands which "tie together" file segments. This allows you to assemble large jobs, such as this reference manual, out of smaller and more easily manipulated blocks of text.

Life being what it is, however, small files will inevitably grow into large ones. Understanding this, we discuss the creation and maintenance of large files in Chapter 6, in the section FILE INTEGRITY.

Apple's FID utility is an excellent way to back up files. One advantage in using FID over a straight diskette copy program is reduced diskette access time. FID will put down your files in continuous sectors on the diskette, while a diskette copy program like COPYA will leave the file sectors scattered all over the diskette. FID also does all sorts of other handy things; you may want to add it to your Library Diskette—using FID, of course!

Don't try to use SCREEN WRITER][without thinking things out. Develop a file strategy based on the intelligent use of the three types of SCREEN WRITER][diskettes: the Master Program Diskette, the Library Diskette, and the Text File Diskettes. All important files should be backed up regularly, and the diskettes themselves should be treated with the respect and consideration your work deserves.

CHAPTER 6

ADVANCED EDITING

This chapter will introduce you to the more advanced editing features offered by Screen Writer][. The remaining chapters in this Section illustrate how you can apply SCREEN WRITER][to a wide variety of interesting applications.

You will find some of the EDITOR commands introduced here useful right away; others you may decide aren't for you, at least at the beginning. No doubt you will create some of your own command sequences with keyboard MACROs. Working with examples, such as the text samples found on your Master Diskette, will get you started very quickly.

DELETE AND UNDELETE

In many cases, the commands used in Insert or Change Mode are the same as those at Command Level, except that they involve the simultaneous use of the <CTRL> key. Here are some new ones for you to try out now:

K or <CTRL K>	Deletes from the character under the cursor to the end of the line. This is commonly known as "killing" a line.
-K or <SHIFT CTRL K>	Deletes from the character to the left of the cursor to the beginning of the line. Careful: if the cursor lies on the first space or character in a line, the preceding line will be deleted.
<SHIFT CTRL Q>	Deletes all characters from the cursor to the next space or <RETURN>.

If you should delete something by mistake, don't lose hope! Deleted characters aren't just thrown away. Instead, they are stored in the Delete Buffer, a space in memory

255 characters long. Deleted characters are put into this buffer at one end. When the buffer is full, they "overflow" out the other end and are only then lost to you. The Delete Buffer therefore contains up to the most recent 255 characters that have been deleted, whether by the D (character delete), the K (line kill), or the <SHIFT CTRL Q> (word kill) command.

<SHIFT CTRL W>	Writes the last characters deleted (up to 255, in last-in, first-out order) to the screen at the cursor location.
<SHIFT CTRL Y>	Clears the Delete Buffer.

A word of caution here. Should you delete a line of text "backwards," say, by using <CTRL SHIFT D> a few times, recovery will also be, well, sdawkcab.

CASE CHANGE

Here's how to change the case of individual characters in your text file:

<CTRL L>	Changes the case of the letter <u>under</u> the cursor (lower to upper, or upper to <u>lower</u>). Cursor moves on to next character.
<SHIFT CTRL L>	Changes the case of the letter <u>to the left</u> of the cursor. Cursor then moves on to changed letter.

Note that both of these commands can be used with the <REPT> key for rapid changes of text lines.

CURSOR MOVEMENT

There are many powerful ways to control cursor movement with SCREEN WRITER][. Some commands do not affect the text position as observed on the screen; others reposition both the text and cursor relative to the screen boundaries.

<CTRL J>	Moves the cursor down the screen, maintaining the same horizontal position on the screen.
<SHIFT CTRL J>	Moves the cursor up the screen, also at the same horizontal screen position.

Both of these commands will work across paragraph boundaries.

Note that the J command at Command Level has a different function—right/left cursor movement—from <CTRL J> in Insert or Change Modes. (In Insert/Change Mode, the left and right arrows are used to move the cursor horizontally, while <CTRL J> moves the cursor vertically.) This is one of the exceptions to the general rule of command similarity in the EDITOR.

You can also make the cursor jump over whole words in either direction.

<CTRL Z>

Moves the cursor to the next space or <RETURN> in the forward direction. This usually results in the cursor "hopping over" words—unless, of course, you have a few consecutive spaces or carriage returns to deal with first.

<SHIFT CTRL Z>

Moves the cursor to the next space or <RETURN> toward the beginning of the file.

SCREEN TABS

The numbers under the word COMMAND on the screen indicate screen tabulator stops. These can be changed from Command Level by using the following command:

Tn,n,n. . .

Sets screen tabulator stops (to a maximum of 8).

Here's how to use the tab stops:

<CTRL T>

Moves cursor to next tab stop, filling in with spaces.

Screen Tabs permit you to see at once how your text page will look when printed out. You have two Tab "ranges" available to you, 40 columns and 70 columns. The 40 column (or character) screen width is the standard display, which uses the conventional character set. SCREEN WRITER]['s 70 column screen is optional, and it uses somewhat smaller characters.

The wide screen is most useful for constructing "full page width" tables, when the 40 character "wraparound" can be quite confusing. The 40/70 column screen selection is made with these commands:

40c

Default. Return to standard display.

70c

Optional. Go to 70 column display.

Actually, you can assign any page width between 10 and 70 with this command. There are only two character sizes. Any width over 40 columns will use the smaller character set.

As you construct your "full width" table, be aware that your RUNOFF or LIST margin settings may require a specific column width setting. For example, if your margins are 5 and 65, you should set the screen width to 60c, to avoid surprises later on.

Screen Tabs set on the 40 column text page have a range of only 1 to 40. If you wish to use Screen Tabs in the range from 41 to 70, you must first set the screen width to the appropriate number between 41 and 70.

Screen Tabs will remain set to whatever values you assign, until you either reassign them or reboot your Master Diskette. Caution—since the Screen Tabs fill in the otherwise unused part of the line between stops with spaces, be careful not to enable RUNOFF's full justification feature while printing out tables constructed in this manner. With Justification ON, extra spaces would be added during printout to make the text line up evenly, which will probably destroy your original layout.

CURSOR AND TEXT MOVEMENT

Often, you will find that pushing aside the text between the cursor and the bottom of the screen appears to delay your typing. You may, however, type as fast as you wish without losing characters, because SCREEN WRITER][stores text quite quickly in a Keyboard Buffer while writing somewhat more slowly to the screen. The only exception to this is during "spontaneous"—that is, program initiated—disk file access, when you have to be careful not to drop characters while the computer is "talking to" the disk drive.

It is far less confusing (and less risky, too) if you move the line you are working on to the bottom of the screen. Because Screen Writer][doesn't have to relocate so many letters each time you press a key, the appearance of program reaction to your input is much faster.

A little experimentation will quickly demonstrate how much faster you can enter text at—or near—the bottom of the screen. With the cursor at the top of the screen, SCREEN WRITER][has to rewrite the entire text page with every keystroke. Fast as your Apple computer may be, all that work takes time!

Here's a command to use to speed up text entry:

<SHIFT CTRL N>

Moves the cursor to the bottom of the screen without altering its relative position within the text, by scrolling the text page down. (If you are on the very first page of your text file, nothing will happen, because the beginning of your file is "nailed" to the top of the screen.)

Be careful! If Screen Writer][uses the disk while you are typing, you may lose a character or two just as the drive starts to spin. Check for this if you hear the program saving or loading text.

Other commands for moving text on the screen are the following:

<CTRL N>

Moves cursor and surrounding text to top of screen. (If used on the last page of your text file, everything except a blinking cursor will be pushed off the top of the screen.)

<SHIFT CTRL C>

Moves cursor and text to middle line of screen. Caution: this command won't work when the cursor is at the end of the text file and the bottom of the screen.

FILE INTEGRITY

If you have been doing a lot of editing (particularly insertions), Screen Writer][will make better use of memory and minimize the chances of "hashing" your text files if you frequently 'pack' your text with this command:

Z

Packs text in memory.

This command straightens out the complex relationships that you have created throughout your work file during the editing process. This command is automatically executed every time you save your file, another reason to save your work file to diskette regularly.

While the convenience of having EDITOR and RUNOFF co-resident in memory cannot be denied, the advantages of the additional 16K memory available in your RAM card during extended editing sessions are substantial. Memory expansion will cut down on the number of program directed diskette accesses, because more of your working text file can reside in active computer memory.

FIX SECTOR COUNT can be used to free up most of the DOS sectors on your Text Diskettes. However, an equally important application is rationalizing file sector usage on SCREEN WRITER][Text Diskettes. We suggest frequent use of this utility if you save work files to SCREEN WRITER][Output Diskettes.

A very effective technique to maintain the integrity of large—say, more than 50 sectors—jobs is to keep your Text Files physically away from the SCREEN WRITER][Output Diskette. The reasons for this may not be immediately obvious. Let's look into it briefly.

SCREEN WRITER][has the capacity to generate a text file containing 65,535 characters, or 256 sectors of diskette storage. This is equal to the entire '64K' address space (65,535 bytes in real numbers) of your Apple][computer. All that text won't fit in your computer at once, along with the program and operating system; something has to give. The answer is the creation of a "virtual" or phantom memory space on the SCREEN WRITER][Output Diskette.

When the available Apple computer memory fills up, the program saves part of your work file to the SCREEN WRITER][Output Diskette. This is the reason the disk drive assigned to the Output File goes on and off from time to time as you work, with no apparent prompting from you.

As you might imagine, this file support process becomes quite complex, especially when you do a substantial amount of editing on a big work file. (Just listen to your drive noises some time!) As your file grows larger, the opportunity for error increases rapidly.

Our suggestion for the most reliable file handling technique is NEVER save a working text file to the SCREEN WRITER][Output Diskette. NEVER use the command 'S<RETURN>'. Instead, use:

S{filename},Sm,Dn<RETURN>

where Sm and/or Dn identify a disk drive other than the one assigned to the SCREEN WRITER][Output Diskette.

For example, with a two drive system, you would assign Drive #2 as the default Text Diskette when customizing your Master Diskette. This reserves Drive #2 for the SCREEN WRITER][Output Diskette, the one used for virtual memory. Once this assignment has been made, Drive #2 cannot be used for anything else, or SCREEN WRITER]["will lose its place" and you'll "trash" your files.

After booting with your customized Master Diskette, you would normally replace it with your Library Diskette. At this point, proceed as follows:

1. Place an initialized diskette labeled 'TARGET' in Drive #2. Designate filename 'TARGET' as your Output File, regardless of the name you assign to your work file.
2. For a new file, either start clean (with <RETURN>) or load an Embedded Command format from your Library Diskette.
3. If you are editing previous work, replace your Library Diskette in Drive #1 with the diskette holding your Text File, and load your work.
4. If you have further need of your Library Diskette at this time, replace it. Otherwise, leave your Text File Diskette in Drive #1 so you can save to it conveniently.
5. Begin work. SCREEN WRITER][will access TARGET as required during your editing efforts. Fine; just don't YOU write anything to Drive #2!

6. When you wish to save/back up your work file, DO NOT save in the usual manner. Instead, save to your Text File Diskette in Drive #1, using:

S{filename},D1<RETURN>

You may use either the original filename, or a variation, such as FILENAME.2, to preserve the original Text File.

7. At the end of your work session, we suggest saving your Text File to a second Text Diskette—NOT the one in Drive #2—so that you will have a backup copy of your work. For a two drive system, this diskette would have to be placed in Drive #1.

The key to reliable use of large text files is to separate SCREEN WRITER][’s complex virtual memory processes from the standard Apple text file saving procedures. Because you never save anything to TARGET, the SCREEN WRITER][Output Diskette, there is never any permanent record of your work there. Consequently, it’s not necessary to re-initialize this diskette before tackling a new job.

With a four drive system, you avoid most diskette transfers. The drive assignments are as follows:

Slot 6	Drive #1	Master/Boot Library/Utility
	Drive #2	TARGET (SCREEN WRITER][Output)
Slot 5	Drive #1	Input/Output Files, Backup
	Drive #2	Input/Output Files, Original

The latter assignment is made to permit saving files typing only ‘S5’, instead of the full ‘S5,D1’ descriptor.

You may now save the usual number of files on your Text Diskettes. However, we suggest that you keep track of the number of sectors remaining (with FID or FIX SECTOR COUNT), so that you don’t try writing to a full diskette.

DOS error messages, such as I/O ERROR and DISK FULL, will not be displayed. You will, however, hear the usual ‘beep’. Save your work file to an empty initialized diskette to bail out from such situations.

SEARCH

Screen Writer][has a powerful Search and Replace capability, which can be accessed either from Command Level or from Insert/Change mode. As you will see below, the REPLACE function is closely related to the search or FIND command. These commands have some distinctive and useful characteristics. We recommend that you

carefully work through a file containing several screen pages of text. As an initial target string, try using 'the' so you can see how the commands operate on words which are "on screen," as well as "off screen."

It's not necessary to start every FIND at the beginning of the file, as described in Chapter 1. Like most Command Level instructions, FIND can be executed anywhere in your text file, and direction can be reversed with a minus sign.

Screen Writer][will search from the cursor to either end of the file for the specified target string. If the command is preceded by a minus sign on the Command Line, the search will move from the cursor toward the beginning of the file. The usual Command Level multipliers also apply to FIND. For example, to find the 5th occurrence of the word 'cursor' in your file, type '5Fcursor' at Command Level. The cursor will stop just beyond the 5th occurrence of the text.

<code>snF{text}</code>	Find the nth occurrence of {text} in either the forward (+ or no sign) or backward (- sign) direction.
------------------------	--

Similarly, <SHIFT CTRL F> in Insert or Change mode will cause Screen Writer][to search from the current cursor position back to the beginning of the file. In this case, however, the message 'WORD TO FIND?' appears just above COMMAND at the bottom of the screen. Type in the target string on the Command Line, then <RETURN> to initiate the search.

When you have completed a successful "forward" search, the cursor will be placed one character after the target string, which will have been moved to the middle of the screen. At the end of a successful "backward" find, the cursor will lie on the first target character, again at the middle of the page. When FIND has been used in this manner, you may search again for the current target string by entering one of the following commands:

`F<RETURN>` or `-F<RETURN>`
or
`<CTRL F><RETURN>` or `<SHIFT CTRL F><RETURN>`

Screen Writer][maintains a separate Search Buffer; the current target string is kept there until changed by defining a new target. Consequently, you may execute other editing operations after FIND, such as typing in some additional text, then use an F command to jump to the next occurrence of the target string and continue editing at that location.

A search, once initiated, will continue until either a match has been made or the end of the text file has been reached; you cannot interrupt this process while in normal mode.

There are several extensions while searching through a Text File.

One of the most useful extensions is the Wild Card character, which allows you to specify only a portion of the Target String. The equal sign (=) has been assigned the Wild Card or "anything" character function in string searches. One '=' is required for each wild card character.

For example:

-Ftr = = h (at the Command Level)

would search from the current cursor position toward the beginning of the file, looking for a string that begins with 'tr' and has an 'h' in the fifth position. This search could produce 'truth', as well as 'trash'—or 'dystrophy'.

One use for this feature could be to ignore case changes in unique words. For example:

F = ou

would match 'You' and 'you', but it would also catch 'would'. Judicious inclusion of the spaces before and after words can be quite helpful. Here's another example:

F<SPACE> = ou<SPACE>

would restrict the selection to 'You', 'you' and any other three letter words ending in 'ou'.

THE 'U' FLAG

The 'U' Flag allows the EDITOR to ignore upper/lower case distinctions. When set (as indicated by an inverse U by the sector count at the lower right of the screen),

Fyou

will stop after either 'You' or 'you', or, for that matter, 'YOU', 'yOU', 'YoU' or 'YOU'.

At the Command Level, the 'U' Flag is 'toggled'—turned on and off—by pressing the 'U' key (and <RETURN>). In Change or Insert Mode, use <CTRL SHIFT U> or <SHIFT → >. Note that <CTRL U> is functionally equivalent to < → >; both commands advance the cursor one position to the right.

THE 'V' FLAG

The 'V' (or Verify) Flag is set by pressing 'V' at Command Level or <CTRL V> in Insert or Change mode.

Enabling the 'V' Flag causes Screen Writer][to stop at each occurrence of the target string as the program scrolls through your text file. If you wish to stop the search and proceed with your editing, press <ESC>. In a FIND sequence, <RETURN> will cause the EDITOR to scan for the next appearance of the target string. In a REPLACE sequence (see below), a <RETURN> will cause the scan to continue without replacing the word. Any key other than <ESC> or <RETURN> will cause the replacement to be made, after which the scan will continue.

The 'V' Flag also causes the text to scroll up or down the screen during the search, and disables the placement of the target word at the center left of the text screen. This feature can be very helpful when looking at frequent occurrences of the target string, concentrated in a relatively short part of the file.

A bit of caution is in order when using this flag, particularly with long files. The search process is slowed down considerably by the sequential display of the text file. Much faster searches are possible with the 'V' Flag disabled.

REPLACE

The REPLACE function is closely related to the FIND command discussed above. Where the FIND sequence is intended to locate a particular text string in the body of your file, REPLACE finds and offers the option of replacing the target string with a user defined Replace String. For example, to replace the next occurrence of the word 'cursor' with 'blinker', simply type:

```
Rcursor<CTRL R>blinker<RETURN>
```

on the Command Line and the change will be made.

Or type:

```
25Rcursor<CTRL R>blinker<RETURN>
```

and the first 25 appearances of 'cursor' will be REPLACEd with 'blinker'.

Screen Writer][can also perform a global REPLACE function. To change the word 'command' to 'polite request' throughout your text file, it isn't necessary to go through systematically REPLACIng each occurrence. At the Command Level, type

```
0Rcommand<CTRL R>polite request<RETURN>
```

The zero used with REPLACE instructs the EDITOR to replace all occurrences of the target phrase with the replacement string.

```
0R{oldtext}<CTRL R>{newtext}
```

Replaces all occurrences of {old-text} between the cursor and the end of the file with {newtext}

-R{oldtext}<CTRL R>{newtext}	Replaces all occurrences of {old-text} between the cursor and the beginning of the file with {newtext}
------------------------------	--

Remember that you can't FIND or REPLACE the Wild Card equals sign (=). If the program were allowed to recognize the equals sign as a target, it would interpret your request as a wish to find or replace every character in your file!

You may use moderately long strings, bearing in mind that the total number of characters on the Command Line, including both target and replace strings, cannot exceed 63. When typing in your command string, don't be surprised when the Command Line scrolls for you; you will hear some 'beeps' when you are a couple of characters from the end of the buffer.

LIST

A convenient feature of Screen Writer][is the ability to list the file in memory to the printer without leaving the EDITOR. See page 99, in Chapter 11, for details on using this command.

SAVE FILE SEGMENTS

You have already SAVED whole files many times in your use of SCREEN WRITER][. Now let's see how you would save only a segment of your text on a Text Diskette. The principal restriction: you CANNOT save your file segment to the same diskette that holds your current Output File. Since you can't safely remove your Text Diskette from the disk drive assigned to it when you began, this operation is restricted to systems with two or more drives.

Proceed by first placing the desired text into the Get Buffer, using the Move or Copy commands discussed in Chapter 1. At Command Level, use the following sequence:

{name},Sn,Dm	Saves contents of Get Buffer, as {name} to the diskette in Slot n, Drive m (not the same diskette as the one which holds your current Output File!)
--------------	---

MERGE

Text files which have been previously written to Text Diskettes can be merged with a current work file. Simply place the cursor at the location in the text at which you wish to insert the contents of the file on diskette. At Command Level, type:

M{name},Sn,Dm

Merges contents of text file named {name} on diskette in Slot n, Drive m with the text at the location of the cursor. Your diskette file is not affected by this operation, which leaves the cursor at the end of the new text segment.

HELP

Another important user resource is the HELP file, which is included on your Screen Writer][Master Diskette. This file provides an on-screen listing of the EDITOR commands and an explanation of their functions. To access the HELP file from either the Command Line or the screen, the commands are:

H or <CTRL Q> Loads the HELP menu.

To obtain information on a specific command, type the appropriate letter from the HELP menu. For information on a control character, type the letter without the <CTRL> key. For example, to find out about <CTRL K> or <CTRL SHIFT K>, type only K . To return to your text file in EDITOR, type <RETURN>.

KEY CLICK

For some people, typing on the Apple][is uncomfortable because it is too quiet. Screen Writer][provides a command which makes a clicking sound with the computer loudspeaker whenever a key is pressed. On some Apples, unfortunately, the sound is nearly inaudible, so listen carefully.

O (Not zero!) At Command Level Toggles key click.

Note that <CTRL O> does NOT toggle the key click. The control "version" is used instead to insert a marker for an advanced feature called overprinting, which you will read about in Chapter 9.

LITERAL CHARACTER ENTRIES

There may be times when you wish to include a control or other special character in your text (for example, to send instructions to your printer) A control character typed directly after <CTRL X> will be entered into the text literally as typed:

<CTRL X> Store next character as entered; do not interpret as a command.

For example, if your printer requires a special setup string beginning with <CTRL I>, you would type:

<CTRL X><CTRL I>{rest of setup string}

SUMMARY

If the wide array of commands discussed in this chapter seems overwhelming, begin by using only those with which you feel comfortable. The Complete Writer Reference Card provides a convenient description of all the available commands; learn to use it regularly in your work.

In this chapter, you were shown how to manipulate both text and cursor in a very flexible manner. As with any powerful tool, the true value of the system lies with the user. The chapters following will introduce you to many different applications, several of which will probably be of immediate interest to you. Of particular importance is Chapter 9, which discusses the important topic of Formatting, how to set up your Text File and use RUNOFF to obtain professional looking printed output. Prior to entering into that interesting discussion, let's look at some practical applications.

Good luck!

CHAPTER 7

LETTERS AND MAILING LABELS

In this chapter, we discuss using Screen Writer][to write letters and prepare mailing lists. You will learn to work with a set of standard formats for regular use in your own work.

You could, for example, maintain several text files on your Library Diskette, each consisting of a format you would use for letters, papers and the like. When you start to write a letter, instead of typing in your name, address and other routine information, you would specify which format should be the Input File.

Many items which remain constant through your applications can be set on the Edit Format Page in RUNOFF. Those parameters are used by RUNOFF unless different instructions are issued with Embedded Commands. RUNOFF will follow the instructions given by Embedded Commands, rather than the defaults on the Edit Format Page. The only exception to this rule is that Titles, Dates and Page Number formats will observe the Edit Format Page specified margins. This is to insure that the page heading entries remain the same, relative to the form dimensions, throughout the document.

PERSONAL LETTERS

For a personal letter, you might like a simple format consisting of only your return address:

```
.ND <RETURN>
.LM 40<RETURN>
.RM 70<RETURN>
Your Street Address<RETURN>
Your City, State and Zip<RETURN>
.LM 10<RETURN>
```

This format would indent your return address, and then reset the left margin to your normal settings. The command .ND prevents a date which may be on the Edit Format Page from printing.

If you were to save this format on your Library Diskette, it would be available as an Input File each time you wanted to write an informal letter. You'd merely insert the date after the address and start writing your letter.

BUSINESS LETTERS

Perhaps a more formal business letter would be useful to you. Here is a basic format that can be modified to meet a wide variety of requirements:

```
.PG 4,r,Page <RETURN>
.DT 6,r,{date}<RETURN>
.ND<RETURN>
.UL #<RETURN>
```

(Skip enough lines to make room for your letterhead. Alternatively, print your own using standard printing characters.)

```
{date}<RETURN>
.TI 1,5,r,{name}<RETURN>
.DA<RETURN>
<RETURN>
{name}<RETURN>
{company}<RETURN>
{address}<RETURN>
{address}<RETURN>
<RETURN>
Dear {name},<RETURN>
<RETURN>
<RETURN>
{text and closing of your letter}
```

In a typical business letter, the first page is on the company letterhead, with subsequent pages either on plain bond or on a modified letterhead. At the top of all but the first page appear the page number, the date of the letter, and the name of the addressee (title 1). The first three lines of this format set up the headers for the second and succeeding pages.

The title is specified and the date turned on after the beginning of the text for the first page has been printed, so they will be printed starting with page 2. The date is specifically turned off for the first page, for the default format on the Edit Format Page can include a date.

Spacing is allowed to remain at the single space default (no specification necessary) and '#' is assigned as the underline character.

FORM LETTERS

SCREEN WRITER][allows you to create a wide variety of form letters. The method used is to write your letter in the normal manner, leaving token characters at each place you would like a variable quantity or string to appear. A separate address file is prepared, which contains the information that changes from letter to letter. RUNOFF then combines the form letter with each group of name and address variables in turn, thereby printing out letters which appear to be individually prepared.

The name/address information file, often called an address or 'record' file, can also be used to generate mailing lists. This list can then be used to print labels for the envelopes in which you mail your form letters, thereby saving you more work.

First, let's look at how to create an address file. The key to reliable performance in preparing form letters and mailing lists is consistency. Each individual record must be prepared just like all the others. Here's a sample address file, which is on your Screen Writer][Master Diskette, called ADDRESS.TEXT.

```
Jones<RETURN>
Mary<RETURN>
123 Street<RETURN>
Town One, CA<RETURN>
12345<RETURN>
/<RETURN>
Smith<RETURN>
Bill<RETURN>
321 Avenue<RETURN>
Town Two, NY<RETURN>
54321<RETURN>
/<RETURN>
Robinson<RETURN>
Jack<RETURN>
RFD 6<RETURN>
Village, Vermont<RETURN>
05555<RETURN>
/<RETURN>
```

The organization of this address file consists of a series of variables, separated by <RETURN>'s. Each group of variables is called a 'record', and the end of the record is identified by an 'End of Address' or 'End of Record' token, here a '/'. Here's how our sample address file breaks down:

Variable #1:	Last Name
Variable #2:	First Name
Variable #3:	Street Address
Variable #4:	City, State
Variable #5:	Zip Code

Note that each variable entry or field contains the same type of information in each address file. If a variable field is empty, it must at least contain the <RETURN> that will enable the program not to lose count.

Address files can contain practically any kind of information as variables. They needn't include addresses, for example. Consider a hospital patient identification system for patient test processing records. Another example would be the preparation of manufacturing control documents, whose contents depended upon the production mix.

Variable fields can contain up to 255 characters. While your average Zip Code doesn't get that long, some applications require the use of large fields. SCREEN WRITER][address files are organized sequentially, that is, the fields are separated by <RETURN>'s, so there is no wasted space. The program takes what it needs and no more.

Terminating each address record with the proper End of Address marker is very important. Further, the EOR marker used in the address file must agree with that specified in the form letter itself. There is an option in the SCREEN WRITER][Customize procedure which permits permanent assignment of an EOR character, which would certainly aid in maintaining consistency if you are going to be doing much of this type of work.

Let's look at the sample form letter that's on your Master Diskette, FORM.LETTER.TEXT.

```
.NN
.ND<RETURN>
.SA /<RETURN>
.AD #<RETURN>
#2 #1<RETURN>
#3<RETURN>
#4 #5<RETURN>
<RETURN>
Dear #2,<RETURN>
<RETURN>
I am writing to you to tell you about Screen Writer ][. This product will
meet all your word processing needs, #2. I hope you will have a chance
to use it in #4.<RETURN>
<RETURN>
Sincerely,<RETURN>
<RETURN>
<RETURN>
```

<RETURN>
<RETURN>
.NP<RETURN>
.GR<RETURN>

- .SA / Sets the End of Record character to '/' . This command tells RUNOFF to expect this character to divide one address file from another. As with all token choices, you must be careful not to inadvertently use this character elsewhere in the letter or record while the assignment is in force.
- .AD # Sets the Address Character to '#' . As each form letter is printed out, RUNOFF replaces ' #1 ' with the contents of Variable Field #1 in each record, ' #2 ' with the second variable field, and so on.
- .NP Advances the paper to the top of the next page, in preparation for printing out another form letter.
- .GR Tells RUNOFF to read in from the diskette the next record in the address file, in preparation for the following form letter.

If you aren't using tractor fed "automatic" computer paper, you would want the computer to stop between letters so you can feed in another sheet of paper. Go to option 2 in Runoff and put a "P" for pause at end of file flag.

To print out your form letter, go to RUNOFF. On the Text File Page, enter the following:

10:FORM.LETTER.TEXT,D1
90:ADDRESS.TEXT,D1

The 'D1' descriptors are necessary because the normally customized program will go to Drive #2 for text files. Next, go to the Output Page. Use 'W' to clear titles on the Edit Format Page before beginning. Check your work with 'T', Test Print, prior to directing it to the printer.

Before leaving this section, try some variations on these files, to develop a better understanding of mechanism behind the process. While straight forward in principle, there are lots of places you can mess up—so be careful!

MAILING LABELS

The same address file we used to print sample form letters can be used to print mailing labels for your envelopes. The only modification to what we've done so far is to develop a "letter" format which does nothing but print the name and address on a letter of the appropriate size—a mailing label.

Most tractor-fed labels have a form length of one inch. If your printer is set up to print at six lines per inch then you would set the form length to 6. The following format prints standard mailing labels from an address file where / remains End of Record token.

Here's a format for printing mailing labels:

```
.SA /<RETURN>
.AD #<RETURN>
.TM 1<RETURN>
.BM 6<RETURN>
.FL 6<RETURN>
.LM 2<RETURN>
.RM 40<RETURN>
.ND <RETURN>
.NN <RETURN>
#2 #1 <RETURN>
#3<RETURN>
#4<RETURN> #5<RETURN>
.NP<RETURN>
.GR<RETURN>
```

Address and End of Record characters are set just as in our sample form letter.

The next group of embedded characters set the form length to 6 lines, set the margin and turn off the date and page numbering. The address characters #1, #2, #3, #4, and #5 print the labels, each of which will consist of the following information:

```
First name Last name
Street address
City, State Zip code
```

Because form length is set at 6, the command .NP moves the next label into position. It doesn't move the sheet of labels ahead one page. Each .GR tells RUNOFF to start the next address record.

When you print your labels, be sure that you have the proper address file entered as 90: and the correct mailing label format entered as 10:. Getting it backwards will give you very interesting results.

SKIP RECORDS

The use of a large address list poses three potential problems. First, let's suppose you are printing out 100 records, in one form or another. Suddenly, at the 85th record the paper jams and everything stops. You clear the printer jam and ask what's next. Do you really have to go through all 85 records again?

Well, no. On the RUNOFF OUTPUT PAGE, the R,n command allows you to skip the first n records. Careful, if you haven't been printing your file, RUNOFF won't recognize the End of Address character and will give you an error message. To prevent this, customize your Screen Writer][program to expect the same specified character for every address file.

The second problem with large mailing lists is size. You may want to break your lists down into smaller files, or you may need more than one disk to hold your lists as they are. Screen Writer][will allow you to link any number of mailing lists. There are two forms of this command:

.{name}	Links address file (no pause)
!{name}	Links address file (with pause)

One of these commands is placed at the end of the address file, after the last End of Record (End of Address) token. Either will link the files; the only difference is that the period will cause the file to be linked immediately, and the exclamation point causes the printer to pause, while you change disks. Pressing <SPACE> when you are ready to continue will allow the printing to continue. As usual, you can add slot and drive numbers as a part of the file name.

The third problem with large files is printing out only part of a file. For example, if you have a master mailing list that includes your customers, your creditors, and your Christmas Card list, come December you probably only want to send the Christmas cards to your card list.

Although Screen Writer][will not alphabetize the address file or sort it, it will selectively print files. This selection is done with two embedded commands, .AI s and .AN s, where 's' is a string of characters. These commands set a token string from which RUNOFF will select.

.AI {string}	Include addresses with {string} as first record variable
.AN {string}	Don't include addresses with {string} as first record variable

You must build your address file so that the first line of each record contains only {string}. For example, you could code all your Christmas list with the word CHRISTMAS. When you print Christmas labels you would have to have .AI CHRISTMAS at the beginning of the letter. RUNOFF will then look at each address to see if the first line is CHRISTMAS. If so, it will print it; if not, it will skip it and go on to the next address record. A typical address record could look like this:

```
CHRISTMAS<RETURN>
Mary<RETURN>
Mary Jones<RETURN>
```

```
123 Street<RETURN>
Our town, CA<RETURN>
12345<RETURN>
/<RETURN>
```

QUESTION

Screen Writer][includes the powerful question command (.QU). This command allows you to input characters or phrases at printing time to replace a token character in the text. Used in conjunction with the REMark command (.RK) and the address include (.AI) command, this feature allows discretionary access to any record in your address file. This command can also be used to enter amounts or other personalized material in the body of the form letter while printing.

Here's a brief example of using this feature:

```
.QU !<RETURN>
.RK Input the Last Name<RETURN>
.AI !<RETURN>
```

When RUNOFF executes this group of commands, it will ask you to input the "last name" as specified by the Remark statement. Then RUNOFF will search through all your address files and print only those records which satisfy the "last name" requirement.

COMPARE

The embedded command '.IF' (phrase1)comparer(phrase2) allows the program to evaluate these two phrases, based on the comparer. The comparer can be <, >, =, # (not equal), + (greater than or equal) or - (less than or equal). If the test is true, the following text block is printed. If the test proves false, the next block of text is skipped until an exclamation mark '!' is detected at the BEGINNING of a line.

The following two examples show how '.IF', '.RK', '.QU', and '.FI' (fill) can be used together. (The fill command may not be needed if you use the '.IF' command to skip whole paragraphs.)

FIRST EXAMPLE

```
.SA /<RETURN>
.AD #<RETURN>
#2 #1<RETURN>
#3<RETURN>
```

#4 #5<RETURN>
 <RETURN>
 Dear #2,<RETURN>
 <RETURN>
 .FI<RETURN>
 .IF (#6)<(\$10)<RETURN>
 We do not need your small volume of business. If you wish
 to place an order with us again, the minimum order is
 \$25.<RETURN>
 !<RETURN>
 .IF (#6)>(\$10)<RETURN>
 .IF <#6)<(\$1000)<RETURN>
 Thank your for your business. We hope you call on us
 again.<RETURN>
 !<RETURN>
 .IF (#6)>(\$1000)<RETURN>
 We appreciate you business very much and hope to hear from
 you in the near future. Due to your high volume business our
 representative will be calling on you about volume dis-
 counts.<RETURN>
 !<RETURN>
 .SK 2<RETURN>
 .NF<RETURN>
 Sincerely,<RETURN>
 .SK 6<RETURN>
 Joe Jones<RETURN>
 .NP<RETURN>
 .GR<RETURN>

SECOND EXAMPLE

.SA /<RETURN>
 .AD #<RETURN>
 #2 #1<RETURN>
 #3<RETURN>
 #4 #5<RETURN>
 <RETURN>
 Dear #2,<RETURN>
 <RETURN>
 .FI<RETURN>
 .RK input the donation<RETURN>
 .QU &<RETURN>
 You have donated \$& to our charity last year.<RETURN>
 .IF (&)<(100)<RETURN>
 We appreciate your donation and hope you can make a larger
 contribution next year.<RETURN>

```
!<RETURN>
.IF (&)>(99)<RETURN>
We certainly appreciate your patronage and hope you can
continue your generous support next year.<RETURN>
!<RETURN>
Please use the $& amount for your tax pur-
poses.<RETURN>
.NF<RETURN>
Sincerely,<RETURN>
<RETURN>
<RETURN>
<RETURN>
<RETURN>
.NP<RETURN>
.GR<RETURN>
```

SUMMARY

The ability to create form letters and work with them in a flexible and creative manner is a very powerful part of Screen Writer][. The form letter and the address files are both standard text files that can be accessed by most data base programs. The proper combination of a good data base program, such as The General Manager, and Screen Writer][can provide a level of performance generally associated with much larger computer systems.

CHAPTER 8

REPORTS AND MANUSCRIPTS

In this chapter, we introduce a number of useful formats for both general use and specific applications. Since by this time you should be able to follow the flow of command in these formats, our comments are directed at the more subtle points.

ROUGH DRAFT

Let's look at a simple format which could be used to keep a daily journal or diary. It has a minimum of information, being intended for straight writing with no frills. It could be useful for a quick draft.

```
.PG 4,r,Journal - {your name} - <RETURN>
.ND<RETURN>
.LM 13<RETURN>
.RM 75<RETURN>
.TM 8<RETURN>
.BM 58<RETURN>
.FL 66<RETURN>
.SS 2<RETURN>
.UL + <RETURN>
.BF @<RETURN>
.PA<RETURN>
{Start text here}
```

The page line identifies the name of the document and the author's name. Everything else is turned off, unless specifically enabled on the Edit Format Page. The margins are set and you can begin writing at once.

REPORTS

A useful format for many people is a business or school report. Let's look at a simple report format:

```
.PG 3,r,Page <RETURN>
.JU
.SS 2<RETURN>
.ND <RETURN>
.NT 1<RETURN>
.NT 2<RETURN>
.LM 10<RETURN>
.RM 75<RETURN>
.TM 8<RETURN>
.BM 60<RETURN>
.FL 66<RETURN>
.UL @<RETURN>
.BF + <RETURN>
.SK 10<RETURN>
.CE <RETURN>
Title <RETURN>
.CE <RETURN>
by <RETURN>
.CE <RETURN>
{your name} <RETURN>
.TI 1,4,r,{your name}<RETURN>
.TI 2,5,r,{title}<RETURN>
.DT 6,r,{date}<RETURN>
.SK 4
.PA<RETURN>
{Start text here}
```

This report format consists of a first page with the title, author and date centered part way down. Subsequent pages put the author's name, title and date in the upper right corner. The text is justified and double spaced.

The header titles and date are specified after a portion of the first page has been written, say, the date or a title, so that they won't print until the second page.

Margins and form length are set in accordance with the writer's requirements.

The '.PA' command follows the instructions on the Edit Format Page (Indent: n) to indent the first line of each paragraph n spaces. If the indent is set to 5 on the Edit Format Page, for example, the first line of the new paragraph will begin 5 spaces to the right of the left margin.

To insert a piece of text in a different format, you might want to change the margins and the spacing. If you will be doing this several times, it is convenient to use a macro.

KEYBOARD MACROS

We will construct a sample pair of MACROS which can be used at the beginning and end of an indented section.

At Command Level, type:

```
%<RETURN>
```

Just above the Command Line, you will see the prompt:

```
CHAR TO REPLACE
```

You decide what characters you would like to use for your new command. If you are not planning to use overprinting, you might choose <CTRL O> for one. We will use <SHIFT CTRL O> for another. (You may select any character—printing or non-printing. Just remember that each time you use that character, your entire macro will be entered!)

You enter your desired character on the command line:

```
<CTRL O>
```

You will then see the prompt:

```
INPUT REP. CHARS.; CR TO END
```

Now type onto the command line the exact sequence of characters for your macro, followed by <RETURN>.

```
.LM 20<CTRL X><RETURN>.RM 65<CTRL X><RETURN>.SS  
1<RETURN>
```

Let's go through this process again to create the macro needed to get back to normal text format. Your second macro should be defined by the following sequence:

```
%<RETURN>  
<SHIFT CTRL O>  
.LM 10<CTRL X><RETURN>.RM 75<CTRL X><RETURN>.SS  
2<RETURN>
```

Now when you wish to indent and single-space a block of text, you merely type the command <CTRL O> to place the proper embedded commands before it, and <CTRL SHIFT O> to return your original format.

INDENT AND OUTDENT

Screen Writer][allows for easy indenting of single lines.

.ID n Indents the next line n spaces.

A very useful feature of this command is its use to outdent a line, by specifying a negative indent. Here is an example:

```
.LM 15<RETURN>
.RM 55<RETURN>
.ID -5<RETURN>
1. This illustrates the use of the negative indent (outdent)
for the purpose of outlines, proposal writing, or any other list
of items.<RETURN>
<RETURN>
.ID -5<RETURN>
2. Here is the second item on our list. You will notice that
the blocks of text are aligned along the new margins, but the
numbers are set five spaces to the left.
<RETURN>
.ID -5<RETURN>
3. And the third paragraph makes the demonstration complete.
```

When we print the above text, here are the results:

1. This illustrates the use of the negative indent (outdent) for the purpose of outlines, proposal writing, or any other list of items.
2. Here is the second item on our list. You will notice that the blocks of text are aligned along the new margins, but the numbers are set five spaces to the left.
3. And the third paragraph makes the demonstration complete.

REPLACE CHARACTER

The first thing that RUNOFF does when printing your text is to read the embedded commands. Next, it performs the calculations on line length and justification, and decides where to insert spaces, or partial spaces, to justify the line. Then it prints the line, sending the information to the printer.

Sometimes you want to print characters which would mislead RUNOFF in the first two steps. For example, in writing this manual we had to discuss embedded commands. Naturally, we wanted to print them in the manual as they would appear in your text file. But if we entered, say, '.SS 2' , RUNOFF would have interpreted that as an instruction to change the spacing to double, rather than as a line in the manual. To get around this, we used the '.RE' command. At the beginning of the file, we included the command '.RE* ,.' . In our text file, commands were entered as '*XX'. Just before printing our text, RUNOFF replaced the asterisks with periods.

.RE a,b Replace character 'a' with character 'b'.

Another use for the '.RE' command is in controlling the spaces between words. For example, APPLE][looks pretty silly. You could ensure that justification wouldn't put an extra space between the APPLE and the][by using:

.RE %,<SPACE> Replaces '%' with a space.

APPLE%][will then be printed as APPLE][.

Another application for the Replace command is to generate characters which are not normally generated by your Apple keyboard, by calling for the decimal ASCII equivalent. For example, in constructing outlines for the screen "drawings," we needed the '&' character. We obtained it by typing '.RE #,38' at the beginning of the file, then using '#' when we wanted the funny character. (38 is the decimal ASCII equivalent of '&').

PAUSE

Some writers use subscripts and superscripts in their text. If you have a printer which allows you to adjust the paper a fraction of a line up and down, Screen Writer][will stop the printing to allow you to make the appropriate manual adjustment. You can define a Pause Character using the embedded command '.PC c' . Insert the Pause Character just before and after each subscript or superscript.

.PC c Sets Pause Character to c.

When the pause character is encountered in the text, the printer will stop until a key is pressed.

If you wish a prompt whether to move the carriage up or down, Screen Writer][permits you to define Pause Up and Pause Down tokens. Some printers can handle subscripts and superscripts automatically when RUNOFF issues the appropriate tokens. Consult your printer instruction manual for more details.

- .PU c Sets Pause Up character to c. When this character is encountered, the printer will stop and a message will be displayed on the screen instructing you to move the carriage up.
- .PD c Sets Pause Down character to c. When this character is encountered, the printer will stop and a message will be displayed on the screen instructing you to move the carriage down.

Sample use: .PU <RETURN>
 .PD #<RETURN>
 E=MC&2#<RETURN>

MANUSCRIPTS

In the publishing world, a professional looking manuscript is essential in making a good first impression. The following manuscript format is based on the recommendations from a standard author's reference manual, the "1981 WRITER'S MARKET," Writer's Digest Books, Cincinnati, Ohio:

```
.ND
.LM 13<RETURN>
.RM 75<RETURN>
.TM 8<RETURN>
.BM 58<RETURN>
.FL 66<RETURN>
.SS 1<RETURN>
.UL #<RETURN>
.BF (a<RETURN>
{Your name}
{Your street}
{Your town, state zip}
Your phone number<RETURN>
.PG 5,r,{your last name}—<RETURN>
.TI 1,6,r,{title}<RETURN>
.SS 2<RETURN>
.NU<RETURN>
.S ' 8<RETURN>
.CE<RETURN>
{title}<RETURN>
.CE<RETURN>
by<RETURN>
.CE<RETURN>
{your name}<RETURN>
.SK 5<RETURN>
.PA<RETURN>
(Start your text here)
```

Word Count:\$<RETURN>
 First Serial Rights<RETURN>
 Copyright {year}{your name}<RETURN>

This manuscript format differs from that of an ordinary paper in several ways. Rather than using the "Page" title for the page designation, it uses the author's last name and the page number. The only title used on each page consists of the title of the manuscript or a portion of that title. For example, if your manuscript was entitled "The Rise and Fall of Coarsegold, California," you could simply use "COARSEGOLD" as the title on the header of each page.

The first page header in this example is standard. It establishes that the author owns the copyright and what right he/she is willing to sell. The word count can be easily determined with Screen Writer][by using the pound sign (#) at the Command Line. All authors should be sure to include their address and phone number so that the publishers know how to reach them.

Once more, we have entered the header title and page information after the first regular text on page one, so that they will start printing on the second page.

Manuscripts are usually not justified, are double spaced, and the margins are set so that there is about 1-1/4 inch margin all the way around the page.

FOOTNOTES

Screen Writer][makes the use of footnotes easy. To create a footnote, enter the Embedded Command:

```
.FT n<RETURN>.
```

The number 'n' is your best guess how many lines it will take to print the footnote. Start typing the footnote on the very next line.

At the end of the footnote enter:

```
{body of footnote text}<RETURN>  
!  
<RETURN>
```

Here is a sample footnote:

```
.FT 3<RETURN>  
This is a footnote that will take about three lines at the bottom  
of the page. It will be placed at the bottom of the page by  
RUNOFF.<RETURN>  
!  
<RETURN>
```

When RUNOFF sees the '.FT' command, it stores the contents of the footnote in a special buffer. When it gets to "n" lines from the bottom of the page (in our case three), it prints the footnote. If there are multiple footnotes on a page, it will store all the footnotes, accumulate the total lines needed, and print them in the order they are entered.

If you want the footnotes to appear in a certain format, this can be entered as a part of the footnote. If you do change the page format for the footnote however, you have to change it back at the end of the footnote. For example, if your text is double spaced and you want your footnote single spaced, then enter '.SS 1' at the beginning of the footnote, but be sure to enter a '.SS 2' at the end.

INDEXING

Screen Writer][can create up to four indexes for your document. You define a token Index Character, and use that token to mark the words to be indexed. At the end of your file you would include an embedded command instructing RUNOFF how to print the index. When RUNOFF sees the Index Character it stores the word and the page that the word appeared on in a special portion of memory called the Index Buffer. Finally, after the entire document has been printed, RUNOFF prints out the contents of the index buffer.

Because the actual indexing does not take place until RUNOFF, a true page oriented index is created. For example, should you decide to change margins, the index references will most likely change as well, since you will have more or fewer words per page. The new page numbers would be reflected in a revised index.

In the RAM CARD version of Screen Writer][the index buffer size is adequate for many applications, but could be limiting on very long documents, such as documents that span a number of disks. If you have a 16K RAM card and use the NON-RAM CARD version of RUNOFF then your 16K RAM card will expand the size of your Index Buffer.

There are two principal uses for indexing. Screen Writer][can produce the ordinary index typically found at the end of a document, as well as provide a Table of Contents.

There are two types of index token characters. One type allows the indexed word to be printed in the main text. The other token marks a text string, but does not print it in the body of your text. Both indexes can, however, be printed out as part of your document.

The '.IN n,C' is the printing index character. The 'n' (must be between 1 and 4) identifies the index in which you want this word (or words) to be placed. 'C' is the Index Character. This Index Character may be either a printing or control character.

The '.IC n,c' is the NON-printing index character. The 'n' and 'C' are the same as above. When a word (or group of words) is marked by this token, RUNOFF will NOT print the text marked by this character as part of the main text. It will place it in the proper index. This type of NON printing index is useful in creating your Table of Contents. At the beginning of each chapter you would insert the information you wanted to appear in the table of contents, marked by the non-printing Index Character.

For example, if you set the non-printing Index Character to "*", the beginning of Chapter One would look like this:

```
.IC 1,*<RETURN>
.CE<RETURN>
CHAPTER ONE<RETURN>
.CE<RETURN>
OVERVIEW<RETURN>
*CHAPTER ONE - Overview, a basic look at
concepts*<RETURN>
```

The sentence, "CHAPTER ONE - Overview, a basic look at concepts", would not appear as a part of Chapter One. It would be stored during RUNOFF in the Index Buffer. Only when you instruct RUNOFF to print out index 1 will this sentence be printed.

.IN n,c	Sets printing Index Character to c. The word marked by this token will be printed as part of the text and also placed in index n.
.IC n,c	Sets non-printing Index Character to c. The word marked by this token will be placed in index n, but will NOT be printed in the text.

PRINTING THE INDEX

At the end of the document, you must include instructions to RUNOFF to print the index. Indexes may be alphabetized or printed in the order in which the entries were encountered. They may respect or ignore upper/lower case distinctions. Further distinctions are made as to the format in which the index is printed.

The format for all three index printing commands is the same.

Format:	.XX (index #),(position)
Example:	.PI 3,50

This example would cause index number 3 to be printed, with the page number entries starting at column 50.

The (position) entry is optional. If it is not specified, RUNOFF will start printing the page number entries half-way between the left and right margins.

Here is a table of the commands, showing which distinguish between upper and lower case (e.g. make one entry for 'Apple' and another for 'apple') and which alphabetize the final printed index.

Command	Alphabetized Printout	Case Distinction
.PI n,p	YES	NO
.IA n,p	YES	YES
.NA n,p	NO	YES

For a Table of Contents, the .NA command will leave the entries in the order in which they were found.

If you wish your indexes to be printed in all upper case or all lower case, include the appropriate Embedded Command at the beginning of the file (before the first entry) and Screen Writer][will store the entries as you requested.

.IL	Print index in lower case only
.IU	Print index in upper case only
.IM	Print index in mixed upper and lower case, as encountered in the text

BOILER PLATE

Your Library Diskette can hold much more than just setup formats. If you find yourself writing the same thing over and over again, Screen Writer][can save you a lot of valuable time. Particularly in business applications, it is very practical to save frequently used paragraphs on your Library Diskette. These blocks of text can then be brought into a letter or report by using the MERGE command.

For example, if you are a retailer who is continually answering the same questions, you could have on your Library Diskette the stock replies to each of the questions. Each letter could then be "personally" answered, but with a minimum of typing, using the appropriate selection of responses.

SAVING ALTERNATE RUNOFF DEFAULTS

In some cases you may want to save more than one version of RUNOFF default parameters, in order to preserve different Edit Formats and Printer Specifications. This is easy to do. First create the RUNOFF parameters you want to use.

Choose a name for the file that you will be able to associate with the intended application. Then from any of the RUNOFF displays, type:

```
<CTRL D>BSAVE{name},A$C00,L$1400,S{slot},D{drive}<RETURN>
```

These binary files should be saved on your Library Diskette, because they cannot be saved on your Text Diskette, and we do not recommend saving anything on your Master Diskette.

To use an alternate RUNOFF, enter RUNOFF normally, then, at the RUNOFF MAIN MENU type:

```
<CTRL D>BLOAD{name},S{slot},D{drive}<RETURN>
```

CHAPTER 9

FORMATTING

This chapter will discuss the features of RUNOFF and Embedded Commands, and the many ways to take advantage of each.

MARGINS

Default margins can be set on the RUNOFF Edit Format Page, or they may be embedded in the text, using the margin commands discussed in Chapter 3.

Embedded margins override the default margins on the Edit Format Page, with the exception of titles, dates and page numbers. These observe the Edit Format page width defaults so that when margins change within the text, the headers will remain constant from page to page. We suggest you set your defaults on the Edit Format Page to be the same as the standard full-page text width margins.

HEADERS

If your headers are going to be the same throughout your entire document (including successive files) you can enter them on the Edit Format Page. If they will vary, however, it is better to embed appropriate headers in each file.

Remember that any title printed by RUNOFF will be entered onto the Edit Format Page. This means that when you have fewer titles, for example, in the second file of a sequence than in the first file, you must embed the '.NT n' command (No Title n) to remove the superfluous title from the Edit Format Page, prior to printing the text.

If you are printing single files, it is not necessary to include the '.NT' or '.ND' commands in the text. The W (WIPE) command on the RUNOFF Output Page will restore the Edit Format Page to the defaults most recently loaded from the Master Diskette or your Library Diskette.

If you wish to save a particular configuration on the Edit Format Page, option 7 from the RUNOFF Main Menu will save Edit Format Page entries (as well as Printer Specifications and Text Files).

Titles within the text, as opposed to page headers, can be centered (.CE), left justified (.LJ) or right justified (.RJ). If you use the '.LJ' or '.RJ' command for a title, remember to reset the justification to the way you want the rest of the text immediately after the title. '.CE' will center only one line at a time.

To start the page numbering at any number other than 1, you must embed the starting number in the text, using the '.PN n' command. The page counter can be incremented or decremented with these commands:

.IP	Increment Page Counter
.DP	Decrement Page Counter

This enables you to leave a page blank for, say, a chapter title page.

JUSTIFICATION

Justification can be set at the Edit Format Page or by Embedded Commands. Embedded Commands override the defaults on the Edit Format Page.

If justification is ON, the default condition is FULL justification. This means that both the left and the right margins will be straight. Depending on your printer and how you have set the parameters in CUSTOMIZE and on the Printer Specification Page, full justification may be done by inserting extra full spaces between words, or by inserting partial spaces.

Left justification (.LJ) causes the text to be even with the left margin, and allows it to have a ragged right edge. Right justification formats the text so that it is even with the right margin, and may have a ragged left edge.

'.JU' turns full justification ON and '.NJ' turns full justification OFF. '.NJ' will return the text to the default, '.LJ'.

'H Spc.' is the entry on the Edit Format Page which controls the frequency of hyphenation. When RUNOFF must insert more spaces than this entry to justify a line, it will either hyphenate the appropriate word (Auto Hyphen) or ask you to make a hyphenation decision (Manual Hyphenation).

HYPHENATION

Hyphenation is used with proportional spacing to improve the appearance of a finished page. Screen Writer][offers two options, Manual and Automatic Hyphenation. This feature can be selected either at the Edit Format Page or by an embedded

command. As usual, Embedded Commands override the Edit Format Page default settings.

The default condition (for hyphenation ON) is Manual Hyphenation. In this mode, RUNOFF will stop printing at each word which might be hyphenated to reduce the amount of space which must be inserted on a line, display the word, and ask whether you wish to hyphenate that word. If you do, move the cursor over the word, pressing '-' each time the cursor rests on the character after a possible location for a hyphen. When you have entered the hyphen locations for a word, press <RETURN>. RUNOFF will then choose the most appropriate hyphenation and continue printing.

Don't be surprised when Screen Writer] asks you how to hyphenate the same word several times. The program has no memory committed to this purpose, so you'll just have to keep answering the questions. In addition, you must repeat this procedure each time you print out your document. For these reasons, we suggest that you use manual hyphenation only for cover letters, resumes and other applications where the best possible appearance is essential.

A more practical alternative for papers of any reasonable length is Automatic Hyphenation. When you use proportional spacing, long words can cause unsightly gaps in your printed text. To avoid this, select a hyphenation token with the Embedded Command '.SH c'. Then, as you enter your text, enter this token where long words could be hyphenated when printed. As RUNOFF is printing your file, it will only hyphenate those words which contain this hyphenation token. All hyphenation tokens which aren't needed are ignored.

The Embedded Commands which control hyphenation are:

.HO	Hyphenation On
.NH	Hyphenation Off
.MH	Manual Hyphenation (default)
.AH	Auto Hyphenation
.SH c	Set Auto Hyphen Character to c

SPACING

Spaces between lines may be set at the Edit Format Page or by the Embedded Command '.SS n'. As with most formatting instructions, the Embedded Command overrides the Edit Format Page default. Spacing can be set up to 255 (!) lines.

Paragraph spacing can only be set by the Embedded Command '.PS n'. If this command is not used, RUNOFF will not insert extra lines between paragraphs. The amount to indent each paragraph must be set on the Edit Format Page.

To use the automatic paragraph skip and indent features, insert the command `'PA'` at each place in the text where you would like a paragraph to appear. Alternatively, you may define a paragraph token with `'SP c'`, after which you may use this token to tell RUNOFF to start a new paragraph.

OTHER PAGE CONTROL FEATURES

RUNOFF maintains a running count of the number of lines it has printed on each page, so that it can start a new page when necessary.

You can change that running count if you wish, by the Embedded Commands `'SL'` (set line counter), `'IL'` (increment line counter) or `'DL'` (decrement line counter).

`'NP'` tells RUNOFF to start a new page with the next line.

`'FF'` causes RUNOFF to send the form feed character from the Printer Specification Page to the Printer.

`'SK n'` tells RUNOFF to skip *n* lines, or skip to the end of the page, whichever comes first.

`'TP n'` will cause RUNOFF to check to see whether *n* lines remain on the present page. If not, it starts a new page. If you want to keep a whole block of text on one page, this command is useful.

Closely related is the command, `'FG n'`. RUNOFF counts the remaining lines on the page. If there is sufficient space, it will skip *n* lines to allow you to insert a figure. If insufficient space remains on the current page, RUNOFF will start a new page and skip *n* lines at the top of the new page.

Footnotes can be inserted using the command `'FT n'`, followed by the text of the footnote. The footnote text is terminated by `'I<RETURN>'`.

<code>.IL</code>	Increment Line Counter
<code>.DL</code>	Decrement Line Counter
<code>.NP</code>	Start New Page
<code>.FF</code>	Send Form Feed
<code>.SK n</code>	Skip <i>n</i> Lines, or to End of Page
<code>.TP n</code>	Test Page for <i>n</i> Lines Remaining
<code>.FG n</code>	Leave Space for Figure of <i>n</i> Lines
<code>.FT n</code>	Leave Space at Bottom of Page for Footnote of <i>n</i> Lines; insert Footnote at Bottom of Page

TABS

Screen tabs are set by 'Tn,n,. . .' at Command Level, and displayed below the word COMMAND. Up to 8 stops may be inserted, with a maximum value of 99. In Insert or Change Mode, the command <CTRL T> will move the cursor to the next tab stop, filling the gap with spaces.

There are two kinds of embedded tabulator stops which can be used. Relative tab stops are set relative to the left margin and change within a file as the margins change. Absolute tab stops are relative to the edge of the page and will remain constant. When a tab token is encountered in the text, the next character will be printed at the next tab stop.

.TS n,n,. . .	Sets Relative Tab Stops at n,n,. . . (Up to 16 may be set)
.TC c	Set Relative Tab Token to c
.AS n,n,. . .	Sets Absolute Tab Stops at n,n,. . . (Up to 16 may be set)
.TA c	Sets Absolute Tab Token to c

COLUMNS

Screen Writer][can print tables or columns of figures, for example. The Embedded Command '.CS n,n,. . .' sets the column stops. Up to 16 column stops are allowed, but the column stops must be less than or equal to the right margin setting. The command '.CC c' sets a column token to be embedded in the text at the point which should be in line with the column stop.

'.CS' turns justification OFF. If you are printing fully justified text, reset this mode with '.JU' when you have finished your columnar printout.

Example:

```
.CS 20
.CC &
1234&.87<RETURN>
34&.4567<RETURN>
1&.4567890<RETURN>
&.3456678<RETURN>
```

This would print as follows:

```
1234.87
 34.4567
  1.4567890
   .3456678
```

Note that the numbers are lined up on the period, which lies just to the right of the column token.

If you are putting groups of words into tables, you should put a replacement character (% , for example) instead of the spaces between the words to make sure that Screen Writer][treats the whole group as one entry in the table. Enter the '.RE %, <SPACE>' command at the beginning of your file so that at printing time the space will be restored.

REPLACE CHARACTER

The ability to replace one character with another while printing, after RUNOFF has done all the formatting, is one of the most important features of Screen Writer][. As you use this command '.RE a,b', you will come to appreciate its power.

A character may be entered by typing the character itself, or by entering its decimal ASCII equivalent. This makes it possible to include in your printed text characters not available to you in EDITOR.

TYPE STYLE

Depending on your printer's capabilities, and the proper settings on the Printer Specification Page, Screen Writer][will provide boldface type or underlining. To use these type faces, insert the appropriate token before and after the text to be printed in bold face or underlined.

.BF c	Sets Boldface Token to c
.UL c	Sets Underline Token to c

To print in all upper case type, use the Embedded Command '.UC'. This can be very helpful for converting BASIC programs which include upper and lower case. (See Appendix F to save the formatted (UC) file to disk.) To print in lower case, use '.LC'. To return to mixed upper and lower, use '.MC'.

If the U flag is set while you are LISTing (at EDITOR Command Level), your listing will appear in upper case type.

NON-PRINTING TOKENS

Non-printing characters make useful tokens. If you use a printing character (like %) for a token, it means that you cannot use it elsewhere in your text. There are only a limited number of visible characters which are available. Control characters can be used as tokens (without interfering with their other functions as EDITOR commands) by prefacing them with <CTRL X>.

If you get part way through your text using one character as a token, and decide that you would like to change to another, just use the EDITOR REPLACE function 'ØR{old token}<CTRL R>{new token}<RETURN>'.

NOTE: Do not use = as this is a "wild card."

SYSTEM CONTROL BY EMBEDDED COMMANDS

- Many commands can be embedded in your file to give instructions to both Screen Writer][and your computer:

.AF{name}	Instructs RUNOFF to load and print file {name}, which need not be entered on the Text Files Page)
.FI	Causes the following text to be FILLED (all carriage returns are ignored).
.NF	Causes the following text not to be FILLED.

FILL can also be changed at the Edit Format Page.

.BK	Causes a carriage return to be sent to the printer. Especially useful when Fill is ON.
.PC c	Sets Pause Character. When this character is encountered, the printer stops until a key is pressed.
.PU c	Sets Pause Up Character. Printer will stop and display message to move carriage up. Any key restarts.
.PD c	Sets Pause Down Character. Printer will stop and display message to move carriage down. Any key restarts.
.RK {remark}	Displays remark and sounds bell.
.ME {message}	Displays message and stops printer. Any key restarts.
.CA nnnn	Calls routine at location nnnn in computer's memory.
.PO nnnn,mmmm	Pokes location nnnn in computer's memory with value mmmm.

CONCLUSION

Are you overwhelmed? There certainly is a wealth of material in Screen Writer][, but you don't have to master it all at one time. Start with those commands with which you feel comfortable. Experiment with the others. Keep in mind that you can make your

own Screen Writer][system do what you want it to do. Make a few MACROs, and save some formats to your Library Diskette. Use your form letter and mailing list capability for yourself or friends.

Refer to Section III or the Reference Cards to refresh your memory on commands as you use them, and to get more details on others. Enjoy browsing through the vast array of Screen Writer][commands; there's no big hurry!

CHAPTER 10

EDITING BASIC PROGRAMS

BASIC PROGRAMS

No longer need you suffer when revising your BASIC programs. Using Screen Writer][, you can edit BASIC programs as easily as letters and papers. Replacement, screen tabs, and MACROs make Screen Writer][a very powerful programming tool.

PROGRAM TEXT FILES

If you were to examine a BASIC program as it is stored in memory, you would be unable to read most of it. This is because in a BASIC program, all commands are "tokenized," in order to save valuable memory space. What we write as words like GOTO, PRINT or IF is saved as a single character like the decimal tokens 171, 186 or 173. To make a BASIC program listing readable by people, you must convert it to a text file. With SCREEN WRITER][, this is an easy process.

First, you must add a line to your BASIC program. This very busy line will open a text file, list the program to this text file, and then close the file.

Choose a name for your BASIC text file. It is a good idea to use a name similar to the original BASIC program file name. For example, if your BASIC program is called SNOW FLAKE, you might call the text file SNOW FLAKE.TEXT.

Load your Applesoft BASIC program and add the following line:

```
0 POKE 33,33:D$=CHR$(4):  
PRINT D$;"OPEN SNOW FLAKE.TEXT":  
PRINT D$;"WRITE SNOW FLAKE.TEXT":  
LIST 1,63999:  
PRINT D$;"CLOSE":TEXT:END
```

When the modified program is run, the text file SNOW FLAKE.TEXT is created and the program is listed to that file. By the way, make sure you have enough room on your disk for the new text file.

Now boot your Screen Writer][Master Disk and load the text file SNOW FLAKE.TEXT just like any other text file you wish to edit. Once loaded, you can use all the power of Screen Writer][to make any changes necessary. In fact, you can write your BASIC programs from scratch, if you desire.

GUIDELINES FOR EDITING BASIC

We'd like to suggest a few guidelines for creating or editing BASIC programs. All words normally capitalized in a BASIC program such as commands, variable names, and so forth MUST be capitalized when you work with Screen Writer][. The Apple computer will not recognize "lower case" BASIC commands or variable designations. Screen Writer][could be put in shift lock mode by pressing <ESC> twice. But this messes up several of the editing features.

A better way to print everything in "upper case" is to create a number of single key MACROS to do the work for you. For example you could use <CTRL SHIFT G> to print GOSUB and <CTRL SHIFT R> for RETURN.

Screen tabs can also help you format your screen for easy editing. Line numbers could be typed in one column and BASIC statements in another. You could use a staggered PASCAL type format to help keep FOR-NEXT loops straight. Since you can work in the 70 column format, you have a great deal of flexibility in creating a format that makes sense to you.

Once you are satisfied with the program save it and exit Screen Writer][with the Q (quit) command. You are now in the Applesoft BASIC with a text file version of your program. The next step is to convert this file to a BASIC program via the EXEC function.

EXEC

The EXEC command directs the Apple computer to accept your text file, from the diskette on which you have saved it, as if it were normal keyboard input. The computer thinks it is receiving information from the keyboard when, in fact, it is reading a text file from the disk. For more information on the EXEC function, see your Apple DOS 3.3 manual.

The file will now be read into memory as a BASIC program. You will see a series of prompts on the screen as the file is loaded. Should you wish to watch the program load, use 'MON C,I,O'. To turn off the diskette access display, type 'NOMON C,I,O'.

Once loaded, the program should be saved as a BASIC file. You will have to use a different name from the one used as the text file title, or you will get a FILE TYPE MISMATCH error. Your BASIC program can now be loaded, listed and run in the usual manner.

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CHAPTER 11

EDITOR COMMANDS

SYSTEM COMMANDS

Enter Change Mode

COMMAND FORM: C
INSERT or CHANGE FORM: <CTRL C>

In Change Mode any text entered overwrites any existing text. When you are in Change Mode an inverse C is displayed at the bottom of the screen.

Enter Insert Mode

COMMAND FORM: I
INSERT or CHANGE FORM: <CTRL C>

In Insert Mode, existing text is pushed ahead of new text being entered. The old text is not overwritten.

Toggle Between Insert and Change Modes

COMMAND FORM: See Enter Change and Enter Insert
INSERT or CHANGE FORM: <CTRL C>

Switches between Change and Insert Modes. In Change Mode, an Inverse C is displayed on the bottom of the screen. In Insert Mode no C is displayed.

Change EDITOR Display Line Length

COMMAND FORM: nc
INSERT or CHANGE FORM: Not available

Sets width of EDITOR screen display. Width may be between 10 and 70. If n is greater than 40, a small character set is used. Has no effect on RUNOFF parameters, but is useful in formatting text (tables, etc.)

Set U Flag

COMMAND FORM: U
INSERT or CHANGE FORM: <SHIFT CTRL U>

The U flag controls the EDITOR's handling of upper case characters. If the U flag is set, EDITOR will not distinguish between upper and lower case in a search sequence. The U flag also causes all List printouts to appear in upper case only. The U flag is indicated by an inverse U at the lower right of the screen.

Set V Flag

COMMAND FORM: V
INSERT or CHANGE FORM: <CTRL V>

The V flag is used in search and replace sequences. When the V flag is set, the EDITOR will display each occurrence of the target string, so that the user can decide what action (if any) is appropriate. For details, see Find and Replace, below. The V flag is indicated by an inverse V at the lower right of the screen.

HELP Display

COMMAND FORM: H
INSERT or CHANGE FORM: <CTRL Q>

Displays a list of the control functions available with Screen Writer][. Does not disturb the current work file. This display is only available if the file EDITOR-HELP (from the Screen Writer][Master Diskette) is on the diskette in the master drive. (It is helpful to have this file on your Library Diskette.) For detailed information on any command, press the corresponding key. For information on a <CTRL > command, press the letter key, but do not press the <CTRL> key. Example: for information on <CTRL J> or <SHIFT CTRL J>, press J.

Toggle Key Click

COMMAND FORM: O
INSERT or CHANGE FORM: Not available

Turns on and off the key click: a clicking sound from the Apple's speaker as each key is pressed. Not audible on all Apples.

Pack Text

COMMAND FORM: Z
INSERT or CHANGE FORM: Not available

Reorganizes the text in memory, making the best use of memory space. It needs to be used only if extensive editing has been done. It is automatically done EVERY time the text is saved.

Word Count

COMMAND FORM: (-)#
INSERT or CHANGE FORM: Not available

Count and display the number of words after the cursor in the work file. (Count words before the cursor, if minus sign is used.) With the cursor at either end of the file, gives a word count for papers or manuscripts.

Character Count

COMMAND FORM: (-)=
INSERT or CHANGE FORM: Not available

Counts and displays the number of characters in the text after the cursor in the work file. (Counts characters before the cursor, if minus sign is used.)

Execute Runoff

COMMAND FORM: X
INSERT or CHANGE FORM: Not available

Exits EDITOR and runs RUNOFF. Since all files currently in memory will be lost, you are given the opportunity to re-enter the EDITOR to save your text.

KEY: *Items enclosed in parentheses are optional.*

List

COMMAND FORM: L(w,s,c,p)
INSERT or CHANGE FORM: Not available

Prints the file currently in memory. This listing disregards all embedded commands. The format for the command is L(line length),(spacing),(control character flag),(printer slot or driver address). Note that there is no comma after the L, but that you must include commas between the parameters.

- | | |
|---|--|
| w | Line length (width) for this listing (does not affect final product) |
| s | Spacing for this listing (does not affect final product) |
| c | Control character flag: 0 sends control characters to the printer control characters, 1 prints the control characters as up arrows followed by the letter. (eg. <CTRL A> would be printed as ^A) |
| p | Printer slot (usually 1) or address of printer driver in HEX or decimal. HEX is designated with a \$. |

The listing starts at the position of the cursor, and goes to the end of the file. It can be interrupted, returning you to Command Level, with an <ESC>.

The command L (with no further parameters) will cause the listing to go to the screen.

A listing can be halted and restarted by pressing any key other than <ESC>.

If the 'U' flag is set, all text will be printed in upper case.

To use spooling with the L command (if you have configured your Screen Writer][program for spooling), enter \$8E00 as the printer driver address.

File Size Display

The number on the lower right side of the EDITOR screen indicates the remaining space available for your work file (in sectors). If your Output File is on a crowded disk, this number diminishes rapidly. The file size is approximately equal to 256 minus the number you see. If the number is in inverse, it means that Screen Writer][is using the diskette for virtual memory, your whole file won't fit in your Apple's memory at once.

Quit Program

COMMAND FORM: Q
INSERT or CHANGE FORM: Not available

Exit Screen Writer][to BASIC. You are given the opportunity to return to the EDITOR before the program ends. From the resident Basic you can sometimes reenter Screen Writer][by typing CALL 16384<RETURN>.

CURSOR AND TEXT MOVEMENT

Text Pointer

In understanding the operation of the cursor in word processing with Screen Writer][, it helps to visualize the cursor as a pointer located at the left edge of the blinking square. Insertions are made at the text pointer (just to the left of the character under the cursor), the cursor and all succeeding text are pushed ahead.

When marking a block of text, the first mark is put in with the cursor on the first character (i.e. the text pointer is just to the left of the first character). The second mark is placed with the cursor just beyond the last character (i.e. the text pointer is just to the right of the last character).

Right-moving commands affect the letter under the cursor, while left-moving commands do not: this is because the text pointer only passes over the character covered by the cursor as it moves to the right.

Move Cursor Up or Down

COMMAND FORM: (-)(n)A
INSERT or CHANGE FORM: <CTRL A> or <SHIFT CTRL A>

Moves the cursor up or down one line in the work area. The cursor will be placed at the beginning of the line. An optional sign and an optional multiplier from 1 to 255 are permitted at Command Level. In Insert or Change mode, <CTRL A> moves the cursor down one line (toward the end of the text) and <SHIFT CTRL A> moves the cursor up one line (toward the beginning of the text).

Move Cursor Up or Down at Current Cursor Position

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL J> or <SHIFT CTRL J>

Moves the cursor up or down a line at the current horizontal position. If the line to which it is moving is too short to allow the cursor to move to the original horizontal position, the cursor will move to the end of the line. If the command is immediately repeated, the cursor will return to the original horizontal position whenever the new line length permits.

KEY: Optional minus sign to specify that command should operate toward the beginning of the file rather than toward the end.

n Optional multiplier to specify the number of times the command should be repeated. Example: 5D deletes a character 5 times. Default: 1.

() Parameters enclosed in parentheses are optional.

Move Cursor Right or Left

COMMAND FORM: (-)(n)J
INSERT or CHANGE FORM: Right or Left Arrow

Moves the cursor to the right or the left. At Command Level an optional sign and an optional multiplier from 1 to 255 are permitted. In Insert or Change mode the right arrow moves the cursor to the right, the left arrow moves the cursor to the left.

Skip Word

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL Z> or <SHIFT CTRL Z>

<CTRL Z> moves the cursor forward to the next space or <RETURN>
<SHIFT CTRL Z> moves the cursor backward to the next space or <RETURN>

Move Cursor to Beginning of File

COMMAND FORM: B
INSERT or CHANGE FORM: <CTRL B>

Moves the cursor to the beginning of the text.

Move Cursor to End of File

COMMAND FORM: E
INSERT or CHANGE FORM: <CTRL E>

Moves the cursor to the end of the text.

Set Tab Stops

COMMAND FORM: Tn,n,n. . .
INSERT or CHANGE FORM: Not available

Sets the screen tabulator stops. These tab stops are displayed at the bottom of the screen. Up to 8 tab stops are allowed, with a maximum value of 99. Screen tabs will not work past the width of the screen display.

Go to Tab Stop

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL T>

Moves the cursor to the next screen tab stop, inserting spaces. This is very useful in formatting BASIC or Pascal programs.

Scroll Text to Top of Screen

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL N>

Scrolls the text so that the cursor and the surrounding text move to the top of the screen. Will push text off screen if used at the very end of the file.

Scroll Text to Bottom of Screen

COMMAND FORM: Not available
INSERT or CHANGE FORM: <SHIFT CTRL N>

Scrolls the text so that the cursor and the surrounding text move to the bottom of the screen. Will not operate at the beginning of the file. This command is very helpful in speeding text entry.

Scroll Text to Center of Screen

COMMAND FORM: -C
INSERT or CHANGE FORM: <SHIFT CTRL C>

Scrolls the text so that the cursor and the surrounding text move to the center line of the screen. Will not work when cursor is at the end of the file and the bottom of the screen.

Page Advance

COMMAND FORM: (-)(n)P
INSERT or CHANGE FORM: <CTRL P> or <SHIFT CTRL P>

Displays the next full screen of text, with cursor at the top of the screen. An optional minus sign and an optional multiplier from 1 to 255 are permitted at Command Level. In Insert or Change mode, <CTRL P> displays the next screen page and <SHIFT CTRL P> displays the previous page.

WORD PROCESSING COMMANDS

Enter Upper Case Text

COMMAND FORM: <ESC> or <SHIFT>
INSERT or CHANGE FORM: <ESC> or <SHIFT>

<ESC> causes next character to be entered in upper case. <ESC><ESC> is shift lock. (See note on shift lock, page 8.) <ESC> turns shift lock off again.

Change Case

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL L> or <SHIFT CTRL L>

Changes case as it moves the cursor to right or left. As text pointer (left edge of the cursor) passes over a character, the case of the character is changed: upper to lower, lower to upper. <CTRL L> moves right, <CTRL SHIFT L> moves left.

Delete Letter

COMMAND FORM: (-)(n)D
INSERT or CHANGE FORM: <CTRL D> or <SHIFT CTRL D>

Delete a letter. An optional sign and an optional multiplier from 1 to 255 are permitted at Command Level. In Insert or Change mode <CTRL D> deletes the character at the cursor location. <SHIFT CTRL D> deletes the character to the left of the cursor.

Delete Word

COMMAND FORM: Not available
INSERT or CHANGE FORM: <SHIFT CTRL Q>

Deletes the character under the cursor and all characters between the current cursor position and the next space or <RETURN>.

Kill Line

COMMAND FORM: (·)(n)K
INSERT or CHANGE FORM: <CTRL K> or <SHIFT CTRL K>

Deletes a line. An optional sign and an optional multiplier from 1 to 255 are permitted at Command Level. In Insert or Change mode <CTRL K> deletes the character under the cursor and all characters from the cursor position to the end of the line. <SHIFT CTRL K> deletes all the characters to the left of the cursor up to the beginning of the line. If the cursor is located on the first character of the line, the previous line will be deleted.

Undelete

COMMAND FORM: Not Available
INSERT or CHANGE FORM: <SHIFT CTRL W>

Writes the last character deleted by <CTRL D>, <SHIFT CTRL D>, <CTRL K>, <SHIFT CTRL K> or <SHIFT CTRL Q>. The characters are put into a 255 character Delete Buffer as they are deleted. This command writes them out in last-in, first-out order.

Mark Overprint

COMMAND FORM: Not available
INSERT or CHANGE FORM: <CTRL O>

Text marked for overprint will not be printed during the first pass of RUNOFF. After the document has been printed, you will be instructed to reset the paper to the beginning and begin printing again. On the second pass only the characters prefaced and followed by the overprint character (<CTRL O>) will be printed. This permits you to use two different type styles in your text.

Ignore Control Commands

COMMAND FORM: <CTRL X>
INSERT or CHANGE FORM: <CTRL X>

Any time a <CTRL X> is entered the next character entered will be stored exactly as entered, and no special action will be taken. This command is helpful

if you want to enter a control character in the text. You can also use it in entering control commands as a part of a search and replacement command.

If you preface any character with <CTRL X> that character will be printed exactly as it is on the keyboard, ignoring any MACROS or conversions that may be defined. For example, typing <CTRL X><SHIFT P> gives you '@'.

Define MACRO

COMMAND FORM: %
INSERT or CHANGE FORM: Not available

A MACRO is a sequence of characters which are automatically entered by the computer in response to a single keystroke. For example, you might want to create a MACRO which would type 'IMPORTANT!' whenever you typed a single <CTRL O>. Then you would only have to enter <CTRL O> whenever you wished to insert 'IMPORTANT!' into your text. MACROS can be used to link EDITOR commands, or enter Embedded Commands as well as to enter normal text.

The command % initiates the MACRO definition sequence. When you enter % Screen Writer][will ask for CHAR. TO BE REPLACED. Enter this character, with no <RETURN>. (In the example, you would type the <CTRL O>.) Screen Writer][will then prompt: INPUT REP. CHARS.; CR TO END. Enter the character or phrase you want the MACRO to print. Tell Screen Writer][you are done by pressing <RETURN>. (Our example: IMPORTANT!<RETURN>) The MACRO will then be stored in the MACRO table.

To insert <RETURN> or a <CTRL> character into the body of a MACRO, you must type <CTRL X> first. (<RETURN> is the same as <CTRL M>.)

Approximately 110 characters can be stored in a MACRO table; you may have several short MACROS or, if you choose, a smaller number of longer ones. (Total MACRO table capacity is 128 characters, there is an overhead of 1 character for each separate MACRO.)

Save MACRO Table

COMMAND FORM: !{name}{Sn,Dm}
INSERT or CHANGE FORM: Not available

Causes the MACRO table currently in memory to be saved as the binary file {name}. Do NOT save MACRO table on your OUTPUT text disk. MACROS can be saved on your Library Diskette, if you have one, or the Screen Writer][Master Diskette.

Load MACRO Table

COMMAND FORM: "{name}{,Sn,Dm}
INSERT or CHANGE FORM: Not available

Loads MACRO table binary file {name} from diskette into memory. The table is automatically placed in the proper location for EDITOR use. The usual Slot and Drive notation may be used.

GET BUFFER

The Get Buffer can contain up to 32K characters, unless it is limited by the available disk space. Text is marked for placement in the Get Buffer by placing the cursor at the beginning and end of the block and inserting start and end marks.

Start Mark

COMMAND FORM: G
INSERT or CHANGE FORM: <CTRL G>

Pressing G at Command Level or <CTRL G> from Insert or Change Mode marks the beginning of the text to be stored in the Get Buffer. When the command is executed, an inverse G is displayed on the lower part of the screen. The G flag disappears when the End Mark has been inserted. There is no indication whether the Get Buffer contains text.

End Mark (Copy)

COMMAND FORM: G
INSERT or CHANGE FORM: <CTRL G>

Marks the end of the block of text and places it in the Get Buffer. Text remains in its original position as well.

End Mark (Move)

COMMAND FORM: D
INSERT or CHANGE FORM: <CTRL D>

Marks the end of the block of text and places block in the Get Buffer. Text is deleted from its original location.

The contents of the Get Buffer can be inserted in the text at any location by using the W or <CTRL W> commands. The contents can be written out as many times as desired, until the Get Buffer is cleared (see below).

Write Contents of Get Buffer

COMMAND FORM: (n)W
INSERT or CHANGE FORM: <CTRL W>

Writes the contents of the Get Buffer to the text beginning at the current cursor location. The text after the current cursor location is automatically pushed ahead and no text is overwritten. At Command Level, more than one copy may be specified by a multiplier.

Save Get Buffer Contents

COMMAND FORM: \$(name),S{slot},D{drive}
INSERT or CHANGE FORM: Not available

Saves the contents of the Get Buffer as a text file. WARNING: Do not save the buffer to your OUTPUT DISK, it could cause the output file to be scrambled. Use a different diskette in a different drive, such as your Library Diskette, when saving the contents of the Get Buffer. DO NOT remove your Text Diskette from the drive! (Not available on one drive systems.)

Clear Get Buffer

COMMAND FORM: Y
INSERT or CHANGE FORM: <CTRL Y>

Clears the contents of the Get Buffer. Until the Get Buffer has been cleared, its contents can be written out as often as desired. (see W, <CTRL W>) The Get Buffer is also cleared any time text is saved, a new file is started, another block of text is put into the Get Buffer, or you leave the EDITOR.

SEARCH AND REPLACE

Find

COMMAND FORM: (-)(n)F{target string}
INSERT or CHANGE FORM: <CTRL F>

Initiates a search. In the COMMAND mode an optional minus sign and an optional multiplier from 1 to 255 are permitted. Screen Writer][will search for the nth occurrence of the target string in the direction specified.

If the verify flag (set by pressing V at Command Level or <CTRL V> in Insert or Change Mode, and indicated by an inverse V on the bottom of the screen) has been set, Screen Writer][will stop at each occurrence up to the nth. <ESC> will stop the FIND routine, <RETURN> will continue the process.

If the upper case flag (initiated by U at Command Level or <SHIFT CTRL U> in Insert or Change Mode and displayed as an inverse U on the bottom of the screen) has been set, Screen Writer][will disregard the case of the target string.

If no target string is entered as a part of the FIND command (Command Mode) or in response to the prompt WORD TO FIND/REPLACE (Insert or Change mode) Screen Writer][will search for whatever string is located in the Search Buffer. (If a REPLACE has been done since the last FIND, the Search Buffer will contain the REPLACE target string.)

Replace

COMMAND FORM: (-)(n)R{oldtext}<CTRL R>{newtext}
INSERT or CHANGE FORM: <CTRL R>

Replace {oldtext} with {newtext}. An optional minus sign and an optional multiplier from 0 to 255 are permitted at Command Level.

If n is between 1 and 255, Screen Writer][will search from the cursor forward toward the end of the file (backwards, if a minus sign is used) for n occurrences of {oldtext} and replace each of them with {newtext}.

If n is set to 0, Screen Writer][will replace ALL occurrences of {oldtext} between the current cursor position and the end of the file with {newtext}.

In Insert or Change Mode, the user is prompted to enter {oldtext}<CTRL R>{newtext}<RETURN> on the Command Line; type <RETURN> to complete the command.

If the verify flag (set by pressing V at Command Level or <CTRL V> in Insert or Change Mode and indicated by an inverse V on the bottom of the screen) has been set, Screen Writer][will stop at each occurrence. <ESC> will terminate the replace routine, <RETURN> will cause the program to search for the next occurrence without performing a replacement, and any other keypress will cause the occurrence to be replaced.

If the upper case flag (initiated by U at Command Level or <CTRL SHIFT U> in Insert or Change Mode, and indicated by an inverse U on the bottom of the screen) has been set, Screen Writer][will disregard the case of the text searched for.

If no target string is entered as a part of the replace command (Command Level) or in response to the prompt WORD TO FIND/REPLACE (Insert or Change Mode), Screen Writer][will search for whatever string is located in the Search Buffer.

The Find and Replace commands share a 63 character Search Buffer, which contains the most recent search target.

To insert <RETURN> or a <CTRL> character into a search or replace string you must type <CTRL X> first. (<RETURN> is the same as <CTRL M>.)

FILE HANDLING

Merge File

COMMAND FORM: M{file name}(.Sn,Dm)

INSERT or CHANGE FORM: Not available

Inserts {file name} into the existing file in memory at the current cursor location.

Start New File

COMMAND FORM: N

INSERT or CHANGE FORM: Not available

Clears memory and restarts the EDITOR process by displaying the OUTPUT and INPUT prompts. Before memory is cleared you are given the opportunity to return to the EDITOR to save your text. Do not save your file if you have moved your output disk!

Save File

COMMAND FORM: S{optional name}(.Sn,Dm)

INSERT or CHANGE FORM: Not available

Save the current text to disk. Using the S command by itself will cause the file in memory to be saved to the current OUTPUT FILE. Prior to saving the file you are given the opportunity to change disks. (Do not move your disk except when prompted: INSERT DUPLICATE DISK or INSERT ORIGINAL DISK. Also, do not confuse your two disks!) If a file name is used, the text will be saved to a file called by that name. Normal drive/slot instructions can be used. For files over 30 sectors, see the section in Chapter 6 on File Integrity.

DOS Commands

COMMAND FORM: <CTRL D>{command}

INSERT or CHANGE FORM: Not available

Allows DOS commands to be entered at Command Level. You are not allowed to BSAVE anything to the OUTPUT disk.

INITialize Text Diskettes

COMMAND FORM: *,Sn,Dm
INSERT or CHANGE FORM: Not available

Allows you to initialize a diskette from the EDITOR. Standard drive and slot notation must be used.

CHAPTER 12

RUNOFF COMMANDS

MAIN MENU

The Main Menu has 8 options. We will discuss each of the 8 options in turn.

```

                                RUNOFF MAIN MENU
                                Copyright 1982 David Kidwell

SELECT:
  1. Display the TEXT FILE PAGE
  2. Display the OUTPUT PAGE
  3. Print the files
  4. Display the EDIT FORMAT PAGE
  5. Display the PRINTER SPECIFICATIONS
  6. Enter the Editor
  7. Save default Parameters
  8. Exit

Enter a number or DDOS Command
:
```

In addition to the commands in each section of RUNOFF, you can always issue a DOS command by preceding it with <CTRL D>. For example, you can catalog a disk, rename a file, or load an alternate RUNOFF format, for example.

To return to the RUNOFF MAIN MENU, type <CTRL Q> from any RUNOFF page.

TEXT FILE PAGE (OPTION 1)

Screen Writer][
TEXT FILES

FILE:
10:
20:
30:
40:
50:
60:
70:
80:

ADDRESS FILE:
90:

ENTER FILE NAME i.e. 10:FILE NAME,Dn,Sn
:

C-CATALOG DDOS COMMAND Q-MAIN MENU

On this page, you select a sequence of files to print.

The C (catalog) command gives you a numbered catalog of text files. If no slot or drive parameters are used, the program will catalog the default text disk. This will be the diskette in the boot drive unless another drive has been specified in CUSTOMIZE. Catalog the diskette in Drive #2 by typing C, D2.

File names are entered by typing the sequence number, a colon, the file name or catalog number, and any slot/drive information needed. The slot designator is appropriate for systems with more than two drives.

You don't need to use upper case, even though the file names are written in capital letters. For example:

10:appendix iii,s6,d2
or
10:2,d2

Files will be automatically printed in numerical order. To insert a file between two others, enter an intermediate sequence number.

For example:

15:hi,D2,S6

will place file "HI" (which is on Drive 2 in Slot 6) in between files 10 and 20.

Sequence 90 is reserved for the address file for use with form letters.

When entering the first file into the sequence, it is not necessary to type the 10. Merely enter a colon and the name or file number. If there are already files sequenced, this procedure will push the list down to make room for each new file.

To erase a file from the sequence, type the sequence number and <RETURN>. Higher-numbered files will be renumbered automatically.

<CTRL D> allows you to enter DOS commands.

<CTRL Q> returns you to the main RUNOFF menu.

OUTPUT PAGE (OPTION 2)

```

This File:
Page Number:1      Bytes Available:0000
Copy Number:1      Record Number.:0

KEYBOARD COMMANDS:
B-Begin Printing   E-Halt on error
C-Continue Printing I-Ignore commands
J-Eject Page       P-Pause at Page End
R-Skip Address Rec. S-Stop at Page End
DDOS COMMAND       T-Test Print
Q-Main Menu         W-Wipe Titles

COMMAND:
```

This page displays the name of the current file, the current page number and the current copy number. It also provides the status of bytes available in the buffer used for indexing and footnotes.

The following commands are available on the Output Page:

B(c)(s,e)

Begin Printing

Begins printing, c copies, starting at page s, ending at page e. If the optional parameters (c,s,e) are not entered, RUNOFF will print one copy of all the pages in the file. However, if you want to enter any of the numbers you must enter all preceding ones. If you specify a starting page, you must also specify an ending page. It doesn't matter if you overestimate the number of pages in your file: the program won't print any pages beyond those present in your text.

<SPACE> Stop printing

This causes all printing to stop. Any key except <RESET> can be used. You can halt the printing in order to toggle one or more of the Output Page commands (such as D, S or H), and then resume printing with the 'C' command.

C Continue

Causes printing to resume where you left off.

J Eject Paper

Causes the printer to form feed to the top of the next page. If single sheet feed is used, it will eject the paper. It will use carriage returns and line feeds unless the form feed character has been set on the Printer Hardware Specifications Page.

R,n Skip to record n

When printing form letters this command causes RUNOFF to skip records to start printing on record "n." If RUNOFF has not been using this form letter during this printing session, and you have not set the End of Address character in CUSTOMIZE, you will get an error message when you use this command. This is because RUNOFF must know the End of Address (also known as End of Record, or EOR) token before it can count records to skip.

D Turn display on or off

With fast printers (faster than 80 cps) and during spooling, turning the display off will speed up the operation. This command is available, even though it does not appear on your screen. A D appears on the lower right of the screen when the display has been turned off.

F Fast/Slow Print

Alternates between fast printing and slow printing so an operator can read the text. Primarily used in conjunction with Test Print.

E Halt on Error

Stops the printer when an error in an embedded command is discovered. The error message is displayed. To continue printing press any key. If this command is not used, the error message is displayed, but the printer does not stop.

I Ignore Embedded Commands

Causes RUNOFF to ignore all embedded commands. Useful in finding page formatting errors or for rough drafts. This provides the same basic function as the EDITOR List command.

P Pause at End of Page

Causes a pause to occur at the end of each page. This allows you to change paper in a sheet feed operation, or to adjust it backwards to print in columns. Any keypress causes printing to continue.

S Stop at End of File

Causes a pause to occur at the end of each file. This allows you to change disks prior to linking to the next file.

T	Test Print
---	------------

Test Prints to screen in 70 column display. Shows only the left 70 columns of your paper, including the left margin.

W	Wipe Titles
---	-------------

Clears all titles and the date from Edit Format Page. These titles may have been left over from previous embedded commands. Restores page number format to default (whatever was most recently loaded from disk).

H Ignore Hyphen Commands

This will cause RUNOFF to ignore all hyphenation commands during printing. This command is available, even though it does not appear on the screen display.

☐ Ignore overprint

This will cause RUNOFF to ignore all overprint commands during printing. Command is available, even though it does not appear on the screen display.

PRINT FILES (OPTION 3)

Starts printing with the first file in the sequence (Text File Page). Goes to OUTPUT PAGE, see above.

EDIT FORMAT PAGE (OPTION 4)

Screen Writer II					
EDIT FORMAT					
MARGIN		PAGE		OUTPUT	
Left	:10	Length	:66	Justify	:OFF
Right	:70	Width	:80	Fill	:OFF
Top	:6	St #'s	:2	Case	:M
Bottom	:60	No. Type	:0	Hyphen	:OFF
Indent	:5	Spacing	:1	H. Spc.	:5
Page No. Title: 3, r, Page					
Title:					
1:					
2:					
3:					
4:					
Date:					
A-LEFT S-RIGHT W-UP Z-DOWN Q-MAIN MENU					

On this page, you can set the default text format. This format can be overridden by embedded commands, except that 'headers' (titles, date and page numbers) will be located relative to the left and right margins set on this page.

The cursor can be moved around within the input fields on this page with the following commands:

Cursor Movements:

- <CTRL A> - left
- <CTRL S> - right
- <CTRL Z> - down
- <CTRL W> - up

Parameters you may set:

MARGIN

Left:	Set left margin
Right:	Set right margin
Top:	Set top margin
Bottom:	Set bottom margin
Indent:	Set indent for beginning of first line of paragraph

The right margin must be greater than the left margin, and must be less than the form width.

The bottom margin must be greater than the top margin. Both must be less than the page form length.

PAGE

Length:	Set form length
Width:	Set form width
St. #'s:	Set page to start printing numbers
No. Type:	Set number type to Roman(R) or Decimal(D)
Spacing:	Set line spacing

The form length is the physical length of the paper in lines. Standard 11 inch paper has 66 lines when the printer is set to 6 lines per inch. It has 88 lines when the printer is set to 8 lines per inch.

Page width is the physical size of the paper. This is used only to check whether the right margin is too large.

Often the first page of a document should not have the page number on it. You can choose where to start printing the page numbers. If you set this to 2, then the numbering will begin on page two.

Spacing between lines can be set from 1 to 256.

OUTPUT

Justify:	Select justification on or off
Fill:	Select fill on or off
Case:	Select upper (U), lower (L) or mixed (M)
Hyphen:	Select whether to use hyphenation
H. Spc:	Set hyphen spacing

If justification is on, the default (unless changed by an embedded command) is full (left and right) justification. The type of proportional spacing to be used during justification is set on the Printer Hardware Specifications Page.

Fill ON ignores all <RETURN>s.

If hyphenation is on, the normal mode is Manual Hyphen. Auto hyphen is turned on with an Embedded Command.

When RUNOFF must add more spaces than are set in the hyphen spacing in order to justify the text, and hyphenation is on, then a hyphenation decision will be made. See Chapter 13 for more details.

Page Number Format

You can set the way you want your page numbers to be printed. The format is:

(line),(position},{text}

where (line) is the line number, greater than the bottom margin or smaller than the top margin; (position) is either L (left), R (right), C (center) or an absolute tab position. The text to be printed before the page number is specified with {text}.

Example:

Page No. Title:58,c,page<space><RETURN>

would cause an entry at the center of line 58 on each page, consisting of the word 'page', a space, and the page number.

Titles

Titles 1 through 4 can be set here. The format is: (line),(position},{text}.

Position can be: L(ef), C(enter), or R(ight), or it can be an absolute tab position.

Example:

Title:
1:2,L,Screen Writer] [<RETURN>

will cause 'Screen Writer] [' to be printed left justified on line 2 of each page.

DATE

Similarly, you can specify how you want the date printed. The format is (line),(position},{text}. Example:

Date:3,R,1/1/01<RETURN>

will cause the date '1/1/01' to be printed right justified on line 3 of each page.

Exit

To exit to the MAIN RUNOFF MENU, use <CTRL Q>.

PRINTER HARDWARE SPECIFICATIONS (OPTION 5)

```

                                Screen Writer ][
                                PRINTER HARDWARE SPECIFICATIONS

Slot number or driver address..... :1
Spooling (Y/N) (Spooler Loaded)..... :N
Form feed character..... :0
Send carriage return .....(Y/N).... :Y
Send line feed after CR ...(Y/N).... :N
Number of nulls after CR..... :0

Backspace character..... :8
Underscore format..... 2
0-none          1-dash next line
2-backspace     3-no line feed
Underscore character..... :95

Proportional Spacing (Y/N)..... :N
Printer type..... :0
1. Qume Sprint 5
2. Spinwriter 5510/20
3. Diablo/Spinwriter 5515/25
4. Other
Pitch (10,12,15)..... :10

A-LEFT  S-RIGHT  W-UP  Z-DOWN  Q-MAIN MENU
```

Here you set up the hardware specifications for your printer. Once set and saved as a part of the RUNOFF program it does not have to be reset unless you change printers.

Cursor Movements:

<CTRL A> - left
<CTRL S> - right
<CTRL W> - up
<CTRL Z> - down

PARAMETERS

Slot number or driver address: The slot number of your printer interface card or the HEX or decimal address of a custom printer driver. To enter a HEX address use \$.

Spooling: is turned on or off from the second line of this menu. In order to use spooling, you must have used CUSTOMIZE, from the INITIAL MENU to instruct your computer to expect it.

Form feed character: the ASCII code of the form feed character for your printer. Some printers form feed faster with this character, others do not need it. Most printers use decimal 12. Zero disables this feature.

Send carriage return (Y/N): tells RUNOFF whether or not to send a carriage return at the end of a line. Some intelligent printers will do proportional spacing if carriage returns are not sent.

Send line feed after CR (Y/N): tells RUNOFF if your printer needs a line feed character after a carriage return.

Number of nulls after CR: used if your printer requires a delay after a carriage return. Most printers do not require nulls.

Backspace character: the ASCII code of the backspace character for your printer. Most printers use decimal 8.

Underscore format: allows you to select one of four formats which allow your printer to underline words or letters. Format 0 is used if your printer is incapable of backspacing or you wish to ignore underlining. Format 1 places dashes on the next line. Format 2 causes the printer to strike a character, backspace, strike the underscore character, and go on. To work, the backspace character must be set to a non-zero value. Format 3 issues a carriage return with no line feed then underscores on the second pass. To work, the answer to the send LF question must be 'Y'.

Underscore or underline character: the ASCII code of the underscore character for your printer. Most printers use decimal 95.

Proportional spacing: allows you to turn proportional spacing on and off. If proportional spacing is off and you are printing in a justified mode, then whole spaces are placed between words to make the lines come out even. If proportional spacing is turned on, then, depending on your printer selection, partial spaces are inserted between words to make the lines come out even.

Printer selection: allows you to tell RUNOFF the type of printer you have. This is used to determine the proper code for proportional spacing. Option 4 is for those with a custom printer interface. RUNOFF will send a 0, then the number of 1/120 inch increments to justify the line. Option 5 (not shown) is for Centronics 739 printers.

Pitch: tells RUNOFF the pitch of your print element, that is, the number of character printed per inch.

ENTER EDITOR (OPTION 6)

This option returns you to the EDITOR.

SAVE DEFAULT PARAMETERS (OPTION 7)

Saves the parameters currently set in the RUNOFF program, including Text Files Edit Format, and Printer Hardware Specifications Pages. These parameters will be loaded the next time you go into RUNOFF.

Alternate sets of RUNOFF parameters can be saved. This is done by saving the alternate parameters to a binary file on your Library Diskette or your Screen Writer] Master Disk. To do this you type:

```
<CTRL D> BSAVE {name},A$C00,L$1400,(Sn),(Dm)<RETURN>
```

Example:

```
<CTRL D>BSAVE LETTER.PARAMS,A$C00,L$1400,S6,D2
```

Note: Do not save your default parameters to your spooling diskette! They may be saved to any Text Diskette or Library Diskette not used for spooling.

To use alternate RUNOFF parameters, enter RUNOFF normally, then type:

```
<CTRL D> BLOAD {name}),(Sn),(Dm)<RETURN>
```

EXIT (OPTION 8)

This option returns you to the resident BASIC. Often, you may be able to restart the program from the monitor by typing:

```
CALL -151 4000G<RETURN>
```

or, from BASIC:

```
CALL 16384<RETURN>
```


CHAPTER 13

EMBEDDED COMMANDS

FORMATTING COMMANDS

Margins

The margins can be controlled from within the text. Margins may be changed as often as desired within a document; several changes on a single page can lend flexibility and sophistication to your finished product.

.LM n	Set left margin to n
.RM n	Set right margin to n
.TM n	Set top margin to n
.BM n	Set bottom margin to n

If you are trying to draw pictures with your text, you can set different left and/or right margins for each and every line on the page (starting at line 1, regardless of where the top margin is set) by using the optional additional settings. If you use this option you must specify a setting for each line, not just for the lines where a change will take place.

.LM n1,n2,n3. . .	Set left margin for line 1 to n1, for line 2 to n2, for line 3 to n3, . . .
.RM n1,n2,n3. . .	Set right margin for line 1 to n1, for line 2 to n2 for line 3 to n3, . . .

Form length (in lines) can also be controlled by an embedded command.

.FL n	Set form length to n
-------	----------------------

Right margin must be greater than left margin, and bottom margin must be greater than the top margin. The bottom margin must be less than form length, and right margin must not exceed form width. While this seems obvious, you do have to consider the order in which you change these parameters.

Spacing and Paragraphs

Spacing between lines and paragraphs can be set by embedded commands. When a new paragraph is called for by the command .PA or by the paragraph token, RUN-OFF will skip the number of lines set by .PS, and indent the next line.

.SS n	Set line spacing to n
.PA	New paragraph
.PS n	Skip n extra lines between paragraphs
.SP c	Set paragraph token to c

There are a number of commands for skipping lines and controlling the page.

You can test the page with '.TP n' to see if there are n lines left. If there are, printing continues. If not, a new page is started. This can be useful when you wish to keep a block of text together on the page.

To leave room for an illustration, use '.FG n', which tests the page and starts a new page if there is not room for n lines. A space n lines long is left to leave room for a figure.

Space is left for footnotes by '.FT n', which instructs the program to leave n lines at the bottom of the page for a footnote. The text for the footnote begins on the following line, and may contain formatting commands. The footnote must end with a line which contains only I<RETURN>. The footnote is saved in a 3500 character buffer which is shared with the indexes, to be processed at the appropriate place on the page. If more than one footnote appears on the page, the buffer will contain the text of them all, and the space allocated will be the sum of the spaces for each one. The actual space taken up by the footnote need not be precisely what you specified, but if it is far off you will probably wish to readjust the command after looking at the printout.

After a footnote is printed, a new page is started. If n is too small, a blank page will be printed.

RUNOFF keeps track of the position on the page with a line counter, which may be adjusted with '.SL', '.LI' and '.LD'.

Form feeds can be specified with '.FF', but only if a non-zero form feed character has been entered on the Printer Hardware Specifications Page. (For most printers, decimal 12 is used.)

.NP	Start new page
.SK n	Skip n lines
.TP n	Test page
.FG n	Leave room for figure n lines long
.FT n	Leave room for footnote n lines long
I<RETURN>	Marks end of footnote

.SL n	Set line counter to n
.LI	Increment line counter
.LD	Decrement line counter
.FF	Issue form feed character

Type Style

Screen Writer][normally prints in mixed upper and lower case, but embedded commands allow you to print the text in all upper or all lower case if you prefer (as for a BASIC program for the Apple, for example).

If your printer is able to backspace, you may include instructions in the text to tell RUNOFF which segments to print in boldface type, or to underline. Put the boldface token before the text to be printed in boldface, for example, and put another boldface token at the end of the boldface section. Everything between the two tokens will be printed in boldface.

You may also choose whether to underline words only, or to underline the spaces between the words as well.

.UC	Print the following text in upper case
.LC	Print the following text in lower case
.MC	Print the following text in mixed case (upper and lower)
.US	Underline words and spaces
.UO	Underline words only (default)
.UL c	Set underline token to c
.BF c	Set boldface token to c

Justification

Screen Writer][can print text left justified, right justified, or full justified.

Justification	Left Margin	Right Margin
LEFT (or none)	FLUSH	RAGGED
RIGHT	RAGGED	FLUSH
FULL	FLUSH	FLUSH

The default when justification is ON is full justification. Full justification can be turned off, or changed to right or left justification. Default when justification is OFF is the normal left justification. '.LJ' and '.RJ' cancel each other. The use of column or tab commands cancels justification.

Screen Writer][justifies the text by filling in extra spaces as needed to fill out a line. Proportional spacing (if available for your printer and selected on Printer Hardware Specifications Page) allows fractional spaces (in increments of 1/20 space) to be

inserted evenly throughout the line. If you are not using proportional spacing, extra full spaces will be inserted between some of the words.

.LJ	Print text left justified
.RJ	Print text right justified
.JU	Print text full justified
.NJ	Turn justification off
.PM n	Set proportional spacing mode: (0 = full spaces, 1 = partial spaces)

Hyphenation

Full justified text can be made to look more uniform by the use of hyphens to break up long words. Screen Writer][provides two hyphenation modes, manual and automatic. If the mode is not specified, the default is manual.

Manual hyphenation: whenever RUNOFF would need to insert more spaces than specified on the Edit Format Page (H. Spc.) in order to justify a line, it stops and asks the user to hyphenate the next word. Use the left and right arrows to position the cursor just after the location for the hyphen (the text pointer, at the left edge of the cursor, is on the hyphen), and press "-". The character under the cursor will now appear in inverse. To change the placement of the hyphen, press "-" again to remove the first one, and repeat the process. When you are satisfied, press <RETURN>.

Automatic hyphenation: RUNOFF hyphenates as necessary at locations previously marked by a hyphen token. If no hyphen token appears in the word, no hyphenation is done. As you enter text, define a hyphen token and insert it into words likely to need hyphenation, at the place(s) where a hyphen could go. RUNOFF will ignore all hyphen tokens which are not needed to justify the text. None of the hyphen tokens will be printed.

.HO	Turn hyphenation on
.NH	Turn hyphenation off
.MH	Set hyphenation to manual
.AH	Set hyphenation to automatic
.SH c	Set hyphen token (for automatic) to c

Text Positioning

The horizontal position of the text inside the margins on the page can be controlled by embedded commands for centering, indent, tabs and columns.

An 'outdent' is achieved by specifying a negative indent.

There are two kinds of tabs, absolute (the position is constant relative to column 0, regardless of the margin settings) and normal (relative to the current left margin). For each, up to 16 tab stops may be set, each of which must be between 0 and 99. A separate tab token is used for each kind of tab.

Similarly, up to 16 column stops may be set. When the column character is encountered, the preceding word is aligned to the next column stop. Use of the column commands turns justification off.

.CE	Center next line (only)
.ID n	Indent next line n spaces (n may be positive or negative)
.TS n1, . . . ,n16	Set normal tab stops (relative to left margin)
.TC c	Set normal tab character to c
.AS n1, . . . ,n16	Set absolute tab stops (relative to column 0)
.TA c	Set absolute tab character to c
.CS n1, . . . ,n16	Set column stops
.CC c	Set column character to c

HEADERS

Headers (titles, date and page number) can be defined and turned on or off by embedded commands. Once a header has been printed, it is entered on the Edit Format Page and will continue to be printed as specified until cleared by WIPE from the Output Page, turned off by subsequent embedded commands, or replaced by headers of equal or greater length.

The location of headers is controlled by the margins set on the Edit Format Page. They will not be printed outside the left and right margins set on the Edit Format Page or inside the top and bottom margins set on the Edit Format Page. Note: No error messages will be printed, you just won't get the offending titles.

Titles

Up to four titles may be specified.

.TI n,L,p,{text}	Set title n to print {text} at line L, position p (left, right, center or absolute position)
.TO n	Turn title n on
.NT n	Turn title n off

Date

A similar format applies for printing the date.

.DT L,p,{text}	Set date to print {text} at line L, position p
.DA	Turn date printing on
.ND	Turn date printing off

Page Number

The same format applies to printing the page numbers.

.PG L,p,{text}	Set page numbering to print {text}(immediately followed by the actual page number) at line L, position p
.NU	Turn page number printing on
.NN	Turn page number printing off

The page numbers themselves can be printed in normal decimal numerals, or in Roman numerals. (The default is decimal.) Decimal numbers must be less than 9999, Roman numerals must be less than 100.

.SR	Set page numbers to Roman numerals
.SD	Set page numbers to decimal numerals

Page Counting

Screen Writer][keeps track of the page numbers, whether or not they are being printed. The page numbering can be controlled, in case you don't wish to start at page 1 and print consecutive numbers until you are finished.

.PN n	Set page number to n
.IP	Increment page number
.DP	Decrement page number

FORM LETTERS

Two files are needed for form letters, a "letter" file and an address file which contains separate records separated by a specified end of address (end of record) token. Address tokens in the "letter" instruct RUNOFF to search through the fields (separated by carriage returns) in the current record of the address file for the text to insert. The number immediately following the address token specifies which field within the current record should be inserted.

.SA c	Set end of record token to c (This must be set before the address token is encountered.)
.AD c	Set address token to c
.GR	Get the next record from the address file and start printing
.NR	Get the next record from the address file and continue printing

.AI {text}	Only include (print from) records which have {text} as the first field
.AN {text}	Do not print from records which have {text} as the first field

One address file can call another, so that mailing lists can be compiled in manageable pieces. Include one of the following commands in the address file as the first line of a new record.

.(name){(,Ss,Dd)}	Link address file {name} to present address file (no pause)
!{name){(,Ss,Dd)}	Link address file {name} with a pause, which allows you to change disks

Question

For user interaction with the program during form-letter printing, the Question command can be helpful. A series of up to eight tokens is defined by the '.QU' command. The first time RUNOFF encounters each question token in the text, it will pause while you enter up to 31 characters which will be inserted at the location of the token. A remark (.RK) should be used to prompt the user input. (See Chapter 7 for examples.)

.QU c1,c2,c3,...c8 Set question tokens to c1, c2, c3. ...c8

Compare

Screen Writer][can also examine information contained in the address record, and print different text depending upon a logical comparison. The items to be compared may be alphanumeric or numeric.

If the condition is true, the text following the '.IF' command will be printed. If the condition is false, the text following the '.IF' command will be skipped until a line containing only "!<RETURN>" is encountered. (See Chapter 7 for examples.)

.IF (a)comp(b)	Compares a to b (the parentheses are required)
----------------	---

Legal comparers:

<	Less than
>	Greater than
=	Equal to
#	Not equal to
-	Less than or equal to
+	Greater than or equal to
!<RETURN>	Marks end of text to be skipped if the condition is false

INDEXING

Screen Writer][can create up to four indexes, in varied formats. They can be printed in upper case, lower case or mixed upper and lower. They can be alphabetized or not alphabetized. And they can consist of words which are printed in the text, or of non-printing entries which reference a page without appearing on it. (See Chapter 8.) The position on the page at which the numbers begin can be specified; the default is to start at the center of the page.

To enter a word (or phrase) into the index, place the index token immediately before and after it. When RUNOFF encounters the token, it will index the word. If the token is for a printing index, the word will be printed normally. If it is a non-printing index, then the word will not be printed in the text.

.IN n,c	Set the token for index n to c (printing)
.IC n,c	Set the token for index n to c (non-printing)
.IL	Put all entries into index buffer in lower case
.IU	Put all entries into index buffer in upper case
.IM	Put all entries into index buffer in mixed upper and lower case, as first encountered in the text
.PI n,p	Print index n, alphabetized, with numbers starting at position p, printing each entry in upper and/or lower case, as it first appeared (Apple and apple would be considered the same word.)
.IA n,p	Print index n, alphabetized, numbers at p, distinguishing between upper and lower case (Apple and apple would be considered different words.)
.NA n,p	Print index n, non-alphabetized, numbers at p, distinguishing between upper and lower case

SYSTEM COMMANDS

To replace one character in the text with another at print-time, Screen Writer][provides the '.RE' command. The new character may be specified by entering the actual character or its decimal ASCII equivalent. Note that using '.RE' to replace a non-printing control character with a printing character will mess up full justification.

.RE c,d	Replace character c with d in printing
---------	--

DOS commands can be executed during RUNOFF.

.DI {command}	Execute {command}
---------------	-------------------

One file can call the next one to be loaded and printed, with no break in the printing (or the page numbering)

.AF {name}{(,Ss,Dd)	Load and print {name}
---------------------	-----------------------

RUNOFF can be instructed to ignore all carriage returns (fill the following text). To cause a carriage return to be sent to the printer in fill mode, use the '.BK' (break) command.

.FI	Fill the following text
.NF	Do not fill the following text
.BK	Break

For subscripts and superscripts, RUNOFF can be instructed to stop and prompt you to move the carriage up or down. On some printers, as specified on the Printer Specification Page, the up or down movement is automatic. Insert the appropriate Pause token where you want the pause to take place. After the pause, when you are ready to proceed, press <SPACE>, and printing will continue.

.PC c	Set pause token to c
.PD c	Set pause (down) token to c
.PU c	Set pause (up) token to c

Messages can be inserted in the text to be displayed on the screen by RUNOFF during printing. RUNOFF will pause until you press a key when a '.ME' is encountered. '.RK' does not cause a pause.

.ME {text}	Pause and display {text}
.RK {text}	Ring bell and display {text} (no pause)

For direct communication with your computer, Screen Writer][provides CALL and POKE commands. Pokes may be needed to initialize a printer card, or change values in special printer drivers. Calls allow you to call another binary program in memory.

.CA nnnn	CALL nnnn
.PO nnnn,mmmm	POKE nnnn with mmmm

CHAPTER 14

UNIQUE SCREEN WRITER][FEATURES

This chapter introduces two unique SCREEN WRITER][features, Spooling and Mouse. Spooling is the capability to print out one text file while editing another. The Mouse is a device—paddles or joystick—which controls cursor motion on the text screen. SCREEN WRITER][permits you to choose one of these when customizing your system.

SPOOLING

The Spooling option permits you to store the text file you wish to print out on a diskette in a previously assigned Spooling Drive. This must be kept separate from that assigned to your Output File. You might use your Library Diskette, unless you have saved RUNOFF default parameters (see Chapter 12). A conservative approach would be to use an initialized diskette with no other files on it for the Spooling Diskette.

When you customize your system, you will be asked whether you wish to use the Spooling feature. If you answer yes, you will be given a choice of printers with which this option may be used. Note that the default Spooling slot/drive choice is 6/1, which is normally assigned to your Library Diskette. Should you be fortunate enough to have a four drive system, use 5/1 as the Spooling drive.

It is also necessary to change the answer to the second question on page 5 (Printer Hardware Specifications) of RUNOFF from N to Y (yes). On page 2 (Output Page), set the D flag to speed up the data transfer process before typing B <RETURN> in the usual manner. Note that all the B command parameters are valid here.

Your text file will now be "printed" to the Spooling Diskette. When the process has been completed, your printer (assuming it's turned on and enabled) will begin to print out your file, and control of the computer keyboard will be returned to you. If you wish to edit another file, simply return to EDITOR and begin work, again in the usual manner.

In most respects, this system is transparent to the user. However, there are a couple of caveats. Spooling, like most things in life, is not free; it uses memory that would otherwise be available to your work file. For this reason, we suggest you consider the installation of a RAM card if you wish to use Spooling.

A command restriction is that Pause (RUNOFF Output Page) cannot be used with Spooling.

For fastest possible Spooling, in a professional environment, you should use a printer interface card with integral 16K or 32K RAM memory. File transfer is almost instantaneous, because you don't have to write to a diskette, and there is no Apple memory overhead loss.

THE MOUSE

The Mouse is, at present, an experimental feature intended for use with future graphics options. Cursor movement can be controlled by the X-Y displacement from the Joy-stick center 'rest' position. Cursor speed is controlled by the two buttons, one slow and the other fast. The joystick or game paddles must be plugged in at all times when this option has been selected.

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APPENDIX A

STARTUP

This appendix will guide you through selecting and setting up the Apple computer system you'll use with Screen Writer][. However, these instructions are not intended to take the place of the excellent material in the Apple manuals which came with your computer.

If you have not used your computer before, we strongly suggest that you go through the introductory exercises found in

The Applesoft Tutorial (Apple II Plus)

or

Apple Basic Programming Manual (Apple II).

The installation and startup of the Disk Operating System is covered in Chapters 1 and 2 of

DOS Version 3.3 Manual (Apple II/II Plus).

If this is all new—and a bit overwhelming—you'd probably find it helpful to watch your dealer or an experienced friend go through the startup sequence.

WHAT YOU NEED

- Apple II or Apple II Plus Computer with 48K memory
- One (and preferably two) Apple II Disk Drives with DOS 3.3 Controller Card installed in Slot 6

- A TV set (with modulator) or (preferably) a wide-bandwidth video monitor. A "green screen" model is less tiring on your eyes than the conventional black and white display
- The Screen Writer][Master Diskette, protected by a write protect tab covering the small notch on the side of the diskette cover
- Some blank 5-1/4" diskettes. Don't skimp on quality here; get the best you can afford
- A box of Ziploc (brand) plastic sandwich bags, size 6-1/2" x 5-7/8" x 1.15 mils. We recommend that you use one of these bags on each of your diskettes, to keep out dust and dirt. The bags are quite inexpensive (less than 2 cents each) and can be found in most supermarkets

We also suggest that you carefully read Appendix B, Proper Care of Diskettes. A little extra care in front can save you the agony of hours of lost work because of dirt on the sensitive recording surface of your magnetic diskettes.

PRINTER SELECTION

Careful examination of your hard copy needs is important before investing in a printer. Whether you purchase an inexpensive dot-matrix unit, or a professional letter-quality thimble or daisy wheel printer, get the best you can afford.

If you are looking at matrix printers, make sure you—as well as your intended audience—can read the printout.

Find out whether there is local service for your choice of printer, since all printers can be expected to break down or require service from time to time.

Be cautious in the selection of your printer interface card. Generally speaking, the simpler the card, the easier job you will have getting your system up and running quickly. We emphasize this, because the vast majority of user problems reported to date have been concerned with unusual printer and interface card combinations. Check with your dealer; if possible, see it all work before you buy.

HOW TO START

We're going to assume that you've gotten everything hooked up and running with your DOS 3.3 Master Diskette. If you have any doubts, run one of the games as a quick system check. If you have trouble getting this far, call your dealer or get help from a friend who has been through this already.

With power to the computer turned off, put your Screen Writer][Master Diskette (with the write protect tab) into Drive #1—the "boot" or startup drive. If you haven't done this before, look at the picture on page 7 of your DOS 3.3 manual.

Turn on your monitor.

Turn on your computer, using the small switch in the rear. The system should "boot" automatically. That is, the disk drive should start to whirr and the little red light should come on. After less than ten seconds, the Screen Writer][Initial Menu should be displayed on the screen.

If everything hangs up, don't panic. Just turn off the computer, open and close the drive door a few times to center the diskette, and try again.

If the disk drive keeps whirring with no other action, press RESET to stop it. Then carefully remove your Screen Writer][Master Diskette from the drive, and replace it with your DOS 3.3 Master Diskette. Make sure you have the 3.3 (or 16 sector) version, for Screen Writer][will not boot or run on the earlier (13 sector) versions of DOS.

When you're satisfied that you have a working computer system, try booting your Screen Writer][Master Diskette again. If you still experience difficulty, even after centering the diskette by opening and closing the door, the problem may lie in the speed adjustment of your disk drive. As a quick fix, you can try reversing two of your drives. If the trouble persists, ask your dealer to measure and adjust, if necessary, the speed of your drives.

Screen Writer][should boot on any normally operating Apple II or Apple II Plus computer system. If you are having trouble, or you don't understand what you are doing, get help from your dealer. He has a continuing interest in your getting the most out of your investment in your computer system and Screen Writer][.

APPENDIX B

DISKETTE USE AND CARE CHECKLIST

This appendix consists of a checklist of important diskette use and care considerations. Many computer writers seem to get away with abusing, or at least not taking particularly good care of, their magnetic diskettes. Then, one day—without reason or clue—a diskette crashes or a file can no longer be read.

A problem with magnetic diskettes is the vast amount of material that can be stored on a single piece of plastic. Damage sustained in one small area—whether dirt or mechanical damage—won't show up until that particular area is accessed. That could be months from the time the damage occurred, and, since there was no immediate indication of trouble, it was passed off as "no problem."

We'd like to make some suggestions concerning use and care of diskettes, since all of your output from Screen Writer][will be stored on these delicate plastic discs. Treat them with respect, and they will return it.

Mess them up, and watch out!

Diskette Care Checklist

1. Back up everything! Never trust one single diskette with important data or files.
2. Don't write on the diskette envelope with a ball point pen. No matter how "lightly" you try, you will more than likely damage the thin plastic disc with the concentrated pressure created by small pen ball. It's best to write on a label prior to affixing it to the diskette. Failing that, use a felt tip pen—and be careful.
3. Use a Ziploc (brand) plastic sandwich bag to protect each diskette from dirt and dust. This is especially important if people smoke in the general neighborhood of the diskettes.

4. Store diskettes vertically, like records. Don't lie them flat or at an angle; they will bend and warp.
5. Don't touch the diskette surface with fingers, tissue or solvents. Note that the bottom surface is the one with data, so if you put an unprotected diskette on a dusty table you could very easily contaminate the data surface.
6. Be careful about temperature. Allow diskettes to stabilize after a severe thermal shock, or you risk loss of data.
7. Don't bend or crease diskettes. If mailed, take special care to pack carefully with one of the plastic protector devices.
8. Be especially careful when inserting a diskette into the disk drive. It's very easy to catch something on a piece of internal machinery and crease the fragile diskette. If this should happen, back up the diskette at once! Don't take any chances with your text files!
9. Close the disk drive door gently; don't let it snap shut. It's important that the diskette center itself as the door closes. Snapping the door can catch the diskette off center and pinch the fragile plastic, causing permanent damage.
10. Don't leave the diskettes in the drives with the doors closed, because the plastic can warp permanently, causing unreliable performance.
11. Use center reinforcing rings (Inmac #7955EA, or equal) to strengthen frequently used diskettes.
12. Keep the diskettes away from magnetic fields, such as magnets, monitors and TV sets, and telephones.
13. Don't expose diskettes to temperature extremes: direct sunlight, top of a radiator, trunk of a car, next to a cold window, etc.
14. Be careful about static electricity, especially in winter. When you start getting sparks walking across rugs, ground yourself on something metallic before handling your diskettes.
15. Use lots of common sense in dealing with fragile diskettes. Careless handling can—and will—wipe out hours of work in an instant.

Diskette Use Checklist

1. Back up everything!
2. Label each diskette clearly and accurately, so you don't lose track of when things are kept. The best work in the world is useless, if you don't know where it is.
3. Develop and maintain a rational method of naming and renaming files. Use dates, version numbers and titles that will remind you of the file subject.
4. Dispose of old or suspect diskettes promptly. Use FID (from your DOS 3.1 Master Diskette) to transfer files you want to keep to a fresh diskette to maintain data integrity.
5. Maintain your own diskette file. Don't mix your working text diskettes, your library diskettes or your masters with anyone else's stuff.
6. Don't, in a moment of panic, grab for your neighbor's diskettes when something has gone wrong with yours. Stop. Think. Talk it over with someone else instead of doing something rash.
7. Again, use lots of common sense.

APPENDIX C

PRINTER TEST

A good way to test for proper printer operation is to follow this procedure:

1. Boot your computer using your DOS 3.3 Master Diskette. Remember, Screen Writer][requires the Version 3.3/16 sector version of DOS.
2. Turn on your printer. (You'd be surprised how often this is the problem.)
3. Type:

```
PR#1 <RETURN>
CATALOG <RETURN>
```

You should see the catalog simultaneously appear on your monitor screen and the sheet of paper in the printer. If the system hangs—does nothing—you might have a problem with the cable between the printer and the computer. Generally, the computer “waits” for the printer to “tell” it that everything is ready. Lacking this message, the computer will patiently look for the message, ignoring almost all other entreaties. The only way out is to hit <RESET> (or <CTRL RESET> on the newer Apple computers) to interrupt the printer connection.

Many printers have a self checking or test print feature. Consult your manual or call your dealer to find out how to run this utility.

If the printer checks out, the next step is to check the interface card. Simple cards like the Apple Parallel Card respond directly to:

```
PR#1 <RETURN>
```

Other, more complicated cards, such as multi-function cards, may require additional characters to tell them what to do next. Again, consult your manual, or call your dealer for help if you can't figure out what to do.

Let's assume you've managed to coax a DOS 3.3 Catalog listing out of your printer. The next step is to print over the full page width, usually 80 characters. Most printer interface cards require a string of characters to tell them how long a line to print before issuing a <RETURN> . A typical character sequence is:

<CTRL I>80N

which works with the Apple parallel card. Consult your printer and interface manuals for the appropriate character sequences for your equipment.

Some printers, such as the more flexible dot matrix units, offer lots of different type styles and sizes. They also require some code sequences to set up these different characters.

If figuring out the combination of printer and interface card character sequences seems confusing, we suggest that you use the simplest printer/interface setup that will meet your requirements. Your dealer is the best place to start, should you need some help. If at all possible, get him to set up the equipment and demonstrate it before you buy.

Several advanced printer/interface driver techniques are discussed in Appendix E.

APPENDIX D

SHIFT KEY MODIFICATION

Screen Writer][takes advantage of the common Apple SHIFT key modification. Once modified, Screen Writer][will look at the Apple keyboard as a standard typewriter keyboard. You press the shift key and another key, and a capital letter will be displayed. This modification is highly recommended.

There are three versions of the Apple][on the market. Before you make the Shift Key modification you must determine which version you have. Older versions have a single circuit board that makes up the keyboard assembly. Newer Apples have a piggy back circuit board. The third version of the Apple is a modified Apple marketed by Bell and Howell. This is easy to identify since it is painted black.

The Shift Key modification consists of connecting a point on the keyboard assembly with a hole on the paddle connector.

To determine if you have an old or new Apple, turn off the power to your computer and lift the top cover. Standing in front of the keyboard look inside the Apple and back toward the keyboard. If it is an old Apple then there is a single circuit board that makes up the keyboard assembly. If it is a newer Apple then almost directly under the "7" through "" keys is a piggy back board. If it is a black Apple then it is a Bell and Howell Apple.

Go to the section of this Appendix that deals with your version of the Apple.

New Apples—Piggy Back Board on Keyboard Assembly

1. From your local Radio Shack, or through the Radio Shack buy a MICRO TEST CLIPS (2) CAT>NO 270-370. (You get two but only need one so you can share with a friend). It should cost under \$2.00. This is a small clip that you will be attaching to one pin on the multi pin connector that attaches the piggy back board to the main keyboard assembly.

2. Take a 13" length of No. 22 wire and strip about 1/4" from each end.
3. Take the MICRO TEST CLIP and hold the thin end in one hand and the larger end in your other. Gently pull the clip apart. Inside is a flat piece of metal with a hole in it. Solder one end of the 13" wire to this piece of metal.
4. Thread the other end of the wire through the hole in the cap of the clip and put the two halves of the clip back together. As you push the cap you will see a small metal hook come out of the other end.
5. Turn off the power to your Apple and UNPLUG IT. Standing in front of the Apple locate the multi-pin connector that attaches the piggy back board to the main keyboard. (It stretches from about the "7" key to just past the "" key. Now locate the SECOND PIN FROM THE FAR RIGHT. It is located directly above the asterisk key.
6. Carefully clip the MICRO TEST CLIP to that pin and run the wire to the back of the Apple.
7. With the keyboard toward you, look down at the game paddle connector. (It is in the right rear corner of the main board). This connector is a 16 pin socket which the game paddles plug into. Take the wire that is connected to the MICRO TEST CLIP (which is connected to the multi-pin connector on the piggy back board) and insert the other end into the fourth hole on the right side (as you look down with the keyboard toward you). DO NOT solder this wire. You can now carefully install the game paddles on top of the wire.

Old Apples—Single Board Keyboard Assembly

NOTICE

This modification requires the removal of the APPLE case and will probably void the warranty. If you are unsure of what to do, allow your local service center to perform this modification for you.

Follow these steps in making the modification

1. Turn off the power to your computer. Unplug the computer and carefully remove all peripheral cards and the game paddles if you have them.
2. Turn the computer over and on the back you will find four screws along the front, two screws on either side and two screws on the back. These screws hold the case on. Remove all ten screws.

3. Now, holding the top case and the bottom case together, turn the computer back over and carefully lift the top case a few inches. You will see a short flat cable connecting the keyboard to the main board. Look at how it is oriented and carefully unplug it. **BE CAREFUL THE PINS ARE VERY FRAGILE AND WILL BEND AND BREAK EASILY.**
4. Once the cable is free, remove the top cover and keyboard, and turn the unit upside down. Look at the keyboard and locate the shift key. The shift key is connected to the keyboard with two solder points. One of these is connected to ground and the other runs to the keyboard encoder. You will need to connect one end of a wire to the point that runs to the encoder and connect the other end to the game connector pin 4.
5. Take a 13" length of No. 22 wire. Strip about a 1/4 inch of insulation off each end. Solder one end of the wire to the shift pin that goes to the keyboard encoder and run the other end back to the game paddle connector.
6. Once you have the wire attached to the keyboard, reassemble the case making sure the cable from the keyboard to the main board is properly installed. The key shift wire needs to be oriented so that it goes toward the back of your computer.
7. With the case reassembled remove the top lid of the computer. With the keyboard toward you, look down at the game paddle connector. (It is in the right rear corner of the main board). This connector is a 16 pin socket which the game paddles plug into. Take the wire you connected to the shift key and insert the other end into the fourth hole on the right side (as you look down with the keyboard toward you). Do not solder this wire. You can now carefully install the game paddles on top of this wire.

Bell and Howell Apple (Black Apple)

This is the easiest of all installations since Bell and Howell has done all the work.

1. Turn off your computer and unplug it.
2. Remove the top and look inside on the right side of the computer. You will find a wire that is connected to a multi pin connector under the main keyboard assembly that extends to the rear of the computer. It is looped through a clamp on the right side of the computer. On the other end of the wire is a connector covered in plastic.

3. Another wire runs forward from the paddle connector. It is also looped through the same clamp on the right side of the computer and has a matching connector.
4. Plug the two connectors together.

All Versions

That is all there is to it. Screen Writer][will now let the Apple keyboard act as a normal typewriter keyboard.

Pin 4 of the game connector is the switch 2 input. This is the normal pin to use for the key shift modification since it is generally not used in the Apple. However, if your joy stick configuration is unique you may want to select another input. This is done using the CUSTOMIZE program. For complete instructions on how to use this program read Chapter 4.

One of the other advantages of the key shift modifications is that it gives you some characters not normally found on the Apple. These are:

KEY STROKE	CHARACTER
<SHIFT CTRL I>	[Left bracket
<SHIFT CTRL O>	_
<SHIFT CTRL X>	\ Back slash
<SHIFT CTRL V>	Underline
<SHIFT CTRL M>	] Right bracket
<CTRL X> <SHIFT N>	^ Up arrow or caret
<CTRL X> <SHIFT P>	@ At Sign
<CTRL X> <SHIFT CTRL N>	~ Down arrow or reverse caret

If you have any problems making this modification to your Apple, contact your dealer's service department.

APPENDIX E

CUSTOM PRINTER DRIVERS AND SPECIAL PRINTER CARDS

INITIALIZING PRINTER CARDS

Some printer cards require initialization characters to print text properly. Without these characters they may only print a page up to 40 characters wide, or be unable to do proportional spacing properly (if your printer is capable of this function in the first place).

For example: to initialize an Apple parallel card for proportional spacing, you have to send <CTRL I>255N. This can be done automatically after you have used CUSTOMIZE. See Chapter 4 for detailed instructions on the use of this program.

LARGE PRINTER DRIVERS

There are two areas of memory which may be used to locate a custom printer driver: on page 3 (from \$300 to \$3D0) or from \$9600 down. Page 3 is the normal place for most custom drivers. If your driver is too long to fit in this area or if it is in another area of memory, it must be reassembled to run from just below \$9600. For example, if a printer driver is \$200 (decimal 512) in length, it must be reassembled to run from \$9400 (\$9600-\$200). It will now reside from \$9400 to \$95FF.

Since text is stored in most of the Apple memory, the start up programs must be changed to inform Screen Writer][that you need the upper part of memory for your printer driver. This is done with the CUSTOMIZE program. (See Chapter 4.)

SHORT PRINTER DRIVERS

Printer drivers 32 bytes or shorter (208 bytes, if you are not using the game paddle option) can be loaded at \$300. With these drivers you do not have to modify HIMEM with CUSTOMIZE. All you have to do is load the driver and change the printer address location in the RUNOFF Printer Hardware Specifications Page to \$300.

PROPORTIONAL SPACING DRIVERS

In order to do proportional spacing RUNOFF sends special characters to the printer. These characters tell the printer to move the print head in increments of 1/120th of an inch. In some cases printer interface cards intercept these special characters and will not allow the printer to perform properly.

A special printer driver must be used. This driver can be added to your program by CUSTOMIZE.

If your printer works fine when not using proportional spacing, but will not do proportional spacing, see whether your card is listed in the section of CUSTOMIZE about boldface and underlining.

After running CUSTOMIZE, set the printer address on the Printer Hardware Specifications Page to \$300.

Proportional spacing should work properly now.

EPSON MX-80 APL PRINTER DRIVER

With the driver which can be included as part of your program by using CUSTOMIZE, both boldface and underlining are available through software. The optional hardware package is not required to use these features with Screen Writer II.

After you have run CUSTOMIZE, go to the RUNOFF Printer Hardware Specifications Page. Set the printer address to \$300. Next change "SEND LINE FEED" to "Y" and change the UNDERLINE MODE to "3."

Underlining and boldface will now work properly.

AUTOMATICALLY LOADING PRINTER DRIVERS AND MACRO TABLES

Printer drivers and MACRO tables can be automatically loaded when the Screen Writer II Master Diskette is booted.

To make this modification, get into the resident BASIC (Q from the EDITOR, option 3 in RUNOFF, or option 3 from the main menu). Then type:

```
LOAD APP2
```

Now at lines 7800, 8800 and 9800 you will tell Screen Writer II to load your printer driver and at lines 7810, 8810 and 9810 you will tell Screen Writer II to load your MACRO table.

For example, if your driver is called DRIVER and your MACRO table is called MACRO, you would type these lines:

```
7800 PRINT D$;"BLOAD DRIVER"  
8800 PRINT D$;"BLOAD DRIVER"  
9800 PRINT D$;"BLOAD DRIVER"  
7810 PRINT D$;"BLOAD MACRO"  
8810 PRINT D$;"BLOAD MACRO"  
9919 PRINT D$;"BLOAD MACRO"
```

You would then type:

```
SAVE APP2
```

Rerun CUSTOMIZE, to incorporate this new version of APP2.

Now when the Screen Writer][Master Diskette is booted DRIVER and MACRO are automatically loaded.

SPECIAL PRINTER INITIALIZATION

When Screen Writer][initializes a printer it sends a PRINT command to the printer. This command "wakes up" the printer. On most printers this merely causes the printer to click. However on a few printers a character is printed. In order to eliminate this character you need to replace the SLOT or DRIVER ADDRESS on the HARDWARE SPECIFICATION page of RUNOFF with the actual memory location of your interface card.

To find this location, do the following:

1. Turn your computer off.
2. Remove the disk(s) from your drive(s).
3. Turn your computer back on.
4. Press <RESET>.
5. From Basic type PR#{SLOT}<RETURN>. {SLOT} should be the slot where your printer interface is located. Typically this is Slot #1, so you would type PR#1.
6. Type: CALL -151<RETURN>.

This will take you to monitor. An * will be displayed.

7. Type: 37<RETURN>.

A (hexadecimal) number will be displayed. Write down that number and label it HIGH BYTE. It should begin with C.

8. Type: 36<RETURN>.

Another number will be displayed. Write it down and label it LOW BYTE. The value should be in the range 00-07.

You have now found the interface card location, which was stored at locations \$36 and \$37 in memory.

9. Return to basic by pressing <CTRL C>. Reinsert your Screen Writer][Master Diskette and boot the system by typing: PR#6.
10. Load RUNOFF and go to the PRINTER SPECIFICATIONS page. For the Slot number or driver address prompt (the first one on the list) enter a dollar sign, then the number labeled HIGH BIT followed by the number labeled LOW BIT.

For example, if the HIGH BYTE is C1 and the LOW BYTE is 02, then for the Slot number or driver address, you would type: \$C102.

APPENDIX F

CHARACTER TABLES

Screen Writer][supports alternate character sets. The character table resides at \$C00 (4096) and is of the Keyboard Filter/Typesetter/Apple format. However, the table is inverted. The program UPSIDE DOWN on the master disk will perform this conversion for you. To load in an alternate character set, add the lines:

```
7820 PRINT D$"BLOAD {new character table},A$C00"  
8820 PRINT D$;"BLOAD {new character table},A$C00"
```

to APP2

Note: Screen Writer][effectively disables the color killer on the Apple II or Apple II Plus during its use. If the new characters appear on the screen in color, turn down the color control on the TV set or color monitor.

APPENDIX G

SAVING FORMATTED FILE TO DISK

Sometimes it is useful to print a formatted version of a text file to disk. This format includes all the print commands as if you were printing the text. But, instead of going to the printer, the formatted text goes on the disk (or on another disk in another drive) as a formatted text file.

This file can then be used with a general spooling program or to transmit the information over the telephone (ELECTRONIC MAIL).

First from the command line of a RUNOFF display you type:

```
<CTRL D> OPEN <NEW FILE NAME><RETURN>
<CTRL D> WRITE <NEW FILE NAME><RETURN>
```

This establishes a link to a given file name. Now go into the HARDWARE SPECIFICATION DISPLAY and change the printer location to \$FDED. (Remember the \$ sign for HEX.)

Now print the file and it will be transferred to the new file name. To speed up the transfer, turn the display off on the OUTPUT PAGE.

When you have finished transferring the file, type:

```
<CTRL D> CLOSE <NEW FILE NAME><RETURN>
```

You can also open, write, and close the file from your text. The .DI command allows you to use DOS commands as a part of your text file. For more information see Chapter 13. Also review the Apple DOS manual for information on file handling.

A simple program in INTEGER Basic is listed below. This program will take the file you just created and print it. A similar program can be written for APPLESOFT but will be more complex because of the way APPLESOFT handles strings and commas.

The program will end in the error message "END OF DATA." This message will be printed at the end of any document so it is a good idea to end any document with a new page (.NP) command.

```
10  REM PROGRAM TO PRINT TEXT FILES
20  DIM A$(255),D$(1)
30  DIM FILE$(255)
40  D$="":REM <CTRL D>
50  PRINT "INPUT THE TEXT FILE NAME"
60  INPUT FILE$
70  PRINT D$;"PR#1":REM PRINTER SLOT
80  PRINT D$;"OPEN";FILE$
90  PRINT D$;"READ";FILE$
100 INPUT A$
110 PRINT A$
120 GOTO 100
```

APPENDIX H

CONVERTING SUPERTEXT II FILES

Some Screen Writer][users have files that were created on the SUPERTEXT II word processing program by MUSE Software (tm).

This is complicated because MUSE stores the files as Binary files and uses non-standard 3.2 DOS.

In order to make the conversion, you have to go through a number of steps on a file-by-file basis.

1. Boot SUPERTEXT II and load the file you want converted.
2. Save the file to be converted, writing down the file name and location that shown at the bottom of the screen. It will look something like this.
`FILE NAME,A$4800,L$2F50`
3. This program is stored in the Apple II or Apple II Plus memory at the location displayed. Press RESET or <CTRL>RESET to exit SUPERTEXT II to monitor.
4. Remove the SUPERTEXT II disks and replace them with the Screen Writer master disk and a standard 3.2 or 3.3 formatted disk. (You can use one drive: simply switch to the data disk after you boot Screen Writer][.) Now boot Screen Writer][by pressing 6 <CTRL P>. (DO NOT USE THE POWER DOWN RESET.)
5. When the first menu comes up, exit to BASIC. During the boot, 3.3 DOS was loaded, but the SUPERTEXT II binary file was left undisturbed in memory. Now BSAVE FILE NAME at the addresses you copied down. DO NOT save this on the Screen Writer][master disk but on a standard formatted tape disk.

6. Re-Boot the Screen Writer][master disk and enter the EDITOR. Select an OUTPUT File that is different from the SUPERTEXT II file name. For the input file select the name you assigned to the SUPERTEXT II Binary file.
7. As soon as you enter the INPUT file, Screen Writer][will warn you that this file is not a text file, that is correct. Type Y <RETURN>, and the SUPERTEXT II file will be loaded in.
8. SUPERTEXT II uses different control characters than Screen Writer][. As a result, you will have to use the REPLACE function to replace the SUPERTEXT II commands with Screen Writer][embedded commands.
9. Once you have completed editing the file, save it in the normal Screen Writer][manner.

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APPENDIX I

CONVERTING APPLE WRITER FILES

Apple Writer files cannot be edited directly by Screen Writer][because Apple Writer does not work with standard ASCII characters. To convert an existing Apple Writer text file for use with Screen Writer][, use the program AW.CONVERT which you will find on your Master Diskette.

1. From BASIC, run the program:
RUN AW.CONVERT
2. Place the Apple Writer text diskette in one of your drives.
3. Answer the questions about file names and slot and drive selection. If you don't know the name of the file you wish to convert, type <RETURN> in response to "FILE TO CONVERT." You will then be shown the catalog of whichever diskette you select, and asked again for the name of a file.
4. When you are satisfied with file name, slot and drive selections, the program will proceed to convert your Apple Writer file to a new binary file which uses the standard ASCII character set, and is therefore compatible with Screen Writer][.
5. Boot your Screen Writer][Master Diskette and enter the EDITOR. Use the file you have just created as your INPUT FILE.
6. Screen Writer][will prompt:
WARNING NOT TEXT FILE
OK TO CONTINUE? (Y/N)
Type "Y," and Screen Writer][will accept and load your file, which will appear on the screen.

7. Delete the first five characters on the text screen; these were needed by Apple Writer but are not used by Screen Writer][.
8. Most of the formatting commands in Apple Writer are quite similar to those used by Screen Writer][. At Command Level, with the cursor at the beginning of the file, perform a global replace to change the exclamation points in the Apple Writer commands to the periods expected by Screen Writer][:

ØRI<CTRL R>.<RETURN>

Your file should now be ready to begin editing using the Screen Writer][commands.

9. Once you have completed editing the file, save it in the normal Screen Writer][manner.

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APPENDIX J

USING VIDEX KEYBOARD ENHANCER

The VIDEX Keyboard and Display Enhancer is a hardware modification that allows the Apple II or Apple II Plus computers to display upper and lower case text in the normal Apple mode. This enhancer also utilizes the shift and control keys as on a normal typewriter.

Screen Writer][does NOT need the Videx board to display upper and lower case or to use the shift key in a normal manner. However, many Screen Writer][users do have the VIDEX board. Because of the way VIDEX handles some of the special characters it is necessary to make a few changes to allow Screen Writer][to work with the VIDEX board.

1. Make sure the VIDEX board is set up so that when the computer is turned on, the mode is the NORMAL APPLE mode, or ALPHA LOCK.
2. When using Screen Writer][DO NOT activate the VIDEX board. (Activation is done by pressing shift and reset, DO NOT DO THIS.)
3. Since VIDEX handles some of the characters differently it is necessary to establish nine MACROS. These macros are for the keys L, K, E, R, T, Y, U, I, and O.

If you are unsure how to create the MACROS, check Chapter 11. The macros you will need are for the upper case version of each letter. For example, for the letter L, from the COMMAND LINE, type:

% <RETURN>

Screen Writer][will display:

TYPE CHAR TO REPLACE

ype:

<SHIFT L>

Screen Writer][will say:

INPUT REP. CHARS.; CR TO END

You respond:

<ESC> L <RETURN>

Whenever you press <SHIFT L> a capital L will be printed. Repeat this operation for the other eight letters.

4. After you have completed the replacement MACROS and have tested them to be sure they work, you can save them on your Library Diskette. This is done from the COMMAND LINE by typing:

!<macro name><CR>

A good name to use is KEYFILT, which is the name used in saving the VIDEK driver program.

5. Whenever you enter Screen Writer][EDITOR, from the command line, type:

"<macro name><CR> (be sure to type the quotation mark.)

and the macro will be loaded in ready for use.

You may also automatically load the macro. (See Appendix E for instructions.)

The VIDEK board changes some of the special characters that are available. With this board you can get the following special characters:

KEY STROKE	CHARACTER
<CTRL X> <SHIFT I>	} Right bracket
<CTRL X> <SHIFT U>	{ Left bracket
<CTRL X> <SHIFT P>	@ At sign
<CTRL X> <SHIFT O>	Underline
<CTRL X> <SHIFT Y>	Vertical line
<CTRL X> <SHIFT E>	Down arrow or reverse caret
<CTRL X> <SHIFT L>	\ Back Slash
<CTRL X> <SHIFT K>	[Left square bracket
<CTRL X> <SHIFT M>	] Right square bracket
<CTRL X> <SHIFT N>	Up arrow or caret

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APPENDIX K

ERROR MESSAGES

This Appendix contains a brief description of the Error Messages Screen Writer] may provide.

EDITOR ERROR MESSAGES

File Handling

SLOT/DRIVE OUT OF RANGE

Drive must be less than 256, and slot between 1 and 16.

NO SUCH FILE

The file name does not appear in the catalog of this diskette.

FILE NOT AN UNLOCKED TEXT FILE

Output file is locked, or it is not a text file.

WARNING NOT TEXT FILE

This is a Binary, Applesoft or Integer file. You can continue only if the file contains ASCII text, which they normally do not. Some older word processors used binary files; you may be able to edit their files with Screen Writer][. For editing Super-text files or Apple Writer files, see Appendix H and Appendix I.

ON DISK I/O

Disk read or write error. This may be a problem that affects the whole diskette, or only selected files. In any case, Screen Writer][can't access the specified file on this diskette.

OK TO CONTINUE (Y/N)

If an I/O error is encountered in reading an input file, a "Y" response will cause the EDITOR to read as much of the file as it can, allowing you to rescue some of your text.

DISK FULL

Disk is full, save your text to another disk. The old file has already been deleted.

ERROR IN STORING TEXT

An I/O error has occurred in storing the text, or the disk is full.

NOTE

If you were saving to an old file, it has been deleted from the diskette. You **MUST** successfully save the text on another disk or you will lose it.

STORAGE EXCEEDED

Either the maximum 65,535 characters have been entered, or there isn't enough space on the text disk.

DATA NOT READ IN

Memory is full and some of your file has not been read in. This will only occur if the output disk is full or if the file is larger than 64K (65,535 characters).

FILE EMPTY

You tried to merge an empty file.

Editor Command Line Errors

LINE LENGTH <10 OR >70

On a "nc" command (to change the width of the EDITOR screen display), the line length, n, must be between 10 and 70.

NUMBER >255

Multipliers for EDITOR commands must be between 0 and 255.

LINE LENGTH EXCEEDED

Maximum of 63 characters allowed on the COMMAND line.

ILLEGAL COMMAND

This message usually results from entering a control command on the COMMAND LINE. Will also occur if you are trying to save the Get Buffer to the output drive.

ERROR IN LIST SPECS

One or more of the "L" list specifications were out of range. Line length must be between 10 and 70, spacing must be between 1 and 20, the control character flag must be set to 1 (print all the control characters preceded by an up arrow) or 0 (send the control characters to the printer as control characters) and the slot must be between 1 and 16, or contain a hexadecimal address (preceded by \$). An "L" with no parameters sends the listing to the screen.

NO PRINTER IN SLOT

On an "L" command (List), there was no printer card in the specified slot.

TAB EXCEEDED 99

Tabs must be between 0 and 99.

MAX 8 TABS EXCEEDED

Only eight tabs are allowed; the rest are ignored.

HELP FILE NOT FOUND

Help file not on disk. This usually happens when neither the Screen Writer][master diskette nor your Library Diskette are in Drive #1.

GET BUFFER OVERFLOW

The Get Buffer can only contain the smaller of 32K (32,767) characters or the available space on the text diskette. Nothing is saved on an overflow.

GET BUFFER EMPTY

The move buffer is empty. The move buffer is cleared every time you save text, or if you type <CTRL Y>.

MISSING R

Missing <CTRL R> between the search string and the replace string.

NO ROOM - NO REP DONE

The Macro table is full; your Macro was not created.

RUNOFF ERROR MESSAGES

Main Menu Errors

NUMBER >8

Option from the main RUNOFF menu must be between 1 and 8.

Text File Page Errors

NOT BETWEEN 10 AND 80

Sequence number from the Text File Page must be between 10 and 80, and an address file number must be exactly equal to 90.

MISSING :

Format for entering files on the Text File Page:

10:FILENAME

FILE NOT FOUND

Filename doesn't appear in the catalog. Did you specify the correct drive?

ERROR ON DISK I/O

Unable to read the file.

ILLEGAL D OR S

Drive must be less than 256, and slot must be between 1 and 16.

Formatting Errors

R. MARGIN < L. MARGIN

Right margin must be greater than left margin.

MARGIN OUT OF RANGE

Bottom margin is greater than form length or top margin is greater than bottom margin.

INDENT TOO LARGE

Tried to indent past right margin.

NOT R OR D

Page number must be either Roman (R) or Decimal (D).

ROMAN NUMERAL > 99

Roman numerals must be between 0 and 99.

NO ON OR OFF

RUNOFF is looking for an ON or OFF here.

ERROR - TITLE FORMAT

Usually occurs when a header (title, date, page number) location exceeds the margins, or the format is incorrect.

Format: (line),(position),(text).

CASE NOT U, L, OR M

Case must be upper (U), lower (L), or mixed (M).

TITLE NUMBER > 4

Only 4 titles are allowed.

Printer Specifications Errors

PRINTER NOT IN SLOT

Slot requested does not have a printer card.

MODE NOT 1, 2 or 3

Proportional spacing mode (set by '.PM n') must be 1 or 2. (3 is not yet available).

NOT Y OR N

Answer to the question must be Y or N.

UNDERSCORE FORMAT NOT 0 - 3

Underscore format must be 0, 1, 2 or 3. Select the correct format on the Printer Specifications Page.

NOT 10, 12, OR 15

Pitch must be 10, 12 or 15.

Footnote Errors

FOOTNOTE BUFFER OVERFLOW

A maximum of 3500 characters can be stored in the buffer shared by the indexes and footnotes. It is possible to fill the whole buffer with an index leaving no room for footnotes, or vice versa.

NO CLOSING I MARK

All footnotes and '.IF' text must be ended by "I," even at the end of a file.

Print-time Errors

NUMBER >9999

Page numbers must be between 0 and 9999.

ILLEGAL COMMAND

Usually caused by attempting to use a <CTRL> command that is not recognized by RUNOFF, or a period at the beginning of a line.

CANNOT JUSTIFY LINE

The line contains no spaces, so that justification could not be done.

ILLEGAL CALL OR POKE

Use proper format, and check address.

Indexing Errors

WARNING - CR IN INDEXED WORD

Indexed word has a <RETURN> included. Usually due to missing second index character. The entry is placed in the index, with the <RETURN> replaced by a space.

>80 CHAR IN INDEXED WORD

Only 80 characters are allowed in an indexed word. This usually means there is a missing second index character.

NO CLOSE ON INDEX

File ended before second index character was encountered. Usually due to missing second index character.

OUT OF MEMORY

Index buffer used all available memory - rest of index ignored. See FOOTNOTE BUFFER OVERFLOW.

INDEX EMPTY

An attempt was made to print an empty index.

Form Letter Errors

NO ADDRESS FILE FOUND

The address file is currently not on the disk, or wasn't specified on Text File Page.

RECORD FIELD TOO LONG

Each field of an address record must be less than 256 characters long.

NO ADDRESS EOR MARK

End of Record mark has not been set, either within the text ('.SA c'), or when customizing your Screen Writer][diskette. The EOR (End of Record) mark must be defined before using the R command in RUNOFF, or the '.GR' or '.NR' commands in a form letter.

MISSING ,

A comma must be inserted between the 'R' and the desired record number in a record skip command.

END OF ADDRESS FILE

Tried to skip beyond the end of the address file with the R command.

APPENDIX L

EDITOR INSERT/CHANGE MODE CONTROL CHARACTER ASSIGNMENTS

This table of control character assignments can be used for quick reference, or when you are selecting characters to use for Keyboard Macros. Some keys have redundant functions; some have functions which you won't need in your particular application. These, in addition to the unassigned <CTRL S> pair, are available for your toolbox.

Letter	<CTRL> function	<SHIFT CTRL> * function	<CTRL X> <SHIFT> function
A	Cursor down a line	Cursor up a line	
B	To file beginning	Print '}'	
C	Toggle insert/change	Scroll text to center of screen	
D	Delete letter under cursor; mark end of Get Buffer for deletion	Delete letter to left of cursor	
E	To file end	Print '{'	
F	Find (forward)	Find (backward)	
G	Mark Get Buffer	Mark Get Buffer	
H	Left arrow	Left arrow	
I	Go to Command Level	Print '['	
J	Down a line (current position)	Up a line (current position)	
K	Kill line (forward)	Kill line (backward)	
L	Change case (forward)	Change case (backward)	

Letter	<CTRL> function	<SHIFT CTRL> * function	<CTRL X> <SHIFT> function
M	Carriage return	Print 'j'	
N	Cursor to top of screen	Cursor to bottom of screen	Print '^'
O	Mark overprint	Print '°'	
P	Next screen page	Previous screen page	Print '@'
Q	HELP	Delete word	
R	Replace (forward)	Replace (backward)	
S	----	----	
T	Screen tab	Screen tab	
U	Right arrow	Set 'U' flag	
V	Set 'V' flag	Print ' _ '	
W	Write Get Buffer	Undelete character	
X	Literal character entry	Print '\'	
Y	Clear Get Buffer	Clear Delete Buffer	
Z	Jump word (forward)	Jump word (backward)	

There are two additional characters which are not standard ASCII characters, and therefore won't print on most printers, but can be used as markers in your text.

<CTRL X><SHIFT CTRL M>: (right arrow) (doesn't appear on 70 col display)

<CTRL X><SHIFT CTRL N>: (down arrow)

The numbers and punctuation mark keys do not have control functions.

You may use any control character as a token, even those which represent active commands. <CTRL X> allows you to place the control character directly into the text. For example, we used <CTRL X><CTRL U> as the underline token in writing this manual.

Remember that replacement of a non-printing character with a printing character using 'RE' will mess up full justification.

*** Note:**

<SHIFT CTRL> commands do not work when the shift lock has been turned on with <ESC><ESC>.

SCREEN WRITER][

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