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File: User Group Memo           REVIEW/ADD/CHANGE           Escape: Main Menu
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^<First Name> ^<Last Name>
^<Street>
^<City> ,^<State>      ^<Zip Code>
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Dear ^<First Name>

Thank you for attending t  
 AppleWorks Users Group. S  
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 our various Education Spe  
 base. Please feel free t

Desktop Index	
1.	User Group Memo AP
2.	Members DB
3.	Budget SS

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 on education  
 the key contacts of  
 on our membership data  
 ting times and places.

Last Name	First Name	Phone Number	Special Interest
Field	Kelly	555-9872	Administrative/Education
Diaz	Elizabeth	555-7541	Social Studies Curriculum
Hara	Bob	555-1232	Science Curriculum

```
Type number, or use arrows, then press Return           52K Avail.
```



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Apple II

# AppleWorks Tutorial

File: User Group Memo REVIEW/ADD/CHANGE Escape: Main Menu  
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^(First Name) ^(Last Name)  
^(Street)  
^(City) ,^(State) ^(Zip Code)

Dear ^(First Name) :

Thank you for attending t  
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our various Education Spe  
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#### Desktop Index

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Hara	Bob	555-1232	Science Curriculum

Type number, or use arrows, then press Return

52K Avail.



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# Contents

## Chapter 1 Welcome to AppleWorks 1

How you'll learn 2  
What you'll need 3  
    Hardware 3  
    Software 4  
What to do first 5

## Chapter 2 Starting the Apple Presents AppleWorks Disk 7

Where to go from here 10  
    Where to go when you finish the disk 11  
The key ideas 11  
    Three-in-one 11  
    The Data Base 12  
    The Word Processor 12  
    The Spreadsheet 13  
    Files 14  
    The Desktop 14  
    What *integrated* means 15  
    The clipboard 15  
Moving on 16

## Chapter 3 Starting the Real Program 17

How to begin 18  
    If you are using 5.25-inch disks 18  
    If you are using 3.5-inch disks 20  
The Main Menu 22  
Using two disk drives 23  
Where to go from here 24



#### **Chapter 4 The Data Base 25**

- Getting a data base file 26
- Looking at multiple-record layout 28
- Looking at single-record layout 28
- Changing an entry 30
- Changing the layout 30
- Deleting a category 32
- Finding things 33
- Selecting records 35
- Preparing a report 39
  - Shrinking a report 41
  - Totaling a category 43
- Printing to the screen 44
- Saving files 46
- Where to go from here 49
- Leaving AppleWorks 49

#### **Chapter 5 The Word Processor 51**

- Getting a word processor file 52
- Changing information 54
  - Deleting words 54
  - Adding words 56
- Finding a location 58
- Centering text 60
- Unjustified text 62
- Setting a marker 63
- Replacing words 64
- Moving text 66
- Calculating pages 69
- Saving changes 71
- Leaving AppleWorks 73

#### **Chapter 6 The Spreadsheet 75**

- Getting a spreadsheet file 76
- Moving through the file 78
  - Finding a cell 78
  - Arithmetic functions 80
  - Jumping around the file 81

- Making a new entry 82
  - Typing a label 82
  - Copying cells 83
  - Making relative copies 85
  - Copying another row 89
  - Copying the last row 90
  - Changing a key value 92
- Split spreadsheets 93
- Saving the file 97
- Where to go from here 98

#### **Chapter 7 Putting It All Together 99**

- Getting files 100
- Copying from the Data Base into the Word Processor 102
  - Preparing to print 103
  - Printing a report to the clipboard 104
  - Switching to the Word Processor 106
  - Copying information from the clipboard 107
  - Editing copied information 109
- Printing 110
- Removing files 111
- Leaving AppleWorks 114
- Where to go from here 115

#### **Chapter 8 Additional Practice 117**

- A form letter 119
  - Bringing on the files 119
  - Tightening up those lines 120
  - Boldfacing some key phrases 121
  - Adding a bulleted list 123
  - Adding a list from a data base 125
  - Sending out form letters 129
- Some data base reports 132
  - Laying it out 133
  - Calculating totals for a report 135
  - Getting some subtotals 138
  - Making mailing labels 141
  - Calculating the difference 143
  - Getting some totals 145
  - Focusing on the audio-visual 146



Building some spreadsheets 147  
    Building a grade book 147  
    Creating a home budget 152  
    Using a spreadsheet to calculate without rows and columns 156

**Index 159**



## Chapter 1



# Welcome to AppleWorks





AppleWorks™ is an integrated software program from Apple® Computer, Inc. AppleWorks puts together the three most popular productivity applications for personal computers: a word processor, a data base, and a spreadsheet. That means you can take budget calculations out of the Spreadsheet, for example, and lists of customers from the Data Base and put them both into a letter in the Word Processor. Or you can use the Mail Merge feature to address a word processor document to every person on your data base. You can move information into and out of all three applications.

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## How you'll learn

You can learn all there is to know about AppleWorks, or just as much as you need, using four items from your AppleWorks package:

1. *Apple Presents AppleWorks*. This training disk guides you through a simulation of the basic AppleWorks features, right on your computer—but you don't have to worry about making mistakes. *Apple Presents AppleWorks* gently monitors your progress, poses problems and helps you solve them, and even offers optional quizzes on what you've learned.
2. *The AppleWorks Tutorial*. That's this book. It picks up where *Apple Presents AppleWorks* leaves off. With it, you'll work through more features of AppleWorks, using the real AppleWorks software.
3. *Using AppleWorks*. This book provides you with detailed, step-by-step procedures for using AppleWorks, followed by tips and suggestions.

4. *The AppleWorks Quick Reference Card*. This card provides a brief summary of all the features of AppleWorks. You can keep it on the shelf next to you, to check a command or review your options.

Start with the *Apple Presents AppleWorks* training disk; it introduces you to the basics. Then do at least a chapter or two in this tutorial, to find out how to start the real software and use the applications. After that, plunge into the software, relying on *Using AppleWorks* for details of unfamiliar procedures and the *Quick Reference Card* for reminders.

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## What you'll need

Before you start, make sure you have everything you need.

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## Hardware

To practice with AppleWorks, this is what you'll need:

- An Apple II computer (Apple IIe or later) with at least 128K of RAM.
- An 80-column or extended 80-column text card (for the Apple IIe only).
- A video monitor. (A TV set doesn't provide a clear enough picture for AppleWorks.)
- One disk drive. (A second disk drive is desirable.)
- A printer. (This is optional for learning, but highly desirable for using AppleWorks.)



## Software

And of course you need software—the stuff that makes the computer go. Your AppleWorks package contains disks in two sizes. These disks contain the software you need, plus some files you'll use as you learn AppleWorks.

If you use a 5.25-inch drive, you'll need

- The *Apple Presents AppleWorks* disk. Use this first. Each side of this disk contains lessons you use to learn AppleWorks' basics. When you're finished with the first side of the disk, just flip it over to learn more from the other side.
- The *AppleWorks Startup* and *AppleWorks Program* disk. Each side of this disk holds some of AppleWorks' many features. When you've made a copy of each side, you'll run AppleWorks with just those two copies, storing your original disk in a safe place.
- Two blank disks to make copies of the startup and program sides.
- The *AppleWorks Sample Files Data Disk*. This disk includes letters, spreadsheets, and data base files you'll use as you practice more features with this manual.

If you have a 3.5-inch drive, you'll need

- The *Apple Presents AppleWorks* disk. Use this first. It contains lessons you use to learn AppleWorks' basics.
- The *AppleWorks Startup/Program/Sample Files* disk. When you've made a copy of this disk, you'll run AppleWorks with just that copy, storing your original disk in a safe place. This disk also includes letters, spreadsheets, and data base files you'll use as you practice more features with this tutorial. (You do not need a separate startup disk, because that part of the program is included on your 3.5-inch disk; even though it's smaller, it holds more data.)

- A blank 3.5-inch disk to make a copy of the program disk.

---

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## What to do first

The 5.25-inch disks you received in your package are all write-protected to prevent accidental damage to their contents. But AppleWorks needs to write information to the program disk every time you start. So if you use 5.25-inch disks, you need to copy both sides of your startup and program disk, using one blank disk for each side.

The 3.5-inch disks are not write-protected, but we still recommend making a backup copy of the program disk. (This disk includes all the files you'll need for this tutorial.) Don't write-protect the copies; then AppleWorks can put up-to-date information on them when you begin to use the program. Your owner's guide or the manual for your operating system tells you exactly how to copy. Use the original disk's name for the copy.

When you've made a copy, put the original disk in a safe place, and work with the copy. For easy reference, copy the label name exactly from the original.

If you are going to be using 5.25-inch disks, you may also want to make a copy of the *AppleWorks Sample Files Data Disk*. (That way you'll always have a fresh copy for others to use as they go through the exercises in this manual, and you'll be able to save any changes you make to the sample files, if you want.) Be sure to copy both sides: side 1 of this disk contains the files you need for the Beginning Tutorial, and side 2 contains the files you use in the Additional Practice, as well as sample files showing you some of the different things you can do with AppleWorks.

You don't have to copy the *Apple Presents AppleWorks* training disk.

When you've finished making copies of disks, go to the next chapter to get started with *Apple Presents AppleWorks*.



## Chapter 2



### Starting the *Apple Presents AppleWorks* Disk





With *Apple Presents AppleWorks*, you'll get some hands-on experience with AppleWorks. Imagine you're helping out at the best bakery in town—Mom's Apple Pie Company. In a few minutes, you'll be examining financial records for Mom's Apple Pie Company, writing letters, and preparing plans. In this tutorial, you'll combine budget information from a spreadsheet with lists from your data base to help Mom get a loan for a new factory that she wants to build in the shape of (what else?) a pie.

Here's how to start:

1. Find the disk labeled *Apple Presents AppleWorks*.
2. Hold the disk with the label facing up. (If you are using a 5.25-inch disk, make sure it says *Side One*.)
3. Insert the disk into drive 1. If you are using a computer with a built-in drive, that is drive 1.
4. Turn on the computer and the monitor. If your computer's already on, hold down  $\text{⌘}$  and Control, and at the same time press Reset. Restarting this way is easier on your computer than turning it off and on. The disk drive whirs and its light goes on as the drive reads information from the disk. A title screen appears briefly, and then you see the *Apple Presents AppleWorks* Main Lesson Menu.

On the 3.5-inch disk, all the material is on one side, so you get a complete menu of lessons.

What you can do:

1. **Introduction**
2. An Overview of AppleWorks
3. Gateway
4. The Data Base
5. The Word Processor
6. The Spreadsheet
7. Putting It All Together
8. Quit

Type number, or use arrows, then press RETURN.

If you have a 5.25-inch disk, part of your training is on the first side and part on the second side, so your first menu looks like this:

What you can do:

1. **Introduction**
2. An Overview of AppleWorks
3. Gateway
4. The Data Base
5. Quit

Type number, or use arrows, then press RETURN.

The menu shows you the options you can choose from, as you use *Apple Presents AppleWorks*.

If you don't see a menu, check to make sure that

- all your plugs are fitted snugly
- your monitor is on (and the brightness is turned up)
- the disk label says *Apple Presents AppleWorks* and, if you are using a 5.25-inch disk, you have side 1 facing up, with the disk drive door shut

Then go back to the beginning of this section and try again.

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## Where to go from here

Go through the lessons on the *Apple Presents AppleWorks* training disk. You won't have to worry about mistakes—it's not the real AppleWorks program. As you use the training disk, you'll see boxes superimposed on the screen telling you what's going on, what keys to press, and what to do next.

The first lesson is highlighted on the menu. To start the lessons:

1. Press Return. (Whenever a menu selection is highlighted, you only have to press Return to accept it.)
2. Follow the directions on the screen and continue through the lessons.

If you are using 5.25-inch disks, you will need to switch to the other side for the rest of the lessons. When you're finished with side 1, open the drive door, take out the disk, flip it over, and put it back in, closing the door again. Press the ⌘ key at the same time as the Control key and the Reset button. You'll see the Main Lesson Menu for the second side.

What you can do:

1. **The Word Processor**
2. The Spreadsheet
3. Putting It All Together
4. Quit

Type number, or use arrows, then press RETURN.

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## Where to go when you finish the disk

When you're finished with the training disk, come back here for a quick review in the next section, "The Key Ideas." Then you'll be ready for some practice with the real AppleWorks software, using this manual as your tutor.

See you then!

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## The key ideas

Welcome back from the *Apple Presents AppleWorks* training disk! Here's a brief review of some of the key ideas.

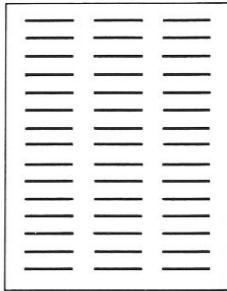
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### Three-in-one

AppleWorks consists of three software applications that work together as one program. AppleWorks is a word processor, a data base, and a spreadsheet program, all



rolled into one. And you can move information among all three applications. That's why it's called integrated software.

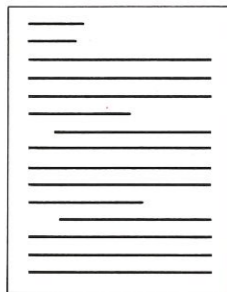


### The Data Base

The AppleWorks Data Base helps you organize and print information you might ordinarily keep in lists or in piles of index cards:

- names and addresses
- personnel records
- schedules and checklists
- expense items
- household and business inventories
- checkbook records
- travel itineraries
- names of business contacts

You can update the information quickly—changing it, copying some, adding some, moving it around. You can calculate columns of figures (say, for an expense report). And you can organize the information and print it in the form you want it.



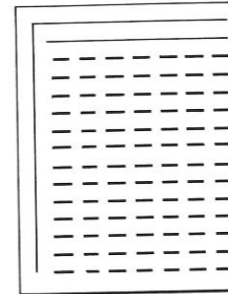
### The Word Processor

The AppleWorks Word Processor lets you compose text and revise it without retyping the parts you don't change.

You can write

- memos
- letters
- reports
- proposals
- articles

You can write whatever you want and quickly edit it, rearrange it, polish it up with headers and footers and page numbers, and then print it.



### The Spreadsheet

The AppleWorks Spreadsheet lets you work with numeric information you normally arrange in rows and columns:

- financial statements
- forecasts
- budgets
- income tax information
- stock portfolios
- grade books
- cost estimates

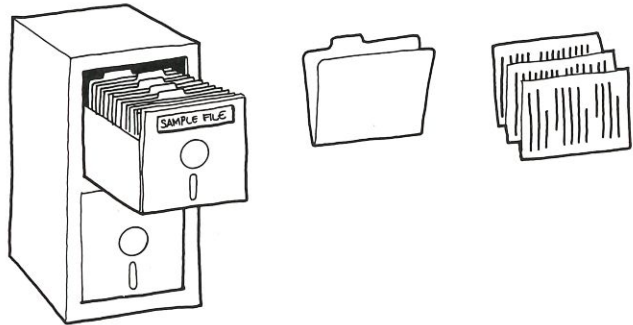
The Spreadsheet recalculates information as often as necessary after you change particular pieces of data—and you can see the results instantly. It makes almost any kind of quantitative planning or calculating faster and easier.

The Spreadsheet also lets you explore various “What If?” situations without taking a lot of time. Take a household budget, for example. How would it affect your finances if you got a raise? You can try different salary amounts and see how each would affect your total budget.

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## Files

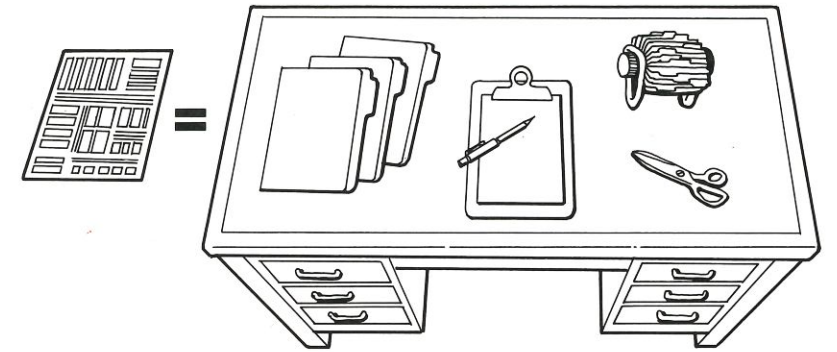
To start a document, you create a file—you might think of a file as the electronic version of your document. Files can be temporarily stored inside the computer, or permanently stored on a disk. The disk is like a file cabinet. When you want to use a file, you get a copy from the disk, just as you'd take a file folder out of a file cabinet.



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## The Desktop

The files you make or copy from a disk go on the Desktop—the random-access memory (RAM) of the computer. It's like a real desktop in that you can put your documents on it, but it's not permanent. (Everything on it disappears when you shut off the power to the computer.) You can have up to 12 files on the Desktop, but you can examine only one at a time. When you're finished with them, you can take them off the Desktop and save them permanently on a disk. That's like putting them back into the file cabinet.



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## What *integrated* means

*Integrated* means that AppleWorks' three different applications use a similar file structure, so they can share information easily. In fact, you can switch among the Data Base and Word Processor and Spreadsheet almost instantaneously. And you can cut information electronically from one file on the Desktop and paste it into another file just by pressing a few keys.

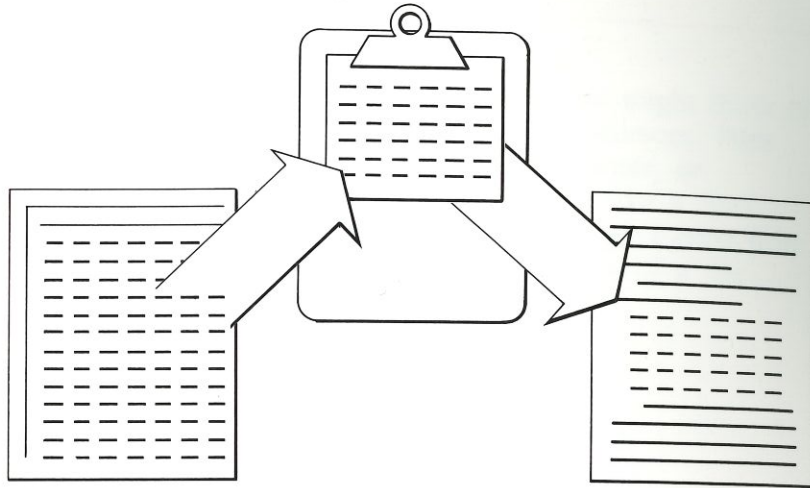
*Integrated* also means that you use the same commands to do the same things in all three applications. You have to remember only one set of commands.

---

## The clipboard

The clipboard is a part of the computer's memory that temporarily holds part of a file that you've cut from one place and want to paste in another.





For example, you can cut your stock portfolio projections out of the Spreadsheet and paste them into a letter to your stockbroker—fast.

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### Moving on

Now that you know the basics of AppleWorks, you can start practicing with the real AppleWorks software. The next chapter shows you how.

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## Chapter 3

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### Starting the Real Program



With the training disk, you explored the basics of the AppleWorks Data Base, Word Processor, or Spreadsheet (or all three). But the training disk only *simulates* the AppleWorks software, and it just scratches the surface of what you can do.

This chapter shows you how to start up AppleWorks so you can go on to practice with one of the three applications in Chapters 4, 5, and 6. Because you'll be using the real software, you should carefully follow the instructions in this tutorial. When you finish, you'll be ready to start using AppleWorks on your own.

❖ *Use the training disk first:* If you haven't used the training disk at all yet, go back to Chapter 1 to learn how to get started with it.

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## How to begin

For your practice session with AppleWorks, you will need

- a copy of the *AppleWorks Program* disk
- if you are using 5.25-inch disks, a copy of *AppleWorks Startup* and a copy of *AppleWorks Sample Files Data Disk*
- ❖ *Use your copies:* If you haven't made copies of the AppleWorks disks, as instructed in Chapter 1, please go back and make the copies now. Save those originals!

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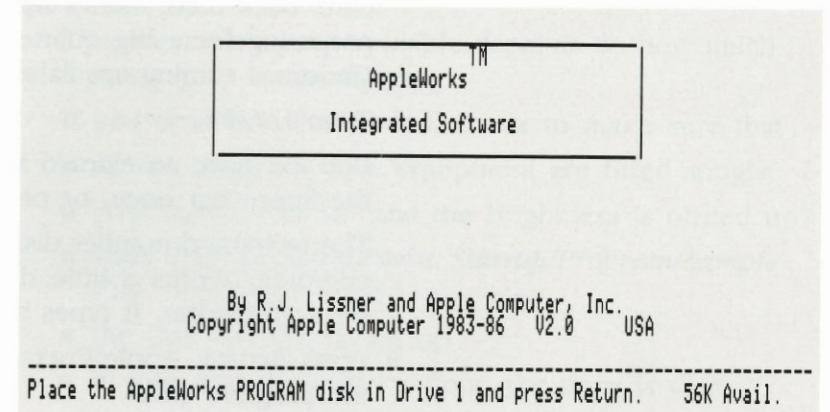
### If you are using 5.25-inch disks

To fit the program onto these disks, we've split AppleWorks into two parts: *AppleWorks Startup* and *AppleWorks Program*. The startup disk contains basic

information that prepares your computer for the rest of the information, which is on the program disk. You'll always start AppleWorks with the startup disk, and then use the program disk.

1. Find the disk labeled *AppleWorks Startup*.
2. Insert the startup disk (label side up) in drive 1. If you have a computer with a built-in drive, that's drive 1.
3. Turn on the monitor and the computer. If your computer's already on, hold down Control and ⌘, and at the same time press Reset to restart the computer.

In a moment, a copyright screen appears briefly. Then the title display appears. The prompt at the bottom of the display tells you to switch disks.



- If you don't see this screen, check to make sure that
- all the plugs on your equipment are fitted snugly
  - your monitor is on (and the brightness is turned up)
  - your copy of *AppleWorks Startup* is in drive 1
  - the disk label is facing up and the disk drive door is shut

Then go back to the beginning of this section and try again.



4. The program disk contains the rest of the information your computer needs to get you going with AppleWorks. To finish the startup process, replace the startup disk with the *AppleWorks Program* disk.

5. Press Return. The disk drive spins again, and now Appleworks asks you for the date:

Type today's date or press Return: 3/25/86

AppleWorks suggests a date. Each time you start up the program, AppleWorks remembers the last date you typed and suggests it for today's date. It's AppleWorks' "best guess" for the date. (If you have an automatic clock installed in your computer, the date may be different from that shown in the illustration.)

For this tutorial, you'll use December 7, 1984, as the date. Back then, Mom's Apple Pie Company was preparing for a big quarter, with Thanksgiving and Christmas coming up. Sales always boom on holidays.

6. Type 9/7/84.

7. But you have an extra 6 at the end of the date. Press the Space bar once, or press Control-Y.

The unwanted number disappears! The Space bar on the computer works a little differently than the space bar on a typewriter. It types a space character.

8. Press Return. AppleWorks now stores the new date on the program disk.

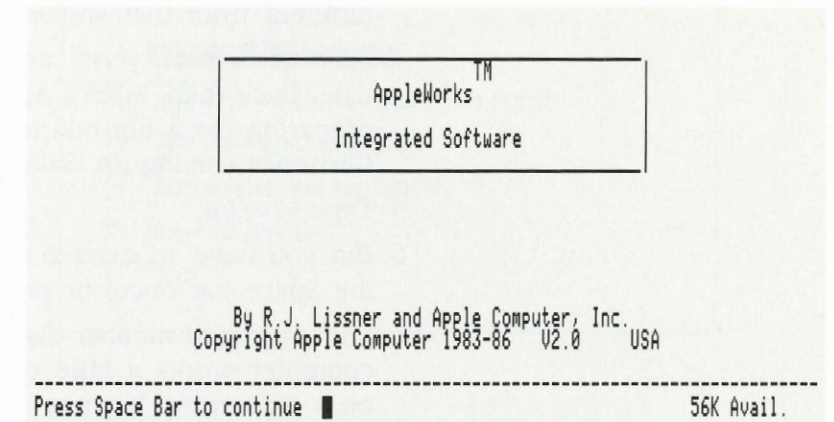
The AppleWorks Main Menu appears on the screen.

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### If you are using 3.5-inch disks

1. Find the disk labeled *AppleWorks Startup/Program/Sample Files* disk.
2. Insert the program disk (label side up) in drive 1.
3. Turn on the monitor and the computer. If your computer's already on, hold down Control and ⌘, and at the same time press Reset to restart the computer.

In a moment, a copyright screen appears briefly. Then the title display appears.



The amount of space available depends on how much memory your computer has.

If you don't see this screen, check to make sure that

- all the plugs on your equipment are fitted snugly
- your monitor is on (and the brightness is turned up)
- your copy of *AppleWorks Startup/Program/Sample Files* disk is in drive 1
- the disk label is facing up
- if your disk drive has a door, the door is shut

Then go back to the beginning of this section and try again.

4. To finish the startup process, Appleworks asks you for the date.

Type today's date or press Return: 3/25/86

AppleWorks suggests a date. Each time you start up the program, AppleWorks remembers the last date you



typed and suggests it for today's date. It's AppleWorks' "best guess" for the date. (If you have an automatic clock installed in your computer, the date may be different from that shown in the illustration.)

For this tutorial, you'll use September 7, 1986, as the date. Back then, Mom's Apple Pie Company was preparing for a big quarter, with Thanksgiving and Christmas coming up. Sales always boom on holidays.

5. Type 9/7/86.

6. But you have an extra 6 at the end of the date. Press the Space bar once, or press Control-Y.

The unwanted number disappears! The Space bar on the computer works a little differently than the space bar on a typewriter. It types a space character.

7. Press Return. AppleWorks now stores the new date on the program disk.

The AppleWorks Main Menu appears on the screen.

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## The Main Menu

The Main Menu is the first menu you see when you start up AppleWorks.

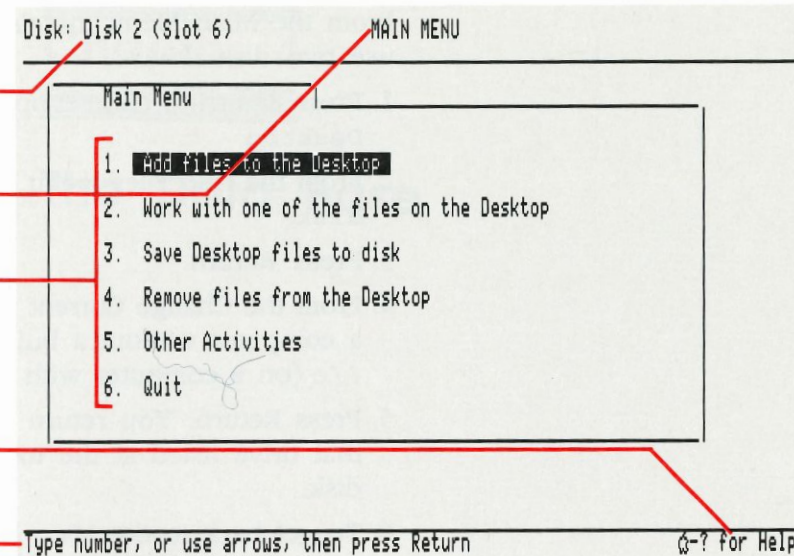
The **disk drive** AppleWorks uses to find and to save your files (Your screen may show a different drive.)

Your **program location**—the part of the program you're in at the moment

**Menu options** let you choose what to do next.

**Help:** Press these keys for a list of the commands you can use. The ⌘ may be an inverse A, depending on your computer.

The **prompt** asks you to type some information or respond to a question.



The Main Menu is your gateway into AppleWorks. In the following chapters, you'll start here and move into the various applications.

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## Using two disk drives

If you are using 3.5-inch disks, your sample files are on the startup/program/sample files disk. For this tutorial, you need only one drive; just keep your disk in drive 1.

If you have only one drive and you are using 5.25-inch disks, you will need to switch between the program disk and your data disk from time to time. Just wait for AppleWorks to tell you when and what to do. Skip the rest of this section if you have one drive.

If you have at least two disk drives and you are using 5.25-inch disks, you can tell AppleWorks to look in drive 2 for your files while you keep your program disk in drive 1. This lets you avoid the disk swapping that's necessary when you have only one 5.25-inch disk drive.



From the Main Menu, here's how to tell AppleWorks to use two disk drives:

1. Press Return to choose option 1, Add files to the Desktop.
2. From the Add Files menu, choose option 2, A different disk.
3. Press Return.
4. From the Change Current Disk menu, choose Disk 2 (on a computer without a built-in disk drive) or Ext. disk //c (on a computer with a built-in disk drive).
5. Press Return. You return to the Add Files menu, with that drive listed at the top of the display as the current disk.
6. To get back to the Main Menu, press Escape.
7. Since AppleWorks is now ready to work with two drives, leave your program disk in drive 1 and put your sample files disk in drive 2.

---

### Where to go from here

You're now ready for practice with AppleWorks.

- For the Data Base, go to Chapter 4.
- For the Word Processor, go to Chapter 5.
- For the Spreadsheet, go to Chapter 6.
- When you're finished with all three, Chapter 7, "Putting It All Together," shows you how to move information from one application to another.
- After you've spent a few weeks using AppleWorks, you may want the challenge of Chapter 8, "Additional Practice," to polish your skills.



## Chapter 4



### The Data Base



You've used the *Apple Presents AppleWorks* training disk to help Mom's Apple Pie Company rearrange a file of customers by credit rating. The company needed the file as part of a loan application. You also made a file for the bakery's new organic pies line.

In this chapter, you'll continue working with files for Mom's Apple Pie Company. You'll act as an assistant to Sarah Simon, the owner of the bakery. Everyone calls her "Mom." A tough cookie, she wants to know how well organic pies have been selling. You'll prepare a data base report for her on the new organic pie line using the file you created on the training disk.

❖ *If you haven't started up AppleWorks:* Turn to Chapter 3 and follow the instructions there to start up the real AppleWorks software.

## Getting a data base file

In order to work with an existing file, you have to take a copy of it from a data disk and put the copy on the Desktop. It's like taking a file folder out of a file cabinet. In this section, you'll get a copy of the file Organic Pies from your sample files on the startup/program/sample files disk if you're using 3.5-inch disks, or from the sample files data disk (side 1) if you're using 5.25-inch disks. If you have two 5.25-inch disk drives, be sure the *AppleWorks Sample Files Data Disk* is in drive 2.

To add the file, starting at the Main Menu:

1. Choose Add files to the Desktop.

2. Choose The current disk. (If you have one disk drive, AppleWorks tells you at the bottom of the screen to place your data disk in drive 1. Take the program disk out, and put the data disk in. From now on, you will have to switch disks occasionally; please just follow the instructions provided in the prompt line at the bottom of the display.)

3. Press Return.

AppleWorks lists the sample files.

You want the Organic Pies file. When you put this file on the Desktop, you'll be able to change it and show the new information to Mom.

4. Highlight Organic Pies. (To move the highlighting, use the Down Arrow and the Up Arrow.)

5. Press Return. (If you have only one disk drive, you will need to swap disks.)

The Organic Pies file appears on your screen.

File: Organic Pies      REVIEW/ADD/CHANGE      Escape: Main Menu

Selection: All records

Pie Name	Units Sold	Units/Month	Date Introduced	Total Sales
Apple Light	4000	2000	Jul 4 84	\$16,000
Carob Crunch	3500	900	May 5 84	\$14,000
Coconut Custard	2800	700	May 5 84	\$12,000
Crispy Cotton	20	20	Aug 14 84	\$80
Granola Pudding	200	50	May 5 84	\$800
Kumquat	600	150	May 5 84	\$3,600
Pisco	5	3	Jul 4 84	\$20
Pure Peach	800	400	Jul 4 84	\$3,200
Ragamuffin	500	250	Jul 4 84	\$2,000
Rhubarb	400	200	Jul 4 84	\$1,600
Squash Blossom	400	200	Jul 4 84	\$1,600
Strawberry Strip	400	200	Aug 14 84	\$1,600
Vegetable	285	100	Jul 4 84	\$1,200
Very Berry	6000	1500	May 5 84	\$24,000
Yogurt Yummy	1250	300	Jul 4 84	\$3,675

Type entry or use ⌘ commands      ⌘-? for Help



As you can see from the heading, this is the Review/Add/Change display. That means you can review information you've already put into the Data Base, add new information, or change what you have.

❖ *Choose the wrong file?* If you accidentally chose the wrong file, just press Escape to get back to the Main Menu. Then try again.

## Looking at multiple-record layout

Mom has asked you to find out how many Granola Pudding pies the company has sold since the pie was introduced. Take a look at the listing for Granola Pudding. It's on the fifth line down.

```
File: Organic Pies          REVIEW/ADD/CHANGE          Escape: Main Menu
Selection: All records
```

Pie Name	Units Sold	Units/Month	Date Introduced	Total Sales
Apple Light	4000	2000	Jul 4 84	\$16,000
Carob Crunch	3600	900	May 5 84	\$14,000
Coconut Custard	2800	700	May 5 84	\$12,000
Crispy Cotton	20	5	Aug 14 84	\$80
Granola Pudding	200	50	May 5 84	\$800
Granola Pudding Delight	600	150	May 5 84	\$3,600

The **multiple-record layout** gives you many records at the same time—the big picture of organic pie performance.

Pie Name is one of the **categories** in the Organic Pies file.

Granola Pudding is an **entry** under the Pie Name category.

All the entries about Granola Pudding make up its **record**.

If you look at the Granola Pudding record under the Units Sold category, you'll see that Mom's Apple Pie Company has sold 200 units so far. A good start for a new pie. Mom will be glad to hear that.

## Looking at single-record layout

Mom wants you to check out total profits for Granola Pudding pie. That category doesn't fit on the screen with the current multiple-record layout. You can see it,

though, in a closeup of pie performance called *single-record layout*—all the information for one record. To see single-record layout for a particular record, you put the cursor anywhere on the record, and zoom in.

1. Move the cursor down to Granola Pudding.
2. Press ⌘-Z to zoom into single-record layout. You see this:

```
File: Organic Pies          REVIEW/ADD/CHANGE          Escape: Main Menu
Selection: All records

Record 5 of 16
-----
Pie Name: Granola Pudding Delight
Units Sold: 200
Units/Month: 50
Date Introduced: May 5 84
Total Sales: $800
Total Profit: $100
Price/Unit: $4.00
Cost/Unit: $3.50
Profit/Unit: $0.50
-----
Type entry or use ⌘ commands          ⌘-? for Help
```

Category

Entry

Single-record layout shows you all the categories for each entry—more than fit on the multiple-record layout screen. The categories still exist in multiple-record layout, but they're out of view.

Notice that all the information even within one category doesn't always fit in multiple-record layout: you can see from this layout that the full name for Granola Pudding is really Granola Pudding Delight.



## Changing an entry

Mom has always been uncomfortable with this pie name. It doesn't have enough pizzazz. And it doesn't emphasize its low-calorie pleasure. She'd like you to replace Delight with Delite.

1. Move the cursor to the g in Delight. (Use the Right Arrow.)
2. Type te.
3. But now the word reads Deliteght. To remove those extra characters, press Control-Y. This command deletes everything from the cursor to the end of the line.
4. To move the cursor to the next category, press Return.
5. To zoom back out to multiple-record layout, press ⌘-Z.

When Mom reviews the file in single-record layout, she'll be happy to see the new pizzazz in Granola Pudding Delite.

## Changing the layout

Mom uses multiple-record layout to look at the big picture. But she wants the Profit/Unit category to be in the big picture, and at the moment, it's off the edge of the screen. In this section, you'll change the layout so that the Profit/Unit category can be seen.

1. Press ⌘-L. That's for Layout. AppleWorks shows you the Change Record Layout display for multiple-record layout.

What you can do: you can make the columns wider or narrower, or move them around.

How to do it

The records you see are just place holders. They give you an idea of the layout of the whole file.

**More** ---> at the bottom right of the screen indicates that there are more categories off to the right. That's where Profit/Unit is hiding.

File: Organic Pies CHANGE RECORD LAYOUT Escape: Review/Add/Change

```

--> or <-- Move cursor
> ⌘ < Switch category positions
--> ⌘ <-- Change column width
⌘-D Delete this category
⌘-I Insert a previously deleted category
  
```

Pie Name	Units Sold	Units/Month	Date Introduced	Total Sales
Apple Light	4000	2000	Jul 4 84	\$16,000
Carob Crunch	3600	900	May 5 84	\$14,000
Coconut Custard	2800	700	May 5 84	\$12,000

Use options shown above to change record layout More ---> 55K Avail.

2. Press Right Arrow until the cursor moves to the rightmost category on the screen. Then keep pressing it until you get to the right margin. (That's nine times.)  
Most of the original columns move off the screen to the left. Now you can see what was hidden before. The More sign points off the left side of the screen. And the cursor is blinking on the A of the vertical MARGIN on the right.)

Insert a previously deleted category

Total Sales	Total Profit	Profit/Unit	Price/Unit	Cost/Unit	MARGIN
\$16,000	\$5,000	\$1.20	\$4.00	\$2.80	
\$14,000	\$4,000	\$1.11	\$3.89	\$2.78	
\$12,000	\$3,000	\$1.07	\$4.29	\$3.02	

<-- More ---> Use options shown above to change record layout 55K Avail.

3. Move the cursor to the Profit/Unit category. Use the Left Arrow.



- To move the Profit/Unit category to the left, press `⌘-<` three times. The column hops over to the left, just before Date Introduced.
- To see if it all fits, hold down the Left Arrow until the cursor stops moving, on the left margin.

Now you've got Profit/Unit right where you want it. But notice that Total Sales is no longer on the screen.

⌘-I      delete this category  
Insert a previously deleted category

---

Pie Name	Units Sold	Units/Month	Profit/Unit	Date Introduced
Apple Light	4000	2000	\$1.20	Jul 4 84
Carob Crunch	3600	900	\$1.11	May 5 84
Coconut Custard	2800	700	\$1.07	May 5 84

More --->

Use options shown above to change record layout      55K Avail.

## Deleting a category

The total sales figures are important for a complete understanding of the big pie picture. You can move the category back onto the screen by deleting one of the other categories currently on the screen. (Deleted categories still exist, and you can "undelete" them if necessary.)

Mom remembers when all her pies were introduced, so the Date Introduced category would be a good one to delete.

- Use Right Arrow to move to the Date Introduced category.
- Press `⌘-D` for Delete. (The Date Introduced category disappears from the screen, and Total Sales takes its place.)
- To see what the whole file looks like now, in Review/Add/Change, press Escape.

- When AppleWorks asks you which way the cursor should go in Review/Add/Change, it supplies its best guess—Down. To accept the best guess, press Return. You now see the file in multiple-record layout.

File: Organic Pies      REVIEW/ADD/CHANGE      Escape: Main Menu

Selection: All records

Pie Name	Units Sold	Units/Month	Profit/Unit	Total Sales
Apple Light	4000	2000	\$1.20	\$16,000
Carob Crunch	3600	900	\$1.11	\$14,000
Coconut Custard	2800	700	\$1.07	\$12,000
Crispy Cotton	20	20	\$1.00	\$80
Granola Pudding	200	50	\$0.50	\$800
Kumquat	600	150	\$2.00	\$3,600
Pisco	5	3	\$1.00	\$20
Pure Peach	800	400	\$0.84	\$3,200
Ragamuffin	500	250	\$0.90	\$2,000
Rhubarb	400	200	\$1.00	\$1,600
Squash Blossom	400	200	\$1.00	\$1,600
Strawberry Strip	450	200	\$2.83	\$1,600
Vegetable	285	100	\$1.05	\$1,200
Very Berry	6000	1500	\$1.08	\$24,000
Yogurt Yummy	1250	300	\$0.58	\$3,675

Type entry or use ⌘ commands      ⌘-? for Help

That's it! You've changed the layout in multiple-record format in order to present selected information the way Mom wants it to appear.

## Finding things

Mom's worried about one of the new pies, Rhubarb. She's afraid that sales might be so low that the company will have to drop it from their line. Her brother, Bert, loves Rhubarb pie more than any other dessert, and he'll be mighty sorry to see it go away. But how bad were Rhubarb pie sales last month?



You can find information very quickly with AppleWorks, by using the Find feature. Once you provide comparison information, AppleWorks searches through every category and record, looking for information that matches.

1. To find a fact, press ⌘-F for Find.
2. Type in the information that you want to locate; in this case, *rhu*. You only have to type enough for the match to be unique. There probably aren't any other pie names that contain *rhu*.

Notice that you don't have to type a capital *R*—AppleWorks will match the letters without worrying about whether they're uppercase or lowercase.

3. Press Return.

Now that you have typed comparison information, AppleWorks goes through the whole file, looking for information that matches what you type. AppleWorks finds the record containing *rhu* and displays it on the screen.

```
File: Organic Pies          FIND RECORDS          Escape: Review/Add/Change
Find all records that contain RHU
Press ⌘-F to change Find.

Pie Name      Units Sold  Units/Month  Profit/Unit  Total Sales
-----
Rhubarb       400        200         $1.00       $1,600

-----
Type entry or use ⌘ commands                                ⌘-? for Help
```

AppleWorks displays all the records that match your comparison information. In this case, there was only one match. Sales aren't so dismal, after all. Good news! Bert won't have to worry about losing his favorite pie.

4. To return to Review/Add/Change, press Escape.

You see the full file reappear in multiple-record layout.

## Selecting records

Mom has one other request: she'd like to know how a certain group of her pies are doing. She wants to find pies that meet both of the following criteria:

- pies introduced since May 1
- pies that have sold over 300

These are the rules Mom wants AppleWorks to follow as it selects records. So they're called record selection rules.

1. To set the record selection rules, press ⌘-R.

AppleWorks asks you to select the category you want to look at.

```
File: Organic Pies          SELECT RECORDS          Escape: Review/Add/Change
Selection:

-----
1. Pie Name
2. Units Sold
3. Units/Month
4. Date Introduced
5. Total Sales
6. Total Profit
7. Price/Unit
8. Cost/Unit
9. Profit/Unit

-----
Type number, or use arrows, then press Return _          55K Avail.
```



```
File: Organic Pies      SE
Selection: Units Sold

=====

1. equals
2. is greater than
3. is less than
4. is not equal to
5. is blank
6. is not blank
7. contains
8. begins with
9. ends with
10. does not contain
11. does not begin with
12. does not end with

-----
Type number, or use arrows, then pr
```

Because you're looking for pies that have had over 300 sales, one of the categories you should choose is Units Sold.

2. Move the highlighting to Units Sold.
3. Press Return.

Now AppleWorks wants to know what sort of comparison you want it to perform in that category.

Your criterion is a pie that has sold over—or a number greater than—300. That's option 2.

4. Choose is greater than. Press Return.

AppleWorks shows you the parts of the first record selection rule you've chosen, in the upper left. It's almost complete:

```
File: Organic Pies      SELECT RECORDS      Escape: Review/Add/Change
Selection: Units Sold is greater than

=====

Type comparison information:                                     55K Avail.
```

In the lower left, AppleWorks asks for comparison information. You want to see the records of pies with more than 300 sold.

5. Type 300 and press Return.

Now the first comparison is complete. AppleWorks gives you the chance to specify additional or alternative comparisons; you see a list of words called *connectors*:

```
File: Organic Pies      SELECT RECORDS      Escape: Review/Add/Change
Selection: Units Sold is greater than 300

=====

1. and
2. or
3. through
```

Mom wants to know about pies both introduced since May *and* with over 300 sales. So you need a second record selection rule.

6. To accept the connector and, press Return.

Now you can make another comparison. AppleWorks shows you the same list of categories you saw before.

7. Choose Date Introduced as the category. Press Return.

Because you've chosen a category with the word *date* in it, AppleWorks provides a different set of potential comparisons:

```
File: Organic Pies      SELECT RECORDS      Escape: Erase entry
Selection: Units Sold is greater than 300
and Date Introduced

=====

1. equals
2. is after
3. is before
4. contains
5. is blank
6. is not blank
```

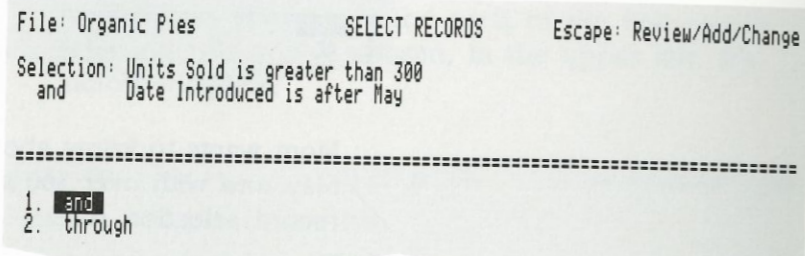
The pies you want AppleWorks to look for were introduced after May.

8. Choose `is` after. Press Return.
9. Type May.

AppleWorks assumes that the month alone is equivalent to the first day of the month, or May 1.

10. Press Return.

Now you have the complete selection rule—but AppleWorks is willing to have you add another.



Because you've chosen all the comparisons you need to make, it's time to go back to Review/Add/Change.

11. Press Escape.

AppleWorks makes the selection and shows you all the records that meet your criteria.

```
File: Organic Pies          REVIEW/ADD/CHANGE          Escape: Main Menu
Selection: Units Sold is greater than 300
and      Date Introduced is after May

Pie Name      Units Sold  Units/Month  Profit/Unit  Total Sales
-----
Apple Light   4000        2000         $1.20        $16,000
Carob Crunch  3600         900          $1.11        $14,000
Coconut Custard 2800         700          $1.07        $12,000
Kumquat       600          150          $2.00        $3,600
Pure Peach    800          400          $0.84        $3,200
Ragamuffin    500          250          $0.90        $2,000
Rhubarb       400          200          $1.00        $1,600
Squash Blossom 400          200          $1.00        $1,600
Strawberry Strip 460          200          $2.83        $1,600
Very Berry    6000         1500         $1.00        $24,000
Yogurt Yummy  1250         300          $0.58        $3,675

-----
Type entry or use ⌘ commands          ⌘-? for Help
```

You can see that Mom's Apple Pie Company has several pies that are selling very well. No wonder they need to expand into a new factory!

---

---

## Preparing a report

Now that you've found everything Mom wants, it's time to prepare your report.

When you select and arrange information from a data base in order to print it, you are making up a report. In this section, you'll prepare a report to print—choosing what to include, and adjusting its width. Then you'll print the report to the screen. (You don't have to have your printer hooked up for this.)



Every report has its own format, which is stored along with the file when you save it. Earlier in this chapter, you altered the record layout—how things look on the screen. Here, you'll alter the report format—how things will look in your report.

You start by telling AppleWorks that you want to prepare to print a report.

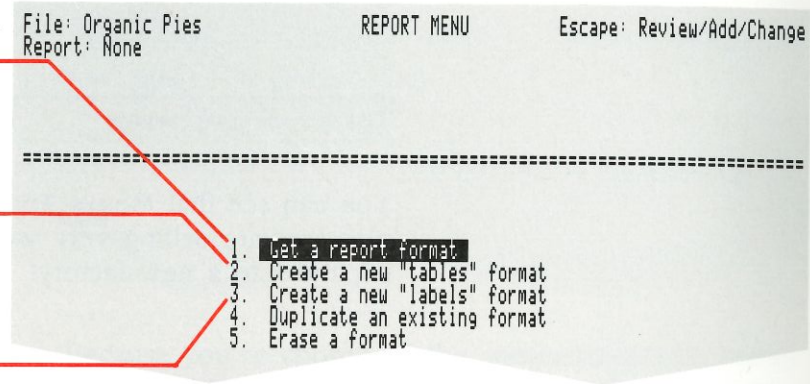
1. Press ⌘-P for Print.

The Report menu appears, with five options:

In the **highlighted option** you'll find formats you prepared earlier.

**Tables format** presents information for a lot of records at once. It's equivalent to multiple-record layout on the screen.

**Labels format** presents all the information for one record, like a mailing label or index card. It's equivalent to single-record layout on the screen.



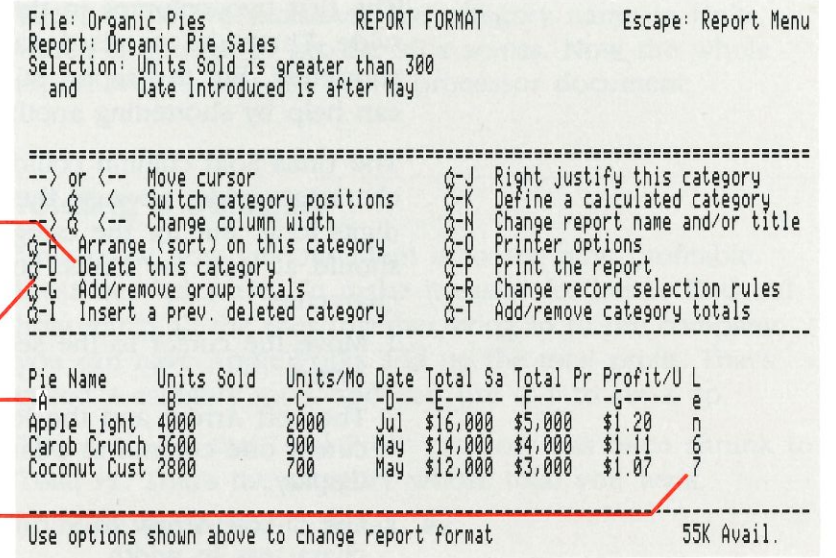
This format has already been created, so you do not need to make a new one.

2. To choose Get a report format, press Return.

Now AppleWorks offers a list of current report formats. There's only one current report format set up. It's called Organic Pie Sales, and it's highlighted.

3. To accept the highlighted format, press Return.

The Report Format display appears on your screen.



What you can do

How to do it

Cursor

The **margin indicator** shows the length of the longest line in characters. The report is now 67 characters wide.

### Shrinking a report

Later, you're going to put this report in a word processor document—a bulletin for Mom. The bulletin is only 60 characters wide. In order for this report to fit into that word processor document, it can't be wider than 60 characters.

❖ *By the way:* Your reports don't always have to be 60 characters wide. Reports can be up to 13 inches wide; the maximum number of characters depends on how many characters your printer can print in an inch (up to 24), and how big your paper and margins are.

You'll have to change the format of this report a little to shrink it down to 60 characters wide. The options available for formatting reports are listed in the middle of the display. They're similar to those you used to change the multiple-record layout.



The first two columns in this report are 12 characters wide. That's the standard size. Others have already been shortened, but the report still isn't narrow enough. You can help by shortening another column.

The Units Sold column could be as short as four characters wide, because the numbers are at most four digits long. But for the category name to make sense, it should at least say Units. So you'll shrink it to five characters.

1. Move the cursor to the second column, using the Right Arrow.

The Left Arrow and the Right Arrow keys move the cursor one column at a time on the Report Format display.

2. Use ⌘-Left Arrow to shrink the column down to five characters in width.

⌘ with the Left Arrow makes columns narrower; ⌘ with the Right Arrow makes them wider.

As the column gets narrower, so does the entire report. You've shortened the report to 60 characters.

```
File: Organic Pies          REPORT FORMAT          Escape: Report Menu
Report: Organic Pie Sales
Selection: Units Sold is greater than 300
and Date Introduced is after May

=====
--> or <-- Move cursor           ⌘-J Right justify this category
> ⌘ < Switch category positions  ⌘-K Define a calculated category
--> ⌘ <-- Change column width    ⌘-N Change report name and/or title
⌘-A Arrange (sort) on this category  ⌘-O Printer options
⌘-D Delete this category           ⌘-P Print the report
⌘-G Add/remove group totals        ⌘-R Change record selection rules
⌘-I Insert a prev. deleted category ⌘-T Add/remove category totals

=====
Pie Name  Units Units/Mo Date Total Sa Total Pr Profit/U L
-A-----B---C-----D--E-----F-----G-----e
Apple Light 4000 2000 Jul $16,000 $5,000 $1.20 n
Carob Crunch 3600 900 May $14,000 $4,000 $1.11 6
Coconut Cust 2800 700 May $12,000 $3,000 $1.07 0

=====
Use options shown above to change report format          55K Avail.
```

That's it! You've shortened the category name to Units, which is enough to get the idea across. Now the whole report will fit into the word processor document.

## Totaling a category

You know how anxious Mom is to see how profitable these new pies are. To make it easier for her to find out how much all the pies together bring in to the company, you can have AppleWorks add up the total profit. That's called a category total, and you use ⌘-T to set it up.

The name for the Total Profit category has been shrunk to Total Pr. That's the category whose total you want.

1. Move the cursor to Total Pr.
2. Press ⌘-T for Total.

AppleWorks asks you how many decimal places you want included in the total. Because none of the figures include cents, accept AppleWorks' best guess, 0.

3. Press Return.

Now AppleWorks asks how many blank spaces you want after the category, guessing you want three. You only need one space.

4. To be sure the report will still fit in 60 characters, type 1.
5. Press Return.

```
⌘-U Add/remove selection rules      ⌘-R Change record selection rules
⌘-G Add/remove group totals         ⌘-T Add/remove category totals
⌘-I Insert a prev. deleted category

=====
Pie Name  Units Units/Mo Date Total Sa Total Pr Profit/U L
-A-----B---C-----D--E-----F-----G-----e
Apple Light 4000 2000 Jul $16,000 $5,000 $1.20 n
Carob Crunch 3600 900 May $14,000 $4,000 $1.11 6
Coconut Cust 2800 700 May $12,000 $3,000 $1.07 0

=====
Use options shown above to change report format          55K Avail.
```



The column fills up with 9's. That's only to show that the numbers will be right justified. When you print the report, the actual numbers in that category will line up along the right edge of the column so that you can check the addition easily. The double dashes (=) under the 9's will be replaced with the totals.

## Printing to the screen

You've done it! You've got the report formatted. Now you can take a look at it on the screen to admire your handiwork.

1. To print a report from the Report Format display, press ⌘-P for Print.

AppleWorks asks you where you want to print the report:

```
File: Organic Pies          PRINT THE REPORT          Escape: Report Format
Report: Organic Pie Sales
Selection: Units Sold is greater than 300
and Date Introduced is after May

=====
Where do you want to print the report?
1. AppleWriter
2. The screen
3. The clipboard (for the Word Processor)
4. The clipboard (for Mail Merge)
5. A text (ASCII) file on disk
6. A DIF (TM) file on disk

-----
Type number, or use arrows, then press Return          55K Avail.
```

Your list of printers may be different, depending on what information you've given AppleWorks.

2. Move the highlighting down to The screen.
3. Press Return.

AppleWorks gives you a message that tells you how to stop printing or pause during printing:

```
While the printer is running
you can use these keys:

Escape      to stop printing and
            return to report format

Space Bar   to pause
            to continue printing
```

At the bottom of the screen, you could type a date for the report, but that's not necessary.

4. To start printing, just press Return.

And there it is:

```
File: Organic Pies          Page 1
Report: Organic Pie Sales
Selection: Units Sold is greater than 300
and Date Introduced is after May
Pie Name  Units Units/Mo Date Total Sa Total Pr Profit/U
-----
Apple Light 4000 2000 Jul $16,000 5000 $1.20
Carob Crunch 3600 900 May $14,000 4000 $1.11
Coconut Cust 2800 700 May $12,000 3000 $1.07
Kumquat 600 150 May $3,600 1200 $2.00
Pure Peach 800 400 Jul $3,200 670 $0.84
Ragamuffin 500 250 Jul $2,000 450 $0.90
Rhubarb 400 200 Jul $1,600 400 $1.00
Squash Bloss 400 200 Jul $1,600 400 $1.00
Strawberry S 460 200 Aug $1,600 300 $2.83
Very Berry 6000 1500 May $24,000 6500 $1.08
Yogurt Yummy 1250 300 Jul $3,675 724 $0.58
                22644*
```

The column of 9's has turned back into numbers.

The asterisk distinguishes the total from the column entries.

```
Press Space Bar to continue          55K Avail.
```



So now Mom can see the total profits for these pies. It looks like Mom's Apple Pie Company sales are going pretty well.

When you finish looking at the report, you'll want to go back to Review/Add/Change.

5. Press the Space bar.

That takes you to the Report Format display.

6. To move back to the Report menu, press Escape.

7. To go back to Review/Add/Change, press Escape again.

You're now finished practicing with the AppleWorks Data Base. In the next section, you'll save the file with the changes you made.

❖ *Putting it all together:* In Chapter 7, you'll copy this same report into a word processor document, to practice integrating information from different applications. Before you do that, though, you should also read Chapter 5, "The Word Processor."

---

---

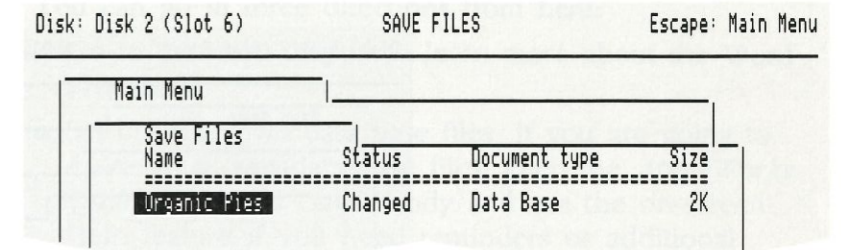
## Saving files

Congratulations! You've managed to straighten out the data base files for Mom's Apple Pie Company. Now Mom knows how much money the company makes from all those pies. But before you go on to something else, you need to save those files in their corrected form onto your copy of the sample files data disk. Right now, they're just sitting in your computer's memory. If somebody melts the cord with a hot pie pan and knocks out the power, all your work will be lost.

AppleWorks has several ways for you to save files. In this section, you'll save the file onto the disk, and then leave AppleWorks.

1. Press Escape to go back to the Main Menu.

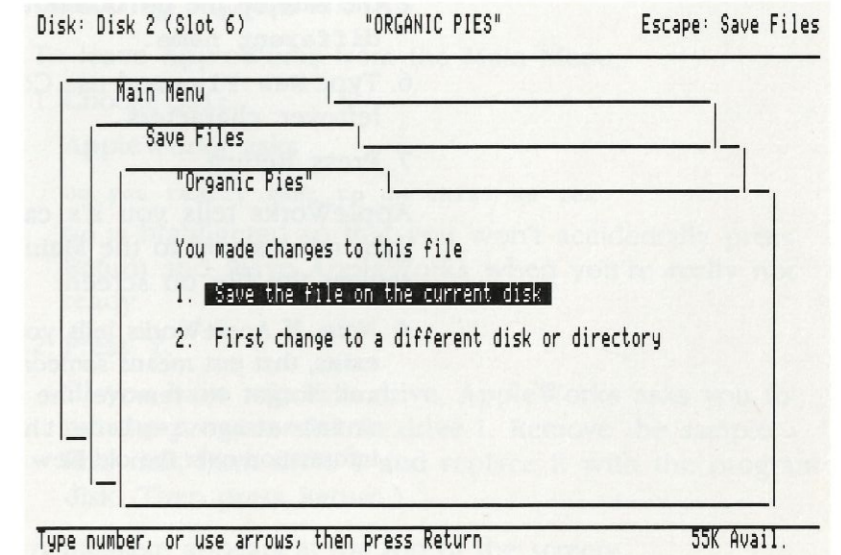
2. Choose Save Desktop files to disk. Press Return.  
AppleWorks lists the files on the Desktop.



Right now, only Organic Pies is on the Desktop.

3. Choose Organic Pies by pressing Return.

Now AppleWorks asks how you want to save the file.

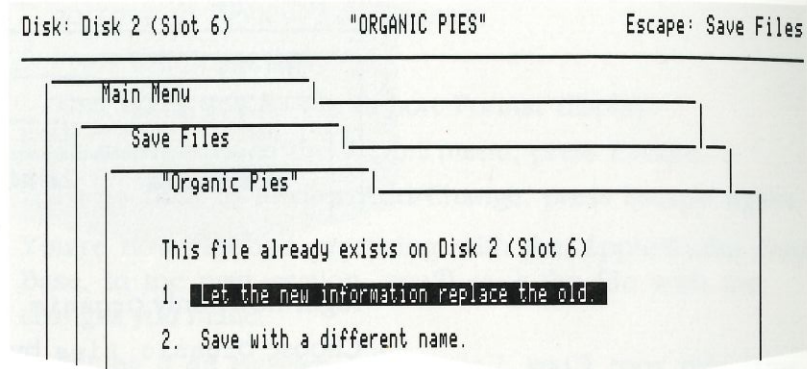


4. Choose Save the file on the current disk.

(If you have one drive, AppleWorks now tells you to put the data disk in drive 1.)



AppleWorks, ever cautious for the protection of your files, reminds you that you already have the file on your current disk.



5. So that you'll be able to have the original version of the sample file for others to use, choose Save with a different name.
6. Type `New Pies` and use Control-Y to remove any leftover characters.
7. Press Return.

AppleWorks tells you it's carefully saving the file, and then returns you to the Main Menu. Now Mom can review the file on screen.

❖ *Note:* If AppleWorks tells you that the New Pies file already exists, that just means someone else has already used the disk and forgot to remove the file. Choose `Let the new information replace the old` to write the new New Pies information over the old New Pies.

---

---

## Where to go from here

You can go in three directions from here:

- Go to the next chapter to learn more about the Word Processor.
- Set up your own data base files. If you are going to make your own data base files, keep the *AppleWorks Quick Reference Card* handy and use the on-screen Help feature if you need reminders or additional information.
- Leave AppleWorks and go have a piece of pie or something.

---

---

## Leaving AppleWorks

To leave AppleWorks from the Main Menu,

1. Choose Quit.

AppleWorks asks

Do you really want to do this? No Yes

No is highlighted so that you won't accidentally press Return and leave AppleWorks when you're really not ready.

2. Press Y.

(If you have one disk drive, AppleWorks asks you to put the program disk in drive 1. Remove the sample files disk from drive 1 and replace it with the program disk. Then press Return.)

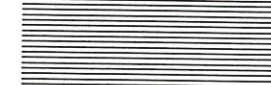
A message appears at the top of the screen:

```
ENTER PREFIX (PRESS "RETURN" TO ACCEPT)
/APPLEWORKS/
```


That means you've left AppleWorks.

To start AppleWorks again, press ⌘-Control-Reset if you are using 3.5-inch disks, or put the startup disk in and press ⌘-Control-Reset if you are using 5.25-inch disks.

To start another program, insert its program disk and press ⌘-Control-Reset.



## Chapter 5



### The Word Processor





Mom Simon, the owner of Mom's Apple Pie Company, has just gone on vacation. She's relying on you to keep things under control.

She has asked you to use the Word Processor to prepare a bulletin about the new organic pie line. She's also interested in what's happening back at the company. In this chapter, you'll make changes to the Mom's Bulletin file, and learn some more features of the AppleWorks Word Processor.

❖ *If you haven't started up AppleWorks:* Turn to Chapter 3 and follow the complete instructions there on starting up the real AppleWorks software. Start up AppleWorks and put the sample files disk in drive 2.

## Getting a word processor file

AppleWorks files are like the files you keep in file folders. When you take a file off a disk, it's like making a photocopy of the contents of a file folder. You work on the copy so that you always have your original safe, in case you want to go back to it for reference. Right now, you want to get a copy of the file called Moms Bulletin from the sample files disk, so that you'll be able to make corrections and polish it up until it's ready to meet Mom's exacting standards.

1. From the Main Menu, choose Add files to the Desktop.

2. Choose The current disk.

(If you have one 5.25-inch disk drive, you will see a message telling you to place your data disk in drive 1.

Replace the *AppleWorks Program* disk with the *AppleWorks Sample Files Data Disk*, side 1 on the 5.25-inch disk, and press Return.)

You should see the list of sample files appear on your screen.

3. You want the Moms Bulletin file, so make sure the highlighting is on Moms Bulletin.
4. Press Return.

(If you have one drive, AppleWorks asks again for the program disk. Take the sample files data disk out of drive 1, and insert the program disk. Press Return.)

AppleWorks tells you that it is getting the file, and then the Moms Bulletin file appears on your screen.

Tab marker

Where you go if you press Escape

The cursor position shows where you are on the screen.

Help: Press ⌘-? to see what functions are now available.

```

Files: Moms Bulletin          REVIEW/ADD/CHANGE          Escape: Main Menu
-----|-----|-----
Ms. Simon, as you've requested, here is a bulletin
reflecting our annual performance and outlining projections
for next year's performance.

Good news from the market analysts. The Horner-Shwartzfogel
industry pie chart shows us a strong leader city-wide in all
categories. We've come a long way from giving pies to the
neighbors through the kitchen window.

Sales in the Organic Pie line are booming! Yogurt Yummy is
really taking off, as are Very Berry and Appul Light.

By the way, we've changed the spelling of Granola Pudding
Delight, as you've suggested. Calling it Granola Pudding
Delite adds pizzazz to our lineup and will surely gain us a
strong foothold in the youth market. Although Granola's
initial sales were somewhat slow, they've really begun to
take off, as our projections show:

                                Organic Pie Projections
-----|-----|-----
Type entry or use ⌘ commands          Line 1 Column 1          ⌘-? for Help
  
```

This is the Review/Add/Change display. With it, you can review what you've already written, add new information, or change what's there. This bulletin needs a little polishing, and some of the spelling needs to be corrected, before you can send it to Mom. You'll do that in this chapter.



## Changing information

On reviewing the first paragraph, you might feel it has too little impact. After all, this is an important bulletin to the owner of the business. You want the beginning to grab Mom's attention.

A fellow employee, whom you've asked for advice, has suggested changing the first paragraph to read like this:

```
File: Moms Bulletin      REVIEW/ADD/CHANGE      Escape: Main Menu
=====|=====|=====
Ms. Simon, you requested a bulletin reflecting our annual
performance and outlining projections for next year's
performance. Here it is.

Good news from the market analysts. The Horner-Shwartzfogel
industry pie chart shows us a strong leader city-wide in all
categories. We've come a long way from giving pies to the
neighbors through the kitchen window.
```

That seems to satisfy your needs, so you decide to make the changes.

## Deleting words

The first change involves deleting the phrase as you've requested. When you want to delete a few letters, you can use the Delete key at the top right of the keyboard. But for words and long phrases, there's a quicker way—using ⌘-D for Delete.

Right now, as you can see by looking at the cursor locator at the bottom of the screen, you're at line 1, column 1. (This cursor locator helps you know at a glance where you are in a long document.)

1. To move to as, the first word you want to delete, press ⌘-Right Arrow twice.  
⌘ with the Left Arrow or Right Arrow moves the cursor one whole word at a time.

The cursor stops on the first character of a.s. Notice from the cursor locator that you're now at line 1, column 12.

Because the passage is more than a few characters long, you are going to use the Delete command, rather than the Delete key. First you tell AppleWorks that you want to delete; then you indicate the text to be deleted.

2. Hold down ⌘ and press D for Delete.

The a in as is highlighted, and several checkerboard rectangles appear on the screen.

**Highlighting** on the a shows this is the first character of the text you'll delete.

**Checkerboards** show you where you pressed Return.

The **printer option** indicates that text following it will be centered between margins.

The **prompt** at the bottom of the screen tells you to highlight the text you want to delete.

```
File: Moms Bulletin      DELETE TEXT      Escape: Review/Add/Change
=====|=====|=====
Ms. Simon, as you've requested, here is a bulletin
reflecting our annual performance and outlining projections
for next year's performance.*
*
Good news from the market analysts. The Horner-Shwartzfogel
industry pie chart shows us a strong leader city-wide in all
categories. We've come a long way from giving pies to the
neighbors through the kitchen window.*
*
Sales in the Organic Pie line are booming! Yogurt Yummy is
really taking off, as are Very Berry and Appul Light.*
*
By the way, we've changed the spelling of Granola Pudding
Delight, as you've suggested. Calling it Granola Pudding
Delite adds pizzazz to our lineup and will surely gain us a
strong foothold in the youth market. Although Granola's
initial sales were somewhat slow, they've really begun to
take off, as our projections show.*
*
-----Centered
-----
Use cursor moves to highlight block, then press Return _      53K Avail.
```

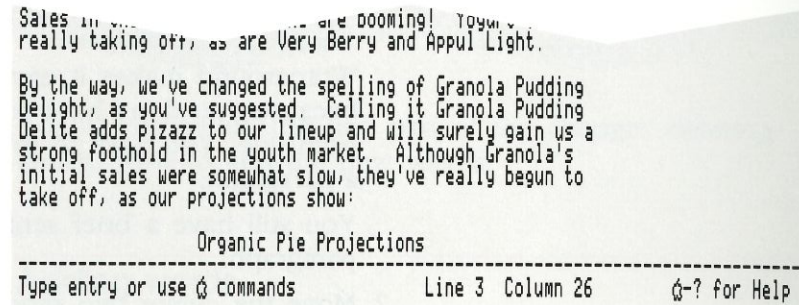
3. Highlight as you've requested, here is. (Press ⌘-Right Arrow four times, and then press Right Arrow once to highlight the whole passage.)
4. Press Return to delete the whole passage.





## Finding a location

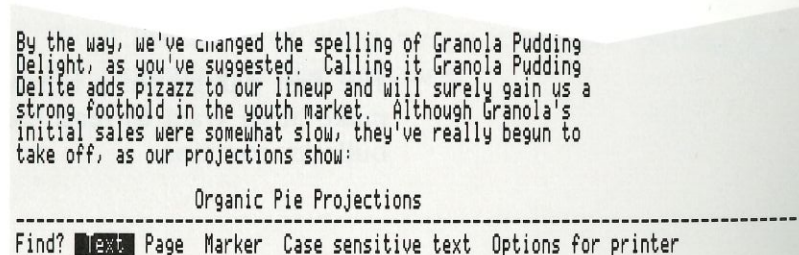
In Chapter 7, "Putting It All Together," you'll copy data on the new organic pie line from the Data Base into this document. There's a good place for it already, but it needs a heading, like the heading at the bottom of the screen page, which is a heading for a section already copied into this document from a spreadsheet report.



The location for the heading is off the screen, but if you tell AppleWorks what text to look for, it will leap right to it, with the Find command. The information from the Data Base will go right before the paragraph beginning with *Elmer Bodey*, so you want AppleWorks to find Elmer Bodey.

1. Press ⌘-F for Find.

The screen heading changes to Find, and at the bottom of the screen, AppleWorks asks what you want to find:



2. To tell AppleWorks you want to find text, press Return.

Now AppleWorks asks what text to look for:

Find what text?

3. Type Elmer Bodey.
4. Press Return.

You jump right to the part where the organic pie line data should go.

File: Moms Bulletin		FIND			Escape: Review/Add/Change
Ragamuffin	High	120	132	165	417
	Low	80	88	110	278
	Expected	100	110	138	348
Vegetable	High	300	303	318	921
	Low	200	202	212	614
	Expected	250	252	265	768

Here are the stats on our best-selling organic pies:

**Elmer Bodey** in the Crust Department won this month's Suggestion Box award. He'll get a month's supply of Appul Pie Filling as his reward for suggesting that we open up a Pie Tasting Room. Such a tasting room could pep up our interstate sales, as tourists carry news of our fabulous pies across the border.

The tasting room would be a nice addition to our new factory, which you'll be pleased to know is proceeding through the planning process on schedule. We've only just

Find next occurrence?  No  Yes

Notice at the bottom of the screen that AppleWorks offers to look again for the words you specified. This feature is useful if the words you're searching for might occur more than once, and you want to find all occurrences or keep searching until you find the one you want. You've found what you want, however.

5. Press Return, to answer No.

The insert cursor blinks on the *E* in Elmer Bodey. Now you can type the heading.



6. Type Organic Pie Sales.
7. To put an extra line in between the heading and the next paragraph, press Return twice.

This heading would look better if it were centered, too, like the one for the pie sales projections.

## Centering text

Centered headings add a professional look to reports—the kind of look Mom likes for her company. With a typewriter, you'd have to count spaces to figure out where to type a centered heading, but AppleWorks can center it automatically for you. The centering option is one of AppleWorks' many printer options.

1. Before you tell AppleWorks to center text, put the cursor on the line you want centered: Organic Pie Sales.
2. Press ⌘-O for Options.

Printer options appear across the bottom half of the screen.

```
File: Mons Bulletin          PRINTER OPTIONS          Escape: Review/Add/Change
-----|-----|-----|-----|-----|-----|
          Low      80      88      110     278*
          Expected 100     110     138     348*
*
Vegetable High     300     303     318     921*
          Low     200     202     212     614*
          Expected 250     252     265     768*
*
Here are the stats on our best-selling organic pies:*
*
Organic Pie Sales*
*
PW=8.0  LM=1.0  RM=1.0  CI=10  CN  PL=11.0  TM=0.0  BM=2.0  LI=6  SS
Option:  UJ: Unjustified  GB: Group Begin  BE: Boldface End
          CN: Centered    GE: Group End   +B: Superscript Beg
          PL: Paper Length HE: Page Header  +E: Superscript End
          LM: Left Margin  FO: Page Footer -B: Subscript Begin
          RM: Right Margin BM: Bottom Margin  -E: Subscript End
          CI: Chars per Inch LI: Lines per Inch  PN: Page Number  UB: Underline Begin
          P1: Proportional-1 SS: Single Space  PE: Pause Each page UE: Underline End
          P2: Proportional-2 DS: Double Space  PH: Pause Here   PP: Print Page No.
          IN: Indent       TS: Triple Space  SM: Set a Marker  EK: Enter Keyboard
          JU: Justified    NP: New Page     BB: Boldface Begin MM: Mail Merge
```

Current settings for main printer options

Type the **option** you want here.

These printer options let you choose how the text will appear on the printed page. Notice that the code letters for centering text are *CN*.

3. Type CN and press Return.

Instantly, a marker appears to show that the text from Organic Pie Sales and below is to be centered.

```
Vegetable
          Expected 200     202     212     614*
          Expected 250     252     265     768*
*
Here are the stats on our best-selling organic pies:*
*
-----Centered
          Organic Pie Sales*
*
PW=8.0  LM=1.0  RM=1.0  CI=10  CN  PL=11.0  TM=0.0  BM=2.0  LI=6  SS
Option:  UJ: Unjustified  GB: Group Begin  BE: Boldface End
          CN: Centered    GE: Group End   +B: Superscript Beg
          PL: Paper Length HE: Page Header  +E: Superscript End
          LM: Left Margin  FO: Page Footer -B: Subscript Begin
          RM: Right Margin BM: Bottom Margin  -E: Subscript End
          CI: Chars per Inch LI: Lines per Inch  PN: Page Number  UB: Underline Begin
          P1: Proportional-1 SS: Single Space  PE: Pause Each page UE: Underline End
          P2: Proportional-2 DS: Double Space  PH: Pause Here   PP: Print Page No.
          IN: Indent       TS: Triple Space  SM: Set a Marker  EK: Enter Keyboard
          JU: Justified    NP: New Page     BB: Boldface Begin MM: Mail Merge
```

The marker is called an *embedded printer option*. That means it won't appear when you print the text. It only shows up here for your convenience.

Notice that the heading is centered with respect to the text, rather than with respect to the screen. (It looks a little off-center on the screen because this document is 60 characters, while the screen is 80 characters wide.)

You could set other options for this location, but you don't need any others right now.

4. Press Escape to return to Review/Add/Change.



```

File: Moms Bulletin          REVIEW/ADD/CHANGE          Escape: Main Menu
-----|-----|-----|-----|-----|-----|
                Low      80      88      110     278
                Expected 100     110     138     348
Vegetable      High      300     303     318     921
                Low       200     202     212     614
                Expected 250     252     265     768

Here are the stats on our best-selling organic pies:

                Organic Pie Sales

Elmer Bodey in the Crust Department won this month's
Suggestion Box award. He'll get a month's supply of Appul
Pie Filling as his reward for suggesting that we open up a
Pie Tasting Room. Such a tasting room could pep up our
interstate sales, as tourists carry news of our fabulous
pies across the border.

The tasting room would be a nice addition to our new
factory, which you'll be pleased to know is proceeding
-----|-----|-----|-----|-----|-----|
Type entry or use ⌘ commands          Line 42 Column 1          ⌘-? for Help

```

But look: all the text following the report heading is centered. You have to tell AppleWorks to stop centering after the heading. You'll do that now.

## Unjustified text

Normal typewritten text, the kind you had before you set the centering option, lines up along the left margin. AppleWorks calls this *unjustified* text. You need to tell AppleWorks that the rest of the text shouldn't be centered.

1. Move the cursor to the line below the heading.
2. Press ⌘-O for Options.
3. Type UJ for Unjustified.
4. Press Return.

Now you have another printer option embedded in the text. And the rest of the text is back to normal. The text lines up against the left-hand margin again.

```

*
Here are the stats on our best-selling organic pies:*
*
-----Centered
                Organic Pie Sales*
-----Unjustified
*
Elmer Bodey in the Crust Department won this month's
Option: _          UJ: Unjustified          GB: Group Begin          BE: Boldface End
                  CN: Centered             GE: Group End           +B: Superscript Beg
                  PL: Paper Length        PH: Page Header         +E: Superscript End
                  PW: Paper Width

```

## Setting a marker

You've already used the Find command to jump to the location for the new heading. You can also use Find to find *markers*. A marker is like a buoy or flag, indicating a spot you know you will want to return to later. While you're in this part of the text, you can set a marker to make it easy later to find the right place for the data base report. Setting a marker is a printer option.

1. To set a marker in this spot, type SM and press Return.

Just below the word Option, AppleWorks asks for the marker number. You can have up to 254 markers, numbered 1 to 254.

```

Elmer Bodey in the Crust Department won this month's
Option: sm
Number: _
Option: sm          UJ: Unjustified          GB: Group Begin          BE: Boldface End
                  CN: Centered             GE: Group End           +B: Superscript Beg
                  PL: Paper Length        PH: Page Header         +E: Superscript End
                  PW: Paper Width        PM: Page Margin         -B: Subscript Begin
                  LM: Left Margin         BM: Bottom Margin       -E: Subscript End
                  RM: Right Margin        SK: Skip Lines          UB: Underline Begin
                  CI: Chars per Inch     LI: Lines per Inch     PN: Page Number         UE: Underline End
                  P1: Proportional-1     SS: Single Space       PE: Pause Each page    PP: Print Page No.
                  P2: Proportional-2     DS: Double Space       PH: Pause Here         PP: Print Page No.
                  IN: Indent             TS: Triple Space       SM: Set a Marker        EK: Enter Keyboard
                  JU: Justified           NP: New Page           BB: Boldface Begin     MM: Mail Merge

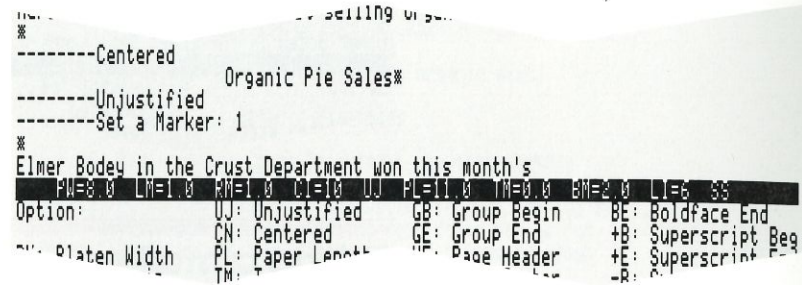
```

2. Because this is the first marker you've put in, type 1.



3. Press Return.

AppleWorks inserts the marker on a new line just below the Unjustified command:



Now when you're ready to copy from the Data Base in Chapter 7, you'll be able to jump quickly to this location, using the Find command. The line that shows you where the marker is appears only on the screen. It won't appear on a printed document.

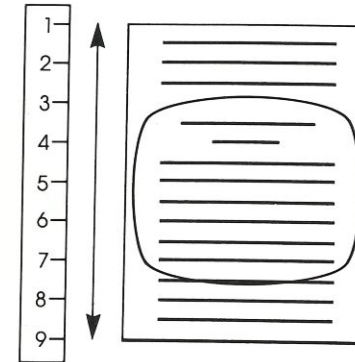
4. To leave the Options menu, press Escape.

You return to Review/Add/Change. Notice that the markers and options disappear.

❖ *Zooming in:* Sometimes you won't want to see the options while typing, and other times you will. You can tell AppleWorks to show you the options by zooming in on the text, using ⌘-Z. Looking at your text with the printer options showing gives you a better idea of how your report will print.

## Replacing words

Somebody made a horrible mistake when typing this bulletin: *Apple* is misspelled as *Appul* every time. That would be quite embarrassing to leave in, but it would also be time-consuming to change if you had to find each instance and replace it. Fortunately, AppleWorks can search through a document for mistakes and replace them automatically with corrections.



If you move to the beginning of the bulletin, you'll be sure to catch all occurrences of the mistake. You can move quickly with the AppleWorks Ruler. The Ruler divides a document into eighths, and you hop through it using the ⌘ key in combination with the numbers 1 through 9.

1. To move back to the beginning, press ⌘-1.
2. Now press ⌘-R for Replace.

AppleWorks asks what you want to replace:

Replace? Text Case sensitive text

You can have AppleWorks search for text in two ways: in the first way, it just looks for the text, ignoring whether the letters are uppercase or lowercase; in the other, it is case sensitive, so it only looks for text that matches exactly, including capitalization. Case sensitivity makes the search more specific.

In this case, all occurrences are capitalized, and you do not need to distinguish between two versions of the word (one with an initial capital, one without), so you do not need the second option, Case sensitive text.

3. Press Return to accept Text.

Now AppleWorks asks what you want to replace, and suggests the words you asked it to find earlier, Elmer Bodey. But you don't want to find Elmer Bodey again.

4. Press Control-Y to clear the rest of the line.

5. Type Appul.

6. Press Return.

AppleWorks asks what you want to replace Appul with.

7. Type Apple.







2. Press Return.

The text on the screen remains the same, but the page numbers are calculated. (Right now, you're in the middle of the first page and can't see the end of it.) To see what a page break looks like on screen, you can move through the file to find the end of the first page.

3. Press ⌘-F for Find.

4. To tell AppleWorks you want to find a page, press P.  
AppleWorks asks you what page to look for.

5. Type 1 and press Return.

The end of the first page looks like this:

```
File: Moms Bulletin          FIND          Escape: Review/Add/Change
-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
-----Set a Marker: 1
*
Elmer Bodey in the Crust Department won this month's
Suggestion Box award. He'll get a month's supply of Apple
Pie Filling as his reward for suggesting that we open up a
Pie Tasting Room. Such a tasting room could pep up our
interstate sales, as tourists carry news of our fabulous
pies across the border.*
*
----- End of Page 1 -----
The tasting room would be a nice addition to our new
factory, which you'll be pleased to know is proceeding
through the planning process on schedule. We've only just
recently applied for a $250,000 loan to help with
construction. The preliminary design for the building is in
the shape of an apple pie, with lots of windows for maximum
pie-cooling ability.*
*
Another fine employee, Alice Trimble, suggested that we
begin an aggressive advertising campaign featuring
-----
Find next occurrence?  No  Yes
```

AppleWorks indicates the page break by a series of hyphens. At the bottom of the screen, AppleWorks asks if you want to find another page.

6. Choose No.

Now the cursor blinks at the beginning of the page break. With the spelling corrected and a new, eye-catching opening paragraph, this bulletin is ready for Mom. So you won't lose any of the important changes you've made, in case a baker spills flour all over the computer, you should save them. The next section tells you how.

---

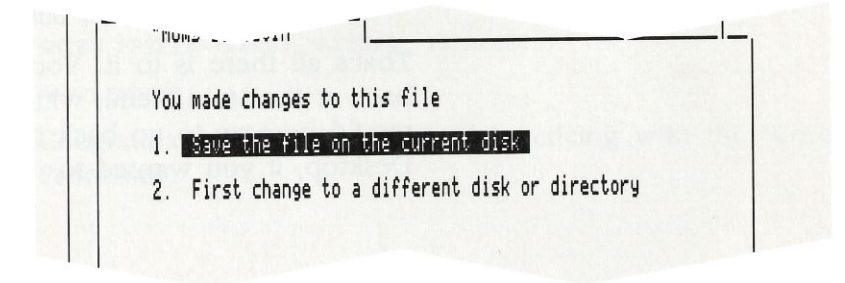
---

## Saving changes

You can save changes and keep the bulletin on the Desktop so that you can go back to it if necessary. You'll learn how to do that right now.

1. Return to the Main Menu. (Use Escape.)
2. Choose Save Desktop files to disk. Press Return.  
AppleWorks asks you which files you want to save.
3. Make sure the highlighting is on Moms Bulletin.  
Press Return.

AppleWorks offers you two options:



4. Choose Save the file on the current disk. Press Return.



(If you have one disk drive, AppleWorks asks you to put your sample files data disk in drive 1. Take out the program disk, and insert the sample files data disk. Press Return.)

Now AppleWorks tells you that the file already exists and wonders whether you want to let the new information replace the old or just save the file with a new name, to leave the original intact.

These options let you choose between keeping only the changed file and having a copy of both the original and the changed files.

5. Mom wants you to keep your original draft on file, so choose `Save with a different name`. Press Return.

AppleWorks asks you to type a new name for the file.

6. Type `New Bulletin` and use Control-Y to remove any remaining characters.
7. Press Return.

AppleWorks tells you it's carefully saving the file.

- ❖ *Note:* If AppleWorks tells you that the `New Bulletin` file already exists, that just means someone else has already used the disk and forgot to remove the file. Choose `Let the new information replace the old` to write the new `New Bulletin` over the old `New Bulletin`.

That's all there is to it. You've saved the file. Now you're back at the Main Menu, with `Add files` highlighted. It would be easy to go back to work with the file on the Desktop, if you wanted to.

---

---

## Leaving AppleWorks

You've used the Word Processor to polish up the bulletin you plan to send to Mom. You've saved the file and the changes to it, and now you're ready to quit AppleWorks.

If you want to start using the Word Processor right away, instead of leaving AppleWorks now, you can add your own files to the Desktop. From the Main Menu, choose the `Add Files` option. Remember that *Using AppleWorks* offers valuable information and step-by-step instructions for all of AppleWorks' features.

If you want to quit AppleWorks now,

1. From the Main Menu, type 6 for `Quit` and press Return.

AppleWorks asks if you really want to do this.

2. Press Y.

That tells AppleWorks that, yes, you do want to quit.

(If you're using one drive, AppleWorks asks you to put the program disk in drive 1. Replace the sample files data disk with the program disk. Press Return.)

AppleWorks gives you a final message, indicating that you've left the program:

```
ENTER PREFIX (PRESS "RETURN" TO ACCEPT)
```

```
/APPLEWORKS/
```

Congratulations! You've finished practicing with the Word Processor.

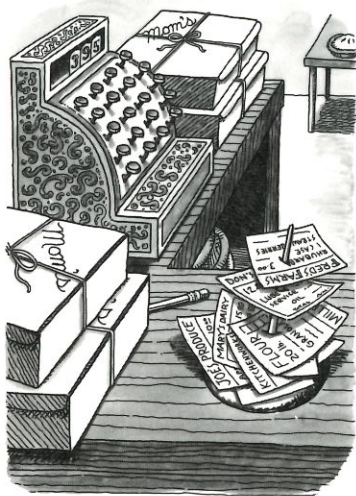


## Chapter 6



# The Spreadsheet





With *Apple Presents AppleWorks*, you learned the basics of the AppleWorks Spreadsheet. In this chapter, you'll review what you learned and use files for Mom's Apple Pie Company to practice with some more features in the Spreadsheet—including a closer look at how AppleWorks lets you play "What If?"

Mom Simon, the owner of Mom's Apple Pie Company, wants to know how sales are going. If they're high enough, especially in the new organic pie line, she wants to move even faster to build the new factory. You can help her decide by trying different scenarios, using one of the sample files for the Spreadsheet.

❖ *If you haven't started up AppleWorks:* Turn to Chapter 3 and follow the complete instructions there on starting up the real AppleWorks software.

## Getting a spreadsheet file

For the spreadsheet that you're preparing for Mom, you need to include projections for sales in the new organic pie line. Fortunately, that file's already on the sample files disk, so you won't have to make it from scratch. But you do have to get it from the disk.

AppleWorks files are like the files you keep in file folders. When you take a copy of a file off a disk, it's like making a photocopy of a file to work on, while you leave the original in a folder.

You want a copy of the Organic Growth file. When you put the copy on the Desktop, you'll be able to set up the sales projections that Mom wants for the new pies.

1. On the Main Menu, choose Add files to the Desktop. Press Return.
2. Choose The current disk.

(If you have one 5.25-inch disk drive, AppleWorks tells you to place your data disk in drive 1. Replace the *AppleWorks Program* disk with the *AppleWorks Sample Files Data Disk*. Press Return.)

The list of sample files appears on your screen.

3. Choose Organic Growth. (Move the highlighting with the Down Arrow, then press Return.)

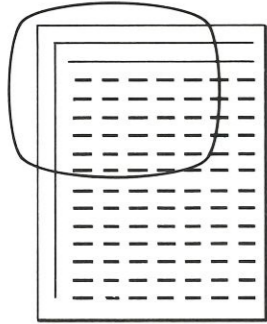
Now AppleWorks tells you it's getting the file.

(If you have one 5.25-inch disk drive, AppleWorks asks you to switch disks again. It needs more information from the program disk to help you work with the Organic Growth file. Replace the *AppleWorks Sample Files Data Disk* with the *AppleWorks Program* disk, and press Return.)

And there it is: projected growth in sales of the new organic pies.

```
File: Organic Growth          REVIEW/ADD/CHANGE          Escape: Main Menu
=====A=====B=====C=====D=====E=====F=====G=====H=====
1 Mom's Apple Pie Company: Growth in Organic Pie Sales (Projected)
2
3 Pie                               Oct      Nov      Dec      Qtr
4 ===                               ===      ===      ===      ===
5
6 Yogurt Yummy      High      360      540      810      1710
7                   Low       240      360      540      1140
8                   Expected  300      450      675      1425
9
10 Ragamuffin       High      120      132      165      417
11                  Low       80       88       110      278
12                  Expected  100      110      138      348
13
14 Vegetable       High      300      303      318      921
15                  Low       200      202      212      614
16                  Expected  250      252      265      768
17
18
-----
A1: (Label) Mom's App
Type entry or use ⌘ commands _                               ⌘-? for Help
```





## Moving through the file

When you think that a spreadsheet can range up to 999 rows high and 127 columns wide, you realize the importance of being able to move easily through the file. What you see on screen is much smaller than the potential size of the spreadsheet.

AppleWorks gives you a window on the spreadsheet. In the *Apple Presents AppleWorks* training disk, you used the arrow keys to move the highlighting around the window—and to move the window. But if you know what you're looking for, there's a faster way to find things.

## Finding a cell

Mom gave you a note asking you to check some figures on the spreadsheet and then add a new entry for another pie. She wants you to look at the expected sales of Yogurt Yummy pies for the next six months. If six-month sales are over 2,000, they'll be doing very well.

Mom's note also reminds you that the six-month sales projection for Yogurt Yummy is in cell L8. You can see that the expected sales for Yogurt Yummy are on row 8 and the *quarterly estimates* are in column G. But column L, with the *six-month figures*, is off the edge of the screen. There's a way to jump right to the appropriate cell, if you tell AppleWorks the column and row you want.

1. Press ⌘-F for Find.

In the lower left of the screen, AppleWorks asks you what you want to find.

Find? Repeat last Coordinates Text

Because you want to find a particular cell, you'll need to choose the *coordinates*—the column and the row.

2. Press C.

AppleWorks knows from that single letter that you want to choose Coordinates—because that word begins with a C.

3. Because the expected sales are in column L, row 8, type L8.

(You can type in either uppercase or lowercase—AppleWorks understands both.)

4. Press Return.

(That tells AppleWorks you've finished typing.)

AppleWorks finds cell L8 and moves the highlighting over there.

```
File: Organic Growth          REVIEW/ADD/CHANGE          Escape: Main Menu
=====J=====K=====L=====M=====N=====O=====P=====
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
    Jan    Feb    Mar    6Mos
    ===    ===    ===    ===
    850    893    938    4391
    567    595    625    2927
    709    744    781    3654
    182    200    220    1018
    121    133    146    679
    151    166    183    848
    321    325    328    1895
    214    216    219    1263
    268    270    273    1579
-----
L8: (Value) @SUM(G8...K8)
Type entry or use ⌘ commands _          ⌘-? for Help
```

Your window on the spreadsheet has moved past the right edge. Everything that you saw before is now off to the left.



The cell you asked AppleWorks to find is highlighted. You expect to sell 3659 Yogurt Yummy pies for the six months. Sales are climbing faster for this pie than for any other. It looks like a sure winner.

Notice that the cell indicator in the lower left has changed:

L8: (Value) @SUM(G8...K8)

This information tells you that AppleWorks finds the value of this cell using an *arithmetic function* called a sum.

### Arithmetic functions

An arithmetic function tells AppleWorks how to calculate a value for a cell. For example, cell L8 contains a number (called a *value*) that is the sum of the contents of cells G8 through K8. When you set up your own spreadsheets, you'll use formulas like this to calculate what you need to know.

The formula may look like gibberish, but it's fairly easy to understand. The @ sign tells AppleWorks that what follows is a function, rather than a number. SUM is the name of the function, and (G8...K8) tells AppleWorks which cells to sum up.

If you move your window on the spreadsheet to the left a bit, you can see how the function works. The first cell of the sum is cell G8.

Move the highlighting to cell G8, using the Left Arrow key. Now the highlighting is on expected quarterly sales for Yogurt Yummy pies.

File: Organic Growth      REVIEW/ADD/CHANGE      Escape: Main Menu

=====G=====H=====I=====J=====K=====L=====M=====N=====

1 (Projected)	Qtr	Jan	Feb	Mar	6Mos
===	===	===	===	===	===
1710	850	893	938	4391	
1140	567	595	625	2927	
<b>1425</b>	709	744	781	3659	
417	100	000	1018		

If you were to add up the values in cells G8 through K8, you'd see that they equal the value in cell L8.

### Jumping around the file

Remember that Mom wants you to add a new pie to the spreadsheet. You *could* do it right here in the middle of the spreadsheet, but it's probably better to keep the pattern and move to the lower left where there's a lot of blank space. AppleWorks makes it easy to move vertically in big jumps through the file. You can also jump horizontally across the screen.

1. Press ⌘-Left Arrow until you get to the left edge of the spreadsheet.

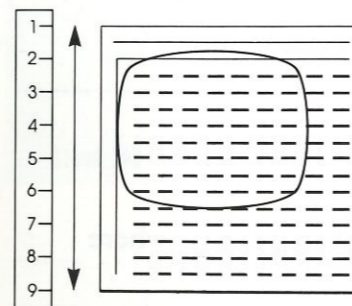
⌘ in combination with the arrow keys moves the cell cursor to the edge of the screen and then to the edge of the next screenful.

AppleWorks also divides the spreadsheet file from top to bottom into eighths. You can jump to any part by using ⌘ in combination with the number keys.

2. To move to the top of the file in the same column, press ⌘-1.

3. To move all the way to the bottom, press ⌘-9.

The bottom, for this command, is the last line you've put any information on.





## Making a new entry

Mom wants you to make a new entry for Rhubarb pie, which is already one of her favorites. She's sure it will be an even bigger seller, and she wants you to make projections for future sales, based on its previous rate of growth.

### Typing a label

A *label* in the Spreadsheet is a name for something. The three current pie entries all begin with a label containing the name of the pie. That's how you should start the entry for Rhubarb pie.

1. Use the Down Arrow to move the cursor to cell A18.

The cell indicator shows you that there's nothing in the cell, because you haven't typed anything yet.

2. Type Rhubarb.

As you type, the cell indicator changes to show that you're typing a label. Notice that what you type also appears in the highlighted cell.

11			80			
12		Expected	100	110	Low	348
13						
14	Vegetable	High	300	303	318	921
15		Low	200	202	212	614
16		Expected	250	252	265	768
17						
18	Rhubarb					

---

A18  
Label: Rhubarb  
Complete the label

54K Avail.

3. Now use arrow keys to move to column C, where you'll put the next batch of information.

When you press an arrow key after typing something, you tell AppleWorks you've finished typing (just like pressing Return), but you also move one cell in the direction of the arrow. With Return, the cursor stays on the same cell.

### Copying cells

AppleWorks lets you copy information you've already typed so that you don't have to type it again. You can copy labels, values, and formulas (telling AppleWorks how to calculate values for cells). You can copy information exactly or make the copies relative to their new position. This can save you a lot of work.

Mom has asked you to estimate Rhubarb pie sales for fall quarter. Notice that each pie has high, low, and expected estimates for the quarter. You could type in new formulas for Rhubarb pie's estimates, but why bother? Because the labels—and most of the formulas—for Vegetable pies apply equally to Rhubarb pies, you can copy them and then change those that should be different.

The copy process has several steps. To start, you'll want to copy the High label and values from the Vegetable pie entry.

1. Move the highlighting to the label High in cell C14.
2. Press ⌘-C for Copy.

At the bottom of the screen, AppleWorks asks you how you want to copy:

11			80			
12		Expected	100	110	Low	348
13						
14	Vegetable	High	300	303	318	921
15		Low	200	202	212	614
16		Expected	250	252	265	768
17						
18	Rhubarb					

---

C14: (Label) High

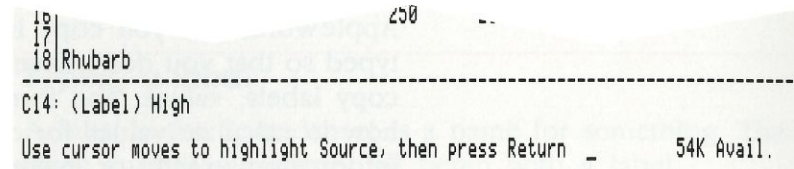
Copy?  Within worksheet  To clipboard  From clipboard



AppleWorks' best guess is that you want to copy within the worksheet. (The worksheet is AppleWorks' term for the document you're working with, using the Spreadsheet program.)

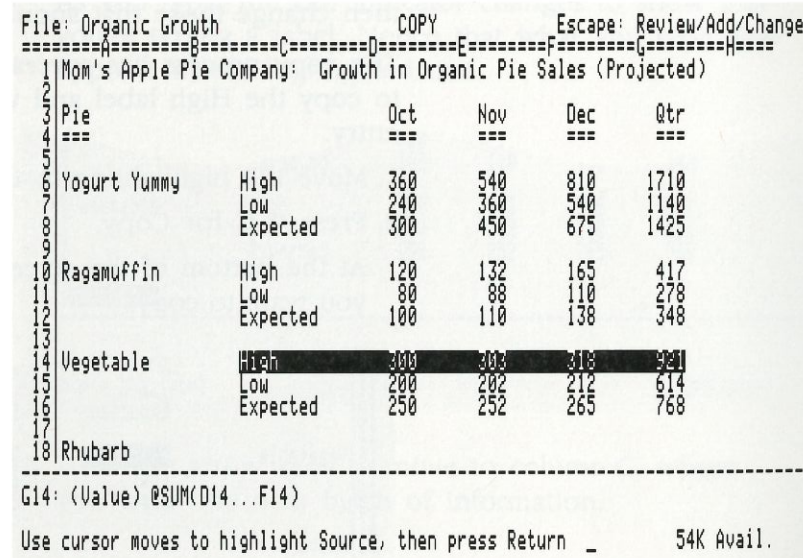
- To confirm that you want to copy within the worksheet, press Return.

Now AppleWorks asks you to



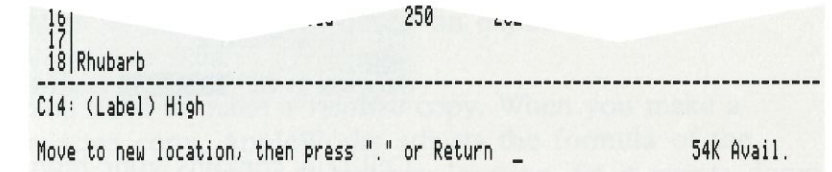
- To highlight the *source*—the cells to be copied from—press the Right Arrow four times.

That highlights a *block*—a group of adjacent cells. With the block of cells C14 through G14 highlighted, your screen looks like this:



- To accept the highlighted cells as the source, press Return.

AppleWorks asks you to



- You want to copy these cells to row 18, in the Rhubarb pie entry, so move back to cell C18. Press Return.

It may look as if nothing much has happened, but AppleWorks is waiting for you to make a decision about how to copy the cells.

## Making relative copies

Formulas can include references to values in other cells. These references, known as *pointers*, tell AppleWorks to go to the other cell and bring back the value there for use in the cell's formula. Sometimes you want to preserve the pointer as it is, with no change; other times you want it to be changed, relative to the new position of the formula. That's the question AppleWorks is posing you in the lower-left corner of the screen right now.

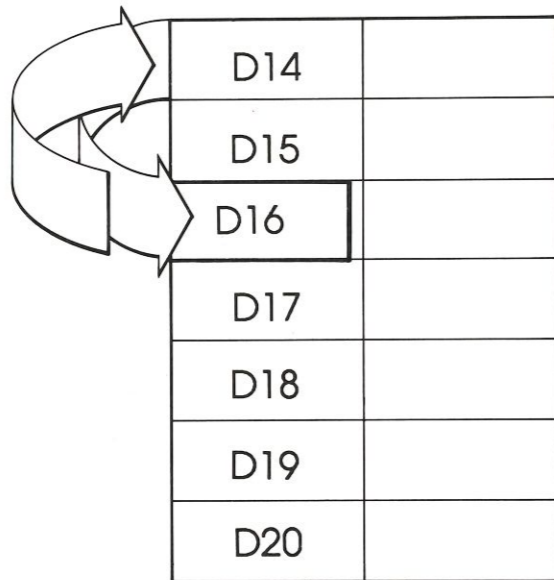
13			100			
14	Vegetable	High	300	303	318	921
15		Low	200	202	212	614
16		Expected	250	252	265	768
17						
18	Rhubarb					

---

D14: (Value) +D16\*1.2  
+D16\*1.2  
Reference to D16? **No change** Relative

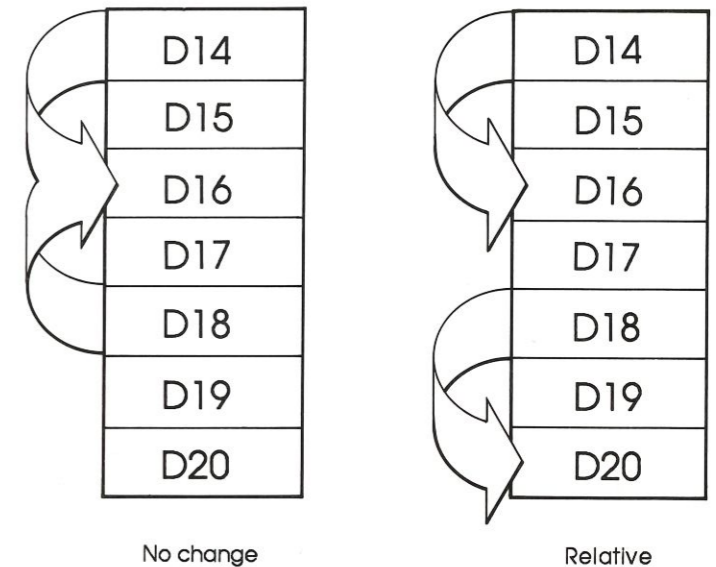
Cell D14 contains your high estimate of October sales for Vegetable pies. The formula for cell D14 includes a pointer, pointing AppleWorks to the value in another cell, D16, which represents the expected (or average) estimate of those sales. The +D16 tells AppleWorks to take the positive value from cell D16 (expected sales), and the \*1.2 tells AppleWorks what to do with that value—to multiply it by 1.2.

So when AppleWorks sees this formula in cell D14, it goes down to cell D16, takes the expected value there, multiplies it by 1.2, and then puts the result back up in cell D14. That's how AppleWorks calculates the High value for October Vegetable pie sales.



If you were to copy the formula to Rhubarb pies with no change, it would still point back to cell D16, because D16 contains information for Vegetable pies. This would give you the wrong number for Rhubarb pies. You'd have high sales for Rhubarb pies based on expected sales for Vegetable pies.

You need to make a *relative* copy. When you make a relative copy, AppleWorks adjusts the formula of the copied cell relative to its new location. So it points down two cells from D18—to D20, which will contain the expected sales for Rhubarb pies, instead of Vegetable pies.



- To copy this formula relatively, press R for Relative. The highlighting moves over to cell E14. That will use the same basic formula, relatively speaking.
- Press R for Relative. The cursor moves over to cell F14. That, too, uses the same basic formula, with adjustments being made for its new position.



3. Press R again.

Now the cell cursor is on cell G14—the high estimate for quarterly sales. Down in the lower-left corner you can see that this cell sums up the monthly estimates:

15			200	4%	260	768
16	Expected		250	252	260	768
17						
18	Rhubarb					

G14: (Value) @SUM(D14...F14)  
 @SUM(D14...F14)  
 Reference to D14?  No change  Relative

This formula starts totaling with the value in cell D14 and finishes with the value in cell F14. AppleWorks gives you a chance to copy either pointer relatively. For this copy, you'll need to make both copies relative.

4. Press R twice more.

AppleWorks calculates the values of the new cells, and then finishes the copies:

File: Organic Growth      REVIEW/ADD/CHANGE      Escape: Main Menu

====A=====B=====C=====D=====E=====F=====G=====H=====

1 Mom's Apple Pie Company: Growth in Organic Pie Sales (Projected)

Pie		Oct	Nov	Dec	Qtr
Yogurt Yummy	High	360	540	810	1710
	Low	240	360	540	1140
	Expected	300	450	675	1425
Ragamuffin	High	120	132	165	417
	Low	80	88	110	278
	Expected	100	110	138	348
Vegetable	High	300	303	318	921
	Low	200	202	212	614
	Expected	250	252	265	768
Rhubarb	High	0	0	0	0

C14: (Label) High  
 Type entry or use ⌘ commands      ⌘-? for Help

The highlighting returns to cell C14, with the label High. Notice that labels like the one in cell C14 are copied exactly. The numeric values come out to zero because the formulas point to cells that you haven't copied yet.

You're now ready to copy the next row.

### Copying another row

Now that you've seen how to copy formulas relatively, copying the next row should be relatively easy. The highlighting is just above the cell you want to start copying from.

1. Move to cell C15.
2. Press ⌘-C, to tell AppleWorks you want to copy again. AppleWorks asks how you want to copy.
3. To copy within the worksheet, press Return. Now you're ready to tell AppleWorks what to copy.
4. To highlight the source cells, press the Right Arrow four times.
5. Press Return.
6. Move to cell C19, the beginning of the new location.
7. Press Return.

AppleWorks asks if you want to make the first copy relative. All the copies you'll make should be relative, so that they point to Rhubarb pie cells instead of Vegetable pie cells.

8. Press R five times.

That's it! You've copied the second row into the new pie entry. But it's off the screen, so you can't see it yet. Wait until you've finished copying the last row; then you'll take a look at the complete set of estimates for Rhubarb pie.





## Changing a key value

If you change the value in a key cell, the values for all the cells that depend on that cell will change, too.

1. To change the value in cell D20, move to cell D20. (Use the Right Arrow.)

2. Type 200.

As you type, the new value appears in the lower left of the screen.

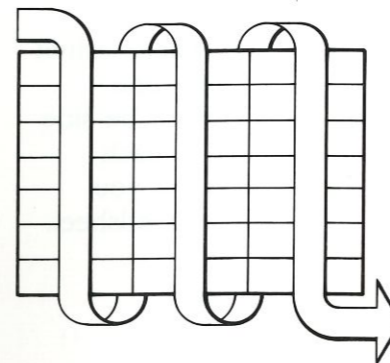
3. Press Return.

AppleWorks recalculates the whole set of cells.

File: Organic Growth		REVIEW/ADD/CHANGE				Escape: Main Menu
		Oct	Nov	Dec	Qtr	
3	Pie	Oct	Nov	Dec	Qtr	
4	===	===	===	===	===	
6	Yogurt Yummy	High	360	540	810	1710
7		Low	240	360	540	1140
8		Expected	300	450	675	1425
10	Ragamuffin	High	120	132	165	417
11		Low	80	88	110	278
12		Expected	100	110	138	348
14	Vegetable	High	300	303	318	921
15		Low	200	202	212	614
16		Expected	250	252	265	768
18	Rhubarb	High	240	303	318	861
19		Low	160	202	212	574
20		Expected	200	202	212	614

D20: (Value) 200  
Type entry or use ⌘ commands \_ ⌘-? for Help

If you add up these figures, though, you'll find that they're not all correct. Here's why: As this file is set up, AppleWorks calculates down each column, starting on the left side of the spreadsheet and moving to the right. If an upper cell's value is based on the value in a lower cell, the upper cell's value may not be calculated correctly.



Order of calculation

To see this, look at cell E19. Cell E19 contains a pointer to a cell below it, +E20\*8. When you pressed Return in step 3, AppleWorks had to calculate the value in E19 before the value in cell E20. The value in cell E20 was still 252 (from previous calculations), so the value of cell E19 was calculated as 252\*8, or 202. But after E19 was calculated, E20 was recalculated and came out as a lower value. To get the correct value in E19 (and all the other cells), you must have AppleWorks recalculate.

4. Press ⌘-K for Kalculate. (C already stands for Copy.)

Now all the values are recalculated and rounded off to the correct amounts.

13						
14	Vegetable	High	300	303	318	921
15		Low	200	202	212	614
16		Expected	250	252	265	768
17						
18	Rhubarb	High	240	242	255	737
19		Low	160	162	170	491
20		Expected	200	202	212	614

E19: (Value) +E20\*8  
Type entry or use ⌘ commands \_ ⌘-? for Help

Congratulations! You've just added a new pie—one of Mom's favorites—and calculated a new amount for it.

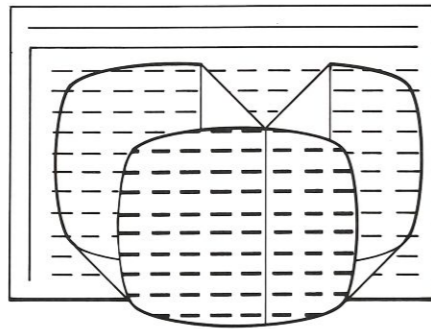
## Split spreadsheets

You've already played "What If?" on the *Apple Presents AppleWorks* training disk to see how changing a value affected other cells on the screen. But what if you want to change a value in a cell on one end of the spreadsheet and see the result in a cell on the other end? For instance, suppose you wanted to see how high sales could be for six months if October sales increased by ten percent.



AppleWorks can show you information from one end of the spreadsheet at the same time as information from the other end, by splitting your spreadsheet.

When you split a spreadsheet, you're using what's called *windowing*. You see part of the spreadsheet in one window, and part in the other. The windows can be side by side, or top and bottom. And the contents of each window can move independently of the other, if you want, so you can change either view of the spreadsheet.



The spreadsheet divides at the location where you have the cell cursor.

1. Move the cell cursor to cell G8.

That's the expected quarterly sales for Yogurt Yummy.

In order to see the six months' results for Yogurt Yummy at the same time as the October estimate, tell AppleWorks you want to use windows:

2. Press ⌘-W for Windows.

At the bottom of the screen, AppleWorks asks how you want to set up the windows:

Windows? Side by side Top and bottom

Because the October column is on the left and the Six Months column off to the right, you need side-by-side windows.

3. Press Return to accept Side by side.

A strip of numbers appears between columns F and G—that's your window frame.

File: Organic Growth REVIEW/ADD/CHANGE Escape: Main Menu

	A	B	C	D	E	F	G
3	Pie			Oct	Nov	Dec	Qtr
4	===			===	===	===	===
5							
6	Yogurt Yummy	High		360	540	810	1710
7		Low		240	360	540	1140
8		Expected		300	450	675	1425
9							
10	Ragamuffin	High		120	132	165	417
11		Low		80	88	110	278
12		Expected		100	110	138	348
13							
14	Vegetable	High		300	303	318	921
15		Low		200	202	212	614
16		Expected		250	252	265	768
17							
18	Rhubarb	High		240	242	255	737
19		Low		160	162	170	491
20		Expected		200	202	212	614

G8: (Value) @SUM(D8...F8)

Type entry or use ⌘ commands \_ ⌘-? for Help

But this only shows you the same thing you saw before, with an extra bar of numbers.

You can move the view in the right-hand window so that you can see the six-month total, though.

4. Use the Right Arrow, and move to cell L8.

(Each time you press Right Arrow, another column moves into the window and the first one scrolls off to the left.)



Now you can see the relationship of Yogurt Yummy's six-month sales estimate to its October estimate:

File: Organic Growth		REVIEW/ADD/CHANGE			Escape: Main Menu	
A	B	C	D	E	F	L
3	Pie		Oct	Nov	Dec	6Mos
4	===		===	===	===	===
6	Yogurt Yummy	High	360	540	810	4391
7		Low	240	360	540	2927
8		Expected	300	450	675	3634
9						
10	Ragamuffin	High	120	132	165	1018
11		Low	80	88	110	679
12		Expected	100	110	138	728

But how do you get from one window to the other so that you can change the value for October sales? It's easy—you jump!

5. Press ⌘-J for Jump.

Now the cursor's in the left window, in cell F8.

6. To change the October estimate and see its effect on the six-month total, move to cell D8 (expected October sales).

7. Type 330 and press Return.

330 indicates a ten-percent increase in sales. AppleWorks recalculates. And as you desired, there are the results for six months later:

File: Organic Growth		REVIEW/ADD/CHANGE			Escape: Main Menu	
A	B	C	D	E	F	L
3	Pie		Oct	Nov	Dec	6Mos
4	===		===	===	===	===
6	Yogurt Yummy	High	396	594	891	4830
7		Low	264	396	594	3220
8		Expected	330	495	742	4025
9						
10	Ragamuffin	High	120	132	165	1018
11		Low	80	88	110	679
12		Expected	100	110	138	728

Sales would be phenomenal, then, if they were only ten percent higher in October.

Congratulations! Mom will be surprised and pleased when she sees this report showing that sales of organic pies are going so well.

## Saving the file

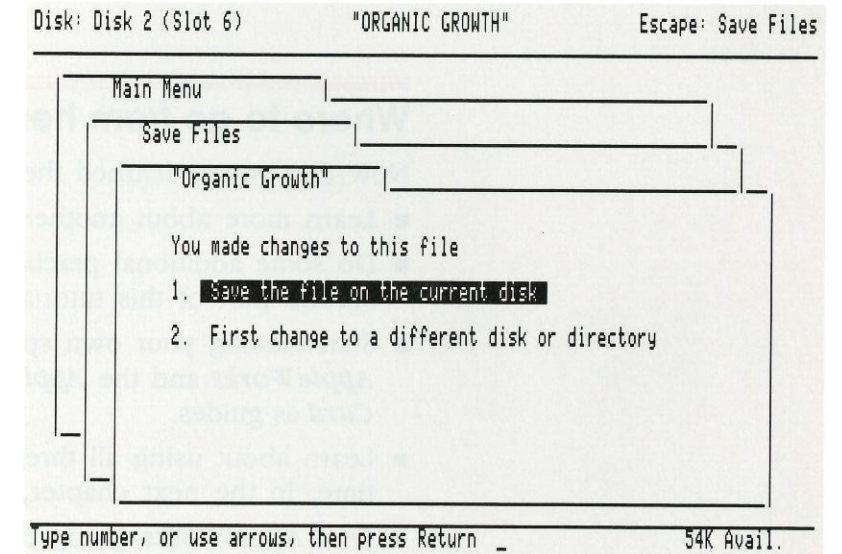
You've made a lot of changes to the Organic Growth file. But they're only on the Desktop—the computer's memory. If one of the bakers trips over the cord, all those changes will disappear, and Mom won't get her report. You can keep the changes safe, though, if you save them onto the sample files disk. You'll do that in this section.

1. Press Escape twice to return to the Main Menu.
2. Choose Save Desktop files to disk. Press Return.

AppleWorks lists whatever files are now on the Desktop. Make sure that Organic Growth is highlighted.

3. To choose it, press Return.

AppleWorks now offers you two options:



4. Choose Save the file on the current disk. (If you have one 5.25-inch disk drive, AppleWorks asks you to put your data disk in drive 1. Take out the program disk and insert the sample files disk. Press Return.)

Now AppleWorks tells you that your file already exists there. You can take your changed file and write it over the original, wiping out the older version. Or you can preserve the original, by giving this file a new name so that it will be saved in another location.

You will probably want to keep your original spreadsheet on file, so that others can practice with it.

7. Choose Save with a different name.

AppleWorks asks you to type a new name for the file.

8. Type `New Growth` and use Control-Y to remove any remaining characters.

9. Press Return.

As long as you are using a disk that is not write-protected, AppleWorks tells you it's carefully saving the file, and how to cancel the save, if necessary (by pressing Escape before the message disappears). Now you're back at the Main Menu.

---

---

### Where to go from here

Now that you've learned the Spreadsheet basics, you can

- Learn more about another application in this tutorial.
- Do some additional practice on the Spreadsheet, in the second part of this tutorial.
- Start making your own spreadsheets, relying on *Using AppleWorks* and the *AppleWorks Quick Reference Card* as guides.
- Learn about using all three applications at the same time, in the next chapter, "Putting It All Together."
- Quit AppleWorks, using option 6 from the Main Menu and following the instructions on the screen.

Any direction you go will be fine.



## Chapter 7



### Putting It All Together





You've used the Data Base, the Word Processor, and the Spreadsheet to produce parts of a bulletin to the head of Mom's Apple Pie Company (Mom, of course). Now's your chance to put them all together—without scissors and without glue. You'll do it electronically, using AppleWorks.

Mom wants to know the facts about the new organic pie line. The New Pies file in the Data Base tells how sales have been. The New Growth file in the Spreadsheet projects future sales trends. And the New Bulletin file on the Word Processor contains the bulletin itself. When you combine the three, she'll have all the facts at her fingertips.

The projections from the Spreadsheet have already been copied into the letter. In this chapter, you'll put the facts from the Data Base into the letter, too.

If you were using three different programs to produce the three parts of the document, you would probably have to print them out separately, and resort to scissors and glue to put them together. Most programs aren't able to talk to each other. But with AppleWorks you can transfer the data from files in one application to files in another.

❖ *Do Chapters 4 and 5 first.* If you haven't saved the New Pies file in the Data Base chapter and the New Bulletin file in the Word Processor chapter, do that before going on in this chapter.

---

---

## Getting files

You have the information Mom wants about organic pies sales conveniently stored in the New Pies file. (You changed the original Organic Pies file in Chapter 4 and saved it with this new name.) You also need the New

Bulletin file; it contains the word processor document into which you want to copy the data base information.

In order to work with these files, you have to take them off the sample files disk and transfer them to the Desktop (the computer's random-access memory, or RAM).

(Chapter 3, "Starting the Real Program," will help you start up AppleWorks, if you need to review.)

1. To get the New Bulletin file from the current disk, start at the Main Menu and choose `Add files to the Desktop`.
2. Choose to get the file from the current disk.  
(If you have one 5.25-inch disk drive, AppleWorks asks you to put your data disk in drive 1. Remove the program disk from drive 1, and replace it with the sample files data disk. Press Return.)  
The list of sample files appears.
3. You can put more than one file on the Desktop at once, using the arrow keys to select files. Move the highlighting to `New Bulletin`.
4. To select the file, press Right Arrow.
5. Now move the highlighting to `New Pies`. Press Right Arrow to select it. To confirm your selections, press Return.

That accepts your choices.

AppleWorks tells you it's getting the files. Then it tells you that it's put both files on the Desktop. You see the Desktop Index.

6. Choose `New Pies`.

(If you have one 5.25-inch disk drive, AppleWorks asks you to put the program disk into drive 1. It needs more information from that disk before you can work with the file. Remove the sample files data disk from drive 1, and replace it with the program disk. Press Return.)



Congratulations! The New Pies file is on your screen, ready for you to copy it to the word processor document.

File: New Pies                      REVIEW/ADD/CHANGE                      Escape: Main Menu

Selection: Units Sold is greater than 300  
and      Date Introduced is after May

Pie Name	Units Sold	Units/Month	Profit/Unit	Total Sales
Apple Light	4000	2000	\$1.20	\$16,000
Carob Crunch	3600	900	\$1.11	\$14,000
Coconut Custard	2800	700	\$1.07	\$12,000
Kumquat	600	150	\$2.00	\$3,600
Pure Peach	800	400	\$0.84	\$3,200
Ragamuffin	500	250	\$0.90	\$2,000
Rhubarb	400	200	\$1.00	\$1,600
Squash Blossom	400	200	\$1.00	\$1,600
Strawberry Strip	460	200	\$2.83	\$1,600
Very Berry	6000	1500	\$1.08	\$24,000
Yogurt Yummy	1250	300	\$0.58	\$3,675

-----  
Type entry or use ⌘ commands                      ⌘-? for Help

With both files on the Desktop (but just one on the screen), you're ready to transfer information from one into the other.

---

---

## Copying from the Data Base into the Word Processor

In order to transfer data base information into a word processor document, you have to get the data formatted the way you want it, then "print" that report to the clipboard so that you can copy it from the clipboard into the Word Processor.

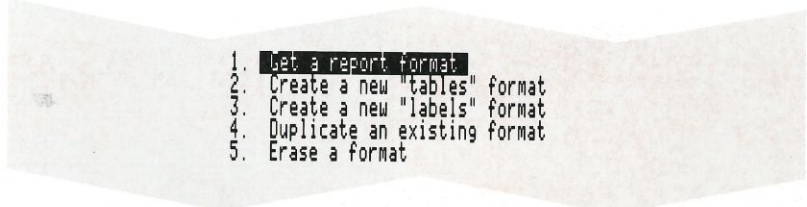
---

## Preparing to print

When you want to print a data base report—either on paper or to the clipboard—you need to prepare a format in which to print it.

1. To prepare to print, press ⌘-P.

The Report menu appears, with five options:

- 
1. Get a report format
  2. Create a new "tables" format
  3. Create a new "labels" format
  4. Duplicate an existing format
  5. Erase a format

You've already set up a format for a report on New Pies. AppleWorks guesses you will want it to fetch the previously created format.

2. Choose Get a report format. Press Return.

Now AppleWorks offers a list of current report formats. There's only one format set up. It's called Organic Pie Sales, and it's highlighted.

3. Choose Organic Pie Sales. Press Return.



The file appears on your screen in report format.

```
File: New Pies          REPORT FORMAT          Escape: Report Menu
Report: Organic Pie Sales
Selection: Units Sold is greater than 300
and Date Introduced is after May

=====
--> or <-- Move cursor          ⌘-J Right justify this category
> ⌘ < Switch category positions  ⌘-K Define a calculated category
--> ⌘ <-- Change column width    ⌘-N Change report name and/or title
⌘-A Arrange (sort) on this category  ⌘-O Printer options
⌘-D Delete this category            ⌘-P Print the report
⌘-G Add/remove group totals        ⌘-R Change record selection rules
⌘-I Insert a prev. deleted category  ⌘-T Add/remove category totals

=====
Pie Name  Units Units/Mo Date Total Sa Total Pr Profit/U L
-A-----B---C-----D--E-----F-----G-----e
Apple Light 4000 2000 Jul $16,000 99999999 $1.20 n
Carob Crunch 3600 900 May $14,000 99999999 $1.11 6
Coconut Cust 2800 700 May $12,000 99999999 $1.07 0
=====
Use options shown above to change report format          50K Avail.
```

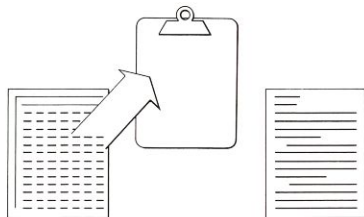
The report is ready to print to the clipboard. Remember that the 9's indicate that the numbers will be right justified; during printing, the 9's will be replaced with your actual figures.

You have already made sure that the length of these lines is only 60 characters—short enough to fit into the word processor document without losing the end of the line. So you're all set to copy it to the clipboard.

### Printing a report to the clipboard

After you've put a data base report in the format you want, you can move it into a word processor document by "printing" the report to the clipboard, getting the word processor document that will contain the copy, and then copying the report from the clipboard into your word processor document.

1. To tell AppleWorks you want to print the report, press ⌘-P for Print.



AppleWorks asks where you want to print it:

```
File: New Pies          PRINT THE REPORT          Escape: Report Format
Report: Organic Pie Sales
Selection: Units Sold is greater than 300
and Date Introduced is after May

=====
Where do you want to print the report?

1. ImageWriter
2. The screen
3. The clipboard (for the Word Processor)
4. The clipboard (for Mail Merge)
5. A text (ASCII) file on disk
6. A DIF (TM) file on disk

=====
Type number, or use arrows, then press Return          50K Avail.
```

The options on your screen may be different. These options are those set up for AppleWorks when you buy it. You change them when you inform AppleWorks about different printers you may have. (See *Using AppleWorks*.)

AppleWorks' best guess is that you want the first option. But you want to print to the clipboard.

2. Choose The clipboard (for the Word Processor). Press Return.

Now AppleWorks asks you to

Type report date or press Return: \_

3. Because New Bulletin (the word processor document) already has a date on it, you don't need to put a date on the information from the data base, so press Return.

And that's it. As AppleWorks tells you,

The report is now on the clipboard, and can be moved or copied into Word Processor documents.



4. Now you need to leave the Data Base and go to the Word Processor, so press the Space bar.

You return to the Report Format display for organic pie sales.

### Switching to the Word Processor

There's a quick way to switch from one application to another.

1. Press ⌘-Q for Quick change.

The Desktop Index appears on top of the Report Format display.

2. Choose New Bulletin. Press Return.

And now the New Bulletin appears:

```
File: New Bulletin          REVIEW/ADD/CHANGE          Escape: Main Menu
=====
Ms. Simon, you requested a bulletin reflecting our annual
performance and outlining projections for next year's
performance. Here it is.

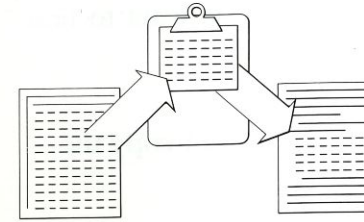
Good news from the market analysts. The Horner-Shwartzfogel
industry pie chart shows us a strong leader city-wide in all
categories. We've come a long way from giving pies to the
neighbors through the kitchen window.

All in all, it's been a good year, and projections show that
next year should be even better. With the new factory in
place, our extra capacity should make us able to keep up
with the stratospheric demand for Mom's Apple Pies that we
anticipate.

Sales in the Organic Pie line are booming! Yogurt Yummy is
really taking off, as are Very Berry and Apple Light.

By the way, we've changed the spelling of Granola Pudding
Delight, as you've suggested. Calling it Granola Pudding
=====
Type entry or use ⌘ commands          Line 1 Column 1          ⌘-? for Help
```

Now that you're in the bulletin, you can copy the data base information from the clipboard.



### Copying information from the clipboard

Even though you've left the Data Base and gotten a file for the Word Processor, the data base report is still waiting for you on the clipboard. All you have to do is copy it into the New Bulletin.

You could copy the information to the beginning of the document, where the cursor is right now, and then move it to its proper location. But the easiest thing to do is to move the cursor to the right place first, then copy. Remember that you set a marker after the heading Organic Pie Sales? That's where you want to move this. Here's how:

1. Press ⌘-F for Find.

2. To have AppleWorks look for a marker, press M.

3. Because that was your first marker and you numbered it 1, type 1 and press Return.

You move right to the location where you want to put the copy.

```
File: New Bulletin          FIND          Escape: Review/Add/Change
=====
Vegetable      High      300      303      318      921*
                Low       200      202      212      614*
                Expected  250      252      265      768*
*
Here are the stats on our best-selling organic pies:*
*
-----Centered          Organic Pie Sales*
-----Unjustified
-----Set a Marker: 1
*
Elmer Bodey in the Crust Department won this month's
Suggestion Box award. He'll get a month's supply of Apple
Pie Filling as his reward for suggesting that we open up a
Pie Tasting Room. Such a tasting room could pep up our
interstate sales, as tourists carry news of our fabulous
pies across the border.*
*
-----End of Page 1-----
The tasting room would be a nice addition to our new
=====
Find next occurrence?  No  Yes
```



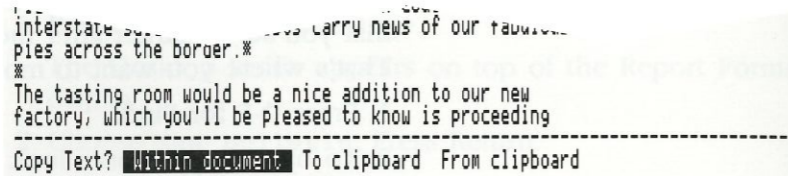
You want to insert the information at the marker in the middle of the page. AppleWorks asks if you want to find the next marker.

4. Choose No.

Now that you're at the right location, you can copy the data base information from the clipboard.

5. To copy, press ⌘-C.

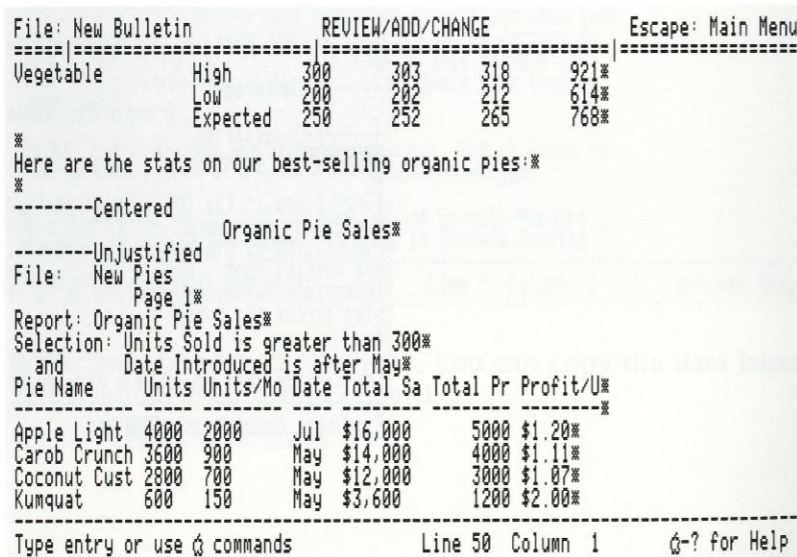
AppleWorks asks how you want to copy the information:



AppleWorks guesses that you'll want to copy within the document.

6. But you want to copy from the clipboard, so choose From clipboard.

AppleWorks inserts the information from the Data Base, just like that.



Notice that when you copy from the clipboard, AppleWorks automatically shows you the printer options you've used. These options won't print in the final document.

The data base information starts right where you chose to put it, but the extra information at the top—the file and record selection information—won't make much difference to Mom. The bulletin would look nicer without it.

### Editing copied information

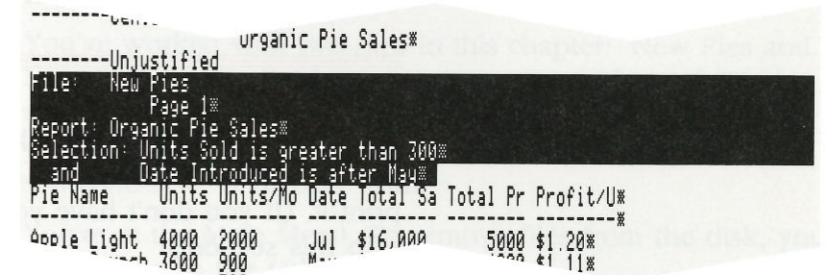
You can delete the extra text using the Delete feature.

1. Press ⌘-D for Delete.

The cursor turns into a solid rectangle, ready for you to highlight the material you want to delete.

2. Highlight everything between the cursor and Pie Name.

(Press the Down Arrow five times and press Left Arrow once to highlight the information you want to get rid of).



3. To delete the lines, press Return.

The lines are deleted. But you could still make it look a little nicer if there were space between the heading for the data and the data itself.

4. Press Return.

There! The document's got everything in it that you need. Mom's people—like you—have all got the right stuff, and so do their documents.

```
File: New Bulletin          REVIEW/ADD/CHANGE          Escape: Main Menu
=====
Vegetable      High      300      303      318      921%
               Low       200      202      212      614%
               Expected 250      252      265      768%
*
Here are the stats on our best-selling organic pies:*
*
-----Centered
-----Unjustified
Organic Pie Sales*
*
Pie Name      Units Units/Mo Date Total $a Total Pr Profit/U*
-----
Apple Light  4000  2000   Jul $16,000   5000 $1.20*
Carob Crunch 3600   900   May $14,000   4000 $1.11*
Coconut Cust 2800   700   May $12,000   3000 $1.07*
Kumquat       600   150   May $3,600    1200 $2.00*
Pure Peach    800   400   Jul $3,200     670 $0.84*
Ragamuffin   500   250   Jul $2,000     450 $0.90*
Rhubarb      400   200   Jul $1,600     400 $1.00*
Squash Bloss 400   200   Jul $1,600     400 $1.00*
-----
Type entry or use ⌘ commands          Line 51 Column 1          ⌘-? for Help
```

The bulletin is ready to print. Congratulations! The New Bulletin is sure to be a success.

## Printing

If you have your printer hooked up and would like to see how the New Bulletin looks on paper, now's a good time to print it. (If you don't have your printer hooked up, you can skip this section.)

1. To print the document, press ⌘-P.

AppleWorks asks you where you want to print from.

```
Print from? Beginning This page Cursor
```

Why not print the whole thing?

2. Press B for Beginning.

Now AppleWorks asks you which of the printers on your list you want to use.

3. Type the number of the printer you choose, and press Return.

AppleWorks asks

```
How many copies? 1
```

AppleWorks guesses that you'll want one.

4. Press Return.

AppleWorks prints New Bulletin. AppleWorks lets you press the Space bar to pause or Escape to quit printing, if necessary. Sometimes you may want to pause to see if everything's printing correctly, or quit if it isn't.

(AppleWorks will stop sending information to the printer, but your printer may already have some information in its memory and it will go on printing until it's used up all of that, so the pause is not instantaneous.)

And that's it! You have a printed copy of the document you've created. Now you can go back to the Main Menu and leave AppleWorks.

5. Press Escape.

You're back at the Main Menu.

---



---

## Removing files

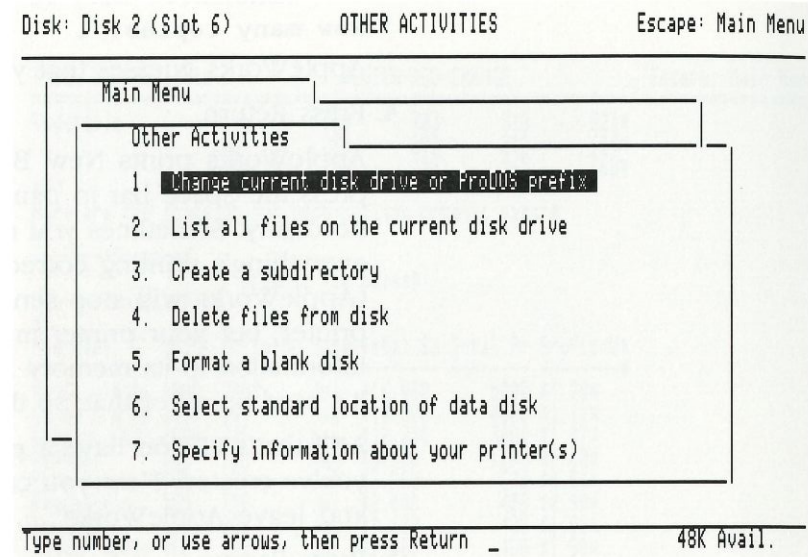
You've worked with two files in this chapter: New Pies and New Bulletin. To finish up your practice with AppleWorks, remove the changes from the sample files data disk. Then you'll have a sample files data disk that's like new for someone else to practice with.

You're at the Main Menu. To remove files from the disk, you need to go to the Other Activities menu.



1. Choose Other Activities. Press Return.

The Other Activities Menu appears.



2. To remove the new files from the disk, choose Delete files from disk. Press Return.

(If you only have one 5.25-inch disk drive, AppleWorks asks you to put the sample files data disk in drive 1. Take out the program disk and replace it with the sample files data disk. Press Return.)

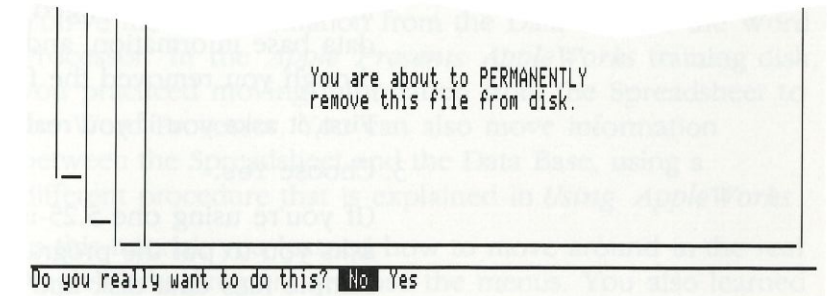
AppleWorks puts a list of sample files on top of the Other Activities menu. This list includes those files you saved in the Word Processor, Data Base, and Spreadsheet chapters. Those new files are the ones you want to delete. You can select them all at the same time.

3. Choose New Bulletin, New Pies, and New Growth. (Use the Right Arrow to select each one.)

Once you've selected all three files, you can remove them.

4. Press Return.

AppleWorks warns you that you'll erase New Bulletin:



Because you already have the original file safely on disk, you can remove this changed version.

5. Choose Yes.

That tells AppleWorks that, yes, you do want to remove the file.

Now AppleWorks tells you you're going to remove New Pies from the disk.

6. Choose Yes.

And finally, AppleWorks asks if you want to remove New Growth.

7. Choose Yes.

That's all there is to it. The files have been removed from the disk. Now you're ready to leave AppleWorks.

---

---

## Leaving AppleWorks

You leave AppleWorks from the Main Menu.

1. Return to the Main Menu.
2. Choose Quit. Press Return.

AppleWorks doesn't just quit and let you lose everything in memory. (You changed the New Bulletin by adding the data base information, and it's still on the Desktop, even though you removed the file from the disk.)

First, it asks you if you really want to quit.

3. Choose Yes.

(If you're using one 5.25-inch disk drive, AppleWorks asks you to put the program disk in drive 1. Take out the sample files data disk and insert the program disk. Press Return.)

AppleWorks tells you that you made changes to New Bulletin, and asks you how you want to save them.

4. Choose Throw out the changes to the file.
5. To confirm that this is what you want to do, press Y.

That tells AppleWorks that, yes, you really do want to throw out the changes.

You see the following message:

```
ENTER PREFIX (PRESS "RETURN" TO ACCEPT)
```

```
/APPLEWORKS/
```

And that's it!

---

---

## Where to go from here

You've practiced with all three AppleWorks activities:

- the Data Base
- the Word Processor
- the Spreadsheet

You've moved information from the Data Base to the Word Processor. In the *Apple Presents AppleWorks* training disk, you practiced moving information from the Spreadsheet to the Word Processor. You can also move information between the Spreadsheet and the Data Base, using a different procedure that is explained in *Using AppleWorks*.

In this tutorial, you learned how to move around in the real AppleWorks program and use the menus. You also learned how to format files for printing and how to move files onto and off of the Desktop.

When you're out on your own, you can learn even more advanced features for all of AppleWorks' activities. If you have questions, look up the answers in the book *Using AppleWorks*.

The *AppleWorks Quick Reference Card* summarizes all the major functions you can use.

After you've used AppleWorks for a few weeks, you may want some training in the more advanced features. Come back to this book, and try some of the exercises in the next chapter, "Additional Practice."

Good luck.

If this manual were the AppleWorks Word Processor, you could change that to

Good luck!



Chapter 8

Additional Practice

Now that you've gone through the *AppleWorks Tutorial*, take some time to use AppleWorks on your own. You'll become more familiar with many features and discover new ways of doing things; some commands will become second nature.

These more advanced exercises are designed to broaden your acquaintance with some of the features that add beauty and sophistication to your presentations, and allow you to accomplish more than ever before, using AppleWorks. The instructions assume you have been using AppleWorks for a while and know your way around some of the more common activities.

Each step of an exercise states a general goal. If you want to test your ability to remember what you've already learned and to make educated guesses, try to accomplish that task without help. If you need a few reminders, you can look in the next paragraphs for detailed instructions. (The answer!)

You'll be using some more sample files. On the 5.25-inch *AppleWorks Sample Files Data Disk*, these appear on side 2. On the 3.5-inch *AppleWorks StartUp/Program/Sample Files* disk, you'll find all the sample files along with the program on the same side—label up.

Here's a reminder on how to add files. Start on the Main Menu and choose option 1, Add files to the Desktop. Then,

- If you are using 3.5-inch disks, your sample files come on the program disk; just make sure that it is your current disk. Choose The current disk.

- If you are using 5.25-inch disks, put your sample files data disk in the current drive, using side 2. Choose The current disk.
- If you only have one 5.25-inch drive, you will need to swap the sample files disk (side 2) with the program disk, when prompted to.

Good luck!

---

---

## A form letter

You're running a users group, and you're about to send out a form letter to those members who've expressed a special interest in using AppleWorks in education. You already have a list of the members and a draft of the letter. Your challenge: polish up the letter and merge in those names and addresses to produce the form letters.

---

## Bringing on the files

From your sample files, add two files to your Desktop:

- The User Group Memo. This is your letter to the members interested in education.
- Members. This is the list of your members, with their addresses.

Here's how:

1. Start AppleWorks. (For details, look back in Chapter 3.)
2. On the Main Menu, choose option 1, Add files to the Desktop. Press Return.
3. If you are using 3.5-inch disks, your sample files come on the program disk; just make sure that it is your current disk, and then choose The current disk.















Here's how:

1. Press ⌘-Q for a Quick change, to get the Desktop Index.
2. Use Up Arrow or Down Arrow to move the highlighting to the file Members. Press Return.  
You want to prepare a report on the data base information and "print" it to the clipboard for later use in your letter. (Note: There is already a report format called Ed SIG Leaders. It is the same report that you will create in the following steps. You can use it later for comparison with your results.)
3. Press ⌘-P for Print.
4. You want a list, not a series of separate records, so choose Create a new "tables" format. Press Return.
5. Give this format the name Leaders.
6. To select the members who are leaders in groups focusing on education, press ⌘-R for Record selection.
7. These leaders all have a code 1 in the category SIG Leaders, so highlight category number 9 as the first part of your selection rule, then press Return.
8. Press Return to accept equals.  
Your rule now reads SIG Leaders equals. And that means that the code in the SIG Leaders category should equal whatever you now enter.
9. Type 1.
10. Press Return, then Escape.  
You have entered a rule that says: find me all the records in which the code in the SIG Leaders column is 1, for educational interest.  
Now that you've told AppleWorks which records you want, it's time to discard unnecessary categories.
11. Move your cursor to the category Street.

12. To leave that category out of your report (without actually throwing the data out of your data base), press ⌘-D for Delete. Delete the categories City, State, Zip Code, and SIG Leaders in the same way.
13. To widen the Special Interest category so you can read the notes there, press ⌘-Right Arrow (while your cursor is on Special Interest, not Length) until the length marker reads 68. The length marker appears at the right margin, one letter over another.
14. To neaten up the list, move your cursor to the Last Name category, press ⌘-A to arrange the names, and choose to have them sorted A to Z. Press Return.

```
File: Members          REPORT FORMAT          Escape: Report Menu
Report: Leaders
Selection: SIG Leader equals 1

=====
--> or <-- Move cursor          ⌘-J Right justify this category
> ⌘ < Switch category positions  ⌘-K Define a calculated category
--> ⌘ <-- Change column width    ⌘-N Change report name and/or title
⌘-A Arrange (sort) on this category  ⌘-O Printer options
⌘-D Delete this category          ⌘-P Print the report
⌘-G Add/remove group totals      ⌘-R Change record selection rules
⌘-I Insert a prev. deleted category  ⌘-T Add/remove category totals
=====

Last Name  First Name  Phone Number  Special Interest  L
-A-----B-----C-----D-----e
Ampfel    David      555-7788     Administration/Education  6
Buena     Robert     555-2323     Administrative/Education  8

=====
Use options shown above to change report format          51K Avail.
```

15. To check what that looks like, press ⌘-P to Print and choose The screen. Press Return.
16. After looking at it on the screen, press the Space bar to return to the Report Format display.
17. Press ⌘-P to print.
18. Choose The clipboard (for the Word Processor).







3. Choose Create a new "tables" format.
4. Name the format Mail. Press Return.
5. The only categories you need are Last Name, First Name, Street, City, State, and Zip Code, so use ⌘-D to delete the other categories.

```
File: Members          REPORT FORMAT          Escape: Report Menu
Report: Mail
Selection: All records

=====
--> or <-- Move cursor          ⌘-J Right justify this category
> ⌘ < Switch category positions  ⌘-K Define a calculated category
--> ⌘ <-- Change column width    ⌘-N Change report name and/or title
⌘-A Arrange (sort) on this category  ⌘-O Printer options
⌘-D Delete this category          ⌘-P Print the report
⌘-G Add/remove group totals      ⌘-R Change record selection rules
⌘-I Insert a prev. deleted category  ⌘-T Add/remove category totals
=====

City      State      Zip Code      L
-D-----E-----F-----e
Mountain Val CA      77777      7
Mountain Val CA      77777      8

<--- More -----
Use options shown above to change report format          49K Avail.
```

6. You're ready to print this report, so press ⌘-P.
7. Choose The clipboard (for Mail Merge). Ignore the report date and press Return.  
You get the message that the Mail Merge data is on the clipboard. Then press the Space bar.
8. Now you need to go back to your memo, to show AppleWorks where to put that data, so press ⌘-Q for a Quick index.
9. Choose User Group Memo. Press Return.
10. Put your cursor in the upper-left corner of the screen, where you want the address to go.
11. To exercise the Mail Merge option, press ⌘-O for Options. Type MM for Mail Merge and press Return.

```
File: User Group Memo          MAIL MERGE          Escape: Printer Options
=====
Select a data base category

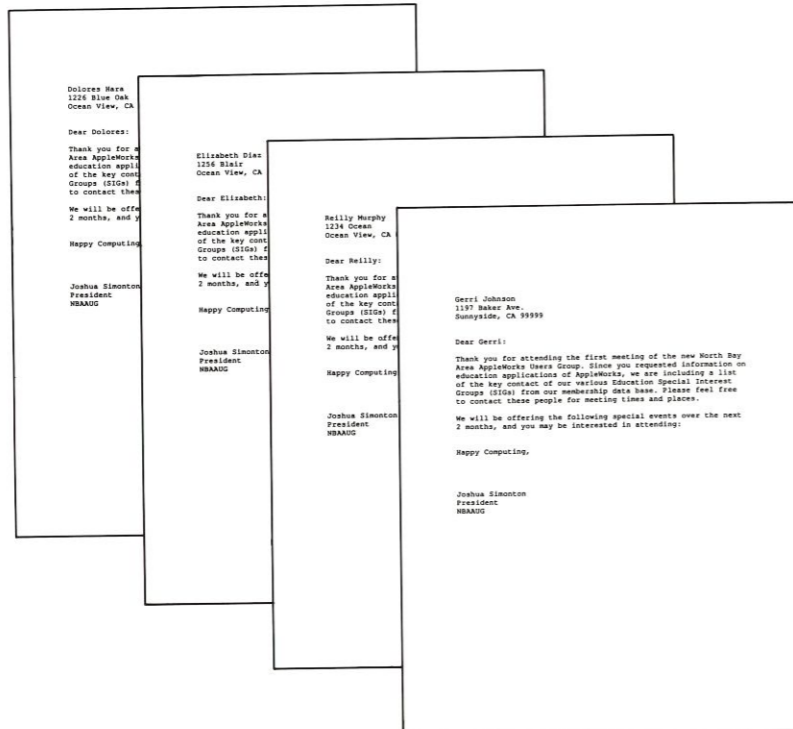
1. Last Name
2. First Name
3. Street
4. City
5. State
6. Zip Code

-----
Type number, or use arrows, then press Return _          49K Avail.
```

12. On the Mail Merge display, choose the category First Name. The data in that category will go here. Choose to have the line printed, even if by chance you don't have an entry for the person's first name; you still have their last name, and that will go on this line.
13. Using the MM option, put Last Name right after First Name. Press Escape to exit from printer options, then press Return to go to the next line, and press ⌘-O to return to printer options and choose MM.  
Choose Street for the beginning of the next line, and press Escape. Press Return, then ⌘-O, and choose MM.  
Choose City, press Escape, and type a comma. Return to the options by pressing ⌘-O, then add State and Zip Code. Press Escape. Press Return twice.
14. Move the cursor one space after the Dear, and use the MM option to insert First Name again. The colon appears one space after it. Press Escape. To get rid of that unnecessary space, put your cursor on it and then press ⌘-D for Delete.



15. Press ⌘-P to print your form letters. Choose to print from the beginning, and pick your printer.
16. Choose Merge data base items with this document, and press Return. Accept one copy with a Return.



## Some data base reports

In this section, you'll explore some new ways to use the Data Base.

You've been asked to go through the personnel data base and come up with reports on vacation time, along with some mailing labels so that you can send out your report to everyone.

After work, you also want to look through your inventory of household valuables to see if you have all your audio gear listed and to explore the difference between purchase prices and current replacement values, in case any of your items have appreciated. (This kind of information can be useful for insurance purposes.)

## Laying it out

Whenever you hire someone, you have to fill out a form detailing such facts as their hire date, salary grade, sick leave, and vacation days. As you might imagine, every time someone takes a vacation or gets sick, the same form is handed in, with the new information. You've been asked to rearrange the single-record layout so that it looks more like the paper form—that will help the clerk who has to fill in the information.

The form looks like this:

First Name: _____	Last Name: _____
Street: _____	
City: _____	State: _____ Zip Code: _____
Job Title: _____	
Hire Date: _____	
Salary Grade: _____	
Tax Exemptions: _____	
SL Allotted: _____	Vac Allotted: _____
SL Taken: _____	Vac Taken: _____

Your task will be to make the single-record layout in the data base Personnel look like this form.

Here's how:

1. Make sure that your sample files (on side 2, if you are using a 5.25-inch disk) are in the current drive. On the Main Menu, choose option 1, Add files to the Desktop.
2. Use the Down Arrow to move the highlighting, and the Right Arrow to select Personnel and Valuables.
3. Press Return.
4. When you see the index of files on the Desktop, choose Personnel and press Return.
5. Press ⌘-Z to zoom into single-record layout.
6. To start changing the layout, press ⌘-L for Layout.
7. Use ⌘ in combination with the arrow keys to move Last Name up to the same line as First Name, and to put City, State, and Zip Code on the same line. Remember that you can't move one category *through* another; you need to go around.
8. Move Vac Allotted and Vac Taken around to parallel the form of SL Allotted and SL Taken. That should make it a lot easier for the clerk to take data from the form and put it into individual records.
9. Add some blank lines between sections, to make your single-record layout look more like the form.

```
File: Personnel          CHANGE RECORD LAYOUT   Escape: Review/Add/Change
                        Return or arrows      Move cursor
                        ⌘ and arrows          Move category location
=====
First Name: Deborah    Last Name: Harrold
Street: 1227 Aptos Way
City: Woodside        State: CA      Zip Code: 92245

Job Title: English Instructor
Hire Date: Aug 15 85
Salary Grade: 40
Tax Exemptions: 2

SL Allotted: 5         Vac Allotted: 5
SL Taken: 0            Vac Taken: 0

=====
Use options shown above to change record layout.          40K Avail.
```

10. To leave layout, press Escape twice.

---

### Calculating totals for a report

The form leaves out the most interesting information: how much vacation time do I have left, and how many more sick days? The boss wants to know the totals for the group: how many days vacation do people have available, all told, and how many sick days?

Your job will be to have AppleWorks do all the calculations for you and print out the results in a report.

Here's how:

1. To prepare the report, press ⌘-P for Print.
2. Choose Create a new "tables" format, press Return, and name the report format Totals. (We have already created a report like this called Leave Vacation, and you can compare it with the one that you created.)



- To trim the report down, getting rid of categories you are not interested in for this report, put the cursor on column indicator A, which contains the category First Name, and press ⌘-D for Delete. That gets rid of the category.

Now do the same for Street, City, State, Zip Code, Job Title, Hire Date, Salary Grade, and Tax Exemptions Grade. This data's not lost; you're just not putting it in this particular report.

You should end up with these categories: Last Name, SL Allotted, SL Taken, Vac Allotted, and Vac Taken.

- To arrange the information in the report alphabetically, put the cursor in the Last Name category and press ⌘-A. Choose to arrange the records alphabetically by last name, A to Z. Press Return.
- To have AppleWorks calculate how much sick leave each person has left, move the cursor to the category Vac Allotted and press ⌘-K. That means a calculated category will be inserted just to the left of the Vac Allotted category. Give it the name SL Avail.
- Tell AppleWorks how to calculate the sick leave available for each person. It should subtract the sick leave taken from the sick leave allotted, or, in terms of the column identifiers, subtract *c* from *b*. So type *b-c* and press Return.
- Accept zero decimal places, with a Return. When asked, press 2 to add two spaces between these figures and the next column, for visual clarity. Press Return.
- With your cursor still in that column, press ⌘-T to get a total at the bottom. Type 0 for no numbers after the decimal point, and press Return; type 2 to add two blank spaces between this column and the next, and press Return.

- Now move your cursor just after the category Vac Taken, and create a calculated category for Vacation Available (Vac Avail), in which the formula is Vacation Allotted minus Vacation Taken. Again, accept zero decimal places and add two blank spaces. And again, press ⌘-T to get a total.

- The report is too wide to fit in your word processor document, so use ⌘ with the arrow keys to shrink individual categories enough so that the total length equals 77 characters.

Watch the Length indicator (it spells L-e-n-g-t-h vertically) for an update on the number of characters in your line.

```
File: Personnel          REPORT FORMAT          Escape: Report Menu
Report: Totals
Selection: All records

=====
--> or <-- Move cursor          ⌘-J Right justify this category
> ⌘ < Switch category positions  ⌘-K Define a calculated category
--> ⌘ <-- Change column width    ⌘-N Change report name and/or title
⌘-A Arrange (sort) on this category  ⌘-O Printer options
⌘-D Delete this category          ⌘-P Print the report
⌘-G Add/remove group totals      ⌘-R Change record selection rules
⌘-I Insert a prev. deleted category  ⌘-T Add/remove category totals
=====

Last Name  SL Allotted  SL Taken  SL Avail  Vac Allotted  Vac Taken  Vac Avail  L
-A-----B-----C-----D-----E-----F-----G-----e
Cremer     26           7         99999999  15           2         99999999  n
Davis      10           0         99999999  10          5         99999999  7
Dayes      10           7         99999999  15           2         99999999  7
=====
Use options shown above to change report format          50K Avail.
```

- You're now ready to print. Press ⌘-P and send it to the screen, or your printer, to see how it looks.



File: Personnel Page 1  
Report: Totals

Last Name	SL Allotted	SL Taken	SL Avail	Vac Allotted	Vac Taken	Vac Avail
Cremer	26	7	19	15		13
Davis	10		10	10		10
Dayes	10		3	15		13
Harrold	5		5	5		5
Harrold	10		5	15		10
Ortiz	5		3	5		2
Redwood	20		15	20		13
Sanders	15		15	15		15
Stirn	5		5	5		5
Vargas	15		12	15		10
Yamamoto	10		10	10		10
			102%			93%

Press Space Bar to continue

50K Avail.

12. Press Escape twice to return to Review/Add/Change.

If you want to take time out to compare what you've done to the report that we created, get the report format named Leave Vacation. Afterward, go back to Review/Add/Change for the next section.

### Getting some subtotals

You're still working on the information in the Personnel file, and the boss now wants you to break out vacation available for each employee, for each salary grade—but only for those employees hired since January 1, 1985.

Here's how:

1. You're creating another report, so make sure you are in Review/Add/Change, then press  $\text{C-P}$  for Print.
2. Choose Create a new "tables" format, then press Return. Name the format Hire and press Return again. (We have already created a report like this called Hire Date, and you can compare it with the one you created.)

3. Move the cursor to the column indicator for each of the following categories, and press  $\text{C-D}$  on each one, to delete it from the report: First Name, Street, City, State, Zip Code, Job Title, Tax Exemptions, SL Allotted, and SL Taken.  
You should end up with these categories in your report: Last Name, Hire Date, Salary Grade, Vac Allotted, and Vac Taken.
4. Place your cursor to the right of the Vac Taken category, and press  $\text{C-K}$  to create a calculated category there. Name it Vac Avail, and press Control-Y to get rid of any letters after Avail. Press Return.
5. The formula should be Vacation Allotted minus Vacation Taken, so, using the column identifiers, type d-e and press Return.
6. Accept the standard settings by pressing Return twice.
7. Now, to get a total for this column, press  $\text{C-T}$  and then press Return twice to accept the standard settings.
8. To select only those people hired after January 1, 1985, press  $\text{C-R}$  for Record selection, choose Hire Date, and press Return. Then choose is after, press Return, and type Jan 1 85. Press Return, then Escape.
9. Because the boss wants these figures organized by salary grade, put your cursor in that category and press  $\text{C-A}$  to arrange it in 0-to-9 order.
10. Now that that category is in order, you want to get a subtotal in the Vac Avail category every time the salary grade changes. While you are still in the category Salary Grade, press  $\text{C-G}$  for Group subtotals and answer No to the next two questions.



Group totals on: Salary Grade

- ```

-----
--> or <-- Move cursor                      ⓐ-J Right justify this category
> ⓐ < Switch category positions           ⓐ-K Define a calculated category
--> ⓐ <-- Change column width            ⓐ-N Change report name and/or title
ⓐ-A Arrange (sort) on this category       ⓐ-O Printer options
ⓐ-D Delete this category                   ⓐ-P Print the report
ⓐ-G Add/remove group totals               ⓐ-R Change record selection rules
ⓐ-I Insert a prev. deleted category       ⓐ-T Add/remove category totals
-----
  
```

| Last Name | Hire Date | Salary Grade | Vac Allotted | Vac Taken | Vac Avail  | Len |
|-----------|-----------|--------------|--------------|-----------|------------|-----|
| A         | B         | C            | D            | E         | F          |     |
| Harrold   | Aug 15 85 | 40           | 5            | 0         | 9999999999 | 7   |
| Ortiz     | Jul 1 85  | 40           | 5            | 0         | 9999999999 | 8   |
| Stirn     | Apr 5 86  | 40           | 5            | 0         | 9999999999 | 8   |

Use options shown above to change report format                      39K Avail.

11. You're ready to print! Press ⓐ-P and send the report to the screen or your printer.

File: Personnel                      Page 1  
 Report: Hire  
 Selection: Hire Date is after Jan 1 85

| Last Name | Hire Date | Salary Grade | Vac Allotted | Vac Taken | Vac Avail |
|-----------|-----------|--------------|--------------|-----------|-----------|
| Harrold   | Aug 15 85 | 40           | 5            | 0         | 5         |
| Ortiz     | Jul 1 85  | 40           | 5            | 0         | 5         |
| Stirn     | Apr 5 86  | 40           | 5            | 0         | 5         |
|           |           |              |              |           | 15        |
| Davis     | Feb 1 85  | 42           | 10           | 5         | 5         |
| Dayes     | Jan 17 85 | 42           | 15           | 2         | 13        |
| Yamamoto  | May 15 85 | 42           | 10           | 2         | 8         |
|           |           |              |              |           | 26        |
| Sanders   | May 15 85 | 50           | 15           | 6         | 9         |
|           |           |              |              |           | 9         |
|           |           |              |              |           | 50*       |

Press Space Bar to continue                      39K Avail.

## Making mailing labels

To send out your report, you need mailing labels showing the name and address of everyone on the personnel list. Your labels are one inch high and can handle up to six lines of text, but you've found that you only need four lines of text (with one blank line).

Here's how:

1. To make a report in the form of a series of labels, make sure you are in the Personnel file in Review/Add/Change, press ⓐ-P for Print, and choose to create a new label-style report. Call the report Labels.
2. Put your cursor on each of the following categories, then press ⓐ-D to delete them from your report: Job Title, Hire date, Salary Grade, Tax Exemptions, SL Allotted, SL Taken, Vac Allotted, and Vac Taken. That leaves the categories First Name, Last Name, Street, City, State, and Zip Code.
3. To move the categories where you want them on a mailing label, put your cursor on the first character in the category name, then use ⓐ with the arrow keys to move categories around.

Fit the categories into three lines, and add a blank line at the end.

Use ⓐ-D to eliminate any extra lines so that you end up with a four-line label.

When you want to see how the data in the first record looks in those positions, press ⓐ-Z. To go back to categories only, press ⓐ-Z again.

4. To make sure that one category's data follows the other after only a space (so that you won't have a lot of spaces between the first name and the last name), put the cursor on the second category and press ⌘-J for left Justification. Do this for Last Name, State, and Zip Code.
5. To make sure the printer knows you're going to be using one-inch labels, press ⌘-O for Options.
6. Type PL for Page Length and press Return. Then type 1.0 (inches) and press Return. To avoid having headers throw off the regular printing of label after label, look at PH and make sure it says No. Press Escape to leave the Options display.
7. Escape all the way back to the Main Menu, and choose option 5, Other Activities, and press Return. Then choose option 7, Specify information about printer, press Return and choose Change printer specifications about your printer. If Accepts Top of Page Commands says Yes, highlight it and press Return; press N to change it to No, so that the printer will not scroll up 10 inches after printing the first label, assuming an 11-inch page.
8. Press ⌘-Q to get a quick index of the files on the Desktop; choose Personnel, press Return, and then press ⌘-P to print a report. Choose to get a report format, choose Labels, and press ⌘-P to print it out.

File: Personnel  
Report: Labels

Page 1

Deborah Harrold  
1227 Aptos Way  
Woodside CA 92245

Patricia Ortiz  
1225 Cortina  
Coopers CA 92116

Bob Stirn  
3467 Alto Way  
Almaden CA 95978

You can compare this to a report format called Mailing Labels. Idea: If you use the ⌘-V command while creating your report, the category name as well as the data in the category will be printed out. See Mailing Labels2 as an example, or try it yourself.

Congratulations! You've extracted a lot of information from the file in these reports, and now you can mail it out.

---

### Calculating the difference

You're at home, going through the data base you've created to keep track of your household valuables. You wonder what the difference is between the amount you paid for something and the current replacement value that your insurance might pay if it were stolen or destroyed in a fire.

You want to find out how much each item has appreciated or depreciated.

Here's how:

1. Press ⌘-Q to make a quick change. Choose the Valuables file and press Return.
2. Press ⌘-P to prepare to print.



3. Choose Create a new "tables" format, and name the format Difference. Press Control-Y to clear the rest of the line.
4. You're going to focus on the categories Item, Model Number, Purch Price, and Replace Value. So put your cursor on each of the following, then press ⌘-D to delete: Serial Number, Date Purchased, Where Purchased, and Store Phone.
5. Put your cursor after Replace Value, and press ⌘-K to create a calculated category. Name it Difference, press Return, type the formula c-d (to subtract the replacement value from the purchase price), and press Return. Type 0 for decimal places and 2 for blank spaces to the right of the column.
6. To arrange the items in alphabetical order, put the cursor on the Item column, press ⌘-A, and choose A to Z. Press Return.
7. Use ⌘ with the Right Arrow key to adjust the width of the Item column so that you can read each item.
8. Press ⌘-P to print the report.

File: Valuables Page 1  
Report: Difference

| Item             | Model Number | Purch Price | Replace Valu | Difference |
|------------------|--------------|-------------|--------------|------------|
| Cassette Deck    | CA335        | 325.00      | 325.00       |            |
| CD Player        | CD-1000      | 450.00      | 450.00       |            |
| Color Television | CT678-01     | 535.00      | 400.00       | 135        |
| Computer         | Apple Macint | 2000.00     | 2000.00      |            |
| Computer         | Apple IIe    | 1000.00     | 950.00       | 50         |
| Microwave Oven   | MW-27        | 150.00      | 150.00       |            |
| Pendant          | none         | 350.00      | 595.00       | -245       |
| VCR              | SP-100       | 545.75      | 475.00       | 71         |

The report you have just created resembles one already developed, called Value Difference. You could compare the two.

## Getting some totals

Perhaps you are only interested in the items that you purchased since the beginning of 1986, and you'd like to see some dollar figures associated with these.

Here's how to explore these additional calculations:

1. Make sure you are in Review/Add/Change for the Valuables file.
2. Press ⌘-P to print a report.
3. Choose Create a new "tables" format, and name the format 1986 Purchase.
4. Using ⌘-D for Delete, get rid of all categories except Item, Date Purchased, Purch Price, and Replace Value.
5. Create totals for both Purch Price and Replace Value using ⌘-T.
6. Select only the 1986 items by using ⌘-R and entering this record selection rule: Date Purchased is after Jan 1 86. Press Escape.
7. Press ⌘-P to print the report. (You can compare this with a report we created called 1986 Items.)

File: Valuables Page 1  
Report: 1986 Purchase  
Selection: Date Purchased is after Jan 1 86

| Item         | Date Purchas | Purch Price | Replace Val |
|--------------|--------------|-------------|-------------|
| Cassette Dec | Jun 1 86     | 325.00      | 325.00      |
| CD Player    | Mar 1 86     | 450.00      | 450.00      |
| Computer     | Jan 31 86    | 2000.00     | 2000.00     |
| Microwave Ov | May 12 86    | 150.00      | 150.00      |
|              |              | 2925.00*    | 2925.00*    |

---

## Focusing on the audio-visual

Turning your attention to the audio-visual items, you now want a report that lists all the audio-visual components you own.

Here's how:

1. Choose the `Valuables` file, return to `Review/Add/Change`, and then press `⌘-P` to prepare to print another report.
2. Choose `Create a new "tables" format` and press `Return`. Name the report format `Audiofile` and press `Return`.
3. To select only the records pertaining to audio items, press `⌘-R` for `Records` and make the rule that you want all the records in which the `Where Purchased` entry contains `audio`. Press `Escape`.
4. Move the cursor to the following categories, and press `⌘-D` to delete all categories except `Item`, `Model Number`, `Serial Number`, and `Date Purchased`.
5. Use `⌘` with the arrow keys to adjust column widths so that you can read the data in the sample records.
6. Press `⌘-P` to print your report.

Good job! You've created a variety of reports based on the information in your data bases. If you want, you can compare your work with the report formats named `Value Difference`, `Audio`, and `1986 Items`.

---

---

## Building some spreadsheets

In this section, you will gain experience with several kinds of spreadsheets. One serves as a grade book, another as a home budget, and a third as an aid to calculating loan payments.

---

### Building a grade book

Here you'll create a slender grade book, to see how it works. Later, if you'd like, you can turn to one of the files on the sample files disk (side 2 on the 5.25-inch disk) for a full-blown version.

First you create labels for four students, three homework grades, and two exam scores; then you add formulas to calculate a grade average for each student. Students can get a maximum of 10 points each on the three pieces of homework and 25 each on the exams, for a total of 80 possible points. Their grades are added up and compared to 80, resulting in a percentage of that total. Any percentage from 80% to 90% receives a B; above 90% gets an A; and no one in your class does worse than a B—that's because you're such a good teacher.

Here's how:

1. At the `Main Menu`, choose `Add files to the Desktop`. Press `Return`.
2. Choose to start a spreadsheet file from scratch. Press `Return`.
3. Name the file `Grades` and press `Return`.
4. In column D, row 3, type in the title `Grade Book`. Press `Return`.



- To label the columns that will contain homework grades and exam scores, total points, percentage, and equivalent grade, move down to row 6 and, beginning in column E, type the labels (one per column) HW 1, HW 2, HW 3, Exam 1, and Exam 2. Skip column J and type Total Points (column K), Percent (column M), and Grade (column O).

```
File: Grades          REVIEW/ADD/CHANGE          Escape: Main Menu
=====H=====I=====J=====K=====L=====M=====N=====O=====
1
2
3
4
5
6 Exam 1 Exam 2          Total Points  Percent  Grade
7
8
9
10
11
12
13
14
15
16
17
18
```

06: (Label) Grade

Type entry or use ⌘ commands \_ ⌘-? for Help

- In columns A and C, on row 8, type Last Name and First Name.
- Under HW 1, in cell E8, type Possible Score. That way, you'll have a row that contains the highest possible score for each piece of homework or exam. (It's OK that the label takes up two cells.)
- In row 10, enter the highest possible scores. Under HW 1, type 10; similarly, type 10 under HW 2 and HW 3. Each exam has a possible 25 points.
- Now for the actual grades. In rows 12 through 15, put in your four students and their grades.

```
File: Grades          REVIEW/ADD/CHANGE          Escape: Main Menu
=====A=====B=====C=====D=====E=====F=====G=====H=====
1
2
3
4
5
6
7
8 Last Name  First Name  Possible Score
9
10
11
12 Davis      Pat          9      7      8      20
13 Kapper     Peggy        8      7      9      17
14 Caldwell  Anita        9      9      8      23
15 Sonoma    William      7      8      8      20
16
17
18
```

---

A16

Type entry or use ⌘ commands \_ ⌘-? for Help

These are certainly some fine students! Their grades are a tribute to your teaching.

- Now have AppleWorks do a little work. To have it add up all the possible points, move the highlighting to cell K10 and type the formula @SUM(E10...I10). This will add all the numbers in cells E10 through I10. Press Return.
- Then to get totals for each student, press ⌘-C to copy the formula. Choose Within worksheet and press Return. Move the cursor to K12 and press the period (.). Highlight cells K12 through K15, press Return, and tell AppleWorks to make all values relative.
- To calculate how well Pat Davis is doing, move the highlighting to cell M12 and write a formula to divide the number of points she got by the number she could have gotten; that will result in her percentage score. The formula to type is +K12/K10. Press Return.



13. You want roughly the same formula to apply to every other student. You also want K12 to be replaced with the total of their points. But you do not want K10 to be changed, because that's the total number of points anyone could have scored, and it remains unchanged for all students. So press ⌘-C to copy the formula in M12, choose within the worksheet, and press Return. Move the highlighting to M13 and press the period (.). Highlight cells M13 through M15. In each case, make the first value relative and keep K10 with no change.
14. To keep the figures after the decimal point to two, put your highlighting in cell M12, press ⌘-L for cell Layout, choose to lay out a block of cells, and highlight cells M12 through M15. Then choose Value format (because you are formatting a series of values), choose Fixed (for a fixed number of places after the decimal point), and type 2. Press Return.
15. To make your labels line up on the right side of each cell, press ⌘-V for standard Values, then choose Label format and Right Justify.

File: Grades      REVIEW/ADD/CHANGE      Escape: Main Menu

---

|    | HW 2 | HW 3 | Exam 1 | Exam 2 | Total Points | Percent |
|----|------|------|--------|--------|--------------|---------|
| 10 | 10   | 10   | 25     | 25     | 80           |         |
| 11 |      |      |        |        |              |         |
| 12 | 7    | 8    | 20     | 25     | 69           | .86     |
| 13 | 7    | 9    | 17     | 24     | 65           | .81     |
| 14 | 9    | 8    | 23     | 24     | 73           | .91     |
| 15 | 8    | 8    | 20     | 23     | 66           | .82     |
| 16 |      |      |        |        |              |         |
| 17 |      |      |        |        |              |         |
| 18 |      |      |        |        |              |         |

---

M6: (Label, Layout-R) Percent

Type entry or use ⌘ commands      ⌘-? for Help

Sometimes when you have more than one screenful of information, it can become difficult to tell what the value in a particular cell is referring to—especially if you can't see the labels or titles. One solution is to use the Title command so that you can always see your students' names and the titles for the various assignments and exams.

16. Move the highlighting to cell D9 (below the labels for first name and last name and to the right of the actual student names), press ⌘-T for Titles, and choose Both. Press Return.

Now the arrow keys will move the data up or down, left or right, while the titles stay in place.

17. AppleWorks normally recalculates every formula the moment you enter new data in a cell. That's fine as long as you don't have many students, or many grades. But if you think you might have more, you may want to consider manual recalculation. That means you decide when it's time to recalculate, and until then, you can enter new data without pausing to watch the numbers whir and change before you.

Press ⌘-V to change a standard value, or way of operating. Choose Recalculate and press Return, choose Frequency and press Return, and choose Manual and press Return.

Now you can enter a lot more students and their scores, without pausing while automatic recalculation takes place; and when you want to recalculate, you can do so by pressing ⌘-K.



File: Grades REVIEW/ADD/CHANGE Escape: Main Menu

```

=====B=====C=====D=====E=====F=====G=====H=====
1
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4
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16
17
18

```

Grade Book

| Last Name | First Name | Possible Score | HW 1 | HW 2 | HW 3 | Exam 1 |
|-----------|------------|----------------|------|------|------|--------|
|           |            |                | 10   | 10   | 10   | 25     |
| Davis     | Pat        | 100            | 0    | 7    | 0    | 20     |
| Kapper    | Peggy      | 100            | 0    | 7    | 0    | 17     |
| Caldwell  | Anita      | 100            | 0    | 9    | 0    | 23     |
| Sonoma    | William    | 100            | 0    | 0    | 0    | 20     |

D9

Type entry or use ⌘ commands ⌘-? for Help

If you'd like to see a gradebook like the one you've just created, see GradeBook1 on your data disk. For an expanded version, see GradeBook2.

### Creating a home budget

Basically, a budget lets you add up all your income, subtract all your expenses, and see what your financial situation is. In creating your budget, then, you need a label for each source of income and each type of expense. You also need a few formulas for adding the income, adding the expenses, subtracting expenses from income, and telling you what your net income is, if any.

Here's a start:

1. Start at the Main Menu. Choose Add files to the Desktop. Press Return.
2. Choose to start a spreadsheet file from scratch. Press Return.
3. Name the file Home. Press Return.

4. In cell E4, type the title Home Budget.
5. In cells D7 through G7, enter abbreviations for January, February, and March, plus Total.
6. In cell A8, type Income.
7. In cells A10 through A16, put in labels for several sources of income:
  - A10 Employment Income
  - A11 Pay Check 1
  - A12 Pay Check 2
  - A13 (Blank)
  - A14 Investment Income
  - A15 Interest
  - A16 Other
 In cell A18, type Total Income.
8. In columns D, E, and F, enter figures for each source of income, each month.

File: Home REVIEW/ADD/CHANGE Escape: Main Menu

```

=====B=====C=====D=====E=====F=====G=====H=====
1
2
3
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12
13
14
15
16
17
18

```

HOME BUDGET

|                    | Jan | Feb  | Mar  | TOTAL |
|--------------------|-----|------|------|-------|
| INCOME             |     |      |      |       |
| Employment Income: |     |      |      |       |
| Pay Check 1        |     | 2000 | 2000 | 2000  |
| Pay Check 2        |     | 2200 | 1500 | 1700  |
| Investment Income: |     |      |      |       |
| Interest           |     | 100  | 0    | 75    |
| Other              |     | 0    | 0    | 25    |
| TOTAL INCOME       |     |      |      |       |

A1

Type entry or use ⌘ commands ⌘-? for Help

9. In cell A21, type Expenses .
10. In cells A23 through A36, put in labels for several kinds of expenses as shown below.  
In cell A38, type Total Expenses; and in Cell A42, type the label Net Income .
11. In columns D, E, and F, enter figures for each kind of expense, for each month.

```

File: Home          REVIEW/ADD/CHANGE          Escape: Main Menu
=====
21 EXPENSES
22
23 General Expenses:
24 Food              200      245      300
25 Medical           0        500      100
26
27 Household:
28 Rent/Mortgage     700      800      800
29 Maintenance       0       1000      0
30 Utilities         35       35       50
31 Other             25       500      35
32
33 Transportation:
34 Car Loan          225      225      225
35 Gas               50       50       50
36 Maintenance       0       500      150
37
38 TOTAL EXPENSES
=====
D38
Type entry or use ⌘ commands          ⌘-? for Help

```

12. Now you add up the income. Start with your first row of income, and place the cursor in the column after the last month (G11). Type in a formula summing up those entries: @SUM(D11...F11) .
13. Copy the formula down that column. Press ⌘-C for Copy, choose within the worksheet, and press Return. Move the highlighting to the next entry down, and press the period. Spread the highlighting from there to the row that shows net income, and press Return. Make the values relative. (When you sum up cells that are blank, you will get a zero.)

14. To get a total for income, type in a formula in cell D18, under the first month, adding up the figures in the cells above: @SUM(D11...D16) . Copy that formula into the cells in the same row (18), under the other months and make the values relative.  
For the row Total Expenses in cell D38, type in the formula @SUM(D24...D36) . Copy it across row 38, and make it relative.
15. In cell D42, type a formula subtracting total expenses from total income: @SUM(D18-D38) . Then copy that formula into the other months, keeping values relative.

Everything working? Congratulations! You're started on the road to financial planning.

To see the file that we created using these instructions, see Home Budget1 or, to look at an expanded version, see Home Budget2 on the sample files disk.

```

File: Home Budget1  REVIEW/ADD/CHANGE          Escape: Main Menu
=====
1
2
3
4
5
6
7
8
9
10 INCOME
11 Employment Income:
12 Pay Check 1      $2,000  $2,000  $2,000  $6,000
13 Pay Check 2      $2,200  $1,500  $1,700  $5,400
14
15 Investment Income:
16 Interest         $100    $0       $75     $175
17 Other            $0       $0       $25     $25
18 TOTAL INCOME     $4,300  $3,500  $3,800  $11,600
=====
H18
Type entry or use ⌘ commands          ⌘-? for Help

```



## Using a spreadsheet to calculate without rows and columns

The Spreadsheet can do repetitive calculations, particularly the complex ones, faster and more accurately than most people can manage on a calculator. The essence of a spreadsheet is its ability to calculate. Rows and columns happen to be used in most spreadsheets as they are in accountants' general ledger books, but they are not its reason for being.

In calculating loan payments, you don't need a big grid like that. You need some places to enter values for the following:

- purchase amount
- down payment
- annual interest rate (12% = .12)
- term in months
- monthly interest rate
- financed amount
- monthly payment (the result of all the calculations)

And you need a few formulas. The only complex formula is the one for figuring out what the monthly payment will be:

$$\text{Monthly Payment} = \frac{\text{Financed Amount} * \text{Monthly Interest Rate}}{[1 - ((1 + \text{Monthly Interest Rate})^{-\text{Term in Months}})]}$$

Here's how:

1. On the Main Menu, choose **Add files to the Desktop**. Then choose to start a spreadsheet file from scratch, and call the file **Payments**.
2. In column A, cells A10 to A15, type the labels **Purchase Amount**, **Down Payment**, **Annual Interest Rate**, **Term in Months**, **Monthly Interest Rate**, and **Financed Amount**.

3. In row 8, columns D, E, and F, type the labels **Case1**, **Case2**, and **Case3** so that you can compare several purchases to see which offers the best terms.
4. In cell D14, type the formula for determining the monthly interest rate, dividing the annual interest rate by 12: `+D12/12`.  
Copy this formula into cells E14 and F14. Make the copy relative.
5. Type in the formula for determining the financed amount, subtracting the down payment from the purchase amount and putting the result in cell D15: `(+D10-D11)`.  
Copy this into cells E15 and F15.
6. Drop down to cell A18, and type the label **Monthly Payment**.
7. Move over to cell D18, and type in the formula for calculating the monthly payment:  
`(D14/(1-((1+D14)^-D13)))*D15`
8. Now copy that formula into the columns **Case2** and **Case3**, cells E18 and F18, with values relative.
9. Enter values for the purchase amount, down payment, annual interest rate (expressed in decimal form, so that 12% is entered as .12), and term in months—under each Case. Let AppleWorks calculate the monthly interest rate, financed amount, and monthly payment.
10. To have percentages expressed in the form 12.00%, move the highlighting into one of those cells (cells D12...D14), press **⌘-L**, and choose **Block**. Then highlight all three cells and choose **Values format**, **Percent**, and two figures after the decimal point.

11. To have the entries for purchase amount, down payment, financed amount, and monthly payment formatted so they begin with a dollar sign and have two figures after the decimal place, use ⌘-L the same way but choose Dollars and two figures after the decimal point.

```

File: Loan Payments          REVIEW/ADD/CHANGE          Escape: Main Menu
=====A=====B=====C=====D=====E=====F=====
7
8
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11
12
13
14
15
16
17
18
19
20
21
22
23
24
-----
A24
Type entry or use ⌘ commands          ⌘-? for Help

```

|                                | CASE1      | CASE2      | CASE3      |
|--------------------------------|------------|------------|------------|
| Purchase Amount                | \$12,000   | \$13,000   | \$11,500   |
| Down Payment                   | \$4,000    | \$3,900    | \$3,875    |
| Annual Interest Rate (12%=.12) | 12.00%     | 11.50%     | 13.00%     |
| Term in Months                 | 48         | 60         | 48         |
| Monthly Interest Rate          | 1.00%      | .96%       | 1.08%      |
| Financed Amount                | \$8,000.00 | \$9,100.00 | \$7,625.00 |
| Monthly Payment                | \$210.67   | \$200.13   | \$204.56   |

You'll find your spreadsheet will help you with purchases as big as a house or a car, or as small as an appliance. (You can also look at a file we already created called Loan Payments on the *Sample Files* disk.)

## Index

### Abbreviations

DB = Data Base  
 SS = Spreadsheet  
 WP = Word Processor

### A

address report (DB) 130. *See also* mailing labels  
 Apple II hardware requirements 35  
*Apple Presents AppleWorks* disk provided 2, 4  
 Main Lesson Menu 9, 11  
 starting 8  
*AppleWorks Program* disk 4  
*AppleWorks Quick Reference Card* 2  
*AppleWorks Sample Files Data Disk* 4  
*AppleWorks Startup* disk 4  
*AppleWorks Startup/Program/Sample Files* disk 4  
 applications, moving between 106  
 arithmetic functions, @SUM 80, 149, 154, 155  
 arranging (sorting) a category (DB) 127

### B

boldfacing text 121–122  
 bulleted lists 123–125

### C

calculating. *See also* ⌘-K  
 a difference 144  
 loan payments 156–158  
 manual recalculation 151  
 a percentage 149  
 subtotals (DB) 138–140  
 totaling a category (DB) 136, 145  
 values (SS) 93  
 category  
 arranging (sorting) 127  
 deleting 32–33, 127  
 cells  
 coordinates of 78–79  
 copying  
 relative copies 85–89  
 source highlighting 83–85  
 finding (SS) 78–80  
 centering text (WP) 60–62  
 characters-per-inch  
 adjustment 120–121  
 circumflex (^) in text 122  
 clipboard 15–16  
 copying from 107–109  
 printing to 104–105  
 column identifiers (DB) 136.  
*See also* Spreadsheet, label columns  
 commands. *See* control code commands; ⌘  
 connectors, DB record selection 37  
 control code commands  
 Control-B 122  
 Control-Y 30, 144

coordinates (SS) 78–79  
 copying. *See also* ⌘-C  
 cells (SS) 83–89  
 from the clipboard 107–109  
 formulas (SS) 150  
 rows (SS) 89–90  
 cursor  
 insert mode 56  
 moving by the word 54  
 moving to beginning of file 65  
 in SS 81

### D

Data Base  
 category  
 arranging (sorting) 127  
 deleting 32–33, 127  
 moving 32  
 subtotals 138–140  
 totals 136  
 entry changes 30  
 formulas in 136, 144  
 layout of records 28–32  
 length marker 127  
 list formatting 126–127  
 overview of 12  
 records  
 finding 33–35  
 multiple-record layout 28  
 selecting 35–39  
 single-record layout 28–29



Data Base (continued)

reports  
 addresses 130  
 calculating subtotals 138-140  
 calculating totals 43-44, 135-138  
 creating a list 126-127  
 format of 40-42  
 home inventory 143-146  
 mailing labels 141-143  
 9's in 44, 104  
 personnel records 133-141  
 preparing for WP 41, 103-104  
 printing to clipboard 104-105  
 printing to screen 44-46  
 size of 41  
 retrieving DB file 26-27  
 Review/Add/Change display 28  
 saving files 46-48  
 tables format 126-127, 130  
 transferring report to WP 102-109

decimal places, in DB category totals 136

deleting. *See also* ⌘-D  
 a category (DB) 32-33, 127  
 from cursor to end of line 30  
 files from disk 111-113  
 text 54-56, 109

Desktop  
 files on 14  
 retrieving several files 100-102

Desktop Index 106

disks  
 making copies of 5-6  
 provided with AppleWorks 4  
 write-protected 5

E

editing. *See* text  
 embedded printer option 61  
 entries, in changing (DB) 30  
 Escape key, returning to Main Menu 24  
 exiting AppleWorks 49, 73, 114

F

files  
 and the clipboard 15-16  
 deleting from disk 111-113  
 on the Desktop 14  
 retrieving  
 DB file 26-27  
 several files 100-102  
 SS file 76-77  
 WP file 52-53  
 saving 14  
 DB file 46-48  
 SS file 97-98  
 WP file 71-72

finding. *See also* ⌘-F  
 a page (WP) 70  
 records (DB) 33-35  
 SS cell 78-80  
 text (WP) 58-60

form letters  
 editing the letter 120-125  
 importing data from DB 125-129  
 Mail Merge addresses 129-132

formulas  
 copying within SS 150  
 in DB 136, 144  
 functions and 80  
 pointers 85-86  
 in SS 154, 155

functions  
 @SUM 80, 149, 154, 155  
 arithmetic 80

G

grade book (SS) 147-151  
 group command (⌘-G) 139

H  
 hardware requirements 35  
 home budget (SS) 152-155  
 home inventory (DB) 143-146

I

insert cursor 56  
 integrated applications 15  
 moving between 106

J  
 justify command (⌘-J)  
 DB use 142  
 SS use 96

K

key values (SS) 91-93

L

labels (SS) 82-83  
 layout of DB records 28-32  
 left-margin setting (WP) 123  
 length marker (DB) 127  
 list formatting (DB) 126-127  
 loan payment calculation 156-158

M, N

mailing labels 141-143  
 address report (DB) 130  
 Mail Merge option 130-132  
 Main Menu 23  
 manual recalculation 151  
 margins (WP), changing left margin 123  
 markers (WP) 63-64

menus

*Apple Presents AppleWorks*  
 Main Lesson Menu 9, 11  
 AppleWorks Main Menu 23  
 Other Activities menu 112  
 Print the Report menu 44  
 Report menu 40, 103  
 move command (⌘-M) 66  
 multiple-record display (DB) 28

O

⌘-1 through 9  
 SS use 81  
 WP use 65, 68

⌘-< 32

⌘-A (Arrange) 127

⌘-C (Copy)  
 SS use 83, 89, 90, 150  
 WP use 108, 128

⌘-Control-Reset 8  
 DB use 127  
 WP use 109, 128

⌘-F (Find)  
 DB use 33  
 SS use 78  
 WP use 58, 107

⌘-G (Group) 139

⌘-J (Justify)  
 DB use 142  
 SS use 96

⌘-K (Calculate)  
 DB use 136  
 SS use 93  
 WP use 69

⌘-L (Layout) 30

⌘-Left Arrow  
 DB use 42  
 SS use 81  
 WP use 54

⌘-M (Move) 66

⌘-O (printer Options) 60, 62, 121-123

⌘-P (Print)  
 DB use 40, 44, 104, 126, 127  
 WP use 110

⌘-Q (Quick change) 106, 126, 128

⌘-R (Record selection, DB) 35

⌘-R (Replace, WP) 65

⌘-Right Arrow  
 DB use 42, 127  
 WP use 54

⌘-T (Titles, SS) 151

⌘-T (Totals, DB) 43, 136

⌘-V (standard Values)  
 DB use 143  
 SS use 150, 151

⌘-W (Windows) 94

⌘-Z (Zoom)  
 DB use 29, 142  
 WP use 64

Other Activities menu 112

P

page breaks (WP) 69-71  
 page length 142  
 personnel record (DB) 133-141  
 pointers (SS) 85-86  
 printer options. *See also* Other Activities  
 boldfacing text 121-122  
 characters-per-inch adjustment 120-121  
 in clipboard material 109  
 display in text 64  
 left-margin setting 123  
 page length 142  
 WP use 60-61

printer specifications 142.  
*See also* printer options

printing. *See also* ⌘-P  
 DB report 40  
 to clipboard 104-105  
 to screen 44-46  
 WP document 110-111

Q

quitting AppleWorks 49, 73, 114

R

RAM  
 and the Desktop 14  
 required for AppleWorks 3  
 recalculate. *See* calculate records (DB)  
 finding 33-35  
 layout of 28-32  
 selecting 35-39

reports (DB)  
 calculations in 135-140  
 changing the size of 41-42  
 format of 40-42  
 9's in 44, 104  
 preparing for WP 41, 103-104  
 printing to clipboard 104-105  
 printing to screen 44-46  
 Report menu 40, 103  
 totaling a category 43-44

Reset 8

Review/Add/Change display in DB 28  
 in WP 53

ruler (WP) 65

S

saving  
 DB file 46-48  
 SS file 97-98  
 WP file 71-72

searching  
 and replacing text (WP) 64-66  
 DB records 33-39  
 for a page (WP) 70  
 for text (WP) 58-60

single-record display (DB) 28-29

sorting category (DB) 127

specifications  
 DB report size 41  
 hardware 3  
 SS size 78

- Spreadsheet
- arithmetic functions 80
  - calculating values 93
  - coordinates 78–79
  - copying cells
    - relative copies 85–89
    - source highlighting 83–85
  - copying rows 89–90
  - finding a cell 78–80
  - formulas in 80, 85–86, 154, 155
  - labeling columns 148
  - labels 82–83
  - manual recalculation 151
  - moving through 81
  - overview of 13
  - pointers in 85–86
  - repetitive calculations 156–158
  - retrieving a file 76–77
  - sample spreadsheets
    - grade book 147–151
    - home budget 152–155
  - saving files 97–98
  - size specifications 78
  - standard Values 150
  - titles command 151
  - values in 80
    - key values 91–93
  - “What If?” calculations 93
  - windows in 93–96
- starting
- Apple Presents AppleWorks* 8
  - AppleWorks
    - 3.5-inch disk systems 20–22
    - 5.25-inch disk systems 18–20
  - subtotals (DB) 138–140
  - sums
    - @SUM function 80, 154, 155
    - totaling a category (DB) 43–44
  - system specifications (hardware) 3
- T**
- text
- adding 56–57
  - centering 60–62
  - deleting 54–56
  - moving 66–68
  - searching for 58–60
  - unjustified 62
  - titles command (⌘-T) 151
  - top of page, changing 142
  - totaling a DB category 43–44. *See also* sum
  - two disk drive systems 23–24
- U**
- unjustified text 62
  - Using AppleWorks* 2
- V**
- values (SS) 80
    - key values 91–93
- W, X, Y**
- “What If?” calculations 93
  - windows (SS) 94–96
  - Word Processor. *See also* printer options
    - adding words 56–57
    - AppleWorks Ruler 65
    - boldfacing text 121–122
    - bulleted lists 123–125
    - centering text 60–62
    - characters-per-inch adjustment 120–121
    - copying from the clipboard 107–109
    - cursor movement 54
    - deleting text 54–56, 109
    - finding a page 70
    - finding text 58–60
    - importing DB report 106–109
    - left-margin setting 123
    - Mail Merge option 130–132
    - moving text 66–68
    - overview of 12
    - page break calculation 69–71
    - printing document 110–111
    - retrieving WP file 52–53
    - Review/Add/Change display 53
    - saving file 71–72
    - searching and replacing text 64–66
    - setting marker 63–64
    - unjustified text 62
    - wraparound words 56–57
    - wraparound feature 56–57
    - write-protected disks 5
- Z**
- zooming
    - display printer options (WP) 64
    - single-record layout (DB) 29





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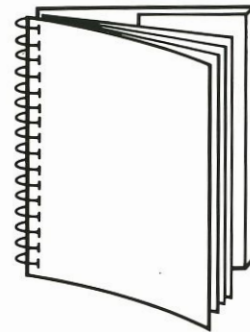
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