PeachText 5000™
personal productivity system
for use with

IBM Personal Computer™
COMPAQ™ Portable Computer
Texas Instruments Professional Computer™
Z-100 by Zenith Data Systems

PeachText 5000™ Lesson Plan

Peachtree Software®

PeachText 5000

PeachText™
Word
Processor

1

Random House
Electronic
Thesaurus™

2

Spelling
Proofreader

3

List
Manager

4

PeachCalc™
Electronic
Spreadsheet

5

PeachText 5000

Personal Productivity System
for the
IBM Personal Computer
COMPAQ Portable Computer
Texas Instruments Professional Computer
Z-100 by Zenith Data Systems

Lesson Plan

The Lesson Plan

Introduction to the Lesson Plan

PeachText 5000™ is a comprehensive personal productivity system for word processing and related information-handling tasks. It includes:

- The PeachText™ word processor, a sophisticated package for the creation, editing and printing of a variety of documents.
- The Random House Electronic Thesaurus™, which, used in PeachText's Edit mode, provides an instant screen reference to more than 4,400 key words and 26,000 synonyms.
- Spelling Proofreader, an automated spell-checking system that works with PeachText to isolate misspelled words and typographical errors in documents.
- List Manager, which is a personal list manager and a concise data-base report generator.
- The PeachCalc™ electronic spreadsheet, a mathematical analysis system for all types of numerical and formula analysis.

How This Manual Is Organized

The PeachText 5000 manual has been divided into two volumes to reflect the way you will use it.

This volume, the *Lesson Plan*, will introduce you to all of the functions of PeachText 5000's component modules and will give broad, "hands on" experience in using them. The *Lesson Plan* contains five sections—one for each module of PeachText 5000—with progressive self-instruction lessons. Sample documents and other files for use with the lessons are included on the PeachText 5000 diskettes, and the lessons themselves are accompanied by screen illustrations and step-by-step exercises to help you master the system's features.

The second volume, the *Reference Guide*, is arranged by module and subject to provide "one-stop" access to comprehensive explanations of all the PeachText 5000 functions. It also contains appendices with explanations of error messages, "Operator's Notes" and other technical information to help you get the most out of your PeachText 5000 system.

How To Proceed

The *Lesson Plan* will be your primary tool as you learn how to use PeachText 5000. Later, as you use PeachText 5000 for your own applications and need to "brush up" on specific areas of your knowledge, you will rely almost exclusively on the *Reference Guide*. Whichever volume you are using, the information you need is at your fingertips in an easy-to-find format, uncluttered by extraneous information.

1. Read the "Overview of PeachText 5000" in the *Reference Guide*. This will give you a better idea of what you can do with PeachText 5000.

2. Read the section on "Installing PeachText 5000" and follow the procedures there to make back-up copies of your program diskettes and configure PeachText 5000 for your computer system.

3. Return to the *Lesson Plan* to begin learning how to use PeachText 5000. The sections are arranged in the order the modules would most likely be needed.

4. Where directed to by the *Lesson Plan*, or to get more comprehensive information on something you are learning in the *Lesson Plan*, refer to the appropriate sections in the *Reference Guide*.

5. As you finish the PeachText 5000 lessons and begin to use the system for your own applications, use the *Reference Guide* to expand your capabilities and to provide hints and tips on how to get the most from PeachText 5000.

PeachText™ Word Processor

1

How to Begin

Lesson 1

The first lesson tells you how to prepare your system so you can begin word processing. You will learn how to display the PeachText 5000 menu and use two of the basic menu selections—"Display Instructions" and "Copy Document."

The equipment must be ready for the diskette. Turn on the power to the computer—the disk drives, terminal and printer.

Inserting the Diskette

Exercise 1

1 Insert the PeachText program diskette into Drive A.
2 Start up your system.
3 The operating system prompt *A>* will appear on the screen.

```
YOUR INITIALIZATION MESSAGE

A>
```

Displaying the Menu

When the *A>* displays on the screen, your computer is ready to show the PeachText 5000 menu. The menu displays when you type *PT* (for *P*each*T*ext 5000) and press RETURN.

```
A>PT
```

Exercise 1

1 At the *A>*, type *PT* and press RETURN.
2 The PeachText 5000 menu will display. Look at the information on the menu. You will see:

- The Peachtree Software Incorporated copyright statement.
- The version number.
- Your system type.

- The default drive.
- A list of selections.
- The entry line.

```
                    PeachText 5000 (tm)                    V2.01
          Copyright (c) 1983 Peachtree Software Incorporated
                        an MSA Company

                    System Type: Your System

                    Default Disk: A

DOCUMENT COMMANDS                    DISK COMMANDS
ED  - Edit Document                  SW - Swap Disks
PR  - Print Document                 CH - Change Default
CO  - Copy Document
DE  - Delete Document                SPECIAL COMMANDS
RE  - Rename Document                SP - Spelling Proofreader
DI  - Display Directory              LM - List Manager
?   - Get Help!                      PC - PeachCalc
EN  - End PeachText                  TC - Telecommunications

Enter Selection:
```

The "Get Help!" Screens

You will learn about all of the selections on the PeachText 5000 menu, but there is one selection you can use now that will help you with questions that arise during the lessons. This is the "Get Help!" selection.

To get reference help type ? at "Enter Selection:". You can look at this screen now so you know how to use it if you need a memory boost during the exercises to follow.

Exercise 1 2

Type ? at "Enter Selection:" and press RETURN.
The first "Help" screen displays as a reference aid. Look through all the help screens to see the type of reference aids that are available should you need assistance.

```
                    PeachText 5000 (tm)                    V2.01
          Copyright (c) 1983 Peachtree Software Incorporated
                        an MSA Company

                    System Type: Your System

                    Default Disk: A

DOCUMENT COMMANDS                    DISK COMMANDS
ED  - Edit Document                  SW - Swap Disks
PR  - Print Document                 CH - Change Default
CO  - Copy Document
DE  - Delete Document                SPECIAL COMMANDS
RE  - Rename Document                SP - Spelling Proofreader
DI  - Display Directory              LM - List Manager
?   - Get Help!                      PC - PeachCalc
EN  - End PeachText                  TC - Telecommunications

Enter Selection:?
```

Copying a Document

To illustrate the process of editing and printing documents, a familiar document has been chosen for you to work with throughout the lessons. The rough draft of this document is already on your PeachText program diskette. The first thing you are going to do is copy the document so you can edit it without changing the original document.

Exercise 1

At "Enter Selection:" type *CO* and press RETURN.

2

At "Enter name of old document:" type *SAMPLE1* and press RETURN. Type the names of documents exactly as they are shown, i.e., no spaces. However, it does not matter whether the names are typed in upper- or lower-case characters.

3

At "Enter name of new document:" type *LESSON1* and press RETURN. This will be the document you actually edit. You may use operating system conventions in copying and naming documents on different drives, e.g., if you want to copy a document that is on Drive A and place the new document on Drive B, type *SAMPLE1* as the old document and *B:LESSON1* as the new document. When you are done copying, press ESCAPE to return to the PeachText 5000 menu.

```
     PeachText(tm)
** Copy Document **

Enter old document name: SAMPLE1

Enter new document name: LESSON1

Document copied.
Press RETURN to continue or ESC to go to menu:
```

Basic Edit Techniques

Lesson 2

In the first lesson, you became familiar with the menu and learned how some of the PeachText menu selections work. In this lesson, you will enter Edit and make simple changes to the text of your document.

This is the situation: You are a secretary working for Abraham Lincoln. You have been given a rough draft of an address he plans to give at Gettysburg. Something about this draft is not quite right. As the lessons progress, you will make revisions so it becomes the speech that was eventually given.

The sample you copied and named LESSON1 in the first lesson is a rough draft of the Gettysburg Address. Now that we are in Lesson Two, let's rename the document so the name is easier to associate with the lesson. (Always try to choose easy-to-remember names for your documents; you will soon develop your own system for doing this.)

Exercise

1 Select "Rename Document" from the menu by typing *RE* at "Enter Selection:".

2 At "Enter old document name" type *LESSON 1* and press RETURN.

3 After "Enter new document name" type *LESSON2* and press RETURN.

4 Press ESCAPE to go to the PeachText 5000 menu.

Selecting Edit

The first step in creating or editing is to select "Edit Document" from the PeachText menu and type the name of the document.

```
        PeachText(tm)
** Edit Document **

Enter document to edit: LESSON2

Loading document: LESSON2.DOC
```

Exercise

1 At "Enter Selection:" type *ED* and press RETURN.

2 At "Enter document to edit" type *LESSON2* and press RETURN.

3 The message *Loading: LESSON2* will appear on the screen. This means that PeachText is reading the document into memory.

4 The Edit Status Screen will then appear.

The Edit Status Screen

Before we go any further, look at the items on the Edit Status Screen and become familiar with them.

```
        PeachText(tm)
** Edit Status Screen **

ACTIVITY                DOCUMENT                STATUS
------------------------ ------------------------ ----------------
Reading                 LESSON2.DOC             Finished
Updating                LESSON2.DOC             Active

WORKSPACE
------------------------
Total          100%     (54447 characters)
In Use           3%     ( 1687 characters)
Remaining       97%     (52760 characters)

Document Type: Text
Line Width: 80
Tab Columns: 1  9  17  25  33  41  49  57  65  73

Enter edit command or press RETURN to display text screen:
```

- The "Activity" column tells you what is being done to a document at any given time. Indicated here will be such activities as reading (into memory), writing, updating, printing and including.
- The "Workspace" area tells you how much memory you have available for your document, how much has been used and how much is still available.
- The next three items tell you how the Text Screen is set up, the document type, the line width and tab settings.
- The message at the bottom of the screen gives you two options. You may enter an edit command or you may press RETURN to go to the Text Screen.

Giving Edit Commands

The backslash at the bottom of the Edit Status Screen is called a command marker. It means that PeachText is waiting for you to tell it what to do next. In the following exercise, you are going to learn two edit commands—Line Width and Print from Edit.

Exercise

1 Type *L65* at the backslash and press RETURN. *L* is the line width command. L65 sets the line width at 65 characters. If you do not set a line width, Peachtext uses a width of 80.

2 Make sure your printer is ready to print.

3 Type *P* at the backslash and press RETURN. *P* is the command to print. This will print a copy of the document text before you make any changes.

4 When printing is finished, press RETURN without giving a command. The Text Screen then appears so you can go to the next step—making changes to the text itself. If you were

creating a new document, the Text Screen would be blank, just like a blank sheet of paper in a typewriter.

Moving the Cursor

Definition: The cursor is the moving (sometimes blinking) marker of light on the screen that indicates your current position in the document.

All additions and changes to the text take place at the cursor position, so you need to know how to move the cursor to any location on the screen.

Use the four arrow keys on your keyboard to move the cursor up, down, left or right, according to the arrow direction. The HOME key will take the cursor to the beginning of the line (if you are in mid-line), then alternately to the beginning of the top line of the screen and the beginning of the bottom line of the screen. Pressing these keys will move the cursor without changing the text.

The space bar is like any other key on the keyboard. Instead of printing characters, it prints blanks. (Do not use the space bar to move the cursor unless you want to type blank spaces.

```
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~
    It's great to be here in Pennsylvania. Mrs. lincoln and I
appreciate the hospitallity you have shown us during our stay.
We wish the circumstances under which we came were more
fortunate.~
    Let us move then to remarks befitting the reason we gather
here today. Eightyseven years ago our ancestors brought forth on
this continent a new notion, conceived and dedicated to the
proposition that all men are made pretty much the same.~
    Now, we are engaged in a real big civil war, testing whether
that nation conceived and dedicated like that can endure for
very long. We are meet on a real big battlefield of that war.
We have come to dedicate some of that field, as a memento for
those who here gave their lives that that nation might live.
It is altogether fitting and proper that we should do this, and
I am not at all sorry that I came.~
    But, let's face it, we can not dedicate—we can not
consecrate—we can not even hollow out—this ground. The brave
men, living or dead, who straggled here, have consecrated it,
far above our poor power to add or subtract, multiply or divide.
The world can never forget what they did here.~
```

Exercise

1. Press the DOWN arrow to move the cursor to the word *consecrate* in the last paragraph.
2. Press the RIGHT arrow to move the cursor to *hollow* on the same line.
3. Move the cursor UP to *conceived* in the second paragraph.
4. Move the cursor LEFT to *continent* on the same line.
5. Move the cursor to the Home position (*LINCOLN'S* on the first line.)

Character Replacement

To replace one character with another, move the cursor to the character you want to change. Type the correction directly over the original character. Any character, including a blank, may be substituted for any other character.

Exercise

1 In the first paragraph, capitalize *lincoln*.
2 In the second paragraph, change *notion* to *nation*.
3 In the third paragraph, change the comma following *Now* to a blank by pressing the space bar.

Character Delete

To delete a character, move the cursor to the character you want to delete and press the DELETE key.

When PeachText deletes a character, all characters to the right of the cursor move one space to the left to fill the gap. The cursor itself does not move. If this makes room for the first word of the next line, PeachText moves that word up.

To delete more than one character, press the DELETE key once for each character you want to delete.

LINCOLN'S ADRESS AT GETTYSBURG, 1863∿
∿
∿

It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the hospitality you have shown us during our stay. We wish the circumstances under which we came were more fortunate.∿

Let us move then to remarks befitting the reason we gather here today. Eightyseven years ago our ancestors brought forth on this continent a new nation, conceived and dedicated to the proposition that all men are made pretty much the same.∿

Now we are engaged in a real big civil war, testing whether that nation conceived and dedicated like that can endure for very long. We are met on a real big battlefield of that war. We have come to dedicate some of that field, as a memento for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this, and I am not at all sorry that I came.∿

But, let's face it, we can not dedicate—we can not consecrate—we can not even hollow out—this ground. The brave men, living or dead, who straggled here, have consecrated it, far above our poor power to add or subtract, multiply or divide. The world can never forget what they did here.

Exercise

1 In the first paragraph, delete the extra *1* in *hospitallity*.
2 In the third paragraph, delete one *s* in *livess*.
3 In the same paragraph, delete one of the *e*'s in *meet*.
4 In the first line of the address, delete *here*. Remember to delete one of the spaces as well.

Character Insert

To insert a character into text, move the cursor to the character (or space) in front of which you want to insert a character. Press the INSERT key and type the character or characters you wish to insert. The existing characters will move to the right to accommodate your insertion.

PeachText continues to insert each character you type until you press any other control or function key, such as BACKSPACE, TAB or DELETE.

Exercise

1 In the first line, insert another *D* in *ADRESS*. (Place cursor on either the *D* or the *R*.)
2 In the second paragraph, insert a hyphen between *eighty*

and *seven*. (Move the cursor to the *s*.)

3 In the second paragraph, insert *in liberty* between *conceived* and the word *and*. (Remember to add the necessary spaces.)

4 In the third paragraph, insert *or any nation* between *nation* and *conceived*.

Using What You Have Learned

There is usually more than one way to make a change on the Text Screen. When changing a word or expression, you might want to insert the new expression first, then delete the old expression. However, you might choose to overwrite the old expression as much as possible, using Character Insert or Character Delete.

Exercise

1 In the second paragraph, change *made pretty much the same* to *created equal*.

2 In the same paragraph, change *ancestors* to *fathers*.

3 In the third paragraph, change *conceived and dedicated like that* to *so dedicated*.

Printing in Edit

You can see a printed copy of what you have just edited. You do not need to select "Print Document" from the menu; you can print from Edit. Do you remember how?

```
      PeachText(tm)
** Edit Status Screen **

ACTIVITY          DOCUMENT          STATUS
--------          --------          ------
Reading           LESSON2.DOC       Finished
Updating          LESSON2.DOC       Active

WORKSPACE
---------
Total      100%   (54447 characters)
In Use       3%   ( 1687 characters)
Remaining   96%   (52760 characters)

Document Type: Text
Line Width: 65
Tab Columns: 1  9  17  25  33  41  49  57  65  73

Enter edit command or press RETURN to display text screen:
```

Exercise

1 Press the ESCAPE key to return to the Edit Status Screen.

2 At the backslash on the Edit Status Screen, type *P!* and press RETURN. The *!* moves the paper in the printer to top of form.

3 PeachText prints a rough copy of the document you just edited.

Exiting from Edit

When you finish editing a document, you are ready to exit the Edit function. This is done by typing *END* at the backslash on the Edit Status Screen.

Exercise

1 Press the ESCAPE key.

2 At the backslash on the Edit Status Screen, type *END* and press RETURN.

PeachText does two things at this point—it stores the newly edited document on the disk under the name LESSON2 and then displays the PeachText menu on the screen.

Now you know how to enter "Edit Document," move the cursor around the screen and make changes to your text by inserting characters and deleting characters. In this lesson, you will move the entire text on the screen by "scrolling," handle text by blocks and learn other methods of cursor movement. You will also use the Search capability. This lesson is longer than the previous ones, but nothing you will do is difficult.

Renaming the Document

You can rename the document from Lesson Two so it corresponds to the current lesson.

Exercise

1 At "Enter Selection:" type *RE* and press RETURN. The old document name is LESSON2 and the new document name is LESSON3.

2 After renaming the document, press ESCAPE to return to the PeachText 5000 menu.

```
     PeachText(tm)
** Rename Document **

Enter old document name: LESSON2

Enter new document name: LESSON3

Document renamed.
Press RETURN to continue or ESC to go to menu:
```

Re-entering Edit

Before you edit text, you must re-enter Edit and establish the line width you want to use.

Exercise

1 At "Enter Selection:" type *ED* and press RETURN. The document to be edited is LESSON3.

2 On the Edit Status Screen, type *L65* and press RETURN. This sets the line width at 65 characters.

3 Press RETURN again to go to the Text Screen.

Scrolling Text

"Scrolling" moves the text on the screen forward or backward. There are several types of scroll control keys that move text. They are:

- Forward Line Scroll: Press the SHIFT key and the F2 function key simultaneously.
- Backward Line Scroll: Press the SHIFT key and the F1 function key simultaneously.

- Forward Page Scroll: Press the F2 function key.

- Backward Page Scroll: Press the F1 function key.

In future, we will refer to these scrolling control keys by their function key number. In the following exercise, you will experiment with them to see what they can do as you edit text.

Exercise

1 Press the SHIFT F2 function key. Notice that the text moves up one line on the screen and the next line in the document appears at the bottom of the screen.

2 Press the SHIFT F1 control key. The top line of text moves down one line on the screen and the preceding line of the text appears at the top. (Some terminals must redisplay the entire screen each time you do this.)

3 Press the F2 function key. The next entire screen of text displays. The last line of the preceding screen is the first line of the new screen.

4 Press the F1 function key. The preceding screen of text displays. The first line of the original screen is the last line of the new screen.

Did you also notice that scrolling the text does not change the position of the cursor on the screen?

Other Cursor Movements

You have learned how to move the cursor with the cursor control keys, but there are several other ways to move the cursor on the screen, all of which will save time when you are editing text.

These keys are the HOME, TAB, TOP OF TEXT and BOTTOM OF TEXT control keys. The HOME and TAB keys are unique keys on your keyboard. The TOP OF TEXT command is activated by pressing the CONTROL key and the T simultaneously. The BOTTOM OF TEXT command is activated by pressing the CONTROL key and the B simultaneously.

Pressing the TAB control key moves the cursor to the next tab marker on the line. If the cursor is past the last tab marker on a line, it moves to the first tab position of the next line.

Pressing CONTROL T displays the first entire screen of text of a document. The cursor will be on the first character of the first line.

Pressing CONTROL B displays the last entire screen of text of a document. The cursor will be on the first character of the line following the end of the text.

Let us move then to remarks befitting the reason we gather here today. Eighty-seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.~

Now we are engaged in a real big civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a real big battlefield of that war. We have come to dedicate some of that field, as a memento for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this, and I am not at all sorry that I came.~

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living or dead, who straggled here, have consecrated it, far above our poor power to add or subtract, multiply or divide. The world can never forget what they did here.~

It is rather for us to be here dedicated to the real big task before us. It is for us the living, rather, to be dedicated here to the incomplete work which they who fought here have thus far so nobly advanced—that from those honored dead we take increased devotion to that cause for which they gave their last full measure of devotion that this nation, under God, shall have a new birth of freedom—and that government of americans, by americans, for americans, shall not perish from the earth.~

Exercise

1 In the third paragraph, change *endure for very long* to *long endure*.

2 In the fourth paragraph, change *even hollow out* to *hallow*.

3 In the same paragraph, change *let's face it* to *in a larger sense*.

Line Delete (F9)

When editing text, you will sometimes need to delete an entire line or part of a line. Line deletion is done by moving the cursor to the place in the line from which you want to delete and pressing the F9 function key twice in a row. (This helps to prevent accidental deletions.) When deleting a line, remember that:

- PeachText will delete the line from the cursor to the end of the line and move the remaining text to the cursor.
- When you are deleting more than one line, you only need to press the F9 function key once for each subsequent line.
- The F9 function key is the only way to delete a carriage return. Carriage returns are represented in the screen illustrations by a tilde (~).

Exercise

1 In the second paragraph, delete from *Let us move* to *gather here today*. You need to use a combination of Line Delete and Character Delete. Make sure the paragraph is indented properly.

2 In the third paragraph, delete *and I am not at all sorry that I came*. Replace the final comma with a period. Press RETURN to reset the end of the paragraph.

3 In the fourth paragraph, delete *multiply or divide*. Change *subtract,* to *detract.* Correct the punctuation and spacing.

4 Merge the fourth and fifth paragraphs by deleting the carriage return at the end of the fourth paragraph.

Full Insert (F8)

You know how to insert characters into your text, but you can insert larger amounts of text with the F8 function key. Position the cursor on the character in front of which text is to be inserted and press the F8 function key. There are a few points to keep in mind:

- PeachText clears the screen from the cursor to the bottom of the screen and displays the next line of text at the bottom of the screen as reference.
- When you are typing the insertion, you may make corrections as you go.
- PeachText remains in Full Insert until you press the F8 function key, INSERT, ESCAPE, CONTROL T (Top of Text), CONTROL B (Bottom of Text) or the F6 (Search) function key. However, pressing any key other than the F8 function key also carries out that key's function, so be careful. For example, pressing ESCAPE closes the text but also takes you to the Edit Status Screen.

Exercise

1 Between *world* and *can* in what is now the last paragraph, insert the following: *will little note, nor long remember, what we say here, but it*.

Remember to press the F8 function key when you are finished. Make sure that the spacing is correct.

2 Between *devotion* and *that* in the last paragraph, insert the following: *—that we here highly resolve that these dead shall not have died in vain—*.

Setting Block Markers (F3)

Definition: A *block* is a section of text consisting of one or more lines.

When you are working with large blocks of text, it is much easier to move, copy or delete these blocks rather than working with single lines. To work with blocks, you must first mark the blocks. This is done by moving the cursor to the beginning of the block to be marked and pressing the F3 function key. PeachText will display a marker and move the line one space to the right. On some terminals the marker will look the same as the underscore command marker. You then move the cursor to the first character following the block and press the F3 function key again. PeachText will display another marker.

Exercise

1 Place a block marker in front of *It is rather for us* in the last paragraph. Move the cursor to *It* and press the F3 function key. If your block marker looks the same as the underscore character, be sure you do not type the underscore character. Although the result looks the the same, the message to PeachText is different.

2 Place a second block marker after *task before us.* (Move the cursor to the space after *us* and press the F3 function key.) There may be no less than two block markers when you are telling PeachText to work with a block.

continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.~

Now we are engaged in a real big civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a real big battlefield of that war. We have come to dedicate some of that field, as a memento for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.~

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The world will little note, nor long remember, what we say here, but it can never forget what they did here. __It is rather for us to be here dedicated to the real big task before us.__ It is for us the living, rather, to be dedicated here to the incomplete work which they who fought here have thus far so nobly advanced—that from those honored dead we take increased devotion to that cause for which they gave their last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of americans, by americans, for americans, shall not perish from the earth.~

Block Move

Once you have marked a block, you can move it to another place in the document. To move a designated block, position the cursor at the point in the document where you want to move the block, then press the ESCAPE key. PeachText will display the Edit Status Screen. At the backslash, type *BM* (for *B*lock *M*ove) and press RETURN. The Edit Status Screen displays again. Press RETURN to go to the Text Screen with the cursor positioned at the new block location.

Exercise

1 Move the marked block of text to the point between *so nobly advanced* and *—that from those* in the last paragraph. (Move the cursor to the dash and press ESCAPE. Type *BM* and press RETURN.)

2 Press RETURN again to go back to the Text Screen. Correct the punctuation and spacing.

Block Delete

Blocks can be deleted in much the same way they are moved. Block markers are set around the block to be deleted. The cursor must not be within the block. After you press the ESCAPE key to go to the Edit Status Screen, type *BD* (for *B*lock *D*elete). There is a safeguard here; PeachText will display the number of characters in the block and ask if you wish to delete the block. If you type *Y*, PeachText returns to the Edit Status Screen and you may press RETURN to re-enter the Text Screen. PeachText will display the screen from which the block was deleted, minus the block.

Exercise

1 Delete Paragraph One. (Set the block markers. Remember to insert the second marker at the first position of the second paragraph.)

2 Escape to the Edit Status Screen and type *BD*. Press RETURN.

3 A message will tell you how many characters are marked for deletion and will ask for confirmation. Type *Y* for Yes.

4 Press RETURN to go to the Text Screen.

LINCOLN'S ADDRESS AT GETTYSBURG, 1863↵

__ It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the hospitality you have shown us during our stay. We wish the circumstances under which we came were more fortunate.↵
__ Eighty-seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.↵
Now we are engaged in a real big civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a real big battlefield of that war. We have come to dedicate some of that field, as a memento for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.↵
But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living or dead, who straggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here. It is for us the living, rather, to

Search (F6)

As you edit text, you may want to change a word or locate a word in a large amount of text. Rather than hunt through this text by yourself, you can use the Search capability. First, place the cursor at the beginning of the text. When you press the F6 function key, the cursor drops to the message line at the bottom of the screen and displays a colon (:). PeachText waits for you to type the characters or words for which you are searching. This is the search string. After you type the search string, press RETURN and PeachText will display the screen with the cursor on the string. There are several points to remember about searching.

- The search string must be typed exactly as it appears in the text, including upper and lower case. For instance, if you are looking for a misspelled word, the search string must be the misspelled version.
- If the search string is located in text before the cursor position, PeachText cannot find it. You should reset the document at the top of the text before a search.
- If a search string is not found, PeachText displays the message *Cannot find string*.
- To find the next occurrence of a search string after the F6 function key was used, press the F5 (Repeat Search) function key.

Exercise

1 Press the F6 function key. At the colon, type *incomplete* and press RETURN. When PeachText finds it, change it to *unfinished.*

2 Search for *straggled* and change it to *struggled*. Remember to change the position of the cursor before the search. Do you remember why?

Search and Replace (F6)

Search and Replace not only locates a search string but also changes it, thus eliminating a step. After you press the F6

function key and type the search string, press the F6 function key again. A second colon will appear. PeachText waits for you to type the replacement string, i.e., the characters to be substituted for the original string. When you type the replacement string and press RETURN, the program reprints the screen with the cursor following the new string. The points listed for Search apply to Search and Replace also. This capability is very useful when you need to change a short expression into a longer one.

Exercise

1 Change *Eighty-* to *Four score and*. The message line will look like this:
:Eighty-:Four score and

2 Change *some* to *a portion*. (*:some:a portion*)

3 Change *memento* to *final resting place*. (*:memento:final resting place*)

have come to dedicate a portion of that field, as a memento for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this.~

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living or dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world can never forget what they did here. It is for us the living, rather, to be dedicated here to the incomplete work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the real big task before us—that from those honored dead we take increased devotion to that cause for which they gave their last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of americans, by americans, for americans, shall not perish from the earth.~

:memento:final resting place

Multiple Search and Replace (F6)

Multiple Search and Replace finds and changes the search string as many times as you have told it to do so. After typing the replacement string, press the F6 function key a third time. This displays another colon. To the right of the colon, enter the number of times you want to change the occurrence of the search string and press RETURN. The message line should look like this:

:Search string:Replacement string:number of times

To change all occurrences of a search string in the text, press RETURN instead of entering a number. PeachText displays the number of times the string was found on the message line at the bottom of the screen if (1) the number found was fewer than the number specified, or (2) no number was specified.

Exercise

1 Change *real big* to *great* every time it occurs. You should find three occurrences. The message line should look like this:

:real big:great:press RETURN

2 Change *americans* to *the people* twice. (*:americans:the people:2*)

3 Using the F5 function key, change the final occurrence of *americans* to *the people*.

Making Search Strings Unique

PeachText makes no assumptions about search strings. You must give it a search string in a way that is unique to the string you need to find. To illustrate this, do the following exercise:

LINCOLN'S ADDRESS AT GETTYSBURG, 1863∿
∿
∿

Four score and seven years ago our faTHEers brought forth on this continent a new nation, conceived in liberty and dedicated to THE proposition that all men are created equal.∿

Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave THEir lives that that nation might live. It is altogeTHEr fitting and proper that we should do this.∿

But, in a larger sense, we can not dedicate—we can not consecrate—we can not hallow—this ground. The brave men, living or dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what THEy did here. It is for us THE living, raTHEer, to be dedicated here to THE unfinished work which THEy who fought here have thus far so nobly advanced. It is raTHEer for us to be here dedicated to THE great task before us—that from those honored dead we take increased devotion to that cause for which

Exercise

1 Move the cursor to the top of the text.

2 Change all occurrences of *the* to *THE*. (*:the:THE:press RETURN*)

Notice how PeachText has changed *the* in *faTHErs* and *wheTHEr* but has not altered *The*. This is because PeachText looks for the search string exactly as you typed it.

3 Change *THE* back to *the*. (*:THE:the:press RETURN*)

4 Now change *the* to *THE*, but this time use leading and trailing blanks. (*: the : THE :press RETURN*)

Notice how only the word *the* has been changed.

5 Change *THE* back to *the*.

If you had wanted to change *The* as well, you would have needed to search for *The* as a second search string, due to the capitalization.

Printing in Edit

Since you have made quite a few changes, you probably want to see a copy of the Gettysburg Address with those changes. In the following exercise, you will make several copies of the Address, using different line widths.

Exercise

1 Proofread the text to make sure there are no mistakes. If there are mistakes, correct them before you proceed to

Step 2.

2 Press ESCAPE to leave the Text Screen. PeachText displays the Edit Status Screen.

3 Make sure your printer is ready.

4 At the backslash, type *P* or *P!* and press RETURN. This prints the text at the current line width.

5 PeachText displays the Edit Status Screen when it finishes printing.

6 Print the text with a line length of 50 characters. (Type *L50* at the backslash on the Edit Status Screen and press RETURN, then type *P* or *P!* and press RETURN.)

7 Print the text with a line length of 35 characters.

Ending Edit

When you finish editing text, you must tell PeachText that you are ending Edit. This is done by typing *END* at the backslash on the Edit Status Screen. When Edit is ended, PeachText stores the document and displays the menu for your next selection.

Exercise 1

At the backslash on the Edit Status Screen, type *END* and press RETURN.

2 PeachText stores the newly edited text as LESSON3, then displays the menu.

Review Exercise

You have learned how to use most of the edit features. In this exercise, you will edit the Gettysburg Address again, but this time you are on your own to use the edit features in the way that works best for you. If you need help, refer to the lessons.

Exercise 1

Select *CO* (Copy Document) from the menu. The old document name is SAMPLE1 and the new document name is LESSON3A. This will give you another copy of the rough draft of the Gettysburg Address, just the same as the one you began with in Lesson One.

2 Select *ED* (Edit Document) from the menu. When PeachText asks for the name of the document to be edited, type *LESSON3A*.

3 Using the copy of the Gettysburg Address that you printed earlier in the exercises, turn LESSON3A into a proper copy of the Address. Make the corrections, additions, and deletions in any order you prefer. Use any methods that work best for you.

4 Print one more copy of the edited document.

5 Type *END* to end edit.

Templates and Boilerplates

Lesson 4

This lesson deals with how to set up documents so you can use portions of them for standard responses.

This is the situation: You are a secretary working in the White House for President Lincoln. The fame of his address at Gettysburg continues to spread, and hardly a day goes by that he does not receive letters about it. President Lincoln wants to answer all of these letters personally but does not have the time to dictate each response individually. To save time, you have a file of stock responses to use when preparing the answers.

In this lesson, you will learn how to use a letter template (the frame or skeleton of a letter to fill in with text), a file of boilerplate paragraphs (the text to insert in the template) and a "Help" file for reference. The documents have been prepared in advance; they are on the disk and ready for you to use.

Entering Edit

Before we begin the lesson, you need to load the prepared sample. This time you will learn a quick way to copy, rename and edit a document.

Exercise

1 Select "Edit Document" from the menu.

2 At "Enter document to edit" type *SAMPLE2 LESSON4*. This tells PeachText to read SAMPLE2 into memory and name it LESSON4 for editing.

3 Set a line width of 60 characters; go to the Text Screen.

```
PeachText(tm)
** Edit Document **

Enter document to edit: SAMPLE2 LESSON4

Loading document SAMPLE2.DOC
```

Templates

Definition: A template is the bare structure of a document with markers that indicate the places where you will type in information.

The exclamation point (!) within a template designates the position where you will insert text. When the F5 function key is pressed and no search string has been designated, PeachText will look for an exclamation point. Each time the F5 function key is pressed, the cursor moves to the next exclamation point.

Exercise

1 Press the F5 function key. The cursor will move to the first exclamation point. This is the position for the date.

The White House~
1600 Pennsylvania Ave.~
Washington, D.C.~
!~
~
!~
~
~
~
~
~
~
!~
~
!~
~
~
~
~
~
~
~
~
~
~

2 Type *Jan. 14, 1865* and press RETURN. Type over or delete the exclamation point.

3 Press the F5 function key again. The cursor moves to the next exclamation point, which is the position of the inside address.

4 Type the following:
Gen. Geo. A. Custer
Seventh Cavalry
Army of the Potomac
Near Richmond, Virginia

5 Press the F5 function key again. The cursor moves to the salutation position.

6 Type *Dear George,* at the next exclamation point.

7 Press ESCAPE to leave your screen as it is and go to the next exercise. You will come back to this screen later.

The Files and Display Commands

A file may be set up to contain sections of text that you can include in standard documents. When you are working on a document and need to use such a file, you will find two commands helpful—the Files command and the Display command.

The Files command lets you see which document files are on a disk without leaving Edit. To use the Files command, press the ESCAPE key to go to the Edit Status Screen. Type *F* (for *F*iles) at the backslash and press RETURN. (If you need to see the files on a different disk, type the disk indicator after *F*, e.g., to see the files on a disk in Drive B, type *FB*.) PeachText clears the screen and displays a list of the files on the disk. Press RETURN to return to the Edit Status Screen.

The Display command lets you look at the contents of another document without leaving Edit. While on the Edit Status Screen, type *D<Filename>* (for *D*isplay Filename) and press RETURN. PeachText displays the first screen of the document you requested. On the bottom line of the screen, PeachText prompts you to press RETURN to display the next

screen or press ESCAPE to return to the Edit Status Screen. PeachText will automatically return to the Edit Status Screen after displaying the entire document.

Exercise

In this exercise, you will use both of the commands that were described above.

1 On the Edit Status Screen, type *F* and press RETURN. Look at the list of files and make sure that REPLIES.DOC, a file that contains standard responses to inquiries about the Gettysburg address, is on the disk.

2 When you have confirmed this, press RETURN to go back to the Edit Status Screen.

3 Type *DREPLIES.DOC* at the backslash to see what is contained in this document file.

4 Press RETURN until you have looked through the entire contents of the file REPLIES.DOC.

Note: Automatic wordwrap does not work during Display or Insert (which you will use in the next exercise), so PeachText may break a line in the middle a of word. This may look strange but does not change the way the file looks when printed.

STANDARD REPLIES TO LETTERS ABOUT
THE GETTYSBURG ADDRESS

The following paragraphs are standard responses to letters referring to the Gettysburg Address. Use the following codes for direct access to the sections.

A-1 Influential Supporter
A-2 Important Dignitary
A-3 Friendly Citizen
A-4 Schoolchild
Z-1 Important Member of Opposition
Z-2 Unfriendly Citizen
Z-3 Threatening Citizen

A-1 Influential Supporter

Your interest in our little speech is highly gratifying, especially in light of the great work that you have done on your own to advance the great cause to which we have committed ourselves. I am confident that you will once again be prepared should your nation call on you to sacrifice personal comfort for the greater good.

Since you did express some liking for our few words at Gettysburg, I have

Display of REPLIES.GET :: Type Return to continue, Escape to stop.

"Boilerplating" with the Include Command

Definition: Boilerplating is the practice of including standard paragraphs from a file to form a personalized letter or document.

The Include command lets you merge part or all of a file with the document you are editing. To use the Include command, type *I<Filename>* at the backslash on the Edit Status Screen. PeachText displays the Edit Status Screen again, indicating that *<Filename>* is now an Include file. When you are ready to include a portion of that file, type *I* at the backslash on the Edit Status Screen. The first screen of the Include file appears. As you will see in the exercise below, it is possible to divide an Include file into sections by code or section name. On each screen, you have two choices—you may (1)

include the screen or (2) skip the screen.

If you decide to continue through the Include file, you have several more options. You may (1) look at the next screen, (2) go directly to a particular section of the file or (3) go back to the Edit Status Screen.

When you include text, the text is inserted into the document you are editing at the cursor position.

Exercise

1 Press RETURN to go to the Text Screen that contains the letter template.

2 On the Text Screen, move the cursor to the next exclamation point. Delete the exclamation point so it does not appear in the final letter. Leave the cursor at this position.

3 Escape to the Edit Status Screen. Type *IREPLIES.DOC* at the backslash and press RETURN. This will set up REPLIES.DOC as an Include file, as shown at the top of the screen under document activity.

```
      PeachText(tm)
** Edit Status Screen **

ACTIVITY                DOCUMENT                STATUS
------------------------ ------------------------ ----------------
Reading                 SAMPLE2.DOC             Finished
Updating                LESSON4.DOC             Active

WORKSPACE
------------------------
Total          100%     (36867 characters)
In Use           0%     (   318 characters)
Remaining      100%     (36549 characters)

Document Type: Text
Line Width: 60
Tab Columns: 1  9  17  25  33  41  49  57  65  73
```

4 Since the cursor is at the correct position on the template, you can begin the Include process. Type */* at the backslash and press RETURN. The screen will display a list of stock responses by code.

5 Press RETURN. The message line will ask for a section name. Type *A-1*. The section *A-1 Influential Supporter* will appear. Type *Y* in response to the prompt at the bottom of the screen.

6 Press ESCAPE to return to the Edit Status Screen.

7 Make sure your printer is ready. Type *P!* at the backslash and press RETURN.

8 After printing is complete, type *QUIT* to exit Edit and return to the menu. QUIT is different from END in that QUIT does not save a document. Since you are not saving this letter, you can use the LESSON4 template again for the next exercise.

A Practice Exercise

Using the same documents as in the preceding exercise, create another letter.

Exercise

1 Select "Edit Document" from the menu. Type *SAMPLE2 LESSON4* as the document to be edited. On the Edit Status Screen, type *L60* at the backslash to set the line length at 60 characters.

2 Press the F5 function key to move through the template and enter the following information:

March 15, 1865

J. Wilkes Booth
Regal Playhouse
Baltimore, Maryland

Mr. Booth:

3 Return to the Edit Status Screen and include the document *REPLIES.DOC.*

4 This time include *Z-3 Threatening Citizen* as the body of the letter, but this time do it a little differently. Instead of typing *I* to begin the Insert sequence, type *I@Z-3.* PeachText will go directly to the section without your having to select it from the first screen of the Include document.

5 Return to the Edit Status Screen and type *P!* and press RETURN to print the letter.

6 Type *QUIT* and press RETURN to return to the menu.

Formatting an Include File

Include files can be formatted or unformatted. Any document or file can be an unformatted Include file, but it would consist of a great deal of continuous text. As you can understand, it is difficult to find a particular section in an unformatted document to include in another document. For this reason, files that are set up specifically to be used for standard paragraphs are usually formatted.

Sections within an Include document are catalogued through the use of a banner, followed by the section name. Section banners are placed in the text with the F7 (Page Feed) function key. The section banner appears immediately before the section it identifies and is separated from it by a carriage return. If you use the name rather than the banner to get to a section, the banner is not included when the rest of the section is included in the text. Otherwise, you must remember to delete that banner.

Exercise

In the following exercise, you are going to add another section to the Include document you have been using.

1 Select *CO* to copy a document. The old document is REPLIES.DOC and the new document name is LESSON4A.

2 Select "Edit Document." The document you are going to edit is LESSON4A.

3 Go to the end of the text. Create a new section banner by pressing the F7 function key and typing the new section name, which is: *J-1 Johnson Responses*. Remember to press RETURN.

4 Immediately following the section banner, type the text shown in the illustration.

```
^ J-1 Johnson Responses

    I am sorry to be so late in answering your recent letter to President
Lincoln. Affairs of state and the unfortunate necessities of the transfer of
power have fully occupied my time.~
    The family of President Lincoln joins me in expressing our heartfelt
thanks at your show of concern. May your hopes and prayers for our beloved
nation be with us in this hour of great need.~
~
Sincerely,~
~
A. Johnson~
President~
~
~
AJ/mw~
```

5 Press ESCAPE to go to the Edit Status Screen. Type *END* and press RETURN.

"Help" Files

A "Help" file is any document designed as a reference aid rather than for production of text. There are two ways to look at a "Help" file—through the Include command or Display command. If the "Help" file is arranged in sections, use the Include command. If the file is not formatted, it is faster and easier to use the Display command.

Note: Since the automatic wordwrapping feature is not activated in the Include and Display functions, you should create the file with carriage returns at the end of each line.

Exercise

In this exercise, you will use a "Help" file to assist you in preparing another standard response letter.

This is the situation: You are sending a letter of response but do not know the proper form of address and salutation for the recipient.

Table of Addresses and Salutations for Government
Church and School Dignitaries

This is a file of frequently encountered dignitaries and how properly to address them. The left hand column cntains the person's title; the center clumn has the correct way(s) to address correspondence to the person; the right hand column has the acceptable slutations, ranging from the most formal to the most casual.

If this is an INSERT file, access by section using the following codes:

A—Ambassador thru Archbishop

B—Bishop thru Brother

Ca—Cabinet thru City Council

Co—Congressman thru Consul

D—Dean thru Judge

M—Mayor thru Monsignor

P—Pope thru Priest

R—Rabbi thru Rector

S—Senator thru Vice-President

Press Return to Continue, Y to Accept

1 Select *CO* to copy a document. The old document name is SAMPLE2. The new document name is LESSON4B.

2 Select "Edit Document." The document you will be editing is LESSON4B.

3 Using the Include procedure, look at SALUTES, a "Help" file containing the proper forms of address and salutation for dignitaries. You need to determine how to address a Monsignor.

4 Press ESCAPE to go to the Edit Status Screen. Type *ISALUTES* and press RETURN to set up the Include file. Type *I* and press RETURN to begin the display of the Include file.

5 Press RETURN. Type the section name (*M*) and press RETURN. Look at the section and find the proper form of address. Press RETURN and then press ESCAPE to return to the Edit Status Screen.

6 With the template, Include file and proper form of address, create a letter with the following information. (You have done this several times now, so fewer instructions are given.)

November 16, 1864

Monsignor Patrick Sheehan of Trinity Church in Boston, Mass.

A-2 Important Dignitary

For the Include file, use either LESSON4A, the file you updated in a previous exercise, or REPLIES.DOC.

Note: As soon as you name an Include file, the SALUTES ("Help") file is canceled. There can be only one Include file at a time. However, you can have an Include file and display another document.

7 Print the letter with a line length of 60 characters.

8 Exit Edit by typing *END*.

Review Exercises

Using everything you have learned about templates, boilerplates, and including text, create letters with the information given below. Since you probably will be using the principles of including text for many types of documents, be sure you understand the process completely before you proceed to Lesson Five.

Exercises

The files you will be using for the following exercises are:
Text: SAMPLE2
Help: SALUTES
Include: LESSON4A
After you create each letter, print a copy of it, then type *QUIT* to exit Edit.

Letter 1:
June 14, 1865
Patrick MacFarland (the mayor of Worcester, Mass.)
J-1 Johnson Responses

Letter 2:
Oct. 19, 1864
Lisa Jeffreys, age 9
Wilson School
Fort Bend, Indiana
A-4 Schoolchild

Letter 3:
August 5, 1864
Robert Johnson
123 Annapolis Street
Baltimore, Md.
Z-2 Unfriendly Citizen

Print and Format Commands

Lesson 5

A Word About Printing Documents

When you finish editing text and wish to print a copy of the document, the "Print Document" selection on the menu takes the document and processes it for printing with any special print commands you have given, such as Format or Variable commands.

Format commands determine the form the document will take in its final version. There are two ways to give formatting commands—embedded directly in the text of the document or typed onto the keyboard when you are ready to print the document (at run-time). Format commands determine the *shape* of the text—how it looks on the page, margins, spacing. You will be surprised at what the printer will be able to do for the appearance of your documents.

Variables help you to predetermine the *content* of what will be printed. Through the use of variables, you can access other files, such as name and address lists, that are not a part of the document itself. You can create a fill-in-the-blank document that enters information automatically as the document is printed. You can even create a document with commands that are executed only if certain conditions are present, so that one file can print several letters that look very different.

All of these commands can save you a great deal of time, so you need to understand how they work in order to use them to their full potential. Some of the commands are very easy and can be mastered in a matter of minutes. Others are more complex and will require some practice. Take your time and go through the lessons slowly and you will be able to understand the theory and master these principles as well.

In this lesson and those following you will be doing a lot of printing. Make sure your printer has sufficient paper, and let's start Lesson Five.

We will be using the document edited in Lesson Three for the printing exercises in this lesson.

Exercise 1

Rename LESSON3. The new name of the document is LESSON5.

Selecting Print

When an edited document is ready to be printed in its final form, the Print function is selected from the menu by typing *PR* (for *PR*int Document). The name of the document is then typed and the Print Status Screen appears.

```
     PeachText(tm)
** Print Status Screen **

Document :LESSON5.DOC     PL    - Page Length      66   IGNORE - Ignore Char
Printer  :Your Printer    TM    - Top Margin       0    HY     - Cond. Hyphen  &
Format   :Left Flush      BM    - Bottom Margin    6    UN     - Underline  (S)_
Pass     :0               LM    - Left Margin      0    BF     - Boldface   (1) @
Page     :1               RM    - Right Margin     60   SSA    - Super(above)  <
Line     :1               IN    - Indentation      0    SSB    - Sub(below)    >
Column   :1               PI    - Para. Indent     0    HS     - Hard Space
Source   :Text            CNP   - Cond. Page       0    CMD    - Cmd Marker    \
Forms    :Continuous      SP    - Spacing          1
# Vrbls  :0               LPI   - Lines/Inch       6
Disk Out :                CPI   - Chars/Inch       10
Data Doc :                COPY  - Copies           1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\
```

Exercise 1

At "Enter Selection:" type *PR* and press RETURN. At the message "Enter document to print" type *LESSON5* and press RETURN.

2

PeachText displays the Print Status Screen as illustrated. You will know what each item means by the time you complete these lessons. The Print Status Screen shows values for print commands. If you do not tell PeachText otherwise, it will use the value indicated to the side of each of the items on this screen. For example, the page length will be 66 lines unless you indicate that you want a different page length.

Giving Keyboard Commands

Under the Print Status Screen is a message and a backslash (\).

- An error message appears if you type a command that PeachText cannot understand.
- You may give more than one command on a line if the commands are separated by a comma.
- When you finish giving commands, press RETURN again to begin printing.
- If you press any key on the keyboard while printing is in progress, the printer is interrupted and will stop. When this happens, another prompt and backslash appear. You may enter more commands or press RETURN to resume printing.

Note: Many printers operate with a small internal memory, so they may take a few seconds to stop after you interrupt printing.

Exercise 1

At the backslash on the Print Status Screen, type *COPY0* and press RETURN. *COPY0* tells PeachText to print an indefinite number of copies. After each copy, you can decide whether or not to print another copy.

2 Press RETURN without entering a command. The document will print.

3 Upon completion of printing, the screen will display *READY TO PRINT (Y/N)?*. Type *N*. The screen displays the following message: *Printing complete. Press RETURN to continue:* Press RETURN to go to the PeachText menu.

Left Margin

A left margin is set by the command *LMn*, where *n* represents the number of spaces you wish to set as the margin. PeachText then sets the left margin that number of spaces from the extreme left of the printer.

Type *DS* (for *D*isplay *S*creen) at the backslash and press RETURN to display the Print Status Screen with the latest print values.

```
     PeachText(tm)
** Print Status Screen **

Document :LESSON5.DOC     PL   - Page Length    66   IGNORE - Ignore Char
Printer  :Your Printer    TM   - Top Margin     0    HY     - Cond. Hyphen   &
Format   :Left Flush      BM   - Bottom Margin  6    UN     - Underline  (S)_
Pass     :0               LM   - Left Margin    0    BF     - Boldface   (1) @
Page     :1               RM   - Right Margin   60   SSA    - Super(above)   <
Line     :1               IN   - Indentation    0    SSB    - Sub(below)    >
Column   :1               PI   - Para. Indent   0    HS     - Hard Space
Source   :Text            CNP  - Cond. Page     0    CMD    - Cmd Marker    \
Forms    :Continuous      SP   - Spacing        1
# Vrbls  :0               LPI  - Lines/Inch     6
Disk Out :                CPI  - Chars/Inch     10
Data Doc :                COPY - Copies         1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\
```

Exercise

Read this exercise first!

1 Select "Print Document." You will be printing LESSON5.

2 At the backslash on the Print Status Screen, type *COPY0* and press RETURN.

3 At the next backslash, type *LM10* and press RETURN twice. This sets the left margin at ten spaces and begins to print the document.

4 Press any key to interrupt printing. Type *DS* at the backslash and press RETURN. Look at the changes on the Print Status Screen.

5 Type *LM15* at the backslash and press RETURN twice—once to enter the command and once to resume printing.

6 Interrupt printing again, type *LM10* and finish printing.

Notice how the Left Margin command positions text on the page without affecting the width of the line. Use *DS* frequently in these exercises to see how PeachText records your commands on the Print Status Screen.

Right Margin

The right margin is set by the command *RMnn*, where *nn* is the length of the line. It is important to remember that the

number entered does not refer to a column number but to a specific number of characters to the right of the left margin.

Read the exercise before you begin.

Exercise

1 When PeachText asks if you are ready to print another copy, type *Y*.

2 Immediately press any key to interrupt printing. A few characters may print, but that's all right.

3 At the backslash, type *RM60* and press RETURN. This sets the right margin at 60 spaces to the right of the left margin.

4 Press RETURN without giving a command. The document starts to print.

5 Interrupt the printer again. Type *RM50* and press RETURN to change the margin to 50 spaces. Resume printing.

6 Interrupt the printer again. Type *RM40* and press RETURN twice to resume printing.

Note: You do not need to wait for the printer to stop printing before you enter commands. If the printer has a full memory when you interrupt, you may be able to give a command and resume printing without stopping the printer.

Right-Justified Text

You have been printing a left-justified (or flush left) format; that is, the left margin is even (flush) but the right margin is ragged. A left-justified margin is the default value. PeachText will always print a left-justified format unless you tell it otherwise.

To change the format to right-justified, type *RIGHT* at the backslash. The right margin will be even while the left margin will be ragged.

To change back to left justified, type *LEFT* at the backslash.

Exercise

1 When PeachText asks *READY TO PRINT (Y/N)?*, type *Y*.

2 Let the printing begin, then interrupt and type *LM10,RM55,RIGHT* at the backslash. Remember, more than one command can be given on a line if they are separated by commas.

3 Interrupt the printer. At the backslash, type *LEFT* to change the format back to flush left. Finish printing.

Indentation

The indentation command sets a temporary left margin a specific number of spaces inside the left margin. The indentation command does not affect the right margin. For instance, if you have a right margin of 60 and an indentation of 10, your actual line width is 50 characters (60 minus 10).

Indentation is set by the command *INn*, where *n* is the number of spaces to indent.

Exercise

Read the exercise before you begin.

1 Type *Y* to tell the program you are ready to print another copy.

2 Interrupt the printer immediately and type *LM10,RM60*. This tells PeachText to print a left margin of 10, right margin of 60.

Resume printing.

3 Interrupt printing. Type *IN10* to set an indentation of 10 spaces. Resume printing the document.

4 Interrupt printing again. Type *IN15,RM55* to change the indentation to 15 spaces and the right margin to 55. Resume printing the document.

5 Interrupt printing again. Type *IN0,RM60* to reset the original format. Finish printing the document.

Paragraph Indentation

The paragraph indentation command tells PeachText to automatically indent a certain number of spaces after each carriage return, i.e., at the beginning of a paragraph.

PeachText will never print to the left of the left margin. If you want negative paragraph indentation (for hanging paragraphs), you must first give an indentation command greater than or equal to the number of spaces in the paragraph indentation. This is illustrated in the next exercise.

A paragraph indentation command is given as *PIn*, where *n* is the number of spaces to indent from the left margin.

Exercise

1 Type *Y* to tell PeachText you are ready to print.

2 Interrupt the printer immediately and type *LM10,RM55,PI5*. This sets the left margin at 10 and the right margin at 55 and indents the first sentence of each paragraph 10 spaces from the left margin. (The paragraphs are indented 10 spaces because there are already 5 spaces at the beginning of each paragraph.

3 Print a copy of the document.

4 Tell PeachText you are ready to print another copy.

5 Interrupt the printer immediately and type *LM5,RM60,IN5,PI-5*. This compensates for the paragraphs that are already indented. Print a copy.

Note: If you try to type *PI-5* without first typing *IN5*, you have told PeachText to print beyond the left margin. It cannot move to the left of the current left margin and will display an error message.

6 Tell PeachText you are ready to print another copy.

7 Interrupt the printer immediately and type *LM0,RM65,IN10,PI-10*. These commands will print "hanging paragraphs," in which the first line starts at a column further to the left of the rest of the lines in the paragraph. Print a copy of the document.

Justified Text Definitions

Justification refers to text that is printed evenly along both the left and right margins. PeachText does this by adding extra spaces into the line.

Blank insertion justifies by adding extra space only to the spaces between words. On a standard printer, extra space is inserted as character-sized spaces. On specialty printers the extra space is divided evenly among the spaces between all of the words.

Character spreading justifies by the insertion of very small

spaces between the characters themselves. You must have a specialty printer to be able to do this.

To justify text, type the command *JUST* (for *JUST*ification). To set justified text with character spreading, type the command *JUSTC* (for *JUST*ify with Character spreading).

Exercise

1. Tell PeachText you are ready to print.
2. Interrupt the printer and change the PI and IN commands from the previous exercise to *0*. (Type *IN0,PI0*.)
3. Type *LM10,RM55,JUST* at the next backslash. This sets the left margin at 10, the right margin at 55 and justifies the text with blank insertion.
4. Print a copy of the document.
5. If you have a specialty printer, print another copy of the text, changing *JUST* to *JUSTC*. This will illustrate character spreading.

Note: Tastes vary. If you have a specialty printer, try both types of justification to decide which you prefer.

Centered Text

To center one line of text, type the command *CTR*. To center all lines of text, type the command *CENTER*. PeachText centers the lines between margins. The centered position is determined in relation to the current line length, i.e., the right margin minus any left margin indentation.

The center one line command (CTR) centers only the line that follows the command. After that, PeachText returns to the set format (left, justified, or right.)

The center all lines command (CENTER) centers each line of text. The lines to be centered must be shorter than the total line width.

Exercise

You will need to start the print selection from the beginning in order to center the title in this document. Most printers start printing the text too quickly for you to interrupt and give a command that affects the first line.

1. When PeachText asks if you are ready to print, type *N*.
2. The menu will appear on the screen. Select "Print Document." The document you will be printing is LESSON5.
3. When the Print Status Screen and backslash appear, type *COPY0,LM10,RM55,CTR*. This will center the title.
4. Print a copy.

Spacing

The spacing command controls the amount of space between lines of text.

To change the line spacing on your document, type the command *SPn*, where *n* is the number of spaces between lines. Specialty printers can space by half-space increments.

Exercise

1. When PeachText asks if you are ready to print, type *Y*.
2. Interrupt printing. When the Print Status Screen appears, type *LM5,RM55,JUST,SP2*. This will justify and double-space the text.

3 Begin printing, then interrupt. Type *SP3* to triple-space the text. Resume printing.

If you have a specialty printer:

4 Interrupt printing. Type *SP+1*. This changes the spacing to one-and-a-half. Resume printing.

5 Interrupt printing. Type *SP+2* to change to two-and-a-half spacing. Finish printing.

Embedded Print Commands

Lesson 6

In Lesson Five you learned to give print commands from the keyboard. Print commands can also be *embedded* in the text of a document. This means that the commands are typed into the document in such a way that PeachText knows how to print the document without any further instructions typed from the keyboard.

Commands are embedded in the text during Edit. When you first enter the Text Screen, the cursor is in the first position of the first line. This is where the first embedded commands are entered, although other embedded commands may be scattered throughout the text. Type a backslash (\) to begin the command line, then type in the Print commands and press RETURN. You may put all of your commands on one line and separate them with commas, or you may put the commands on different lines, but each line must begin with a backslash.

Exercise

1. Select Edit from the menu. You are going to use a copy of LESSON5 for the exercises in LESSON6. At "Enter document to edit" type *LESSON5 LESSON6* and press RETURN.
2. Go to the Text Screen. The cursor is on the first position of the first line. This is where you will embed the first print commands.
3. Press the F8 function key to open the document at the beginning of text.
4. Type the following commands:

Left margin: *LM10*
Right margin: \RM60
Justified text: \JUST
Centered title: \CTR

\LM10,RM60↵
\JUST↵
\CTR\↵

LINCOLN'S ADDRESS AT GETTYSBURG, 1863

5. End the full insert. Check your embedded print commands against the illustration. Remember, there is more than one correct way to do this; just be sure your format will work. Escape to the Edit Status Screen. Type *END* and press RETURN.

Printing with Embedded Commands

When PeachText enters Print, it interprets the backslash and everything that follows on that line as a command. The backslash is not printed; PeachText knows it is a command and not text. Everything that follows is a command until PeachText sees a carriage return or another backslash, whichever comes first. When embedded commands are given at the beginning of text, PeachText processes commands until it comes to the first text character, then displays the Print Status Screen.

Exercise

1. Select "Print Document" from the menu. The document you will be printing is LESSON6.
2. When the Print Status Screen appears, look at the values listed. Some values are default values, and some values are those you embedded in the last exercise.
3. Press RETURN without typing a command. PeachText will print the document.

Embedding Additional Commands

Print commands do not have to stay the same throughout the text. You may want to change the way text looks by printing portions of it differently. In this case you would embed different print commands further into the text. To do this, move the cursor to the beginning of the paragraph at which the command is to take effect and press RETURN. PeachText will insert a line in the text and move the remainder of the text down one line. Type the backslash, followed by the print commands. When all commands have been entered, press RETURN.

```
\LM10,RM60~
\JUST~
\CTR\LINCOLN'S ADDRESS AT GETTYSBURG, 1863~
~
~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, conceived in liberty and dedicated
to the proposition that all men are created equal.~
    Now we are engaged in a great civil war, testing whether
that nation or any nation so conceived and so dedicated can long
endure. We are met on a great battle field of that war. We
have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is altogether fitting and proper that we
should do this.
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
living or dead, who struggled here, have consecrated it, far
above our poor power to add or detract. The world will little
note, nor long remember, what we say here, but it can never
forget what they did here. It is for us the living, rather, to
be dedicated here to the unfinished work which they who fought
here have thus far so nobly advanced. It is rather for us to
```

Exercise

1. Select "Edit Document" from the menu. The document you will be editing is LESSON6.
2. Go to the Text Screen. Move the cursor to the first position of the first paragraph and press RETURN.
3. Type *PI5,SP+1* (or *SP2*, if you have a standard printer) and press RETURN. This sets a paragraph indentation and spacing.

4 Move the cursor down to the first position of the second paragraph and press RETURN. Type *\IN5,RM-5,SP1* and press RETURN. This moves the right margin five characters to the left, indents the second line of the paragraph and changes the text to single spacing.

Note: In most print format commands, you place a plus or a minus sign in front of the number to tell PeachText to add or subtract the number from the current setting. For instance, if you give the command *RM-5* when the right margin is set at 60, PeachText sets the right margin at 55 (60 minus 5).

5 Between the second and third paragraphs, insert embedded commands to stop indentation, return the right margin to its original position and reset the spacing to 1½ (or 2).

Think about these commands; did you come up with *\IN0,RM+5,SP+1* (or *SP2*)?

6 Press RETURN.

7 Escape to the Edit Status Screen. Type *END* and press RETURN.

8 Select "Print Document" from the menu and print LESSON6.

Note Commands

You have seen that PeachText does not print the backslash that indicates a command. PeachText also does not print text that is typed after an asterisk or the word NOTE. These two indicators are called Note commands. Each is used in a slightly different way.

The asterisk line is used as an internal note in Edit to the person who is working with the document; it is a reference aid and can be used to tell you when the document was last edited. It also delineates sections of commands when a document is quite complicated. Just as in embedded commands, PeachText ignores everything from the asterisk to the next carriage return or backslash.

The Note line tells PeachText to display a note on the screen but not on the printer. It might be used as a reference to be shown on the screen while the document is being printed. Again, PeachText ignores everything from the Note command to the next carriage return or backslash.

In both cases, you cannot give additional commands on the same line as an asterisk or Note. If a Note command is located in the document before actual text, it must be preceded by a carriage return. This tells PeachText to display the Print Status Screen.

Exercise 1

Select "Edit Document" from the menu. The document to be edited is LESSON6.

```
\LM10,RM60~
\JUST~
\CTR\LINCOLN'S ADDRESS AT GETTYSBURG, 1863~
~
~
\PI5,SP2~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, conceived in liberty and dedicated
to the proposition that all men are created equal.~
\IN5,RM-5,SP1~
    Now we are engaged in a great civil war, testing whether
that nation or any nation so conceived and so dedicated can long
endure. We are met on a great battle field of that war. We
have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is altogether fitting and proper that we
should do this.~
\IN0,RM + 5,SP + 1~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
living or dead, who struggled here, have consecrated it, far
above our poor power to add or detract. The world will little
note, nor long remember, what we say here, but it can never
```

2 Remove the three lines that contain the SP, IN and PI commands by using the F9 function key.

3 Open the top of the text using the F8 function key.

4 On the first line, type: **Date of last revision—Nov. 18, 1863.* Press RETURN.

5 Press RETURN again to place a blank line in the text.

6 On the next line, type: *\NOTE Lincoln's address as given at Gettysburg, November 19, 1863.* Press RETURN.

7 Press the F8 function key to close the text.

8 Escape to the Edit Status Screen. End Edit.

9 Print the contents of LESSON6.

Conditional Hyphenation

Definition: A conditional hyphen is a special character that indicates where a word can be hyphenated if the entire word will not fit on a line. PeachText ignores the character until it must make a hyphenation decision. Conditional hyphens are sometimes called discretionary, phantom or ghost hyphens.

The ampersand (&) is the character that PeachText recognizes as the conditional hyphen. When you type an ampersand at the place(s) in a word where it is allowed to hyphenate, PeachText knows where to break a word at the end of a line. PeachText breaks a word only at conditional hyphens. If you have a word that is already hyphenated that can be broken at the end of a line (for example, *mother-in-law*), you must still insert conditional hyphens (*mother-&in-&law*).

Exercise 1

Select "Edit Document" from the menu. The document you will be editing is LESSON6.

```
\*Date of last revision - Nov. 18, 1863~
~
\NOTE Lincoln's address as given at Gettysburg November 19, 1863~
\LM10,RM60~
\JUST~
\CTR\LINCOLN'S ADDRESS AT GETTYSBURG, 1863~
~
~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, con&ceived in liberty and dedicated
to the proposition that all men are created equal.~
    Now we are engaged in a great civil war, testing whether
that nation or any nation so con&ceived and so dedicated can long
endure. We are met on a great battlefield of that war. We
have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is altogether fitting and proper that we
should do this.~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can noi hallow—this ground. The brave men,
living or dead, who struggled here, have consecrated it, far
above our poor power to add or de&tract. The world will lit&tle
note, nor long remember, what we say here, but it can never
```

2 Insert an ampersand between the syllables in the following words, as indicated.

Con&ceived, de&tract, lit&tle, re&mem&ber, ded&i&cated, ad&vanced, be&fore, us—&that, in&creased, de&vo&tion, mea&sure, and *peo&ple*.

3 Print the document from Edit. Notice that PeachText prints the ampersand when in Edit.

4 End Edit.

5 Select "Print Document" from the menu. You are going to print LESSON6.

6 Print the document with several different right margins. Notice that PeachText did not print the ampersand. Where there was a need to break a line, it placed a hyphen where the ampersand had been.

Underlining

Underlining adds emphasis to certain words in your text and is a desirable feature to have in a word processor. As in conditional hyphenation, a special character, called a recognition character, tells PeachText that you wish to underline a portion of text. The recognition character for underlining is easy to remember; it is the underline (_).

When PeachText sees the underline recognition character, it begins underlining at the next character. After printing the entire line, PeachText goes back to underline the characters that were marked. The underline continues until PeachText sees another underline character or comes to a carriage return.

Unless you indicate otherwise, the underline is solid, i.e., all characters are underlined, including blanks and punctuation. If you want broken underlining, i.e., only letters and numbers, you must enter the command *UNB* (for *UN*derline *B*roken). To change back to solid underlining, enter the command *UNS* (for *UN*derline *S*olid).

```
\LM10,RM60~
\CTR\LINCOLN'S ADDRESS AT GETTYSBURG, 1863~
~
~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, __con&ceived in li&ber&ty__ and
dedicated to the proposition that all men are created equal.~
    Now we are engaged in a great civil war, testing whether
that nation __or any nation__ so conceived and so ded&i&ca&ted can
long endure. We are met on a great bat&tle field of that war.
We have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is al&to&geth&er fitting and proper that
we should do this.~
\UNB~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
living or dead, who struggled here, have consecrated it, far
above our poor power to add or de&tract. The world will __lit&tle
note__, nor __long re&mem&ber__, what we say here, but it can never
forget what they did here. It is for us the living, rather, to
be ded&i&ca&ted here to the unfinished work which they who
fought here have thus far so nobly ad&vanced. It is ra&ther for
```

Exercise

1. Select "Edit Document" from the menu. The document you will be editing is LESSON6.
2. Remove the JUST command.
3. Underline the title. To do so use the INSERT key to insert an underline character before LINCOLN'S. Since the line ends in a carriage return, you do not need to insert another underline character.
4. Insert underline characters to underline *conceived in liberty* in the first paragraph. Use the INSERT key and place the underline character before *con&ceived* and after *lib&er&ty*.
5. In the second paragraph, underline *or any nation*.
6. Between the second and third paragraphs, change to broken underlining by typing *\UNB* on a line by itself. Press RETURN.
7. In the third paragraph, underline *little note* and *long remember*.
8. Underline *of the people, by the people, for the people* at the end of the Address. To do so, insert an underline character in front of *of* and after the last *peo&ple*.
9. Go to the Edit Status Screen. End Edit.
10. Print LESSON6.

Boldface Type

Boldface type is designated in the same way as underlining and hyphenation, i.e., by marking the boldface section with a recognition character. The special recognition character for boldface is the "at" sign (@).

Specialty printers: When PeachText sees an "at" sign in the text the print head does not move a full space after striking the character. It moves only a fraction of a space, then strikes the character again, making the characters darker than normal. Characters in boldface type take up more room across a line than normal print. It may also take the printer longer to print boldface type.

Standard printers: When PeachText sees an "at" sign in the

text, the print head prints the entire line of text, then returns to the left side of the page and overstrikes the section of text to be boldfaced.

PeachText defaults to boldface using one additional strike. To change the number of strikes, and therefore the thickness of the boldface type, enter the command *BFn*, where *n* is a number from one to nine. The higher the number, the darker the boldface. As you add more strikes, the characters become thicker, take up more room and take PeachText longer to print. This is called the intensity of boldface.

```
\LM10,RM60~
\CTR\__@LINCOLN'S ADDRESS AT GETTYSBURG, 1863~
~
~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, __con&ceived in li&ber&ty__ and
dedicated to the proposition that @all men are created equal@.|~
    Now we are engaged in a great civil war, testing whether
that nation __or any nation__ so conceived and so ded&i&ca&ted can
long endure. We are met on a great bat&tle field of that war.
We have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is al&to&geth&er @fitting@ and @proper@
that we should do this.~
\UNB~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
@living or dead@, who struggled here, have consecrated it, far
above our poor power to add or de&tract. The world will __lit&tle
note__, nor __long re&mem&ber__, what we say here, but it can never
forget what they did here. It is for us the living, rather, to
be ded&i&ca&ted here to the unfinished work which they who
fought here have thus far so nobly ad&vanced. It is ra&ther for
```

Exercise

1. Select "Edit Document" from the menu. The document you will be editing is LESSON6.
2. Using the INSERT key, insert an "at" sign behind the underline character in the title (__@LINCOLN'S). This will boldface the title as well as underline it.
3. In the first paragraph boldface *all men are created equal* by inserting an "at" sign in front of *all* and following *equal*.
4. In the second paragraph, boldface *fitting* and *proper*.
5. In the third paragraph, boldface *living or dead*.
6. Escape to the Edit Status Screen and end Edit.
7. Select "Print Document" from the menu and print LESSON6.
8. Print LESSON6 again; however, this time change the additional strikes to two. To do this, type the command *BF2* at the backslash before you begin printing the document.
9. Print LESSON6 again, using three additional strikes (*BF3*), so you get a feeling for the intensities of boldface type.

Subscripting and Superscripting

Subscripting and superscripting are only available to specialty printers.

Definition: Subscripting moves the text down half a line on the page. *Superscripting* moves the text up half a line on the page.

As in underlining and boldface, recognition characters tell

PeachText to subscript or superscript text. These characters are the "greater than" character (>) for subscript and the "less than" character (<) for superscript.

```
\LM10,RM60~
\UNB~
\CTR\__@LINCOLN'S <ADDRESS> AT >GETTYSBURG<, 1863~
~
~
\UNS~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, __con&ceived in li&ber&ty__ and
dedicated to the proposition that @all men are created equal@.~
    Now we are engaged in a great civil war, testing whether
that nation __or any nation__ so conceived and so ded&i&ca&ted can
long endure. We are met on a great bat&tle field of that war.
We have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is al&to&geth&er @fitting@ and @proper@
that we should do this.~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
@living or dead@, who struggled here, have consecrated it, far
above our poor power to add or de&tract. The world will __lit&tle
note__, nor __long re&mem&ber__, what we say here, but it can never
forget what they did here. It is for us the living, rather, to
be ded&i&ca&ted here to the unfinished work which they who
fought here have thus far so nobly ad&vanced. It is ra&ther for
```

Exercise

1. Select "Edit Document" from the menu. The document you will be editing is LESSON6.
2. On the Text Screen, move the cursor to *ADDRESS* in the title line. Using the INSERT key, place a superscript recognition character before *ADDRESS* and a subscript recognition character after *ADDRESS*.
3. Place a subscript recognition character before *GETTYSBURG* and a superscript character after *GETTYSBURG*.
4. Place a broken underline command (\UNB) on a new line before *CTR*\ and a solid underline command (*UNS*) before *Four Score*.
5. Escape to the Edit Status Screen and end Edit.
6. Select "Print Document" from the menu and print LESSON6 so you can see the results of subscripting and superscripting.

Changing Recognition Characters

Let's review the recognition characters you have learned so far:

Backslash (\): Precedes a PeachText command
Ampersand (&): Marks text for hyphenation.
Underline (__): Underlines text.
"At" sign (@): Boldfaces text.
"Greater than" (>): Subscripts text.
"Less than" (<): Superscripts text.

You have seen that PeachText does not print any character used as a recognition character. What if you especially need to type that character as a part of your text? When this situation occurs, you can do one of two things—you can temporarily cancel the recognition character, or you can change the character to another recognition character.

The commands to cancel or change the recognition

characters are listed below. These can be embedded in text or typed on the keyboard at the time of printing. The *c* stands for any non-numeric character, e.g., a letter or, in most cases, a symbol.

Function	*To cancel*	*To change*
Command Marker	*\CMD*	*\CMDc*
Conditional Hyphen	*\HY*	*\HYc*
Underlining	*\UN*	*\UNc*
Bold Face	*\BF*	*\BFc*
Superscripting	*\SSA*	*\SSAc*
Subscripting	*\SSB*	*\SSBc*

To restore a recognition character, follow the procedure for changing it. For example, if you have canceled the ampersand as the conditonal hyphen by typing *HY*, you would then type *HY&* to restore the ampersand as a recognition character.

Exercise

1. Select "Print Document" from the menu. You will be printing LESSON6.
2. When the backslash appears on the Print Status Screen, type *UN* to cancel the underline as a recognition character. Press RETURN.
3. Start printing the document. Notice that underline marks are printed in the title. PeachText no longer sees them as recognition characters.
4. Interrupt the document and restore the underline recognition character by typing *UN_* and pressing RETURN.
5. At the next backslash, type *BF!* to change the boldface recognition character to the exclamation point. Press RETURN.
6. Type *DS* at the next backslash to redisplay the Print Status Screen. Press RETURN. When the new Print Status Screen appears, locate the boldface reference in the right-hand column; it now reflects the new recognition character.
7. Type *BF@* to change the boldface recognition character back to the "at" sign. Press RETURN.
8. Press the ESCAPE key. PeachText will ask if you wish to cancel. Type *Y* and press RETURN.

Pitch Control

Definition

Pitch control is available only for specialty printers.

Pitch is the number of characters per inch of type. Standard pitches are ten and twelve characters per inch.

The default value for pitch control is ten pitch; that is, PeachText prints ten characters per inch unless you give another pitch command. To change the pitch, type the command *CPInn*, where *nn* is the number of characters per inch.

- LM10 at ten pitch gives you a left margin of one inch (10 times 1/10), but in twelve pitch it gives you a margin of only 5/6 inch (10 times 1/12).
- If you change the pitch after a command is entered, the command is not affected. For instance, if you set a left margin of LM10 when the pitch was 10 characters per inch, that margin remains one inch even if you change the pitch

to 12 characters per inch.
- Although PeachText will not change the commands when the pitch changes, it will interpret them in terms of the new pitch. For instance, if you set a left margin of LM10 when the pitch is 10 characters per inch and then change the pitch to 12 characters per inch,the Print Status Screen will reflect a left margin of LM12.

Remember that pitches may be set at other than the standard, such as CPI6 or CPI8. You will find a complete discussion of pitch control in the Reference Guide.

Exercise

1 Select "Edit Document" from the menu. The document you will be editing is LESSON6.

2 On a line preceding the title, type *CPI7* to set the pitch for the title at seven characters per inch. Press RETURN.

3 Before the first paragraph, insert a command line changing the pitch to eight characters per inch (*CPI8*).

```
\LM10,RM60,CP17~
\UNB~
\CTR\__@LINCOLN'S <ADDRESS> AT >GETTYSBURG<, 1863~
~
~
\UNS~
\CPI8~
    Four score and seven years ago our fathers brought forth on
this continent a new nation, __con&ceived in li&ber&ty__ and
dedicated to the proposition that @all men are created equal@.~
    Now we are engaged in a great civil war, testing whether
that nation __or any nation__ so conceived and so ded&i&ca&ted can
long endure. We are met on a great bat&tle field of that war.
We have come to dedicate a portion of that field, as a final
resting place for those who here gave their lives that that
nation might live. It is al&to&geth&er @fitting@ and @proper@
that we should do this.~
    But, in a larger sense, we can not dedicate—we can not
consecrate—we can not hallow—this ground. The brave men,
@living or dead@, who struggled here, have consecrated it, far
above our poor power to add or de&tract. The world will __lit&tle
note__, nor __long re&mem&ber__, what we say here, but it can never
forget what they did here. It is for us the living, rather, to
be ded&i&ca&ted here to the unfinished work which they who
```

4 Change the pitch for the second paragraph to ten characters per inch (*CPI10*).

5 Change the pitch for the third paragraph to twelve characters per inch (*CPI12*).

6 Escape to the Edit Status Screen and end Edit.

7 Select "Print Document" from the menu. Print a complete copy of LESSON6. Notice that the left and right margins remain the same even though you changed the number of characters per inch several times.

Variables Lesson 7

In this lesson, you will learn what PeachText *variables* are and how they save time when you are producing multiple copies of a document. First, let's go over some basic terms you need to understand.

A *variable* has more than one value. A variable can be indicated by a word or a symbol, but it indicates that more than one meaning can be placed in a location. The opposite of a variable is a *constant*, which has only one value or meaning.

As an example, think of a fill-in-the-blank form. The blanks are the equivalent of variables. If you have five fill-in-the-blank forms that are identical, you can put five different names and five different addresses in the blanks of the forms.

The *names* of variables indicate the type of information that is to be placed where the variable is located. In the fill-in-the-blank example, the names of the variables might be Name, Address, Age, Occupation, etc.

The *value* of a variable is the information that you actually insert as if filling in a form. For instance, "John Doe" is the value of the variable "Name"; "30" is the value of the variable "Age."

The explanations and exercises in Lesson Seven instruct you in revising some of the letters you created in Lesson Four. The instructions help you create a fill-in-the-blank file, so you can produce new letters by typing in just a few pieces of information when the document is ready to be printed.

Naming a Variable

Before you can place a variable in the text of your document, you must decide which information varies and what the variables should be named. There are a few things to remember about naming a variable:

- The name of a variable may be up to seven (7) characters long.
- The name may be any combination of upper-case letters and numbers, as long as the first character of the name is a letter.
- Even if you type the variable in upper- and lower-case letters, PeachText will convert lower-case letters to upper-case letters before processing the document.

Some examples of allowed variable names are:
- *NAME*
- *AMTDUE*
- *ADDR1*

Some examples of variable names not allowed are:
- *1STNAME* (does not begin with a letter)
- *AMT DUE* (blank not permitted)
- *ADDR#1* (nonalphabetical symbols not permitted)

The Get Command

The values for variables can be typed from the keyboard at print time when PeachText sees embedded Get variable commands in the text, e.g. *GET NAME*. PeachText will stop, display "*Enter NAME*" on the screen, and wait for a

keyboard entry. Your response to this prompt may be up to 55 characters long.

You may also have PeachText display some message other than "Enter Variable" on the screen, especially if you wish to be more specific with your instructions. To do this, use quotation marks to add to the GET command as follows:

\GET NAME="Full Name (First name first)"

This tells PeachText to display *Full Name (First Name First)* instead of *Enter NAME*. Remember, you may type any combination of characters—upper- and lower-case letters, punctuation marks, symbols, blanks, etc., as the value of the variable.

Exercise 1

Rename LESSON4B to LESSON7 and edit the lesson.

2 Go to the Text Screen. Using the F8 function key, open the text on the first line.

3 Type *\LM10,RM60* and press RETURN.

4 Press RETURN again.

5 On the next line, type *\GET DATE* and press RETURN.

6 On the next line, type *\GET NAME,GET ADDR1,GET ADDR2,GET ADDR3* and press RETURN. Do not type spaces before or after the commas. This embeds commands to get variable values for the name, first address line, second address line and third address line.

7 On the next line, embed a command to get a salutation. The name of the variable is SALUT. Think about this and see if you come up with command that contains a message. (Did you? It is *\GET SALUT="Enter preferred salutation"*.)

```
\LM10,RM60~
~
\GET DATE~
\GET NAME,GET ADDR1,GET ADDR2,GET ADDR3~
\GET SALUT="Enter preferred salutation"~
~
~
~
~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:ADDR3\~
~
Dear \:SALUT\~
~
    We are pleased that you have taken time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
are much more gratified by the leadership you give to our people. We could not
```

Embedding Variables in Text

Get commands are embedded before the text so PeachText knows how to fill in the variables in the text to follow. Now you are ready to embed variables themselves within the text. To print the value of a variable as part of the text, move the cursor to the point in the text where you want the value to appear, then type *Variable*\. For instance, if you want to

embed a variable to print a name, you would type \:*Variable*\.

The backslash tells the program that characters to follow are not part of the text, and the colon tells it that the expression is not a command but a type of variable—a character, or "colon," variable. When the program sees the variable in the text, it fills in the current value of that variable name as part of the text line. If the variable has no value, the program continues to print as if the variable were not there.

Exercise

1. Delete the lines containing the White House return address, date, inside address and salutation.
2. On the next line, type *RIGHT, :DATE*\ and press RETURN. This embeds a command to print the value of the date in a flush right format.

   Note: The second backslash was needed to tell PeachText to print the date on a line by itself.
3. Change the format of the rest of the text to flush left. Type *LEFT* as shown in the illustration.
4. Press RETURN three times to enter three blank lines.
5. Embed the commands to print the name and address on the next four lines. These are the variable "names." Type:
   :NAME\
   :ADDR1\
   :ADDR2\
   :ADDR3\
   Press RETURN after each line.
6. Press RETURN to enter another blank line.
7. Embed the salutation variable. (Type *Dear* *:SALUT*\,)
8. Return to the Edit Status Screen and end Edit.

Printing a Document with Variables

Printing a document with embedded variables differs slightly from printing the documents you have been working with so far. When you begin printing a document with Get variables, you must type the values of the variables on the Print Status Screen before PeachText starts printing the document.

Exercise

1. Select "Print Document" from the menu. The document you will be printing is LESSON7.
2. When the Print Status Screen appears and PeachText begins to request the values of variables, type the following:
   DATE: *May 22, 1864*
   NAME: *Elizabeth Thatcher*
   ADDR1: *Boar's Head Inn*
   ADDR2: *158 Oak Street*
   ADDR3: *Longmeadow, Massachusetts*
   SALUTATION: *Mrs. Thatcher*
3. Print the letter.

```
    PeachText(tm)
** Print Status Screen **
Document :LESSON7.DOC     PL   - Page Length    66   IGNORE - Ignore Char
Printer  :Your Printer    TM   - Top Margin     0    HY     - Cond. Hyphen   &
Format   :Left Flush      BM   - Bottom Margin  6    UN     - Underline (S)  _
Pass     :0               LM   - Left Margin    10   BF     - Boldface (1)   @
Page     :1               RM   - Right Margin   60   SSA    - Super(above)   <
Line     :1               IN   - Indentation    0    SSB    - Sub(below)     >
Column   :1               PI   - Para. Indent   0    HS     - Hard Space
Source   :Text            CNP  - Cond. Page     0    CMD    - Cmd Marker     \
Forms    :Continuous      SP   - Spacing        1
# Vrbls  :0               LPI  - Lines/Inch     6
Disk Out :                CPI  - Chars/Inch     10
Data Doc :                COPY - Copies         1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\
Enter DATE May 22, 1864
Enter NAME Elizabeth Thatcher
Enter ADDR1 Boar's Head Inn
Enter ADDR2 158 Oak Street
Enter ADDR3 Longmeadow, Massachusetts
Enter preferred salutation Mrs. Thatcher
```

Multiple Passes of the Same Document

When you need to print more than one copy of a document, the use of variables can save you a lot of time. Instead of creating a separate document containing specific information, you can create one general document containing variables and fill in the values in one sitting. This is done by giving a command to print an indefinite number of copies of the document—*COPY0*. As PeachText completes each pass of the document, it asks if you are ready to print another copy of the document.

Each time PeachText prints the document and comes to the Get commands, you have the opportunity to type new values for the next document to be printed. If the value of the variable has not changed from the previous pass, you may press RETURN without typing anything. For example, the date will probably be the same on each pass.

If you need to blank out the previous value of a variable without replacing it with another variable, press the space bar and then press RETURN. (In the document you have been using for these exercises, this would most likely be used for ADDR2.) In this lesson, no text will print on the second address line if there is no value, but a blank line will remain in its place.

You should also place a new page command (*NP*) at the end of the document file so the paper feeds to a new page after each document is complete.

Exercise

1. Select "Copy Document" from the menu. Copy LESSON7 and name the new document LESSON7A.
2. Select "Edit Document" from the menu and edit LESSON7A.
3. Embed the multiple copy command at the beginning of the document (*COPY0*.)
4. Embed the new page command at the end of the document. (Use CONTROL B to go to the end of the document, then type *NP*.)

```
\COPY0~
\LM10,RM60~
~
\GET DATE~
\GET NAME,GET ADDR1,GET ADDR2,GET ADDR3~
\GET SALUT="Enter preferred salutation"~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:ADDR3\~
~
Dear \:SALUT\,~
~
    We are pleased that you have taken time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
are much more gratified by the leadership you give to our people. We could not
hope for victory on the battlefield did we not have individuals like you who
keep the home fires burning.~
    We hope you will like the facsimile of our speech which we enclose.
```

5 End Edit. Select to print LESSON7A.

6 Use the names and addresses in Lesson Four to create new letters for these people, or make up your own names and addresses.

7 Each time PeachText asks if you are ready to print, enter *Y* for Yes. PeachText will then ask you for the values of the variables for the next document. Type the information you wish to see on that document.

8 Continue printing new letters until you feel completely comfortable with this kind of letter.

9 When you are finished, type *N* for No when asked if you are ready to print and return to the menu.

The Wait and New Line Commands

When a special item needs to be included in a document, you can tell PeachText to wait while you enter that text from the keyboard. This is done by typing *\WAIT* at the point in the document where PeachText is to stop.

You may also enter a message that will appear on the screen to remind you why you are waiting. This is done by typing *\WAIT Message.* For instance, you might wish to embed a Wait command with a message such as *\WAIT Any additional comments?*

When PeachText stops, text is entered directly from the keyboard by typing *="message"* after the backslash on the screen. For example, to enter "Hello" type *="Hello"* and press RETURN. PeachText prints the text on the line where the printer stopped, just as if it were part of the original text. You can repeat the =" (equals quote) command as many times as necessary. PeachText will print subsequent lines immediately following the first entry.

If you need to force a new line, type *NL* (*N*ew *L*ine). PeachText responds as if it sees a carriage return and moves the page forward one line. You cannot enter a carriage return from the keyboard because pressing RETURN tells the program that you are finished giving commands.

When you are ready to resume printing press RETURN without giving another command.

Exercise

1 Select "Edit Document" from the menu. You will be editing LESSON7A.

2 Following the signature, embed a Wait command on a new line. You will be adding a postscript directly from the keyboard, and the WAIT message will be *Any special comments?*. Do you know what to type? (*WAIT Any special comments?*)

3 Return to the Edit Status Screen and end Edit.

4 Select "Print Document" from the menu. Print LESSON7A.

5 PeachText will come to the Wait command and ask for any special comments. Type the following postscript, but do not press RETURN: =*"P.S. Look forward to seeing you at the play."*

6 Force a new line so the postscript and the identifying initials do not run together. To do so, type ,*NL*. Notice that the P.S. phrase above ends with quotes and a comma. This is necessary when you are following the text with another command.

7 Press the RETURN key twice to finish printing the letter.

8 Repeat the document using different postscripts until you feel comfortable entering text from the keyboard.

```
    PeachText(tm)
** Print Status Screen **

Document :LESSON7.DOC   PL   - Page Length    66   IGNORE - Ignore Char
Printer  :Your Printer  TM   - Top Margin     0    HY     - Cond. Hyphen   &
Format   :Left Flush    BM   - Bottom Margin  6    UN     - Underline (S)  _
Pass     :0             LM   - Left Margin    10   BF     - Boldface (1)   @
Page     :1             RM   - Right Margin   60   SSA    - Super(above)   <
Line     :1             IN   - Indentation    0    SSB    - Sub(below)     >
Column   :1             PI   - Para. Indent   0    HS     - Hard Space
Source   :Text          CNP  - Cond. Page     0    CMD    - Cmd Marker     \
Forms    :Continuous    SP   - Spacing        1
# Vrbls  :0             LPI  - Lines/Inch     6
Disk Out :              CPI  - Chars/Inch     10
Data Doc :              COPY - Copies         1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\
Any special comments?

Enter print command or press RETURN to begin printing:
\="Look forward to seeing you at the play.",NL
\
Ready to print (Y/N)?
```

The Show and Clear Commands

The Show command displays the current value of any variable on the screen, allowing you to see on the screen what is being printed. The Show command is entered by typing *SHOW :Variable.* For instance, you might wish to show the name of the addressee by typing *SHOW :NAME.* You may also include text as part of a Show command by enclosing the text in quotation marks. This gives you more information about the variable. You might want to type *SHOW "Full Name—",:NAME.* The Show command must be the last command on the command line before text begins.

To make sure that the Show display is the only display on the

screen, you use the Clear command to clear the screen. This is done by typing *CLS* (for *CL*ear *S*creen). You can combine the Clear command and the Show command on the same line. PeachText will clear the screen, display the value of the variable and move the cursor to the first position of the first line.

Exercise

1. Select "Edit Document" from the menu. You will be editing LESSON7A.
2. Embed a command to clear the screen and display the name of the addressee after the *\GET SALUT* line. Type *\CLS,SHOW "Addressee",:NAME*.
3. Escape to the Edit Status Screen and end Edit.
4. Select "Print Document" from the menu and print LESSON7A. Watch the screen while the document is being printed to see the result of the Show and Clear commands.

```
\LM10,RM60~
~
\GET DATE~
\GET NAME,GET ADDR1,GET ADDR2,GET ADDR3~
\GET SALUT="Enter preferred salutation"~
\CLS,SHOW "Addressee ",:NAME~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:ADDR3\~
~
Dear \:SALUT\~
~
    We are pleased that you have taken time out of your busy day to write us concerning our speech at Gettysburg. Although your interest is gratifying, we are much more gratified by the leadership you give to our people. We could not hope for victory on the battlefield did we not have individuals like you who keep the home fires burning.~
    We hope you will like the facsimile of our speech which we enclose.~
```

Dollar Variables

The variables you have used so far have been character, or string, variables, which are preceded by a colon. Variables may also be numeric. Numeric variables printed in a dollar format are called *dollar variables*. A dollar variable is indicated by typing a dollar sign ($) in front of the variable name.

When PeachText sees a dollar variable, it prints the value of the numeric variable with commas and possibly a decimal point, as if it were dollars and cents. Only numbers are recognized as dollar variables; PeachText ignores all other characters except the period, the minus sign and the plus sign. This allows PeachText to accept values that already contain commas, dollar signs, etc. The first period in a number becomes the decimal point. If there is no decimal point, PeachText considers it a whole number and does not give it a decimal point.

You can also place the value of a dollar variable within the text of a document, just as you do string variable values. To

do this, embed the variable in the text with the dollar sign replacing the colon used for string variables, i.e., *\$VARIABLE*. When PeachText sees this command, it changes the value of the variable to the dollar format and inserts it into the text line at the place you indicated. If you want the dollar sign to show in front of the variable, you must type the dollar sign as part of the text.

Exercise

1 Select "Edit Document" from the menu. The document you will be editing is SAMPLE3. This document is a form letter thanking people who have contributed to Lincoln's re-election campaign.

2 On the Edit Status Screen, set the line width at 65 characters. (Type *L65* and press RETURN.)

3 Print the document from Edit. (Type *P* and press RETURN.)

4 Look at the copy printed from Edit. Notice how the variables are set up. CITY and STATE are separate and there is a dollar variable for the amount of contribution.

5 Return to the Edit Status Screen. Exit Edit by typing *QUIT*.

6 Select "Print Document" from the menu and print copies of SAMPLE3, using the following information:

Robert M. Curry
33 Beacon Street
Boston
Massachusetts
1000

Winona Bates
1956 Chicago Ave.
Rock Island
Illinois
10.00

The Set Command and the Dollar Format

Any number may be put into dollar format; there is no requirement that the number represent money. Number variables (which you will use later) over 32,767 cannot be used in calculations, but this constraint does not apply to the more flexible dollar variable. The following exercise shows you different ways in which the dollar format can print numbers.

We will also use the Set command in this exercise. The Set command does exactly what its name indicates; it sets a variable to a specific value until told otherwise. This command is given by typing *\SET Variable="Value"*. For instance, you might set the value of *$CONTRIB* to equal *100* by typing *\SET $CONTRIB= "100"*, which would be very handy if you knew that all contributions were $100 but other information would vary. In the following exercise, you will use the Set command directly from the keyboard, but keep in mind that it also may be embedded.

Exercise

1 Select "Print Document" from the menu. The document you will be working with is LESSON7. However, you will not be printing any text.

2 At the backslash, type *SET DOLLAR="1234",SHOW*

$DOLLAR and press RETURN. These commands set the dollar variable at a value of 1234 and tell PeachText to show that value on the screen.

3 Notice the result: the number appears as 1,234. It is a whole number because the original number did not contain a decimal. This is a common use of the dollar format.

```
     PeachText(tm)
** Print Status Screen **

Document :LESSON7.DOC      PL    - Page Length     66   IGNORE - Ignore Char
Printer  :Your Printer     TM    - Top Margin      0    HY     - Cond. Hyphen   &
Format   :Left Flush       BM    - Bottom Margin   6    UN     - Underline (S)  _
Pass     :0                LM    - Left Margin     10   BF     - Boldface (1)   @
Page     :1                RM    - Right Margin    60   SSA    - Super(above)   <
Line     :1                IN    - Indentation     0    SSB    - Sub(below)     >
Column   :1                PI    - Para. Indent    0    HS     - Hard Space
Source   :Text             CNP   - Cond. Page      0    CMD    - Cmd Marker     \
Forms    :Continuous       SP    - Spacing         1
# Vrbls  :0                LPI   - Lines/Inch      6
Disk Out :                 CPI   - Chars/Inch      10
Data Doc :                 COPY  - Copies          1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\set dollar="1234",show $dollar
1,234

Press RETURN to continue:
```

4 At the next backslash, type *SET DOLLAR="1234.56",SHOW $DOLLAR* and press RETURN. This time the number appears with a decimal. This is also a common use of the dollar format.

5 At the next backslash, enter the commands to set the value at *-1234.* and show it on the screen. The result is *1,234.00-*.

6 Set the value of the dollar variable as *1600 Pennsylvania Ave.* The result is *1,600.00* with a decimal. PeachText sees the period after Ave. as a decimal but ignores any characters. Only numbers count when PeachText is showing the value of a dollar variable.

7 Set the value of the dollar variable as *.1234*. The result is *.12*. PeachText will only show the value two places to the right of a decimal.

8 Set the value of the dollar variable as *Gen. George A. Custer.* The result is *.00*, because PeachText sees the period after Gen. as a decimal.

9 Type *ESCAPE* at the next backslash to exit from Print without printing the document.

Data Files and System Variables

Lesson 8

As you discovered in the last lesson, filling in the value of variables from the keyboard is a true time-saver compared with creating documents one at a time. Even so, this method requires that you sit at the keyboard during the entire time the documents are printing. Another way to fill in variables, which does not require typing at run-time, is called a *data file*. In this lesson, you will learn how to set up a data file containing the information to be inserted into a document and how to tell PeachText to place that information into a document from the data file. Later in the lesson you will learn the basics of system variables.

Before you begin the lesson, here are some terms you will need to know:

A *data file* is a collection of information stored on disk and referenced by a name. To be useful to PeachText as a data file, this information must be stored in some order; the data file already on your disk contains several names, addresses, cities, states, etc., in a particular order. You will add more data to this file during the lesson.

Data files consist of *records*. Each record usually includes such information as name, address, title, occupation, etc., for one individual or company. Keep in mind that any data that is unique to your situation can be entered into a data file.

Each part of a record lists one line of information. These lines are called *elements*. For example, a name is one element, the first address line is another element, and so on.

Setting Up a Data File

A data file is created and named in the same manner as any other document. Each record is separated by a blank line. You may insert new records anywhere in the file, in alphabetical order or, as in the exercise below, by record number.

You may also change existing records in the same way; e.g., if a person on your mailing list has a new address, you would edit the data file to change the new address. When you finish creating or editing a data file, end Edit just as you do for other documents.

Exercise

1 Select "Copy Document" from the menu. The old document is SAMPLE4 and the new document is LESSON8.

2 Select "Edit Document" from the menu. You will be editing LESSON8.

3 Look through the data file to see the type of information contained in each record. Notice that each record contains twelve lines—the record title, the lines of data and a carriage return to separate the records. The number of lines in a data file can vary, but you need to know how many lines are contained in the data file.

```
RECORD #5~
Robert Johnson~
123 Annapolis Street~
~
Baltimore~
Maryland~
Mr. Johnson~
0~
~
Z2~
N~
~
RECORD #6~
The Right Reverend Monsignor Patrick Sheehan~
Trinity Church~
1200 Charles Street~
Boston~
Massachusetts~
0~
~
A2~
N~
```

4 Go to the end of the file and add the following two records. Remember to leave an extra line at the end of each record, including the last one, as indicated here by <RETURN>.

RECORD #7
Clara Barton
Mt. Washington Army Hospital
<RETURN>
Trenton
New Jersey
Nurse Barton
12.50
1
A2
N
<RETURN>

RECORD #8
Jefferson Davis
Confederate Office Building
150 Dexter Avenue
Montgomery
Alabama
Mr. Davis
150.
3
Z1
Y
<RETURN>

5 Go to the Edit Status Screen and end Edit.

The File Command

When you want a data file to insert variable values in a document, you must give PeachText four items of information:

1. That you will be using a data file.
2. That the data file is a text file.
3. The number of lines contained in the data file.

4. The name of the data file.

This is done by using the File command: *FILE Tnn,<Filename>*. *T* represents "text" file, *nn* is the number of lines in each record, and <*Filename*> is the name of the data file. The File command must be on a line by itself.

Exercise

1 Copy SAMPLE3, name the new document LESSON8A and edit it.

2 Using the F9 function key, delete all the Get commands except GET DATE. Now the only piece of information that will be requested from the screen is the date.

3 In their place, embed a command defining a text data file named LESSON8 that has 12 elements per record. Type *FILE T12,LESSON8* following the *GET DATE* command and press RETURN.

The Data Command

When PeachText sees a File command, it reads a certain number of lines in each record of a particular data file. To embed a File command, type *FILE Tnn,<FILENAME>*.

A Data statement is a list of variables that correspond to lines in each record. To embed a Data statement, type *DATA Variable 1 Variable 2*, etc.

Each entry in the Data statement corresponds to both a line in the record and an embedded variable in the document. The data file may contain lines that you do not use in a particular document. You can skip these elements by typing a comma in the Data statement without typing a variable name. If your Data statement contains less than the number of lines in the record, the remaining lines are skipped.

Exercise

1 Display the data file on the screen. (Escape to the Edit Status Screen and type *DLESSON8*.)

2 Notice that the 12 lines of Record 1 correspond to the following information:
- Record Number.
- Name.
- Address (first line).
- Address (second line).
- City.
- State.
- Salutation.
- Amount of Contribution.
- Number of Contribution.
- Text Code.
- P.S. (Yes or No).

3 And there is a blank line for spacing.
Return to the Text Screen and type a Data statement for this file, using only the variables that appear in the text.

This takes some thought. You should have typed:
DATA,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,CONTRIB,,,,.

Note: The last four commas are optional. They represent the remaining lines in the data file but will not be used in this particular document.

```
\LM10,RM60~
~
\GET DATE = ''Today's Date''~
\FILE T12,LESSON8~
\DATA,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,CONTRIB,,,,~
\~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:CITY\, \:STATE\~
~
~
\SP2~
Dear \:SALUT\~
~
    Thank you for your recent contribution of $\$CONTRIB\ to the Committee to
Re-elect President Lincoln. We are pleased that you think enough of the
President to participate in his campaign in this way.~
    We have always had strong supporters in \:STATE\, but with people like you
```

Let's review what we have done. First look at the Data statement in the illustration. There is a space after Data and then a comma. This comma, without being preceded by a variable, indicates that the first line of the record is not to be included in the document. Otherwise, the word ''RECORD #1'' would be assigned as a variable in the document.

The first variable that the Data statement indicates is NAME, corresponding to the second line in the record. When PeachText sees the variable NAME again in the body of the document, it ''remembers'' which line of the record contained the name.

Printing a Document with a Data File

When you print documents with a data file, PeachText always starts with the first record of a file, unless you tell it otherwise. PeachText first looks at the record and assigns values according to the Data command. It then prints the file one time. PeachText then reads the next record in the data file and prints another document with the new information.

If there are any Get commands, such as GET DATE, PeachText asks you for the information from the screen and waits for you to type in a value. If the value does not change from record to record, press RETURN. Later in this lesson, you will learn how to eliminate this extra effort.

Exercise

1. Delete the COPY0 command. It is no longer necessary, since PeachText will produce copies automatically, according to the number of records in the data file.
2. End Edit.
3. Select ''Print Document'' from the menu and print LESSON8A.

The Setup and Text Commands

PeachText reads all commands each time it makes a pass of the document, unless you use the Setup command. Between the Setup command and the Text commands, you can place

all commands that PeachText needs to read only once, such as the File and Data commands. You may also put formatting commands, such as margins, etc., here if they do not change throughout the document. Both the Text and the Setup commands must be the only commands on their lines.

When there is a Setup command in a document, PeachText goes as far as the Text command on the first pass and displays the Print Status Screen so you can enter commands from the keyboard. On subsequent passes, PeachText will not pause. As you can see, this will save time, because PeachText will not have to carry out commands over and over again, and you will be able to start the print process and leave the keyboard.

Exercise

1
2

Insert the Setup command on the first line. Type *SETUP*.
On a line after the line containing the Data command, type the Text command (*TEXT*). Remember that the Setup and Text commands must be the sole commands of their respective lines.

```
\SETUP~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,CONTRIB,,,,~
\TEXT~
\GET DATE = ''Today's Date?''~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:CITY\,\:STATE\~
~
~
\SP2~
Dear \:SALUT\~
~
    Thank you for your recent contribution of $\$CONTRIB\ to the Committee to
Re-elect President Lincoln. We are pleased that you think enough of the
President to participate in his campaign in this way.~
```

System Variables

A *system variable* is defined by the program and is indicated by a percent sign (%) in front of the variable name. The purpose of a system variable is to keep track of your location in the processing of a document.

The system variables are:
%PAGE: the current page number.
%PASS: the current pass (number of times entire document has printed).
%REC: the current record number.
%LINE: the current line number.
%LINES: the current number of lines from the bottom of the page.
%COL: the current column number.

You will learn more about system variables in the last two

lessons. The exercise below will show you how to use system variables to display information on the screen that tell where you are during a long print process. This is done through a combination of the Show command and system variables. It is very similar to the way you set up Get commands; you tell PeachText which information to show and enter a phrase or word to clarify the information. The command is written as *\SHOW "Phrase",%VARIABLE.*

Exercise 1

Following the TEXT command, embed a command to show on the screen the current record number and name of the person whose letter is being printed. (Type *\SHOW "Pass ",%PASS," Record ",%REC,"Name: ",:NAME.*

This command tells PeachText to display the phrase or word in quotation marks on the screen, followed by the system variable indicated.

2 End Edit.

```
\SETUP~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT, CONTRIB~
\TEXT~
\GET DATE = "Today's Date?"~
\SHOW" Pass ",%PASS,"," Record ",%REC," NAME: ",:NAME~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\:CITY\,\:STATE\~
~
~
\SP2~
Dear \:SALUT\~
~
    Thank you for your recent contribution of $\$CONTRIB\ to the Committee to
Re-elect President Lincoln. We are pleased that you think enough of the
```

The Start and Stop Commands

When you printed the document with the data file, PeachText printed all records in that data file. The Start and Stop commands let you start printing records at any point in the data file and stop at any point. (You will learn how to use the Start and Stop commands for page numbers in Lesson Ten).

To tell PeachText to start printing at a particular record in a data file, type *STARTn*, where *n* is the number of the first record you want to print. To tell PeachText where to stop printing, type *STOPn*, where *n* is the number of the last record you want to print.

Exercise

1 Select "Print Document" from the menu. You will be printing LESSON8A.

2 At the backslash on the Print Status Screen, type *START6* and press RETURN.

3 At the next backslash, type *STOP7* and press RETURN.

4 Press RETURN again to start printing.

Notice that the screen shows the record number and the name of the addressee for each document printed. Notice also that PeachText skips the first five records, begins printing at Record 6 and stops printing at Record 7.

Review Exercise

With the skills you have learned in this lesson, change LESSON7 to use LESSON8 as a data file.

1 Remove all of the Get commands except GET DATE.
2 Define the data file. (Type *FILE T12,LESSON8*.)
3 Define the data statement with the correct variables. (Type *DATA , NAME,ADDR1,ADDR2, CITY, STATE,SALUT*.) The five commas for the last five elements of the record are not necessary because they are at the end of each record and are not used in this document.
4 Insert the Setup and Text commands.
5 Insert the command to display on the screen the record number and name of the addressee of each document as it is printed. (Type *SHOW "Record",%REC,"Name: ",:NAME*.)
6 Change the variable names for the third address line from *:ADDR3*\ to *:CITY*\,*:STATE*\ as shown in the illustration.
7 Place a NP command at the end of the file.
8 End Edit.
9 Select "Print Document" from the menu. Print only the third, fourth and fifth records in the data file.

```
\SETUP~
\* Document revised for use with name-and-address file~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT~
\TEXT~
\GET DATE~
\SHOW "Pass ",%PASS,","  Record ", %REC," Name: ",:NAME~
\RIGHT,:DATE\~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:ADDR2\~
\CITY\,\:STATE\~
~
~
Dear \:SALUT\~
~
     We are pleased that you have taken time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
```

Conditional Commands

Lesson 9

Lesson Nine teaches you about conditional commands and how these commands give you more control over the documents you print. A *conditional command* is a statement that tells PeachText to do something only if the condition in that statement is true. Conditional commands are also called *If* statements, because they begin with the word "if."

Here are some examples of conditional statements you might see every day:
- If the weatherman is forecasting rain, bring your umbrella to work.
- If your alarm clock does not go off, you oversleep.
- If you eat more than you should, you gain weight.

Conditional commands tell PeachText such things as:
- If there is no second address line, go directly to the third address line.
- If the addressee made no contribution, do not print a letter.

Conditional commands can be combined with numeric variables to count letters or to compare numbers and documents. This procedure will also be covered in this lesson.

Testing for a Blank Variable

Think back a moment to Lessons Seven and Eight. We had two problems:

1. PeachText asked you for the date at the beginning of each document.
2. If you had only one address line, PeachText left a blank line before the city and state.

The first problem was corrected by embedding the Get Date command in the Setup section, but we could have used a conditional command to do the same thing. The best way to explain this is to show you the entire procedure.

Problem: You want PeachText to ask for the date only if you have not already entered a date (in other words, only if the date is blank).

Solution: Enter a conditional command in front of GET DATE. The entire command line would then read:
\IF DATE=" ",GET DATE.

When PeachText sees this command, it checks to see if the statement is true. If the current value of DATE is blank (say, on the first pass of the document), it displays *Enter DATE* on the screen and waits for you to type the date. If you have already typed the date on a previous pass, the date is not blank and the statement is not true, so PeachText skips the last part of the command line and prints the date.

The next exercise guides you in placing two conditional commands in a document.

Exercise

1 Copy LESSON7 as LESSON9 and edit it.

2 Move the cursor to the GET DATE statement. Change it to a conditional command by typing *\IF DATE=" ", GET DATE.*

```
\SETUP~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT~
\TEXT~
\IF DATE=“    ”,GET DATE~
\SHOW “Pass ”,%PASS,“,“ Record ”, %REC,“ Name: ”,:NAME~
\RIGHT,:DATE~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:IF NOT ADDR2=“    ”,:ADDR2,NL~
\:CITY\,\:STATE\~
~
Dear \:SALUT\,~
~
    We are pleased that you have taken the time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
are much more gratified by the leadership you give to our people. We could not
hope for victory on the battlefield did we not have individuals like you who
```

3 Now we want to tell the program not to leave a blank line if there is no second address line. The value of ADDR2 should be printed only if it is not blank. How should the If statement read? If ADDR2 is not blank, print the value of ADDR2 and go to the next line. The conditional statement to tell PeachText to do this is: *\IF NOT ADDR2=“ ”,:ADDR2,NL.*

In front of :ADDR2, insert *\IF NOT ADDR=“ ”.*. Behind :ADDR2, insert a new line (*NL*) command and delete the second backslash. Since you cannot press RETURN in the middle of a command line, *NL* is the only way to give a conditional carriage return.

4 What happens now when PeachText sees the conditional address command? It checks to see if the first part of the statement is true; if the ADDR2 value is blank, PeachText ignores the remainder of the command line and goes to the next line. If the value of ADDR2 is not blank, PeachText prints the second address line.

5 If you understand why and how you made the above changes, end Edit. If not, read the explanations again.

6 Print the fourth through sixth records of LESSON9.

Length Variables

There are two ways to see if the value of a variable is blank. In the previous section, you used “ ”, but you can also check the length of the current value. The length of a variable is the number of characters from the first to the last character. If the current length is zero, then it is blank.

To get the current length of a variable, type *&Variable*. The conditional command might then read: If the current length of the date variable is equal to zero, then get the date. You would type this statement as: *\IF &DATE=0,GET DATE.*

This type of variable is a *length variable*. In the next exercise, you will change the conditional statements from the previous exercise to look for the length of the variables.

Exercise

1. Select "Edit Document" from the menu. The document you will be editing is LESSON9.
2. Change the conditional command so PeachText gets the Date only if the length of Date is zero. (Type *\IF &DATE=0,GET DATE.*)
3. Change the conditional command so PeachText prints a second address line only when the length of ADDR2 is not zero. (Did you come up with this conditional statement? *\IF NOT &ADDR2=0,:ADDR2,NL*)
4. Tell PeachText to show the current length of the NAME variable. (Type *\SHOW :NAME," is ",&NAME," characters long."*)
5. End Edit.
6. Select "Print Document" from the menu and print records 4 through 6. (Type *START4,STOP6.*)

```
\SETUP~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT~
\TEXT~
\IF &DATE=0,GET DATE~
\SHOW "Pass ",%PASS,","," Record ", %REC," Name: ",:NAME~
\RIGHT,:DATE~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\:IF NOT &ADDR2=0,:ADDR2,NL~
\:CITY\,\:STATE\~
~
Dear \:SALUT\~
~
    We are pleased that you have taken the time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
are much more gratified by the leadership you give to our people. We could not
hope for victory on the battlefield did we not have individuals like you who
```

The End Command

A conditional command, when combined with the End command, prints selected records from a data file. This End command must be placed after the command before the first printable character. By telling PeachText to end a record if part of the data statement is not true, you can print only the documents in a data file matching that statement.

This can be illustrated by showing you a sample statement:

\IF NOT CITY="Chicago",END

When PeachText sees this command, it first checks to see if the current value of CITY is or is not *Chicago*. If it does not "equal" Chicago, then the condition is true. PeachText then ends that record and goes to the next record in the data file. If the city does "equal" Chicago, the condition is not true, and PeachText prints that record. The result is that PeachText prints letters only for those records whose city is Chicago.

Exercise

This exercise will illustrate how an End statement can be used to print specific records.

1. Select "Edit Document" from the menu. You will be editing LESSON9.
2. Add the word CODE to the list of variables in the data statement. The CODE is in the tenth position of the record. (Type *\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,,,CODE*)
3. Embed a conditional command to tell PeachText not to print a record if CODE is not equal to *A2. This command will go on the line following the Text command. (Type \IF NOT CODE="A2",END*)
4. End Edit.
5. Select "Print Document" from the menu and print LESSON9.

```
\SETUP~
\LM10,RM60~
\FILE T12,LESSON8~
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,,,CODE~
\TEXT~
\IF &DATE=0,GET DATE~
\IF NOT CODE="A2",END~
\SHOW "Pass ",%PASS,","," Record ", %REC," Name: ",:NAME~
\RIGHT,:DATE~
\LEFT~
~
~
~
\:NAME\~
\:ADDR1\~
\IF NOT &ADDR2=0,:ADDR2,NL~
\:CITY\,\:STATE\~
~
Dear \:SALUT\~
~
    We are pleased that you have taken the time out of your busy day to write us
concerning our speech at Gettysburg. Although your interest is gratifying, we
are much more gratified by the leadership you give to our people. We could not
```

Numeric Variables

You have used *string*, *dollar* and *length* variables. Another type of variable is the number variable. PeachText considers a group of characters, such as "99," as a character string unless you declare that it is to have a numeric value. Character strings cannot be part of a numeric calculation, i.e., addition or subtraction.

To tell PeachText to treat a variable as a number rather than a string, you must put a number sign (#) in front of the variable name, i.e., *#VARIABLE*. There are a few points to keep in mind when working with numeric variables:

- PeachText stops converting a string to a number variable as soon as the first non-number is seen. For example, "201" becomes *201*, "1234 Elm Street" becomes *1234* and "New York, NY 10010" becomes *0*.
- Fractions are rounded down to the nearest whole number. For example, "10.5" becomes *10*, and ".75" becomes *0*.
- PeachText does not recognize negative number values.
- A number less than zero or greater than 32,767 results in an error message.
- You may add or subtract number variables and numeric constants as long as the result is not less than zero or greater than 32,767.
- All length variables and system variables are numeric, and you can use them in any way you use a numeric variable.

You may use a numeric variable or expression in almost any command that requires a number. For example, if you want to set variable left margins at print time, you could embed in the text a Get command to obtain the left margin setting as the variable VAR1, then use the command LM#VAR1 (also embedded in the text) to actually set the margin.

- To align a column of numbers entered by the operator at print time (in this case, so that the right-most digit is at the 20th column), embed Get commands to fill the variable VAR2, then align the columns with the embedded command *TAB20-#VAR2**VAR2*.

Exercise

1 Select "Print Document" from the menu. You will be working with SAMPLE5.

2 A choice of exercises will display on the screen. Select the first exercise by typing *1* and pressing RETURN.

3 Press RETURN to move past the P.S.S. *Section One*. As PeachText asks for a number, enter the following values. Notice what happens when these entries are treated as number variables:

1234
12345
123 Oak Street
-123
SEVEN
12.56.

(If you enter a number larger than 32,767 you will receive an error message.)

4 *Section Two*. As PeachText asks, enter the following number pairs:

2 and *2*
100 and *1*
7 and *5*

5 *Section Three*. As PeachText asks, enter the following commands as numeric variables instead of numeric constants and notice how the Print Status Screen reflects the changes:

LM as *10* and RM as *60*
LM as *20* and RM as *50*
LM as *0* and RM as *45*

Dollar Comparisons

Since numeric variables must be whole numbers between zero and 32,767, they cannot be used to compare very large, negative or fractional numbers. This could severely restrict their use in conditional statements. The dollar comparison overcomes these restrictions.

You may use a dollar comparison to see if a variable is greater than (>), less than (<) or equal to (=) another variable or constant. You may also test for any two of these relationships in one comparison, i.e., greater than or equal to (>=), less than or equal to (<=) and less than or greater than, i.e., not equal to (<>).

To make a dollar comparison, prefix the first variable in the If statement with a dollar sign. For example, to compare con-

tribution amounts you might write a statement such as:

\IF $CONTRIB>''999.99'',A2

This would print the letter coded A2 for all contributors of over $999.99.

There are some points to remember when writing dollar comparisons:

- If you are comparing the dollar variable to another dollar variable, prefix the second variable with a dollar sign as well.
- If you are comparing the dollar variable to a constant, put the constant between quotation marks.
- Your number may have as many as 12 figures to the left of the decimal point and two to the right.
- You can compare negatives.
- You cannot use a dollar comparison to compare a variable to a system or length variable or to a numeric expression. If you need to make this kind of comparison, use a number comparison.

Exercise

1 Select ''Print Document'' from the menu. You will be working once again with SAMPLE5. Select EXERCISE2 and press RETURN. Follow the instructions it gives you.

2 *Section One*. Press RETURN to move past P.S.S. When PeachText asks for an entry, type in the following values and see the difference between a colon variable, a number variable and a dollar variable.

1234
1234.56
$1234.56
10000.00
-12.45

3 *Section Two*. When PeachText asks for an entry, type in the same numbers as above and see the difference between a string comparison (without prefix) a number comparison and a dollar comparison.

4 Return to PeachText menu.

The Skip Commands and the Ignore Character

The Skip command skips over portions of the text that you do not want to print. To do so, type *SKIP*, to tell PeachText to skip over the next line of the document, i.e., until it reaches the next carriage return. If you follow the Skip command with a carriage return instead of a backslash, PeachText skips over that carriage return as well.

To skip more than one line, type *SKIPn*, where *n* is the number of lines to be skipped. You may skip as many lines as you wish. PeachText counts the number of carriage returns; it does not care how many or what type of characters precede them. This means that you can skip over command lines, text lines or blank lines.

You can also tell PeachText to skip to a certain point in the document with the Skip To command, given by typing *SKIP TO**. You do not have to use the asterisk; you may skip to

any character you choose, except the command marker. If you skip to a character in the middle of a command line, you have skipped over the command marker and commands will print instead of being carried out.

PeachText will print the character it skips to unless it is a recognition character, such as the conditional hyphen, underscore marker, etc. If you do not want PeachText to print the Skip To character, tell PeachText that the character is an Ignore character. This means that PeachText recognizes it but does not print it. To do this, type *IGNOREc*, where *c* is the character to be ignored. You may define any character as the Ignore character except the command marker.

Exercise

1 Select "Edit Document" from the menu. You will be editing SAMPLE6.

2 Print a copy from Edit with a line width of 65 characters. (Type *L65*; then type *P!*.)

3 Quit Edit.

4 Notice in the printed copy that a caret (^) is the Ignore character. Notice also that both dollar and number comparisons were used.

5 Select "Print Document" from the menu and print SAMPLE6.

6 Compare the printed letters to the printed copy from Edit. Notice how the Skip command lets you make a form letter more personal. A Line command is also used in this sample; it moves the printer directly to a particular line. There is a more complete discussion of these commands in the Reference Guide.

Placing Counters in a Document

Definition: A counter is a conditional command that keeps track of the number of times PeachText has completed a particular action.

Through the use of counters, you can keep track of the number of times a particular letter was sent. PeachText can also give you a report of this information at the end of the processing.

A counter is created with a Set command. It is constructed to add (or subtract) numbers to the value of a variable. The variable in the Set command must be a number variable, such as *SET #VAR=#VAR+1*.

To print a report at the end of a document, you need to use the SS system variable. To get a report, place a COPY0 command in the Setup section. Then put a series of commands following the text section that will be carried out only when SS equals 2. During the first print, SS equals 1. At the end of processing SS starts pass 2. When PeachText completes the data file, it asks *READY TO PRINT?*. If you want a report, press *Y*; PeachText will print the report you have constructed.

Exercise

1 Copy SAMPLE6 as LESSON9. Edit LESSON9.

2 Embed counters after the Text command to keep track of the size of contributions and the number of repeat donations.

See the illustration for the specific statements to be embedded to set up the counters.

```
\COPY0,*Allow printing of final totals at end of job~
\TEXT~
~
\* Insert the following section to obtain totals

\* Count this contributor in 1 category only
\IF $CONTRIB < "25",SET #CONT1 = #CONT1 + 1
\IF $CONTRIB = > "25",IF $CONTRIB < "100",SET #CONT2 = #CONT2 + 1
\IF $CONTRIB = > "100",IF $CONTRIB < "1000",SET #CONT3 = #CONT3 + 1
\IF $CONTRIB = > "1000",SET #CONT4 = #CONT4 + 1

\* End of Counter Section

\RIGHT,:DATE
\LEFT,LINE8

\:NAME\
\:ADDR1\
\:IF ADDR2<>"   ",:ADDR2,NL
\:CITY\,\:STATE\
\LINE14

Dear \:SALUT\,
```

3 Between the counter section and the \IF #CONTRIB = 0, END command, embed the conditional report section to be printed at the end of the file. See the specific commands in the second illustration.

```
\DATA ,NAME,ADDR1,ADDR2,CITY,STATE,SALUT,,,CODE
\~
\COPY 2,**** Pass file 1 time after end of data
\~
\TEXT~
\~
\********** Section to display counts on screen at EOJ
\~
\IF %EOF = 0, SKIP 12~
\CLS, SHOW "    Summary of Letters by Class",NL,NL

\SHOW "CODE   MEANING          COUNT",NL
\IF #CNTA1>0,   SHOW " A1   Influential Supporter    —   ",#CNTA1~
\IF #CNTA2>0,   SHOW " A2   Important Dignitary      —   ",#CNTA2~
\IF #CNTA3>0,   SHOW " A3   Friendly Citizen         —   ",#CNTA3~
\IF #CNTA4>0,   SHOW " A4   Schoolchild              —   ",#CNTA4~
\IF #CNTZ1>0,   SHOW " Z1   Important Opponent       —   ",#CNTZ1~
\IF #CNTZ2>0,   SHOW " Z2   Unfriendly Citizen       —   ",#CNTZ2~
\IF #CNTZ3>0,   SHOW " Z3   Threatening Citizen      —   ",#CNTZ3~
\SHOW NL,"                Total Letters          ",#CNT~
\END~
\********** End of count displays~
\~
\IF CODE = "X",END~
```

Think through this setup logically. You have set up categories of contributions (amounts) that correspond to numeric variables (#CONT). On each record, PeachText places each contribution in a category and increases the numeric variable by one. At the end of the file, PeachText totals the number of letters in each category and prints a report.

4 End Edit.

5 Select "Print Document" from the menu and print LESSON9.

Placing more than one letter in a single document file can take the place of boilerplating a letter in Edit. The simplest way to do this is to arrange the letters in this kind of file sequentially, one letter following another. You can then use the Skip and Skip To commands to select which letters are appropriate for each circumstance.

```
\IF CODE="X",END~
\DF~
\NP~
\~
\******** Count Letters by CODE class~
\~
\SET #CNT=#CNT+1. * Count all~
\IF CODE="A1",SET #CNTA1=#CNTA1+1~
\IF CODE="A2",SET #CNTA2=#CNTA2+1~
\IF CODE="A3",SET #CNTA3=#CNTA3+1~
\IF CODE="A4",SET #CNTA4=#CNTA4+1~
\IF CODE="Z1",SET #CNTZ1=#CNTZ1+1~
\IF CODE="Z2",SET #CNTZ2=#CNTZ2+1~
\IF CODE="Z3",SET #CNTZ3=#CNTZ3+1~
\~
\******** End of Counter Section~
\~
\RIGHT,:DATE\~
\LEFT,LINE8~
\~
\:NAME\~
\:ADDR1\~
```

Exercise

1. Select "Print Document" from the menu and print SAMPLE7.
2. Look at the sample you just printed. Notice that this is the document REPLIES.DOC used in earlier lessons, but it has been converted to a regular document.
3. Copy SAMPLE7 to LESSON9B. Edit the new document.
4. Embed counters to keep track of how many of each kind of letter is printed. Have the program print a report at the end of the data file. For assistance on specific entries, see the illustrations.
5. End Edit.
6. Select Print and print LESSON9B.

```
\* End of Counter Section~
~
\* Insert the following section to print totals~
~
\IF %PASS=2,SKIP 11,* Ignore this section until end of print~
\NP,LM0,RM80~
\CTR\Recap of Contribution Acknowledgements~
~
Small (under $25)   Medium ($25-99)   Large ($100-999)   Major ($1000 and up)~
~
\=#CONT1,TAB21,=#CONT2,TAB39,=#CONT3,TAB58,=#CONT4~
~
Total Letters Written—\=#CONT1+#CONT2+#CONT3+#CONT4~
\FF,QUIT,* Force processing to stop after totals~
~
\* End of Totals Section~
~
\IF #CONTRIB=0,END~
~
\IF %PASS=1,CLS~
\SHOW '' Record '',%REC,'' Name: '',:NAME,'' Contribution~
$'',$CONTRIB~
~
\RIGHT,:DATE~
```

Multiple-Page Documents

Lesson 10

Lesson Ten shows you how to prepare documents containing more than one page. You will learn how to set up a heading or a footing, how to print to the disk instead of the printer, how to handle page lengths that are not standard and several other functions that will make your multi-page documents attractive.

The basic preparation of multi-page documents is simple and straightforward. You will get a chance to use some Edit commands that were not covered in earlier lessons. Some of the Print commands for multi-page documents can become fairly complex if you use the commands to their limits; however, be sure you are completely familiar with the basic features before you try anything complex.

Block Copy

With the Block Copy command, you can create a multi-page document for the exercises in this lesson.

Exercise

1. Copy SAMPLE1 as LESSON10. Edit LESSON10.
2. Set block markers around the entire text of the document, i.e., before the title and following the last line of text. (See Lesson Three if you do not remember how to set block markers.)
3. Leave the cursor at the end of the text, immediately after the second block marker.
4. Escape to the Edit Status Screen. Type *BC* and press RETURN. Do this four times. You have expanded the document to five copies so it takes up more than one page. Now you can use multi-page functions.
5. End Edit.
6. Print a copy of LESSON10.

It is for us the living, rather, to be dedicated here to the incomplete work which they who fought here have thus far so nobly advanced—that from those honored dead we take increased devotion to that cause for which they gave their last full measure of devotion that this nation, under God, shall have a new birth of freedom—and that government of americans, by americans, for americans, shall not perish from the earth.~
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~

It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the hospitallity you have shown us during our stay. We wish the circumstances under which we came were more fortunate.~

Let us move then to remarks befitting the reason we gather here today.Eightyseven years ago our ancestors brought forth on this continent a new notion, conceived and dedicated to the proposition that all men are made pretty much the same.~

Now,we are engaged in a real big civil war, testing whether that nation conceived and dedicated like that can endure for very long. We are meet on a real big battle field of that war. We have come to dedicate some of that field, as a memento for those who here gave their livess that that nation might live. It is altogether fitting and proper that we should do this, and I am not at all sorry that I came.~

Page Length

The page length of a document can be any number of lines between zero and 255. If you do not tell PeachText how many lines are on a page, it defaults to 66 lines per page. To set the number of lines on a page, type the command *PLn*, where *n* is a number between zero and 255.

As PeachText processes the document, it keeps track of the number of lines printed on the page so far. When it reaches the bottom margin, PeachText prints the footing, if any, and form-feeds to the top of the next page.

Most printers have mechanical form feeds, which trigger the printer to go to the top of the next page. This mechanical form feed assumes that the page length is 66 unless you tell it otherwise. If the current page length is not 66 lines, you must turn off the automatic form feed to advance the page line by line. To do this, type *FORMFEED OFF*. This is almost as fast as the mechanical form feed.

Exercise

1 Select "Print Document" from the menu. You will be printing LESSON10.

2 On the Print Status Screen, set the page length to 40 lines per page. At the backslash, type *PL40*, then press RETURN twice.

3 Allow PeachText to continue until it begins to print the second page, then interrupt printing.

4 If your printer printed 40 lines, then advanced an entire 66 lines, it is equipped with a mechanical form feed.

Turn off the form feed. (Type *FORMFEED OFF*.) Resume printing the document.

5 After advancing to the third page, interrupt printing and change the page length to 30 lines. (Type *PL30*.)

6 Finish printing the document.

Top and Bottom Margins

Each page of a document can be divided into three sections—the top margin, the body of the text and the bottom margin.

The top margin is the section at the top of the page that is reserved for a heading and/or spacing. To set the top margin, type the command *TMn*, where *n* is the number of lines set aside for the margin. This may be any number between zero and the current page length (minus the bottom margin). If you do not give PeachText a top margin, it defaults to zero.

The bottom margin is the section at the bottom of the page set aside for the footing and/or spacing. To set the bottom margin, type the command *BMn*, where *n* is the number of lines. This can also be any number between zero and the current page length (minus the top margin). If you do not set a bottom margin, PeachText defaults to zero.

The body of the text lies between the top margin and the bottom margin. For example, if your page length is 66 lines, your top margin is three lines and your bottom margin is six lines, you have 57 lines reserved for the body of the text (66 minus 3 minus 6). The bottom margin is usually larger than the top margin because it extends to the first few physical lines of the next page.

Exercise

This exercise will give you a good idea of how these sections relate to one another.

1. Select "Print Document" from the menu. You will be printing SAMPLE8; follow the instructions it gives you.
2. Continue until you feel completely comfortable with the margin arrangement.
3. You do not need to do anything else with SAMPLE8, but you might find it helpful to examine the document to see how some of the commands are handled.

The %LINES Variable

The %LINES system variable can be used to control the appearance of a page. When PeachText gets to the bottom margin, it breaks off the body of the text until after the top margin of the next page. Sometimes, PeachText breaks off at an undesirable place, leaving perhaps a single line at the bottom of the page. There are two ways to avoid this; you could print the entire document once, then go back and embed NP commands to force new pages where you want them, or you could give a conditional command.

The %LINES system variable is the number of lines remaining on a page before the bottom margin including the current line. For example, if you are on the next to last line before the bottom margin, the value of %LINES is 2—the current line plus the last line. To give a conditional NP command, you would type *\IF %LINES<N,NP* where *n* is the minimum number of lines you want to leave on the page.

Exercise

1. Edit LESSON10.
2. Embed a command to ensure that the title is never left on one page with the text starting on another. (Immediately before each title, type *\IF %LINES<5,NP*. This gives you room for the two blank lines and two lines of text.)
3. Now you need a command to make sure no paragraph begins with only one line at the bottom of the page. There is an easy way to do this. You can save a lot of time if you insert a code where the command is to go and, after all codes are in place, use Multiple Search and Replace to change the code into a command. Let's see how this can be done.

```
\IF %LINES<5,NP~
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~
ZZ~
    It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the
hospitallity you have shown us during our stay. We wish the circumstances under
which we came were more fortunate.~
ZZ~
    Let us move then to remarks befitting the reason we gather here
today.Eightyseven years ago our ancestors brought forth on this continent a new
notion, conceived and dedicated to the proposition that all men are made
pretty much the same.~
ZZ~
    Now,we are engaged in a real big civil war, testing whether that nation
conceived and dedicated like that can endure for very long. We are meet on a
real big battle field of that war. We have come to dedicate some of that field,
as a memento for those who here gave their livess that that nation might live.
It is altogether fitting and proper that we should do this, and I am not at all
sorry that I came.~
ZZ~
    But, let's face it, we can not dedicate—we can not consecrate—we can not
:ZZ:\IF %LINES=1,NP:~
```

4 Insert a code of *ZZ*, the code at each place in the document that needs a %LINES command. (See the illustration.)

5 Go to the top of the text and give the Multiple Search and Replace command. Press the F6 function key, type *ZZ*, press the F6 function key again, type *\IF %LINES=1,NP* and press the F6 function key once more. The command line at the bottom of the screen should look like this:
:ZZ:\IF %LINES=1,NP:

6 If the command line is correct, press RETURN. Multiple Search and Replace will change every *ZZ* to the specified command.

7 End Edit and print the document.

```
\IF %LINES<5,NP~
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~
\IF %LINES=1,NP~
    It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the
hospitallity you have shown us during our stay. We wish the circumstances under
which we came were more fortunate.~
\IF %LINES=1,NP~
    Let us move then to remarks befitting the reason we gather here
today.Eightyseven years ago our ancestors brought forth on this continent a new
notion, conceived and dedicated to the proposition that all men are made pretty
much the same.~
\IF %LINES=1,NP~
    Now,we are engaged in a real big civil war, testing whether that nation
conceived and dedicated like that can endure for very long. We are meet on a
real big battle field of that war. We have come to dedicate some of that field,
as a memento for those who here gave their livess that that nation might live.
It is altogether fitting and proper that we should do this, and I am not at all
sorry that I came.~
\IF %LINES=1,NP~
    But, let's face it, we can not dedicate—we can not consecrate—we can not
```

Headings and Numbering Pages

The Head command tells PeachText to print text or carry out commands at the top of each new page. You can do anything in a heading that you can do in regular text.

To set up a heading, insert the command *HEADn*, where *n* is the number of lines of commands and text required to create your heading immediately following the Setup command. On the lines following the Head command, type the series of text and command lines that you want PeachText to repeat at the top of each new page. For example, if the text and commands for your heading require three lines on the screen, type *HEAD3*.

Once you have told PeachText to print a heading, it will automatically print the heading each time it reaches the top of a new page. If you want to print the heading on the first page, you must embed a NP command after the Text command but before the first text character. The NP command at this point does not force a page feed or increase the page number. However, if you are printing more than one pass of the document, PeachText does force a page feed and increase the page numbers on subsequent passes.

PeachText keeps track of the current page number of a document by using the system variable *%PAGE*. Before PeachText processes the document, %PAGE is one. At the beginning of each new page, PeachText adds one to %PAGE. %PAGE is a numeric variable and can be used in numeric statements, such as *SET VARIABLE=%PAGE+1*.

You can print %PAGE as part of the text of the document. If PeachText knows that the current value of %PAGE is 4, and if you had typed *CTR**page**%PAGE*\, PeachText would print *page 4* centered on the line.

To set the value of %PAGE, type *PGn*, where *n* is the page number that you want to set. This may be any number from zero to 32767. For example, to number the pages in a document beginning with page 20, you would type *PG20*. There will be exercises in the next two sections in which you will set page numbers.

Exercise 1

Edit LESSON10.

2. Insert Setup and Text commands at the beginning of the document.
3. Set a left margin of 10 and a right margin of 60.
4. Set a top margin of three lines to leave room for the heading. (Type *TM3*.)
5. Set a page length of 33 lines. (Type *PL33*.) Remember to turn off the mechanical form feed. (Type *FORMFEED OFF*.)
6. Give instructions to print a heading consisting of the current page number flush right and underlined on the first line of the page.

   Type:
   HEAD1
   *RIGHT**Page* *%PAGE*\
7. Insert an NP command on the line following the Text command, so the heading will print on the first page of the document.
8. End Edit.
9. Select "Print Document" and begin to print LESSON10.

10 Interrupt printing and set the page number to 10. (At the backslash, type *PG10*.) Finish printing the document.

```
\SETUP~
\LM10,RM60~
\PL33,TM3~
\FORMFEED OFF~
\HEAD 1~
\RIGHT\__page \ %PAGE\__~
\TEXT~
\NP~
~
\IF %LINES<5,NP~
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~
\IF %LINES=1,NP~
    It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the
hospitallity you have shown us during our stay. We wish the circumstances
under which we came were more fortunate.~
\IF %LINES=1,NP~
    Let us move then to remarks befitting the reason we gather here today.
Eightyseven years ago our ancestors brought forth on this continent a new
notion, conceived and dedicated to the proposition that all men are made pretty
much the same.~
\IF %LINES=1,NP~
    Now,we are engaged in a real big civil war, testing whether that nation
```

Footings

A footing is just like a heading, except it is printed at the bottom of the page. Most of the rules for headings apply to footings. To set a footing, type the command *FOOTn*, where *n* is the number of lines on the screen required for your footing text and commands. On the lines after the Foot command, type the commands to print the text of the footing.

When you define a footing, PeachText processes it when it reaches the first line of the bottom margin. If you want to leave space between the body of the text and the beginning of the footing, you must include that space as part of the footing itself with a NL command. PeachText does not increase the value of %PAGE until after it processes the Foot command.

You should make sure you have enough of a bottom margin for the footing to fit on the page. If the footing is longer than the bottom margin, PeachText prints the entire footing, then skips an entire page before printing a heading on the next page.

Exercise

1 Edit LESSON10.

2 After the Head command, insert a footing command that will print the current page number centered between dashes after skipping a line. Type:

```
\FOOT1
\NL,CTR\-\%PAGE\-
```

3 End Edit.

4 Select "Print Document" from the menu and print the document.

```
\SETUP~
\LM10,RM60~
\PL33,TM3~
\FORMFEED OFF~
\HEAD 1~
\RIGHT\page \%PAGE\~
\FOOT1~
\NL,CTR\-\%PAGE\-~
\TEXT~
\NP~
\~
\IF %LINES<5,NP~
LINCOLN'S ADRESS AT GETTYSBURG, 1863~
~
~
\IF %LINES=1,NP~
    It's great to be here in Pennsylvania. Mrs. Lincoln and I appreciate the hospitallity you have shown us during our stay. We wish the circumstances under which we came were more fortunate.~
\IF %LINES=1,NP~
    Let us move then to remarks befitting the reason we gather here today. Eightyseven years ago our ancestors brought forth on this continent a new notion, conceived and dedicated to the proposition that all men are made pretty much the same.~
```

Processing a Document to Disk

There will be instances when you want to save a processed document on the disk. This can be done instead of or as well as printing it on the printer. The command to print, or save, the processed document is *DISK ON.* The command to stop printing to disk is *DISK OFF.*

When you give a Disk On command, PeachText creates a document on the same disk and with the same name as your original document but with a .PRN extension rather than the .DOC extension. For instance, if your document is named LESSON10, PeachText creates a processed document called LESSON10.PRN.

If you want the processed document to have a different name, type *DISK <Filename>*, where *<Filename>* is the new name.

You can print to disk only one document per session. But you can start and stop printing to the same document as many times as you want. To stop printing on the printer, type *PRINT OFF*. To resume printing, type *PRINT ON*. You can use this to switch back and forth from the printer to the disk in various ways. See "Printing to Disk" in the Reference Guide for a more complete discussion.

Exercise

1. Select "Edit Document" from the menu. You will be editing LESSON10.
2. To the heading commands, add the command to Show the current page number. (Type *\SHOW"Page ",%PAGE*). If you put this command on a separate line in the header be sure to change the number of lines in the Head command.
3. End Edit.
4. Select "Print Document" from the menu and begin to print LESSON10.
5. When PeachText pauses at the Print Status Screen, turn off the printer and turn on the disk. (At the backslash, type *PRINT OFF,DISK ON.*)

6 Process the document. Notice that PeachText can process a document much faster when it does not have to print it.

Spool Printing

Spool printing, or printing in background, is a feature that will save you a great deal of time when you are working with multi-page documents. This means you can edit one document while printing another document. The document can be spool-printed as a processed document only after it is printed to disk as a formatted document.

To print in background, select Edit and name the document you want to edit. When you reach the Edit Status Screen, type *S<Filename>.PRN*. (The *S* is for *S*pool printing.) PeachText may give you a message that the document contains nonstandard characters. If this happens, press RETURN; the printer is able to interpret nonstandard characters in a print output document. The Edit Status Screen will reappear, listing at the top of the screen *<Filename>.PRN* as an inactive print document.

To begin printing, type *S* at the backslash on the Edit Status Screen. To stop printing, type *SX*. To resume printing at the same spot, type *S* again. In the meantime, you may edit your document as you normally would.

Exercise

You have already printed LESSON10 to the disk and it is named LESSON10.PRN. You want to edit the original LESSON10 while printing a copy of the processed LESSON10.PRN that is on disk.

1 Select "Edit Document" from the menu. You will be editing LESSON10.

2 On the Edit Status Screen, establish LESSON10.PRN as the background printing document. Type *SLESSON10.PRN* and press RETURN.

3 Type *S* and press RETURN to begin printing LESSON10.PRN.

4 Press RETURN to go to the Text Screen of LESSON10.DOC. Scroll forward and backward through the text. The document that is printing has no effect on your ability to edit the other document.

5 If the document stops printing before you have finished editing, start it again by repeating the same commands: *SLESSON10.PRN* and *S*.

```
      PeachText(tm)
** Edit Status Screen **

ACTIVITY          DOCUMENT          STATUS
--------          --------          ------
Reading           LESSON10.DOC      Finished
Updating          LESSON10.DOC      Active

WORKSPACE
---------
Total              100%    (36867 characters)
In Use              24%    ( 9074 characters)
Remaining           76%    (27793 characters)

Document Type: Text
Line Width: 80
Tab Columns: 1  9  17  25  33  41  49  57  65  73

Enter edit command or press RETURN to display text screen:

\slesson10.prn
```

Start and Stop Commands

Earlier in the lessons, you learned how to give Start and Stop commands to print selected records from a data file. If you are not using a data file, PeachText sees the Start and Stop commands as page numbers rather than record numbers, so you can use them to print selected pages from a document.

To start printing a document on a particular page, type the command *STARTn*, where *n* is the page on which you wish to start. To stop printing on a particular page, type the command *STOPn*.

When you give PeachText a Start command, it processes the document commands as usual but does not print to either the printer or the disk until the system variable %PAGE matches the number in the Start command. PeachText then starts to print and continues until it reaches the %PAGE that matches the number in the Stop command.

If you give a PG command to make your document begin on other than Page 1, the number in a Start or Stop command must correspond to the value of the %PAGE and not to the physical page number. For example, to print the tenth page of a document after you give instructions to begin at page eleven (PG11), type *START20*.

Exercise

1. Select "Print Document" from the menu. You will be printing LESSON10.
2. Print the third through fifth pages of LESSON10. (Type *START3,STOP5*.)
3. Press RETURN to go to the menu. Print LESSON10 again.
4. Start numbering LESSON10 with page ten and print the third through fifth pages of the file. (Type *PG10,START12,STOP14*.)

```
Document :LESSON10.DOC   PL   - Page Length    66   IGNORE - Ignore Char
Printer  :Your Printer   TM   - Top Margin     3    HY     - Cond. Hyphen   &
Format   :Left Flush     BM   - Bottom Margin  6    UN     - Underline (S)  _
Pass     :0              LM   - Left Margin    10   BF     - Boldface (1)   @
Page     :1              RM   - Right Margin   60   SSA    - Super(above)   <
Line     :1              IN   - Indentation    0    SSB    - Sub(below)     >
Column   :1              PI   - Para. Indent   0    HS     - Hard Space
Source   :Text           CNP  - Cond. Page     0    CMD    - Cmd Marker     \
Forms    :Continuous     SP   - Spacing        1
# Vrbls  :0              LPI  - Lines/Inch     6
Disk out :               CPI  - Chars/Inch     10
Data doc :               COPY - Copies         1
-------------------------------------------------------------------------------
-------------------------------------------------------------------------------
Enter print command or press RETURN to begin printing:
\
Page1
Page2
Page3
Page4
Page5

Printing complete
Press RETURN to continue:
```

Saving Format Commands

As you become more familiar with PeachText, you will probably develop standard ways to give commands for your own uses. Once you have developed such an application, you can save it as a file and use it as part of a formatted Include file. Then you will be able to use the Include sequence to add the commands into the text you are working on. This can save you a lot of time and it will ensure that all of the commands are repeated in the correct sequence.

You have on your disk a document called FORMATS. In it you will find several initial sections, headings, footings, file statements, etc. You may find these suggestions helpful in setting up your own standard commands, or you may want to try including some of the commands from the FORMATS file in the documents you have created in the various lessons. They may give you some ideas on how PeachText can meet your special needs.

Random House Electronic Thesaurus™

2

Using the Random House Electronic Thesaurus™ — Lesson 1

Learning the Commands

Before you can use the Random House Electronic Thesaurus™, you must enter the command to activate the PeachText system and to edit a document (as described in the PeachText instructions). You must then display the document you want to edit.

For this exercise, begin with the PeachText program diskette in Drive A and a data diskette in Drive B. Create a new document named THTEST and enter the following sentence:

Now is the time for all good people to come to the aid of their party.

1 Use the cursor control keys (described in the PeachText instructions and in Appendix A of the *Reference Guide*) to move the cursor to the first letter of the word (or fragment of a word) for which you want to find a synonym.

For this exercise, position the cursor on the *g* in *good*.

2 Remove the PeachText diskette from Drive A and replace it with the Thesaurus diskette.

3 Press the F10 function key. This activates the Random House Electronic Thesaurus™. The Thesaurus listing occupies the lower part of the screen. It is separated from the text by a horizontal broken line.

4 In the Thesaurus listing you will see that the target word (the word for which you want to find a synonym) is enclosed in brackets ([ ]). Press the RIGHT arrow key. The brackets move from the target word, in this exercise *good*, and enclose the first synonym in the list, in this case *moral*. Press the RIGHT arrow key again, and the brackets move to the next synonym in the list. If you want to go back to an earlier synonym in the list, press the LEFT arrow key.

If the Thesaurus listing will not fit on one screen, the symbol >>> will be displayed in the lower right corner of the screen. To go to the second screen of the listing, press the F2 function key or press the RIGHT arrow key until you run out of synonyms on the first screen. The system will automatically position the brackets around the first synonym on the second screen.

5 Once you have chosen the synonym to replace the target word, move the brackets to enclose that particular synonym; then press RETURN. For this exercise, move the brackets to the synonym *moral* and press RETURN.

This will remove the target word from the document you are editing and replace it with the synonym you selected. It will also remove the Thesaurus listing from the screen. The synonym will be in the same case letters as the target word it replaced—all lower-case, all upper-case or with an initial capital.

If you do not find the word you want in the list of synonyms, press ESCAPE to return to the document you are editing. (You may also return by moving the brackets to the target word in the Thesaurus listing and pressing RETURN.)

6 Move the cursor to the *t* in *the* and press RETURN. The following message will appear at the bottom of the screen:

THE not in Thesaurus. Found THAW and THEME.

This message tells you that the word you want a synonym for is not in the Thesaurus. It gives you the entry in the Thesaurus that immediately precedes your target word and the entry that immediately follows it.

If you position the cursor on a space, punctuation mark, special character or number, the system will display the message *No Word at Cursor.*

7 When you are finished with the Thesaurus, remove the Thesaurus disk from Drive A and replace the PeachText program diskette. You are now ready to continue using the PeachText word processor.

Spelling Proofreader

3

Spell Checking a Document

Lesson 1

This lesson shows you how to begin Spelling Proofreader—starting up, displaying the menu and selecting a function. The function you will learn first is the one you will use most often—spell checking.

Inserting Diskettes

The equipment must be ready for the diskette. If you have not already done so, turn on the power to the computer, disk drives, terminal and printer. If you are already using PeachText 5000, you may skip to the next exercise.

Exercise

1 Insert the exercise copy of your PeachText 5000 diskette containing Spelling Proofreader into Drive A.

2 Start up your system.

3 The system prompt *A>* will appear on the screen.

4 At the A>, enter *PT* (for *P*each*T*ext 5000) and press RETURN. The PeachText 5000 menu will appear.

Displaying the Menu

If you were already using PeachText 5000, or if you just completed the previous exercise, proceed with this exercise.

Exercise

1 At the "Enter Selection:" prompt on the PeachText 5000 menu, enter *SP* and press RETURN. (If you are using PeachText, you will need to remove the diskette in Drive A and replace it with the Spelling Proofreader diskette.)

3 The Spelling Proofreader menu will appear on the screen.

4 Look at the choice of functions on the menu. Notice that you will be able to:

- Spell check a document.
- Maintain a dictionary.
- Change a default table.
- Get HELP!
- End Spelling Proofreader

You will learn how each of these functions work in the exercises that follow.

```
Spelling Proofreader                                    V1.01
by Peachtree Software (tm)

Copyright (c) 1982 Peachtree Software Incorporated
an MSA Company

Dictionary in use: SP.DIC

S  - Spell Check Document
M  - Maintain Dictionary
C  - Change Default Table
?  - Get HELP!
E  - End Spelling Proofreader

Enter Selection:
```

Getting Help

Before we show you the main functions of Spelling Proofreader, we want to show you how to get reference help. If you just need a memory boost, using "Get Help!" is the quickest way. For more detail, look in the Reference Guide.

Exercise 1

At "Enter Selection:" type ? and press RETURN. This will display the first Help screen.

```
Enter Selection:?

<<< HELP INSTRUCTIONS >>>

    Press G for General instructions about the actions.
    Press Letter for information about an action.
    Press RETURN key to go back immediately to the menu.

——Press G, Letter, or RETURN key:
```

2 Notice that you have a choice—you may get help on:
- General information.
- Specific information on the letter options S, M or C.

3 Enter *G* (for general).

4 The screen displays a short explanation of the general purpose of Spelling Proofreader.

Note: The Help screens for all functions work exactly the same way.

5 Press RETURN to go back to the menu.

```
<<< HELP INSTRUCTIONS >>>

    Press G for General instructions about the actions.
    Press Letter for information about an action.
    Press RETURN key to go back immediately to the menu.

——Press G, Letter, or RETURN key:

Welcome to Spelling Proofreader by Peachtree Software(tm)

This screen lists things the program can do. For
example, type the letter S and the program will proof-
read a text file. You order the program to do other
things by entering the letter that corresponds to the
action.

Press any key to go back immediately to the menu.
```

Now that you know how the Spelling Proofreader menu works, you are ready to learn the function you will use most often—spell checking.

Selecting "Spell Check Document"

The Spelling Proofreader menu should be displayed on the screen now. At "Enter Selection:" type *S* (for Spell Check Document). The "Spell Check Document" screen will display.

Naming the Document to Be Spell Checked

The next step is to tell the program which document to spell check.

Exercise 1

After "Enter document to spell check:" type *SPELLING* and press RETURN.

(SPELLING is a document that has been prepared for these exercises. It has spelling and typographical mismatches, as well as words that are not contained in the standard dictionary.)

```
     Spelling Proofreader
**  Check Spelling  **

Dictionary in use: SP.DIC (20,005 words)

Enter document to spell check: SPELLING
```

# Words Read	# Words Unique	% Words Unique	# Words Mismatch	% Words Mismatch	% Proofing Done
227	115	50.6%	14	6.1%	100.0%

```
Spell checking is complete.

Press RETURN to enter Individual Word Review:
```

2 Notice that the program immediately begins proofing the document for mismatches. The numbers change as the proofing progresses.

3 You will see a message that says "Spell checking is complete." When you see this message, press RETURN to go to the next step in the spell checking procedure—word review.

Marking Incorrect Words

When you pressed RETURN, the Individual Word Review screen was displayed. You can see that there are several word actions.

The first mismatched word will display and the program will wait for you to indicate a word action.

```
     Spelling Proofreader
** Individual Word Review **

Selections:

A    - Add Correct Word To Dictionary
M    - Mark ("[") Incorrect Word
S    - Skip Word
B    - Back Up To Previous Word
L    - List Remaining Words
T    - Transfer To Group Word Review
?    - Get HELP!
C    - Cancel Word Review And Quit

---------- PRIOR WORD ----------      ---------- CURRENT WORD ----------
WORD <Selection>                     NUMBER   WORD--> (Your selection)
-------------------------------------------------------------------------
                                     #14        COMPRAISON-->M
```

Exercise 1

The first word is already on the screen—*compraison*. Obviously, this word is misspelled, so you need to mark it in the document for correction later. Type *M*.

2

The second mismatched word displays on the screen—*dictionery*. It is also misspelled. Type *M* to mark the incorrect word.

3

The third word—*doucment* now displays. Mark the word as incorrect.

Skipping Words

Now you know how to mark an incorrect word. But what about the next word? It is spelled correctly. If a word is displayed as mismatched even though it is spelled correctly, it means that it is not in your dictionary. If this word is one you do not want to include, such as a name or a place, you may skip it.

```
     Spelling Proofreader
** Individual Word Review **

Selections:

A    - Add Correct Word To Dictionary
M    - Mark ("[") Incorrect Word
S    - Skip Word
B    - Back Up To Previous Word
L    - List Remaining Words
T    - Transfer To Group Word Review
?    - Get HELP!
C    - Cancel Word Review And Quit

---------- PRIOR WORD ----------      ---------- CURRENT WORD ----------
WORD <Selection>                     NUMBER   WORD--> (Your selection)
-------------------------------------------------------------------------
ETHELBERT            <S>             #10        FALKLAND-->S
```

Exercise 1

The word displayed for review is *Ethelbert*. This is a name, and probably not one you need to include in your dictionary. You will skip this word.

2 To tell the program to skip this word, type *S* for skip.

3 The next word then displays for review. It is *Falkland*. Since this is a place name, you might skip it also. Type *S*.

Backing Up to a Previous Word

Sometimes you change your mind about a word decision. To go back to a previous word, use the "Back up to previous word" function and type in a different one.

```
      Spelling Proofreader
** Individual Word Review **

Selections:

A   - Add Correct Word To Dictionary
M   - Mark ("[") Incorrect Word
S   - Skip Word
B   - Back Up To Previous Word
L   - List Remaining Words
T   - Transfer To Group Word Review
?   - Get HELP!
C   - Cancel Word Review And Quit

---------- PRIOR WORD ----------      ---------- CURRENT WORD ----------
WORD <Selection>                     NUMBER   WORD--> (Your selection)
-------------------------------------------------------------------------
FALKLAND <S>                         # 9        HIEROGLYPH-->B
```

Exercise 1

Suppose you change your mind about the word "Falkland." You may write letters to the islands and need this word in your dictionary.

2 Type *B* (for *B*ack Up to Previous Word). The screen will display the previous word.

Note: You may not back up more than one word.

3 Type *A* to add Falkland to your dictionary.

Adding Words to a Dictionary

Many words that are mismatched yet spelled correctly would be good words to include in your dictionary. This is an excellent time to expand the size of your dictionary by adding these words.

```
     Spelling Proofreader
** Individual Word Review **

Selections:

A   - Add Correct Word To Dictionary
M   - Mark ("[") Incorrect Word
S   - Skip Word
B   - Back Up To Previous Word
L   - List Remaining Words
T   - Transfer To Group Word Review
?   - Get HELP!
C   - Cancel Word Review And Quit

---------- PRIOR WORD ----------      ---------- CURRENT WORD ----------
WORD <Selection>                     NUMBER      WORD-->(Your selection)
-------------------------------------------------------------------------
FALKLAND <A>                         # 9       HIEROGLYPH-->A
```

Exercise

1 The next mismatched word displayed on the screen is *hieroglyph*. This word is spelled correctly, but it is not in the dictionary you are using. Let's assume that you need to have it in the dictionary. Type *A* to add the word.

2 *Hieroglyphics* is the next word to be displayed. It is also spelled correctly and can be added to the dictionary. Type *A*.

3 *Histogen* is the next word to be displayed. It is also spelled correctly and can be added to the dictionary. Type *A*.

4 What's this? *Histogens* is the next word. Spelling Proofreader does not automatically add -s, -ed, and -ing endings, so derivative words are still seen as mismatches. Type *A* to add this form of the word to the dictionary.

5 Add the next two words, *mismatch* and *mismatched*, to the dictionary.

Listing Remaining Words

If there are a lot of mismatched words in a document, you may at some point want to see which words remain. This is done with the "List Remaining Words" option.

Exercise

1 The next mismatched word displays on the screen, but you want to see all of the remaining words. To do this, type *L*.

2 The program needs to know whether you want to list the remaining words on the printer or on the terminal screen. Type *T* to see them on the screen.

4 All words that remain display on the screen. Spelling Proofreader only shows you these words—nothing is done to them. You must still return to word review and give the program a word decision.

5 Press RETURN to go back to word review.

```
Spelling Proofreader

NOTE: Press X to immediately cancel the listing.
      To pause during the listing, press any key except X.

List to printer or terminal (P or T)?T

MISPELLED     NECCESSARILY     WIRD

Listing is complete.
Press RETURN to continue:
```

Using Group Word Review

Individual Word Review is not the only way to review mismatched words in a document. You can also use Group Word Review. Sometimes, especially in long documents, you will use Group Word Review because it is so quick.

```
     Spelling Proofreader
** Group Word Review **

Selections:

A   - Add All Remaining Words To Dictionary
M   - Mark All Remaining Words In Document
S   - Skip All Remaining Words
T   - Transfer To Individual Word Review
?   - Get HELP!
C   - Cancel Word Review And Quit

Enter Selection: M

Mark in text ALL 3 remaining words?
xEnter Y or N):Y

Word Review is complete.
Press RETURN to continue:
```

Exercise

1 The screen is displaying the word *mispelled*. Type *T* to go to Group Word Review.

2 The screen displays the Group Word Review options. Notice that the current word and prior word do not display at the bottom of the screen as they do for Individual Word Review. This is because the words are not reviewed one at a time; the three actions that affect the words themselves (A, M and S) apply to all remaining words that have not been reviewed.

3 Remember the list of remaining words? The remaining words were *mispelled*, *neccessarily* and *wird*. All of these are incor-

rect, so you can enter one decision for all of them.

4 Type *M* to mark all remaining mismatched words in the document.

5 As a safeguard, the program asks you once again if you want to mark all remaining words. Type *Y*.

6 Since all words have been reviewed, the final screen of the word review session will display.

Understanding the Word Review Recap

The screen that you see now is a recap of the decisions you made during word review. The information presented here is:
- The number of words added to the dictionary.
- The number of words marked in the document.
- The marked words themselves.
- The name of the back-up document, if any.
- The symbol used to mark the incorrect words.
- Instructions on how to cancel any marks made to a document.

```
     Spelling Proofreader
** Word Review Recap **

Number of words being added to dictionary = 7

Number of mismatched words for marking = 6


Words will be displayed as they are being marked in the document.

Press X to immediately cancel marking the document.

     #1 compraison     #2 dictionery     #3 doucment
     #4 neccessarily    #5 mispelled     #6 wird

The last character of each marked (incorrect) word has now been
replaced with the symbol.

The original (unmarked) document is now named "SPELLING.BAK."

Press RETURN to continue:
```

Exercise

1 Keeping in mind what you have just done during spell checking, look at your recap screen.

2 When you feel you understand what the program is telling you, press RETURN to go to the Spelling Proofreader menu.

Correcting the Document

After you finish spell checking, you are ready to correct the words that were marked in the document.

Exercise

1 Type *E* to end Spelling Proofreader.

2 Bring up PeachText in Drive A and place the Spelling Proofreader diskette in Drive B. Change the default drive to B.

3 Using PeachText, edit the document SPELLING.

When the document displays, notice that the last letter of some words is a left bracket. These are the words that Spelling Proofreader marked. Notice also that Spelling Proofreader did not mark "too" in the first paragraph. Even though the

usage of the word is wrong here, it matched a word in the dictionary.

4 Indicate to PeachText that you want to use the Search command to look for the first "[" character. The cursor will be positioned on the last letter of "compraison." Correct the word.

5 Continue Search until all words have been corrected.

6 End edit and print a copy of the corrected document.

SPELLING PROOFREADER

This is a short document which we have prepared too show you how Spelling Proofreader works. When you tell Spelling Proofreader to proofread this document, it will make a compraiso of all the words in the document to those in its internal dictioner[. Any word in the doucmen[which is not in the dictionary is a "mismatch." A mismatch is not neccessaril[a misspelled word or typographical error. It could be that the word is just not in the dictionary.

There are three decisions Spelling Proofreader lets you make regarding a mismatched word. Some words you might wish to use may not be in the dictionary you are currently using. For example, the words hieroglyph and histogen are not in the Spelling Proofreader dictionary. (Though you probably encounter more hieroglyphics than histogens!) Adding words is a very easy way to expand your dictionary capabilities. If the word is truly a mispelle[word or typographical error, you can mark it with a special character. You can then use your wir processing or text editor's SEARCH or FIND capability to locate the special marking character and correct the word. If the word is spelled correctly, but is not a word you want to include in your dictionary, you may skip it. You might often do this with names or places, such as "Ethelbert" or "the Falkland Islands."

Maintaining a Dictionary

Lesson 2

Although you are able to spell check documents with the basic dictionary that comes on your Spelling Proofreader diskette, there are many other things you can do if you learn how to use the Maintain Dictionary function. This lesson will teach you how to list words in a dictionary, combine or subtract dictionaries, delete words from a dictionary and reorganize a dictionary.

Selecting "Maintain Dictionary"

To perform any maintenance on a dictionary, you will select the option "Maintain Dictionary" from the Spelling Proofreader menu.

Exercise

1
2

At "Enter Selection:" type *M* (for *M*aintain Dictionary).
The screen will display the "Maintain Dictionary" screen.

```
        Spelling Proofreader
** Maintain Dictionary **

L - List Words In A Dictionary
C - Combine Two Dictionaries
S - Subtract Dictionaries
R - Reorganize A Dictionary
D - Delete Words From A Dictionary
? - Get HELP!
E - End Maintain Dictionary

Enter Selection:
```

Listing Words in a Dictionary

If you want to see the contents of a dictionary, you can list words on the printer or the terminal. This is handy when you need to see if a word is in a particular dictionary or when you check unnecessary words that could be deleted. There are many reasons why you might need a list of words in a dictionary.

Exercise

1

The "Maintain Dictionary" screen is displayed. Type *L* to select the "List Words in a Dictionary" option.

The List screen will display and asks for the name of the dictionary to list. Type in *SP.DIC*. (This stands for the file name of the dictionary that comes with Spelling Proofreader.)

(The program may reorganize the dictionary at this time. If it does so, wait just a minute until you see the message "Enter word boundary to begin:").

2

The screen asks for the word boundary to begin the list. This can be either a letter or a full word. Type in *C* and press RETURN. (This tells the program that you want it to begin listing words at the first occurrence of C.)

3 The screen asks for the word boundary to end the list. This, again, can be either a letter or a full word. Type in *cushion* and press RETURN. (This tells the program that you want it to end the list at the word *cushion*.)

4 The program tells you how to cancel the listing or pause during the list. Notice that you press X to cancel. Any other key makes the listing pause.

5 The program needs to know whether you want the list to appear on the printer or the terminal. Type *T* and press RETURN.

```
     Spelling Proofreader
** List Words In A Dictionary **

Enter name of dictionary to list: SP.DIC

Dictionary File: "SP.DIC"  (20,012 words)

Enter word boundary to begin list: c

Enter word boundary to end list: cushion

NOTE: Press X to immediately cancel the listing.
      To pause during the listing, press any key except X.

List to the printer or terminal (P or T)? T

Press RETURN to begin list:

(Words being located.)
```

Read through the next few steps so you have a clear idea of what you are going to do.

6 Press RETURN. The program starts locating the words.

7 After the list begins, press any key (except X) to tell it to pause. Then press any key to continue the listing. Do this several times until the list is complete.

8 Press RETURN to go to the "Maintain Dictionary" screen again.

```
CROWDS CROWED CROWING CROWN CROWNED CROWNS CROWS
CRT CRUCIAL CRUCIFY CRUDE CRUDELY CRUEL CRUELLY
CRUELTY CRUISE CRUISER CRUISING CRUMBLE CRUMBLED
CRUMBLING CRUMBS CRUMPLE CRUMPLED CRUMPLING CRUSADE
CRUSADERS CRUSADES CRUSH CRUSHED CRUSHING CRUST
CRUSTS CRUTCH CRUX CRY CRYING CRYPTIC CRYSTAL
CRYSTALS CTR CUB CUBE CUBES CUBIC CUBS CUCKOO
CUCUMBERS CUDDLE CUE CUES CUFF CUISINE CULINARY
CULPABILITY CULPABLE CULPRIT CULT CULTIVATE
CULTIVATED CULTIVATING CULTIVATION CULTIVATOR
CULTURAL CULTURE CULTURED CULTURES CUMBERSOME
CUMULATIVE CUNNING CUNNINGLY CUP CUPBOARD CUPBOARDS
CUPFUL CUPID CUPPED CUPS CURABLE CURATOR CURB
CURDLE CURED CURES CURFEW CURIOSITY CURIOUS
CURIOUSLY CURL CURLED CURLING CURLS CURLY CURRENCY
CURRENT CURRENTLY CURENTS CURRICULUM CURSED CURSOR
CURSORY CURTAIL CURTAIN CURTAINS CURVE CURVED
CURVES CURVING CUSHION

Listing is complete.

Press RETURN to continue:
```

Deleting Words from a Dictionary

As you spell check documents and add more and more words, you may eventually reach the point where there are words in the dictionary that are not needed. There is no reason to keep words in the dictionary that you do not use at least once in a while. You may also need to delete a word when you realize you have added one that is misspelled. It can happen!

```
     Spelling Proofreader
** Delete Words From A Dictionary **

Enter name of dictionary to be used: SP.DIC

Dictionary File: "SP.DIC"  (20,012 words)

Enter word to delete or press RETURN to exit: quixotic

Word has been found: QUIXOTIC

Do you wish the word removed (Y/N)? Y

Enter word to delete or press RETURN to exit: tupelo

Word has not been found: TUPELO

Enter word to delete or press RETURN to exit:
```

Exercise

1. Type *D* on the "Maintain Dictionary" screen to select the "Delete Word from a Dictionary" option.
2. The screen will display as shown in the illustration.
3. Type *SP.DIC* and press RETURN. This is the name of the dictionary from which you are deleting a word.
4. Type the word *quixotic* and press RETURN. This is the word you wish to delete.

5 The program will tell you that it found the word. It will then ask if you wish to remove the word. Type *Y*.

6 Type the word *tupelo* and press RETURN. This is the next word you wish to delete.

7 The program will tell you that the word was not found. When this message displays, the word is not in the dictionary that you named.

8 Press RETURN to go to the "Maintain Dictionary" screen.

Combining Two Dictionaries

Spelling Proofreader will combine dictionaries to create a third, larger dictionary. As your dictionaries grow, or as the need for separate, specialized dictionaries becomes apparent, you can use the "Combine Two Dictionaries" option to add to your dictionary capabilities.

```
      Spelling Proofreader
** Combine Two Dictionaries **


Enter name of first dictionary to be included: SP.DIC

Dictionary File: "SP.DIC"  (20,011 words)

Enter name of second dictionary to be included: WORDS.DIC

Dictionary File: "WORDS.DIC"  (26 words)

Enter name of resulting dictionary: NEW.DIC

Dictionary File: "NEW.DIC"  (0 words)

Dictionaries are being combined...

 Words So Far
---------------
    20,037

Dictionary is complete.
Press RETURN to continue:
```

Exercise

1 Type *C* on the "Maintain Dictionary" screen to select "Combine Two Dictionaries."

2 The "Combine Two Dictionaries" screen displays as illustrated.

3 Type *SP.DIC*. This is the name of the first dictionary to be included in the final version.

4 Type *WORDS.DIC*. This is a very small dictionary that was prepared for this exercise, and it is the second dictionary to be included.

5 Type *NEW.DIC*. The name of the resulting, combined dictionary will be a name that tells you what type of dictionary you have created.

6 The screen will tell you that it is combining the dictionaries and will show a "Words So Far" status.

7 When the combination is complete, press RETURN to go to the "Maintain Dictionary" screen.

Note: The "Subtract Dictionaries" option does the opposite of the action described above. You can subtract one dictionary from another to create a third dictionary of unique words.

Reorganizing a Dictionary

A dictionary needs to be reorganized after about 250 words have been added. Spelling Proofreader knows when it needs to reorganize a dictionary and will do so automatically. There is an option, however, on the "Maintain Dictionary" screen to manually force a reorganization, which you may want to do after combining or subtracting dictionaries.

```
     Spelling Proofreader
** Reorganize A Dictionary **

Enter name of dictionary to reorganize: SP.DIC

Dictionary File: "SP.DIC"  20,037 words)

Please wait while the program reorganizes
Dictionary "SP.DIC"  (20,037 words)

 Words        Total       ** DO NOT INTERRUPT DURING
 So Far       Words       REORGANIZATION **
 ----------   ----------  (Always save dictionary backup copies)
 20,013       20,013

Dictionary is complete.
Press RETURN to continue:
```

Exercise

1. Type *R* to select "Reorganize a Dictionary."
2. The "Reorganize a Dictionary" screen will display as illustrated.
3. Type *SP.DIC*. This is the name of the dictionary you are going to reorganize.
4. After you press RETURN, do not in any way interrupt the program while it is reorganizing the dictionary. The program gives you a very clear message regarding this. Interruption could harm your dictionary file.
5. Notice that the program gives you a regular status check during reorganization. It tells you how many words have been reorganized so far out of the total number of words in the dictionary.
6. The program will tell you when reorganization is complete.
7. Press RETURN to go to the "Maintain Dictionary" screen. Type *E* to return to the main menu.

Changing a Default Table

Lesson 3

A default table is a list of preset instructions that tell Spelling Proofreader how to spell check a document. A default table tells the program such things as which dictionary to use to proof a document, the special character to use to mark incorrect words in the dictionary, whether to make a back-up copy of the unmarked document, etc. Setting up all three default tables is a way of getting the most versatility from your Spelling Proofreader system.

Selecting "Change Default Table"

To look at or change information in the default tables, you will select the option "Change Default Tables" from the Spelling Proofreader menu.

```
     Spelling Proofreader
** Change Default Table **


(Active Default Table is: #1 STANDARD)

Selections:

D - Display Or Alter A Default Table
L - List Names Of The 3 Default Tables
C - Change The Active Default Table
? - Get HELP!
E - End Change Default Table

Enter Selection:
```

Exercise 1 2

At "Enter Selection:" type *C* (for *C*hange Default Table). The screen will display the "Change Default Table" screen as illustrated.

Listing Names of the Default Tables

Your Spelling Proofreader diskette comes with one default table established and active. It is up to you to change the information in the other two tables to meet your needs. Let's look at the names of the default tables that are on the lesson diskette.

```
     Spelling Proofreader
** List Names Of The 3 Default Tables **

Default Tables are: #1 STANDARD (Active)
                    #2 DEFAULT
                    #3 DEFAULT

Press RETURN to continue:
```

Exercise 1

Type *L* to select the option "List Names of the 3 Default Tables."

2 The List Names screen will display. On the screen you will see the names of three default tables.

3 Notice that each of the three default tables is numbered. The first default table is named STANDARD, and you can see that it is designated as the active default table.

4 Numbers 2 and 3 are both named DEFAULT. The information in these tables is ready to be changed to anything you wish to use for your own documents.

5 Press RETURN to go to the "Change Default Table" screen.

Displaying a Default Table

To see exactly what information is contained in a default table, you must use the "Display or Change a Default Table" option. This shows us a list of items that the program will automatically use to spell check a document when that table is active. Let's look at the information in the active default table.

Exercise

1 Type *D* to go to the "Display or Alter a Default Table" screen.

2 The screen will display. Under the screen title, you will see that the three default tables are listed.

3 Type *1* to display the default table that is labeled *#1* (STANDARD).

4 The six items of information for this default table will display on the screen.

```
Default Table No. 1

(1) Name of this Default Table. . . . . STANDARD
(2) Name of dictionary used in spell checking. . SP.DIC
(3) Name of document to be spell checked. . . . *
(4) Character used to mark incorrect words. . . . [
(5) Preserve original document in .BAK file?. . . . Y
(6) Visible soft hyphen character. . . . . &

Enter item number (1-6) to be changed or RETURN to exit:
```

5 The first item is the name of the default table—STANDARD. You already knew this from seeing the list of tables. The second item is very important. It is the name of the dictionary that is used to spell check a document when this default table is active. If you type an asterisk here, the "Spell Check Document" screen will wait for you to enter a dictionary name each time you spell check.

6 Look at the other items on the default table and become familiar with them.

7 Press RETURN to go to the "Change Default Table" screen.

Setting Up a Default Table

A default table is set up through the "Display or Alter a Default Table" screen. You are really just changing the item values that came with Spelling Proofreader.

Exercise

1 Type *D* to go to the "Display or Alter" screen.

2 When you are asked for the number of the table to be displayed, type *2.*

3 The items and values for the default table will display.

4 When the program asks for the number of the item to change, type *1*. The entire line for Item 1 will display at the bottom of the screen.

5 At the cursor, type *LESSON* and press RETURN. This will name your new default table LESSON.

6 Continue to select item numbers and type in your own values for each of the items.

7 Press RETURN.

```
Default Table No. 2

(1) Name of this Default Table. . . . . .DEFAULT
(2) Name of dictionary used in spell checking. . .*
(3) Name of document to be spell checked. . . . .*
(4) Character used to mark incorrect words. . . . .[
(5) Preserve original document in .BAK file?. . . . .Y
(6) Visible soft hyphen character. . . . . .&
Enter item number (1-6) to change or RETURN to exit:1

(1) Name of this Default Table. . . . . .LESSON
```

Changing a Default Table Item

Once again, you will use the "Display or Alter" option to change the established value of an item. You are going to change one of the items that you set up in the previous exercise.

Exercise

1 Type *D* to display the screen.

2 Type *2* to display the items in the #2 LESSON default table.

3 When the program asks for the number of the item to be changed, type *4*. You are going to change the special marking character.

4 At the cursor, type a caret (^). This will now be the special marking character whenever the #2 LESSON default table is active.

5 Press RETURN to go to the "Change Default Table" screen.

```
Default Table No. 2
(1) Name of this Default Table. . . . . .LESSON
(2) Name of dictionary used in spell checking. . .*
(3) Name of document to be spell checked. . . . .*
(4) Character used to mark incorrect words. . . . .[
(5) Preserve original document in .BAK file?. . . . .Y
(6) Visible soft hyphen character. . . . . .&

Enter item number (1-6) to change or RETURN to exit: 4

(4) Character used to mark incorrect words. . . . .^
```

Changing the Active Default Table

When you wish to use the default items in a particular default table, that default table must be "active." You tell the program which table is active with the "Change the Active Default Table" option.

The active default table on the Spelling Proofreader lesson diskette at this time is #1 STANDARD. You are going to change it to the default table you set up earlier in this lesson.

Exercise

1. Type *C* to go to the "Change Active Default Table" screen.
2. The screen will list the numbers and names of the default tables. It will also indicate the active table.
3. Type *2* to tell the program that Table #2 LESSON is to be active.
4. The program will confirm that default Table #2 LESSON is now the active table.
5. Press RETURN to go to the "Change Default Table" screen.
6. Type *E* to end "Change Default Table" and go to the Spelling Proofreader menu.

```
     Spelling Proofreader
** Change The Active Default Table **


Default Tables are: #1 STANDARD (Active)
                    #2 LESSON
                    #3 DEFAULT

Enter number (1-3) of table to make active: 2


(Active Default Table is #2 LESSON)

Press RETURN to continue:
```

List Manager

4

Setting Up an Address File

Lesson 1

In the first lesson, you will learn the fundamentals of List Manager—starting it up, using the menu and Help references and defining an address file. Don't worry if the sample files you create are not exactly as you would want to use them; once you are comfortable with these procedures, you will see just how easy it is to tailor the system to your own needs.

Copying Your Sample Files

Before you can successfully complete all the List Manager lessons, you must copy your sample files—supplied to you on the same disk as the PeachText 5000 configurator program—to a blank diskette, since there is a chance that you might exceed your available disk space on the disk with the configurator program in doing some of the exercises.

1. Place your exercise copy of the disk with the configurator program and List Manager sample files in Drive A. Place the blank disk you will use for the List Manager lessons in Drive B.

2 With the following command you can transfer the eight sample files to the blank disk in one step:
COPY A:SAMPLE.* B:*

The files you are copying with this command are SAMPLE1.DAT, SAMPLE1.MLB, SAMPLE1.KY1, SAMPLE1.KY2, SAMPLE1.KY3, SAMPLE2.DAT, SAMPLE2.MLB and SAMPLE2.KY1.

3. Proceed with the List Manager lessons, using the disk containing *only* the sample files to go through the lessons.

Inserting Diskettes

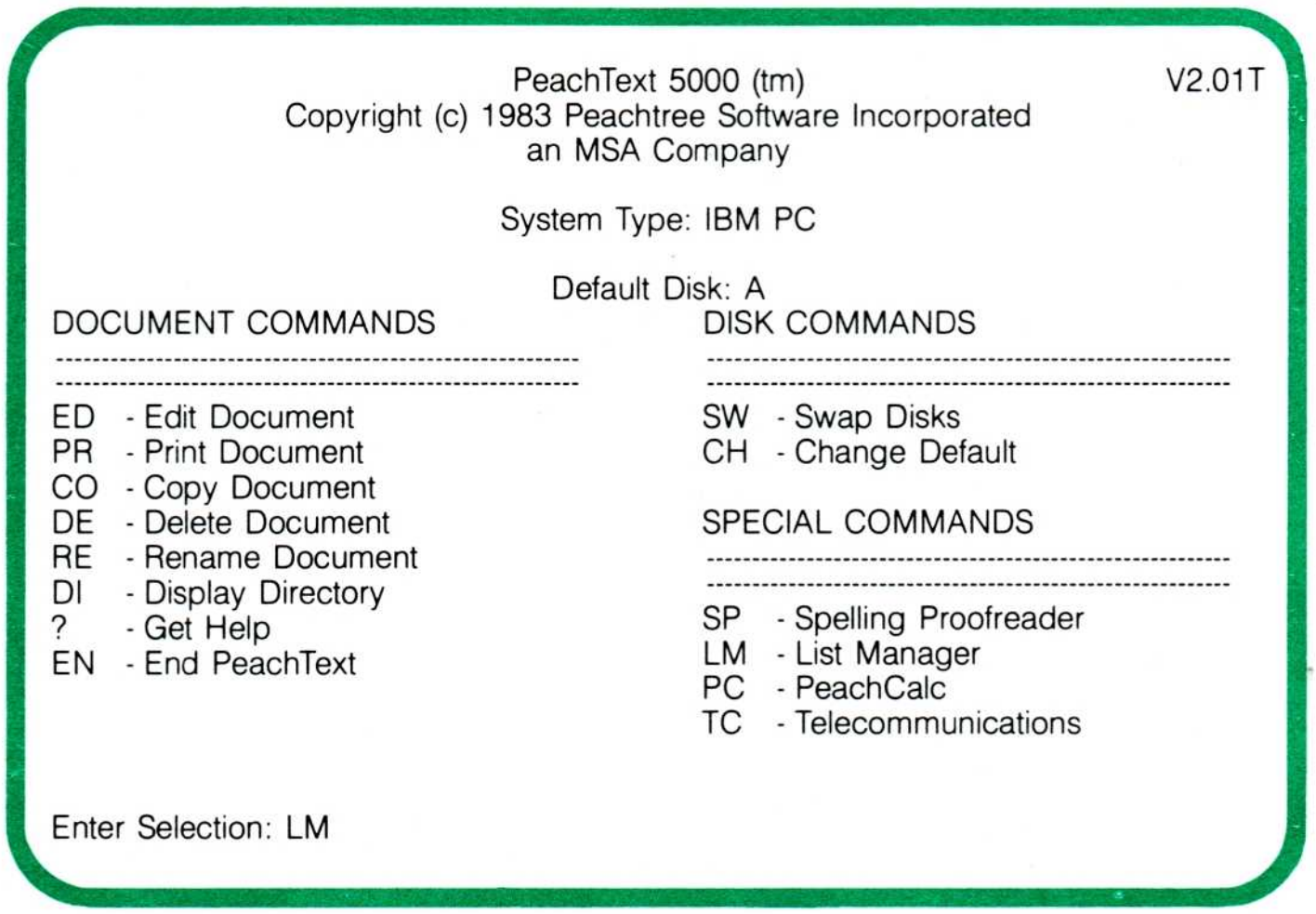
The equipment must be ready for the diskette. If you have not already done so, turn on the power to the computer, screen, and printer.

Exercise 1

Insert the exercise copy of your PeachText 5000 diskette containing List Manager into Drive A and the diskette with the List Manager sample file into Drive B.

2 Start up your computer and load the operating system. The prompt *A>* will appear on the screen.

3 Enter *PT* and press RETURN to load the menu. The PeachText 5000 menu will appear on the screen.



Displaying the Menu

Exercise 1

At the "Enter Selection:" prompt, type *LM* and press RETURN.

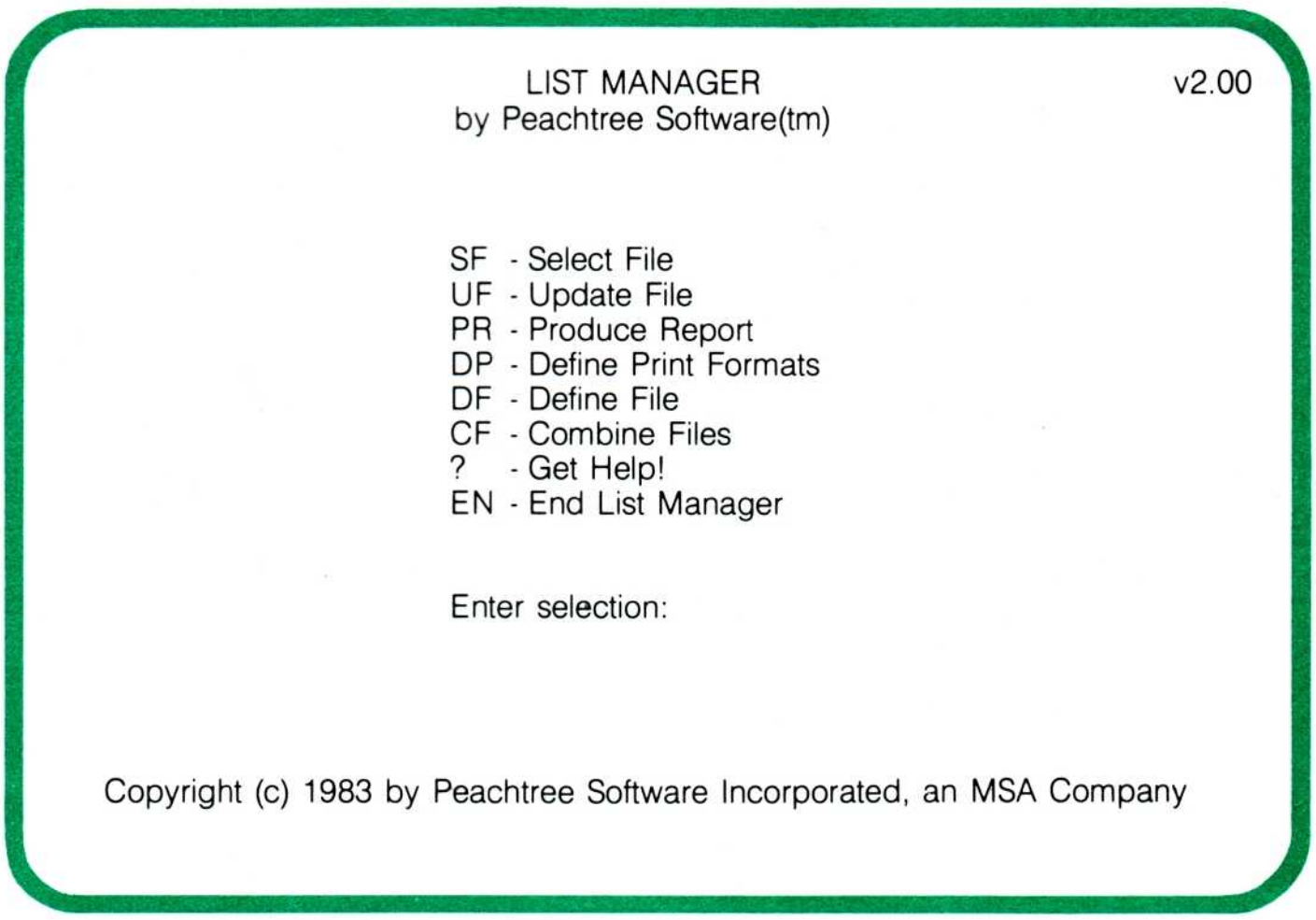
If you are entering List Manager from the PeachText program diskette, follow the screen instructions to swap program disks.

2 The List Manager menu will appear on the screen.

3 The menu lists the system functions available to you. You are now able to:

- Select a file.
- Update a file.
- Produce a report.
- Define print formats.
- Define a file.
- Combine files.
- Get help!

Each of these functions will be covered in the lessons that follow.



Getting Help

Before we show you the main functions of List Manager, we want to show you how to get reference help. If you need a memory boost, asking for "Help!" is the quickest way. For more detail, refer to the Reference Guide.

Exercise

1 At "Enter Selection:" type ? and press RETURN. This will display the first "Help!" screen.

2 You may proceed to the next page of information by pressing RETURN. If you find the answer to your question and want to return to the menu, press the ESCAPE key instead of RETURN. For this exercise, however, look through all the pages for an idea of the information available.

3 At the end of the "Help!" displays, press RETURN to go back to the menu.

Defining a File

The first step in setting up your own List Manager is defining a file. A file is just like an address book or rotary address cards, except it is on the computer instead of on paper. This exercise will show you how to set up the file itself; you will not add any names and addresses yet.

Exercise

1 At the "Enter Selection:" prompt, type *DF* for "Define File" and press RETURN.

2 When the program prompts *File:*, it is requesting the drive location and name of the file you wish to define. Type *B:EXAMPLE1* and press RETURN.

3 The screen now displays a form you must fill in to describe the file EXAMPLE1. The form consists of the title or name of the file, followed by a list of up to 14 items. Each item can be assigned a name and a length. This example is a membership list; at the *Title:* prompt, type *Members* and press the F2 (Next Field) function key.

```
        LIST MANAGER
** Define File **

  File: B:EXAMPLE1
 Title: Members

       Item                          Length
 1:    [                          ]    0
 2:                                       0
 3:                                       0
 4:                                       0
 5:                                       0
 6:                                       0
 7:                                       0
 8:                                       0
 9:                                       0
10:                                       0
11:                                       0
12:                                       0
13:                                       0
14:                                       0
```

List Manager makes use of your computer's special function keys in the "Define File" screen. List Manager's function keys are detailed in Appendix A of the *Reference Guide*. The ones used in the "Define File" screen and the "Update File" screen are:

F1: Prior Field. This causes the cursor to move to the previous field instead of the next on multiple-field screens. If the cursor is in the first field on the screen when you press this key, then the prior field is the last field on the screen.

F2: Next Field. Press the F2 key to enter data in a field and proceed to the next field, or use it to "step through" fields to the desired field. The cursor may be in any position when you press F2 to enter data for a field. When you press F2 while in the last field on the screen, the cursor proceeds to the first field on the screen.

F3: Beginning of Field. Moves the cursor to the beginning or leftmost position of an alphanumeric field.

F4: End of Field. Moves the cursor to the end or rightmost position of an alphanumeric field.

F9: Clear Field. Erases all data in the current field and the cursor moves to the beginning or leftmost position of an alphanumeric field or the rightmost position of a numeric field.

HOME key: First Field. Moves the cursor to the first field of a multiple-field screen.

ESC: Escape. The current entry is stopped immediately and you are returned to the menu or prior entry point. The computer ignores any new data on the current screen, or any entry in progress. This allows you to back out of a file without changing the current screen.

RETURN key. This ends the entry field information on a multiple-field screen.

Note: Once in the "Define File" screen, the F2 function key, not RETURN, advances you to the next position on the form. This type of control is used throughout List Manager, and now is a good time to familiarize yourself with moving the cursor around the form.

Exercise

1. Press the F2 function key several times and note how the cursor moves through the form.
2. Press the F1 function key and note how the cursor backs up to the previous entry. Back the cursor up to the title.
3. Move the cursor to the end of the word "Members." Type *and Contributors* and press the F2 function key. Now you are ready to describe the items you want to keep on file.
4. Type *Name* and press the F2 function key, then type *30*. This means that the first item in your file is the member or contributor's name and that you want to allow up to 30 characters for each name.
5. Go to the next item (press the F2 function key) and type *Address*, followed by the length reserved for an address line (also *30* characters).
6. Now go to Item 3. Since an address may require more than one line, you may want the next item to be an address line as well. You could type *Address* again, but if you press the F2 function key without an entry to leave this item name blank, List Manager will assume this item is a continuation of the previous item. Leave this item name blank, then go to the length column and enter *30* to reserve another 30 characters for this second line.
7. Continue to fill out the form as it appears in the illustration.

```
          LIST MANAGER
       ** Define File **

        File: B:EXAMPLE1
        Title: Members and Contributors

            Item                    Length
        1:  Name                        30
        2:  Address                     30
        3:                              30
        4:  City                        15
        5:  State                       15
        6:  Zip                          5
        7:  Phone                       12
        8:  Member number               10
        9:  Contacted                    8
       10:  Interests                   60
       11:                               0
       12:                               0
       13:                               0
       14:                               0

       Accept (Y/N)?Y
```

8. If you press the F2 function key after entering the length for 10, the cursor will be positioned at Item 11. Hold down the F2 function key and note how the cursor continues to the bottom of the form, then returns to the top.
9. Check to be sure your entries match those in the illustration. If not, go to the appropriate field and make the necessary

changes. When your screen matches the illustration, press RETURN to tell the program you have completed the entire form.

10 The program now asks *Accept (Y/N)?* as a means of letting you double check your answers. Type *N* and press RETURN. Note that you are now back at the top of the form; if you press RETURN by mistake while entering your file description, or do not notice an error until you reach the *Accept* prompt, you will be allowed to go back through the form and edit your responses.

11 Since you have already checked your answers, you shouldn't need to make any further changes. Press RETURN to go to the Accept prompt. Then press RETURN once again, since *Y* is the default value.

Indexing a File

The next list that appears on the screen will let you specify how to "index" a file. Indexing is a method of arranging records in a file so you can easily look up the one(s) you want. For this example, we will look up records either by the member's *name* (Item 1) or by his *member number* (Item 8). Since the member's name is the most important item, it will be the primary, or first, index. Any other item chosen for indexing will be called a cross index.

Exercise

1 The cursor should be at the first index line to indicate your current position. Since you are going to establish Item 1 as your primary index, you may press the F2 function key to accept the default value of *1* and proceed to the first cross index.

2 Enter *8* as the first cross index. No further indexing is required for this file; you may now press RETURN.

3 The Accept prompt is redisplayed on your screen. If your screen looks like the illustration, press RETURN, since *Y* is the default value. Otherwise, enter *N* and then correct your answers as you did on the first part of the form.

```
    LIST MANAGER
** Define File **

  File: B:EXAMPLE1
  Title: Members and Contributors

       Item                          Length

 1:    Name                            30
 2:    Address                         30
 3:                                    30
 4:    City                            15
 5:    State                           15
 6:    Zip                              5
 7:    Phone                           12
 8:    Member number                   10
 9:    Contacted                        8
10:    Interests                       60      Item
11:                                     0      no.
12:                                     0       1 - Primary index
13:                                     0       8 - Cross index 1
14:                                     0       0 - Cross index 2

Accept (Y/N)?Y
```

Reserving File Space

The program now needs to know how much space should be set aside for your file. The number in parentheses at the bottom of the screen indicates the total number of records that could possibly fit on your diskette. (The number shown on your screen may not match the illustration because it depends on the amount of storage space on your particular diskette.)

Exercise 1

Since we need only a small file for our examples, enter *40* and press RETURN. The program will reserve space for a file that will hold up to 40 records. (The message on the screen is now: *Reserving file space. . .*)

2 When the menu appears again, note that the file display at the bottom of the screen shows B:EXAMPLE1 as the Current File. This line also tells you how many of the 40 available records have been used and how many remain unused.

3 If you wish to continue in the *Lesson Plan* at this time, go to Lesson Two. If not, end this lesson by typing *EN* and pressing RETURN.

```
     LIST MANAGER
** Define File **

  File: B:EXAMPLE1
  Title: Members and Contributors

       Item                    Length
 1:    Name                      30
 2:    Address                   30
 3:                              30
 4:    City                      15
 5:    State                     15
 6:    Zip                        5
 7:    Phone                     12
 8:    Member number             10
 9:    Contacted                  8
10:    Interests                 60      Item
11:                              0       no.
12:                              0        1 - Primary index
13:                              0        8 - Cross index 1
14:                              0        0 - Cross index 2


Reserve space for      40 records. (82 will fill this disk)
```

Updating a File

Lesson 2

Now that you have created a file called EXAMPLE1, you are ready to enter information. In Lesson Two, you will learn how to fill in, change and delete information. You will also learn how to use an index to look up records and how to set assumed values.

Selecting the Current File

If you just finished Lesson 1, B:EXAMPLE1 will be the Current File and you may go directly to the next exercise. If, however, you ended List Manager after Lesson One and just started Lesson Two, the program will not know which file on your diskette you wish to update. The following procedure will get you going again.

Exercise

1 If you are continuing from Lesson One, B:EXAMPLE1 is already the current file, as noted on the bottom of the screen.

2 If you just started up the program, type *SF* for "Select File." (This program will be covered in detail in Lesson Three.) At the *Current File:* prompt, enter *B:EXAMPLE1*.

```
                    LIST MANAGER
                by Peachtree Software(tm)



                SF  - Select File
                UF  - Update File
                PR  - Produce Report
                DP  - Define Print Formats
                DF  - Define File
                CF  - Combine Files
                ?   - Get Help!
                EN  - End List Manager


                Enter selection: SF



                    Current File:B:EXAMPLE1

Copyright (c) 1983 by Peachtree Software Incorporated, an MSA Company
```

Adding New Records to a File

"Update File" is the program you will select from the menu when you wish to add new records, change existing records, remove old records that are no longer needed or browse through the file to see what it contains.

Exercise

1 At the "Enter Selection:" prompt on the menu, type *UF* for "Update File."

2 The program now asks for the index you wish to use to look up records. Since you defined NAME as the primary index and MEMBER NUMBER as a cross index, these are your two choices. Enter *1* (the default value) to look up a record by NAME.

3 The program now prompts for *NAME:*. To keep names properly alphabetized, you should enter them in this order: last name, comma, first name and any middle initials. (In Lesson Seven, we will explain how to make these names appear in the normal order for labels and letters.) Enter *Hanson,*

Samuel T. and press RETURN.

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: Hanson, Samuel T.                    Not found! Add (Y/N)? Y
```

4 The program will respond with *Not found! Add (Y/N)?* to indicate the file has been checked and no entry with that NAME has been found. To add this member, press RETURN, since *Y* is the default value.

5 The screen now displays the record you added, with the cursor positioned at the first item in the record. This form is just like the one used to define a record in Lesson One; that is, press the F2 function key to move from item to item and press RETURN only when you have entered the entire set of information. Press the F2 function key to skip over the NAME field. (Since the first item is also the item used for "Look up," it is already filled out as *Hanson, Samuel T.*)

6 The cursor is now positioned under an item called COPIES. This item is automatically a part of each record and indicates the number of copies this member should receive for any given report. (There may be some members in your file who need several copies of any given report; this is one way to provide additional copies on an individual basis.) The default value for COPIES is *1*. You may press the F2 function key to accept this default value and advance to the next field.

7 Now enter the ADDRESS lines, PHONE NUMBER, MEMBER NUMBER, DATE CONTACTED and INTERESTS as they appear in the illustration. (Remember to press the F2 function key after each field and RETURN when you have entered the last item.)

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: Hanson, Samuel T.

Name . . . . . :  Hanson, Samuel T.                    Copies
Address . . . . . :  299 Boiling Springs Rd.             1
                  :  Apt. 18-F
City . . . . . :  Houston
State . . . . . :  Texas
Zip . . . . . :  54499
Phone . . . . . :  509-399-3883
Member number . :  TX-189-389
Contacted . . . . . :  10/19/81
Interests . . . . . :  arms control,ERA,environment,judicial reform


Accept (Y/N)? Y
```

8 Enter *Y* at the *Accept (Y/N)?* prompt and your entries for this record will be written to the diskette.

9 Note that the cursor has returned to the *NAME:* prompt. Use the procedure described in Steps 3-8 to add the following three names, addresses and membership data:

Stillwell, William
4894 West Poplar Dr.
Miami
Florida
45885
405-577-3773
FL-373-122
12/17/81
ERA, arms control, abortion

Andrews, Elliot
389 Martin Industrial Way
Suite 183, Bldg. C
Houston
Texas
56609
509-477-3733
TX-721-144
02/18/82
abortion, ERA, environment

Jones, Samantha
2902 West Peachtree St.
Apt. F-27
Atlanta
Georgia
30399
404-266-2622
GA-166-747
03/19/81
ERA, abortion, judicial reform

You are now back at the *NAME:* prompt, ready to begin the next exercise.

Changing Records, Browsing Forward and Backward

After a record has been added to a file, you can easily change any information associated with it or delete it altogether. You can also use the "Update File" program to browse through the file and examine or change any other records in it.

Exercise

1 You now have four records in your file. Suppose you need to change the phone number for one of them. At the *NAME:* prompt, enter *Hanson, Samuel T.* and press RETURN. The screen will display the data with the cursor positioned at the *Accept (Y/N)?* prompt. (If the prompt *Not found! Add (Y/N)?* appears at this point, you have mistyped the name. Press the ESCAPE key to back up to the *Name:* prompt and try again.)

2 Since you want to make a change, type *N* and press RETURN.

3 You may now tab to the PHONE field, clear it (using the F9

function key), then enter the new phone number *509-991-8811*. Any or all fields can be changed in this manner; press RETURN when finished.

4 When the cursor returns to the Accept prompt, be sure the change is correct and then accept the entry.

5 With the cursor back at the *NAME:* prompt, type *Andrews* and press RETURN. At the prompt *Not found! Add (Y/N)?*, type *N*.

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: Andrews                                  Not found! Add (Y/N)? N
```

6 The program will now display the name that matches most closely, or follows, the name you entered. You can then change any of the data for this record, just as you did for the record in Step 1. Any time the program cannot locate the exact name requested, you have the option to bring up the closest match. Therefore, it is often faster to enter a part of the name rather than trying to recall the entire name.

7 With the cursor at the Accept prompt, type *F* and press RETURN. The program will display the next record in the file in name sequence. Repeat this procedure until the display no longer changes, which indicates you have reached the last name in the file.

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: Andrews, Elliot

Name . . . . . :  Andrews, Elliot                    Copies
Address . . . . . :  389 Martin Industrial Way          1
                  :  Suite 183, Bldg. C
City . . . . . :  Houston
State . . . . . :  Texas
Zip . . . . . :  56609
Phone . . . . . :  509-477-3733
Member number . :  TX-721-144
Contacted . . . . . :  02/18/82
Interests . . . . . :  abortion, ERA, environment

Accept (Y/N)?F

(D = Delete, A = Add, F = Forward, B = Backward, P = Print)
```

8 Now enter *B* at the Accept prompt and press RETURN; the program will back up one record. Continue to back up until you reach the first name in the file; as with the last name, the display will stay the same if there is no prior entry in alphabetical order.

Note: When you select to browse forward or backward, F or B will remain the default value for the Accept prompt until you change it. Once you set a direction for the browse, you may continue in that direction by holding down the RETURN key. Note also that all entries are placed in alphabetical order, even if you did not enter them that way.

9 Browse forward or backward to find the record for "Elliot Andrews." When you find it, enter *N* at the Accept prompt to indicate you wish to alter this record.

10 Change the telephone exchange to *881* and press RETURN.

11 Type *F* at the Accept prompt. Moving forward or backward in the file will record any changes to a record just as if you had answered *Y*. You can use this feature to change a series of records, starting at the first record in the series and browsing through the records that follow. You may stop to make changes where necessary by typing *N* at the Accept prompt.

12 Browse forward or backward to find the record for "Samantha Jones." Enter *N* at the Accept prompt to get to the NAME and ADDRESS fields. Type any meaningless characters you wish over the name and address lines. (Remember to press the F2 function key between items and press RETURN when finished.)

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: Jones, Samantha

Name . . . . . :  abcdefghijklmnopqrstuvwxyz          Copies
Address . . . . . :  12345678901234567890123            1
                  :  Apt. F-27
City . . . . . :  Atlanta
State . . . . . :  Georgia
Zip . . . . . :  30399
Phone . . . . . :  404-266-2622
Member number . :  GA-166-747
Contacted . . . . . :  03/19/81
Interests . . . . . :  ERA, abortion, judicial reform


Accept (Y/N)?N

(D = Delete, A = Add, F = Forward, B = Backward, P = Print)
```

13 Suppose you accidentally changed a record and did not want the changes recorded. If you type *Y* at the Accept prompt, the record will be rewritten as you see it. If you enter *N*, you could change the NAME and ADDRESS lines again, but by now you have probably forgotten what they said. To avoid recording anything in this situation, press the ESCAPE key and the cursor will return to the *NAME:* prompt. To verify that no changes were recorded, enter *Jones* and then enter *N* to indicate that the record is not an addition. The record will then be displayed as it was prior to your changes.

14 Suppose you want a quick printed copy of the record you have on the screen. Type *P* at the Accept prompt and 20 lines will be printed as shown on the screen.

Using a Cross Index to Look Up a Record

All of the previous features for browsing and changing records with the NAME index will also work with any cross indices you may have defined for your file.

Exercise

1 Press the ESCAPE key until you return to the *Look up by:* selection you made at the beginning of this lesson.

2 Type *2* and press RETURN to look up the members by NUMBER.

3 In place of a NAME prompt, the program will ask for a MEMBER NUMBER. You may enter all or part of the MEMBER NUMBER.

```
     LIST MANAGER
** Update File: Members and Contributors **

Member number: FL                    Not found! Add (Y/N)? N
```

4 Type *FL* and press RETURN. Answer *N* when the program asks if a new record should be added.

You may now edit this record just as you did with the NAME look-up.

5 At the Accept prompt, type *F* and press RETURN. Continue to browse forward to the end of the file. Note that you are now browsing forward in MEMBER NUMBER order rather than alphabetically by NAME.

Adding Long Names or Records with Existing Names

Following are two situations you may encounter when adding names to your file. This exercise will show you how to handle these situations.

Exercise

1 Press ESCAPE until the screen displays the *Look up by:* prompt. Reset the program for NAME "look-up." (Enter *1* and press RETURN.) Now enter this new record:

Hollingsworth, Alexandra Tybee
900 West Magnolia Gardens
Savannah
Georgia
30988
405-888-3883
Contrib.
02/09/82
ERA

You will note that the program allows only 23 characters to be typed at the NAME prompt, even though "NAME" was defined as 30 characters long. List Manager only indexes through the first 23 characters of any item, although you may

view or edit the entire item within the record itself. When adding a long name, you need not retype the entire line to add the extra characters. Move the cursor to the right end of the text and add the remaining characters.

2 *Accept* this new record.

3 Now, suppose you want to make the following entry:

Andrews, Elliot
399 Camino del Real
Suite 1000
Los Angeles
California
45506
515-488-4774
CA-377-111
10/01/81
arms control, judicial reform

This is a different "Elliot Andrews" from the one already on file, but the program does not yet know this. When you enter *Andrews, Elliot* at the *NAME:* prompt, the program will display the record already on file. This feature helps reduce the possibility of duplicate entries. If this were a large file, you might even want to browse forward a record to see if there are any other *"Andrews, Elliot"* entries that might be the same as the one you are about to add.

3 Since you want to add a new record, enter *A* at the Accept prompt and press RETURN. Continue as with a normal addition.

4 When you finish filling out all items, *Accept* this entry.

```
LIST MANAGER
** Update File: Members and Contributors **

Name: Andrews, Elliot

Name . . . . . :  Andrews, Elliot          Copies
Address . . . . . :  399 Camino del Real      1
                  :  Suite 1000
City . . . . . :  Los Angeles
State . . . . . :  California
Zip . . . . . :  45506
Phone . . . . . :  515-488-4774
Member number . :  CA-377-111
Contacted . . . . . :  10/01/81
Interests . . . . . :  arms control, judicial reform

Accept (Y/N)? Y
```

Setting Assumed Values

To save time during entry of new records, you may preset values that apply to all new records. As each record appears, the assumed values are already filled in. By skipping the assumed values with the F2 function key, you save a great deal of repetitive typing. For example, you might be adding a number of addresses in the same city and state. You could save a considerable amount of typing by setting assumed

values for the CITY and STATE items instead of retyping them each time. You can add, change or delete assumed values at any time.

Exercise

1 At the *NAME:* prompt, enter the special character * (asterisk) and press RETURN.

This character can be entered at any index prompt with the same effect; an image of a new record will be displayed. You may enter any data you wish to set as the assumed value by using the F2 function key to go to the item and then typing the information for the assumed value.

2 Go to the CITY and STATE items and enter *Boston* for the city and *Massachusetts* for the state. Accept the record with only these two items filled in.

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: ** ASSUMED VALUES **

Name . . . . . :                                  Copies
Address . . . . . :                                1
                  :
City . . . . . :   Boston
State . . . . . :  Massachusetts
Zip . . . . . :
Phone . . . . . :
Member number . :
Contacted . . . . . :
Interests . . . . . :




Accept (Y/N)? Y
```

3 Now go back and enter the following two records as you normally would. Note that the CITY and STATE fields are already filled in.

Benson, Paulette
903 Harvard Ave.
Apt. D-91
Boston
Massachusetts
45506
419-455-3663
MA-127-128
02/05/82
ERA, civil rights, arms control

McPherson, James T.
278 Gloucester Ave.
Suite 466
Boston
Massachusetts
45567

419-276-3773
MA-127-112
10/15/81
environment, nuclear power, arms control

4 *Accept* these records. The assumed values will remain in effect until changed or cleared to blank. To clear a field in the assumed-values record, press the F9 function key. This reflects "no assumed values."

If you have a record that does not use the assumed value, you do not have to clear the field. Type over the item to add the new data. This way, the assumed value remains set for future records while allowing you to enter exceptions at any time.

Removing Records from the File

You can delete a record from the file by typing *D* at the Accept prompt.

Exercise

1 At the *NAME:* prompt, type *Jones, Samantha* and press RETURN.

2 When the program displays the record, enter *D* at the Accept prompt and press RETURN.

```
LIST MANAGER
** Update File: Members and Contributors **

Name: Jones, Samantha

Name . . . . . :  Jones, Samantha                    Copies
Address . . . . . :  2902 West Peachtree St.           1
                  :  Apt. F-27
City . . . . . :  Atlanta
State . . . . . :  Georgia
Zip . . . . . :  30399
Phone . . . . . :  404-266-2622
Member number . :  GA-166-747
Contacted . . . . . :  03/19/81
Interests . . . . . :  ERA, abortion, judicial reform

Delete (Y/N)?Y
```

3 The program checks to be sure you wish to delete this record with the prompt *Delete (Y/N)?*. Enter *Y* and the record will be permanently removed from the file.

4 Press the ESCAPE key to back up to the menu. The message at the bottom of the screen now shows that the file B:EXAMPLE1 has seven records used and 33 remaining.

Selecting a File and Other File Definitions

Lesson 3

You may wish to maintain several different files on your diskette. The line at the bottom of the screen tells you the file currently selected. If no file is currently selected, this line will be blank. In this lesson, you will learn how to select a different file by using the "Select File" program. Your sample diskette contains two other files, SAMPLE1 and SAMPLE2.

Selecting a File

Exercise 1

At the "Enter Selection:" prompt, type *SF* for "Select File." The program will then prompt for *Current File*; type *B:SAMPLE1* and press RETURN. B:SAMPLE1 is now the current selected file; all updating or inquiries will involve this file.

2

To see how this file was defined and the data it contains, type *UF* at the "Enter Selection:" prompt to select the "Update File" program.

```
                    LIST MANAGER                          v2.00
                 by Peachtree Software(tm)

              SF  - Select File
              UF  - Update File
              PR  - Produce Report
              DP  - Define Print Formats
              DF  - Define File
              CF  - Combine Files
              ?   - Get Help!
              EN  - End List Manager

              Enter selection: SF


                    Current File:B:SAMPLE1

     Copyright (c) 1983 by Peachtree Software Incorporated, an MSA Company
```

3

B:SAMPLE1 represents a file of auto parts dealerships. As with the membership file you defined in Lesson One, the first prompt requests the index you wish to use for look-up. In this case, three indices were defined: NAME, DEALER NUMBER and CITY. Enter *3* to "look up" by CITY.

4

At the *City* prompt, type *Dallas*. The screen will display the first record on file in Dallas. At the *Accept* prompt, type *F* and press RETURN.

Browse forward through the file until the CITY changes to a new value. As you can see, using a CITY index is not as efficient in finding a particular dealership as using a DEALER NUMBER or NAME index. It could be useful, however, if you need to find all dealers in a given city, as you might require for telephone references.

Tailoring a File to Your Needs

You will notice that B:SAMPLE1 contains several items of information not found in the file you defined in Lesson One. With up to 14 items available, you can tailor a file to match

your information needs. While List Manager is designed primarily for address file maintenance, it can also be used for general data management. As you will see in the lessons to follow, you can easily control the information that will appear in reports.

The flexibility available in defining a file is further illustrated by B:SAMPLE2, which represents a patient history file as used in a medical practice.

Exercise

1 Press the ESCAPE key until you reach the menu. At the "Enter Selection:" prompt, type *SF* for "Select File." When the program prompts *Current File:*, type *B:SAMPLE2*.

2 Type *UF* for the "Update File" program. The program will then prompt for a patient name. But what happened to *Look up by:*? SAMPLE2 was defined with only one index, PATIENT NAME, so there was no need to specify that option.

```
     LIST MANAGER
** Update File: Herndon Medical Center **

Patient: [                                        ]
```

3 At the *Patient:* prompt, press RETURN instead of entering a name. The program will display the first entry in the file. Any time an entry is not specified, the program displays the next consecutive record. Since we just started with this file, the first patient in the file is displayed on the screen.

4 Use the *F* option to browse forward through the file and examine several entries. In this file, the HX and RX items were defined for long lengths and several continuation lines. (Remember the second address line in EXAMPLE1, which was a continuation of the first line.) This is done by entering a length without an item name in the item column, which effectively creates a record containing areas for free-form text.

5 When finished, press ESCAPE until the menu appears.

```
    LIST MANAGER
** Update File: Herndon Medical Center **

Patient: Cassidy, Colleen

                                                          Copies
Patient . :  Cassidy, Colleen                                  1
Address   :  390 Post Creek Parkway
          :  Apt. B-19
City . . . :  Marietta
Zip . . . . :  38010
Hx . . . . :  Family history of coronary thrombosis and hypertension.
          :  Treated for acute appendicitis on 11/19/78.
          :
          :
          :
Rx . . . . :
          :
          :
          :

Accept (Y/N)?[F]

          (D = Delete, A = Add, F = Forward, B = Backward, P = Print)
```

Combining Files

Lesson 4

The "Combine Files" function adds the records of one file to another, even if the files do not contain exactly the same definition. If you were to combine SAMPLE1 and EXAMPLE1, the result would be that EXAMPLE1 would have its original entries, plus all the entries in SAMPLE1. (SAMPLE1 would remain unchanged.) If you need to preserve both files in their original state, you can create a third file and add both files to it. The exercises in this lesson will teach you how to combine files.

Selecting "Combine Files"

After telling the program that you want to combine files, you need to tell it which files to combine.

Exercise 1

At the "Enter Selection:" prompt, type *CF* for "Combine Files" and press RETURN.

```
LIST MANAGER
** Combine Files **

Add File:B:SAMPLE1
  To File:B:EXAMPLE1
```

2 To add the information from the dealer list of SAMPLE1 to your file, type *B:SAMPLE1* at the *Add File:* prompt and press RETURN.

3 At the *To File:* prompt, type *B:EXAMPLE1* and press RETURN again.

The Correspondence Form

To combine files that have different definitions, you must tell the program which items in one file correspond to items in the other file. Your screen will now display a list of the items in SAMPLE1, followed by a numbered list of the items in EXAMPLE1. This is a correspondence form.

Exercise 1

To fill out the correspondence form, enter the item number from the EXAMPLE1 column corresponding to each item in SAMPLE1. Note that SAMPLE1 has several items of data that do not apply to your file definition. Leave the correspondence number of these items as 0, and the program will omit them when moving the records to EXAMPLE1.

2 After your last entry, press RETURN. Check to be sure your form looks like the one in the illustration.

```
      LIST MANAGER
  ** Combine Files **

 File: B:SAMPLE1                Corresponds              File: B:EXAMPLE1
 . . . . . Item . . . . . . . . . . . . . . . . . . . . To . . . . . . . . . . . . . . . . . . . . Item . . . . .
 !    Name                          0                   1 - Name
      Contact                       1                   2 - Address
       Address                      2                   3 -  Address/2
 *    City                          4                   4 - City
      State                         5                   5 - State
      Zip                           6                   6 - Zip
      Phone                         7                   7 - Phone
 !    Dealer number                 0                   8 - Member number
      Last order                    9                   9 - Contacted
 !    Stocks                        0                   10 - Interests
 !    Special instr.                0

                          ! indicates item will be deleted
                          * indicates item may be truncated

 Accept(Y/N)? Y
```

Reviewing the New File

Above the Accept prompt, the program marks the items that will be omitted with an exclamation point (!). If any items are marked that should not be omitted, you can enter *N* and re-edit your correspondence form. The program also marks any items that may be truncated with an asterisk (*). In this case, the item CITY may be cut off because the SAMPLE1 item CITY was defined for a length of 20 characters, whereas EXAMPLE1 allows only 15 characters. Thus, the last 5 characters will not appear in the new file.

If the discrepancy in file definitions is too great and there is a possibility of losing important data, you may wish to change the file definition to reflect the combined characteristics of the two files. This will be covered in the next lesson.

Exercise

1 *Accept* the correspondence form; the program will then add the records from SAMPLE1 to your file and update the index.

2 The screen displays the message *Copying* and the first index item of each record being copied. It then displays *Indexing by* and each item defined as a primary or cross index. The screen will reflect the additional entries to your file.

Updating the New File

Suppose you now wish to add the records from SAMPLE2 to your file. SAMPLE2 contains information you don't want to include, but it also presents another problem. All the patients in this file live in Georgia, so there is no STATE item defined for the file. When adding these records, the program will use the value currently defined as the assumed value for STATE. You can set this value as you did in Lesson Two.

Exercise

1 At the "Enter Selection:" prompt, type *UF* for UPDATE FILES. The look-up choice doesn't matter here; press RETURN to default to "Look up by Name." When the pro-

gram prompts for *Name:*, type an asterisk (*) to enter the assumed values.

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: ** ASSUMED VALUES **

Name . . . . . :    1                              Copies
Address . . . . . :                                 1
                  :
City . . . . . :
State . . . . . :   Georgia
Zip . . . . . :
Phone . . . . . :
Member number . :
Contacted . . . . . :
Interests . . . . . :

Accept (Y/N)? Y
```

2 Go to STATE and enter *Georgia*. This is also a good time to clear the assumed CITY value "Boston," which was set in Lesson Two. However, it is not necessary to delete *Boston* in combining these files, since SAMPLE2 has a CITY item that will replace any assumed value.

3 *Accept* the assumed value, then press ESCAPE until you return to the menu.

Combine SAMPLE2 with your new version of EXAMPLE1. The result will be a file containing the records from SAMPLE1, SAMPLE2 and the original EXAMPLE1.

4 At the "Enter Selection:" prompt, type *CF* for "Combine Files." Then enter *B:SAMPLE2* as the first file, press RETURN and enter *B:EXAMPLE1* as the file to receive the records.

```
     LIST MANAGER
** Combine Files **

File: B:SAMPLE2          Corresponds          File: B:EXAMPLE1
. . . . . Item . . . . . . . . . . . . . . . To . . . . . . . . . . . . . . . . Item . . . . .
     Patient                  1                1 - Name
     Address                  2                2 - Address
      Address/2               3                3 -  Address/2
     City                     4                4 - City
     Zip                      6                5 - State
!    Hx                       0                6 - Zip
!    Hx/2                     0                7 - Phone
!    Hx/3                     0                8 - Member number
!    Hx/4                     0                9 - Contacted
!    Rx                       0                10 - Interests
!    Rx/2                     0
!    Rx/3                     0

                  ! indicates item will be deleted

Accept(Y/N)? Y
```

5 Fill out the correspondence form as illustrated and press RETURN.

6 Notice that Item 5 is eliminated for STATE; the correspondence form goes from Item 4 to Item 6 for CITY and ZIP because Item 5 has no corresponding item in the other file. Check to be sure your answers are correct, then *Accept* the form.

7 The program now adds and indexes these new records, then displays the menu. Select *UF* for "Update File" and browse through the file to examine the new entries. Press ESCAPE until you return to the menu.

Changing the Definition of a File — Lesson 5

After using a file, you may decide the original definition does not adequately meet your needs. You might want to add more information, set up a new indexing scheme or change the length of an existing field. For example, the ZIP CODE as defined in EXAMPLE1 is not long enough for the new "ZIP plus four" format or many international postal codes. You may have filled up the space originally reserved for the file and need to expand the size (assuming there is additional space available on the diskette).

All these changes can be made with the functions you have already learned. Changing a file is just a matter of creating a new file of the desired definition and using "Combine Files" to add your existing file to it. Records from the existing file are altered to fit the new definition.

Defining a New File

The "Define File" function has some special features that make it easy to create a definition closely resembling an existing one. In this exercise, you will create a new version of EXAMPLE1 called EXAMPLE2, with several modifications to the original definition.

Exercise 1

At the "Enter Selection:" prompt, type *DF* for "Define File." When the program prompts for a file name, enter *B:EXAMPLE1*, the name of your original file.

```
     LIST MANAGER
** Define File **

File:B:EXAMPLE1
```

An existing file cannot be changed directly. The original file definition and a list of options will be displayed in the upper right-hand portion of the screen. If you wish to retain the original file name for your new file, you can rename the existing file with Option 1. If, after using "Combine Files" to move the data to the new file, you wish to remove the original file from your diskette, you can do so with Option 2. The third option lets you create a new file based on the definition of this file, and the fourth option (the default value) returns you to the menu.

2. Type *3* at the *Selection:* prompt. When the program prompts for *New file name:*, type *B:EXAMPLE2* and press RETURN.
3. You may now edit the definition of EXAMPLE1, which has become the starting definition for EXAMPLE2. Go to the ZIP CODE item and change *5* to *9*.
4. Go to the first blank item (Item 11) and add a new item, *Salutation*, with a length of *15* characters. *Accept* this portion of the form.
5. Change the file indexing by editing the values in the second portion of the form. Go to cross index *2* and type *6* to set up

ZIP as an index. (The advantage of doing so will be explained in Lesson Seven.) If your definition matches the illustration, *Accept* the second portion of the screen.

```
      LIST MANAGER
** Define File **

 File: B:EXAMPLE2
Title: Members and Contributors

      Item                Length
 1:   Name                  30
 2:   Address               30
 3:                         30
 4:   City                  15
 5:   State                 15
 6:   Zip                    9
 7:   Phone                 12
 8:   Member number         10
 9:   Contacted              8
10:   Interests             60      Item
11:   Salutation            15       no.
12:                         0      1 - Primary index
13:                         0      8 - Cross index 1
14:                         0      6 - Cross index 2

Accept (Y/N)?Y
```

Changing the Reserved File Space

The program must know how much space to reserve for the file. Before answering, look at the number in parentheses, which indicates the maximum number of records of this definition that will fit on your diskette. This number is smaller than when you first entered EXAMPLE1, partly because EXAMPLE1 now occupies some of that space and partly because the changes you made increased the space needed for each record. If you know the number of records to be stored and the maximum figure shown is insufficient, you can change the definition to reduce the space needed for each record.

Exercise 1

Press ESCAPE once to return to the second portion of the form; press ESCAPE again to return to the first portion. Enter *N* at the Accept prompt, then change the second address line (normally used for suite or apartment numbers) to *10* characters. *Accept* this portion of the screen.

2 The cursor is now at the PRIMARY INDEX number. (Removing an index will cause a dramatic increase in the maximum possible number of records, but we need to retain this indexing for Lesson Seven). *Accept* this part of the definition as is. Note that the number in parentheses is now slightly larger. This is one way you can balance your need for information against the limitations of your diskette space.

3 If your definition matches the illustration, enter *50* to reserve file space for 50 records and press RETURN.

4 The message *Reserving file space. . .* appears on the screen while the program reserves space. You will then return to the menu.

5 You are now ready to complete your change. Select ''Update File'' and set the assumed value for SALUTATION to *Friend*. *Accept* this and return to the menu.

Combining the New File with the Old File

The last step in changing a file definition is to combine the contents of the original file with the new file.

Exercise 1

Select "Combine Files" to add EXAMPLE 1 to EXAMPLE2. The correspondence form should be easy to fill out, since the two files have a one-to-one correspondence except for the new SALUTATION field. The SALUTATION field for all records will be filled with the word "Friend."

2

Check your work against the illustration. If you are satisfied, *Accept* it. The program will copy, index and then return to the menu.

```
        LIST MANAGER
** Combine Files **

File: B:EXAMPLE1          Corresponds          File: B:EXAMPLE2
. . . . . Item . . . . . . . . . . . . . . . To . . . . . . . . . . . . . . . Item . . . .
     Name                      1              1 - Name
     Address                   2              2 - Address
*    Address/2                 3              3 -  Address/2
     City                      4              4 - City
     State                     5              5 - State
     Zip                       6              6 - Zip
     Phone                     7              7 - Phone
     Member number             8              8 - Member number
     Contacted                 9              9 - Contacted
     Interests                10              10 - Interests
                                              11 - Salutation

                    * indicates item may be truncated

Accept(Y/N)? Y
```

Defining Print Formats

Lesson 6

In the previous lessons, you learned how to set up and maintain a file. The next three lessons demonstrate how to use that data to create labels for mailings or merge files with PeachText documents to generate form letters or reports of various kinds. A common use of List Manager is to print address labels on continuous forms, which can then be attached to letters or packages. Many types of label forms are available; single- or multiple-column, for example. In order to make use of them, you must define the placement of labels on the form and indicate what data should be printed on each label.

Setting Print Dimensions

You are ready to set the dimensions for printing records. This lesson refers to the file EXAMPLE2. If you are continuing from the previous exercise, this file is still the current file. If you just started up the system, a file name will be requested before you can proceed with the "Define Print Formats" function. In that case, you will enter *B:EXAMPLE2* as the file name.

Exercise

1 From the menu, select *DP* for "Define Print Formats" and press RETURN.

```
LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: STANDARD      New format (Y/N)? Y          Current Formats:

                                                        (None)
```

2 Let's say you bought a set of forms to be used for all standard reports. When the program prompts *Format:*, type *STANDARD*. The program will examine its catalog of formats and, since it can't find one called "Standard" (none has been defined yet), it will ask if you wish to create a new format. Answer *Y* to begin the format definition.

3 The first part of the print description covers the dimensions of each record and its position on the form. The illustration defines a form with two records across the page and 10 down the page. With the illustration as a guide, fill in the blanks in the description. Press the F2 function key to go from one entry to another; press RETURN when all entries are complete.

```
     LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: STANDARD

Print 2 record(s) across
With each record 35 characters wide by 5 lines long
Skip 2 line(s) between records
If more than 1 across, put 3 characters between records
(Optional) Skip 0 extra line(s) every 0 record(s)




Accept (Y/N)?Y
```

Note: A standard 8-by-11 form containing peel-off mailing labels will be 80 characters wide and 66 lines long. Given this, you can estimate the dimensions and the spacing between labels. You will be able to test your description on the printer (this will be explained later) and return to make any adjustments required, so don't worry if it is not exactly right the first time.

4 *Accept* the description and proceed to the next part of the print format definition.

Positioning Items in the Print Format

The screen now displays a box representing the format you just defined. You can use the cursor control keys to move the cursor around within the box.

To place an item at the position indicated by the cursor, press the F3 function key.

```
     LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: STANDARD          Line 1     COL 1

                .....................................
                .                                   .
                .                                   .
                .                                   .
                .                                   .
                .....................................

 Use Arrow Keys
 To Position Cursor

 F3 = Place Item
 F9 = Erase Item

                1 - Name          8 - Member number
                2 - Address       9 - Contacted
                3 - Address/2    10 - Interests
                4 - City         11 - Salutation
                5 - State
                6 - ZIP
                7 - Phone

ESC to end Item Positioning
Place item number: 1
```

The prompt *Place item number:* will appear at the bottom of the screen. Enter the item number to be placed at the cursor position and press RETURN. The default value is the next item number, or the first if you are beginning. The program will then place a representation of that item (filled out to its defined length) in the print format, starting at the cursor position. If the item will be typed over the edge of the box or onto another item, you will see an error message.

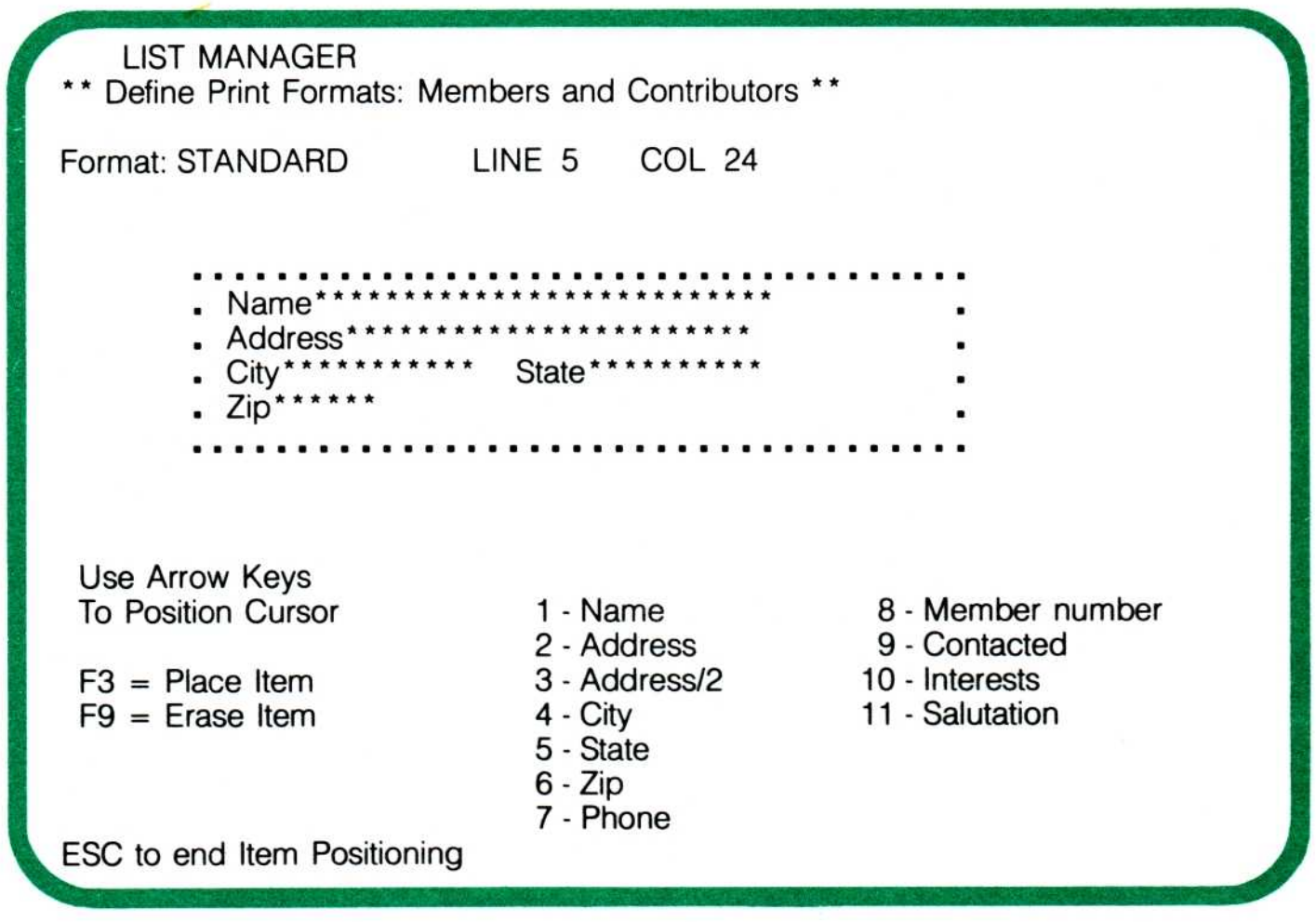
To move an item to a different position on the print format, move the cursor and place it at the new position.

If you wish to remove an item altogether, press the F9 function key. The prompt *Erase item number:* will appear at the bottom of the screen. Enter an item number and press RETURN.

Exercise

1 Place the item *NAME* on the first line of the format; use your cursor control keys. Note that the item position is filled out with asterisks. This represents the total space allowed for that item. (If the space allowed for an item is shorter than its name, it will be represented by its item number.)

After placing this item, the cursor moves to the same column on the line below. Once you find the proper column, you can quickly place any other items that should be lined up under the first. Now, place items 2-6 on the format.



2 When your format resembles the one in the illustration, press ESC to end item positioning.

Note: You need to place only those items that you want to appear on the report. Since you can define up to 14 different formats for a file, you may want to set up different formats for different situations.

If your forms approximate the previous description, align them in the printer with the print head positioned as closely

as possible to the top left corner of the form. You can then use the form corner as an alignment guide when you are ready to produce your actual report.

3 The program will display a list of options available at this point. You may return to the format description or the item positioning to make changes; you may test print your definition; you may record it and return to the menu; or you may delete it.

Select the *T* option to test print. One set of records (two across) will be printed. Enter *T* again to print another set. Verify the number of lines between records.

4 Select the *F* option to modify the format description. Change to skip *1* line between records and *1* character between records. Press RETURN and *Accept* the description.

Note that the format description has replaced the test record on the screen.

```
     LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: STANDARD


Print 2 record(s) across
With each record 35 characters wide by 5 lines long
Skip 1 line(s) between records
If more than 1 across, put 1 characters between records
(Optional) Skip 0 extra line(s) every 0 record(s)




Accept (Y/N)? Y
```

5 Test print two more sets and note the difference. By test printing with the actual forms in the printer, you can adjust the definition to match the actual forms.

6 Enter *S* to save the format definition. This description may be recalled and modified at any time by entering *STANDARD* when the program requests a format name.

Producing a Report

Lesson 7

When producing a report, you must specify the order and format in which the records will be printed. You will also need to decide where to send the output, what kind of print format to use and various other options. We will examine these options in this lesson. (If you stopped after Lesson Six, select B:EXAMPLE2 as your current file.)

Printing Records

Now that you have defined the print format, you are ready to print from your file.

Exercise 1

From the menu, select *PR* for "Produce Report" and press RETURN. The program will request a name for the report you are about to produce. Enter *TEST* for the report name and press RETURN.

```
     LIST MANAGER
** Produce Report: Members and Contributors **

Report: TEST          New procedure (Y/N)? Y          Current Reports:
                                                        (none)
```

The program will then ask if you intend to define a new report procedure. Press RETURN to enter the default value *Y*.

The report name is optional, but if you will be producing the same report several times, you may save the report procedure under a unique name. This will avoid resetting all the options each time you produce a report. If your report is a one-time procedure, press RETURN at the *Report:* prompt without entering a name, and the program will not save any option settings. The Report will be automatically named "temporary procedure."

2 You must select a print format from the list on the right side of the screen. All formats listed in this column will have been previously defined for the file in use. For this report, enter STANDARD and press the F2 function key to go to the next entry.

The next four options specify which item(s) will be used to sort the records and whether the sort will be done in ascending or descending order.

```
    LIST MANAGER
** Produce Report: Members and Contributors **

Report: TEST

                                                    Current Formats:
                                                    STANDARD
                    Use print format:  [STANDARD]
          Sort records by item number:  5
                      (opt) then by:  6
                      (opt) then by:  0
     Ascending or Descending (A/D):  A
          Send data to
     (P-Printer,D-Disk file,C-Crt):  P
               (if disk) File name:
          Continuous forms (Y/N):  Y
        Compress blank lines (Y/N):  N
      Compress blank spaces (Y/N):  Y
      Reverse halves at comma for
        item number (0 if not used):  1
      Number of copies per record:  1

     1-Name, 2-Address, 3-Address/2, 4-City, 5-State, 6-Zip, 7-Phone
     8-Member number, 9-Contacted, 10-Interests, 11-Salutation
```

3 If you enter an item number in the first SORT field, you are instructing the program to group the records in the order specified by that item. To sort subgroups within the main grouping, you may sort by up to two additional items. For example, if you sort by STATE (Item 5), then by ZIP (Item 6), the labels will be printed in ZIP code order within the state order.

Enter *5* in the first SORT field and *6* in the second. Skip the third (leaving it as *0*) and the next field (leaving the default value *A* for Ascending sort).

4 Next you must specify where the output will be sent: to the CRT (screen), the disk or the printer. For this exercise, skip this item, leaving the default value *P* to select the printer. (Sending output to the disk or the screen will be covered in the next lesson.) Skip the next item also (which only applies to the production of disk files).

5 The next option tells the program whether you will be printing on continuous or single-sheet forms. Since we are using continuous forms, enter *Y*. (When you enter *N* to indicate that you are using single-sheet forms, the program will pause after every record to give you time to insert another sheet. This feature is useful when printing directly on envelopes or single-form shipping labels.)

6 The next two settings determine formatting within the record.

The "Compress Blank Lines" option will move lines containing data to fill in the gaps caused by items that have no data. For example, if the second address line is blank, setting this option will move the third address line up to prevent an extra blank line from appearing in the middle of your printed record.

The "Compress Blank Spaces" option applies to lines that contain more than one item. If the first item on the line does not entirely fill its allocated space, setting this option will move the remaining items to the left to preserve the relative spacing

set up in the print format. Otherwise, the columns specified in the format are fixed locations where the items will be printed, leaving blank spaces within the printed record.

Enter *Y* for both these settings.

7 The next option allows an item stored in reverse order (last name, first name) to be restored to the proper order for printing. Enter *1* to indicate that the item NAME requires this reversal.

8 The last option lets you set the number of copies to be printed for each record. Enter *1* to print one copy. If your option settings match the illustration, *Accept* the information in this screen.

```
        LIST MANAGER
** Produce Report: Members and Contributors **

Report:     TEST
Profile:    Include all records
```

9 The next screen lets you decide which records will be printed. (We will work with this more later in the lesson.) The default for this option includes all records; *Accept* this profile. The program will sort the records as specified and begin printing them.

If you don't wish to print the entire set of records, interrupt printing by pressing the ESCAPE key.

Ordering Reports by an Index Item

While the sorting procedure is relatively fast, avoiding a sort of large files can make quite a difference in the time it takes to produce a report. You may sort by more than one item, although one is often sufficient (e.g., sorting by ZIP code as we did in EXAMPLE2 is all that is required for some postal discounts). If the sort item is an index, all data is catalogued in the proper order and the program can skip the sorting procedure.

```
    LIST MANAGER
** Produce Report: Members and Contributors **

 Report:     TEST

                                                        Current Formats:
                          Use print format:  [STANDARD]     STANDARD
                 Sort records by item number:  6
                               (opt) then by:  0
                               (opt) then by:  0
               Ascending or Descending (A/D):  A
                  Send data to
                    (P-Printer,D-Disk file,C-Crt):  P
                            (if disk) File name:
                        Continuous forms (Y/N):  Y
                    Compress blank lines (Y/N):  Y
                   Compress blank spaces (Y/N):  Y
                    Reverse halves at comma for
                      item number (0 if not used):  1
                    Number of copies per record:  1
Accept (Y/N)?[Y]                    (D = Delete report)
      1-Name, 2-Address, 3-Address/2, 4-City, 5-State, 6-Zip, 7-Phone
      8-Member number, 9-Contacted, 10-Interests, 11-Salutation
```

Exercise

1 From the menu, select *PR* for "Produce Report" and press RETURN. When the program prompts for the name of this report, enter *TEST* to recall the previous option settings.

When the Accept prompt appears, enter *N* and go to the "Sort" option.

2 To sort by ZIP code only, enter *6* for the first item and *0* for the second.

3 When you *Accept* this screen, the "Produce Report" heading will be displayed with the profile preset to include all records.

We will also use this report to demonstrate the construction of a report profile.

```
    LIST MANAGER
** Produce Report: Members and Contributors **

 Report:     TEST
  Profile:   Include all records




Accept (Y/N)?[Y]                    (D = Delete report)
```

Setting Up a Profile

A report profile is a description that a record must match to be included in a report. The description is comprised of "pieces" which List Manager will help you put together to form phrases. The phrases compare the value of any item in the record to the value you enter. In addition, a comparison containing the special character ? will cause the program to match any character in that corresponding position. This exercise demonstrates the flexibility of the system, so let's see how it works.

```
LIST MANAGER
** Produce Report: Members and Contributors **


Report:  TEST
 Profile:  Include all records for which
   Name




Comparison: 4

     (1-less than, 2-equals, 3-greater than, 4-equal or greater than
     5-equal or less than, 6-contains, 7-excludes)
```

Exercise

1 When the *Accept* prompt appears at the bottom of the screen, enter *N* to begin describing the profile. At the *Item* prompt, enter *1*.

2 After displaying the word NAME in the profile, the program will request a comparison. Enter *4* (equal or greater than). When the *Value* prompt appears, enter *B*.

3 You have now specified a complete phrase. At the *Conjunction* prompt, enter *1* to further specify which records are to be printed.

4 Continue specifying phrases until you match the following profile:

Name equals or is greater than B and Name is less than H and Contacted equals 10/??/81.

If you make a mistake, you can press the ESCAPE key to back up as many steps as necessary.

5 After entering the third phrase, enter *5* at the next *Conjunction* prompt to indicate that you have completed the profile. This profile includes those people whose last names begin with the letters B through G who were contacted sometime in October of 1981. (The ? character indicates that any day portion of the date will satisfy the comparison.)

6 *Accept* the profile and note which names are printed. Note also that the program did not pause to sort the records, since the ZIP code is maintained as an index.

Printing to the CRT for Preview or On-Line Inquiry

If you don't know how many records will fit a given profile, or wish to review the report on the screen before printing it, you can do so by selecting the CRT output option.

Exercise

1 From the menu, select *PR* for "Produce Report" and press RETURN. When the program prompts for the name of this report, enter *TEST* to recall the previous option settings.

```
     LIST MANAGER
** Produce Report: Members and Contributors **

 Report:    TEST
                                                          Current Formats:
                 Use print format:  [STANDARD]               STANDARD
       Sort records by item number:  6
                    (opt) then by:  0
                    (opt) then by:  0
  Ascending or Descending (A/D):  A
      Send data to
     (P-Printer,D-Disk file,C-Crt):  C
              (if disk) File name:
           Continuous forms (Y/N):  Y
        Compress blank lines (Y/N):  Y
       Compress blank spaces (Y/N):  Y
      Reverse halves at comma for
       item number (0 if not used):  1
       Number of copies per record:  1
Accept (Y/N)?[Y]                  (D = Delete report)
     1-Name, 2-Address, 3-Address/2, 4-City, 5-State, 6-Zip, 7-Phone
     8-Member number, 9-Contacted, 10-Interests, 11-Salutation
```

2 Change the OUTPUT selection to *C* for output to the CRT (screen). Leave the other settings as they are; then *Accept* the profile previously defined.

Note: A print format defined for printing on a 132-column form cannot be displayed on an 80-column screen.

Defining Special Screen Formats

You can extend the viewing capability of your CRT by defining special formats for use only on the screen for on-line inquiry.

Exercise

1 From the menu, select *DP* for "Define Print Formats." Define a print format called SCREEN with one record across, each with a width of 75 characters and a length of one line. (Leave the other specifications at the default value of 0.) You can then consider the box to be one line of the screen display.

2 Position the NAME, MEMBER NUMBER and PHONE items on the line. (Note that when the length of an item name exceeds the length of the item itself, the program will refer to that item on the record by its number rather than its name.) Then press ESCAPE and type *S* to save the format.

```
    LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: SCREEN                                  LINE 1  COL 47
.....................................................................
.Name**************************      8********* Phone*******
.....................................................................




F   - Format Description          1 - Name          8 - Member number
T   - Test Print                  2 - Address       9 - Contacted
I   - Item Positioning            3 - Address/2    10 - Interests
V   - Vertical Alignment          4 - City         11 - Salutation
D   - Delete Format               5 - State
S   - Save Definition             6 - Zip
                                  7 - Phone

Selection:[S]
```

3 Now select the *PR* option from the menu and recall the *TEST* mailing. Change the print format to *SCREEN* and the sort sequence to order by NAME (enter *1* in the first sort field).

```
    LIST MANAGER
** Produce Report: Members and Contributors **

 Report:     TEST

                                                        Current Formats:
                          Use print format:  [SCREEN]     STANDARD
                 Sort records by item number:  1          SCREEN
                               (opt) then by:  0
                               (opt) then by:  0
                 Ascending or Descending (A/D):  A
                    Send data to
                       (P-Printer,D-Disk file,C-Crt):  C
                                (if disk) File name:
                          Continuous forms (Y/N):  Y
                       Compress blank lines (Y/N):  Y
                      Compress blank spaces (Y/N):  N
 Reverse halves at comma for
                            item number (0 if not used):  1
                        Number of copies per record:  1
 Accept (Y/N)?[Y]
                                        (D = Delete report)
          1-Name, 2-Address, 3-Address/2, 4-City, 5-State, 6-Zip, 7-Phone
          8-Member number, 9-Contacted, 10-Interests, 11-Salutation
```

4 Skip to the "Compress Blank Spaces" option and set it to *N*. Otherwise, the items will not line up in columns.

5 *Accept* this screen.

6 On the screen now displayed, enter *N* at the *Accept* prompt to change the profile to read as follows:

Interests contains arms control or Interests contains judicial reform AND Contacted equals 10/??/81.

Use the upper-case AND (selection 3) to set off the third line. *Accept* this profile and note the way the screen display is formatted.

```
Elliot Andrews          CA-377-11       515-488-4774
Samuel T. Hanson        TX-189-389      509-991-8811
James T. McPherson      MA-127-112      419-276-3373

3 Records matched profile.              3 Labels printed
Press RETURN to continue:
```

Arranging Conjunctions In a Profile

This last profile illustrates two important points. All the comparisons except CONTAINS and EXCLUDES are position-dependent, whereas these two will match the corresponding text if it is found anywhere within the line associated with that item. This is useful for items that specify a list of things or general text entries (as in the patient file of SAMPLE2) in which the key words can be found anywhere within the line.

The second point concerns the use of upper case AND and OR to create the visual blocking illustrated above. Complete the following exercise to see the different results you can get by blocking a profile in different ways.

Exercise 1

Select the *DP* option from the menu. Recall the format SCREEN and change the print format description so that the records are two lines long, and skip one line between records. Use the item positioning to place the CONTACTED date to the right of the PHONE. Place INTERESTS on the second line. Your format should resemble the illustration. Enter *S* at the option menu to save the new format.

```
    LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: SCREEN                                  LINE 2  COL 10
.......................................................................
.Name************************** 8********* Phone******* 9*******     .
.  Interests**************************************************        .
.......................................................................

F  - Format Description          1 - Name            8 - Member number
T  - Test Print                  2 - Address         9 - Contacted
I  - Item Positioning            3 - Address/2      10 - Interests
V  - Vertical Alignment          4 - City           11 - Salutation
D  - Delete Format               5 - State
S  - Save Definition             6 - Zip
                                 7 - Phone
Selection:[  ]
```

2 Select the *PR* option from the menu and request the report TEST. Accept the first screen as is, but re-enter the profile on the second screen in the following order:

Contacted equals 10/??/81 and Interests contains judicial reform or Interests contains arms control.

```
    LIST MANAGER
** Produce Report: Members and Contributors **

 Report:    TEST
  Profile:  Include all records for which
   Contacted equals 10/??/81
   and Interests contains judicial reform
   or Interests contains arms control

Accept (Y/N)?[Y]             (D = Delete report)
```

Accept this and note that there are now five records that match the profile instead of three as before. The problem here is that whenever you use the conjunctions "and" and "or" together, two different interpretations are possible.

The program actually interpreted this profile as if you had entered *Contacted equals 10/??/81 and interests contains judicial reform OR interests contains arms control.*

That is, select any member who was last contacted in October of 1981 and has an interest in judicial reform, or any

member with an interest in arms control, regardless of his contact date. As you can see, the two extra records have contact dates in other months but matched because of an interest in arms control.

```
     LIST MANAGER
** Produce Report: Members and Contributors **

 Report:      TEST
  Profile:    Include all records for which
     Contacted equals 10/??/81
          AND
     Interests contains judicial reform
     or Interests contains arms control




 Accept (Y/N)? [Y]              (D = Delete mailing)
```

3

Select the *PR* option from the menu and recall the report TEST. Return to the profile SCREEN (*Accept* the first screen) and re-enter the profile with the proper blocking:

Contacted equals 10/??/81 AND Interests contains judicial reform or Interests contains arms control.

By setting off the last two phrases in this fashion, you are telling the computer that the interest and contacted date each form a separate test, both of which must be true in order for a record to qualify.

After reviewing the new results, return to the menu.

Creating Data Files for Use with Form Letters

Lesson 8

The "Produce Report" function creates text data files which can be recognized by PeachText. These files can then be used to generate mass mailings "personalized" for each record in your file. (If you stopped after Lesson Seven, select B:EXAMPLE2 as your current file.)

Using the File with PeachText

```
     LIST MANAGER
** Update File: Members and Contributors **

Name: McPherson, James T.

                                                    Copies
Name . . . . . :   McPherson, James T.                1
Address . . . . . :  278 Gloucester Ave.
                :  Suite 466
City . . . . . :   Boston
State . . . . . :  Massachusetts
Zip . . . . . :    45567
Phone . . . . . :  419-276-3773
Member number . :  MA-127-112
Contacted . . . . . :  10/15/81
Interests . . . . . :  environment, nuclear power, arms control
Salutation . . . . . :  Jim


Accept (Y/N)?[Y]

(D = Delete, A = Add, F = Forward, B = Backward, P = Print)
```

Exercise

1 Select the *UF* option from the menu screen. Use the NAME index and find the first record in the file. Press RETURN.

2 Using the browse feature, find the three records listed below and "personalize" the salutation:

Elliot Andrews (in California): Elliot
Samuel T. Hanson: Sam
James T. McPherson: Jim

3 Select the *DP* option from the menu and create a new format called DISK.

4 Specify *1* record across, *45* characters wide by *5* lines long. Leave the other options at the default setting of 0. This box can be treated as an image of one text record, each line being a separate item in the record.

5 Place the items flush left with the border, since intervening space is appended to the front of each item as it is picked up by PeachText. Your definition should look like the illustration.

```
    LIST MANAGER
** Define Print Formats: Members and Contributors **

Format: DISK                                  LINE 5  COL 1
. . . . . .
     .Name**************************
     .Address**********************
     .Address/2*
     .City***********          State**********          Zip******
     .Salutation*****
. . . . . .


 Use Arrow Keys
To Position Cursor                1 - Name          8 - Member number
                                  2 - Address       9 - Contacted
F3 = Place Item                   3 - Address/2    10 - Interests
F9 = Erase Item                   4 - City         11 - Salutation
                                  5 - State
ESC to end Item Positioning       6 - Zip
                                  7 - Phone
```

6 Press ESCAPE and type *S* to save the format.

7 Select the *PR* option and recall the TEST report. Change the label format to DISK and the output to *D* for a PeachText-compatible disk file. Enter *B:EXAMPLE3* as the file name to be created and reset "Compress Blank Spaces" to *Y*. Be sure "Compress Blank Lines" is set to *N*. Press RETURN and *Accept* the rest of the screen as is.

```
    LIST MANAGER
** Produce Report: Members and Contributors **

    Report: B:TEST

                                                    Current Formats:
                    Use print format:   DISK          STANDARD
          Sort records by item number:  1             SCREEN
                    (opt) then by:      0             DISK
                    (opt) then by:      0
     Ascending or Descending (A/D):     A
Send data to
          (P-Printer,D-Disk file,C-Crt): D
                (if disk) File name:    B:EXAMPLE3
              Continuous forms (Y/N):   Y
          Compress blank lines (Y/N):   Y
          Compress blank spaces (Y/N):  N
Reverse halves at comma for
          item number (0 if not used):  1
          Number of copies per record:  1
Accept (Y/N)?[Y]                  (D = Delete report)
1-Name, 2-Address, 3-Address/2, 4-City, 5-State, 6-Zip, 7-Phone
8-Member number, 9-Contacted, 10-Interests, 11-Salutation
```

The program now creates a text file EXAMPLE3.DOC, containing the records that match the profile from Lesson Seven.

8 Exit List Manager and bring up PeachText. You may have to replace the List Manager program disk in Drive A with the PeachText program disk. Leave your List Manager sample file disk in Drive B.

9 Edit the file B:FORMLET.DOC on your List Manager sample exercise diskette. Observe how the file and data statements have been defined.

\FILE T5,B:EXAMPLE3.DOC
\DATA NAME,ADDR1,ADDR2,ADDR3,SALUT

The number following the *T* tells the program how many text lines form a data record and should always match the number of lines you specify for a length in your format. The *B:* tells PeachText that EXAMPLE.DOC is on the diskette in Drive B.

```
\SETUP~
\LM10,RM60~
\*~
\GET DATE="Today's date: "~
\*~
\FILE T5,EXAMPLE3.DOC~
\DATA NAME,ADDR1,ADDR2,ADDR3,SALUT~
\*~
\TEXT~
\*~
RF,:DATE\~
\LINE8~
\:NAME.\~
\:ADDR1\~
\IF ADDR2<>"",:ADDR2,NL~
\:ADDR3!~
\LINE14~
~
Dear \:SALUT\~
~
As you know from our October bulletin, House Resolution 1279 represents the
most serious challenge yet to the principles on which our organization was
founded. While we appreciate the support you provided at that time, the bill
```

10 The illustration shows the first part of the PeachText file. Scroll forward to see the remainder.

Note that because PeachText treats each line of the data file as a single item, you have combined three separate items from the original file (CITY, STATE and ZIP) into one item, ADDR3. This simplifies this letter, since these items can easily be combined. If you need to reference these items separately, you can redefine the format DISK and place each item on a separate line.

11 Scroll forward to the end of the file to see how to finish the letter.

12 You may now print B:FORMLET.DOC to view the results.

PeachCalc™ Electronic Spreadsheet

5

Moving the Active Block

Lesson 1

This lesson teaches you the very basic operation of PeachCalc. You will learn some of the terminology we use with PeachCalc and how to move the cursor around the worksheet. You will also learn how to read the information on the status line.

Starting Up PeachCalc

The first thing you need to do is load PeachCalc into the system. If you have not already done so, turn on the power to the computer, disk drives, terminal and printer.

Exercise

1 Insert the exercise copy of your PeachCalc diskette into the disk drive. (This is the only diskette you will need.)

2 Start up your operating system. The prompt *A>* will appear on the screen.

3 At the *A>*, type *PT* and press RETURN. The first screen you will see is the PeachText menu screen.

4 At the "Enter Selection:" prompt, type *PC* and press RETURN. The PeachCalc title screen will appear.

5 At the bottom of the title screen is the prompt *Enter "?" for HELP or RETURN to start*. If you press *?* a Help screen will display. Pressing any other key will take you to a blank worksheet. Press RETURN.

Moving the Cursor to Active Blocks on the Worksheet

When you press RETURN, the following screen is displayed on the terminal. If you imagine that you are examining a map through a magnifying glass, you can compare the screen, or "display window," to a magnifying glass; through it, you can look at any area of your map or PeachCalc worksheet. In this exercise, you will learn how to move your display window across the surface of the worksheet and how to make the display window move or "scroll" to different positions on the worksheet.

There are two words you need to learn before you go any further—*block* and *cursor*. In the same way that latitude and longitude measurements designate unique locations on a map, locations on the PeachCalc worksheet are pinpointed by alphabetically named columns and numerically named rows. A unique letter and number combination names every location on your worksheet; this location is called a *block*. Every block has a name that is a combination of the column and row, such as A1, B3 or H19. The *active block* is the location or destination of the data being entered. Let's look at the display that is on the screen:

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: <     >
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
> A1
Width: 9   Memory: 72   Last Col/Row:A1          ? for HELP
    1>
```

You can see columns A through H and rows 1 through 20 on this section of the worksheet. Block A1 is highlighted. The highlight differs according to the terminal—it could be a bright underscore, a "reverse video" (bright bar) or perhaps the symbol < >. This is called the *worksheet cursor* and designates the Active Block. The worksheet cursor can be moved to any block on the screen by pressing arrow keys on the keyboard.

Exercise 1

Press the RIGHT arrow. The worksheet cursor should move one block to the right, to B1.

2 Press the same key again to move to C1.

3 Try the down direction. Experiment, using these four keys to move the worksheet cursor to different block positions on the worksheet screen.

Scrolling

What happens if you try to go above Row 1 or to the left of Column A? Nothing. You have reached the worksheet margin in these directions. But what about moving to the right or down? Since the worksheet is much larger than the screen, there must be some way of looking at the rest of it.

```
    :   Z   : :  AA  : :  AB  : :  AC  : :  AD  : :  AE  : :  AF  : :  AG  :
 1: <       >
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
> Z1
Width: 9   Memory: 72   Last Col/Row:A1          ? for HELP
   1>
```

Exercise

1 Try to move the worksheet past the right or bottom margin. As the cursor appears ready to go off the screen, the rows and columns renumber. These are the "off-screen" blocks (beyond the range of display) that are brought into view one column or row at a time.

2 Move one column beyond the right screen edge. The columns change to B-I. Only part of the usable worksheet displays at one time. This is the "display window," and moving it is called "scrolling."

3 Try moving off the right screen edge by holding the key down. The screen will scroll until you stop pressing the key.

4 Continue scrolling the screen to Column Z. Note that the remaining columns are labeled AA, AB and so on.

The Status, Prompt and Entry Lines

There are three lines at the bottom of the screen. The first of these lines is the Active Block and worksheet cursor "status" line. PeachCalc uses this line to indicate the position of each of these functions.

The first character, an arrow, indicates the direction the worksheet cursor will move when you press RETURN. To change the direction of cursor movement, press an arrow key that points in a different direction.

The next entry on the status line is the name of the current Active Block. The status line tells you the location of the Active Block and is much more convenient than visually figuring the cursor position with respect to the worksheet borders.

If the current Active Block is empty, the status line remains unchanged; however, if the Active Block contains text, numbers or formulas, the contents of the block will appear as you originally entered it. The display will read: *Form = <contents of block>*.

Exercise

Now move the worksheet cursor around and watch the status line as the Active Block and direction arrows change.

The second line is the "prompt" and secondary status line. This line tells you the current block width, available memory and the last block used for the current application. When you have made a command entry, the message displayed here will change, depending on what command you are using. The prompt message lists your options at any given moment.

The bottom line is the "entry" line. It displays a 1 at the left margin. This line lets you tell PeachCalc what to do. It displays the information you enter at the keyboard—data, commands or responses to prompt messages. The entry line is like a scratch pad—you can check and edit the data or text you wish to enter before putting it on the worksheet. As you input characters, the entry line cursor will move to indicate where the next character will appear. As you enter characters, the number at the left-hand margin will ascend as it counts the characters being entered.

The GOTO Command

There is an easier way to move the worksheet cursor to another block without using a combination of arrow keys. Typing an equals sign (=) gives PeachCalc a *GoTo* command.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: <     >
 2:
 3:
 4:
 5:
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
> A1
Enter block to jump to.
    6> =>M31
```

Exercise

1 Type an equals sign (=). (If you mistype "=" you can use the left arrow key to backspace and try again. We'll explain this feature in more detail later on.) The prompt line now reads *Enter block to jump to*. This is one of the helpful conversational features you can expect from the prompt line.

2 Now type *M31* or *m31*. The PeachCalc program accepts either lower-case or upper-case letters for any entries, but you cannot use a lower-case letter "l" for the numeral 1.

3 Now press RETURN. If you did everything right, you have quickly moved to the part of the worksheet where M31 is

located. Block M31 now appears at the top left corner of the display window.

```
    :  M  : :  N  : :  O  : :  P  : :  Q  : :  R  : :  S  : :  T  :
31: <     >
32:
33:
34:
35:
36:
37:
38:
39:
40:
41:
42:
43:
44:
45:
46:
47:
48:
49:
50:
51:
> M31
Width: 9   Memory: 72   Last Col/Row:A1          ? for HELP
    1>
```

4 Practice using the GOTO command by moving the cursor to other positions on the worksheet. When you are finished, GOTO A1 again.

5 Here is an another feature of the GOTO command. Move the Active Block near the middle of the screen, say to E8. Enter =, but enter no block, just press RETURN. Notice how the Active Block remains E8, yet the display window is repositioned so the Active Block appears at the top left corner.

We have now used the arrow keys and the = key. Remember that, for most situations, any entry must be followed by pressing the RETURN key.

```
    :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1:
 2:
 3:
 4:
 5:
 6:
 7:
 8:                                  <     >
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
> E8
Width: 9   Memory: 72   Last Col/Row:A1          ? for HELP
    1>
```

6 Press the RETURN key a few times and notice that the position of the Active Block advances to the next block. The direction taken—left, right, up or down—depends on which arrow key was last used.

7 Press the DOWN arrow and then RETURN a few times. Now press the LEFT arrow and RETURN several times. The arrow keys set the direction, and then RETURN moves the worksheet cursor block by block. Remember that you can always check the status line to find the current direction.

The QUIT Command

What about some of the other operations? Let's try "/." Press the / (slash) key. You see the prompt change to say *B,C,D,E,F,G,I,L,M,N,O,P,Q,R,S,T,U,W,Z, or ?*.

The prompt line is telling you that these letters represent the only entries you can make after typing the /, which is called the *command marker*. Each letter designates an option of the "/" commands. Whenever you wish to examine the entire command option list, press ? and the list will be displayed on your screen. To return to your worksheet display, press RETURN. We will look at many of these commands soon, but for now you should know about one in particular.

Exercise

1 Press the *Q* key. What happened? First the */Q* was interpreted by PeachCalc so that your */Q* appears on the entry line as */Q*uit. Second, the prompt line changed. It now reads *EXIT PeachCalc? Y(es) or N(o)*.

2 If you want to stop here and continue the lesson later, press the *Y* key; otherwise, press *N*.

What have you learned in this lesson? You have seen the display window scroll and learned what "current direction" means. You have also learned how to:

- Identify the worksheet cursor and locate the Active Block.
- Move the worksheet cursor anywhere on the worksheet.
- Move the cursor with the four arrow keys, the alternate movement keys and the RETURN key.
- Use the GOTO command, either as a shortcut to a new location or to reposition the worksheet with respect to the active block.
- Read the Active Block location, current direction and column display width on the status line.

Entering Numbers, Text and Simple Formulas — Lesson 2

Lesson One gave you a general understanding of the control and display features in PeachCalc. In this lesson, you will learn how to enter data onto the worksheet. You will also learn the ZAP command (/Z) to clear the worksheet, the "in-line editing" features and the EDIT command (/E).

If the PeachCalc program is not already loaded, load it now.

Making Simple Entries

Now you are ready to enter data on the worksheet. In this exercise, you will be entering numbers down the column, so you want to set the worksheet cursor to move "down."

Exercise 1

Press the DOWN arrow. Now use the GOTO command to place the active block marker at A1.

2

Type the number *5* on the entry line. Do not press RETURN yet. You may cancel an operation any time by pressing the CONTROL key and the Z key simultaneously. If you start to do something but then change your mind, pressing CONTROL Z will allow you to start over without harming the worksheet.

The number 5 is showing on the entry line. Now press RETURN.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
1:        5
2: <      >
3:
4:
5:
```

Pressing RETURN will enter whatever is currently shown on the entry line; that is, the characters you have typed will be sent to the Active Block, and the entry line will be cleared. In our example, the data item *5* should now appear on the screen in block A1.

3

Notice that the worksheet cursor moved to A2. Type *6*, but do not press RETURN yet. Did you notice that before you typed 6 there was a 1 at the left side of the entry line? Now there is a 2. This number increases each time you type a character on the entry line—it is always one more than the number of characters you have typed. For now, this information helps you fit data into the column width you have (remember the 9 on the status line?) Later, you will learn how to change the column width, and this character count will help even more.

4

Now press RETURN, and block A2 will contain the value 6. Block A3 is now the Active Block.

5

Let's try another entry—type *12* and press RETURN. The same thing should have happened. The worksheet cursor is progressing down the column, automatically anticipating the location of your next entry.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
1:        5
2:        6
3:       12
4: <      >          8
5:
6:
7:
```

6 Now press the RIGHT arrow. Type *56* and press RETURN. What happened? 56 appears in B4, and the worksheet cursor has moved to block C4. After each entry, the worksheet cursor will continue to move automatically to the next block. The direction of the moves has been set by the last arrow key used. For instance, suppose you wish to change the data in block B4. Press the LEFT arrow. Type *8* and press RETURN.

This will replace the previous entry of *56*. But, in addition, the worksheet cursor continues now in a leftward direction to A4.

7 Try entering different letters and numbers as data, using the arrow keys to change direction.

Depending on how adventurous you were, you may have made some discoveries. Generally speaking, there are two kinds of entries—"text" and numbers. Your entry will be regarded as a number unless you type a single or double quotation mark as the first character, in which case it will be entered as repeating text or non-repeating text, respectively.

Headings, labels and explanatory notes are all types of text entries. In a mathematical sense, they are regarded as having a value of zero. If you forget to lead these with quotation marks, the computer will give you an error message. Quotation marks do not appear on your screen; they simply signal the computer that you are making a text entry. You do not have to close the quotation marks.

The ZAP Command

The ZAP command clears the worksheet. You will use it now to call up a fresh screen for making sample entries. The ZAP command is different from the QUIT command; it does not end the PeachCalc program but merely clears the information on the screen.

Exercise

1 Enter /. The prompt line again displays all the possible "/" commands.

2 Enter *Z*; the prompt now reads *Zap-ENTIRE-worksheet?* The ZAP command clears the entire worksheet and returns everything to its original state, as if you had just loaded PeachCalc. Because this is so drastic, PeachCalc uses the prompt line to remind you that the entire worksheet will be emptied. The prompt asks, *Y(es) to clear everything, else N(o)?*

3 You want to clear everything, so enter *Y*. Whatever you had put on the worksheet is now gone permanently.

Textual and Numerical Entries

On your newly cleared screen, you are ready to learn how to make two types of entries to fill a block—text entries and numerical entries.

Exercise 1

Enter *"Branch* in block B1 and *250* in B2. Remember to precede *Branch* with quotation marks ("). Notice that text is left-justified and numeric values are right-justified within the column.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
1:          Branch
2:                250
3:          <       >
4:
5:
6:
```

2 Move the Active Block back to B2 and watch the far right display of the status line. It will say *Form=250*. Move the Active Block to B1; the same display will say *Text=Branch*.

How wide are the columns, and how large a number can we enter? How much text? We talked about "display width" earlier when looking at the status line. Note again the 9 on the status line.

The 9 tells you that the current column (the column with the Active Block) can display nine characters. Nine is the standard (or default) value that PeachCalc will use for the display width of all columns unless you tell it otherwise. You will soon learn how to set display widths. Blocks may contain as many as 116 characters.

3 Move the worksheet cursor to B3, and type *"Departments*. This text is certainly longer than nine characters, but PeachCalc allows text to extend over neighboring blocks if they are unused.

4 Move to A1 and enter *"Departments* again. What happens?

Your entry did not display in full because B1 is occupied. However, the entire entry was accepted to block A1 even if only part of it (the first nine characters) is displayed. You can see that the status line indicates the contents of A1 as *Text="Departments*—the full text.

5 Move to B4. Type, without commas, *2500000000*. The number is too large to display. PeachCalc converts it to scientific notation, a more compact format, and displays it as 2.5e9, the display form of the expression 2.5×10^9, or the conventional abbreviation of 2,500,000,000. PeachCalc provides many different display and format options. These will be discussed in more detail later.

```
   :    A    : :    B    : :    C    : :    D    : :    E    : :    F    : :    G    :
 1: Departmen Branch
 2:                  250
 3:               Departments
 4:                   2.5e9
 5:               <        >
 6:
```

Exponential Numbers

If exponential numbers are new to you, let's take a moment to look at what they are and how PeachCalc displays them. Exponential numbers are displayed as "powers of 10." The following exercise helps explain what this means.

Exercise

1 ZAP the worksheet you've been using. Go to Block C1 and set column C for exponential display. The format command does this. Type */F* for the command, then *C* for "column formatting." When the prompt asks you what column to format, you can just press the "," key, because you are already at column C. Then enter *E* for exponential and press RETURN.

```
    :    A    : : : B    : :    C    : :    D    : :    E    : : : F    : :    G    :
19:
20:
21:
< C1
Define Formats: (I,G,E,$,R,L,TR,TL,*,D,column width)
     27>/Format,Column,C,Exponent,
```

2 Press the DOWN arrow to set the current direction as down. Type *1776*. Block C2 shows *1.776e3*. *e3* means "exponential 3" or "10 to the power of 3." 10 to the power of 3 is 1,000; 1.776 times 1,000 is 1,776.

3 Try entering *1000*. Was *1e3* what you expected? What will *100* be? Try it. Now enter *2000*, and then enter *.002*. Notice that 2000 is *2e3* and that .002 is *2e-3*. *e3* is thousands; *e-3* is thousandths. What is -2000? Try it and see.

4 What happens if you enter a number in exponential notation? Let's try it. Enter *567e13*. Are you surprised to see it display as 5.67e15? PeachCalc prefers to put the decimal point just after the first digit and will adjust the exponent value to do so.

```
   :   A   : : : B   : :   C   : :   D   : :   E   : : : F   : :   G   :
 1:
 2:                              1.776e3
 3:                                  1e3
 4:                                  1e2
 5:                                  2e3
 6:                                 2e-3
 7:                                 -2e3
 8:                                5.67e15
 9:                               <     >
10:
11:
```

Explore on your own—entering numbers as you ordinarily would and entering them in exponential form. Try to guess beforehand what the display will be.

When you feel comfortable with exponential notation, move on to the next exercise.

Exercise 1

Press the DOWN arrow, if necessary, to reset the cursor direction; then GOTO (=) C1.

2

In block C1, enter 93000000. That is 93 million, which is the number of miles between the earth and the sun. *9.3e7* is 9.3 times 10 million, which seems right. Now in block C2, enter *5280*C1*. The value displayed, *4.910e11*, is the number of feet in 93 million miles. What about inches? Type *12*C2* in block C3. 5.892e12 is the number of inches in 93 million miles.

```
   :   A   : : : B   : :   C   : :   D   : :   E   : : : F   : :   G   :
 1:                              9.3e7
 2:                            4.910e11
 3:                            5.892e12
 4:                            <   1e3 >
 5:                                2e3
 6:                               2e-3
 7:                               -2e3
 8:                             5.67e15
 9:
10:
```

So 5.892e12 is the number of inches between the earth and the surface of the sun? Not exactly. It is the number of inches in 93 million miles, but 93 million is the number of miles between here and the sun expressed to the nearest million. Only the first two digits of 5.892 are significant, since only the 93 was significant in 93 million miles.

Why bring this up? Because that is the point of scientific notation—to quickly grasp the essential points of a number

and discard the unessential. The first part of the number gives you the essentials (and probably some others that you can discard). The exponent value, the number after E, tells you whether you are talking about tens, hundreds, thousands, millions or billions.

In short, exponential or scientific numbers give you the essential: the significant digits and the general magnitude of the value.

Three types of exponential expression may occur:
1. 1.776e3: 1.776 x 1000 or 10^3.
2. 1.776e-3: 1.776 x 1/1000 or 10^{-3}.
3. -1.776e3: -1.776 x 1000 or 10^3 (a negative number).

In-Line Editing

Let's investigate PeachCalc's "in-line" editing feature. If you have used the exponential notation section of the lesson, ZAP your worksheet and re-enter the data from the "Textual and Numerical Entries" exercise.

Exercise

1 Move the Active Block to B5. Type this incorrect spelling, *"Divsion*, but *do not* press RETURN. As you know, you could use a LEFT arrow to backspace and retype from the point of the error.

2 Using the LEFT and RIGHT arrows, move back and forth across the text, taking care not to backspace beyond the left-most character. Notice that nothing is changed except the position of the cursor on the entry line. Locate the cursor on the *s*. Notice, too, that the number 4 appears at the left of the entry line. This indicates that the cursor is located at the fourth character position.

3 Press the INSERT key and see what happens.

A space has been created just ahead of the *s* so you can insert the correction without having to retype good text. Enter *i*. The entry line now says *"Division*. What if you had needed to insert several characters, or to delete some?

4 Press the INSERT key continuously and generate a large gap in the text.

5 Press the DELETE key once and notice that the gap is reduced by one character. Hold the key down and watch the blank spaces being deleted. Go ahead and enter *"Division*, then make up other examples.

6 Practice with these keys until you are confident with this "in-line editing" feature. Try it with numeric entries, too.

Regardless of where the cursor is positioned on the entry line, all of the visible text or numeric values will go into the Active Block when you press RETURN.

You have discovered that the arrow keys have two different uses. They move the Active Block around the worksheet until you type a character on the entry line. Then PeachCalc recognizes that you have begun to enter data, and the prompt changes to *Enter into block (or CTRL/Z to abort command)*. The function of the arrow keys changes in data entry mode; they are used for editing.

The EDIT Command

You know how to edit data before you actually enter it into the Active Block, but how can you edit data that is already in a block? Of course, you could enter the data again in its entirety and the new entry would replace the old one, but there is a better way. You can use a new command, the EDIT command (*/E*).

```
   :    A    : :    B    : :    C    : :    D    : :    E    : :    F    : :    G    :
 1: Departmen Branch
 2:                  250
 3:           Department
 4:           <  2.5e9>
 5:           Division
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
> B4                    Form = 2500000000
From? Enter block
     27>/Edit(into current block),
```

Exercise

1 Make B4 the Active Block (use GOTO or move the worksheet cursor). Enter */E*, for EDIT. You see the prompt line now says, *From? enter block*. It needs to know where to find the material to be edited.

2 Because you want to edit the contents of the Active Block (as opposed to another block on the worksheet), you don't have to give a block address. Simply press RETURN, and PeachCalc will bring the Active Block's contents to the entry line.

3 Make your changes, using the arrow keys. For instance, delete three of the zeros from 2500000000. When your change is complete, press RETURN, and your modified entry replaces the old one in B4. If you haven't done this, try it now.

4 You may sometimes wish to edit the contents of a block and put them into another block. For example, position the Active Block on B5 (your destination block). Enter */E*. In response to the prompt *From?* type *B4* (our source block) and press RETURN. The contents of B4 will be copied to the entry line. Delete one of the zeros. After you have made your change, press RETURN and the edited version of B4 will be copied back to B5.

```
   :   A    : :   B    : :   C   : :   D   : :   E   : :   F   : :   G   :
1: Departmen Branch
2:                  250
3:              Department
4:               2500000
5:                250000
6:              <       >
7:
8:
9:
```

No matter where it comes from, the "new" or "edited" data on the entry line is always entered into the Active Block. In the first example, the original contents of B4, the Active Block, were modified and replaced by an edited version. In the second example, the contents of B4 were not changed. The edited material went into B5, the Active Block, and the source material remained unchanged in B4.

Review

What have you learned in this lesson? You know how to:
- Make number and text data entries.
- Cancel an operation by using CONTROL Z.
- Replace one data entry with another.
- Set the direction in which the worksheet cursor moves.
- Recognize and use exponential notation.
- Do in-line editing.
- Use /E, the EDIT command.

If you want to stop here, use the QUIT command. Or you can continue to Lesson Three.

Blanking, Protecting, Unprotecting and Saving

Lesson 3

In this lesson, you will enter more data, learning how to blank, protect, unprotect and save your data. You will also learn to use the */G* command to make some general or "global" changes in your worksheet display and to use the */F* command to make certain formatting changes.

If you are continuing directly from Lesson Two, do a */Z* command to start with an empty screen. Otherwise, load the PeachCalc program in accordance with the instructions in Lesson One.

More Data Entry

In Lesson Two, you learned how to modify a block's contents with EDIT. But what if you want to "blank" a block, to completely clear out its contents? You can do that with a new command, the BLANK command, which will blank out, or erase, data that you have already entered on any portion of your worksheet. You can blank an individual entry or block, partial or complete rows or columns or entire groups (rows and columns) of blocks. You will try an example of each in this lesson.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: Dept
 2:          5
 3:          8
 4:          3
 5:         11
 6:          4
 7:          9
 8:          6
 9:         12
10: <        >
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v A10
Enter Range
    10>/Blank,A4
```

Exercise

1 Use the DOWN arrow to set the current direction. Use the GOTO command to go to A1. Type *"Dept*. At A2, type *5*. Continue in this way with A3 through A9, typing values of *8, 3, 11, 4, 9, 6* and *12*, respectively.

2 Type */* and note the prompt line. Now enter *B*. The interpretive prompting fills this out as */Blank*. And the prompt line changes to say *Enter Range*. You must now tell PeachCalc the portion, or range, of the work sheet you wish to blank.

3 Type *A4* and press RETURN. The contents of A4 have been "blanked," or erased. You can also enter */B*, place the worksheet cursor on the block you wish to blank and (with no block reference) press RETURN. Try doing this with block A5. When working regularly within PeachCalc, use whichever way is more convenient for you. Remember that, since the cursor can only point to an individual block, the cursor-and-RETURN

method of the */B* command will only affect one individual entry.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: Dept
 2:        5
 3:        8
 4:
 5:
 6:
 7:
 8:
 9:       12
10: <      >
11:
12:
```

4 Enter */B* again. In response to the prompt *Enter Range*, specify A6 through A8 by typing *A6:A8*. Press RETURN. This is how you can give PeachCalc a range of blocks for either a row or a column. The range that you name will always include the end points.

The PROTECT Command

Exercise

1 Re-enter the numbers you just blanked out. Create a new column of numbers in column B. Label it *"Branch.*

2 Now let's protect a block. Type */P*. You will use the PROTECT command in the same way as the BLANK command; that is, enter a block or a range. For example, enter *A5*. Press RETURN. Move the cursor to A5 and note that a *P* appears now next to the *Form* display on the status line. This tells you that the Active Block is "protected."

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
18:
19:
20:
21:
v B10
Enter Range
     12>/Protect,A5
```

3 Let's continue by protecting a range of blocks. Type */P* and enter *A8:B8*. Press RETURN. This will protect that portion of Row 8.

What is the significance of what you have done? Remember we said that */B* could blank out an entire group of blocks. Let's try to blank out that group of blocks from Row 2 through Row 8 for both columns A and B. How do you specify this?

4 Enter */B*. Now enter *A2:B8*. (The range for a *group* of blocks is a diagonal from the top left block in the group to the lowest righthand block in the group.) Now press RETURN, and let's consider the results.

Row 1, with titles, should remain, because it was outside the range of the group definition you used with the BLANK command. A5 and Row 8 remain because they were protected. Row 9 remains, not because it was protected but because it, too, was beyond the range you blanked out.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: Dept      Branch
 2:
 3:
 4:
 5:        11
 6:
 7:
 8:         6          7
 9:        12          8
10: <       >
11:
```

5 Try to change the contents of A9. Now try the same thing with A5 or B8. Since the blocks have been protected, they cannot be changed or blanked out. This feature can provide you with a large measure of safety when you are working with information that has taken you time to develop and which you cannot afford to accidentally lose.

The UNPROTECT command (*/U*) can be used to unprotect blocks, partial rows, partial columns or groups of blocks. You could use the command twice to unprotect block A5 and Row 8, but you can do it with just one */U* command?

6 UNPROTECT the "group," Row 5 through 8 of columns A and B. What is the proper range specification? It is *A5:B8*.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
19:
20:
21:
v A10
Enter Range
    17>/UnProtect,A5:B8
```

Formula and Numeric Display Options

Exercise 1

Move the Active Block to A2. Enter *3+5*. What happened? The value of the expression, 8, was placed in A2. If the

worksheet cursor is not at A2, move it there and examine the status line. The far right display will read *Form=3+5*, your original expression. What has PeachCalc actually stored, "3+5" or "8"? It has stored both!

However complicated the expression is, PeachCalc will calculate the result and display it. This lets you use the entry line like a scratch pad. For instance, we may be adding two columns of numbers but be interested only in their total value.

2 Again at A3 enter *1+A2*. PeachCalc will recognize this as a formula for block A2 and will quickly calculate and display the value based upon the value in A2. Further, if you change the contents of A2—for instance, to *5*—you will observe that the new value of A3 is recalculated as well.

3 Now move the Active Block to A3. The screen displays *6* there, the current value, while the status line displays *Form = 1 + A2*. PeachCalc is keeping track of both. In A4, enter *A3*.65*. (The "*" means multiply and is equivalent to the "x" sign in conventional notation. Division is represented by "/".)

4 Locate the active block at A10. Enter *SUM(A2:A9)*.

SUM is a built-in function. PeachCalc provides many special built-in functions, including SQRT (square root), AVERAGE (mathematical mean), NPV (net present value), trigonometric functions, IF conditionals and many more. For SUM, you can specify a list of ranges (as you have done in this example) and blocks—for example, *SUM(A8,B9,A2)*.

5 Change the value of any block in column A and watch the sum be recalculated.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: Dept.      Branch
 2:       5
 3:       6
 4:     3.9
 5:      11
 6:
 7:
 8:       6          7
 9:       5          8
10:    36.9
11: <     >
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v A11
Width: 9   Memory: 72   Last Col/Row:B10          ? for HELP
    1>
```

The GLOBAL Command and Formatting Options

You know that PeachCalc is keeping track of formulas even though only values are displayed on the worksheet. How can you review all the original formulas more clearly? This can be done with the GLOBAL command.

Exercise 1

Type */G*. PeachCalc's interpretive prompting fills this out to read */Global*. The prompt line now reads *F(orm.), N(ext),*

B(order), T(ab), R(ow), C(ol.), M(an.), A(auto)? The */G* command is a way to make overall or "global" changes to the worksheet, rather than specific or local changes. It is as if you had a map of the United States before you and could, at will, change it into a topographical map, a population density map or a tourist attraction map.

2 To see your formulas, enter *F* and they will display.

```
   :  A   : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1: Dept.     Branch
 2:       5
 3:    1+A2
 4:   A3*.65
 5:       11
 6:
 7:
 8:       6         7
 9:       5         8
10: SUM(A2:A9)
11: <      >
12:
13:
```

3 To return to the other kind of display (block values), simply repeat the sequence */G, F*. PeachCalc will alternate or flip-flop between the two display modes.

Determining Column Width

In your formulas, you will notice one problem. The SUM formula in A10 has two characters more than the column width, which is only 9. You need to widen the column to accommodate the entry.

Exercise

1 Type *9* in block B10.

2 Enter */F* for FORMAT. The prompt line will respond with *Enter Level: G(lobal), C(olumn), R(ow), or E(ntry)*. This *G* is not the same as the */G* command; here it simply qualifies the */F* command. Its meaning, however, is similar: "for all" or "every."

3 Now type *G*. The prompt line now displays *Define Formats: (I, G, E, $, R, L, TR, TL, *, D, column width)*. As you can see, the */F* command has many possible parameters; however, for now, enter a new column width by typing *12* and RETURN. Now move the cursor to column B and note the status line display, *12*. Notice that you changed all columns to a width of 12 characters. You could have specified the new width for just a single column by typing *C* for column level.

```
     :   A   : :   B   : :   C   : :   D   : :   E   : :   F   : :   G   : :   H   :
 18:
 19:
 20:
 21:
v B11
Define Formats: (I,G,E,$,R,L,TR,TL,*,D,column width)
     18>/Format,Global,12
```

Now that you are using commands with several levels of prompts, we should point out another use for the LEFT arrow key—one that you may have discovered for yourself. Backspacing with the left arrow will always take you back to the prior "step" in a command.

4

For instance, enter */F, G, 12* again. Now backspace one with the LEFT arrow. Backspace again, and see that the prompt changes to its earlier message, *Enter Level: G(lobal), . . .* If you wished, you could then enter a level other than *G(lobal)* and continue on with the command sequence. Instead, backspace once more.

You will see the list of "/" command options on the prompt line. Backspace again. Now you have finally backed all the way to the original prompt.

Of course, no matter how far you have gone in specifying a command, range or option, you can always use CONTROL Z to cancel everything you started to enter. Simultaneously pressing the CONTROL key and Z will return you to the original prompt. You can use this technique, for example, if you start to enter data on the entry line and then notice that the Active Block is not positioned where you want it.

5

Now return to the display mode that displays block values rather than formulas (*/G, F).*

The SAVE Command

You can save what you have done in this lesson for later use with the SAVE (*/S*) command. If you choose the *A(ll)* option, this command copies the entire worksheet and stores it on a diskette located in the drive you specify.

Exercise 1

Enter */S*. The prompt requests *Enter File name*. You can respond in several ways:

- If you wish to save it on the disk in the system drive (the same disk that has the PeachCalc program), enter *WORK1* and press RETURN.
- Or you can specify the drive to use by entering *A:WORK1* or *B:WORK1* and pressing RETURN (where A and B are your drive designations).

The program will not accept file names containing blank spaces, such as TOM 1.

```
    :   A   : :   B   : :   C   : :   D   : :   E   : :   F   :
 17:
 18:
 19:
 20:
 21:
v B11
Enter File Name (or <RETURN> for directory)
    7>/Save,
```

2 After the file name, the prompt line inquires further *A(ll), V(alues), or P(art)?* Since you want to save both formulas and values, enter *A*, for all. PeachCalc will store the file.

3 You will use this file to "load" your work back into the system in Lesson Four, so keep the disk handy. Now type */Q* and exit from PeachCalc. All your work "disappears." It is irretrievable unless you have specifically preserved it with the SAVE command before exiting.

```
    :   A   : :   B   : :   C   : :   D   : :   E   : :   F   :
 18:
 19:
 20:
 21:
v B11
Enter File Name (or <RETURN> for directory)
    13>/Save,WORK1,A
```

Review

What have you learned in this lesson? You know how to:

- Blank the contents of a block or group of blocks by using the */B* command.
- Protect and unprotect blocks, using the */P and /U* commands, and what protection does for a block.
- Use the arithmetic expressions "*" to multiply and "/" to divide.
- Enter numerical expressions and formulas for which PeachCalc will calculate and display the results, and continue to recalculate as necessary.
- Use the global option command */G* to display formulas or their calculated values on the worksheet display.
- Use the FORMAT command */F* to change column display width.
- Use the backspace (LEFT arrow) key to return to an earlier step in a command sequence.
- Create a file and save your work by using the */S* command.

Copy and Repeat Lesson 4

Lesson Three began to show you the power of PeachCalc, particularly its ability to recalculate automatically all values that depend upon the values in other blocks. In this lesson, you will learn even more about its versatility. You will learn to use the LOAD command (*/L*), COPY command (*/C*), REPEAT command (*/R*) and the current-block key (*ESC*). The */C*, */R*, and *ESC* commands are basically time-saving commands.

The LOAD Command

You are going to use the same worksheet you began to develop in Lesson Three. Retrieve the file you created at the end of that lesson. You will use the LOAD command, */L*, to do this. (If the file is not on the disk that has PeachCalc, be sure to insert the disk with the file into your other disk drive.)

Exercise 1

Type */L*. The answer to the prompt *Enter File name* depends on where you stored the file. If it is on the same disk as PeachCalc, it is on the system drive, so enter *WORK1* and press RETURN. If the file is not on the system drive, you should designate the appropriate drive by entering *A:WORK1* or *B:WORK1*, etc., before pressing RETURN. The prompt line will change to read *A(ll) or P(art)?*

```
    :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 18:
 19:
 20:
 21:
> A1
Enter File Name (or <RETURN> for directory)
  12>/Load,WORK1
```

2

Type *A*, for "all," and the worksheet saved from your last effort will be copied from the disk and appear on the screen.

The COPY Command

Let's investigate another command, COPY (*/C*). The COPY command is easy to use. You can copy a single block, a partial row or partial column or a group of blocks.

In this first example, you will COPY the data in Column A into Column C.

```
   :     A     : :     B     : :     C     : :     D     : :     E     : :     F     :
 1: Dept.          Branch
 2:          5
 3:          6
 4:        3.9
 5:         11
 6:
 7:
 8:          6                       7
 9:          5                       8
10:       36.9                       9
11:          <                       >
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v B11
To? (Enter Block), then Return; or ",," for Options
  16>/Copy,A1:A10,C1
```

Exercise

1 Enter */C*. The prompt line says *From? (Enter Range)*

2 In response, enter *A1:A10* (RETURN). This time the prompt asks *To? (Enter Range), then Return; or ",," for Options*. We just want a "standard" COPY this time—we will look at options later. So enter *C1* and press RETURN.

3 Now use the COPY command to copy the contents of block A10 to B10.

4 Change the display to show formulas and look at the contents of B10 and Column C. The formulas have all been translated automatically in relation to the column. All block references have changed to reflect the new location of the formulas. If you had moved to a new row, as well as a new column, row designations would also have been adjusted.

```
   :     A     : :     B     : :     C     : :     D     : :     E     : :     F     :
 1: Dept.          Branch          Dept.
 2:  5                             5
 3:  1+A2                          1+C2
 4:  A3*.65                        C3*.65
 5:  11                            11
 6:
 7:
 8:  6              7              6
 9:  5              8              5
10: SUM(A2:A9)  SUM(B2:B9)  SUM(C2:C9)
11:                <              >
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v B11
Width: 12   Memory: 72   Last Col/Row:C10          ? for HELP
  1>
```

Generally, this automatic adjustment is exactly what you want, but there are other options available. For instance, you can specify that there be no adjustment, or you can tell PeachCalc to ask whether each occurrence of a block reference should be adjusted or left alone. You will try this later in this lesson.

The COPY command makes a one-to-one copy of its source material into a destination of the same type of size—block to block, row to row or column to column. But suppose you want to repeat a series of values and formulas many times, perhaps to compare alternative cases?

The REPEAT Command

You can use another very powerful command, REPEAT (*/R*), to do that. It will make a "one-to-many" copy of a block, a partial row or a partial column and will distribute these copies over a range that is larger than the source range. Let's REPEAT a single block, A10.

Exercise

1 Type */R*. For *From*, enter *A10* (RETURN). For *To?*, enter the range D10 through F10 by typing *D10:F10* and RETURN. Look at what happens.

2 REPEAT the partial column A3 through A4 into D3 through F3. These columns, D through F, now have data in rows 3, 4 and 10.

3 Fill up these columns by entering some data (whatever you want) in rows 2 and 5 through 9.

```
   :     A      : :     B      : :     C      : :     D      : :     E      : :     F      :
 1: Dept.        Branch         Dept.
 2: 5            1              5
 3: 1+A2         2              1+C2           1+D2           1+E2           1+F2
 4: A3*.65       3              C3*.65         D3*.65         E3*.65         F3*.65
 5: 11           4              11
 6: 4            5              4
 7: 9            6              9
 8: 6            7              6
 9: 5            8              5
10: SUM(A2:A9)  SUM(B2:B9)     SUM(C2:C9)     SUM(D2:D9)     SUM(E2:E9)     SUM(F2:F9)
11:                                                                        <         >
12:
```

The REPEAT command has the same formula adjustment options as the COPY command. Try one now:

4 Type into block A12 the formula *A2+A2*.

5 Now type */R*, *A12*, *B12:F12*. After you type *F12*, enter an additional "," to get the options. They will be displayed on the prompt line: *N(o Adjustment), A(sk for Adjust.), V(alues).*

6 Enter *A*. The prompt changes to say *Source location A12. Adjust A2?* and the first A2 is highlighted on the entry line.

7 Type *N*, for no adjustment. Now the second reference to A2

is highlighted on the entry line. Respond with *Y*. You see that the first part of the formula remained unchanged while the second was adjusted according to your responses. In this way, you can tell one component of a block to be constant, while other components are adjusted relative to their new location. If you enter *Y* in response to both prompts, both components are adjusted relative to their location.

```
    :      A      : :      B      : :      C      : :      D      : :      E      : :      F      :
 1: Dept.          Branch          Dept-1          Dept-2          Dept-3          Dept-4
 2: 5              1               8               3               4               5
 3: 1+A2           2               1+C2            1+D2            1+E2            1+F2
 4: A3*.65         3               C3*.65          D3*.65          E3*.65          F3*.65
 5: 11             4               11              6               7               8
 6: 4              5               4               10              11              12
 7: 9              6               9               13              14              15
 8: 6              7               6               1               2               3
 9: 5              8               7               4               5               6
10: SUM(A2:A9)     SUM(B2:B9)      SUM(C2:C9)      SUM(D2:D9)      SUM(E2:E9)      SUM(F2:F9)
11:
12: A2+A2          A2+B2           A2+C2           A2+D2           A2+E2           <A2+F2  >
13:
14:
15:
16:
17:
18:
19:
20:  Form=A2+F2
21:
v F12
Width: 12   Memory: 71 Last Col/Row:F12      ? for HELP
  1>
```

8

REPEAT block A1 to D1 through F1. Then use */E* to EDIT the contents of C1 through F1 so they will be *DEPT-1*, *DEPT-2* and so forth.

Note: The subcommands *N(o Adjust), A(sk for Adjust)* and *V(alues)* do not work with text entries.

Saving Your Work

It's very important to save the work you have completed up to this point, because you will use it again in Lesson Five.

If you want to save it on the same disk as PeachCalc, enter */S*, then *WORK1*, and press RETURN; otherwise, specify the drive that has your destination disk. If you want to jog your memory about the SAVE command, try HELP (?). Or you could look back at Lesson Three or at the Reference Guide.

To help protect your work, the PeachCalc program checks to see if you already have a file with the same name on your destination disk. If you do, the PeachCalc program asks you *OK to overwrite?* If you no longer need the original version, then reply with *Y*. Otherwise, rename the new file you want to save. (In this case, you can overwrite because you won't need the old WORK1 file created in Lesson Three. The worksheet developed in this lesson is the one you will use later.)

Exercise

Try repeating a row, or rows, or a block. If an application of your own comes to mind, begin an example on the screen. If you want to save this first effort of your own, be sure to use a different name—for example, TRIAL or MYTRY. (Safety tip: It

is a good idea to choose a name different from WORK1, so there is less chance of overwriting the material you will need on this tutorial. WORK2, for example, is so close that it might cause you some confusion.)

By now you have probably realized that PeachCalc offers you a great many command options. This makes it a tremendously powerful and versatile tool. We will not discuss all the options in this tutorial section. Instead, we encourage you to investigate them on your own. You should find it easy to make the best possible use of the PeachCalc program by combining what you learn here with information available in the Reference Guide and through the HELP function built into the PeachCalc program itself.

The Current-Block Key—ESCAPE Key

This is a good time to become acquainted with the "current-block" key. It can boost the efficiency of certain kinds of data manipulation which use the COPY and REPEAT commands. The ESCAPE key serves as the current-block key.

Whenever a block or range is required by the PeachCalc program, the Active Block will be placed on the entry line when you press the ESCAPE key.

Let's set up an example and learn how to use this feature. Start with a fresh screen. After you have saved any work you want for later, use the ZAP command.

Exercise

1 Enter *123* into A1. Use the REPEAT command to fill every block on the visible screen with "123." Can you do this? Try it before looking ahead. Here is how your entries should have looked:

First, enter */R, A1, B1:H1*. Then */R, A1:H1, A2:A20*. Or */R, A1, A2:A20*. Then */R, B1:H1*.

Now you should have "123" everywhere for the purposes of this example.

2 Enter */B*, for BLANK. PeachCalc now wants you to specify a block or a range to be blanked. Let's start with a single block.

3 Press the *ESCAPE* key. The address of the Active Block will appear on the entry line. Use the arrow keys to move the worksheet cursor to another location—for example, C11. Notice the Active Block address on the entry line changes as you go.

```
    :   A   : :   B   : :   C   : :   D   : :   E   : :   F   : :   G   : :   H   :
 1:       123       123       123       123       123       123       123       123
 2:       123       123       123       123       123       123       123       123
 3:       123       123       123       123       123       123       123       123
 4:       123       123       123
 5:       123       123       123
 6:       123       123       123
 7:       123       123       123
 8:       123       123       123
 9:       123       123       123
10:       123       123       123
11:       123       123
12:       123       123       123
13:       123       123       123
14:       123       123       123                                           <       >
15:       123       123       123       123       123       123       123       123
16:       123       123
17:       123       123       123       123       123       123       123       123
18:       123       123       123       123       123       123       123       123
19:       123       123       123       123       123       123       123       123
20:       123       123       123       123       123       123       123       123
21:
v H14
Width: 9   Memory: 71 Last Col/Row:H20      ? for HELP
  1>
```

4 Now press RETURN. Watch carefully. Notice that the latest Active Block was blanked and that the Active Block location has returned to its original place. Again enter */B* and press *ESCAPE*.

5 Use the arrow keys to make block C16 the Active Block. The entry line now reads */B*, *C16*.

6 You will use this to begin a range specification. Just enter ":". The line now reads */B*, *C16:C16*. Now move the worksheet cursor to block H16. Notice that the second address of the range is incremented as we go. Press RETURN. The blocks in the range C16 through H16 have been blanked.

This is what happened. Once you have set the ESCAPE function, the arrow keys will move the worksheet cursor and set the block location on the entry line. A colon will generate a limiting location (end point) for a range specification. Pressing ESCAPE or RETURN will terminate the ESCAPE function and allow the arrow keys to be used for editing. The ESCAPE movement of the Active Block is only temporary; when you terminate the ESCAPE function, the Active Block returns to its starting place.

Exercise

Enter */B*. Press ESCAPE. Move the worksheet cursor to D4, press ":" and move again to H14, then press RETURN. You have blanked blocks from D4 to H14.

By using the ESCAPE key and placing the Active Block at the appropriate points, you can let PeachCalc define your statements. At first, this may seem a little difficult, but with some practice you will begin to find it very useful. This feature allows you to modify a screen simply by pointing with the Active Block to the boundary of the range of blocks you wish to blank without having to blank each block individually.

Using What You Have Learned

Here are some exercises you can try using REPEAT and ESCAPE.

1 Enter *aac* in E5. Enter */R*. Press ESCAPE, place the Active Block at E5, then press "," or RETURN. Now press ESCAPE again for the *To?* portion of the entry. Move the Active Block to E6, enter ":" and move the Active Block to E13. Press RETURN.

2 One more example: */R*, ESCAPE, move the Active Block to E5, enter ":", move to E13, press RETURN. Press ESCAPE, move to G7, enter ":", move to J7, press RETURN.

The ESCAPE key allows you to identify blocks either by contents or location on the worksheet and to perform operations on them without concerning yourself with their block address. The ESCAPE function can be used any time you have information on the entry line. You can use it in commands or with data. For example, you can use it to provide block locations in formulas.

There is no need to save any of this work. At this point, you may QUIT or continue on to Lesson Five.

Review

What have you learned in this lesson? You know:

- How to use the LOAD command (*/L*) to bring a worksheet into the PeachCalc program from a disk file.
- How to use the COPY command (*/C*).
- That the PeachCalc program will adjust formulas automatically when data is moved to new locations—or that the program will let you specify whether to leave part or all of a formula unchanged.
- How to use the REPEAT command (*/R*) to make a "one-to-many" copy of a block, a partial row or a partial column and to distribute the copies over a range.
- That you can use the ESCAPE key to bring the Active Block location to the entry line and can then change the location by using the arrow keys to move the worksheet cursor. You have also learned the special use of ":" with the ESCAPE function.

Move, Insert and Delete

Lesson 5

You have learned to use the GOTO command, the ESCAPE key and many important "/" commands. You can SAVE and LOAD your worksheet. Now we are going to introduce some new commands and techniques that help simplify the building of complex worksheet displays. If you are continuing directly from Lesson Four, use the ZAP command so you can begin with an empty worksheet. Otherwise, start up the PeachCalc program.

The MOVE Command

You will continue to work with the worksheet you saved in Lesson Four. Suppose Column B, labeled "Branch," really belongs to the right of "Dept-4," at Column F. With what you know already, you could use COPY to "move" it there and then use BLANK to erase Column B. But there is a better way.

Exercise

1. Use */L* to LOAD the file WORK1. (You can use *?* for HELP or check back to Lesson Four if you want a refresher on how to use LOAD.)
2. Type */M* for MOVE. The prompt reads *R(ow) or C(olumn)?*
3. Type *C*, and the prompt changes to *Enter column letter.*
4. You want to move Column B, so enter *B* and press RETURN. The new prompt, *To?*, asks where you want to put the material. Type *F*, for Column F. But isn't Column F already occupied?
5. Press RETURN and see what happens.

```
    :      A      : :      B      : :      C      : :      D      : :      E      : :      F      :
 1: Dept.          Dept-1          Dept-2          Dept-3          Dept-4          Branch
 2: 5              8               3               4               5               1
 3: 1+A2           1+B2            1+C2            1+D2            1+E2            2
 4: A3*.65         B3*.65          C3*.65          D3*.65          E3*.65          3
 5: 11             11              6               7               8               4
 6: 4              4               10              11              12              5
 7: 9              9               13              14              15              6
 8: 6              6               1               2               3               7
 9: 5              7               4               5               6               8
10: SUM(A2:A9)     SUM(B2:B9)      SUM(C2:C9)      SUM(D2:D9)      SUM(E2:E9)      SUM(F2:F9)
11:
12: A2+A2          A2+B2           A2+C2           A2+D2           A2+E2           <A2+F2  >
13:
14:
15:
16:
17:
18:
19:
20:
21:
v F12                          Form = A2+F2
Width: 12   Memory: 71  Last Col/Row:F12      ? for HELP
  1>
```

The column has moved and the formulas have been adjusted. The gap which you might have expected Row C to leave behind has been filled. PeachCalc moved your entries for former columns C through F one column to the left, in effect, vacating Column F and making it available to you. The program has neatly moved all the columns and adjusted all the formulas to reflect the new locations.

The INSERT and DELETE Commands

There are two other complementary commands that can create or delete intermediate columns and rows—*/I* (INSERT) and */D* (DELETE).

Let's insert a new row between rows 9 and 10.

Exercise 1

Type */I*, followed by *R* for "row." Respond to the next prompt by typing *10*, and a "new" row appears.

```
    :      A     : :      B     : :      C     : :      D     : :      E     : :      F     :
 1: Dept.         Dept-1         Dept-2         Dept-3         Dept-4         Branch
 2: 5             8              3              4              5              1
 3: 1+A2          1+B2           1+C2           1+D2           1+E2           2
 4: A3*.65        B3*.65         C3*.65         D3*.65         E3*.65         3
 5: 11            11             6              7              8              4
 6: 4             4              10             11             12             5
 7: 9             9              13             14             15             6
 8: 6             6              1              2              3              7
 9: 5             7              4              5              6              8
10:
11: SUM(A2:A9)    SUM(B2:B9)     SUM(C2:C9)     SUM(D2:D9)     SUM(E2:E9)     SUM(F2:F9)
12:                                                                          <          >
13: A2+A2         A2+B2          A2+C2          A2+D2          A2+E2          A2+F2
14:
15:
16:
17:
18:
19:
20:
21:
v F12
Width: 12   Memory: 71 Last Col/Row:F13      ? for HELP
  1>
```

Look at the formulas in Row 11; they are unchanged. PeachCalc has no way of knowing if you want to include the new row in the SUM equations—you would have to change them yourself.

Note first the range you have specified in the SUM formulas. Now let's insert another row at 7. */I, R, 7.*

2

```
    :      A     : :      B     : :      C     : :      D     : :      E     : :      F     :
 1: Dept.         Dept-1         Dept-2         Dept-3         Dept-4         Branch
 2: 5             8              3              4              5              1
 3: 1+A2          1+B2           1+C2           1+D2           1+E2           2
 4: A3*.65        B3*.65         C3*.65         D3*.65         E3*.65         3
 5: 11            11             6              7              8              4
 6: 4             4              10             11             12             5
 7:
 8: 9             9              13             14             15             6
 9: 6             6              1              2              3              7
10: 5             7              4              5              6              8
11:
12: SUM(A2:A10)   SUM(B2:B10)    SUM(C2:C10)    SUM(D2:D10)    SUM(E2:E10)    <SUM(F2:F10)>
13:
14: A2+A2         A2+B2          A2+C2          A2+D2          A2+E2          A2+F2
15:
16:
17:
18:
19:
20:
21:
v F12                    Form=SUM(F2:F10)
Width: 12   Memory: 71 Last Col/Row:F14      ? for HELP
  1>
```

Look at the SUM formulas in Row 12. They have been adjusted automatically from A2:A9 to A2:A10, because the row you just inserted fell within the range you had described.

3 Now type */D* and *R* (for row). For row number, enter *14* and press RETURN. Row 14 is deleted. If you delete Row 7, will the SUM formulas be adjusted back to A2:A9? Try it and see.

4 Delete a column, and try an experiment as well to find out what happens to a value that depends on one you delete. Enter into block E9 the equation *F2*. E9 will contain whatever value F2 contains. Change the display to show block value.

```
   :      A      : :      B      : :      C      : :      D      : :      E      : :      F      :
 1: Dept.          Dept-1          Dept-2          Dept-3          Dept-4
 2:                     5               8               3               4               5
 3:                     6               9               4               5               6
 4:                   3.9            5.85             2.6            3.25             3.9
 5:                    11              11               6               7               8
 6:                     4               4              10              11              12
 7:                     9               9              13              14              15
 8:                     6               6               1               2               3
 9:                     5               7               4               5 ERROR
10:                                                                    <               >
11:                  49.9           59.85            43.6           51.25 ERROR
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v E10
Width: 12   Memory: 71 Last Col/Row:E12      ? for HELP
  1>
```

5 Now type */D, C, F*, and press RETURN. The column entitled "Branch" has been deleted. E9 displays *ERROR*. PeachCalc has no value to use in calculating the value of E9, and warns you of that with this message. Once a block is in error, any reference to it will display a similar error message. As you see, the SUM value also indicates ERROR.

If block E9 should, in fact, have "F2" in it, you could simply type that formula again, and everything would be set right. Now put a number or F2 into E9, whichever you wish. Notice that the error display in the SUM value also goes away. It is replaced by the recalculated value.

```
     :      A      : :      B      : :      C      : :      D      : :      E      : :      F      :
  1: Dept.          Dept-1          Dept-2          Dept-3          Dept-4
  2:                     5               8               3               4               5
  3:                     6               9               4               5               6
  4:                   3.9            5.85             2.6            3.25             3.9
  5:                    11              11               6               7               8
  6:                     4               4              10              11              12
  7:                     9               9              13              14              15
  8:                     6               6               1               2               3
  9: ERROR          ERROR           ERROR           ERROR           ERROR
 10:                                                                  <               >
 11:
 12:
```

6 If you delete Row 10, will this affect the range specification for the SUM formulas in Row 10? No, because Row 10 is beyond the range. Delete Row 10.

7 What will happen if you delete Row 9? Try it. See, it produced an ERROR in the SUM formula.

The general rule is not to delete either of the boundaries specified in a range like the one in this example, which was SUM(A2:A9). Deleting either A2 or A9 will cause an ERROR condition because PeachCalc cannot guess your exact intentions. These warnings help you avoid inadvertently leaving references to nonexistent blocks after a DELETE command. Change the display to show formulas.

```
     :      A      : :      B      : :      C      : :      D      : :      E      : :      F      :
  1: Dept.          Dept-1          Dept-2          Dept-3          Dept-4
  2: Variable A      5               8               3               4               5
  3: Formula 1       1+B2            1+C2            1+D2            1+E2            1+F2
  4: Formula 2       B3*.65          C3*.65          D3*.65          E3*.65          F3*.65
  5: Variable B      11              11              6               7               8
  6: Variable C      4               4               10              11              12
  7: Total           SUM(B2:B6)      SUM(C2:C6)      SUM(D2:D6)      SUM(E2:E6)      SUM(F2:F6)
  :  <               >
  9:
 10:
```

8 Use the BLANK command to blank out the blocks from A7 to E9. Now re-enter *SUM(A2:A6)* in A7, and then use REPEAT to place it in blocks B7 through E7.

9 Use the */I* (INSERT) command to create a new column at A for labels.

10 Now enter *Variable A* in block A2, *Formula 1* and *Formula 2* in A3 and A4, respectively. Enter *Variable B* and *Variable C* in A5 and A6 and *Total* in A7.

11 At this point, use */S* to save your work. This time, call it LESSON5. It will be used later.

Titles and Ledger Lines

Now that you have saved that worksheet, let's try something new. You should start with a fresh worksheet, so use the ZAP command. As you have seen, doing insertions and deletions at the boundaries of specified ranges creates problems. But because you will often want to add or delete from lists—including, naturally, the beginning or end of the list—here is a suggestion for doing so properly.

Exercise

1 At B1, type *TITLE*. From B2 through B4, enter some numbers. At B5, type "-------. At B6, enter *SUM(B1:B5)*. Notice that the range specification includes the title line and the ledger line. This is all right, because in a mathematical sense "text" has a value of zero.

2 Now you may INSERT or DELETE at will. Type */I, R, 5*, and add a new number. Now DELETE Row 2. You are now able to add or remove entries without concerning yourself about the top and bottom of the column.

```
   :  A  : :  B  ::  C  : :  D  : :  E  : :  F  : :  G  :
1:          Title
2:           3
3:           4
4:           5
5:           --------
6:          SUM(B1:B5)
7:          <       >
8:
```

Here is an easy way to put lines of repeating characters like the "------" you entered in block B5. PeachCalc has a function to repeat text.

3 Go back to block B5, enter '-, and press RETURN. The single quote (') causes the display of "-" to be repeated to fill the block display and to continue displaying to the right until it meets an occupied block. Not bad for three keystrokes. Take a look at the contents of block B5. As you see, they contain what you typed in.

4 Experiment with this one a bit. Find some open space and try:
'123 and RETURN.
'abcd and RETURN.
'* and RETURN.
' * and RETURN.

"Not Available" Flags

Sometimes you may be working on a complex worksheet containing many values that are functions of other values. Because your data may be incomplete, you could mistakenly view some totals or values as significant, when in fact they are not yet complete.

Here is what you can do in such cases:

Exercise

Using the example you started above, type *NA* into block B3. This tells PeachCalc that you intend to put a value here at some future time so the value of the block should be con-

sidered as "Not Available" rather than zero. As soon as you enter *NA*, block B6 is also flagged as NA.

NA and ERROR behave identically; the difference is the display: *NA* or *ERROR*. By using NA, you inform yourself of the consequences of any incompleteness or oversights.

You may either QUIT here or continue on to Lesson Six.

```
   :  A  : :  B  ::  C  : :  D  : :  E  : :  F  : :  G  :
 1:          Title
 2:           3
 3:          NA
 4:           5
 5:           --------
 6:          NA
 7:          <      >
 8:
 9:
```

Review

What have you learned in this lesson? You know:

- How to use the MOVE, INSERT and DELETE commands (*/M, /I, /D*).
- That those commands automatically adjust your formulas to fit the new worksheet.
- That if you delete blocks which are referred to by formulas elsewhere, you get error messages. You learned how to fix that error.
- How to use ' to repeat the display of one or more characters.
- How to use *NA* to make sure that you do not forget to enter important information.

You have already learned most of the basic skills needed to use PeachCalc. You may remember that when you learned the FORMAT command, */F*, in Lesson Three, you used it to change the display width of all the worksheet, but the prompt line indicated that there were other options available to you with this command. In this lesson, we want to examine these options more closely.

You will use the worksheet that you have been developing in previous lessons. It is the one you saved under the name LESSON5 in the last lesson. If you are continuing directly on from Lesson 5, use */Z* now, so that you will have a fresh start. Otherwise, bring up the PeachCalc program.

Now LOAD the file LESSON5.

Integer Format

Look at your worksheet. Is it displaying formulas? You will want to look at block values, not formulas, in this example. Use the GLOBAL options command, */G*, if you need to change to a values display.

Exercise

1 Look at Column B. If it does not contain a decimal fraction (for example, 6.4), enter one.

2 Type */F*, and note the prompt line: *G(lobal), C(olumn), R(ow) or E(ntry)*. This means you can specify whether the format change will affect all blocks, a column only, a row only, a block or a range of blocks.

3 Enter *C* for column. The prompt line now asks what column you want to change. Enter the column letter, in this case *B*. Press RETURN.

Now the prompt tells you *Define Formats: (I, G, E, $, R, L, TR, TL, *, D, column width).*

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5	8	3	4	5
3:	Formula 1	6	9	4	5	6
4:	Formula 2	3.9	5.85	2.6	3.25	3.9
5:	Variable B	11	11	6	7	8
6:	Variable C	4	4	10	11	12
7:	Total	29.9	37.85	25.6	30.25	34.9
8:	< >					
9:						
10:						

4 Enter *I*, for Integer format. Press RETURN. Look at the entries on the display and see what happened to the value in Column B—and to any other decimal fractions you might have had on your worksheet. Only the integer portion of the value is displayed. Integer format will round values to the nearest whole number.

Until now, you have used only PeachCalc's standard or "default" display format—the General format—to display numbers. You have seen that, in general format, numbers too large to display in ordinary notation are converted to scientific or exponential notation. In integer format, numbers too large to display will appear as a series of >>>>'s at the block loca-

tion. (In fact, whatever the format, >>>>'s will be displayed whenever a number cannot be shown. PeachCalc will round off as necessary, even if it can only display one significant digit, the E and the exponent.)

5
6 Enter *123456789* in block B5.
Now reduce the display width to 8. Do you remember how? */F, G, 8*. Notice the >>>>. Now change the column width back to 12.

	A	B	C	D	E	F	G	H
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4		
2:	Variable	5	8	3	4	5		
3:	Formula	6	9	4	5	6		
4:	Formula	4	5.85	2.6	3.25	3.9		
5:	Variable	>>>>>>>	11	6	7	8		
6:	Variable	4	4	10	11	12		
7:	Total	>>>>>>>	37.85	25.6	30.25	34.9		
8:		< >						
9:								

7 Again, enter */F, C, B*, RETURN. This time specify *G*, for general format. Notice that the decimal fractions have been restored.

Exercise 1

For scientific or exponential notation, enter */F, C, B*, RETURN, *E*, RETURN. This format displays numbers as a power of 10. For example, 1776 is 1.776E3, or 1.776×10^3; 1,000,000 is 1.0E6, or 1.0×10^6.

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5e0	8	3	4	5
3:	Formula 1	6e0	9	4	5	6
4:	Formula 2	3.9e0	5.85	2.6	3.25	3.9
5:	Variable B	1.2345679e8	11	6	7	8
6:	Variable C	4e0	4	10	11	12
7:	Total	1.2345681e8	37.85	25.6	30.25	34.9
8:		< >				
9:						

2 Look at your worksheet. As you can see, PeachCalc converted all the data to this format. If it does not look familiar, you may wish to experiment.

3 Enter some ordinary numbers in column B and watch how they are displayed.

The Dollar ($) Format

The dollar ($) format option may be more familiar to you.

Exercise 1

Enter */F, G, $*, RETURN. The dollars and cents format is displayed. Numbers are rounded to the nearest cent. (PeachCalc adds the ".00" to whole numbers but does not insert a "$".)

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5e0	8.00	3.00	4.00	5.00
3:	Formula 1	6e0	9.00	4.00	5.00	6.00
4:	Formula 2	3.9e0	5.85	2.60	3.25	3.90
5:	Variable B	1.2345679e8	11.00	6.00	7.00	8.00
6:	Variable C	4e0	4.00	10.00	11.00	12.00
7:	Total	1.2345681e8	37.85	25.60	30.25	34.90
8:		<	>			
9:						

Individual and Global Format Changes

Let's change the format for a single block.

Exercise

1. Move the worksheet cursor to C6, making that the Active Block.
2. Enter */F, E*. Notice that the prompt line reads *Enter range*. You could specify a range of blocks—that is, a partial row or a partial column—at this point. Or you could specify a single block.
3. Let's change the format of C6, the Active Block. Of course, you could type *C6* on the entry line. Instead, press "," or RETURN and see what happens.

   PeachCalc automatically added C6, the Active Block, to the entry line.
4. Now enter *E* for Exponent and press RETURN. Note the change on the worksheet.

   Suppose you wished to convert the entire display back to the "general" format. Could you make a global change? Try it.
5. Enter */F, G, G*, RETURN.

   Everything has changed except those blocks where you have changed formats. Why? PeachCalc will change all the formats when *Global* is indicated—except those that you have named by the column, row or entry options.

What can you do so that "global" changes will include any column, row or block that was formatted individually? Column B, for example? If you said it would be necessary to "undo" the individual format, you were right.

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5e0	8	3	4	5
3:	Formula 1	6e0	9	4	5	6
4:	Formula 2	3.9e0	5.85	2.6	3.25	3.9
5:	Variable B	1.2345679e8	11	6	7	8
6:	Variable C	4e0	4e0	10	11	12
7:	Total	1.2345681e8	37.85	25.6	30.25	34.9
8:			<	>		
9:						

6 Position the Active Block to Column B. Enter */F, C*, RETURN. Now enter *D*, for default, and press RETURN. Notice that Column B has changed to general format.

When a format setting that refers to a column or row is defaulted, it changes back to whatever format operates on the next level. An entry level format, entered as a block or a range of blocks, is the "highest" level. The next levels, in order, are row, column and, finally, the global format. In this case, the column defaulted to the existing global format because there was no intervening row format.

7 See if you can "default" the format on C6.

Right and Left Justification

Exercise

1 Enter */F, R, 1*, RETURN. You will see the options *". . . R, L, TR, TL. . ."* on the prompt line. They let us change the setting to left or right justification. Standard or "default" values are left-justified text and right-justified numbers. Let's shift the text on Row 1 so that all text entries are right-justified. *TR* stands for "Text Right."

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5e0	8	3	4	5
3:	Formula 1	6e0	9	4	5	6
4:	Formula 2	3.9e0	5.85	2.6	3.25	3.9
5:	Variable B	1.2345679e8	11	6	7	8
6:	Variable C	4e0	4e0	10	11	12
7:	Total	2.99e1	37.85	25.6	30.25	34.9
8:			<	>		
9:						

Now try another one.

2 Enter */F, G, L*, RETURN. All numbers will now be justified to the left.

	A	B	C	D	E	F
1:		Dept.	Dept-1	Dept-2	Dept-3	Dept-4
2:	Variable A	5.00	8.00	3.00	4.00	5.00
3:	Formula 1	6.00	9.00	4.00	5.00	6.00
4:	Formula 2	3.90	5.85	2.60	3.25	3.90
5:	Variable B	>>>>>>>>>>>	11.00	6.00	7.00	8.00
6:	Variable C	4.00	4e0	10.00	11.00	12.00
7:	Total	>>>>>>>>>>>	37.85	25.60	30.25	34.90
8:		<	>			
9:						

Format entries may be entered in combination; for example, */F, /G, /R, $*. Try this one, and you will see the numbers right-justified in dollars and cents format.

Graphic Display

There is one more format option to try—"graphic" display.

1 Place the Active Block at C2. Enter =, RETURN to put C2 at

the upper left of the screen. Enter */F, G*. Enter * to specify graphic format. You will also need some display space, so enter 75 as the column width. Press RETURN.

If your values in Column C are less than 75, you will see them represented by bar graphs composed of asterisks. Values greater than 75 will fill the column and the screen width; you cannot tell if they are 75 or larger. But it is possible to make the column display wider than the screen. The screen is 75 characters wide. You can use a column width up to 126. Then you can scroll back and forth to see the whole line. You might like to try doing this with Column C.

```
   :                                C                                :
2: <********                                                        >
3: *********
4: *****
5: ***********
6: ****
7: ************************************
8:
9:
```

2

Try putting values between 75 and 126 into the column and scrolling to see their display.

This was a very brief look at the graphic format option. In practice, you will want to make the graphic display fit within a column width of convenient size and still give a comparison of values. In Lesson Eight, you will find out how to do this by "scaling" the values in order to fit them within the column.

There is no need to save your work from this lesson, but remember you will use the file LESSON5 again, so do not overwrite it.

Now you may either QUIT or continue on to Lesson Seven.

Review

What have you learned in this lesson? You know:
- That formats can be entered globally or by column, row or block (including a range of blocks).
- The Integer, General, Exponential and $ formats of display.
- How to change individual column widths.
- How to default formats.
- How to alter justification for text or numbers.
- How to transform numerical values into graphic display.

Title Lock and Window (Split Screen) — Lesson 7

You now know enough now about PeachCalc and its many commands to put it to practical use. You have used the different format options. This lesson adds two more commands to your store of tools.

One of them, TITLE LOCK, is useful if you want to keep a portion of the worksheet locked in place while you scroll the rest of the screen. Although it is called "title lock" because locking titles can be especially useful, any part of the screen can be locked. The other command, WINDOW, lets you "split" your screen and look at different parts of a worksheet at the same time. Let's try them now.

Title Lock

Start the PeachCalc program if it is not already running. Or, if you are continuing directly from Lesson Six, ZAP the screen so you will have a fresh worksheet.

Exercise

1 Now load the file you saved under the name LESSON5. What can title lock do for you? Place the Active Block at A1. Enter */T*. The prompt line asks *H(oriz), V(ert), B(oth), or C(lear)?* PeachCalc wants to know which titles you want locked in place.

2 Press *V*, for vertical titles.

Now scroll the screen to the right. You will see that the titles at the left of the screen are "locked" in place, while the rest of the screen scrolls as usual. The position of the Active Block when you enter the *T* command determines how much of the screen will be locked in place.

3 Use the *H* option to lock the top row of titles in place. Move the worksheet cursor down the screen and watch the information scroll up while the Row 1 titles stay in place. Now, go back to A1 by using the = command.

4 Now clear the locked row. Enter */T*. Then enter *C*, for "Clear." You are telling PeachCalc that you do not want anything locked. Use the */I* command to insert a new Row 1 for an additional title. At C1, enter *Sample Worksheet*.

5 This time, lock both the horizontal and vertical titles with one command. Position the Active Block at A2. Enter */T*, then *B*, for "Both." This locks Column A and rows 1 and 2.

6 Move the worksheet cursor down and to the right to make the display scroll both up and to the left. Note that rows 1 and 2 and Column A stay in place.

Window: Split Screen (Vertical)

What if you want to look at two widely separated areas of a worksheet at the same time? The WINDOW command will help you do this. You will use one of the sample worksheets on the PeachCalc program disk to demonstrate WINDOW, but you will need a new worksheet.

Use the ZAP command to clear everything, then load the sample worksheet.

Exercise

1 Use */L* and enter the file name BALANCE. BALANCE is a sample PeachCalc worksheet. You will study it more closely later. For now, just scroll to Column N and notice that we

have columns representing months and a total column for the year.

```
     :          A          : :  B  : :  C  :     :  D  : :  E  : :  F  :
 1:  This is a Sample PeachCalc Worksheet      1:
 2:                                            2:  <     >
 3:                          Jan      Feb      3:     Mar      Apr      May
 4:  ASSETS                                    4:
 5:  Acct.s Receivable     1000.00  1050.00     5:  1102.50  1157.63  1215.51
 6:  Inventory              300.00   500.00     6:   525.00   551.25   578.81
 7:  Other Assets           250.00   262.50     7:    65.63   289.41   303.88
 8:  ------------------------------------      8:  ------------------------------
 9:  Total Assets          1550.00  1812.50     9:  1693.13  1998.28  2098.20
10:                                           10:
11:  LIABILITIES                              11:
12:  Acct.s Payable       1000.00   916.67     12:   840.28   770.25   706.07
13:  Accrued Storage Cost   50.00    50.00     13:    50.00    50.00    50.00
14:  Accrued Salaries      100.00   105.00     14:   110.25   115.76   121.55
15:  Accrued Other          50.00    52.50     15:    55.13    57.88    60.78
16:  ------------------------------------      16:  ------------------------------
17:  Total Liabilities    1200.00  1124.17     17:  1055.65   993.90   938.39
18:                                           18:
19:  EBT                   350.00   688.33     19:   637.47  1004.38  1159.80
20:  Dep. Allowance        100.00   100.00     20:   100.00   100.00   100.00
21:  Taxable Income        250.00   588.33     21:   537.47   904.38  1059.80
^ D2
Width: 9   Memory: 66 Last Col/Row:O25      ? for HELP
  1>
```

2 Go back to A1 and scroll down to Row 25 to see "Net Income." Go back to A2. Now move the Active Block to Column D. This will designate the place to "split" the screen.

3 Type */W*, for window. The prompt reads *H(oriz), V(ert), C(lear Split), S(ynch), or U(nsynch)?* You are going to split the screen vertically into two separate display windows, so enter *V.*

Window: Split Screen (Horizontal)

Instead of splitting the screen into a right and a left half, you could split it horizontally. In fact, you can do this without having to return to a single window display.

Exercise 1

First, clear the previous split. Enter */W* and then *C* for "Clear split." Then set the Active Block at the point at which you wish to split the screen horizontally. For this example, move the Active Block to Row 15 and then enter */W, H.*

```
   :          A          : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  :
 1: This is a Sample PeachCalc Worksheet
 2: <                      >
 3:                              Jan      Feb      Mar      Apr      May      Jun
 4: ASSETS
 5: Acct.s Receivable        1000.00  1050.00  1102.50  1157.63  1215.51  1276.28
 6: Inventory                 300.00   500.00   525.00   551.25   578.81   607.75
 7: Other Assets              250.00   262.50    65.63   289.41   303.88   319.07
 8:  ---------------------------------------------------------------------------
 9: Total Assets             1550.00  1812.50  1693.13  1998.28  2098.20  2203.11
10:
11: LIABILITIES
12: Acct.s Payable           1000.00   916.67   840.28   770.25   706.07   647.23
13: Accrued Storage Cost       50.00    50.00    50.00    50.00    50.00    50.00
14: Accrued Salaries          100.00   105.00   110.25   115.76   121.55   127.63
   :          A          : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  :
15: Accrued Other              50.00    52.50    55.13    57.88    60.78    63.81
16:  ---------------------------------------------------------------------------
17: Total Liabilities       1200.00  1124.17  1055.65   993.90   938.39   888.67
18:
19: EBT                      350.00   688.33   637.47  1004.38  1159.80  1314.43
20: Dep. Allowance           100.00   100.00   100.00   100.00   100.00   100.00
^ A2              P Text = ''
Width: 20   Memory: 66 Last Col/Row:O25      ? for HELP
  1>
```

2 Press ";" to move to the lower screen and scroll down to see "Net Income." Press ";", then move the cursor to B5 and change the value. Watch as recalculation takes place. Within moments, you will see the net income change in the lower window.

3 Now clear the horizontal split.

Synchronized Split-Screen Scrolling

The *S* option tells PeachCalc to scroll both windows in a "synchronized" fashion; that is, to scroll simultaneously. Try it now.

Exercise

1 Split the screen vertically at D again, but now enter */W, S*. Now scroll the displays together. To "unsynchronize" the displays so that only one window will scroll at a time, enter */W, U*.

Note that now, starting at Column D, there is a second set of row numbers. This is the left-hand border of the new display. You should realize that the worksheet itself has not been split. You have simply created two display windows through which to view it. Either window may now be scrolled independently.

2 Scroll the display and notice that the right-hand window remains still.

3 Now press the ";" key. This will transfer you to the "other" window. Regardless of which window you are working in at a given moment, the ";" key will move you over to the other.

Using Split Screens

With split screen in effect, each window has its own "global" identity for both the GLOBAL options and FORMAT commands. For instance, you could specify formula display in one window and block value display in the other. Similarly, you could use FORMAT to specify General format in one window and Integer in the other. You could even look at the same data, if you wished, in two different formats at once.

Exercise 1

Enter */W, U*. Scroll both displays to show January through April. Now change to display formulas for one side of the screen. Enter */W, S*. Now you can scroll through the data in one window and compare it to the formulas as you go.

```
   :  B  :  C  :  D  :  E  :
 1: chCalc Worksheet
 2: <     >
 3:      Jan      Feb      Mar      Apr
 4:
 5: 1000.00  1050.00  1102.50  1157.63
 6:  300.00   500.00   525.00   551.25
 7:  250.00   262.50    65.63   289.41
 8: ---------------------------------
 9: 1550.00  1812.50  1693.13  1998.28
10:
11:
12: 1000.00   916.67   840.28   770.25
13:   50.00    50.00    50.00    50.00
14:  100.00   105.00   110.25   115.76
15:   50.00    52.50    55.13    57.88
16: ---------------------------------
17: 1200.00  1124.17  1055.65   993.90
18:
19:  350.00   688.33   637.47  1004.38
20:  100.00   100.00   100.00   100.00
21:  250.00   588.33   537.47   904.38
< B2
Width: 9   Memory: 66 Last Col/Row:O25     ? for HELP
  1>
```

```
   :  B  :  C  :  D  :
 1: chCalc Worksheet
 2:
 3:      Jan      Feb      Mar
 4:
 5:     1000  1.05*B5  1.05*C5
 6:      300   0.5*B5   0.5*C5
 7: 0.25*B5  0.25*C5  0.25*C7
 8: ---------------------------
 9: UM(B5:B7) UM(C5:C7) UM(D5:D7)
10:
11:
12:          1000-(B12/12)-(C12/12)
13:       50       50       50
14:      100  1.05*B14  1.05*C14
15:       50  1.05*B15  1.05*C15
16: ---------------------------
17: (B12:B15) (C12:C15) (D12:D15)
18:
19:    B9-B17   C9-C17   D9-D17
20:  1200/12  1200/12  1200/12
21: B19-B20  C19-C20  D19-D20
```

2

SAVE this split worksheet.

The WINDOW and TITLE LOCK affect the way your worksheet is displayed. The effect is temporary and can always be reversed. When you SAVE your worksheet to a disk, the TITLE LOCK and "split screen" information is included. When you load your work back to the screen, it will look exactly as it did before.

If you want to take a break now, use QUIT to exit from PeachCalc.

Review

What have you learned in this lesson? You know:

- How to lock any number of rows or columns in place so that they will remain in place while the rest of the screen scrolls.
- How to split the screen, either horizontally or vertically, into two windows and how to move back and forth from one window to the other.
- How to synchronize the windows.
- That you can specify different GLOBAL display options (block values or formulas) and global-level FORMAT options for each window.

Graphic Format and Recalculation

Lesson 8

In this lesson, we will look more closely at some of the options available with two of PeachCalc's most powerful commands, FORMAT and GLOBAL. By now you have enough experience to appreciate what they can do for you. You will need to start with a fresh screen, so use ZAP if you are continuing directly from Lesson Seven.

We touched briefly on graphic representation of data in Lesson Six and promised that you would learn more about it. Now it's time to work a bit with it, so that you will feel confident to try it with your own data.

Graphic Format

Exercise 1

Enter some numbers in Column A, from Row 1 to Row 20; use numbers between 1 and 50.

2 Enter */F, C, A*, RETURN, **, 50*, RETURN.

You have done two things—you have changed to graphic display, and you have increased the width of Column A to 50 in order to accommodate the largest number.

3 Suppose you wish to have the number itself display as well. Try this: enter */F, C, A*, RETURN, *D*, RETURN. Enter */G, F* to show formulas. Enter at B1 the "formula" *A1*. Enter */R, B1, B2:B20.*

4 Enter */F, C, B*, RETURN, **, 50*. Enter */G, F.*

```
   :   A   :   B   :   C   :   D   :   E   :   F   :   G   :   H   :
 1: 45        <A1   >
 2: 3         A2
 3: 12        A3
 4: 50        A4
 5: 23        A5
 6: 13        A6
 7: 8         A7
 8: 31        A8
 9: 29        A9
10: 6         A10
11: 43        A11
12: 21        A12
13: 9         A13
14: 17        A14
15: 25        A15
16: 36        A16
17: 48        A17
18: 23        A18
19: 7         A19
20: 41        A20
21:
^ B1          Form = A1
Width: 9   Memory: 72 Last Col/Row:B20      ? for HELP
  1>
```

Now you have a one-for-one graphic display. But what if the values you wish to display are as large as 600 or 1000? Put a "scaling" formula into Column B so the largest value will be equal to the column width. You may remember from Lesson Six that you can make Column B longer—up to 126 characters—but it would be difficult to view beyond the screen width, so you may as well leave it at 50 characters.

If you divide any value in Column A by the maximum value within the sample from A1 to A20, the result will express its

size (relative to the maximum). And since the maximum, whatever it is, will be represented by 50 characters (*) of display, you can multiply the size by 50 to determine its "scaled" value.

Now you have an opportunity to use another built-in function: MAX. The value of MAX will be the largest value within the specified range or list. You will use MAX to scale the graphic displays so that they are relative to the maximum value. The formula is: A1*50/MAX(A1:A20).

5 Enter */G, F*. Enter *A1*50/MAX(A1:A20)* at B1. Now you will use one of the REPEAT options. Enter */R, B1, B2:B20* and the , for options. Enter *A*, for "A(sk for Adjust)". Respond *Y* for "yes" for the first A1, then *N* for "no" for the other two values in the formula.

6 If you would like to see what these formulas look like, use */G, F*. Your formulas should look like the illustration.

```
      :    A    : :                     B                        :
  1:         45 <*********************************************>
  2:          3 ***
  3:         12 ************
  4:         50 **************************************************
  5:         23 ***********************
  6:         13 *************
  7:          8 ********
  8:         31 *******************************
  9:         29 *****************************
 10:          6 ******
 11:         43 *******************************************
 12:         21 *********************
 13:          9 *********
 14:         17 *****************
 15:         25 *************************
 16:         36 ************************************
 17:         48 ************************************************
 18:         23 ***********************
 19:          7 *******
 20:         41 *****************************************
 21:
^ B1         Form = A1
Width: 50   Memory: 71 Last Col/Row:B20     ? for HELP
  1>
```

7 Enter */G, F* to return to the graphic display. The graph looks the same, but now change the value in any block to *75*. Notice that all the other lines are "scaled" relative to 75. Enter *150*.

You may wish to save this example for your own use later. Use SAVE and call the file GRAPH or something easy to remember.

```
     :    A    : :                          B                              :
  1: 45          <A1*50/MAX(A1:A20)                                        >
  2: 3           A2*50/MAX(A1:A20)
  3: 12          A3*50/MAX(A1:A20)
  4: 50          A4*50/MAX(A1:A20)
  5: 23          A5*50/MAX(A1:A20)
  6: 13          A6*50/MAX(A1:A20)
  7: 8           A7*50/MAX(A1:A20)
  8: 31          A8*50/MAX(A1:A20)
  9: 29          A9*50/MAX(A1:A20)
 10: 6           A10*50/MAX(A1:A20)
 11: 43          A11*50/MAX(A1:A20)
 12: 21          A12*50/MAX(A1:A20)
 13: 9           A13*50/MAX(A1:A20)
 14: 17          A14*50/MAX(A1:A20)
 15: 25          A15*50/MAX(A1:A20)
 16: 36          A16*50/MAX(A1:A20)
 17: 48          A17*50/MAX(A1:A20)
 18: 23          A18*50/MAX(A1:A20)
 19: 7           A19*50/MAX(A1:A20)
 20: 41          A20*50/MAX(A1:A20)
 21:
^ B1             Form = A1*50/MAX(A1:A20)
Width: 50   Memory: 71 Last Col/Row:B20      ? for HELP
  1>
```

Next you will change the formula to scale from the maximum to the minimum value in A1 through A20.

Exercise 1

Go to B1 and use EDIT. You will insert new information into the formulas: *A1-MIN(A1:A20)*50/MAX(A2:A20)*.

Move the cursor to the left and put in (, then move right to the * and insert 13 spaces. Then, replace the blanks with *-MIN(A1:A20))*.

2

Repeat it for A2 through A20, using the ASK option. Be careful to adjust only the first block reference in the formula. Enter */G, F*. Notice how the results of this formula differ from those of the first formula. Try different values to test and verify your work.

Recalculation Option

If you enter a new value in Column A, notice that the program takes a bit of time to go through all the necessary recalculation of formulas. It may take even longer with a larger worksheet, because PeachCalc recalculates each time you enter a new value.

This is the way to suspend that automatic recalculation.

Exercise 1

Enter */G, M* (for manual). Now try entering new numbers for the graph.

As you can see, the time required for their entry is greatly reduced. This is fine, but what does "manual" recalculation mean? Certainly, you don't do it yourself with pencil and paper. How can you get PeachCalc to do it? By now you have used almost every option offered. You may have wondered just what the "!" is for.

Besides its usual exclamatory function in text, "!" has a very special meaning in PeachCalc: pressing "!" forces a

recalculation.

2 Press */*.

Manual mode allows you to make periodic recalculations at your convenience. When you wish to re-establish automatic recalculation, enter */G, A* for "automatic."

Order of Recalculation

When the PeachCalc program recalculates, it does so in a certain order. You can change that order. Usually, the order of calculation will not affect the results of your recalculations, and you can ignore it. But there are times when it can make a crucial difference. Let's explore this problem.

First, use ZAP to get a fresh worksheet.

Exercise 1

Enter *4* into block A1, *6* into A2 and *SUM(A1:A2)* in A3. Now enter *A3* into B1. Look at the values. Everything seems fine. A3 and B1 both display 10. Now change the value in A1 to *3*.

```
   :  A  : :  B  : :  C  : :  D  : :  E  : :  F  : :  G  : :  H  :
 1:       4        10
 2:       6 <      >
 3:      10
 4:
 5:
 6:
 7:
 8:
 9:
10:
11:
12:
13:
14:
15:
16:
17:
18:
19:
20:
21:
v B2
Width: 9   Memory: 72 Last Col/Row:B3      ? for HELP
 1>
```

Observe that B1 does not yet contain the 9, which is the new result in A3. Why?

PeachCalc recalculates row by row. First Row 1, then Row 2, then Row 3 and so on. Obviously, A3 was still 10 when B1 referenced its value during recalculation.

2 Now enter */G*. The prompt line now says *F(orm), N(ext), B(order), T(ab), R(ow), C(ol), M(an), A(uto)?*

3 You have just determined that, in this example, recalculation should proceed column by column, so let's enter *C*. This will change the order of recalculation.

4 Enter *5* in A1. And now everything seems to work, because PeachCalc is proceeding down columns as it recalculates. Both A3 and B1 display 11.

```
   :   A   : :   B   : :   C   : :   D   : :   E   : :   F   : :   G   : :   H   :
1:           5           11
2:           6
3:          11
4: <         >
5:
6:
7:
```

It is possible to create a situation where neither order of calculation can give you current values in all blocks.

Here is an example. First, ZAP the worksheet.

Exercise

1 Enter *5* in block A1. In C1, enter *A1*. In A3, enter *A1*. Now GOTO B2 and enter *C1+A3*. You can see a problem coming up, can't you? Of course, at the moment all looks fine—C1 and A3 display 5, B2 displays 10. Now GOTO A1 and enter *4*.

Blocks C1 and A3 display 4, which is correct. But B2 has 9. When it was calculated, one of the blocks was 4, the other was 5.

2 Change the order and try again. */G, C*. Then enter *6* in A1. C1 and A3 show 6, but B2 shows 10. When it was calculated, one block had 6 and the other had the leftover 4.

3 Press */*. Now B2 has 12, the correct value. You have forced a second recalculation and have the correct value.

```
   :   A   : :   B   : :   C   : :   D   : :   E   : :   F   : :   G   : :   H   :
1: <         >           6
2:                  12
3:           6
4:
5:
6:
7:
```

Avoiding Forward References

This example is unrealistic and improbable. Still, you should be aware that it is possible to create situations involving out-of-order references, which give misleading values. In a case like this one, you can press */* and cause a second recalculation, which gives the correct values. (You see that you can use "!" in automatic mode as well as in manual mode. Generally, of course, you don't need to).

Cases of out-of-order references like this one are called "forward" references, because the reference is "forward" to a value not yet recalculated. They can occur in actual worksheets, perhaps because a worksheet is especially complex or because it has been amended or changed in ways very different from its original design.

A real-life example of forward reference might happen like this: You build a worksheet with a table of expenditures by category (columns) and locations (row). You SUM the rows and columns to get totals. Everything works fine. Later, you add a table comparing various category and location totals. Everything still works fine, because you know where the second table should be. Then, someone else adds new material to the worksheet, and moves one of your tables to a new location. Now the comparison table shows incorrect values, but they might seem reasonable.

One way to check for such cases is to press "!" and see if any value changes. If so, it is time to redo the worksheet.

Avoiding Circular References

The "circular" reference is another case you will certainly want to avoid. Here is an example:

Exercise 1

First ZAP the worksheet. In block A1, enter *1+B1*. It shows as 1, since there is nothing in B1. In block B1, enter *1+A1*. Suddenly you have 3 and 4. Got the idea? Press *!* a few times, and watch the values increase. They will never stop changing, because there is no logical place to stop calculating.

You might like to experiment by making up some forward or circular references and trying them out. Then you can QUIT—or you can ZAP these crazy formulas and go on to the next lesson.

Review

What have you learned in this lesson? You know:

- How to make practical use of the * format option for the graphic display of data by scaling values to fit the display width.
- The difference between the "manual" calculation option and automatic recalculation.
- That the ! key causes a recalculation to occur when you press it.
- What order of calculation means, and how to change it by using the GLOBAL options command.
- What a forward reference is and how to use ! to get the correct value for such a case.
- What a circular reference is, and that there is no correct value for such a case.

Output

Lesson 9

You have worked with all but one of the PeachCalc commands and have no doubt come to appreciate the power and flexibility of PeachCalc and its electronic worksheets.

But so far you can't photocopy those worksheets, put them in a binder or have them reformatted later into some special report layout. In this lesson, we will discuss the OUTPUT command, which makes those things possible.

The OUTPUT command will make a copy of a worksheet and send that copy to any of three places, depending on your specification. You can send the "output"—that is, the copy of all or part of the worksheet—to the computer system's printer, which will print it immediately. Or you can send it to the "console" (the terminal), where it will temporarily replace the usual PeachCalc display. Or you can send the output to a disk drive; in this case, the output will be "saved" or "stored" as a special sort of disk file, different from the ones you have created in the past with the SAVE command.

The OUTPUT Command

Let's try this new command now. Be sure you have a fresh worksheet. Start up the PeachCalc program, or use ZAP to clear the screen. If you do not have a printer, skip the part of this lesson which covers the option to print your output.

Exercise 1

LOAD the file you created in Lesson Five. You may have made some practice files of your own. This is the one you stored as LESSON5.

2 Type the */O* command. Now the prompt line reads *D(isplay) or C(ontents) report?*.

Display means the output will reproduce exactly what you see on the screen. Try that first.

```
18:
19:
20:
21:
v A8
D(isplay) or C(ontents) report?
  9>/Output,
```

3 Enter the *D* option.

4 You see that the prompt line requests the range of the material you want as output. Specify the range as usual. In this case, enter *A1:F8*, which describes the whole worksheet. Press RETURN. The prompt now says *Enter Device: P(rinter), S(etup), C(onsole), or D(isk)*.

5 Enter *C*, to list the report to the screen. This can be used to check your output before printing it. By the way, if you have several pages of output, PeachCalc shows them to you one at a time.

6 Press any key to return to the PeachCalc display.

Now let's send part of the worksheet to the printer. You will

use a range specification that is a little different from the one used before. (If you don't have a printer connected to your system now, skip to the next example.)

7 Be sure that your printer is turned on. Now enter */O, D, A1:D8*, RETURN and enter *P* for printer.

8 So far, all our examples have used the "D" or display option. What will happen if we choose "C" for contents output? Try it—type *O, C* and specify *A1:D7* for the range. Enter *P.* (If you don't have a printer, specify *C* for console and see the contents displayed on your screen.

```
PeachCalc ver. 2.01

B1          = "Dept.
C1          = "Dept-1
D1          = "Dept-2
A2          = "Variable A
B2          = 5
C2          = 8
D2          = 3
A3          = "Formula 1
B3          = 1+B2
C3          = 1+C2
D3          = 1+D2
A4          = "Formula 2
B4          = B3*.65
C4          = C3*.65
D4          = D3*.65
A5          = "Variable B
B5          = 11
More . . .  ('return' to continue or CTRL-Z to stop).
```

The contents report gives you a list of block contents. The contents may be quite different from what you see on the worksheet, because of display formatting. You are familiar with the idea of block contents, because the contents of the Active Block regularly display on the status line.

Outputting to Disk

There is one other option, "D" for disk. In some ways, it is similar to the SAVE command. It also copies the screen to a disk, but the resulting disk file is different. You cannot use the LOAD command and reload an OUTPUT file to the PeachCalc program. The files created with this OUTPUT option automatically receive a special file name extension ".PRN."

PRN files can be very useful. Other system programs can print or edit these files. Therefore, you can make copies of your worksheet information to be printed later. Then you, or someone else, can use an editor program such as PeachText to add information and notes or to reformat the reports. You can include your worksheets inside some other report that is being edited. These edited reports can then be printed.

Review

What have you learned in this lesson?

- How to send output to the printer, console, or disk.
- The difference between "display" and "contents" reports, and how to specify either one.

- That these reports, when sent to the disk, can be edited and printed later by other programs.

A Projected Balance Sheet

Lesson 10

An Overview of Three PeachCalc Examples

The next three lessons present simplified but realistic sample PeachCalc worksheets. The worksheet files are on your PeachCalc disk. They let you see how the things that you have learned as separate PeachCalc capabilities can be combined in useful ways.

By now, you know enough about PeachCalc to be able to use it without step-by-step instructions. With these example lessons, we will give you some general guidance and let you put what you have learned to work.

Experiment with the sample worksheets. Make changes and see their effects. You will find that some changes to formula values will have only minor effects on the rest of the worksheet, but others will have major effects. It can be surprising to see how even a slight change in a percent figure in one formula can make a great difference in the final total.

These examples deal with different subjects. One is a balance sheet projection, one calculates the break-even point for a project, and one does engineering calculations to specify requirements for an "air curtain." (An air curtain can be used to separate two locations of different temperatures, such as separating a walk-in freezer from the rest of a room. Since you can walk right through the air curtain, you don't have to worry about anyone leaving the door open.)

Experiment with all the examples, even if the subject matter is outside your area of interest. The techniques used in the samples are general techniques, and you can transfer them easily to your own work. In fact, you may be able to use one or more of the sample worksheets as a model for your own data.

Recognizing Worksheet Features

This example illustrates how PeachCalc can be used as a balance sheet. The sample worksheet is named BALANCE. It will look familiar because you used it in the last chapter.

Exercise

1 Load BALANCE and take a closer look at it. It has a split window, of course. That's why it was used earlier. What else can you find out about it? How far does the information extend? Is there a title lock present? Is scrolling synchronized or unsynchronized?

2 Play around with it. See what you can find out on your own before reading any further.

```
   :          A          : :       B       :
 1: This is a Sample PeachCalc Works
 2:
 3:                                    Jan
 4: ASSETS
 5: Acct.s Receivable                 1000
 6: Inventory                          300
 7: Other Assets                   0.25*B5
 8: ____________________________________
 9: Total Assets                SUM(B5:B7)
10:
11: LIABILITIES
12: Acct.s Payable                    1000
13: Accrued Storage Cost                50
14: Accrued Salaries                   100
15: Accrued Other                       50
16: ____________________________________
17: Total Liabilities          SUM(B12:B15)
18:
19: EBT                            B9-B17
20: Dep. Allowance                 1200/12
21: Taxable Income                 B19-B20
   ^ C1
   Width: 12  Memory: 66 Last Col/Row:O25     ? for HELP
     1>
```

```
   :       C       : :       D       ::       E       :
 1: <                          >
 2:
 3:          Feb                   Mar                   Apr
 4:
 5:       1.05*B5               1.05*C5               1.05*D5
 6:        0.5*B5                0.5*C5                0.5*D5
 7:      0.25*C5               0.25*C7               0.25*E5
 8: ____________________________________________________________
 9:    SUM(C5:C7)            SUM(D5:D7)            SUM(E5:E7)
10:
11:
12:          B12-(B12/12)C12-(C12/12)D12-(D12/12)
13:            50                    50                    50
14:      1.05*B14              1.05*C14              1.05*D14
15:      1.05*B15              1.05*C15              1.05*D15
16: ____________________________________________________________
17:          SUM(C12:C15)SUM(D12:D15)SUM(E12:E15)
18:
19:        C9-C17                D9-D17                E9-E17
20:       1200/12               1200/12               1200/12
21:      C19-C20               D19-D20               E19-E20
```

The left window has information extending to Column N. Both windows have information down to Row 26. Scrolling is not synchronized now, but you will probably find it more convenient to synchronize the scrolling. There are two locked portions in the left window: Column A and rows 1-3.

What about the worksheet's contents? This seems to be a balance sheet for some project within a larger enterprise.

As you scrolled around, you may have found that most of the figures are formulas.

3 Set the formula display for the left window and notice that all figures for the months of February through December are either formulas that depend on prior months or are constants repeated from the January column. The totals column in the right window consists only of formulas.

The balance sheet is a projection based on the January figures. Assets, liabilities and net income are projected. For example, in Row 5 you see the assumption that accounts receivable will grow steadily at 5% a month. In Row 13 you see that storage costs (accrued and paid monthly) are constant.

4 What happens if you change some of these assumptions? Try it. They can be changed easily.

You can change constant figures in the January column and REPEAT them across the row for February through December. You can change the February value for formulas and then REPEAT across March through December (without options, so that the PeachCalc program adjusts automatically).

Raising or Lowering Constant Values

You will notice that slightly raising or lowering constant values such as accrued storage costs (Row 13) or constant relationships such as taxes (Row 23) has a fairly predictable effect. But slightly changing the expected percentage of increase in accounts receivable (Row 5) can have a more marked effect. There are other places where a slight change in a value will have a significant effect because it causes a change in trend.

(For example, rows 5, 6, 7, 14 and 15.)

Exercise 1

What is the effect of a decline in accounts receivable (Row 5)? Try it.

2

An increased rise in accrued salaries? Try it.

As we said, this example is simplified. You may wish to use your own worksheets for more complex analysis and projections; however, this worksheet gives you some insight into certain PeachCalc features.

Raising or Lowering Seasonal Changes

For many applications, it would be more realistic to assume seasonal changes than to assume constant changes (like the accounts receivable growth). You might see what happens if you make accounts receivable and their associated values rise in summer and fall in winter, or some similar pattern.

In a more realistic forecast, other values might change at intervals. Accrued storage costs might increase once in the middle of the year. Taxes might rise when accounts receivable increased beyond a certain amount.

You can use the PeachCalc condition function (IF) to test a total value and increase the tax rate when the total exceeds a certain amount. One way to do that is to test the taxable income figure for each column (Row 21).

Exercise 1

Try this experiment. Let's say that if the taxable income is greater than $1800, the tax rate rises from 30% to 32%. Insert a row at 22 and put the title *Tax Rate* at A22.

2

Now put the following formula in B25: *IF(B21<=1800,.3,.32)*. REPEAT the formula, without options, across the row from February through December.

Now the tax rate will be 30% when the taxable income is $1800 or less and 32% when it is greater. In what month does the rate increase?

3

Now change taxes (Row 23). Change B23 from .3*B21 to *B22*B21*. REPEAT this change, without options, across Row 23 from February through December.

Break-Even Analysis

Lesson 11

The idea behind a break-even analysis is a simple one. When you market a product, you have two kinds of costs: fixed costs, such as overhead, and variable costs associated with making the product, such as parts and labor. When you sell the product, you want to price it in such a way that you recover your fixed costs and your incremental (or variable) costs and also make a profit. The break-even point is the point at which loss turns into profit.

Recognizing Worksheet Features

This example is called BRKEVN. Load it now and see what it looks like. The set-up is simple. Let's step through an example. (You will probably want to set recalculation to manual mode until you have plugged in all the variables you want to provide.)

```
   :        A          : :     B     : :     C     : :     D     : :     E     :
 1:  Break Even Analysis                Units Sold      Profit or Loss
 2:  Product Name                            100              .00
 3:  Retail Price                 .00        200              .00
 4:                                          300              .00
 5:  Fixed Costs          (Totals)           400              .00
 6:    Development              .00         500              .00
 7:    Marketing                .00         600              .00
 8:    Other                    .00         700              .00
 9:  TOTAL Fixed Cost           .00         800              .00
10:                                          900              .00
11:  Variable Costs      <(Per Unit)>       1000              .00
12:    Labor                    .00        1100              .00
13:    Materials                .00        1200              .00
14:    Packaging                .00        1300              .00
15:    Other                    .00        1400              .00
16:  TOTAL Variable Cost        .00        1500              .00
17:                                        1600              .00
18:  Quantity Increment         100        1700              .00
19:  Discount Rate (%)           50        1800              .00
20:                                        1900              .00
21:                                        2000              .00
v B11          Text='' (Per Unit)
Width: 12   Memory: 69 Last Col/Row:D32     ? for HELP
  1>
```

We set the retail price in B3 and the discount rate in B19. (We could have directly specified a wholesale price, but specifying price in terms of retail price and a discount from that allows us to experiment with variations in pricing policy for the public and for the people who will wholesale this product for us.)

In B18, we set the quantity increment such as 50, 100 or 1000, whatever is suitable for the particular product. Then we provide our fixed and variable costs.

At this point, we can calculate the results with "!" and see the break-even point. Maybe we will see how the profits can mount up and make us rich (if we chose right)—or how miserable our prospects are (if we chose wrong).

Using Automatic Recalculation

Now let's play with figures and see what happens. You may want to set automatic recalculation at this point.

Exercise 1

Try changing some of the fixed costs, then some of the variable ones.

You will notice, for example, that increasing fixed costs delays the point where you break even but does not have a great effect on your eventual profits. But changing variable costs has a continuing effect.

2 Try pricing and discount changes. Were you surprised at the results?

Building Values on the Worksheet

Now let's look at how the worksheet is built. Set formula display.

Exercise

1 Take a look at Column C, "Units Sold." C2 starts with B18, which is the quantity increment. C3 is C2 plus quantity increment, and so on down the column. The formula for each value consists of the value above plus the increment.

Can you think of an easy way to build a column of values like that? You put the values shown in blocks C2 and C3. Then you repeat C3 down the column, using the Ask option. You tell PeachCalc to adjust the first value and not adjust B18.

```
     :         A          : :       B        : :   C    : :       D          : :    E    :
  1: <Break Even Analysis>                     Units Sold Profit or Loss
  2: Product Name                               B18        C2*B3*(.01*(100-B19)
  3: Retail Price         0                     C2+B18     C3*B3*(.01*(100-B19)
  4:                                            C3+B18     C4*B3*(.01*(100-B19)
  5: Fixed Costs          (Totals)              C4+B18     C5*B3*(.01*(100-B19)
  6:   Development        0                     C5+B18     C6*B3*(.01*(100-B19)
  7:   Marketing          0                     C6+B18     C7*B3*(.01*(100-B19)
  8:   Other              0                     C7+B18     C8*B3*(.01*(100-B19)
  9: TOTAL Fixed Cost     SUM(B6:B8)            C8+B18     C9*B3*(.01*(100-B19)
 10:                                            C9+B18     C10*B3*(.01*(100-B19
 11: Variable Costs       (Per Unit)            C10+B18    C11*B3*(.01*(100-B19
 12:   Labor              0                     C11+B18    C12*B3*(.01*(100-B19
 13:   Materials          0                     C12+B18    C13*B3*(.01*(100-B19
 14:   Packaging          0                     C13+B18    C14*B3*(.01*(100-B19
 15:   Other              0                     C14+B18    C15*B3*(.01*(100-B19
 16: TOTAL Variable Cost SUM(B12:B15            C15+B18    C16*B3*(.01*(100-B19
 17:                                            C16+B18    C17*B3*(.01*(100-B19
 18: Quantity Increment 100                     C17+B18    C18*B3*(.01*(100-B19
 19: Discount Rate (%)  50                      C18+B18    C19*B3*(.01*(100-B19
 20:                                            C19+B18    C20*B3*(.01*(100-B19
 21:                                            C20+B18    C21*B3*(.01*(100-B19
^ A1          P Text='' Break Even Analysis
Width: 24   Memory: 69 Last Col/Row:D32     ? for HELP
  1>
```

2 Now look at Column D, "Profit or Loss." These formulas may look rather complicated, but once you have figured them out you will see that the calculation is straightforward.

Let's start with a look at D2. This shows as *C2*B3*(.01*(100-B19))-(B9+(B16*C2))*.

Going down the column, you see that the other formulas are similar. In D3, the formula has C3 in place of C2, but all other values are the same. This pattern continues. For each entry in Column D, the Column C references refer to the adjoining "Units Sold" value.

So the formula in D2 starts out with Units Sold times Retail Price (that is, C2*B3).

```
     :  D  : :  E  : :  F  : :  G  : :  H  : :  I  : :  J  : :  K  :
  1: Profit or Loss      <      >
  2:  C2*B3*(.01*(100-B19))-(B9+(B16*C2))
  3:  C3*B3*(.01*(100-B19))-(B9+(B16*C3))
  4:  C4*B3*(.01*(100-B19))-(B9+(B16*C4))
  5:  C5*B3*(.01*(100-B19))-(B9+(B16*C5))
  6:  C6*B3*(.01*(100-B19))-(B9+(B16*C6))
  7:  C7*B3*(.01*(100-B19))-(B9+(B16*C7))
  8:  C8*B3*(.01*(100-B19))-(B9+(B16*C8))
  9:  C9*B3*(.01*(100-B19))-(B9+(B16*C9))
 10:  C10*B3*(.01*(100-B19))-(B9+(B16*C10))
 11:  C11*B3*(.01*(100-B19))-(B9+(B16*C11))
 12:  C12*B3*(.01*(100-B19))-(B9+(B16*C12))
 13:  C13*B3*(.01*(100-B19))-(B9+(B16*C13))
 14:  C14*B3*(.01*(100-B19))-(B9+(B16*C14))
 15:  C15*B3*(.01*(100-B19))-(B9+(B16*C15))
 16:  C16*B3*(.01*(100-B19))-(B9+(B16*C16))
 17:  C17*B3*(.01*(100-B19))-(B9+(B16*C17))
 18:  C18*B3*(.01*(100-B19))-(B9+(B16*C18))
 19:  C19*B3*(.01*(100-B19))-(B9+(B16*C19))
 20:  C20*B3*(.01*(100-B19))-(B9+(B16*C20))
 21:  C21*B3*(.01*(100-B19))-(B9+(B16*C21))
> J1
Width: 9  Memory: 69 Last Col/Row:D32     ? for HELP
  1>
```

The .01*(100-B19) simply subtracts the discount rate (B19) from 100 and makes it a percent. If B19 contains 40, then .01*(100-B19) is equal to 60. In other words, this expression is the percentage of our retail price that we get to keep. It is our wholesale price.

What about -(B9+(B16*C2))? B9 is the sum of our fixed costs. B16 is the sum of our variable costs. B16*C2 is the variable cost (B16) times the units sold for this particular row (C2).

So the formula in D2 turns out to be quite straightforward: it is Units Sold times Price minus Cost.

Adapting This Worksheet

Like the other examples, this worksheet is realistic but simplified. You can use it "as is" in order to get a general idea of the effects of pricing policy on a product or to do short-term forecasting. But in actual marketing, costs and prices change.

There are two ways you might adapt this worksheet to show the effect of changes in prices and costs.

- One way is to put changes at intervals in the worksheet. For example, break it into intervals representing six months of production. Change your costs, prices and even incremental values for production (you are producing more efficiently).
- A second way is to use conditional expressions as described in the prior lesson on the Projected Balance Sheet. You could test the number of units produced. Based on that test, you could specify adjustment factors for prices and costs. Then, multiply your price and cost information by the adjustment factors and refer to the adjusted figures in other formulas.

Air-Barrier Engineering Worksheet — Lesson 12

This worksheet is called BARRIER. Although it is based on actual engineering practice, you do not need to know anything about engineering to do this lesson. We use the example to demonstrate a key PeachCalc feature, the LOOKUP function, which can be of great value to you in your own work.

The BARRIER example represents only part of a larger worksheet for specifying air-conditioning equipment. It is not complete in itself. BARRIER lets you change five of the values used in determining installation requirements for equipment that generates an air barrier or "air curtain." (An air barrier is a stream of moving air that separates two areas of differing temperatures, such as between a walk-in freezer and an ordinary room.)

Recognizing Worksheet Features

Load BARRIER from your PeachCalc disk. Take a look at it.

```
   :          A                    :  : B : :  C  : :  D  : :  E : :  F : :  G :
 1: <                                >        Air-Barrier Engineering Worksheet
 2:
 3:      Parameter                              Symbol Value  Units
 4:  _____________________________   :  _____________________________________
 5:  Cold Storage Room Temp.         :  Tr              -50F
 6:  Entry Design Temp.              :  Te               50F
 7:  Temperature Difference          :  dT              100F
 8:  Door Height, inside             :  Hd               10ft
 9:  Door Width, inside              :  Wd               10ft
10:  Air Density in Room             :  Pr            .0968lb/ft**3
11:  Air Density at Entry            :  Pe            .0768lb/ft**3
12:  Buoyancy Velocity               :  Vb    554.6891021ft/min
13:  Discharge Velocity              :  Vd    3175.855813ft/min
14:  Average Velocity                :  Va    1641.619038ft/min
15:  Slot Width                      :  Ws            3.25inches
16:  Slot Area                       :  As    2.708333333ft**2
17:  Air Quality                     :  Q     8601.276161cfm
18:  Discharge Angle                 :  Theta 19.74846418degrees
19:  Deflection in 10 inches         :  D     12.57336669inches
20:  Center of Buoyancy              :  B     4.423963134inches
21:  Plenum Velocity                 :  Vp              100ft/min
A A1          P Text=''
Width: 25  Memory: 70 Last Col/Row:J24     ? for HELP
  1>
```

These are the five values you can change:
D5: Cold-storage room temperature.
D6: The air-barrier temperature.
D8: Door height.
D9: Door width.
D21: Velocity.
When you specify these values, the values change for the following blocks in Column D: D7, D10, D23 and D24.

As you will see, the worksheet is set for manual recalculation. Do you know why? (Because there is no point in calculating until all the values have been entered.)

Using the Worksheet

Here is one way this worksheet—or one similar to it but more complete—might be used. A salesperson could enter the customer's installation requirements in D5, D8 and D9 and put trial entries in D6 and D21 for different available equipment. Looking at the results in D23 and D24, the salesperson could

immediately determine which equipment could do the job. Moreover, the salesperson could vary some of the requirements and see how much of a margin is left in the specification. For example, if the temperature differential is increased by 5 degrees, could the equipment still handle the job? The OUTPUT command could be used to print several variations of the worksheet to show the customer.

Exercise

Try making some changes and see their effects. Remember to press the "!" for recalculation.

The LOOKUP Function

Earlier, we said this worksheet demonstrates the LOOKUP function. Now let's see how LOOKUP works. It is at D15. Depending on the value you enter in D9, this function will look up a value from the table in columns H and I. That is, given the door width in feet (D9), LOOKUP provides a slot width in inches.

Exercise

1 To take a closer look at this, you will need to remove the title lock from columns A and B.

2 After you have done that, use the GOTO command to put D1 in the upper left corner of your screen. You will see the table in Column H and the associated values in Column I.

3 Try entering different values at D9. See what happens at D15. Remember you will have to use "!" or change to automatic calculation.

```
:  D  :  E  :  F  :  G  :  H  :  I  :  J  :  K  :
1: rrier Engineering Worksheet     <     >
2:
3:  Value      Units                    Slot Width Table
4:
5:                -50F                      2      1.5
6:                 50F                      3      1.75
7:                100F                      4      2
8:                 10ft                     5      2.2
9:                 10ft                     6      2.5
10:             .0968lb/ft**3               7      2.65
11:             .0768lb/ft**3               8      2.85
12:       554.6891021ft/min                 9      3.1
13:       3175.855813ft/min                 10     3.25
14:       1641.619038ft/min                 11     3.4
15:             3.25inches                  12     3.55
16:       2.708333333ft**2                  13     3.7
17:       8601.276161cfm                    14     3.8
18:       19.74846418degrees                15     3.9
19:       12.57336669inches                 16     4.05
20:       4.423963134inches                 17     4.15
21:            100ft/min                    18     4.25
A G1
Width: 9   Memory: 70 Last Col/Row:J24      ? for HELP
  1>
```

As you see, if D9 has a value equal to one of the values in Column H, PeachCalc puts the associated value from Column I into D15. For example, entering 7 into D9 gets you 2.65 in D15. Entering 8 gets you 2.85.

4 What about intermediate values? Try entering 7.5. As you see, you get the next higher associated value, 2.85 in this case.

Trigonometric Functions

This worksheet also includes examples of trigonometric functions, the square root function, and using A to raise a value. These are all in Column D. In order to see them:

Set formula display and widen Column D to 35. You will see a SQRT at D12, trigonometric functions at D18 and D19 and the use of A at D23 and D24.

If you are interested in engineering or mathematics, you will enjoy seeing how the worksheet is calculated and how values interrelate. You may wish to print the contents of this worksheet.

```
   :                D                :: E  :: F  :: G  :: H  :
 6: 50                                F                  3
 7: D6—D5                             F                  4
 8: 10                                ft                 5
 9: 10                                ft                 6
10: —.0002*D5+.0868                   lb/ft**3           7
11: —.0002*D6+.0868                   lb/ft**3           8
12: 4000*SQRT(.1923*(D10—D11)*(D8/2)) ft/min             9
13: (3.435+.32721*(D8—3))*D12         ft/min             10
14: (2.625+.04779*(D8—3))*D12         ft/min             11
15: LOOKUP(D9,H5:H23)                 inches             12
16: D9*(D15/12)                       ft**2              13
17: D13*D16                           cfm                14
18: ASIN(D12/D14)*(180/PI)            degrees            15
19: 10*TAN(D18)                       inches             16
20: D8/((D10/D11)+1.0)                inches             17
21: 100                               ft/min             18
22:                                   Blower Pressure    19
23: 4*(D14*(D21/4000)A2)              In. W.G.           20
24: 3.3*(D14*(D21/4000)A2)            In. W.G.
25: <                                 >
26:
v D25
Width: 35  Memory: 70 Last Col/Row:J24     ? for HELP
  1>
```

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