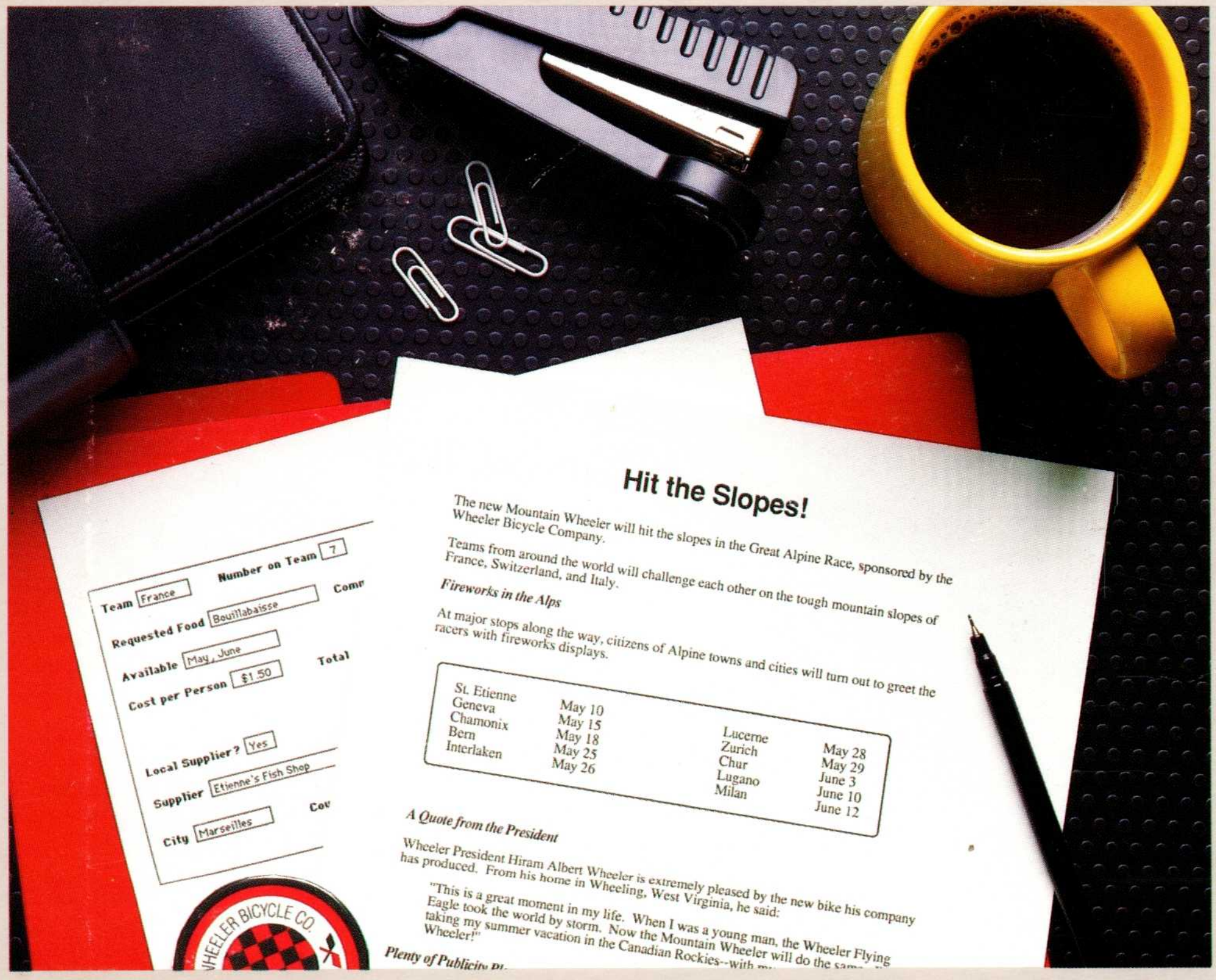
MICROSOFT®

Microsoft® Works

Integrated Productivity Software



Lessons

Lessons

Microsoft® Works

Integrated Productivity Software
Version 1.0

For the Apple® Macintosh™

Microsoft Corporation
Productivity Software, Inc.

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Where To Begin

You can choose how you want to learn Microsoft® Works, depending on how experienced you are with the Macintosh™, and how much help and practice you want to have before you begin using Microsoft Works on your own.

If	Do this
You want some practice before you begin using Microsoft Works on your own	Start with the *Lessons* manual. You'll use actual Microsoft Works software and sample files to practice many features of the Microsoft Works tools.
You want to start using Microsoft Works for your own tasks, and you are an experienced Macintosh user	Go right ahead and begin. With the *Using Microsoft Works* manual as a guide, you'll learn about all you can accomplish with Microsoft Works.

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Welcome

Welcome to Microsoft Works, an integrated package of electronic tools for the office.

Microsoft Works automates your desktop. These tools can replace your typewriter, address book, file folders, and calculator. Put these electronic tools to work and see how much you can accomplish.

- Write memos and articles with the Word Processor.
- File information and prepare reports with the Database.
- Calculate your budget with the Spreadsheet, and make charts with its charting capability.
- Send and receive information over the telephone with Communications.
- Integrate information from all the different tools.

You can work with a single document, or switch between several different ones. With electronic cutting and pasting, you can turn pieces of several documents into one new one. The limits are up to you. Microsoft Works provides all the office tools you need.

About This Manual

In this manual, a hypothetical company and situation help you learn to use Microsoft Works. You will act as a product manager for the Wheeler Bicycle Company. You'll organize a major race through the Alps to show off the new Mountain Wheeler, a tough off-road bike. Teams from around the world will challenge the rugged terrain of France, Switzerland, and Italy, hoping to win the prestigious Wheeler Cup.

Note The full name of this product is Microsoft Works. This manual uses the name "Works" for short.

Learning about the Tools

The purpose of this manual is to get you started with Works. The tasks in these lessons give you a chance to try a large variety of Works' features. But not every feature is covered here. When you're ready to learn more about any of the tools, turn to *Using Microsoft Works*.

This manual assumes that you have read your Macintosh owner's guide and are familiar with basic techniques, such as choosing commands, selecting text, and working with windows.

The first chapter in this manual gives you an overview of each of the four Works tools and some suggestions for how to use them. The next four chapters each concentrate on one tool. The last chapter shows you how to integrate information from various tools into the Word Processor.

To learn about	Read
The Works tools	Chapter 1
The Word Processor	Chapter 2
The Database	Chapter 3
The Spreadsheet and charting	Chapter 4
Communications	Chapter 5
Using the tools together	Chapter 6

Working with the Sample Files

You can start with any chapter, and proceed in any order. The chapters refer you to sample files which are included on your Microsoft Works Program disk. The sample files will guide you through the main features of each tool.

As you work through the tasks in this manual, you'll act as the product manager for the new Mountain Wheeler bicycle. You'll learn to:

- Edit an article for a dealer's newsletter with the Word Processor.
- Organize a document recording each cycling team's food requests with the Database.
- Prepare a budget for the race with the Spreadsheet, and draw a chart to compare, region by region, projected sales for the Mountain Wheeler bicycle.
- Change settings, and add a telephone number to your Communications phone book.
- Finish up a final report on the race by integrating information from three of the tools.

About Documents and Files

About documents and files

Throughout this manual, the words "document" and "file" are used to represent two distinct items.

A document is the information held in the Macintosh's memory. When you create a new document, the information exists only in memory until you save it on a disk. Once saved, the information stored on the disk is called a file. When you open a file from a disk, the Macintosh puts a copy of the information into its memory and leaves the original on the disk. The information held in memory is called a document. If you make changes to this document and then save it, the new information will replace the file currently on the disk.

- You create a new...
- You make changes to a...
- You save a...
- You print a...
- You close a...

} document

- You open an existing...
- You delete a...

} file

The next section tells you what you need in order to use Works, how to make a copy of the Works Program disk, and how to start Works.

Getting Started

What you need

To use Works, you need:

- A 512K Macintosh computer
- An internal 800K double-sided disk drive
- The master Microsoft Works Program disk
- Blank disks for storing documents and copying Works
- A second disk drive (optional)
- A printer (optional)
- A modem (optional)

Before you begin

Works is provided on a master Program disk. This disk contains special identification that the Macintosh must read when you use Works.

You can make as many copies of the master Works Program disk as you need. You should make at least one copy of the master disk to protect it from damage. Do not make changes to the master disk. Make changes only to copies of the master disk.

If you use a hard disk with your Macintosh, see Appendix A, "Disk Space and Memory," in *Using Microsoft Works*, for instructions on copying Works to the hard disk.

Copying the Master Works Program Disk

To copy the master disk

To speed up your future use of Works, the Program disk has been set up to take you directly into the Open dialog box when you insert the disk, thus bypassing the Finder. Since you need to be at the Finder to copy the disk, the procedure below instructs you to quit the program to get to the Finder. This procedure assumes you have one double-sided disk drive.

To copy the master disk:

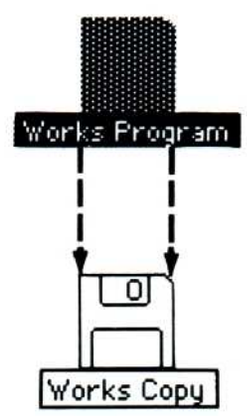
1. Turn on your Macintosh.
2. Insert the master Works Program disk into the disk drive.
   Works displays the Open dialog box.
3. Choose the Quit command from the File menu to get to the Finder.
4. Choose the Eject command from the File menu to eject the Works Program disk.
5. Insert a blank disk into the disk drive.
   Works displays a dialog box asking how you want to initialize the disk.

6 Click Two-Sided to initialize both sides of the disk.

When Works is finished initializing the disk, it asks you to name the disk.

7 Type a name, such as *Works Copy*, and click the OK button.

8 Drag the Works Program disk icon over the icon of the initialized disk that you just named.



Copy the Works Program disk to a blank, initialized disk.

Works asks if you want to replace the contents of the initialized disk with the contents of the Works Program disk.

9 Click the OK button.

Insert the appropriate disk when Works asks you to.

The Finder displays a message telling you how many files it has left to copy. When the message goes away, you have a copy of the master Program disk on what used to be your blank disk.

Important From now on, you should always start Works with a copy of the master Program disk to prevent accidental damage to the master disk itself. However, you'll need to insert the master Program disk the first time you start Works after turning your computer on, because the Macintosh must read the identification. After the Macintosh reads the identification, you can quit and restart Works with your copy as many times as you wish, until turning the power off. The next time you turn on the computer, you'll need to use the master disk again.

Works comes ready to work with the regular and wide ImageWriter printers. If you use a LaserWriter, see Appendix C, "Printing with the Apple LaserWriter," in *Using Microsoft Works*.

Starting Works

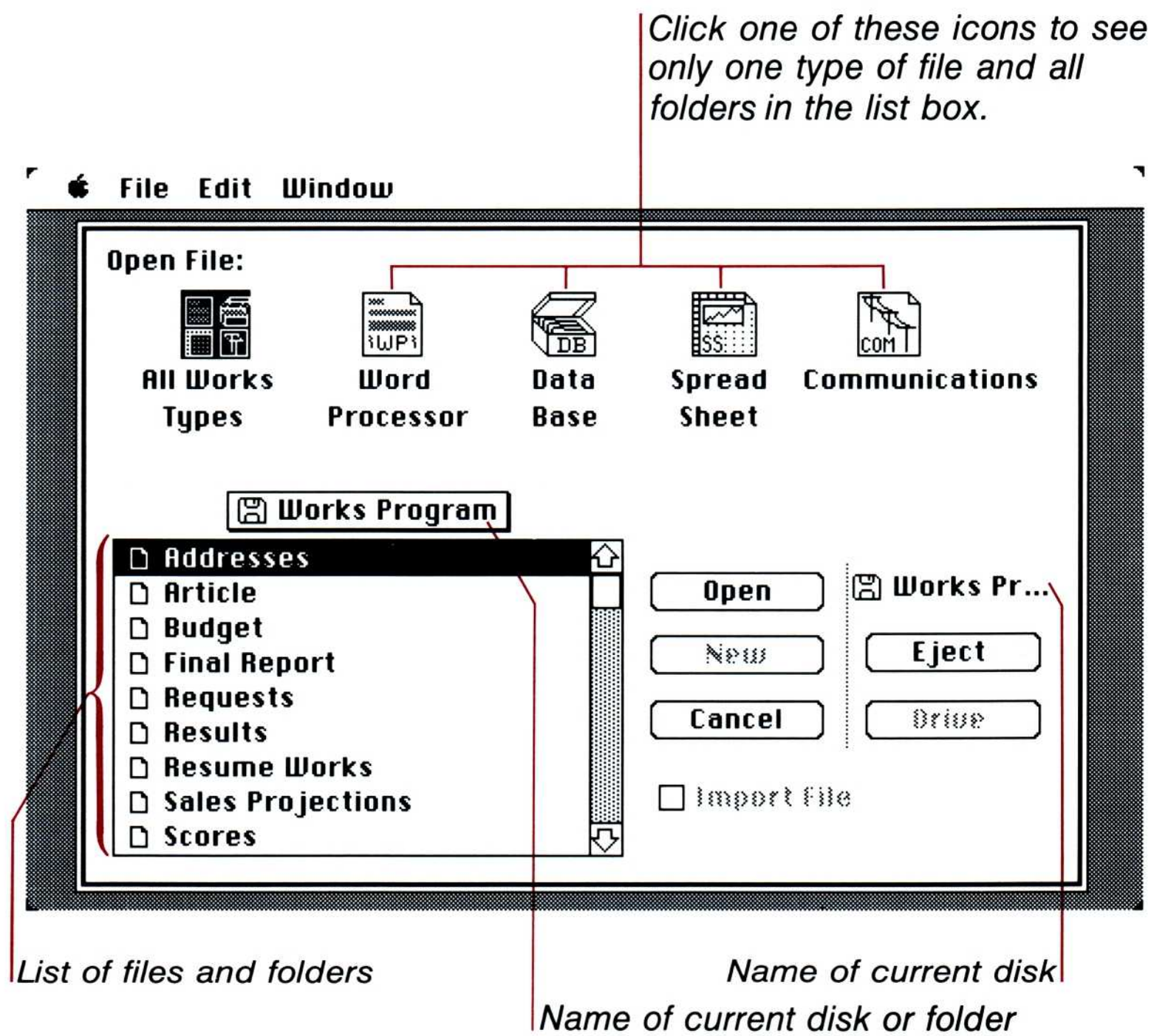
To start Works

To start Works:

1. Turn on your Macintosh.
2. Put the copy of the Works Program disk into the internal disk drive.

   Your Macintosh will ask you to insert the master Works Program disk so that it can read the identification. Insert the master disk, and then put your copy back in when your Macintosh asks for it.

Works displays the Open dialog box:



The sample files shown in the list box are for you to use as you work through the lessons in this manual. The chapters that follow will tell you which sample files to use.

You can now start practicing with any of the tools you want. Just turn the page and begin.

1 Meet Microsoft Works

Microsoft Works is four electronic office tools: the Word Processor with mail merge, the Database with report capability, the Spreadsheet with charting capability, and Communications.

Each tool has a full set of features so you can do full-scale work. But these tools also work together — that is, they're integrated. For example, you don't have to close your Word Processor document before you open a Database file; you can have them both available at once. This helps when you need to get a report done in a hurry, or just want to switch from one project to another. Integration lets you move information between documents as easily as you can sort through papers on your desk.

The Word Processor

The Word Processor makes it easy for you to type as you think, and to rewrite as often as necessary. But the Works Word Processor is much more than a fancy typewriter. Without retyping a page or getting out your scissors and tape, you can:

- Make corrections.
- Add, copy, or move text.
- Use different fonts, and different sizes and styles of type.
- Insert charts and pictures.
- Add headers, footers, and page numbers automatically.
- Create form letters, mailing labels, and standard forms by merging information from the Database.

The Word Processor makes any kind of writing easier: from short memos or letters to ad copy, newsletters, reports, proposals, theses, and books. You can turn ordinary prose into something special by changing the type size of headers, footers, or titles; adding italic or bold type for emphasis; or putting in superscripts for notes or subscripts for equations.

Words aren't the only thing you can include in your Word Processor documents. You can copy in a chart or a picture, and you can turn your document into an attractive presentation by adding fancy type, lines for labels, and explanations to the chart or picture. For a finishing touch, you can draw boxes around your art, or around a note, or you can separate columns with a line.

With the Macintosh Scrapbook, you can include drawings from other graphics programs in your Word Processor documents as well.

You can customize standard documents and form letters by using Works' merge facility. You can use information from Database documents to personalize and update your business letters and forms.

Some suggested applications

Some Suggested Applications

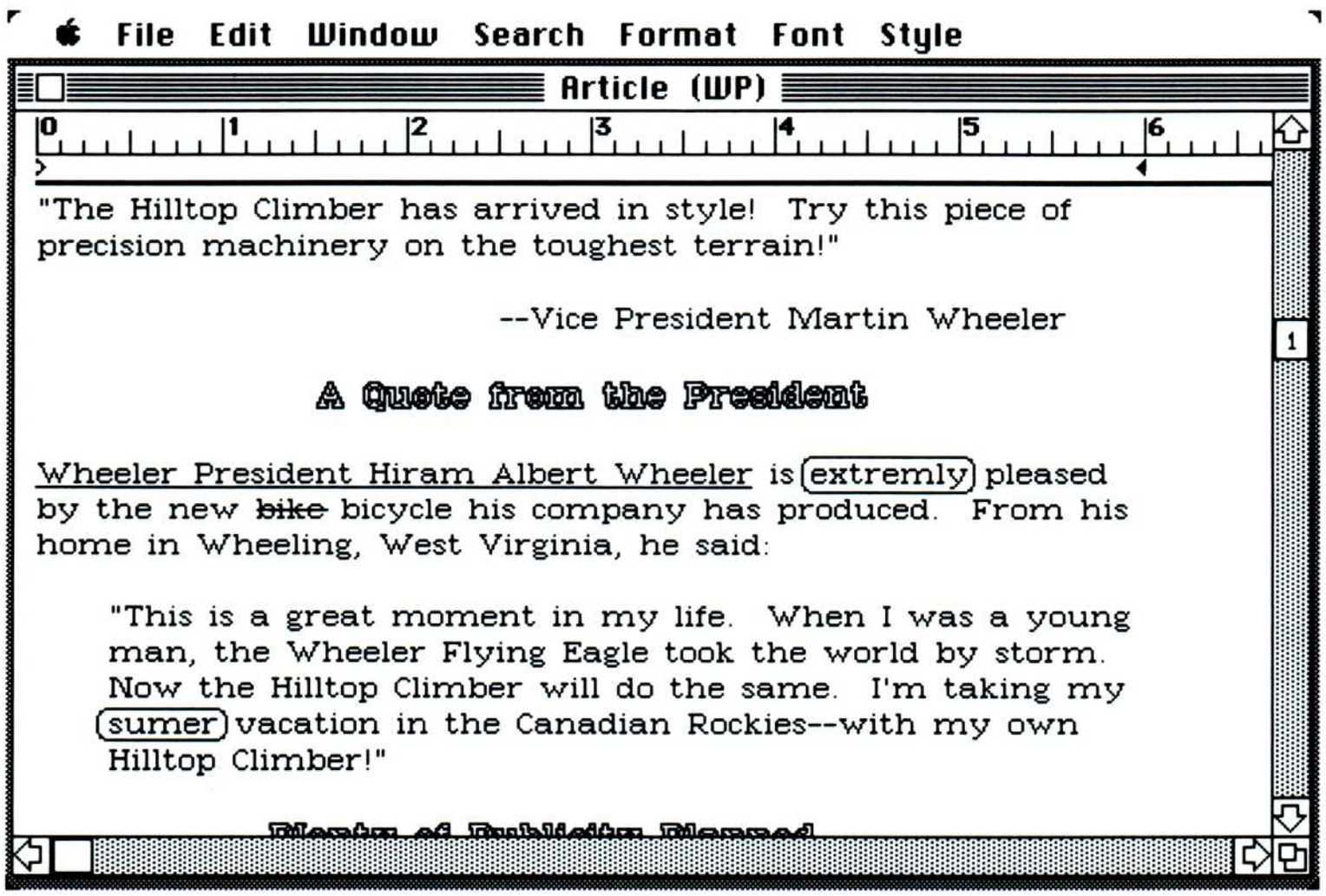
One of the most important aspects of any document is appearance. When you give someone a professional-looking document, it makes you look good. Whatever image you want your work to project, Works can help you achieve it.

The Word Processor opens up new possibilities for your written documents. When you apply its capabilities to your documents, you'll find many creative solutions to some typical writing problems.

Marking Text

Marking text

Law firms, publishing houses, and publishers of professional journals often like to see how a second draft compares to the original. With the Works drawing capability, you can actually cross out what you plan to delete, and circle what you plan to insert — as you write. You may also want to mark important points or indicate corrections or notations as you review work. For more information on using lines and shapes to mark text, see Chapter 4, "Formatting a Document," in *Using Microsoft Works*.



Customizing Standard Documents

Customizing standard documents

Your business or organization probably has standard forms and documents that you adapt to suit your needs. Here are some ideas for customizing those standard documents with the Word Processor:

- Form letters: File your information with the Database, and merge it into form letters where appropriate. In addition to names and addresses, you can merge order information, short sentences, and other facts and figures.
- Mailing labels: Prepare your mailings quickly and efficiently by combining information from the Word Processor and the Database.
- Business forms: Create invoices, statements, order forms, purchase orders, or other standard forms by using lines and boxes.

- Legal documents: Prepare standard wills, contracts, and briefs, and customize them for each client. Cut and paste common passages between documents.
- Regular reports: Write reports only once, and update them each week or month with new information.

To create custom documents that require information from other tools or programs, see "Using the Tools Together" in *Using Microsoft Works*. You'll find out how to move information from the Database, Spreadsheet, and Communications into the Word Processor, and how to merge Database information into a Word Processor document.

The Database

The Database is an electronic filing system that stores your records and lets you specify how you want to look at them. Groups of related information are stored as records — just like patient records in a doctor's office. A single record looks like a regular paper form, and is just as easy to fill out.

But the real advantage of the Database becomes apparent when you start looking at all the records you're collecting. You can scan a single record at a time or a whole list of records. Whenever you want to see the records in a different order, you just specify the order, and Works shuffles them for you.

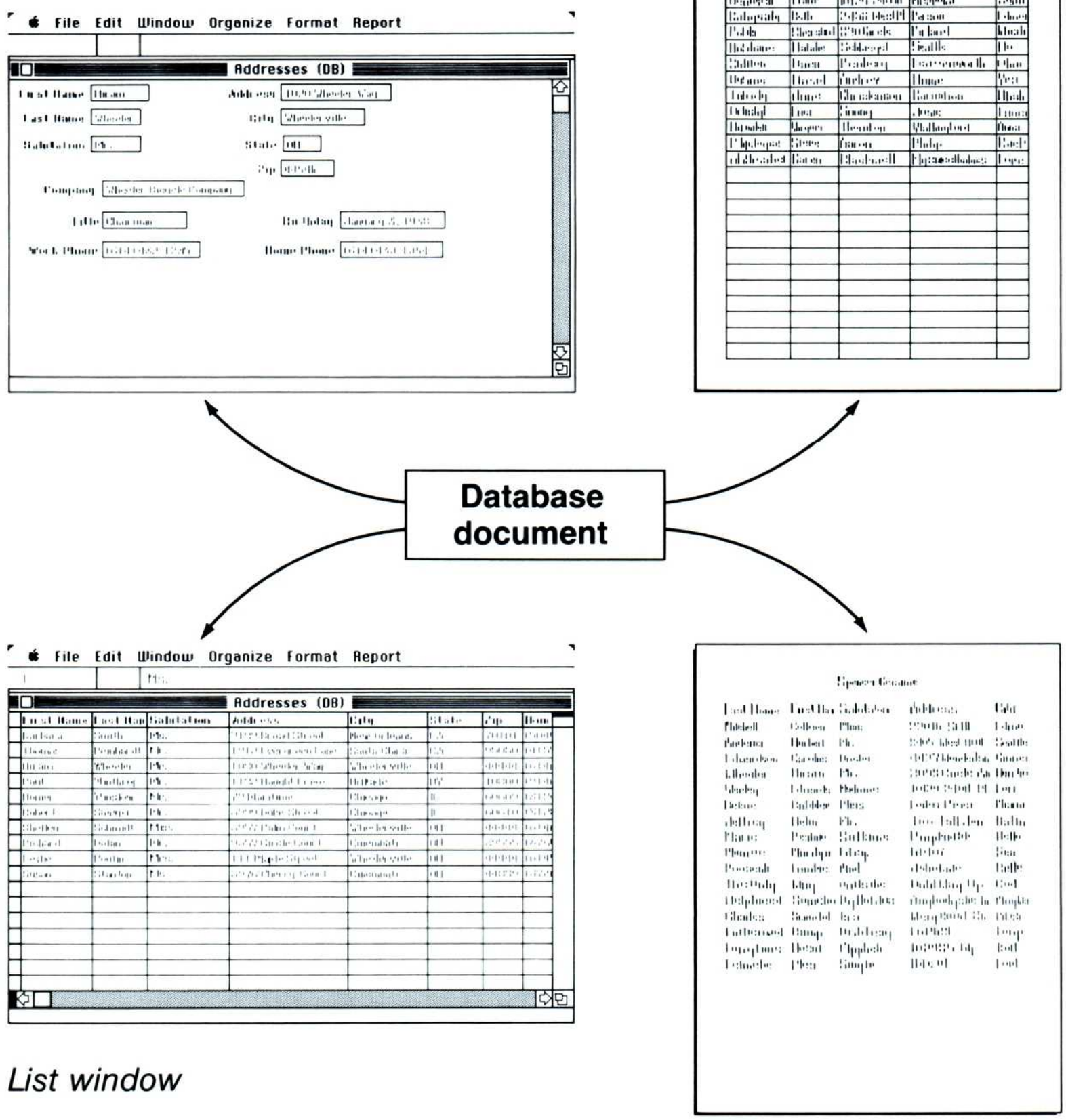
You can print a report containing all the records in a document, selected records only, or even parts of each record, depending on which information you want to see. For example, you might have a Database document containing a list of employees with their addresses, dates of hire, and salaries. For one purpose, you can print a list of names and addresses; for another purpose, a list of the same names with their salaries and dates of hire. You can even sum the list of salaries when you print the report.

Different views of your Database information

Different Views of Your Database Information

One of the most important things to understand about a Database is that it holds information in such a way that you can look at it from many different points of view.

With a single Database document, you can look at your data in a variety of presentations.



It's like looking into a house through different windows. Each view shows you something different, but all views are of the same house. The same idea applies to the ways you can view information in a Database document.

No matter which information you choose to see or print, all of the information remains intact in your document. Later, you can request to see or print different information from the same document.

Using a report

Using a Report To Print Information

Use reports to print information from a Database document. You can choose to print the whole document, or you can select a particular subset of the document to put on paper. You may want a list of all the people in your department and all available information about them, or you may want just the names of those in a small group listed with their phone numbers.

Once you know what you want to look for, you can set up criteria and let Works find the records that match those criteria. In the Database, you specify criteria with record selection rules. You can save each set of selection rules in a report definition. Even if you update your records constantly, you can use the same report definition to print your records if the basic structure of your Database remains the same.

Since you'll probably want to look at the information in each Database document in several different ways, you can set up several report definitions and save them all.

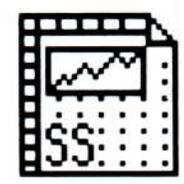
Some suggested applications

Some Suggested Applications

The Database is a good place to keep any kind of information you normally store in lists, on forms, or on index cards — business records, financial records, or personal records, for example. You can tailor your original document as your needs grow or change.

- A sales representative might want a document with categories for clients' previous purchases, purchase plans, product interests, and major interests. Then the rep could print reports based on each of these categories when planning sales calls.
- A manager could set up a personal planner that combines an appointment calendar with daily, weekly, monthly, and yearly goals. The same Database document could produce reports for the day's appointments and the week's goals. For a summary, it could also provide a list of accomplishments.
- Even outside the office, the Database can help you organize your life. For example, a neighborhood softball league coach might have a file containing categories such as height, weight, position, batting average, and so forth. Reports from all these categories would help to analyze a team's strength, as well as to provide accurate statistics for the league.

The Spreadsheet



The Spreadsheet is like a giant columnar pad that does the figuring for you. If you have several formulas that all change whenever you change one number, you don't have to go back and recalculate each one. You can let the Spreadsheet do it for you. It's like playing a game called "What-If?" What if your sales go up and your costs go down? What if the opposite happens? Will you be able to afford your building lease? What if you spend more on quality control — will the lower number of defective products justify the increase in spending?

Nearly any form of calculation that you do in columns and rows can be done with the Spreadsheet. You can analyze financial performance, project sales flows or costs, plan and compare budgets, or add up your personal net worth. With 256 columns and 9,999 rows to fill, you can do a lot of calculating.

Making charts

The Works Spreadsheet also lets you plot your data in a variety of different kinds of charts. When you change a number in the Spreadsheet document, your charts instantly reflect it.

Some Suggested Applications

Some suggested applications

The Spreadsheet is more than a simple calculator. It's a tool that shows you, on the screen, everything used in a calculation. You don't have to guess what formula determined what answer, or what numbers went into what equation. You can see it all. Because you can use many formulas and variables, your calculations can be extremely sophisticated.

What can you use the Spreadsheet for? How about:

- Cash flow analysis. If your company has more cash going out than coming in, find ways to even the flow. Try cutting expenses in one area to see if that helps. Would the cost of additional salespeople help or hurt?
- Break-even analysis. How will lower fixed costs or higher variable costs help you in the short run? In the long run?
- Loan calculations. What if you spread payments over five years instead of three? What if you pay 20% down instead of 30%?
- Budgets. Keep your company, department, or household on track by knowing how you spend what you have. Record your actual expenses and analyze them as a percentage of your budgeted amounts.

- Accounting. Put your general ledger on the computer. Keep track of your receivables and payables. With the power of the Spreadsheet doing the figuring, you'll spend more time understanding what the figures mean.
- Expense reports. Wouldn't it be easier if you didn't have to do all those calculations? Let the Spreadsheet do them.

Communications

When you need to send or receive a message or file, Communications lets you do it over telephone lines, using a modem or an acoustic coupler. These devices convert electronic signals into voice-frequency signals that telephone lines carry. They also convert signals sent to you back into electronic signals that your Macintosh understands.

Communications can hook you up to a large computer network, or to another Macintosh. Sending information with Communications is faster than any delivery service, and can also be less expensive. Depending on your modem, you can send a whole book in a couple of hours or in a matter of minutes. As soon as your message is received, the recipient can print it out.

You can set up Communications to send or receive some information, and then get on with your other work with another Works tool. Communications completes its task while you accomplish yours.

Some suggested applications

Some Suggested Applications

Here are some ways you can use Works Communications:

- Works Communications gives you access to thousands of database libraries called information services. If you need information quickly, from everyday stock quotes to abstracts of professional articles, an information service probably has it.
- Many information services let you send electronic mail. Electronic mail beats even overnight delivery. If your representative in Sweden needs some pricing information, or a colleague in New Guinea needs a letter of introduction right away, Works Communications lets you send it at close to the speed of light. You can send the same information to different locations, just by placing a few phone calls to other computers.
- Join a hobby or professional group and exchange news and information with electronic messages on computerized bulletin boards.

- If someone wants to send you something — a spreadsheet, database, or word processing file, for example — you can store it on a disk to work with later. Information services have business programs and games that you can buy and transfer to a disk for later use.
- Some banks offer electronic funds transfer services, so that you can pay bills and move your money among your accounts with your computer. You can also subscribe to computerized shopping catalogs, so you can browse and order at your leisure.

How the Tools Work Together

Microsoft Works isn't just four separate office tools. The tools also work together as a package.

Suppose you had a few file folders on your desk, along with a pad of paper, a phone book, a calculator, and a couple of pens. You could edit the information in one of the folders, look up a phone number in your phone book, make a few calculations, and take a look at the other folders. That's how you work. Your computer shouldn't work any differently.

Works is designed to work the way you do. It turns your Macintosh screen into an electronic desktop. You can have up to ten different windows on the desktop at once, depending on how much memory you have available. If you're working on a budget and you think of a good idea for a memo, you can open a new Word Processor document. You can switch back and forth between the Spreadsheet and Word Processor as you think up new ideas for the memo. You can have your address list on the desktop all day, so you can find a phone number when you need it.

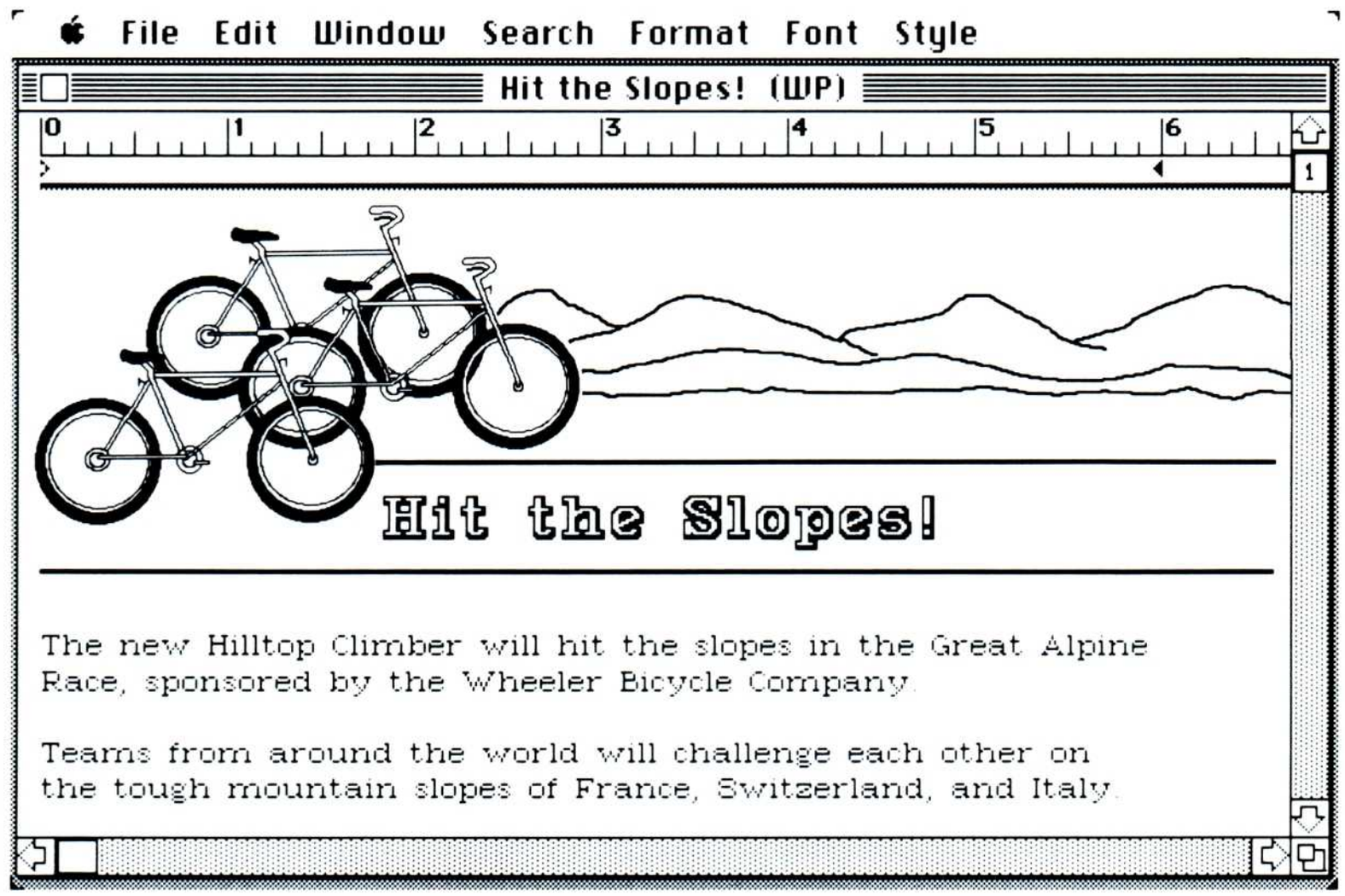
Some Suggested Applications

Some suggested applications

The tools can work together even more closely, too:

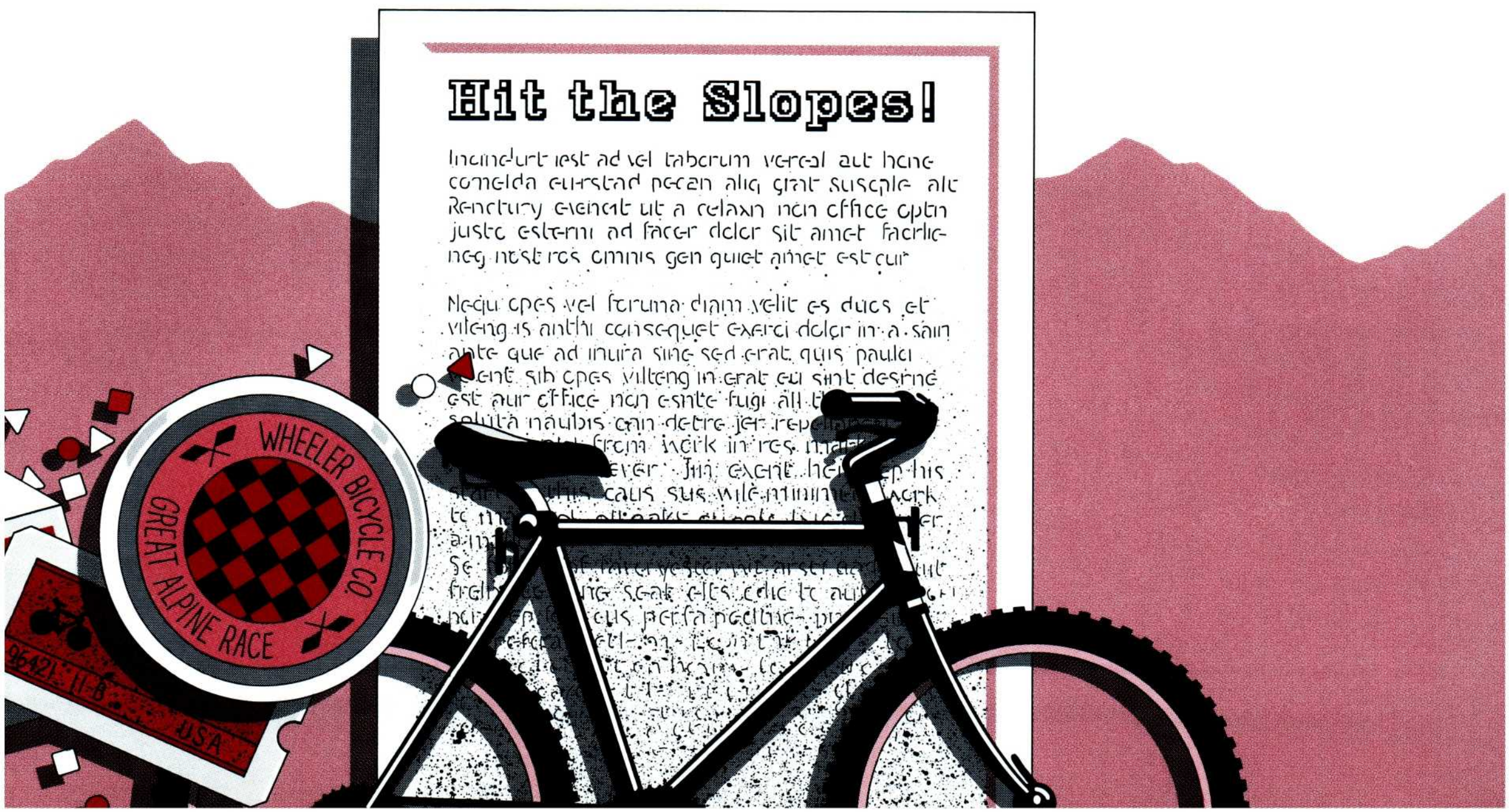
- The Database works with the Word Processor to merge information, such as names and addresses, into letters, forms, and mailing labels.
- Electronic cutting and pasting let you move information and charts from one document into another, as well as from one place to another within a single document. The Clipboard (a part of the Macintosh's memory) holds information for you

while you switch between documents. It also holds information while you switch between different computer programs (as long as you don't turn off the computer or put anything else on the Clipboard by cutting or copying). You can even move pictures from a drawing program into your Works documents.



2 The Word Processor: Editing a Short Article

You're the product manager for the new Mountain Wheeler bicycle of the Wheeler Bicycle Company. You've written a short article about a big promotional race introducing the Mountain Wheeler. Now you want to make a few corrections before the article appears in the next edition of the *Wheeler Dealer*, Wheeler's newsletter for dealers.



The lessons in this chapter will show you how to:

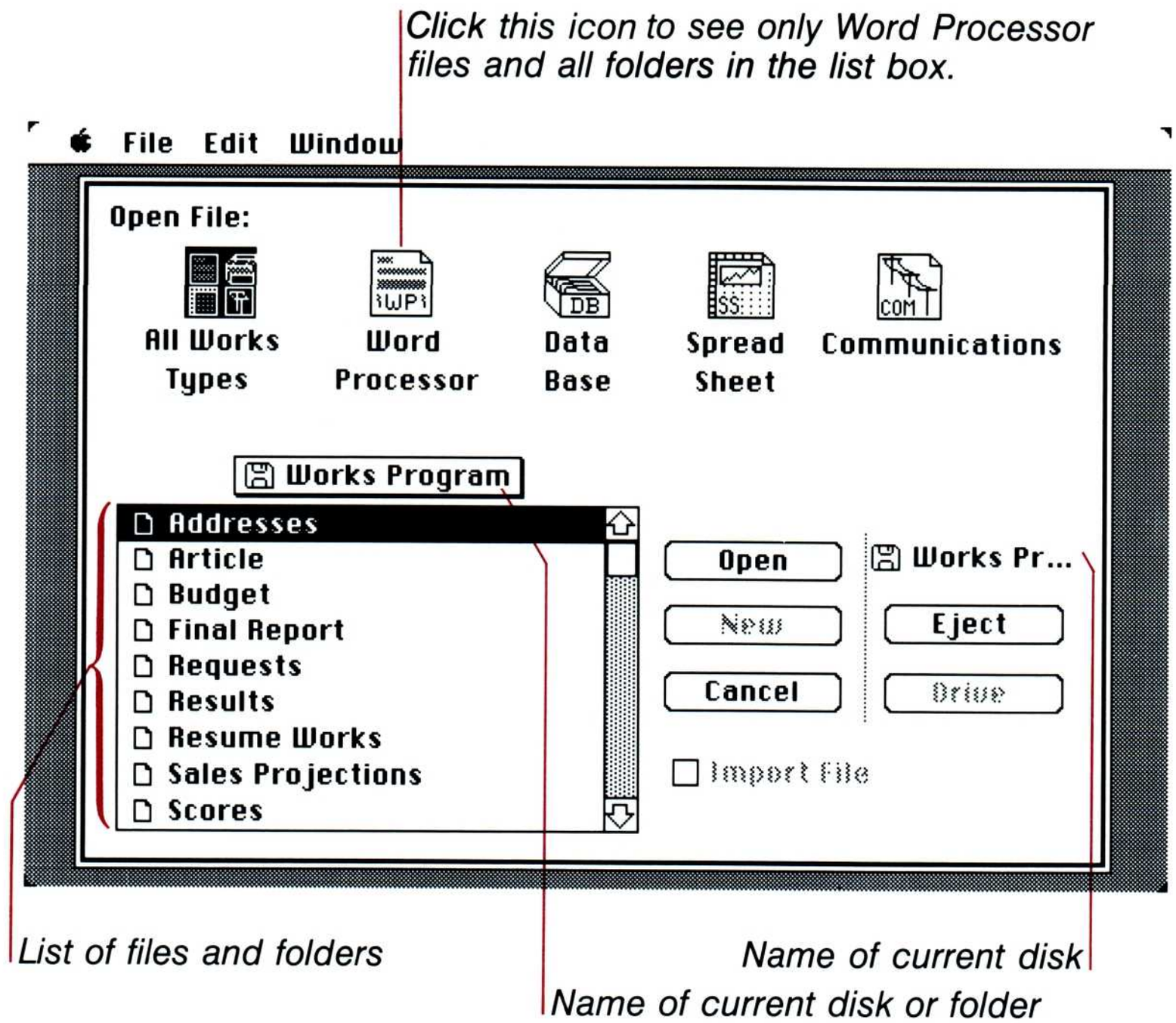
- Open a Word Processor file.
- Replace selected text throughout a document.
- Move text.
- Center a phrase and change its type style.
- Adjust tab settings for a table.
- Copy a paragraph format.
- Save changes as you work.
- Add a footer to print at the bottom of every page.
- Set a title page and a page break.
- Save a document and print a copy of it.
- Close a document and quit Works.

If your Macintosh is turned off, see "Getting Started" in "Welcome" to start Works.

Open the Word Processor File

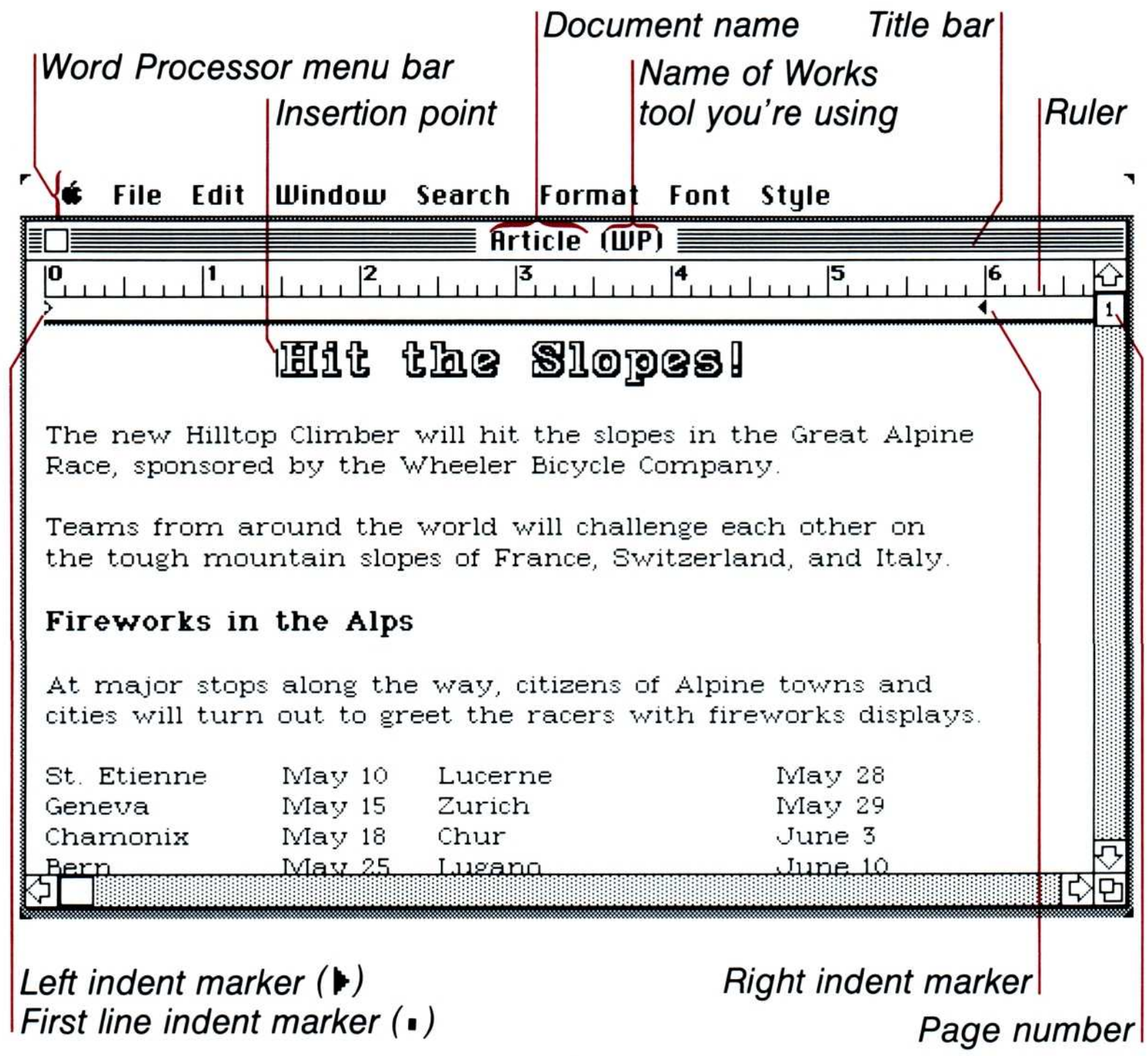
Open the file

The file containing the article is stored on your Works Program disk. To use a file, you open it. When you start Works, you'll see the Open dialog box containing a list of files and folders on the disk.



1. To see a list of Word Processor files and all folders, click the Word Processor icon.
2. The file named Article is already selected, so you only need to click the Open button.

A window opens with the article in it.



The title bar shows you the name of the document — Article — and the part of Works you're using — the Word Processor (WP).

Replace some text

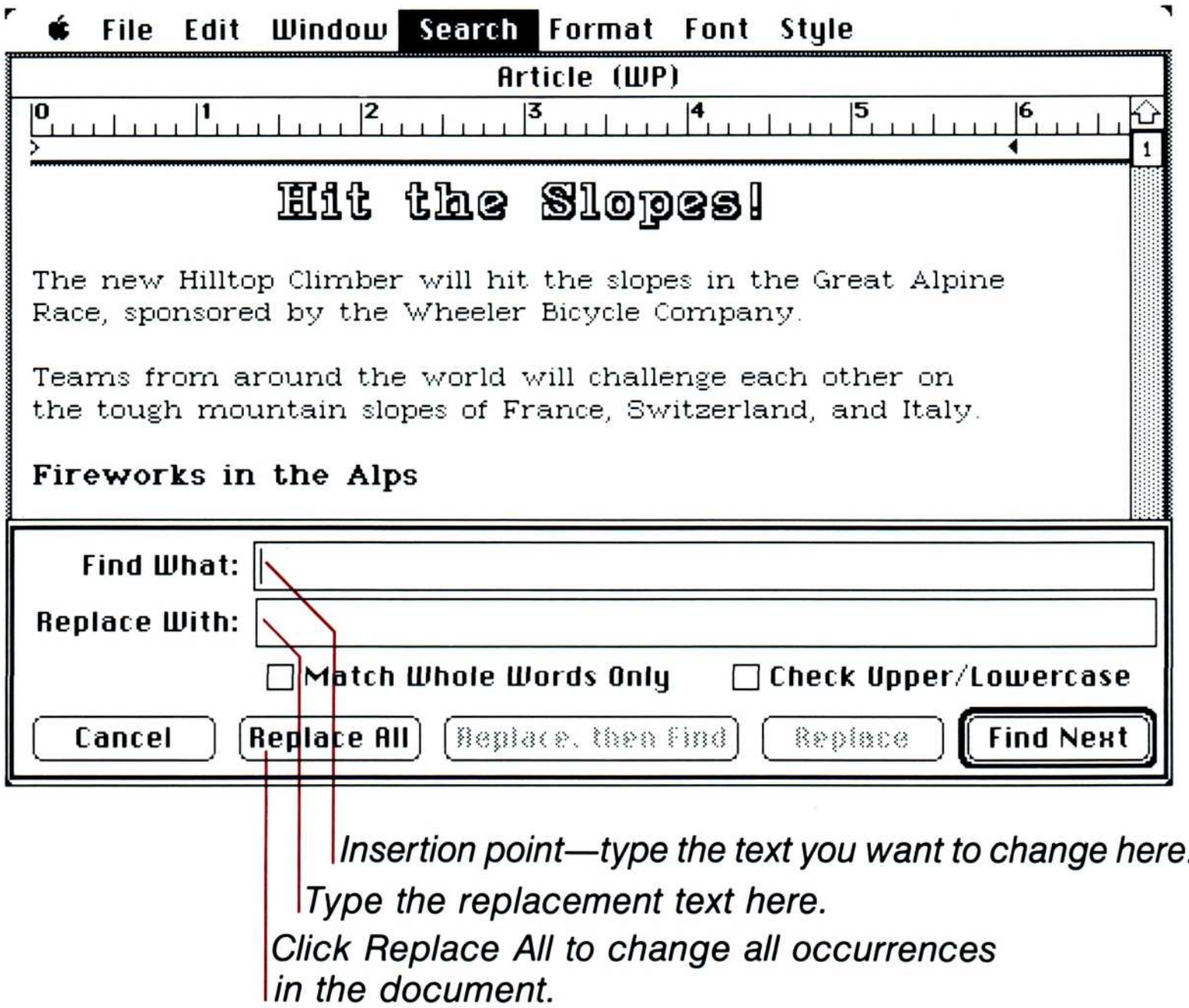
Replace Some Text

Since the article was written, the name of the new bicycle has changed from Hilltop Climber to Mountain Wheeler.

With the *Wheeler Dealer*'s editor anxious to get the article, you don't have time to find all occurrences of the wrong name and type in the change. Let the Word Processor do it.

Here's how to make the change:

1. Choose Replace from the Search menu.
   The Replace dialog box appears.



The Replace command tells Works to find the text you want and replace it.

The different options let you choose how you want to look for and change text. Since you want to change "Hilltop Climber" to "Mountain Wheeler" everywhere in the document, you'll want to change all occurrences.

2 Type *Hilltop Climber* in the Find What box. (The insertion point is already in position.)

You could also have selected any occurrence of "Hilltop Climber" in the document before choosing the Replace command. In this case, the words would appear selected in the Find What box when you chose Replace.

3 Move the insertion point into the second box by pressing the Tab key.

4 Type *Mountain Wheeler* in the Replace With box.

5 Click the Replace All button.

Works replaces every occurrence of "Hilltop Climber" with "Mountain Wheeler". Works then displays a message box telling you that all occurrences of "Hilltop Climber" have been found.

6 Click the OK button.

Works returns the insertion point to its original location in your document.

Move some text

Move Some Text

The middle of the article contains a quotation from the Vice President of the Wheeler Bicycle Company. You've decided to move it up front. The Word Processor lets you move text by cutting it from one place and pasting it into another.

To move this quotation, you'll need to scroll the document, cut the quotation, scroll back to position the insertion point, and paste the quotation.

Scroll the document

First, scroll the document so that you can see the quotation. To move down one screenful of text:

- Click the gray area of the vertical scroll bar below the scroll box.

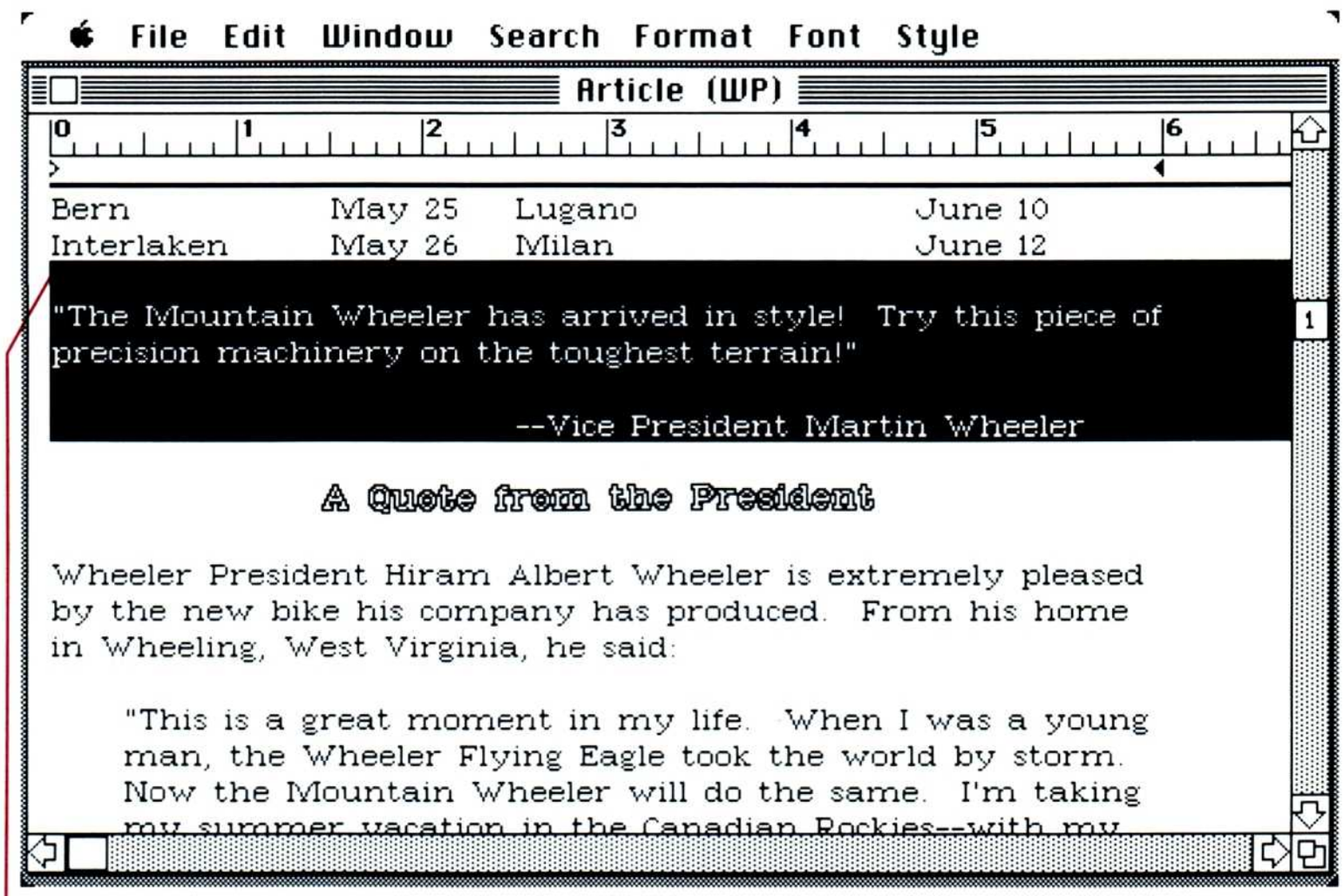
The quotation now appears near the top of the screen.

Cut the quotation

Next, cut the quotation from its original location.

1. Move the pointer to the left margin in the blank space above the quotation. This allows you to select the blank line along with the quotation that follows it.
2. Drag down until you've highlighted the entire quotation and the name of the Vice President.

   This is the selection you want to make:



Remember to select the blank line above the quotation.

3 Choose Cut from the Edit menu.

The quotation disappears. It's actually stored on the Macintosh Clipboard until you're ready to use it. The Clipboard holds information temporarily in your computer's memory until you turn off the computer, or cut or copy another selection. For more information on the Clipboard, see your Macintosh owner's guide.

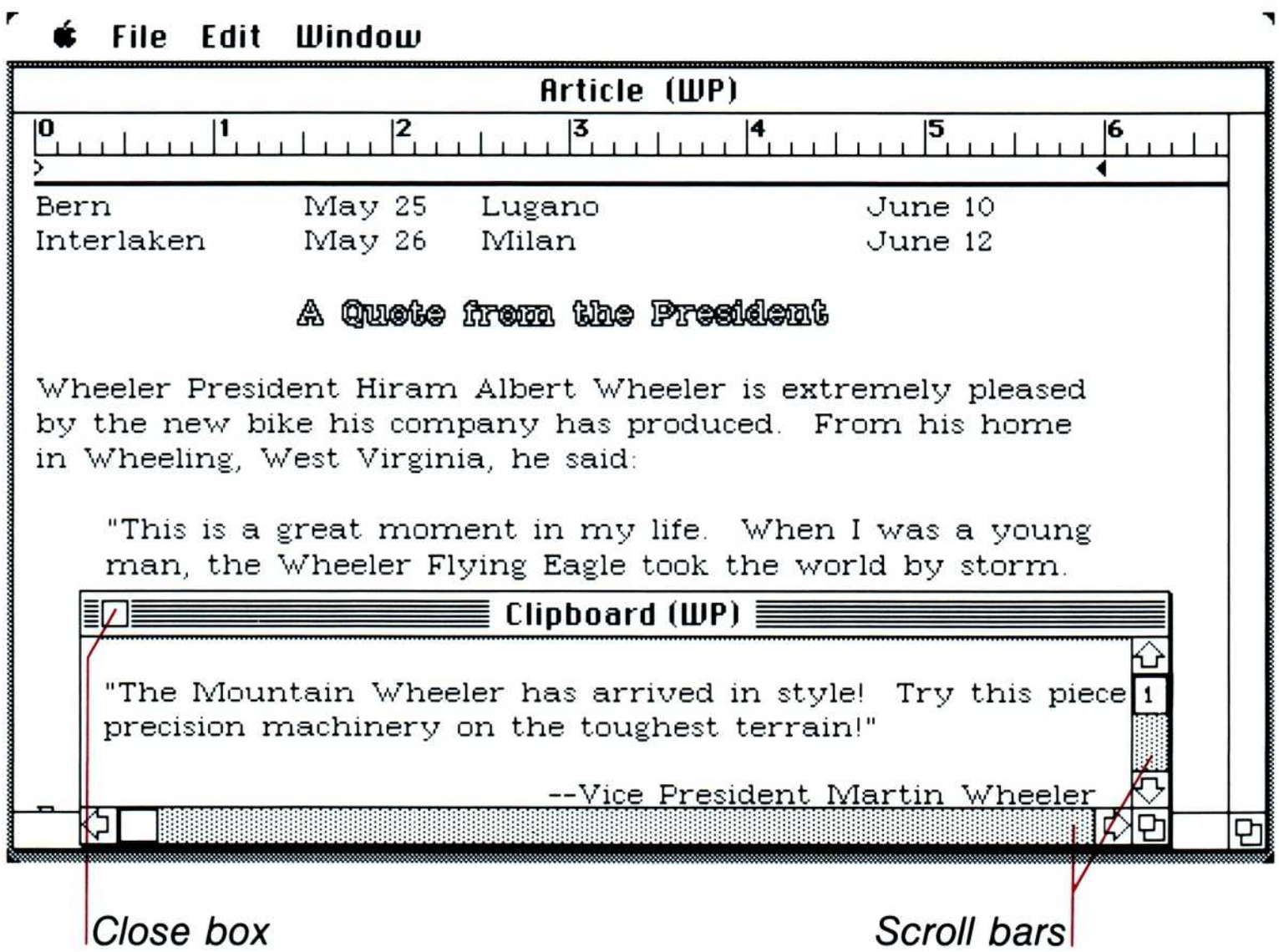
Look at the Clipboard

If you ever forget what you have on the Clipboard, you can open the Clipboard to see.

To look at the Clipboard:

- Choose Show Clipboard from the Window menu.

The Clipboard window, containing the quotation, opens at the bottom of the screen.



To close the Clipboard:

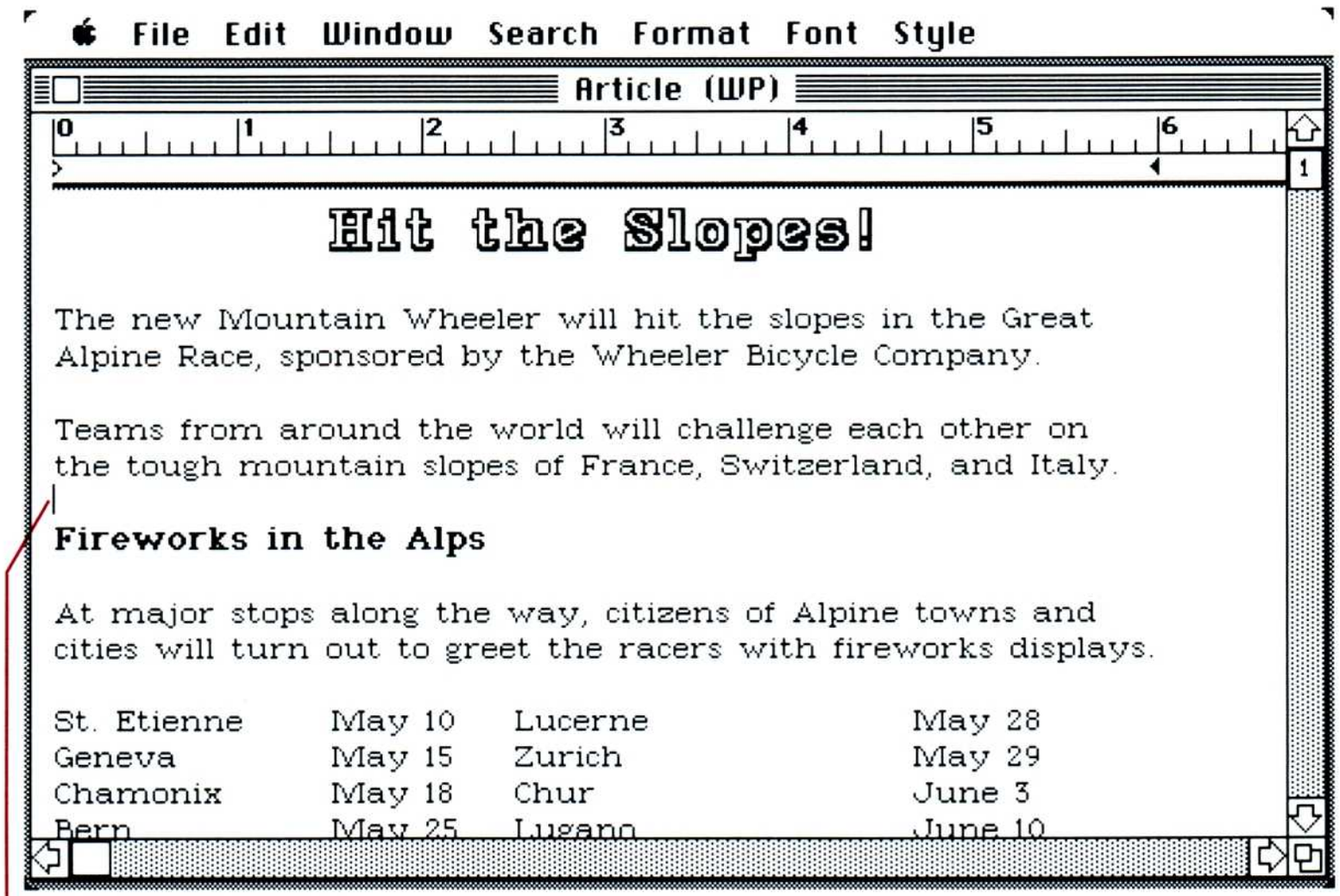
- Click the close box in the title bar.

Now that you have the quotation on the Clipboard, you can move back up to the top of the document where you want to paste it back in.

Position the insertion point

To position the insertion point:

1. Scroll up to the beginning of the article. The fastest way is to drag the vertical scroll box to the top of the scroll bar.
2. Position the insertion point in the blank line immediately following the second paragraph. Just point and click.



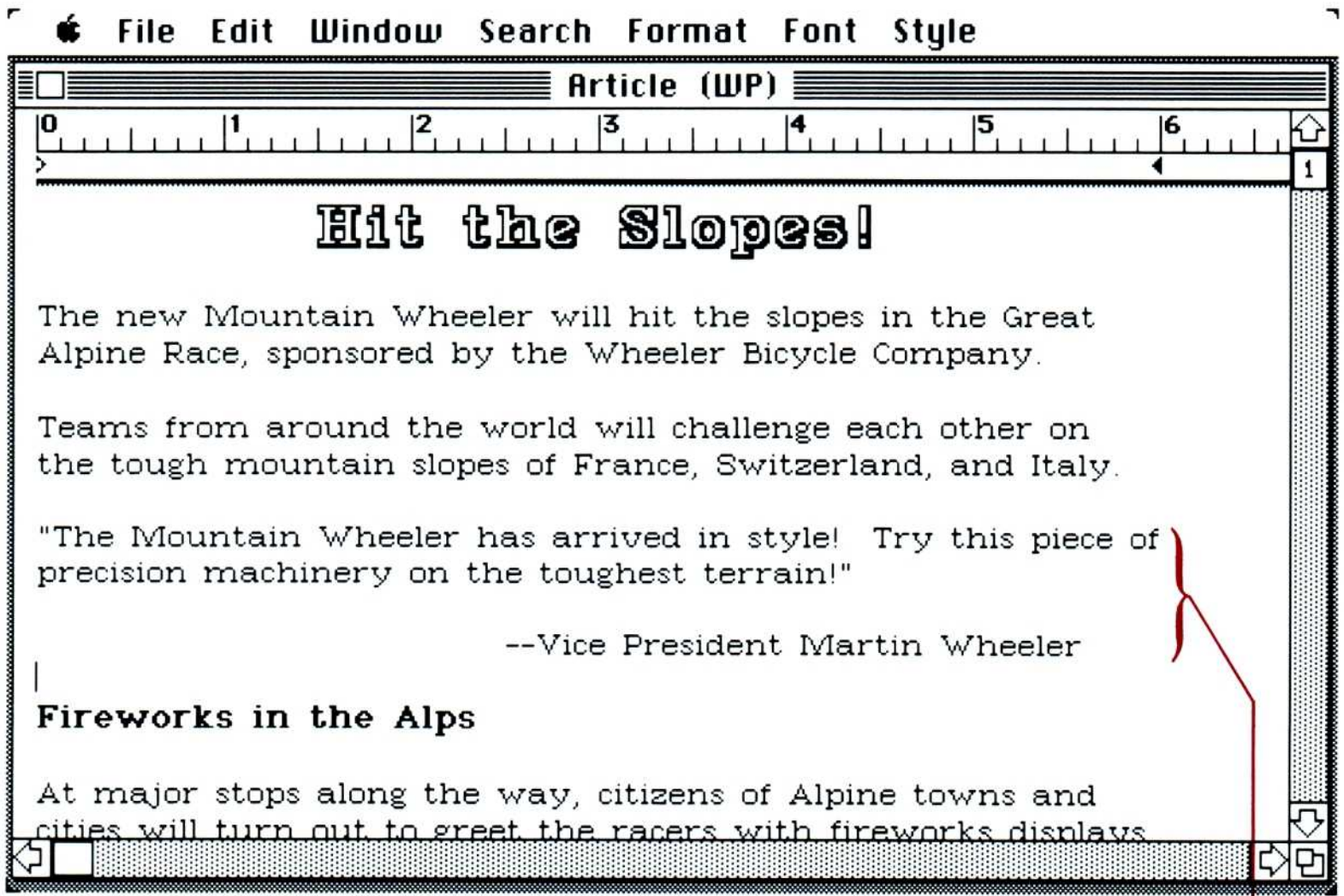
Point and click to move the insertion point.

Paste the quotation

With the insertion point in place, you're ready to paste.

- Choose Paste from the Edit menu.

The quotation now appears near the beginning of the article.



The quotation is in its new position.

That's it: you've moved text from the middle of the article to the opening, where it will get more notice.

Center a Phrase

Center a phrase

Look at the article you're working on for the *Wheeler Dealer*. Following the third paragraph is a headline: "Fireworks in the Alps". The headline already stands out because it's in bold type, but you can emphasize it a little more by centering it.

To center the headline:

1. Position the insertion point anywhere within the headline. (Just point and click.)
2. Choose Centered from the Format menu.

The text is now centered.

Change the type style

Change the Type Style

The headline looks a little more impressive now, but you could make it stand out even more by changing the type style. Instead of regular bold text, try outlined type.

To change type styles, select the text and use the Style menu.

1. Select the phrase "Fireworks in the Alps" by dragging across it.
2. Choose Outline from the Style menu.

The headline is now in Outline type, but it's hard to tell what it will look like when you print, because it's still highlighted. To remove the selection:

- Click anywhere outside the selected headline.

The new style should attract readers to this section.

Adjust the table spacing

Adjust the Table Spacing

Scroll the document a little until you see the schedule for the fireworks displays. Information arranged like this in columns forms a table.

This table is not aligned evenly. To add more space between the second and third columns, you can change the tab stops on the ruler.

Before you can change the tab stops, you need to select the text and make sure the ruler is showing.

Select the text

To select the text:

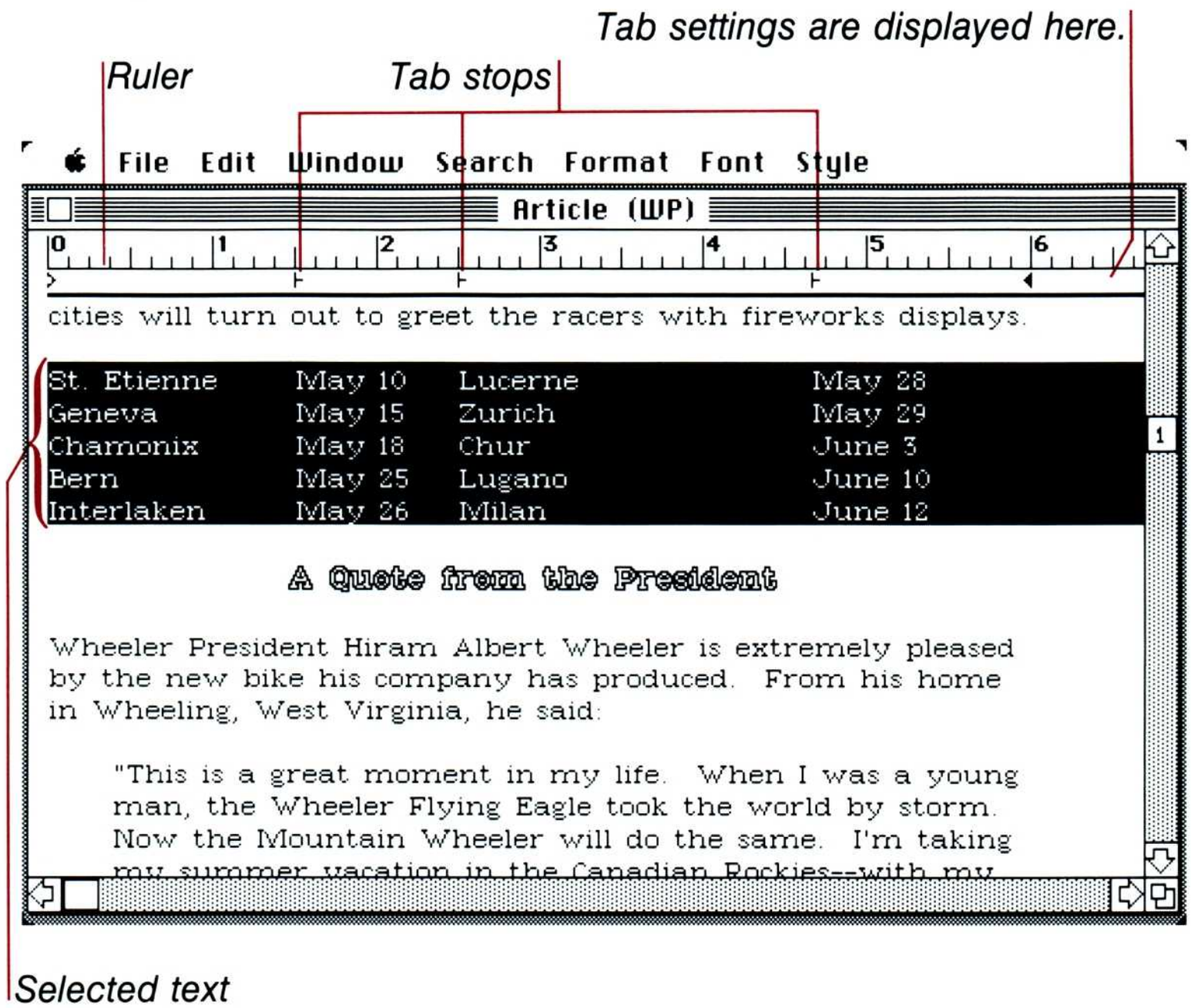
- Move the pointer to the beginning of the table and drag down until the entire table is highlighted.

Show the ruler

Now, check to see if the ruler is showing.

- If it's not showing, choose Show Ruler from the Format menu.

The ruler appears at the top of the window.



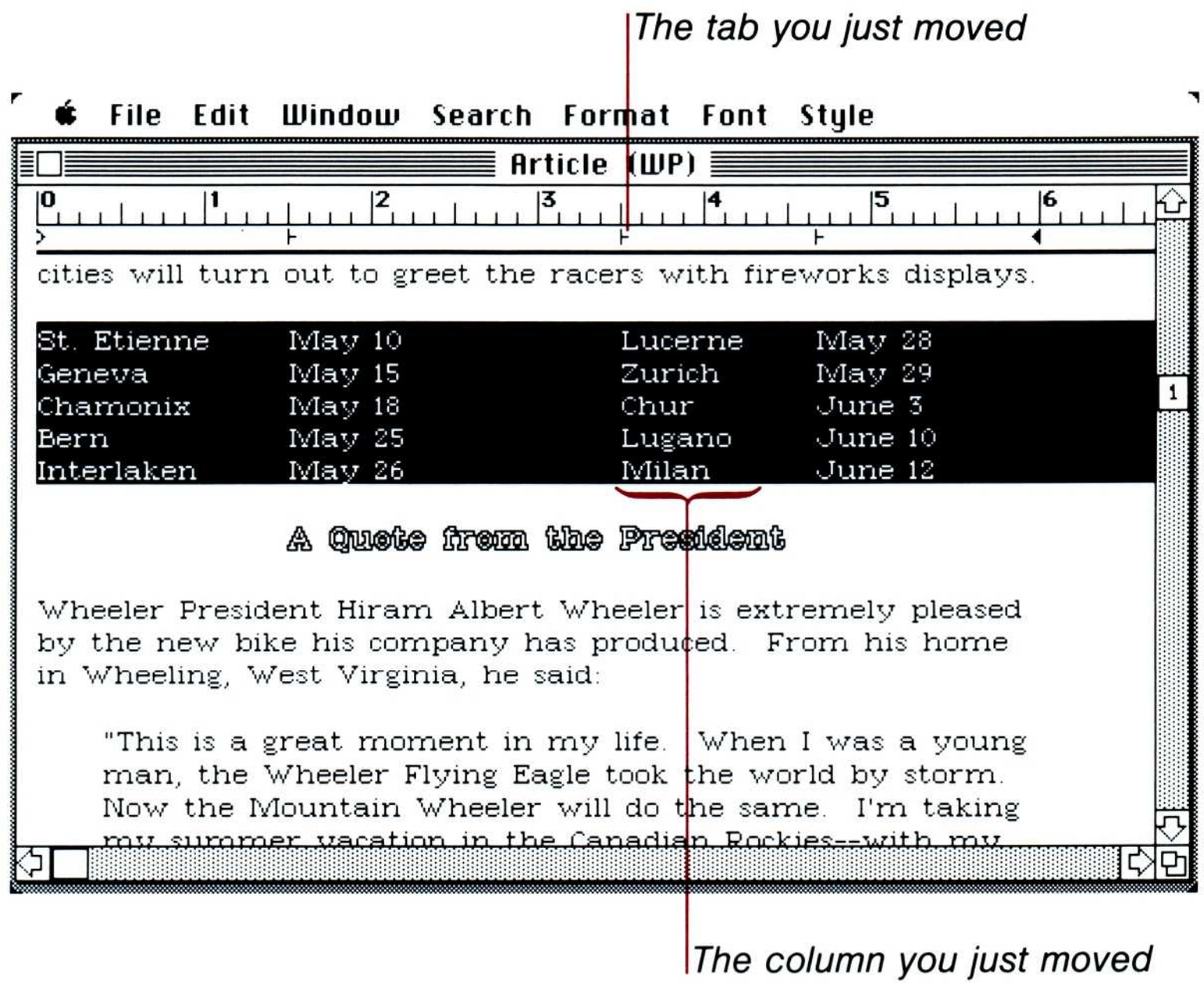
The ruler shows you some of the format settings — indents and tab stops — for your document.

You can have different format settings for different parts of a document. For example, in this instance you can change the tab settings just for the table. The small sideways T's (⊢) just below the ruler markings indicate tab stops. You change the settings by working with these symbols.

To move the columns in the table farther apart, drag the appropriate tab stop.

Move a tab stop

1. Point directly to the tab stop symbol at the 2.5″ mark.
2. Drag the tab stop to the 3.5″ mark.



As soon as you release the mouse button, the third column lines up at the 3.5″ mark. The extra space makes the columns more distinct.

Reminder To see your change better, you can remove the highlight by clicking anywhere outside the selected text.

The ruler also lets you adjust indentation. For more information about the ruler, see Chapter 4, "Formatting a Document," in *Using Microsoft Works*.

Copy a format

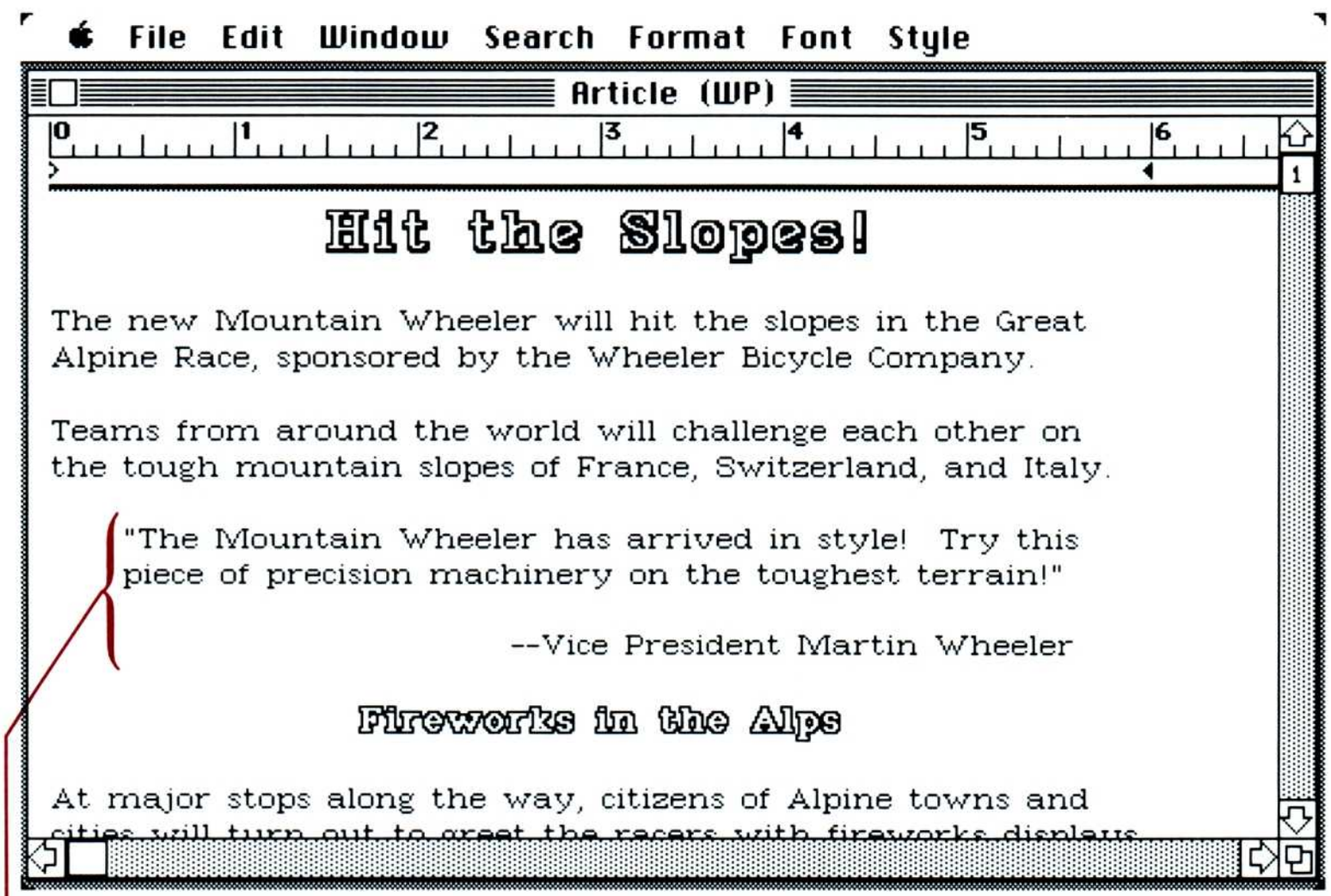
Copy a Format

The editor of the *Wheeler Dealer* has asked that all quotations be indented in newsletter articles. In your article, two of the quotations are indented, but the first one (the one you moved to the beginning of the article) is not.

To indent this quotation, copy the format from the second quotation to the first.

1. Position the insertion point anywhere within the indented quotation below the heading "A Quote from the President". (Just point and click.)
2. Choose Copy Format from the Format menu.

   Copying the format doesn't affect the original paragraph.
3. Scroll up to the beginning of the article by dragging the vertical scroll box to the top of the scroll bar.
4. Position the insertion point anywhere in the first quotation.
5. Choose Paste Format from the Format menu.



The format you pasted indents the quotation.

Now, all the quotations in the article are indented.

In addition to ruler settings, you can copy paragraph justification and line spacing. For more information about formats and copying them, see Chapter 4, "Formatting a Document," in *Using Microsoft Works*.

Save your changes

Save Your Changes

You've made quite a few changes. What if an electrical storm knocked out your power? You could lose all your changes — unless you save them on a disk first.

When you open a file, you actually put a copy of that file — a document — into your Macintosh's memory. A document, then, is a copy of a file that you work with on your screen. The original file is still on the disk, unchanged.

When you save your document, you have two choices. You can use the Save command or the Save As command.

If you use the Save command, Works automatically incorporates your changes from the document you were working on into the original file on the disk. This new, updated file will have the same name as the original file it replaces.

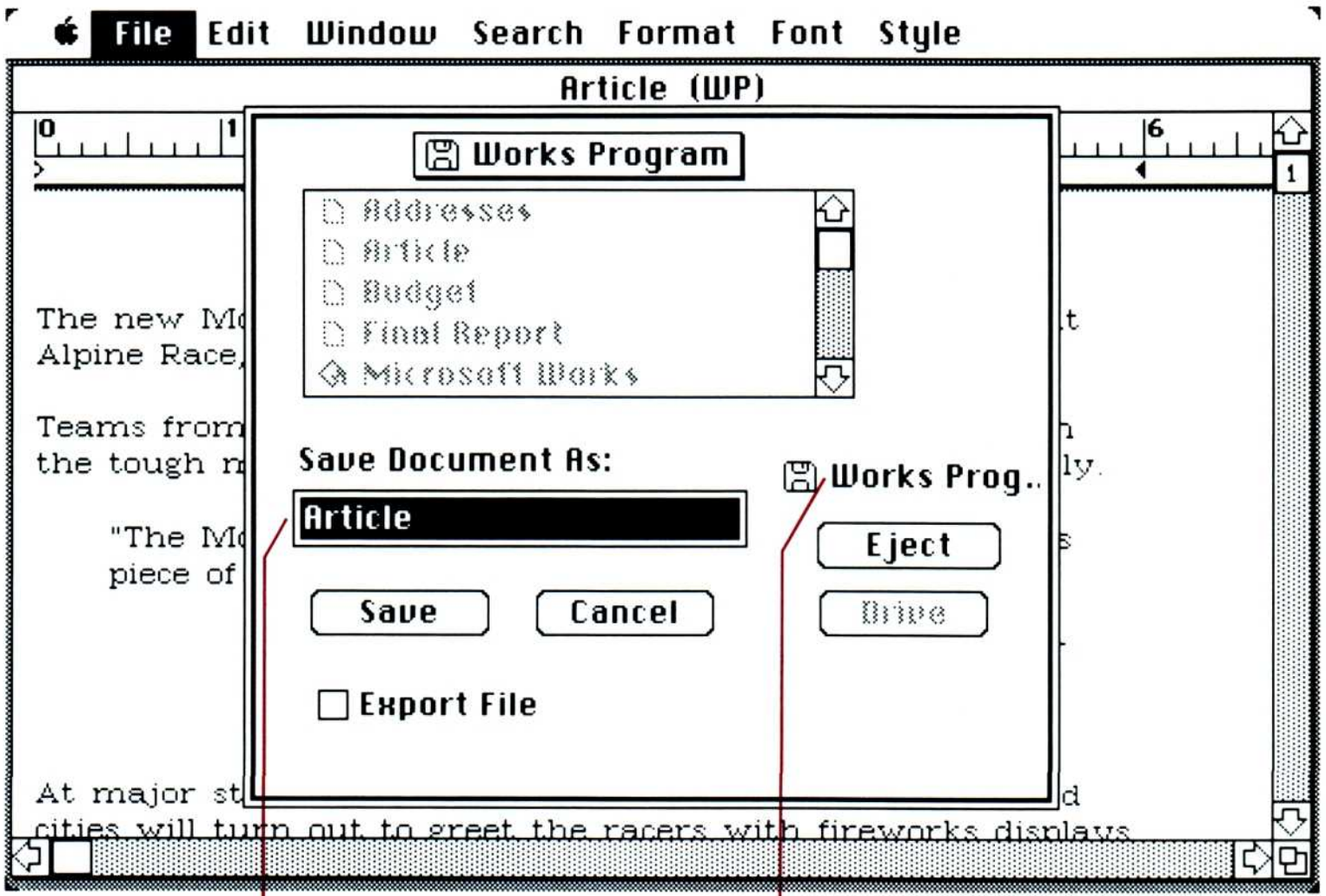
If you use the Save As command, you type a new name with which your document will be saved. You then end up with two files on the disk: the original file with the original name, and a new file with your changes and the new name you typed.

Save changes with another name

So that others can use the original sample file if they go through these lessons, save your changes to Article with the Save As command.

1. Choose Save As from the File menu. (Don't choose Save, or you'll replace the original file.)

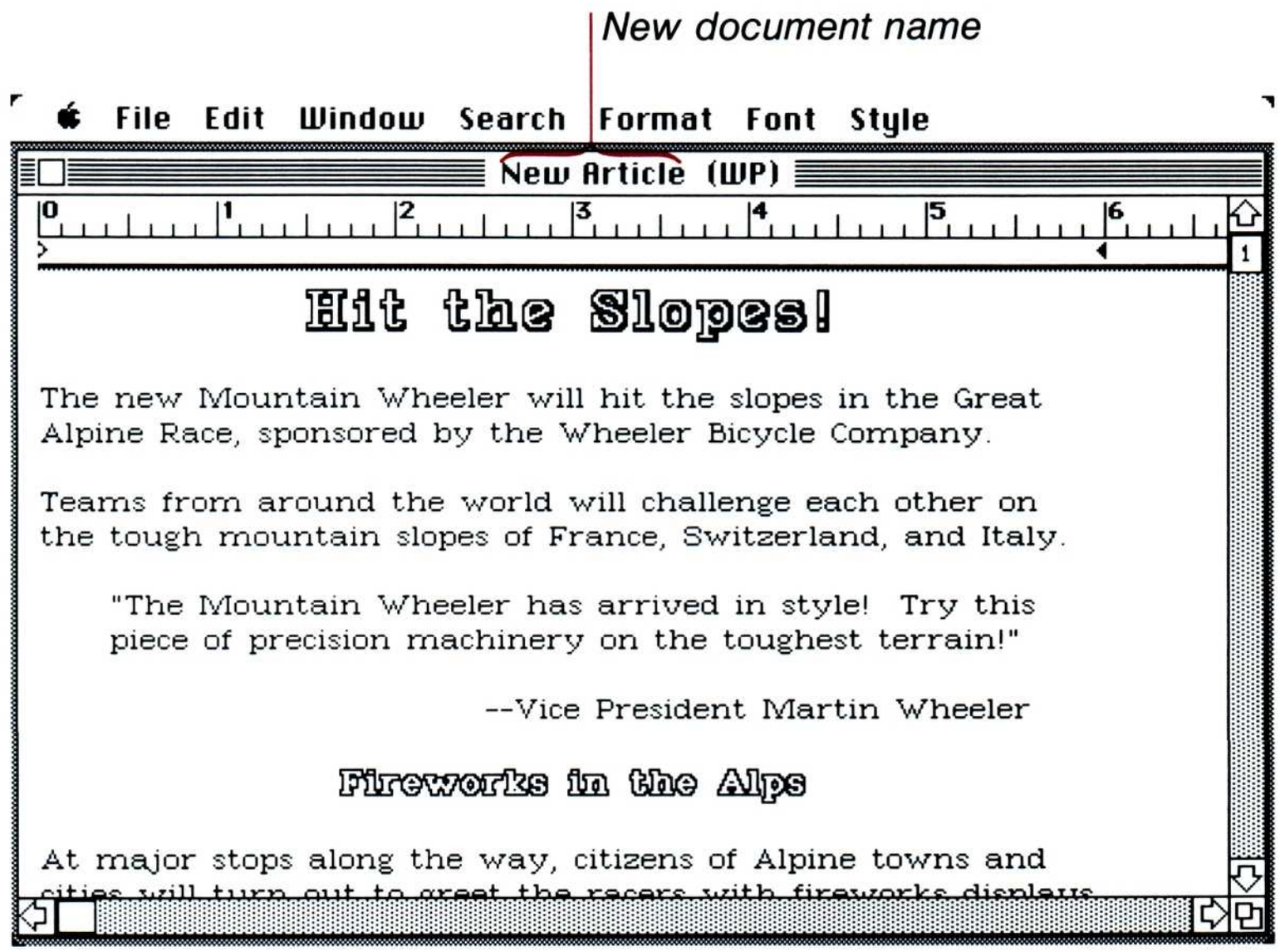
   The Save As dialog box appears, with the original filename selected. Whatever you type will replace this name.



2 Type *New Article*
This will be the new name your changed document will have.

3 Click the Save button.

Works saves the document as a new file on the disk, and changes its name in the title bar on the screen.



Now you have two versions of the file on the disk — the unchanged original named Article, and the new one named New Article.

From now on, you'll be working with the new document — the one with the new name. You can save additional changes to the new document without affecting the original article at all.

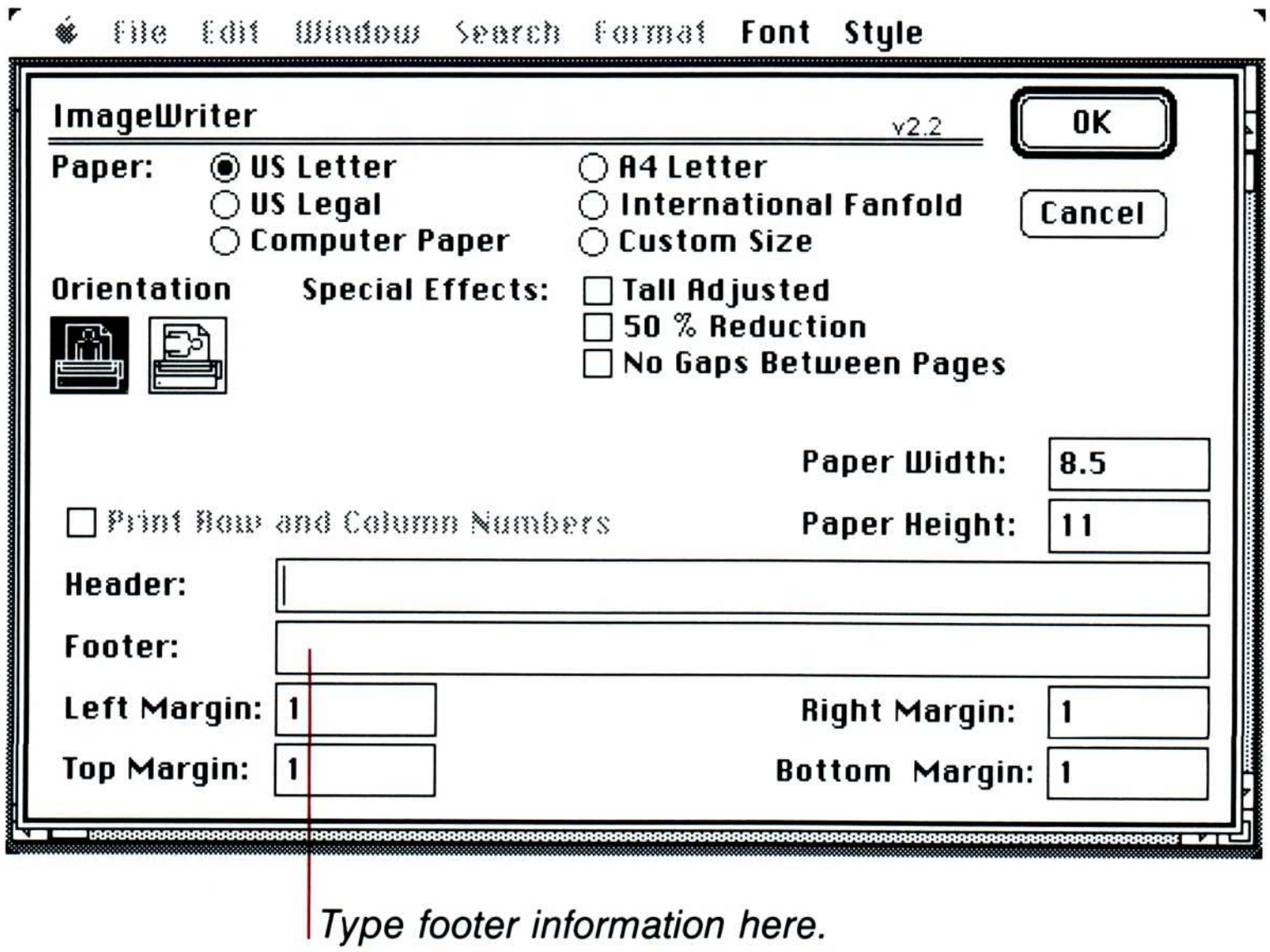
Add a footer

Add a Footer

Wheeler Dealer's editor has also requested that all articles be submitted in the same page format, with a footer on each page except the first. A footer is text that is repeated at the bottom of each page. This footer should contain the subject of the article, the last name of the author, and the page number.

With Works, you can set up a footer that prints automatically on every page.

1. Choose Page Setup from the File menu.
   The Page Setup dialog box appears.



The lower half of the dialog box has room for you to set up a header or a footer. (Headers and footers work the same way, except that a header prints at the top of a page, and a footer prints at the bottom.) The insertion point blinks in the box for the header.

2 Press the Tab key to move the insertion point to the Footer box.

To tell Works how to align your headers and footers, you'll use formatting commands that consist of an ampersand (&) and a letter. The ampersand tells Works: "and now do this. . ." and the letter specifies exactly what to do. You can type either lowercase or uppercase letters for the commands. If you make a typing mistake, use the Backspace key.

3 Type *&LAlpine Race* but don't press the Return key or click anywhere yet.

The letter "L" tells Works to align the following text on the left.

4 Type *&C* and your last name.

The &C stands for "and now center what follows."

5 Type *&R&P*

The "R" tells Works to align the following at the right margin. The "P" tells Works to type the page number automatically.

The whole thing looks something like this:

Footer: &LAlpine Race&CWalker&R&P

6 When you're finished typing the footer, click the OK button.

Notice that the footer does not appear on the screen. You'll see it when you print the document, at the end of this lesson. Works will print the footer at the bottom of each page.

For more information on formatting commands in headers and footers, see "Page Setup" in Chapter 2 of *Using Microsoft Works*.

Set a title page

Set a Title Page

There's one problem: if the footer prints at the bottom of each page, that means it prints at the bottom of the very first page, on which the newsletter's editor does not want a footer.

To tell Works not to print the footer on the first page, make it a title page. This does not change the format of your first page in any way. It just means that when you print the document, Works will skip the footer on the first page.

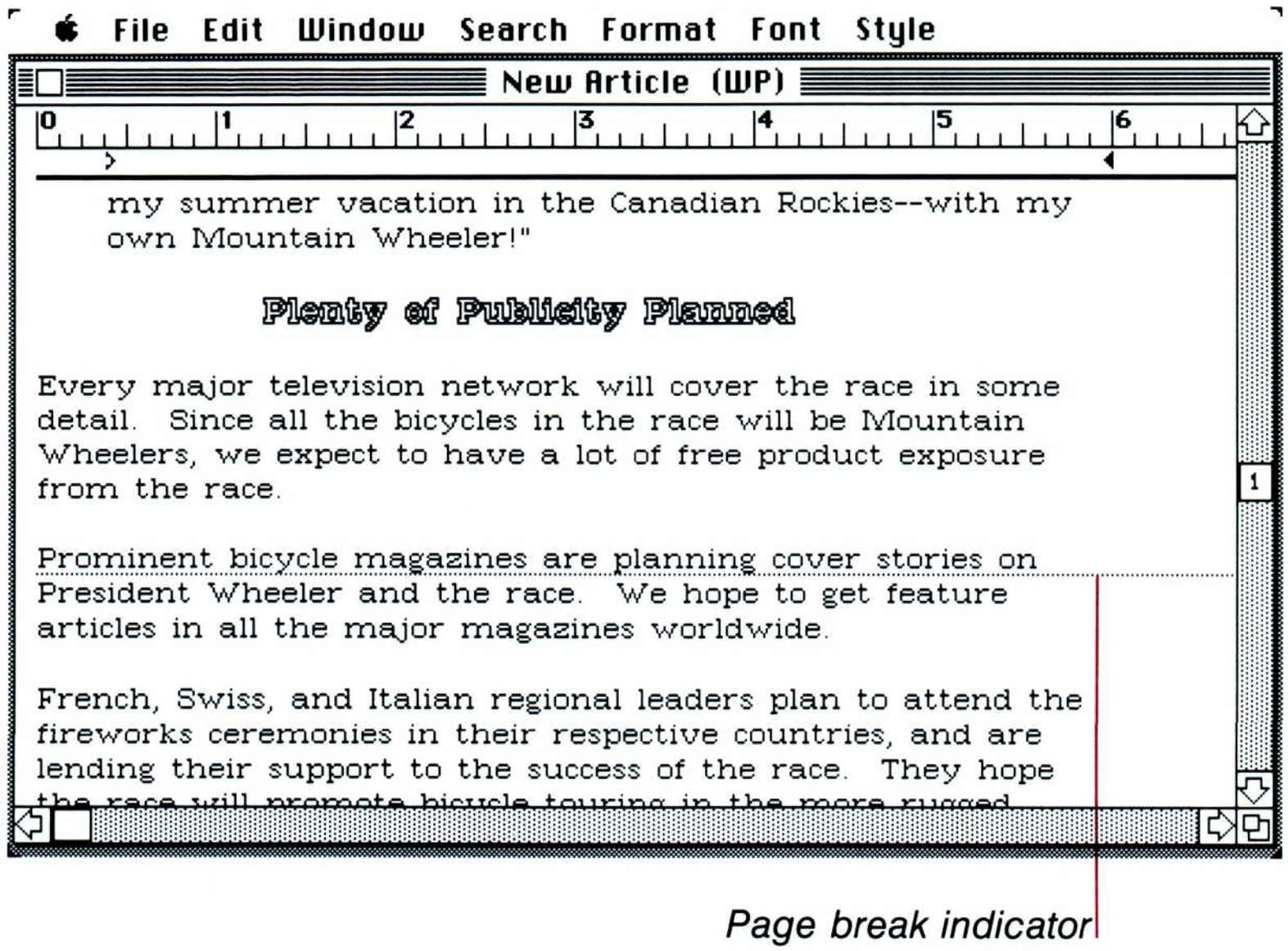
■ Choose Title Page from the Format menu.

Works puts a checkmark on the menu to show you that the command is in effect.

Set a page break

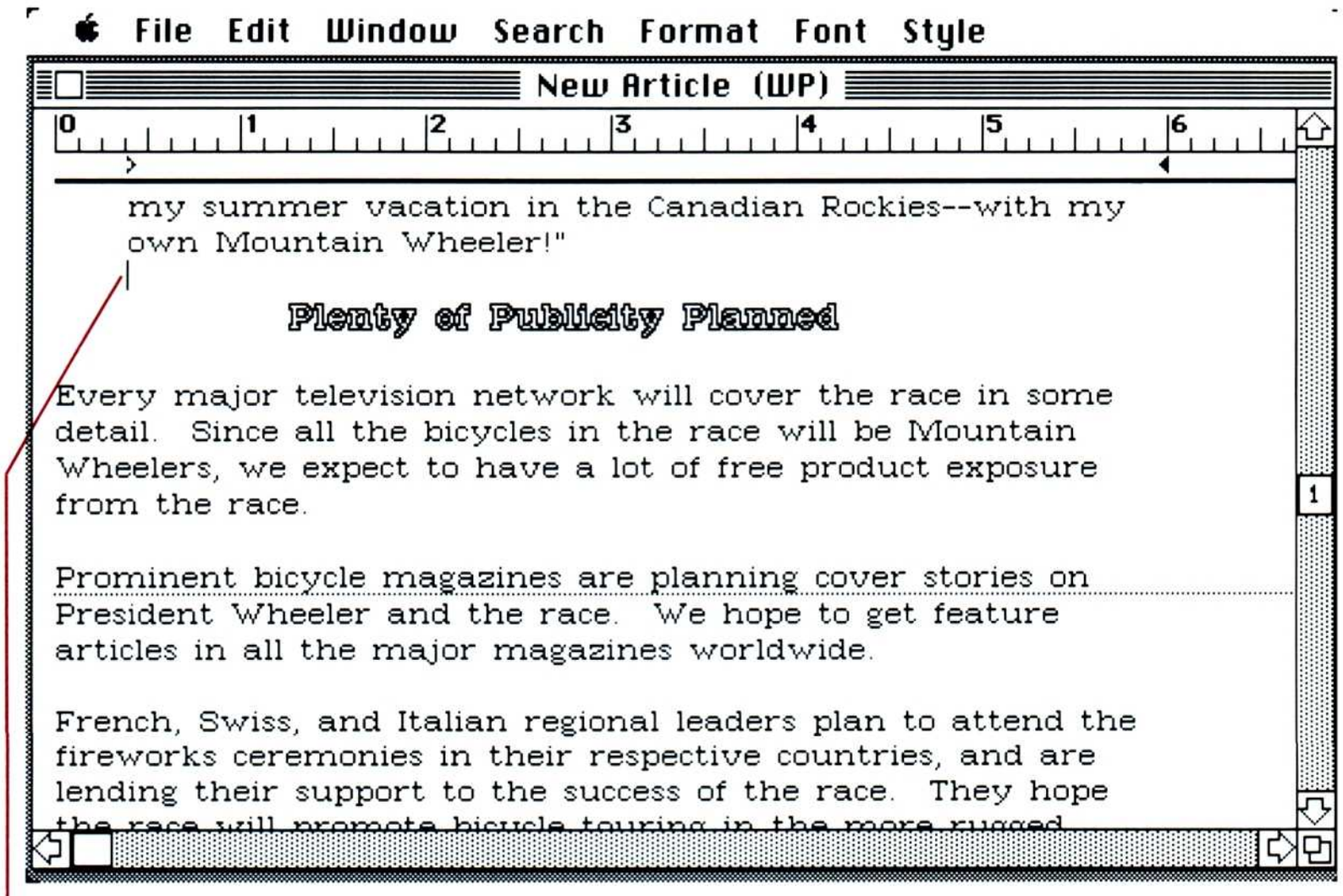
Set a Page Break

Scroll down in your document until you see a dotted line going across the entire screen. This line indicates where one page ends and the next one starts in a printed document.



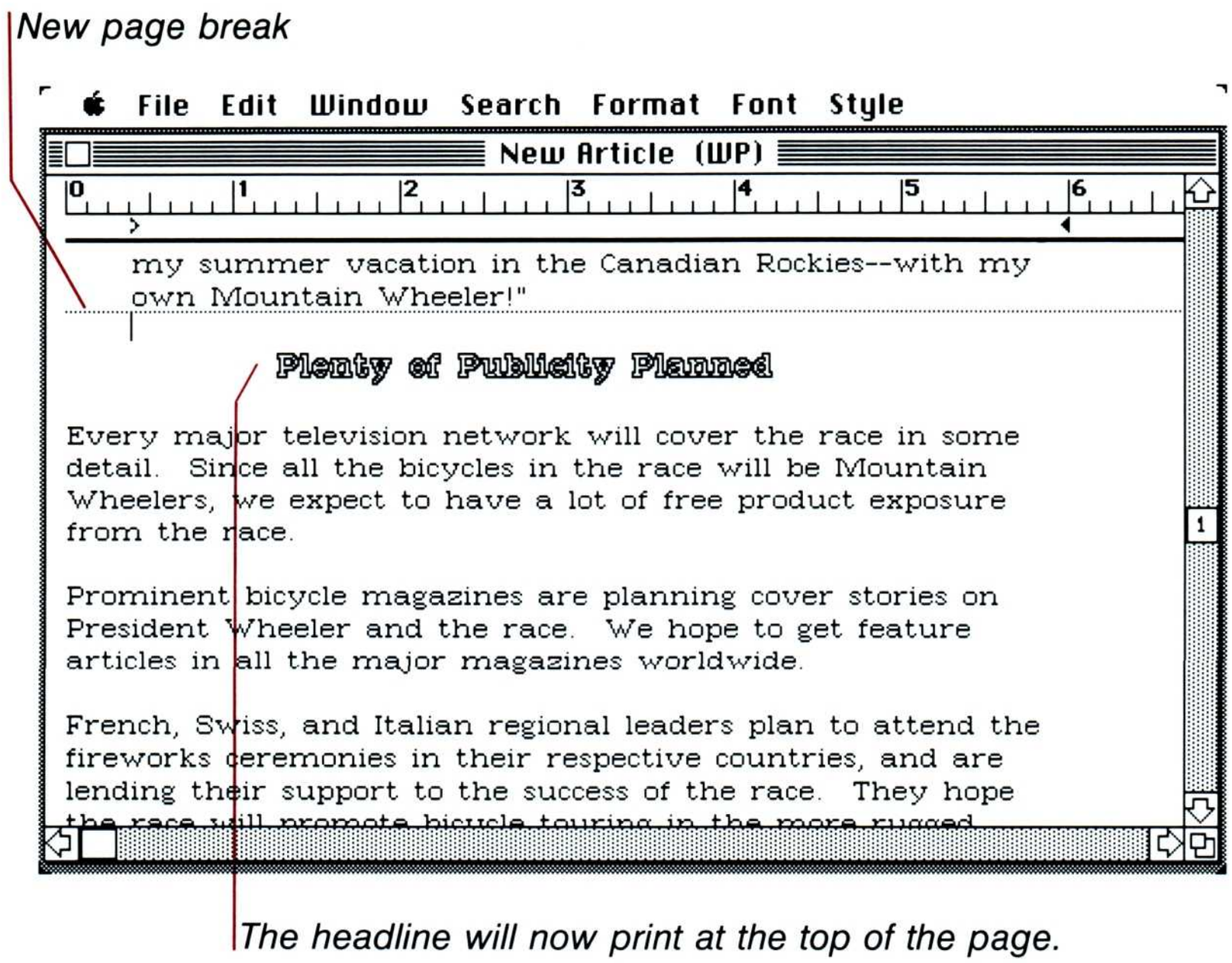
You'd rather not break a section over two pages. To keep the entire section, along with its headline, together, start the new page above the headline.

1 Position the insertion point in the blank line above the headline. (Point and click.)



Position the insertion point in the line where you want a new page break.

2 Choose Insert Page Break from the Format menu.
Works moves the page break up to its new location.



Now the entire section is on the second page.

Save Your Document

Save your document

Because your document now has a different name from the original file, you can save these most recent changes without fear of affecting that original file.

- Choose Save from the File menu.

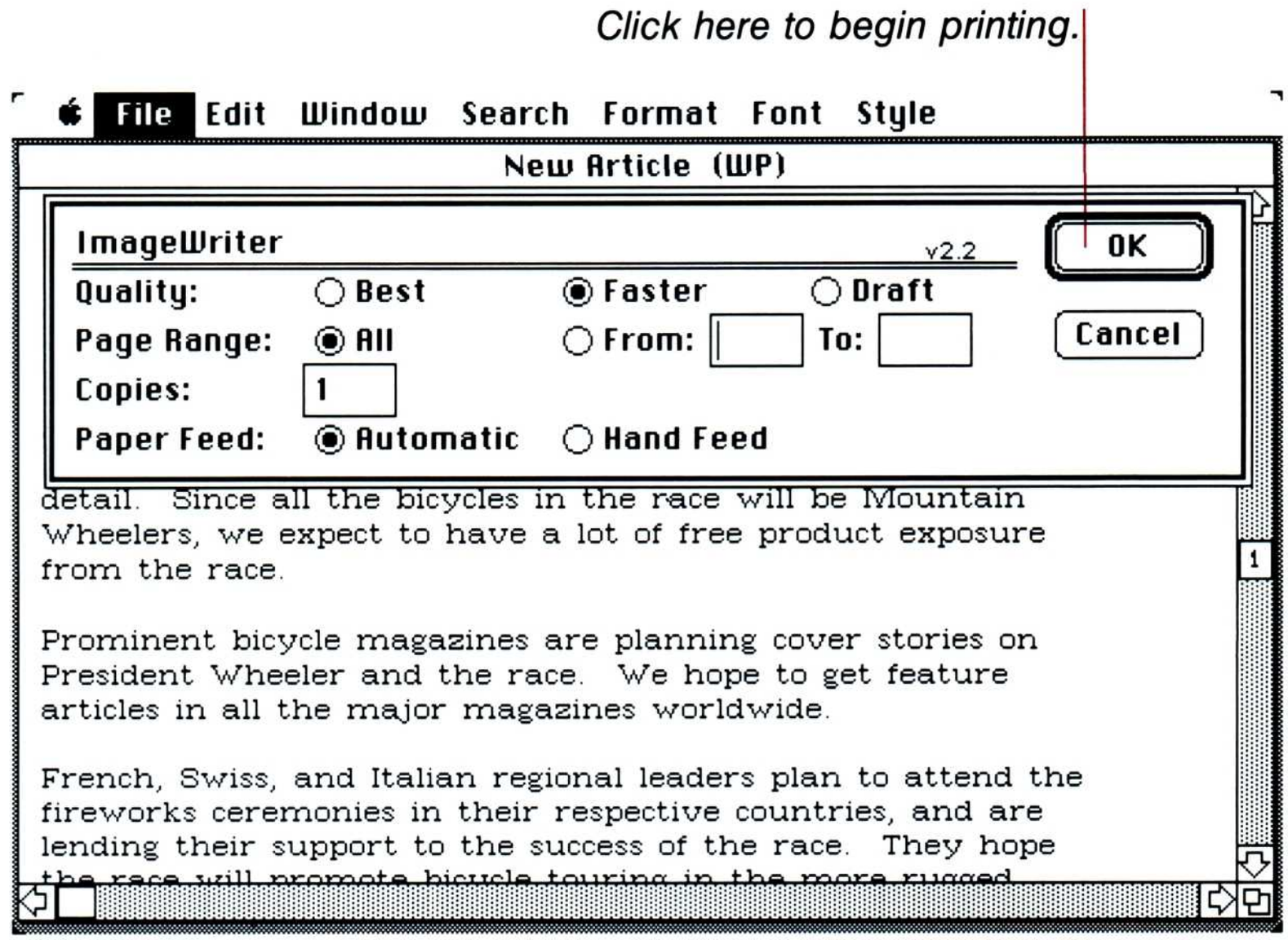
Works replaces the file containing your first set of changes on the disk, those in the file called New Article, with a file containing your latest changes.

Print your document

Print Your Document

You're ready to print the article. This section is optional. If you have a printer, set it up according to the instructions in the manual for your printer and in your Macintosh owner's guide. Make sure you have paper in your printer before printing.

1. Choose Print from the File menu.
   The Print dialog box appears.



   If the settings in your dialog box are not the same as those shown above, click the appropriate options.

2. Click the OK button.

Works prints the article.

Congratulations! When the next edition of the *Wheeler Dealer* comes out, you'll be a published author.

Summary

Summary

You've made all the changes to your article necessary to prepare it for the *Wheeler Dealer*. This summary briefly reviews how to perform the tasks you just learned. For more detailed procedures, return to the appropriate part of the chapter.

To do this	Follow these basic steps
Open an existing Word Processor file from the Open dialog box	1 Select the filename. 2 Click Open.
Replace some text	■ Use Replace from the Search menu.
Move some text	■ Use Cut and Paste from the Edit menu.
Center a phrase	■ Use Center from the Format menu.
Change a type style	■ Use the Style menu.
Adjust tab settings	1 Choose Show Ruler from the Format menu. 2 Use the mouse to drag a tab stop to a new setting.
Copy a format	■ Use Copy Format and Paste Format from the Format menu.
Save with a different name	■ Choose Save As from the File menu.
Add a footer	■ Use Page Setup from the File menu.
Set a title page	■ Choose Title Page from the Format menu.
Set a page break	■ Use Insert Page Break from the Format menu.
Save changes, replacing the original document	■ Choose Save from the File menu.
Print a document	■ Choose Print from the File menu.

Where To Go from Here

For practice in using the other Works tools, see the other chapters in this manual.

You may want to learn more about the Word Processor, and start working on your own documents. For detailed instructions, see "The Word Processor" in *Using Microsoft Works*.

For an explanation of all the menu items in the Word Processor, see Chapter 5, "Word Processor Command Reference," in *Using Microsoft Works*.

If you'd like to take a break from using Microsoft Works, the next section shows you how to close the document or quit.

To Take a Break for Now

You may want to take a break before trying another tool to learn more about Works.

To leave the Word Processor

To leave the Word Processor for now so that you can take a break and then try the lessons for another tool:

- Choose the Close command from the File menu or click the close box in the title bar.

Works closes the document and returns you to the Open dialog box.

To quit Works

If you want, you can quit Works entirely at this point.

To quit the Works program:

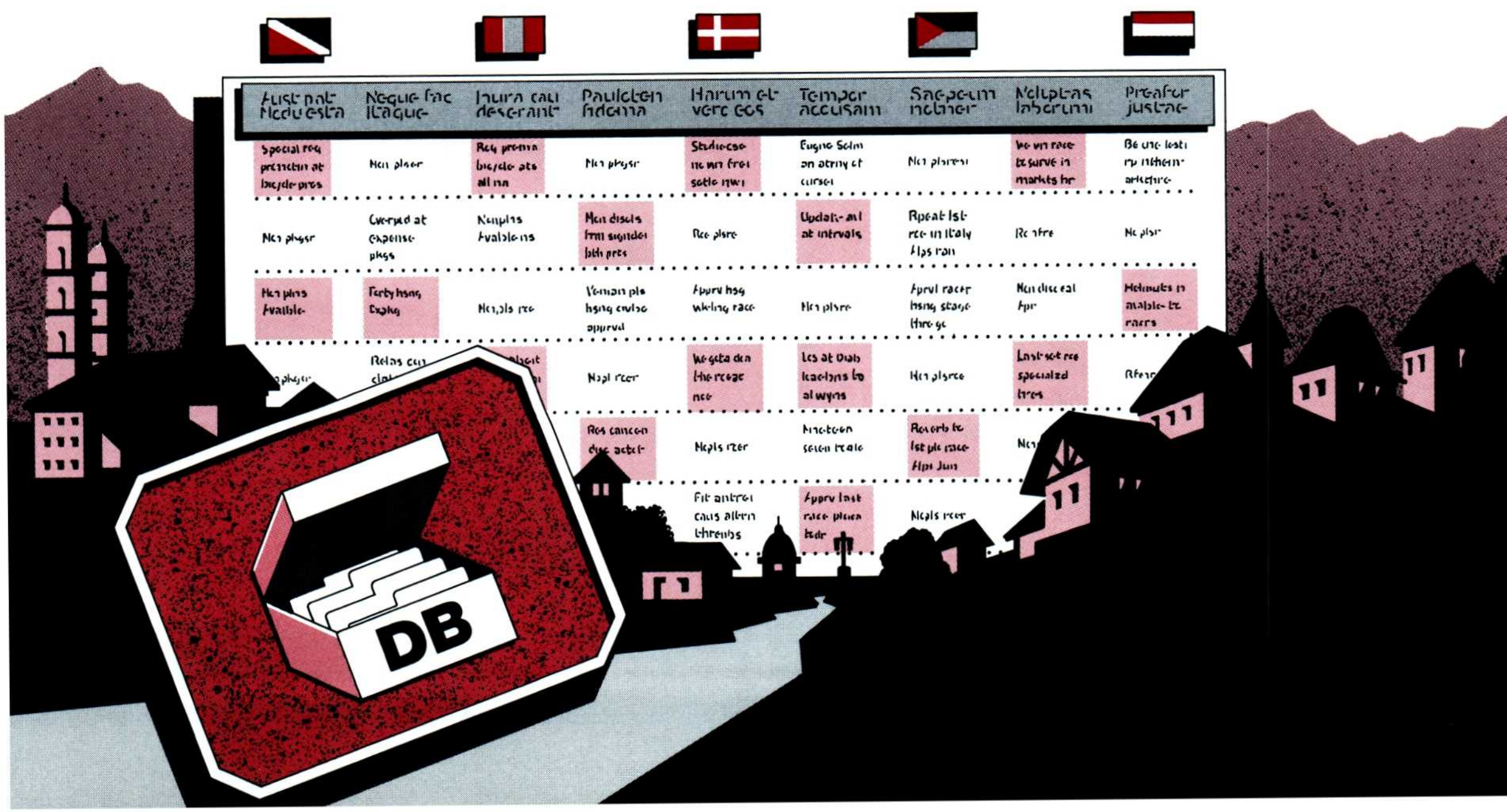
- Choose Quit from the File menu.

Works closes the document and returns you to the Finder.

3 The Database: Consulting a List

You're the product manager for the new Mountain Wheeler bike. You've arranged to have teams from around the world compete in a week-long race through the Alps. Every competitor will be riding a Mountain Wheeler.

The race coordinator has sent you a file listing food requests from each team. With the Database, you'll be able to select any requests that might be difficult to meet, and set up a report to give to your boss.



The lessons in this chapter will show you how to:

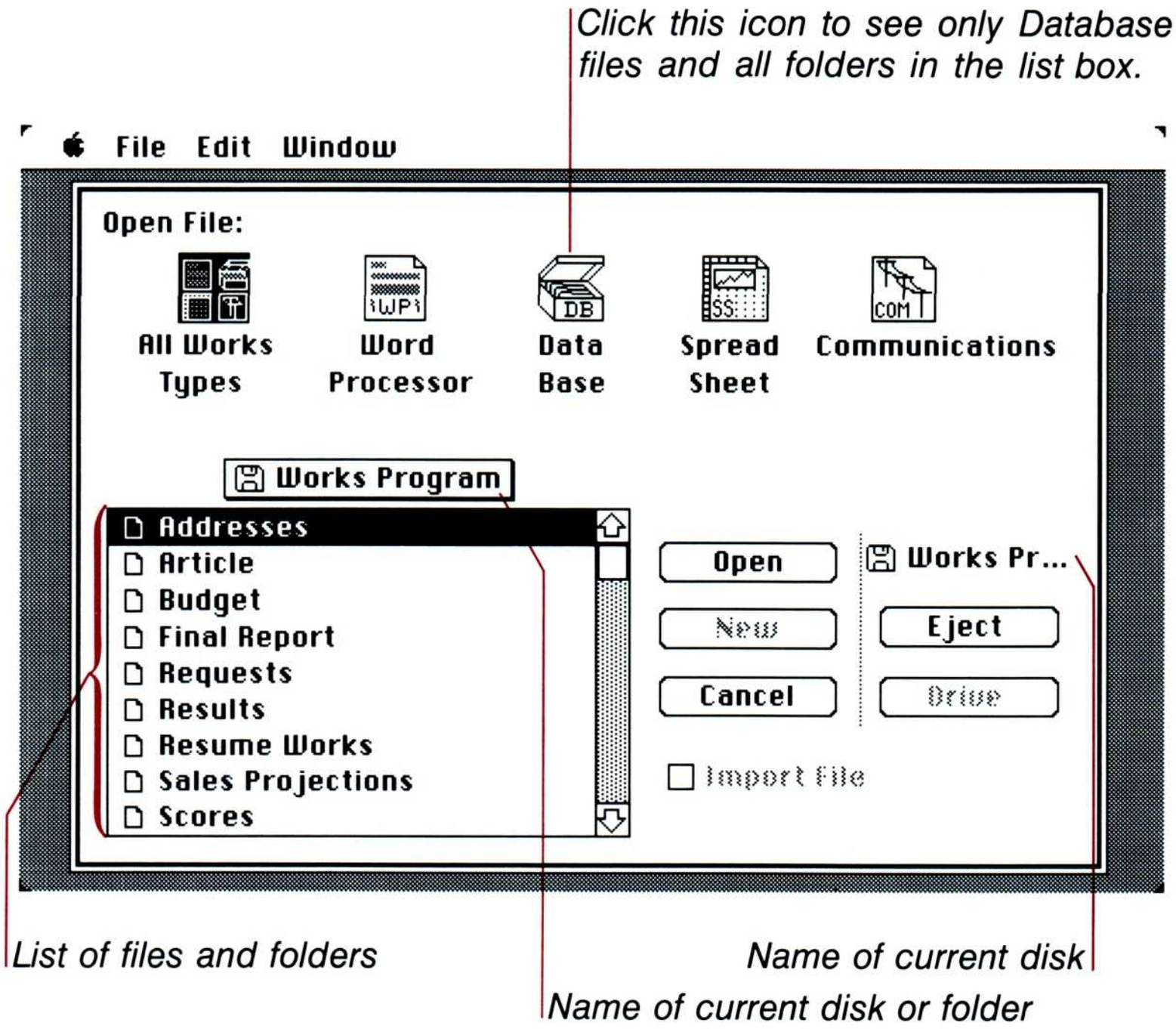
- Open a Database file.
- Expand the window.
- Switch from a list to a form.
- Change a field name.
- Select records that match your criteria.
- Sort your records.
- Save selected records as a new document.
- Add a field.
- Compute the data for one field from numbers in other fields.
- Prepare a report.
- Widen and move fields.
- Sum a field.
- Remove some fields.
- Save a document and print a report from it.
- Close a document and quit Works.

If your Macintosh is turned off, see "Getting Started" in "Welcome" to start Works.

Open the Database File

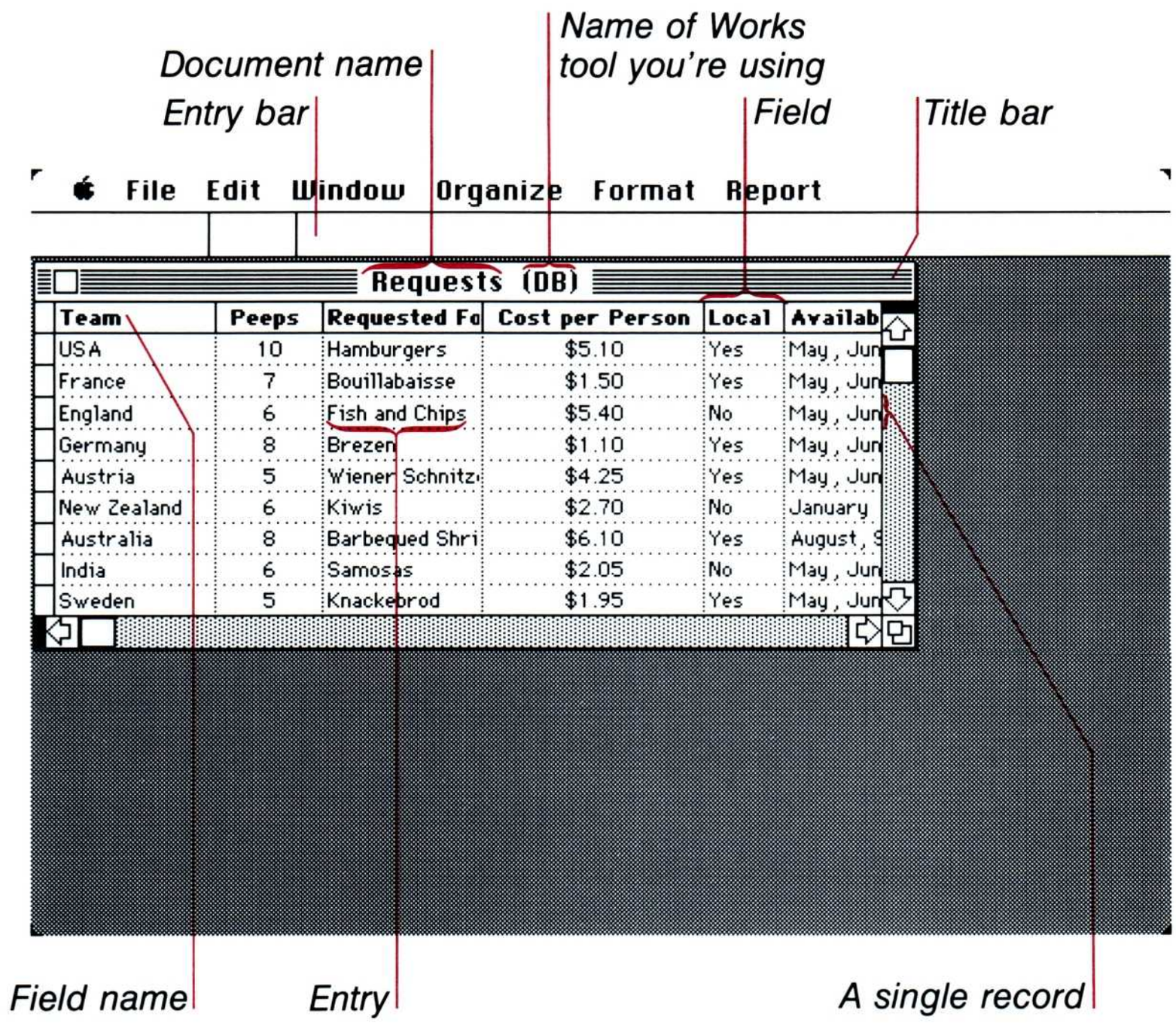
Open the file

The file containing the food requests is stored on your Works Program disk. To use a file, you open it. When you start Works, you'll see the Open dialog box containing a list of files and folders on the disk.



1. To see a list of Database files and all folders, click the Database icon.
2. Click Requests and then click the Open button.

You will see a portion of a Database document:



The title bar shows you the name of the document — Requests — and the part of Works you're using — the Database (DB).

The document is smaller than the full screen area because the Database window was made small before it was saved. You'll learn more about changing the size of windows in the next section.

Look at a list window

Look at a List Window

You're looking at a portion of a list containing the information for all countries participating in the race. This allows you to take a quick look at the requests of the teams involved. What you see are rows of records — one for each team's requests.

You are now in a list window, where each row contains the information about one subject. Works calls each of these a record. Each column contains one category of information. Works calls each of these a field. So, each row is a single record and each column is a single field.

The top row of a field contains the field name. The entries for each field are below the field name. For example, England is one entry for the "Team" field.

The list contains every field in the Database document, and each record has an entry in each field. Notice that the list is longer than will fit on one screen, and that you are seeing only part of the list.

Expand the Window

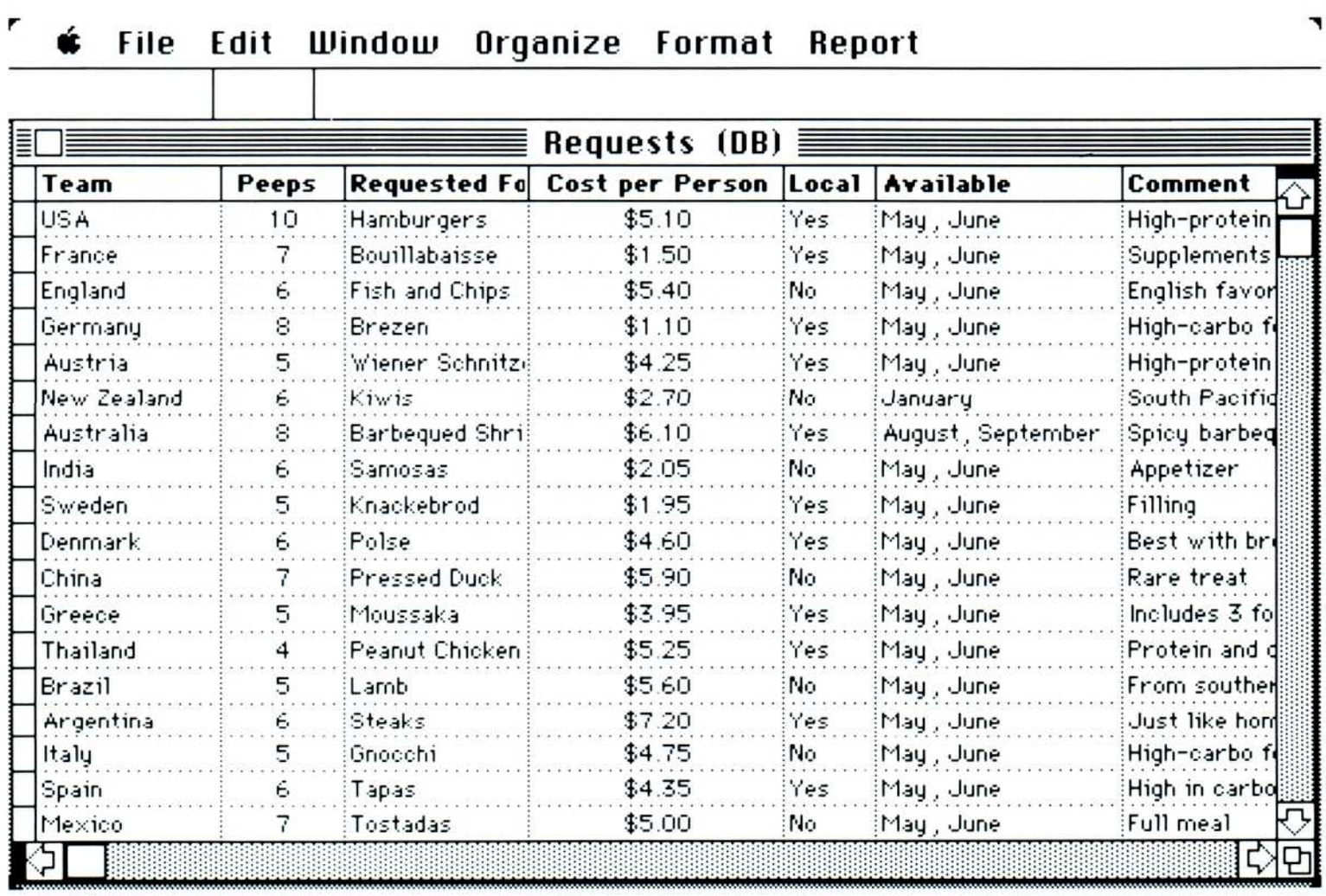
Expand the window

When you save a Database document, you also save the size of the window. Before saving this document, the race coordinator made the window the size of a file card; perhaps she was looking at another document on the screen at the same time. You could use the scroll bars to see more of the document, but you'd still only see a little at a time.

There's a quick way to expand your view to see a full-size window.

- Choose Full Window from the Window menu.

Now you can see more fields and records at the same time.



Team	Peeps	Requested Fo	Cost per Person	Local	Available	Comment
USA	10	Hamburgers	$5.10	Yes	May , June	High-protein
France	7	Bouillabaisse	$1.50	Yes	May , June	Supplements
England	6	Fish and Chips	$5.40	No	May , June	English favor
Germany	8	Brezen	$1.10	Yes	May , June	High-carbo f
Austria	5	Wiener Schnitz	$4.25	Yes	May , June	High-protein
New Zealand	6	Kiwis	$2.70	No	January	South Pacific
Australia	8	Barbequed Shri	$6.10	Yes	August , September	Spicy barbeq
India	6	Samosas	$2.05	No	May , June	Appetizer
Sweden	5	Knackebrod	$1.95	Yes	May , June	Filling
Denmark	6	Polse	$4.60	Yes	May , June	Best with br
China	7	Pressed Duck	$5.90	No	May , June	Rare treat
Greece	5	Moussaka	$3.95	Yes	May , June	Includes 3 fo
Thailand	4	Peanut Chicken	$5.25	Yes	May , June	Protein and c
Brazil	5	Lamb	$5.60	No	May , June	From souther
Argentina	6	Steaks	$7.20	Yes	May , June	Just like hom
Italy	5	Gnocchi	$4.75	No	May , June	High-carbo f
Spain	6	Tapas	$4.35	Yes	May , June	High in carbo
Mexico	7	Tostadas	$5.00	No	May , June	Full meal

Notice that if you pull down the Window menu again, you'll see that the Full Window command has changed to Small Window.

This menu item switches to the one you can choose next, depending on which size you're looking at.

Look at a Form Window

Because this Database document has so many fields, you can't see all the information for a particular country at once. You might want to look at a form, where you see just one record at a time.

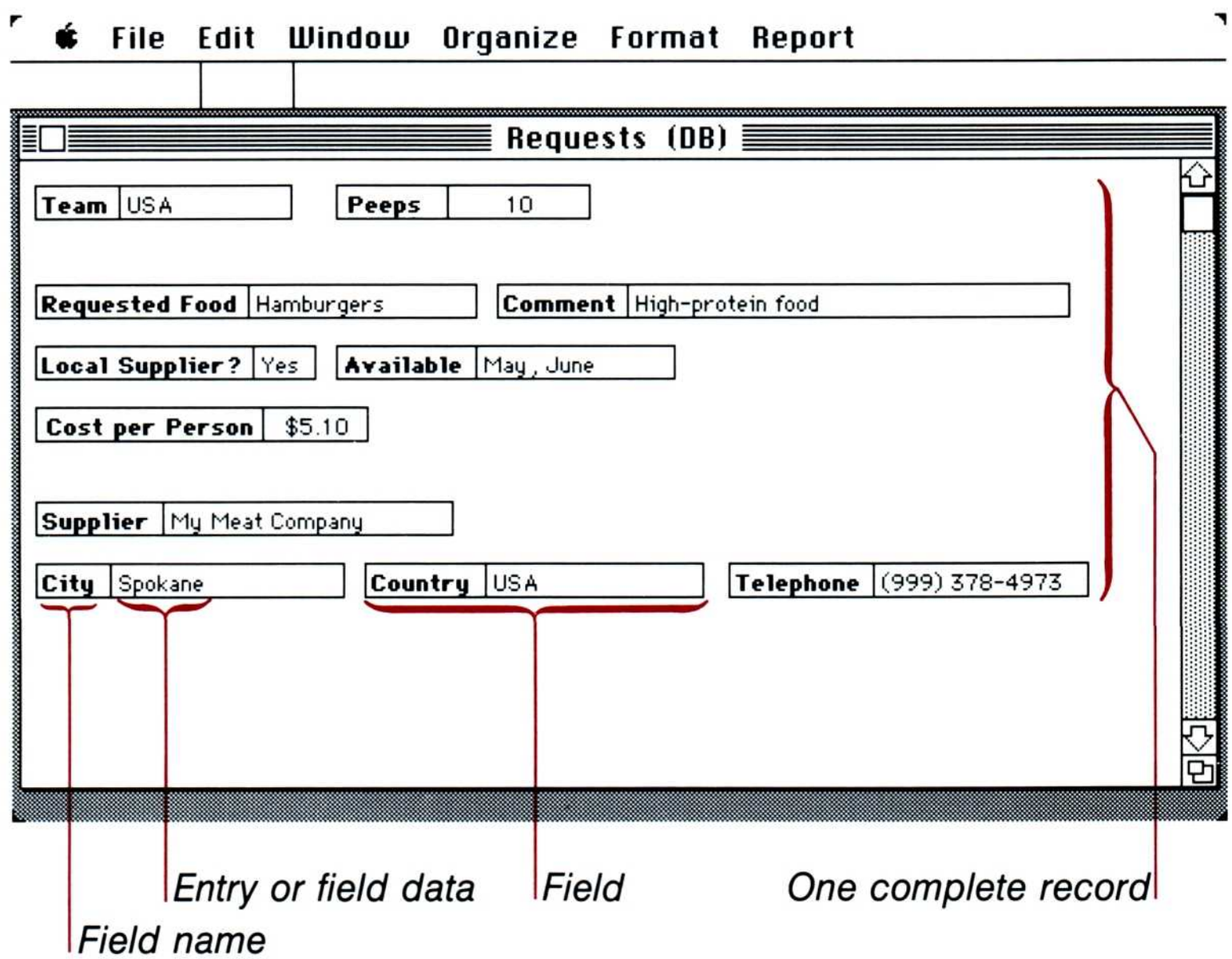
Change to a form window

To change the list to a form:

- Choose Show Form from the Format menu.

You see the first record on the list, USA.

Forms are like file cards. Each card contains information about one subject. So, each card is a complete record.



All the elements you saw in the list are still here, but in a different arrangement. The form window lets you flip through the cards, one at a time, just as you would flip through paper file cards on your desk. Just click the downward pointing scroll arrow and watch the entries change.

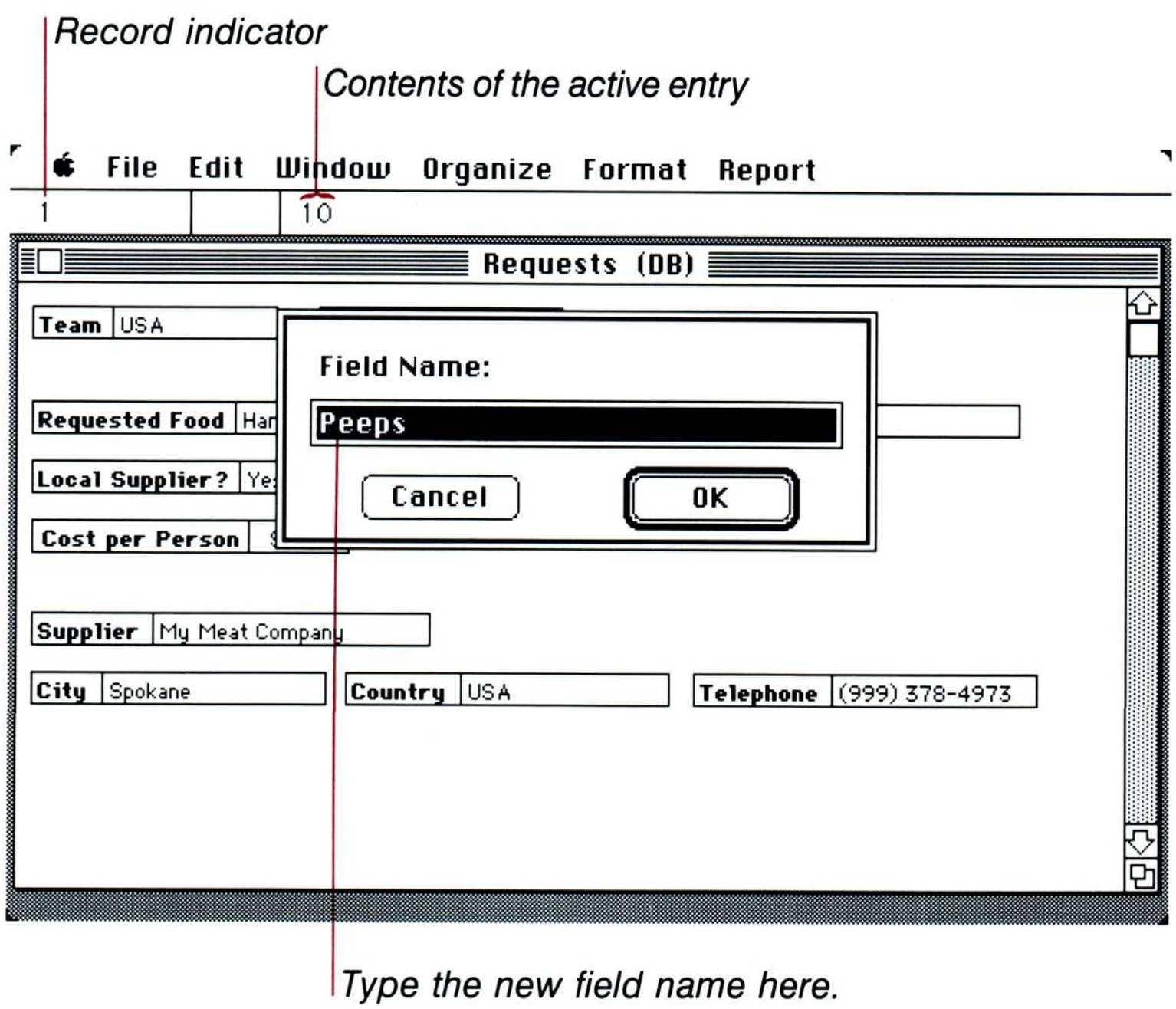
Change a Field Name

Change a field name

You should create field names that are easy to understand. When you first give a field a name, you know what it means, but you may not remember later, and someone else might not recognize it at all. For example, the race coordinator named one of the fields in the Requests document "Peeps." You had to call Switzerland to find out that the name is short for "Number of People on the Team."

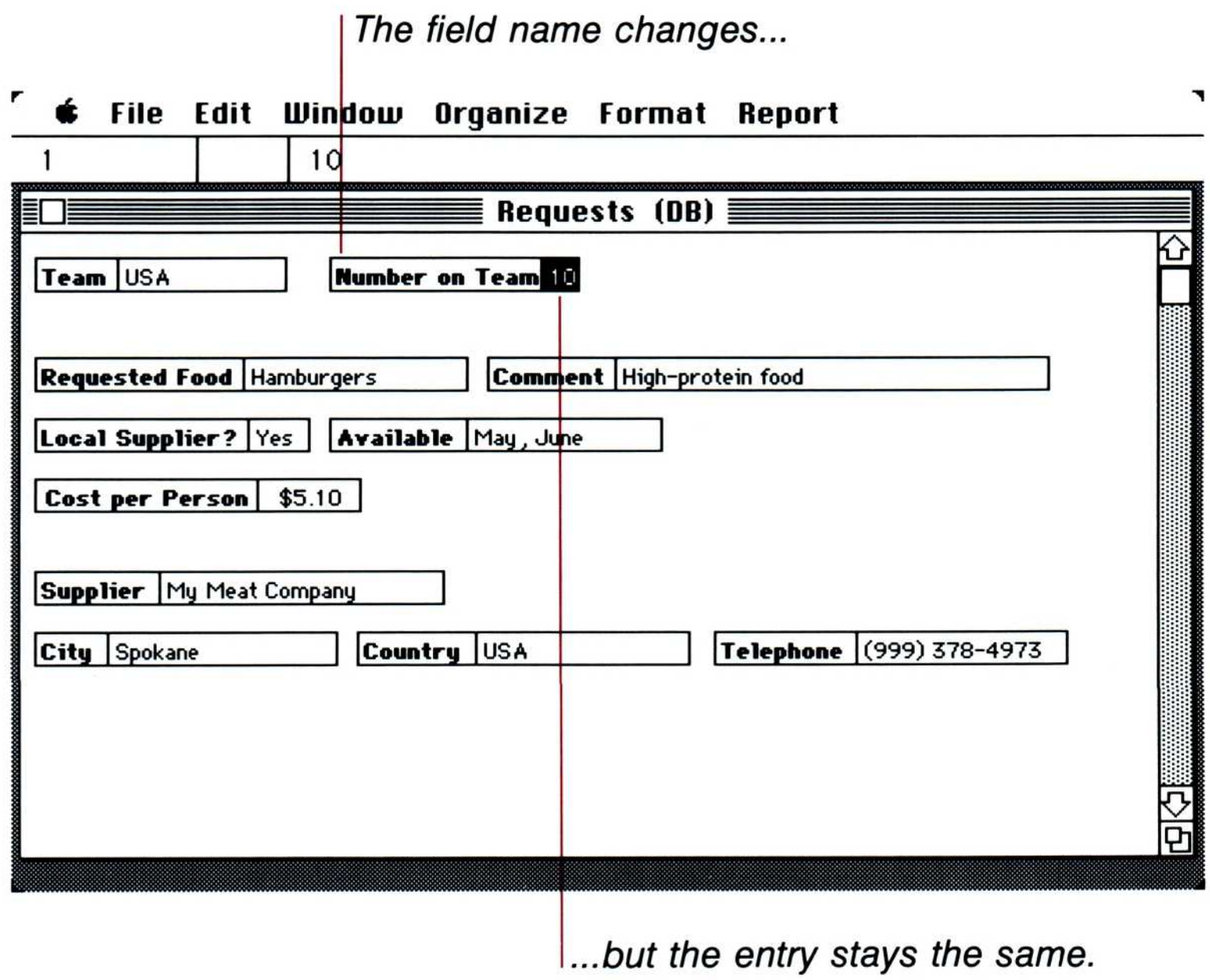
To change the field name and make it more descriptive:

1. Select the "Peeps" field. Just point and click.
   The entry part of the field is highlighted.
2. Choose Change Field Name from the Edit menu.
   The Field Name dialog box appears.



   The current name is already selected.
3. Type *Number on Team*
4. Click the OK button.

Works changes the field name.



Changing the field name doesn't change the entry in the field.

Note When you change a field name for one record, Works automatically changes that field name for every record in the Database document.

Select records

Select Records

Eventually, you may want to look for specific kinds of information in your Database document. From a list of prospective clients, for example, you may wish to see a smaller list of just those clients who live in a city you plan to visit next March.

Searching through the records yourself is one way to find what you need. A faster way is to have Works search for you. Works can select records that match any criteria you set up.

For example, to look for potential problems in providing the racing teams' food requests, you want to find those items that aren't available near the race site or aren't in season during the race.

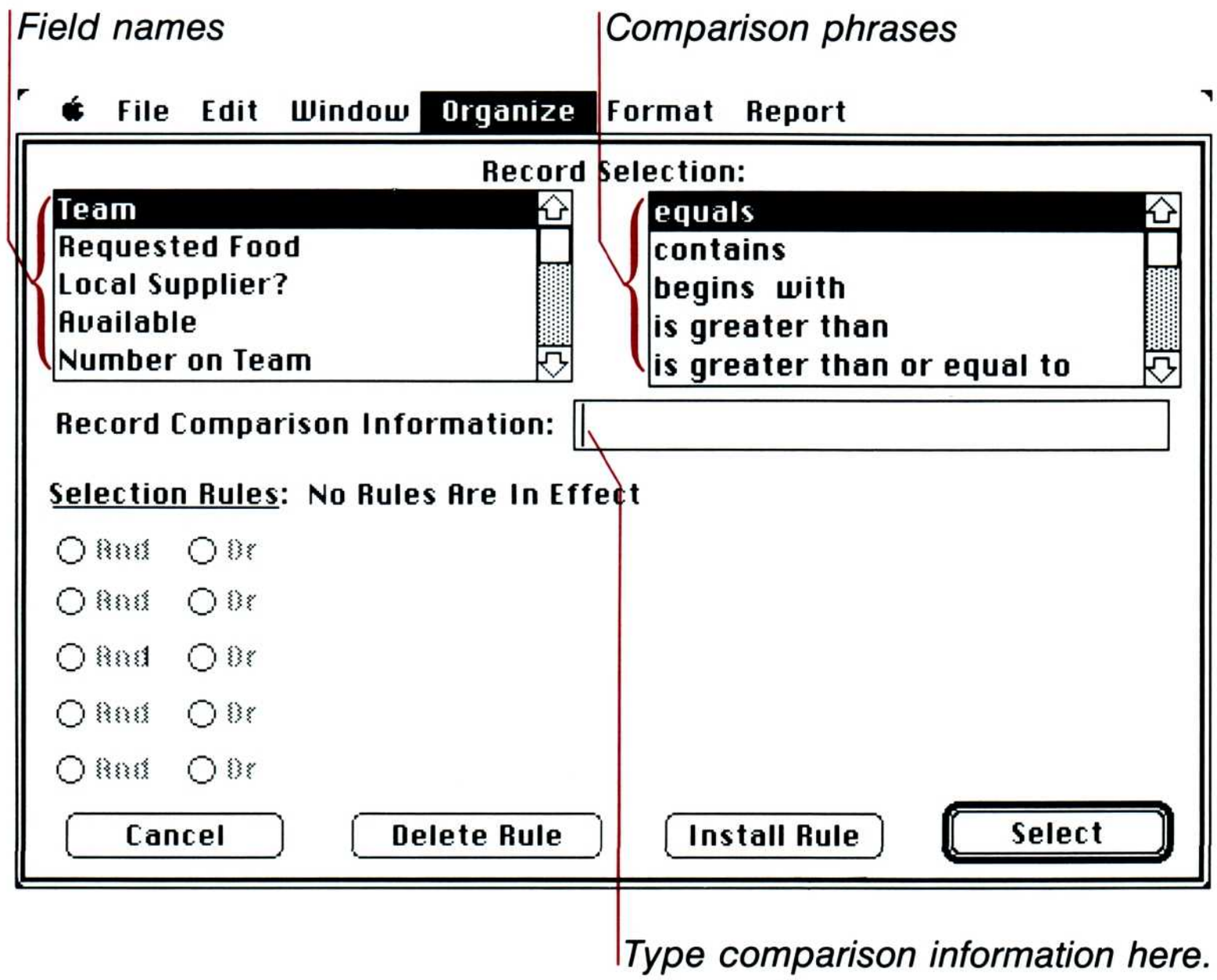
Change to a list window

To have Works select certain records for you, you define what kind of records you need. Switch back to the list window now, so that you can see all the records from which you'll be making your selections.

- Switch to a list window by choosing Show List from the Format menu.

Now you'll use the Record Selection dialog box to set up criteria — record selection rules — that determine which records will be displayed on the screen.

- Choose Record Selection from the Organize menu.



In the left-hand list box, Works lists the field names from the Database document. In the right-hand list box, Works lists a group of phrases for making a comparison. You type your comparison information in the text box below the two list boxes. As you install record selection rules, Works displays them in the Selection Rules area.

Make a selection rule

Here's how to set up the record selection rules so that you can see only the records you want. Remember — you're looking for items that aren't locally available or aren't in season.

To set up the first rule:

1. Select "Local Supplier?" from the left-hand list box.

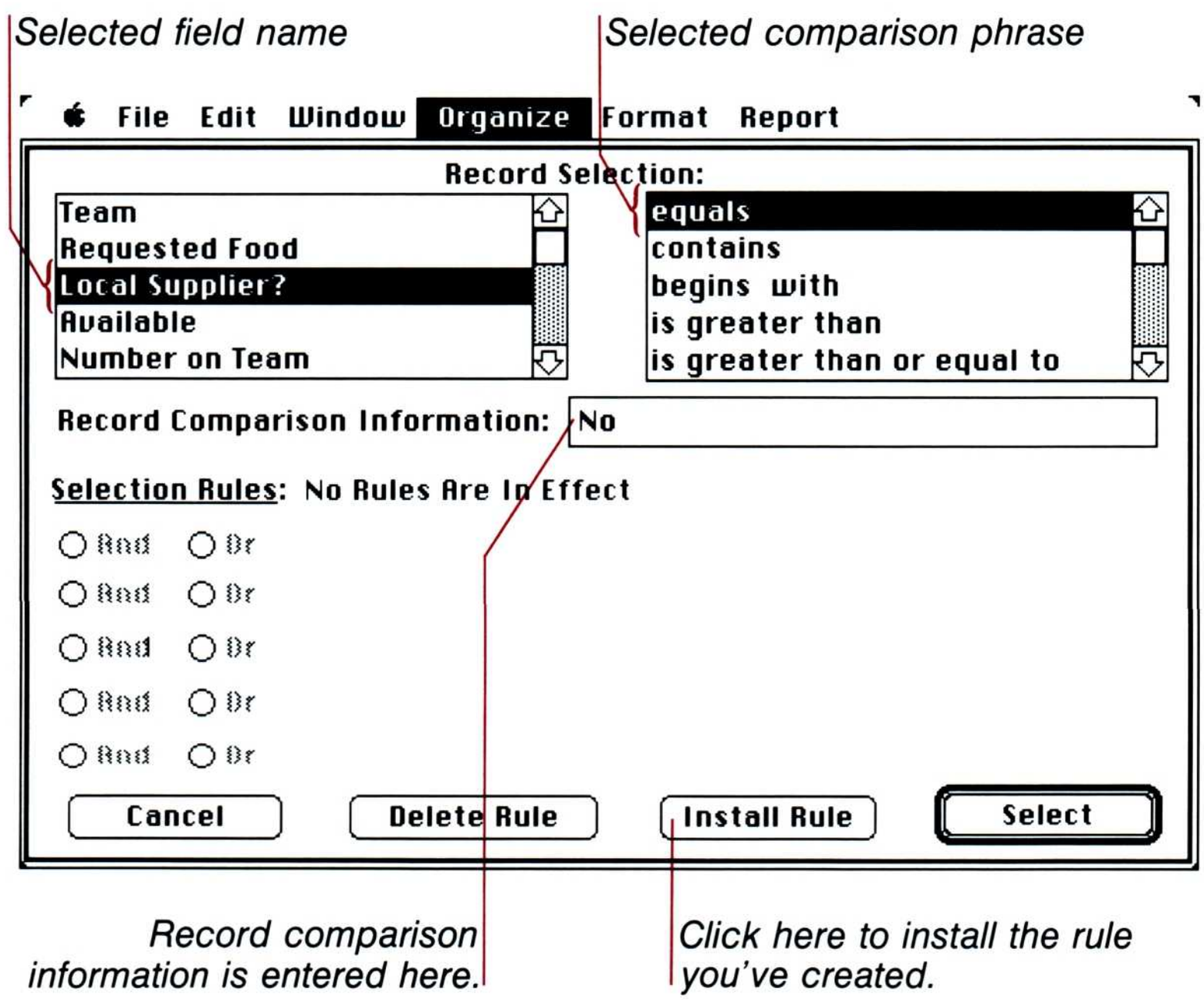
   All entries in this field are either Yes or No. Locally available items have Yes for the entry, so you want to see only the records that have No for the entry. In other words, you want to see those entries for which "Local Supplier? equals No."

2. Since "equals" is selected already, you don't need to make any selection in the right-hand list box.

3. Type *No* in the Record Comparison Information box.

   If you make a typing mistake here, you can correct it as you would with any Macintosh program. You can back up with the Backspace key.

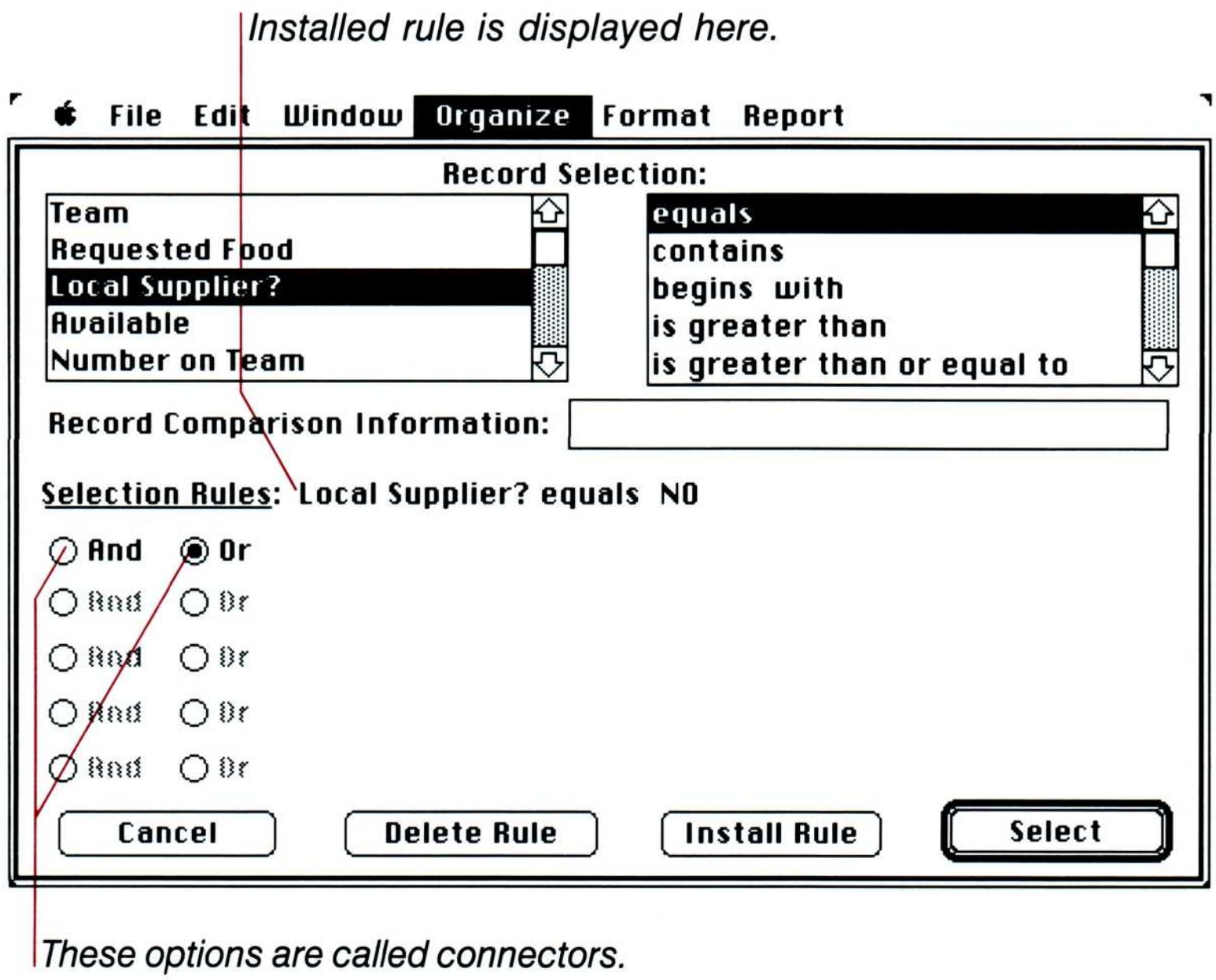
   The dialog box should now look like this:



4. Review your selections and make any corrections now by selecting something different in either list box or retyping the record comparison information.

5 Click the Install Rule button to put the new rule into effect.

The selection rule appears in the Selection Rules area of the dialog box.



Extend the selection rule

Remember that you're looking for records containing requested food that is either not available locally **or** not in season during the race. You've set up the first selection rule already. Now you're ready to set up the second one. You'll use options called connectors to extend the original rule.

Connectors allow you to make different levels of comparison.

This option	Tells Works to find
And	All records that meet one selection rule **and** another
Or	All records that meet one selection rule **or** another

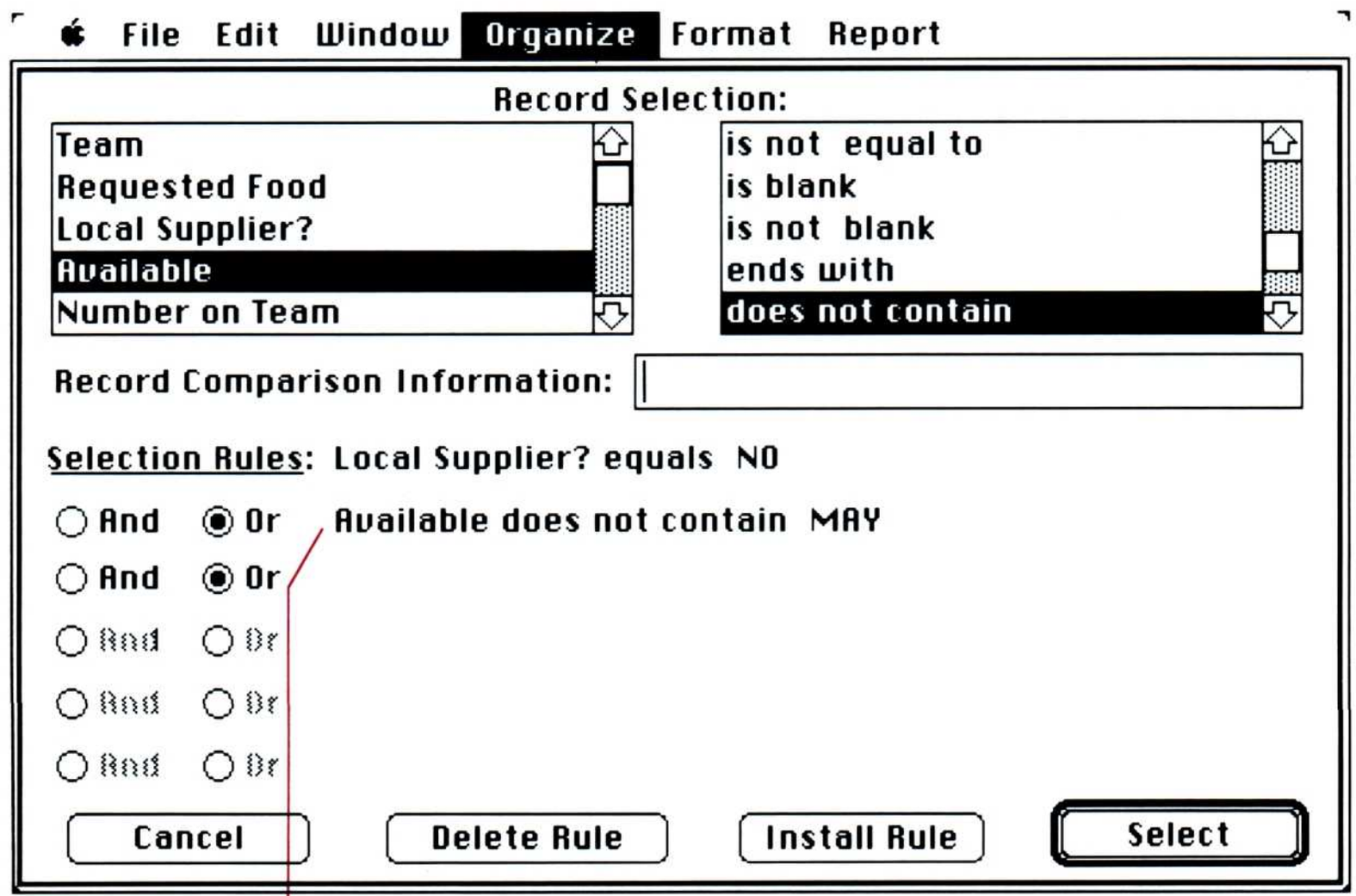
With the "And" option, you can also find a range of records. (For example, to find people who are between three and ten years old, you could set up these two rules: Age is greater than three **and** Age is less than ten.)

The race takes place in May. So, you want to see records in which the requested food item is **not** available in May. In other words, you'll set up a rule to find records in which "Available does not contain May."

To set up the second rule:

1. The "Or" connector is selected already, so you don't need to click a connector this time.
2. Select "Available" from the left-hand list box.
3. Select "does not contain" from the right-hand list box. (You'll need to scroll the list box to see this phrase.)
4. Type *May* in the Record Comparison Information box.
5. Review your selections and make any changes.
6. Click the Install Rule button.

   Works shows you the complete selection rule below the first installed rule.



The second rule is displayed here when you install it.

If you make a mistake in setting up your selection rules, you can always click Delete Rule to cancel your last installed rule.

7. Click the Select button to accept the selection rules and to see the selected records.

File Edit Window Organize Format Report

Requests (DB)

Team	Number	Requested Fo	Cost per Person	Local	Available	Comment
England	6	Fish and Chips	$5.40	No	May , June	English favor
New Zealand	6	Kiwis	$2.70	No	January	South Pacific
Australia	8	Barbequed Shri	$6.10	Yes	August, September	Spicy barbeq
India	6	Samosas	$2.05	No	May , June	Appetizer
China	7	Pressed Duck	$5.90	No	May , June	Rare treat
Brazil	5	Lamb	$5.60	No	May , June	From souther
Italy	5	Gnocchi	$4.75	No	May , June	High-carbo f
Mexico	7	Tostadas	$5.00	No	May , June	Full meal
Egypt	9	Dates	$2.05	No	July , August	Protein food
Holland	4	Goudse Kaas	$2.95	Yes	June, July	Mild cheese

And there they are: the ten requests that need your attention. Later, you'll learn how to save the selected records as a separate Database document.

Sort the Records

Sort the records

Now, suppose you want to sort the records so that they're in alphabetical order by team.

To sort the records:

1. Select the "Team" field by clicking the field name.
   All the team names are now highlighted.
2. Choose Sort from the Organize menu.
   When you choose Sort for a field containing text, the option "From A to Z" is always preselected.
3. Click the OK button.

The records are sorted on this field.

File Edit Window Organize Format Report

2 | Australia

Requests (DB)

Team	Number	Requested Fo	Cost per Person	Local	Available	Comment
Australia	8	Barbequed Shri	$6.10	Yes	August, September	Spicy barbequ
Brazil	5	Lamb	$5.60	No	May, June	From southern
China	7	Pressed Duck	$5.90	No	May, June	Rare treat
Egypt	9	Dates	$2.05	No	July, August	Protein food
England	6	Fish and Chips	$5.40	No	May, June	English favori
Holland	4	Goudse Kaas	$2.95	Yes	June, July	Mild cheese
India	6	Samosas	$2.05	No	May, June	Appetizer
Italy	5	Gnocchi	$4.75	No	May, June	High-carbo fo
Mexico	7	Tostadas	$5.00	No	May, June	Full meal
New Zealand	6	Kiwis	$2.70	No	January	South Pacific

The records are now sorted.

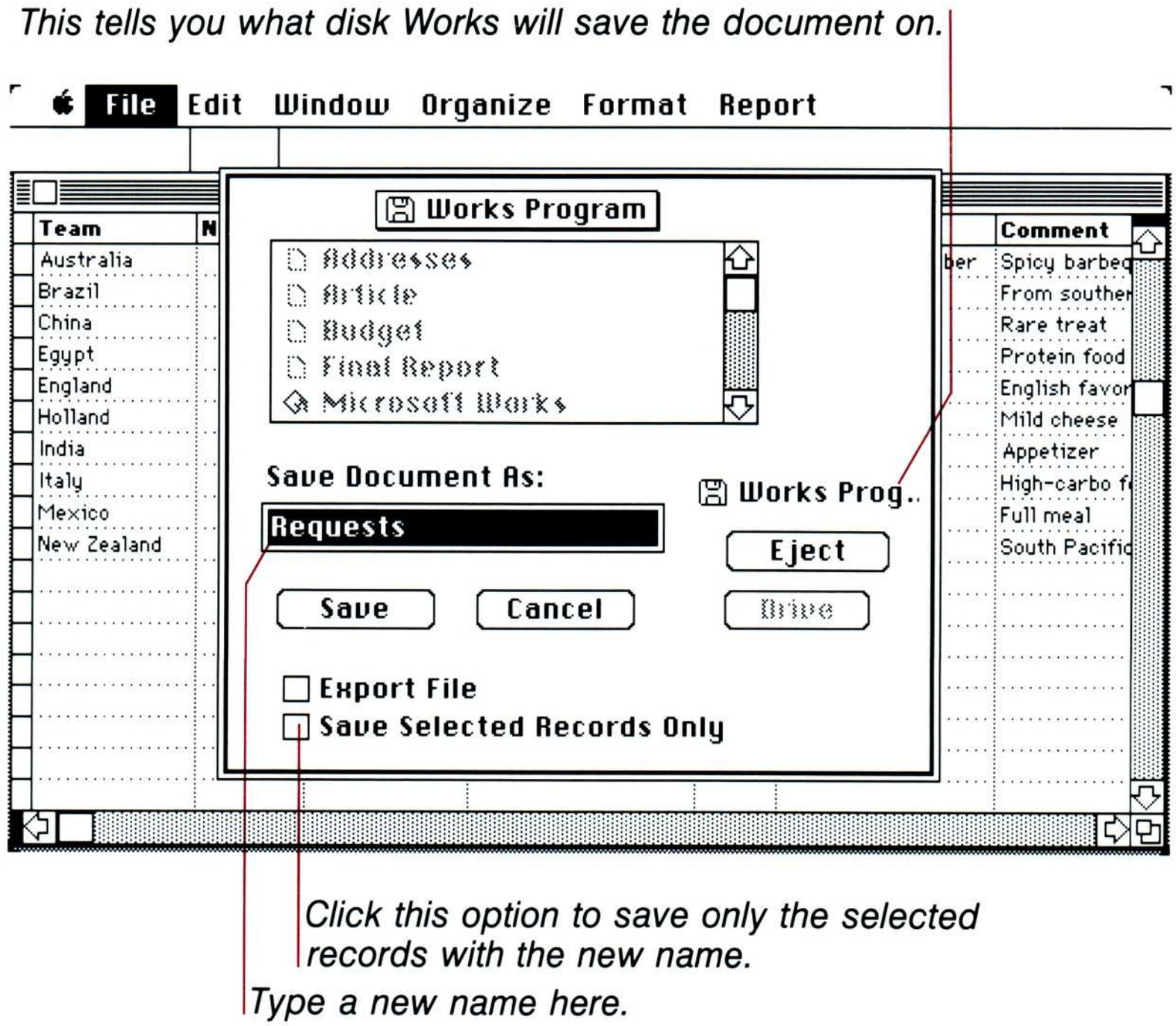
Save selected records as another document

Save Selected Records As Another Document

If you have a large Database document like the original one you started with in this chapter, you can save parts of it in smaller separate documents for further review. For example, it would be useful to have the records you just selected put into a separate Database document, so you could prepare an analysis of the teams' special requests.

When you save a selection as another document, you should give it a different name.

1. Choose Save As from the File menu.
   The Save As dialog box appears.



Remember that the original Database file is still stored on the disk. When you save the selection under a different name, you still have the original Database file on the disk with all its records intact. If you want to see all the records in the document again, you can choose Show All Records from the Organize menu.

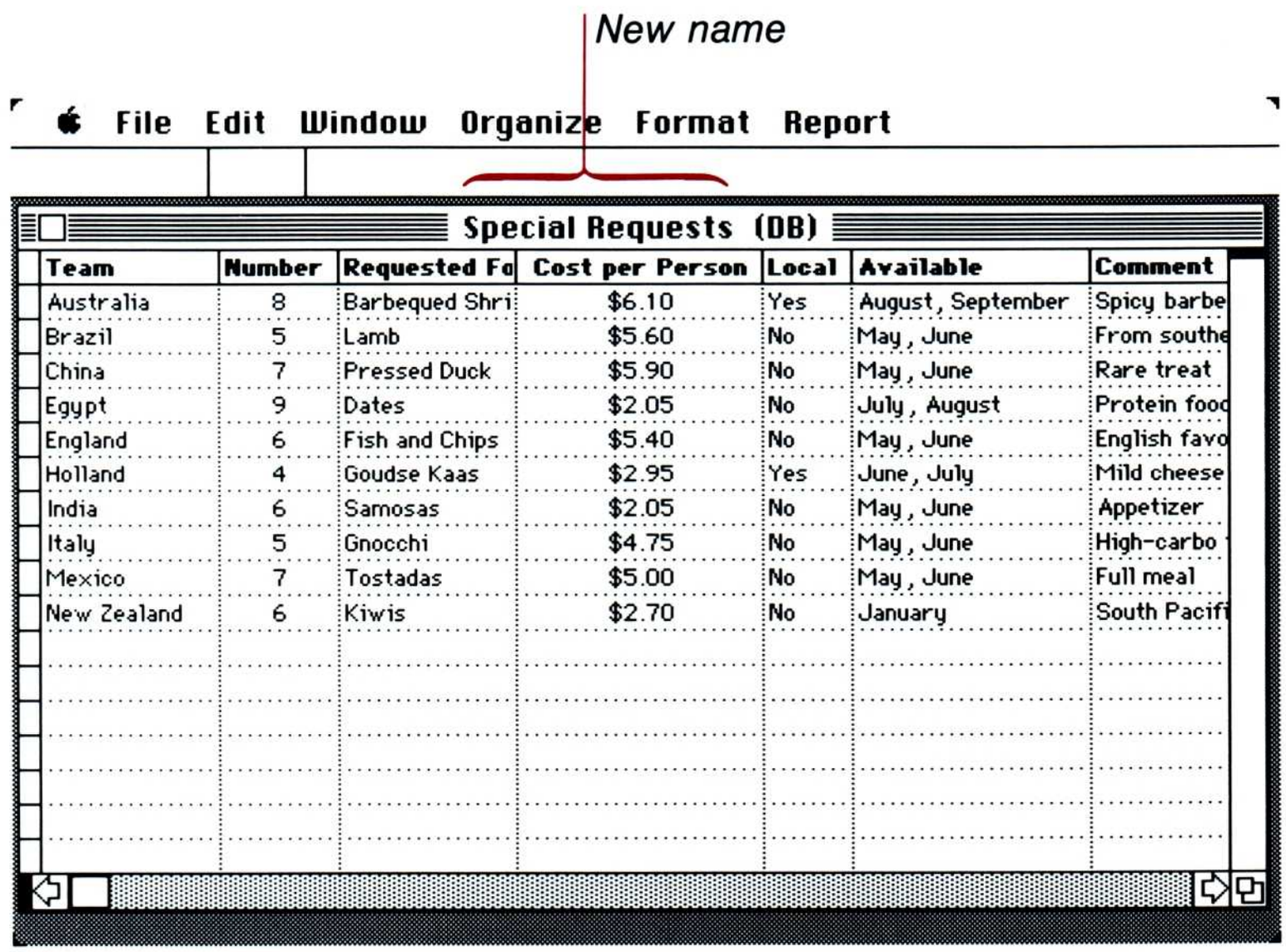
2. Type *Special Requests*
3. Click the Save Selected Records Only option.
4. Click the Save button.

Works saves the selected records as a new file with a new name.

When you save selected records in a Database document, Works does not replace the current window with the new document. This is a special case for the Save As command. To see the new file, you need to open it.

Now open the new file.

1. Choose Open from the File menu.
2. Scroll down in the list box, and select Special Requests.
3. Click the Open button.



Team	Number	Requested Fo	Cost per Person	Local	Available	Comment
Australia	8	Barbequed Shri	$6.10	Yes	August, September	Spicy barbe
Brazil	5	Lamb	$5.60	No	May, June	From southe
China	7	Pressed Duck	$5.90	No	May, June	Rare treat
Egypt	9	Dates	$2.05	No	July, August	Protein food
England	6	Fish and Chips	$5.40	No	May, June	English favo
Holland	4	Goudse Kaas	$2.95	Yes	June, July	Mild cheese
India	6	Samosas	$2.05	No	May, June	Appetizer
Italy	5	Gnocchi	$4.75	No	May, June	High-carbo
Mexico	7	Tostadas	$5.00	No	May, June	Full meal
New Zealand	6	Kiwis	$2.70	No	January	South Pacifi

The contents of the new document called Special Requests are just those records you selected that show availability problems.

Add a computed field

Add a Computed Field

You know how much each special food item costs per person and how many people are on each team. But it would be nice to have Works calculate the total cost of each team's special food request.

Using the new document, Special Requests, you can figure out how much these selected special food requests are going to cost for each team involved. You'll need to add a new field to the document to contain the cost of each team's request.

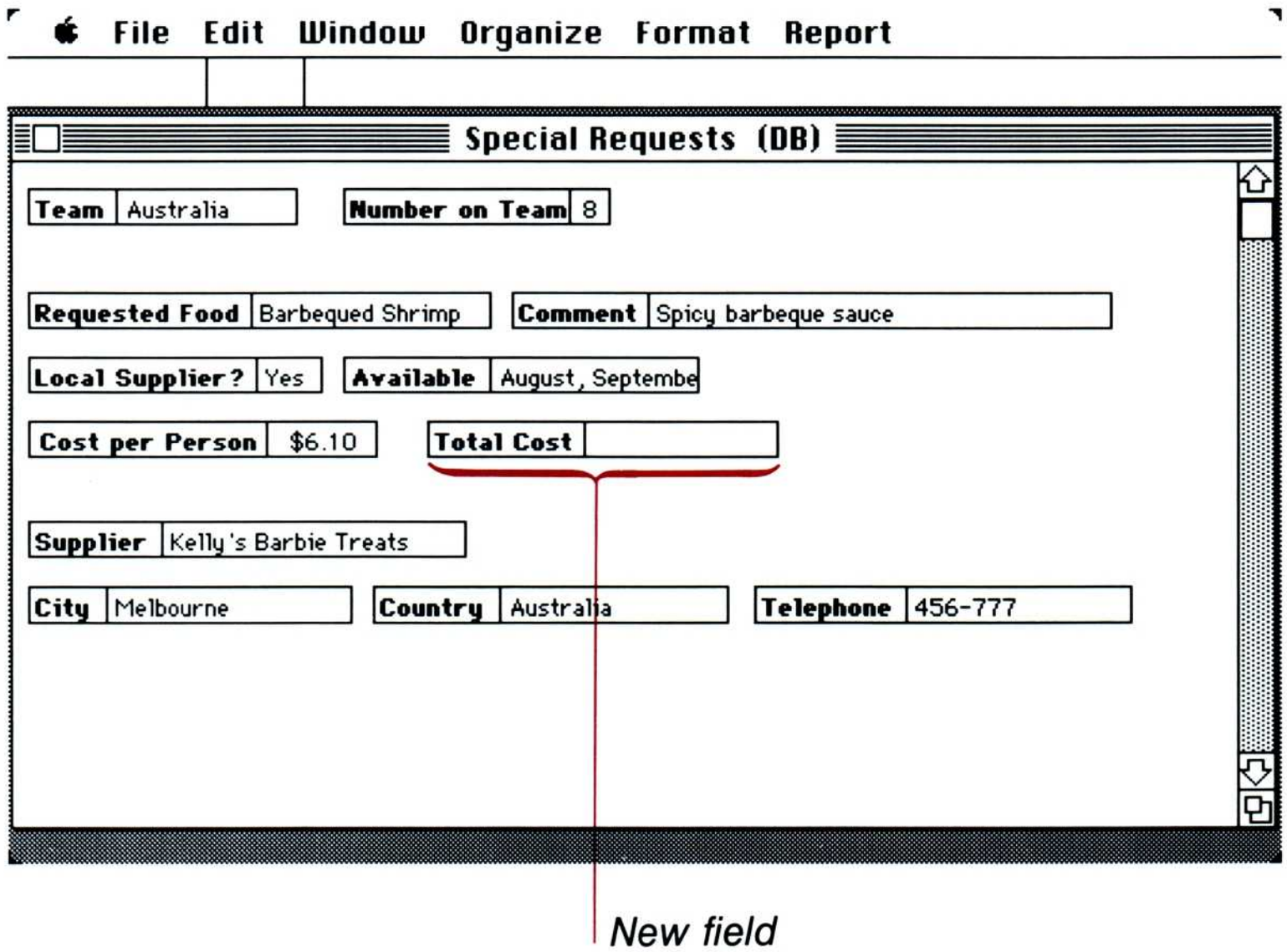
Add a new field

To add a new field, drag it out on the form.

1. Choose Show Form from the Format menu.
2. Position the pointer about half an inch to the right of the "Cost per Person" field.

3. Drag to the right to create a new field. Make it about two inches long.
   The Field Name dialog box appears.
4. Type the name *Total Cost*
5. Click the Add Field button.

The modified form should now look like this:



If your new field is not in this approximate position, you can move it.

1. Position the pointer over the field name.
2. When the pointer becomes a hand, drag the field wherever you want.

A computed field is calculated from numbers in other fields according to a formula that you set up. You'll be able to multiply Cost per Person by Number on Team to get the cost per team.

There are two steps to creating a computed field. You need to set the field attributes and set up a formula for the calculation.

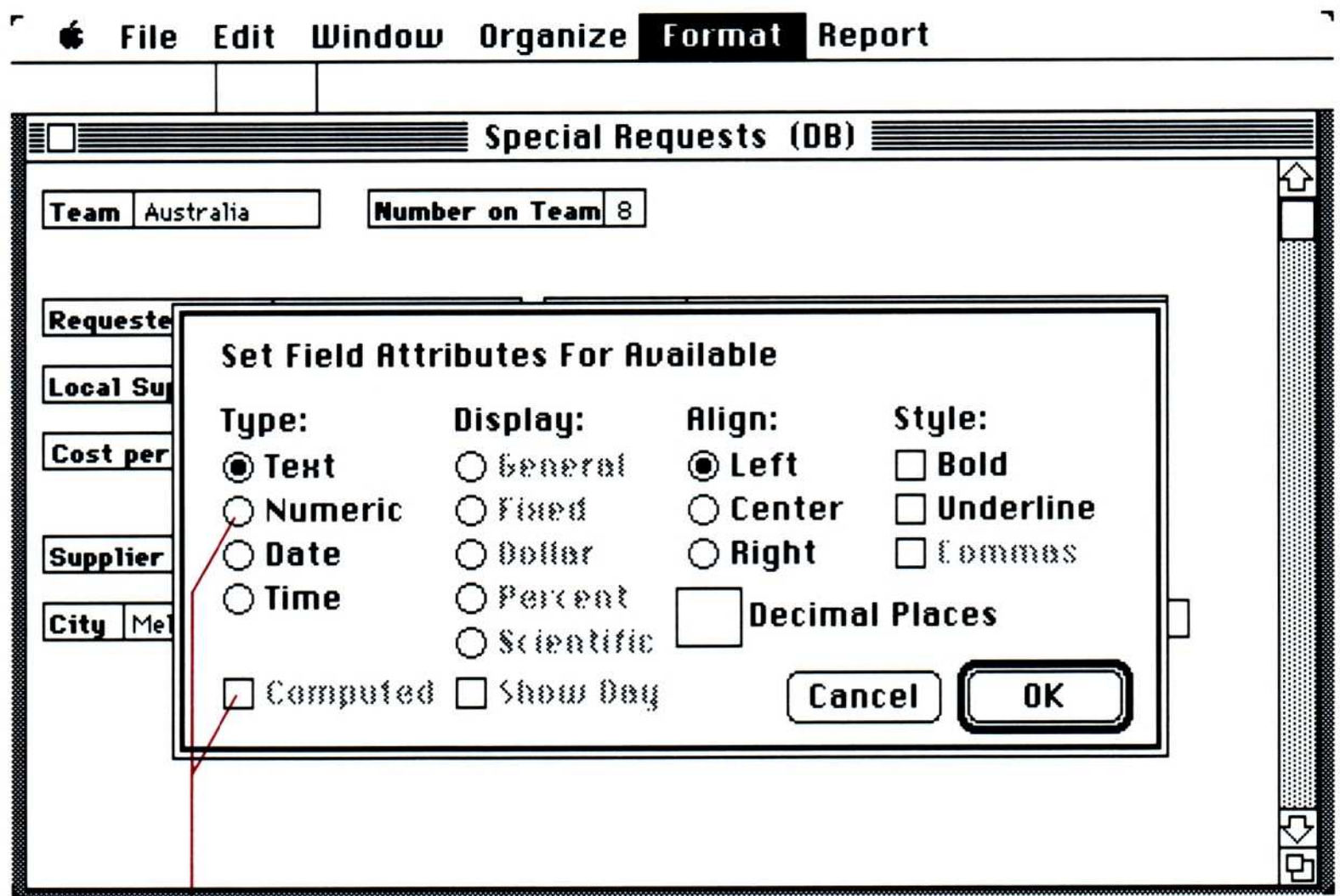
Make a computed field

You can make any field a computed field by using the Set Field Attributes command from the Format menu.

Each field has certain formatting characteristics that you set. You can choose the type of information you want to include in the field — for example, text or numbers — and how you want it displayed. When you set up a numeric field, you can also make it a computed field. (A numeric field can contain only numbers.)

To make a computed field:

1. Select the "Total Cost" field by clicking it.
2. Choose Set Field Attributes from the Format menu.
   The Set Field Attributes dialog box appears.



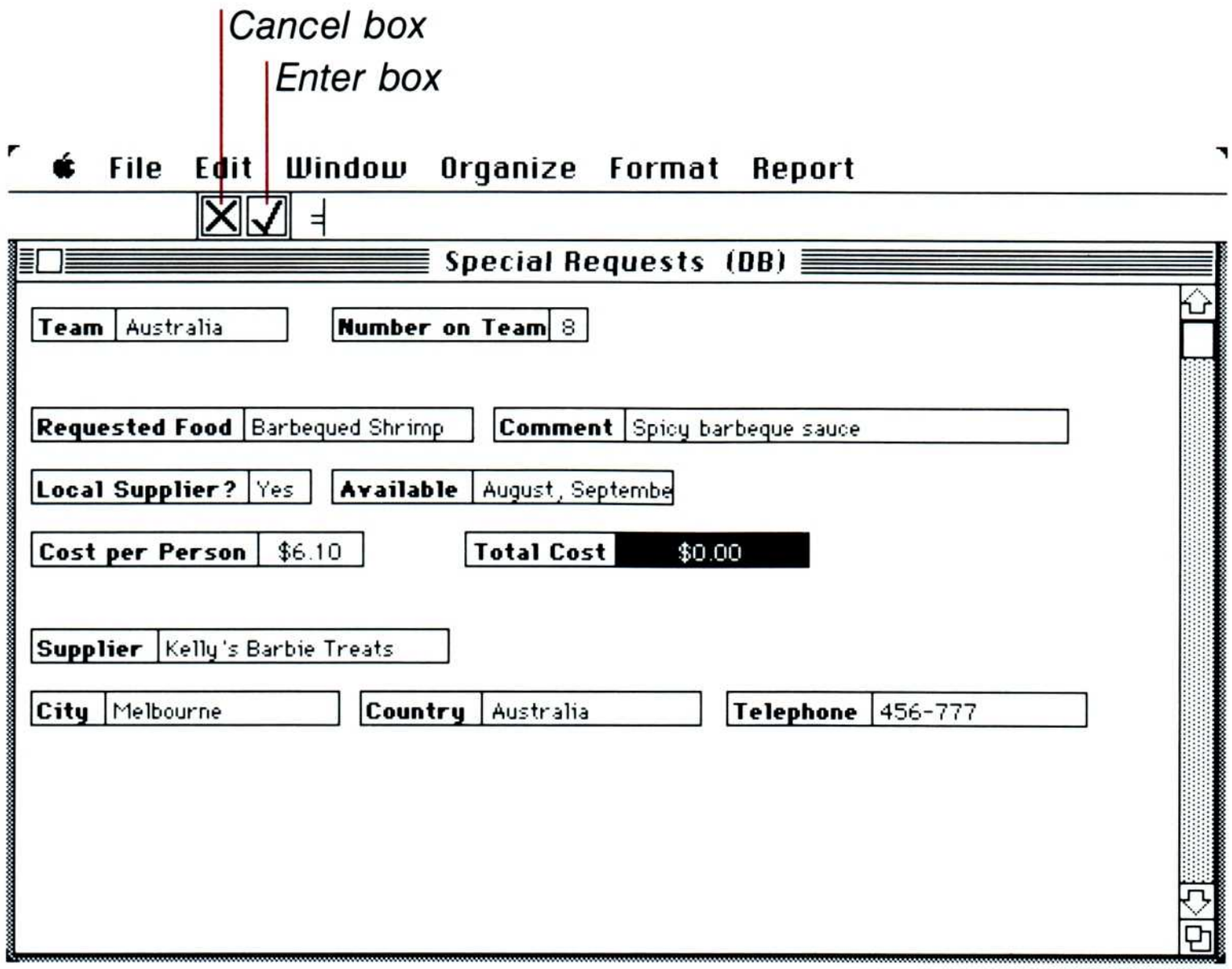
Click these options for a computed field.

3. Click Numeric.
4. Click Computed.
5. Click Dollar to show the results in dollars.
6. Click Center.
7. Click the OK button.

Set up a formula

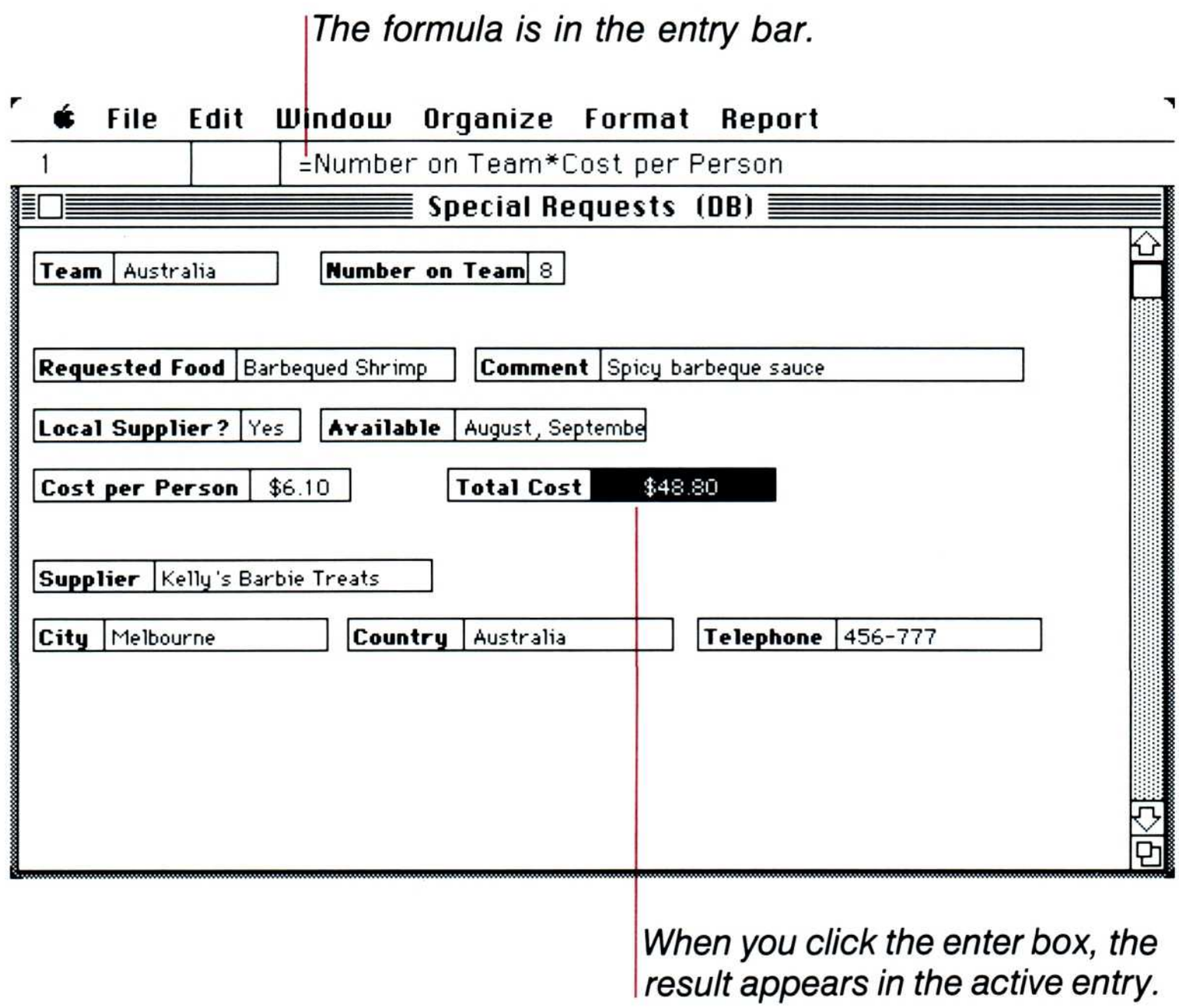
Now Works needs to know the formula it should use to compute the field. In the Database, a formula is an arithmetic equation using field names. Here, you want to multiply the number of people on each team by the cost of the item per person.

To give Works the formula, you type it in the entry bar just below the menu bar. Works has already entered an equal sign, and the insertion point is ready for you to type.



Although you can type the formula, a quicker method is just to click the appropriate field names.

1. Click the "Number on Team" field name.
   This field name appears in the entry bar as part of your formula.
2. Type * (asterisk, for multiplication).
3. Click the "Cost per Person" field name.
4. Click the enter box ☑ or press the Return key.



Works calculates the amount required for each team to receive its special request. Now switch back to the list window to review the total costs for all the teams.

- Choose Show List from the Format menu.

A new field always appears at the far right of the list window, so move there now.

- Move to the new "Total Cost" field by using the horizontal scroll bar.

File Edit Window Organize Format Report

1 =Number on Team*Cost per Person

Special Requests (DB)

	Supplier	City	Country	Telephone	Total Cost
e sauc	Kelly's Barbie Treat	Melbourne	Australia	456-777	$48.80
ı Brazi	Saixes International	Niteroi	Brazil	Rio, 451-0000	$28.00
	Peking Duck Mart	Beijing	China	756434	$41.30
	Nefertiti Exports	Alexandria	Egypt	643121	$18.45
te	Dickerson's Snack St	Holyhead	Great Britain	(0492) 11111	$32.40
	't Kaashuis	Haarlem	The Netherlands	(023) 318555	$11.80
	A. Joshi Pastries	Jodhpur	India	674-444	$12.30
od	Pasteria Mediati	Florence	Italy	296222	$23.75
	La Costena	Leon	Mexico	00-222	$35.00
treat	Williams's Fruit	Christchurch	New Zealand	216220	$16.20

The Total Cost is calculated for each record.

It looks like all the special requests may fit within your budget. If you could get a total, you'd know for sure. You're in luck! Works can sum a field for you — when you make a report.

Prepare a Report

Prepare a report

To print information from the Database, you print a report. You specify what information you want in a report and how you want it organized by setting up a report definition. The report definition specifies the content and format of a particular report.

You have already selected the records for the report. Now you can arrange the way the information appears on the printed page by adjusting the report format. And you can tell Works to sum the total cost of the special items.

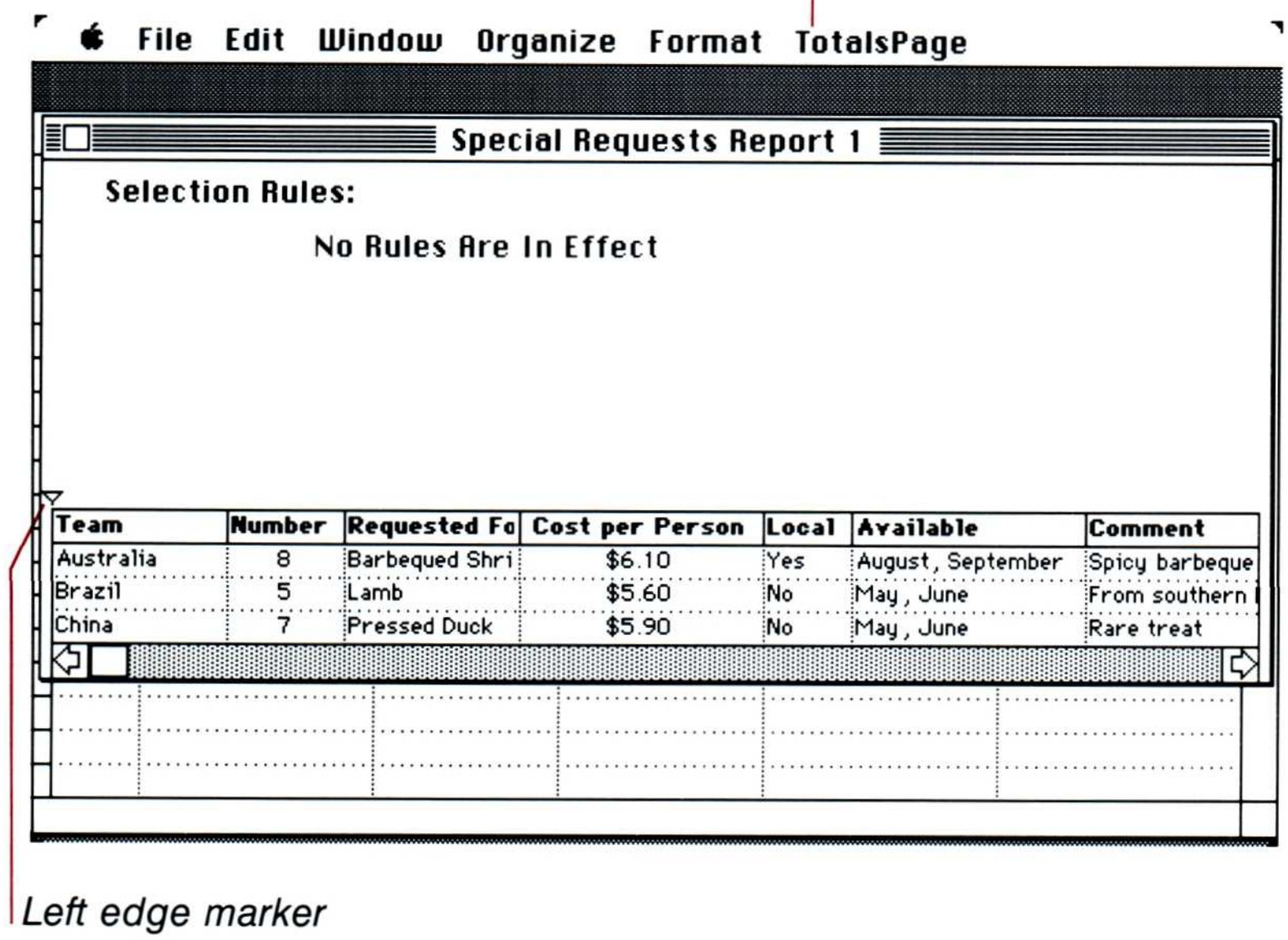
Set up a report

To set up a report definition:

- Choose New Report from the Report menu.

The report window appears.

When a report window is active, the Report menu is replaced with the TotalsPage menu.



Left edge marker

When you work in a report window, the Report menu is replaced with the TotalsPage menu. This menu lets you choose options for preparing a report with totals.

Widen and Move Fields

You decide how you want your Database report to look. If you want a field to show more information, you can widen it. If you want to move fields around, you can do so. If you want to include only some fields in a report, but not others, you can do that, too.

Widen a field

The Requested Food field could be wider, to show its full name. To widen a field, drag its edge.

1. Position the pointer on the right edge of the "Requested Food" field name area.

   The pointer turns into a two-way arrow ⬌.

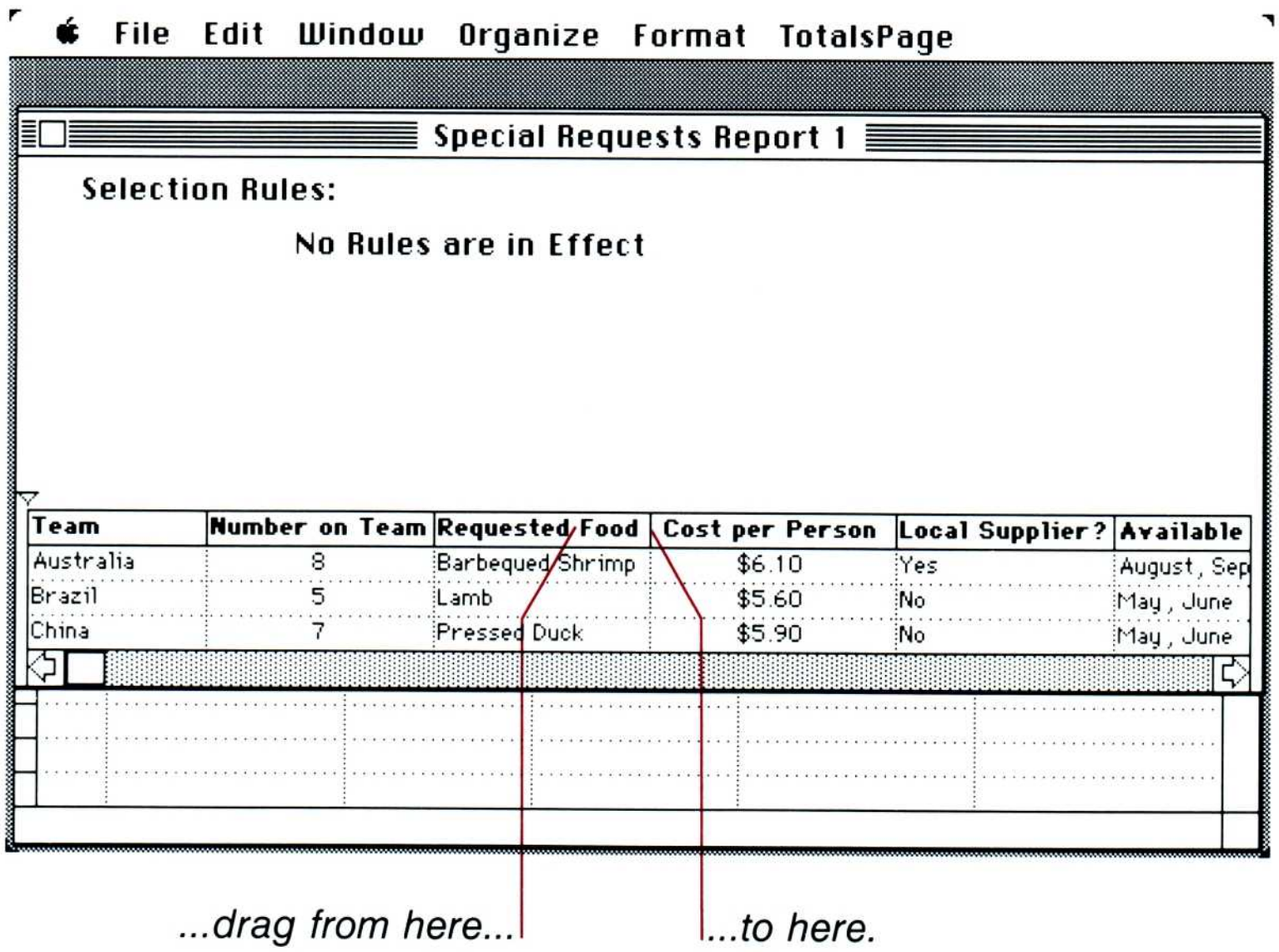
2. Drag the edge of the field to the right about one quarter of an inch.

Now you can read the full name of the field.

Before continuing:

- Use the procedure above to widen "Local" to read "Local Supplier?", and "Number" to read "Number on Team".

To widen a field...



Move some fields

To make your report most effective, it would help to have the "Cost per Person" field next to the "Number on Team" field and to include the "Total Cost" field adjacent to the "Cost per Person" field. You can move a field to wherever you want.

To move the fields:

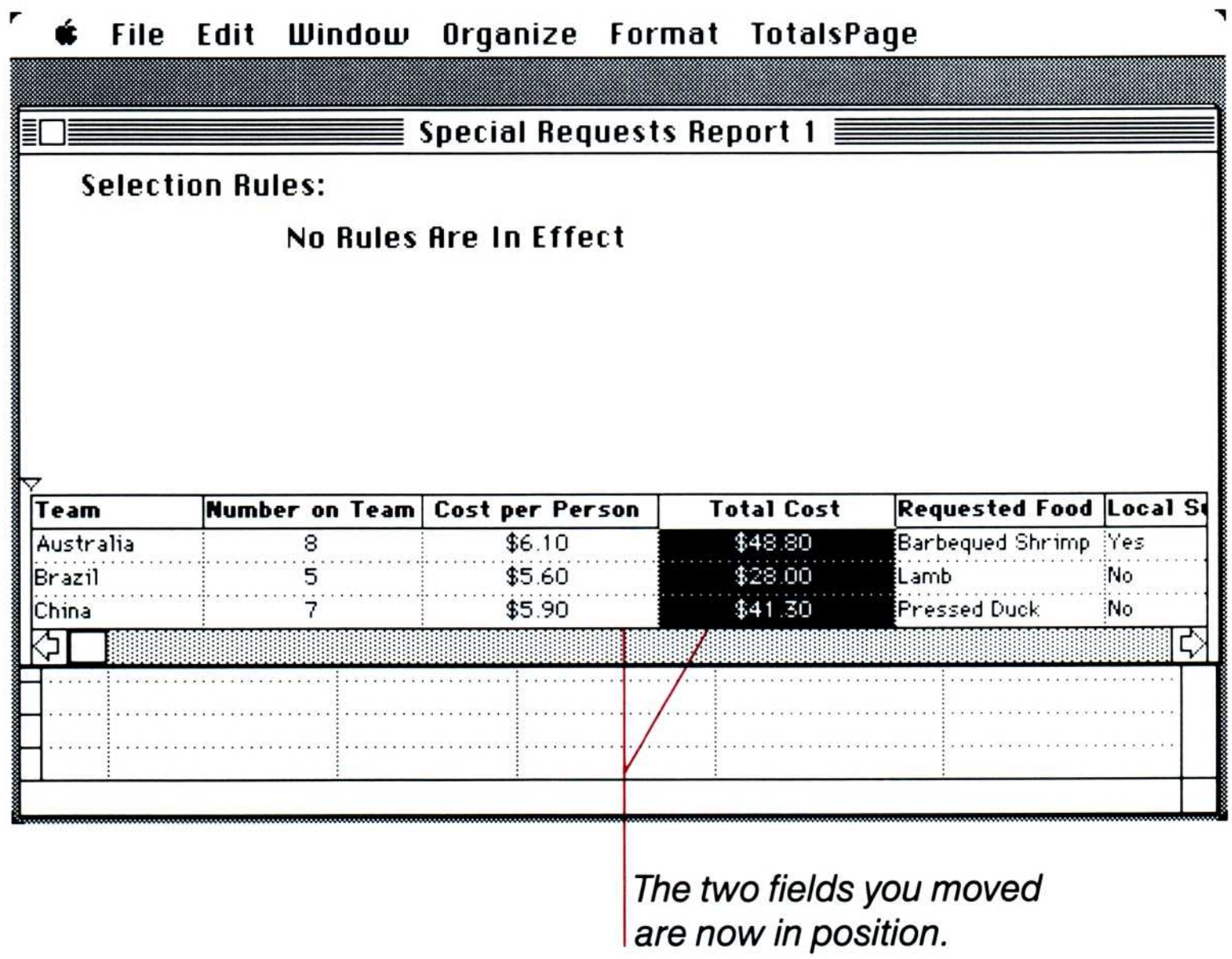
1. Position the pointer on the field name for the "Cost per Person" field.
2. Drag the column to the left until the "Requested Food" field (the one to the right of the "Number on Team" field) is highlighted. When you release the mouse button, the fields will be in the position you want.
3. Now position the pointer on the field name for the "Total Cost" field.

   You'll need to scroll to the right to see this field.

4. Drag the column to the left until the "Requested Food" field is highlighted.

   When you release the mouse button, the field will be in the correct position. If you hold the button down too long, and go farther left than you intended, you can correct the position by dragging the "Total Cost" field to the right until the "Cost per Person" field is highlighted.

When you're done, and the horizontal scroll bar is at the far left, the window should look like this:



Sum a field

Sum a Field

Here in the report window, you can tell Works to sum your computed field.

To sum the computed field:

1. Click the "Total Cost" field name to select the field, if it's not already selected.
2. Choose Sum This Field from the TotalsPage menu.

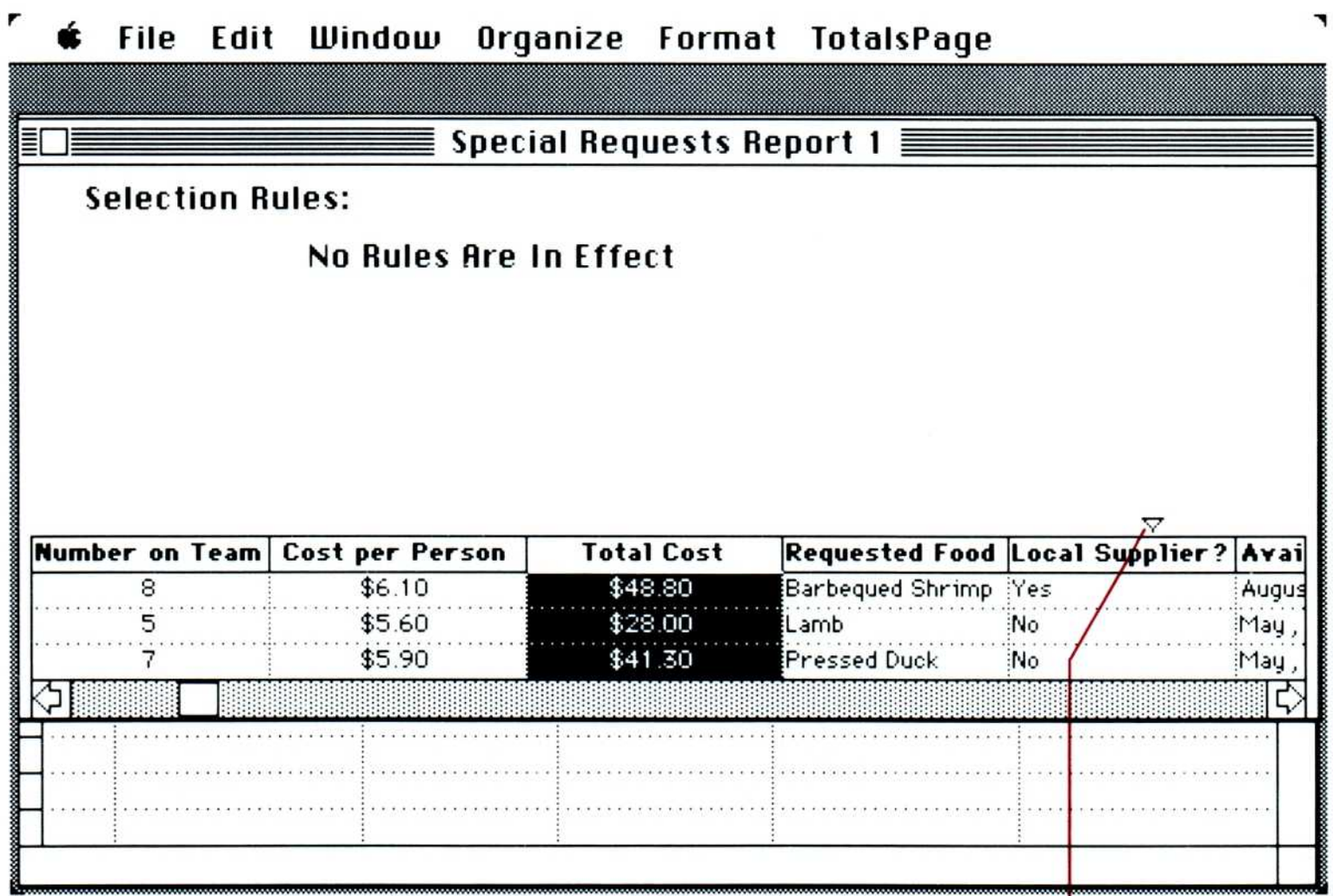
That's all it takes. Sum This Field is now checked on the menu. When you print the report, the total will appear at the bottom of the "Total Cost" field.

Remove Some Fields

Remove some fields

You want your report to focus entirely on the costs of the special requests, so some of the fields aren't necessary for this particular report. Not all of the fields will fit into a report, anyway. You can remove some of the fields to make room for those you need.

An upside down triangle (▽) shows you the margin of the report. You'll need to scroll horizontally to see this. Fields to the right or partially to the right of the edge marker won't be included in the report.



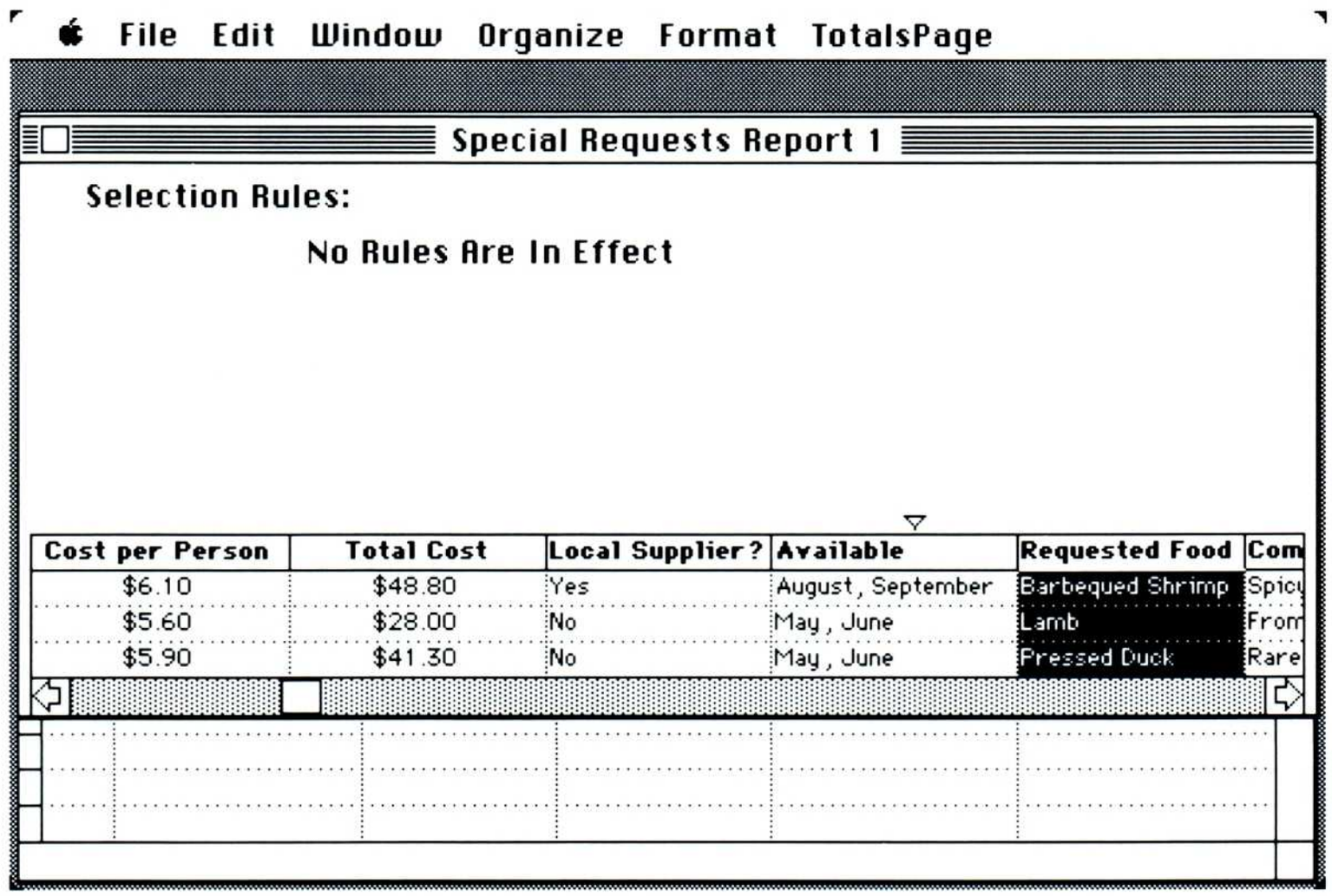
Drag fields to the right of this marker to exclude them from the report.

Works lets you remove fields by dragging them beyond the margin.

To remove a field from the report:

1. Position the pointer on the field name for the "Requested Food" field.
2. Drag the column to the right edge of the screen. Release the mouse button when the column is to the right of the report margin.

   When you get to the edge of the screen, the document scrolls horizontally as you drag the column. You can still see the field you're removing, but it won't be included in your report.



The rest of the fields to the left of the margin are valuable for the report, so leave them in. Notice that the "Available" field (which is only partially within the report margin) will not be included.

Save your document

Save Your Document

If you'd like to save the work you've done since you last saved the document, you can. (See "Save Selected Records As Another Document" in this chapter.) Because you've already saved this subset of information as a new document with a new name, your changes won't affect the original Database file, Requests, that you started with.

To save your changes:

1. Return to your Database document (Special Requests) by clicking the close box in the title bar of the report window.
2. Choose Save from the File menu.

Works saves your changes to the Special Requests file.

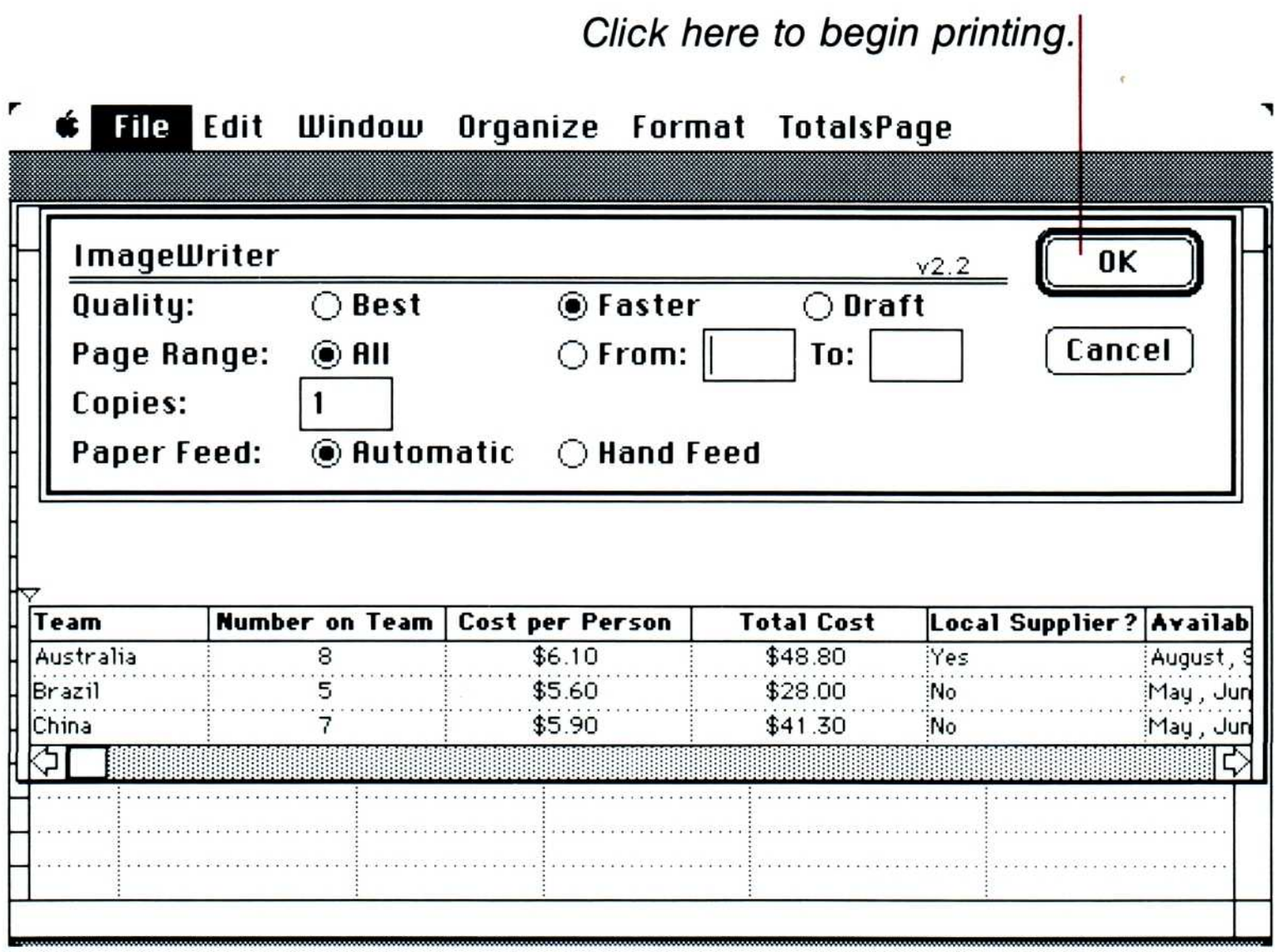
Print Your Report

Print your report

You're ready to print the report and see the total cost of the special requests. You'll return to the report window to print your document.

This section is optional. If you have a printer, set it up according to the instructions in the manual for your printer and in your Macintosh owner's guide. Make sure you have paper in your printer before printing.

1. Choose Select Report from the Report menu.
2. Special Requests Report 1 is already selected in the dialog box, so just click the OK button.
3. Choose Print from the File menu.
   The Print dialog box appears.



   If the settings in your dialog box are not the same as those shown above, click the appropriate options.
4. Click the OK button.

Works prints the report.

Well done! The total cost of these hard-to-find items will come to under $300 — well within your budget.

Summary

In this chapter, you've performed many tasks with the Database. This summary briefly reviews how to perform the tasks you just learned. For more detailed procedures, return to the appropriate part of the chapter.

To do this	Follow these basic steps
Open an existing Database file from the Open dialog box	1 Select the filename. 2 Click Open.
Expand or shrink a window	■ Choose Full Window or Small Window from the Window menu.
Switch between a list window and a form window	■ Choose Show Form or Show List from the Format menu.
Change a field name	1 Select the field name. 2 Choose Change Field Name from the Edit menu. 3 Type a new name.
Select records by specific criteria	1 Choose Record Selection from the Organize menu. 2 Set up your selection rules.
Sort records	1 Select a field. 2 Choose Sort from the Organize menu.
Save selected records with a new name	1 Choose Save As from the File menu. 2 Type a new name. 3 Click Save Selected Records Only, and click Save.
Add a field in a form window	1 Drag where you want the field to appear. 2 Type a field name.

To do this	Follow these basic steps
Make a computed field	1 Select the field. 2 Choose Set Field Attributes from the Format menu. 3 Click Numeric and click Computed.
Prepare a report	■ Use New Report from the Report menu.
Sum a field	1 Select a field name. 2 Choose Sum This Field from the TotalsPage menu.
Widen a field	■ Drag the right edge of the field name.
Move a field	■ Drag the field name to where you want it.
Remove a field from a report	■ Drag the field past the right edge marker.
Save changes, replacing the original file	■ Choose Save from the File menu.
Print a document	■ From a report window, choose Print from the File menu.

Where To Go from Here

For practice in using the other Works tools, see the other chapters in this manual.

You may want to learn more about the Database, and start working on your own documents. For detailed instructions, see "The Database" in *Using Microsoft Works*.

For an explanation of all the menu items in the Database, see Chapter 10, "Database Command Reference," in *Using Microsoft Works*.

If you'd like to take a break from using Microsoft Works, the next section shows you how to close the document or quit.

To Take a Break for Now

You may want to take a break before trying another tool to learn more about Works.

To leave the Database

To leave the Database for now so you can take a break and then use another tool:

- Choose the Close command from the File menu, or click the close box in the title bar.

  You'll do this three times — once for the report window, once for the Special Requests document, and once for the original Request document. When Works asks if you want to save changes, click No so that someone else can use these lessons with the original file.

Works closes the documents and returns you to the Open dialog box.

To quit Works

If you want, you can quit Works entirely at this point.

To quit the Works program:

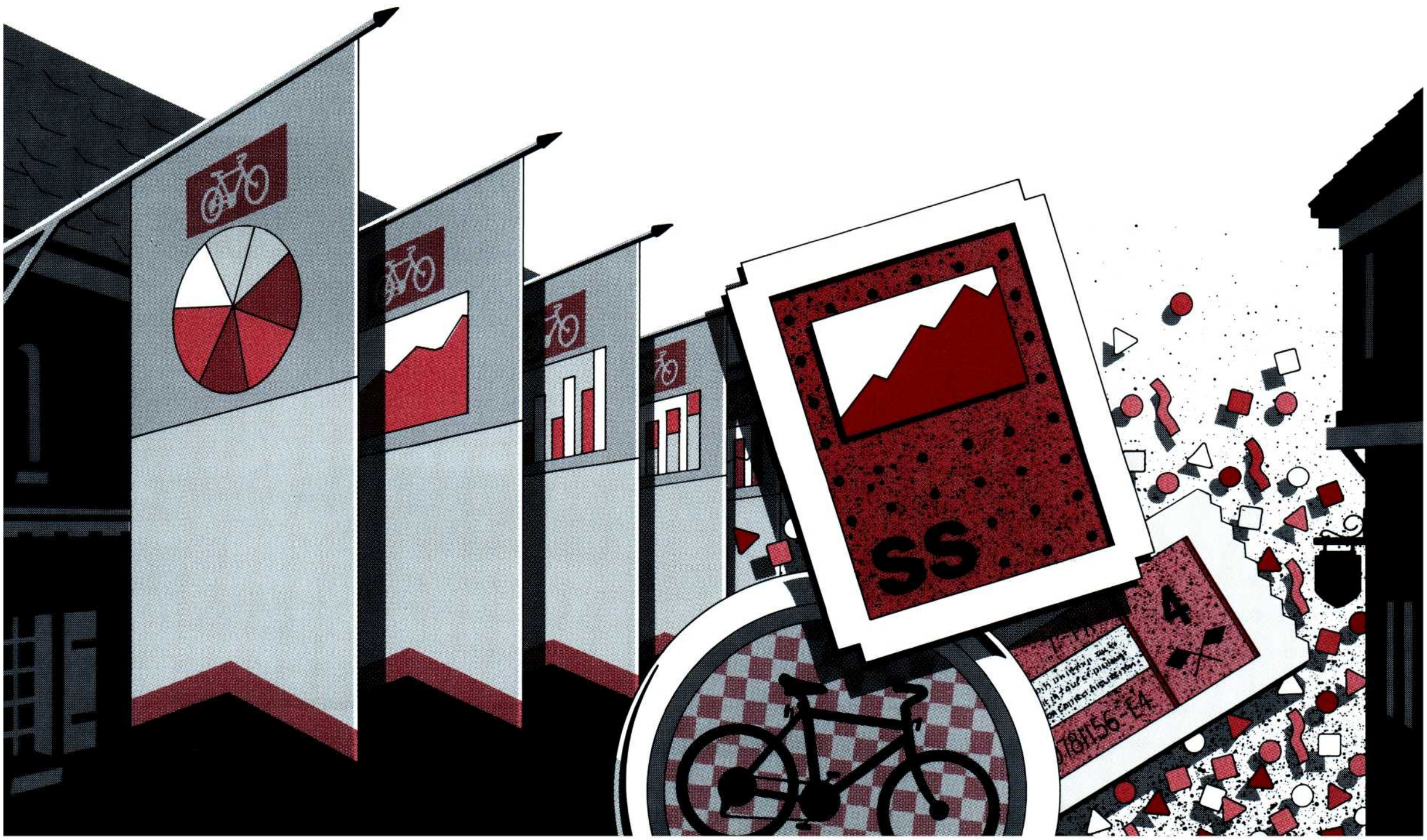
- Choose Quit from the File menu.

Works closes the documents and returns you to the Finder.

4 The Spreadsheet: Planning a Budget and Making Charts

You're the product manager for a new bike — the rugged Mountain Wheeler. You've organized the Great Alpine Race to promote it.

In this chapter, you'll polish your budget for the Great Alpine Race. When you're finished, you'll know how much you're spending and where. You'll also recalculate your budget, changing numbers to see how they affect your overall expenses. Then, you'll learn to use the Spreadsheet's charting capability to put your sales projections into perspective by drawing various kinds of charts.



The lessons in this chapter will show you how to:

- Open a Spreadsheet file.
- Change a value.
- Insert a row.
- Set up a formula.
- Fill empty cells with the formula.
- Save your changes with a different name.
- Change column width.
- Add bold type for emphasis.
- Show percentages.
- Protect cells from changes.
- Recalculate your budget.
- Save a document and print a copy of it.

Then, you'll learn to use the charting capability to:

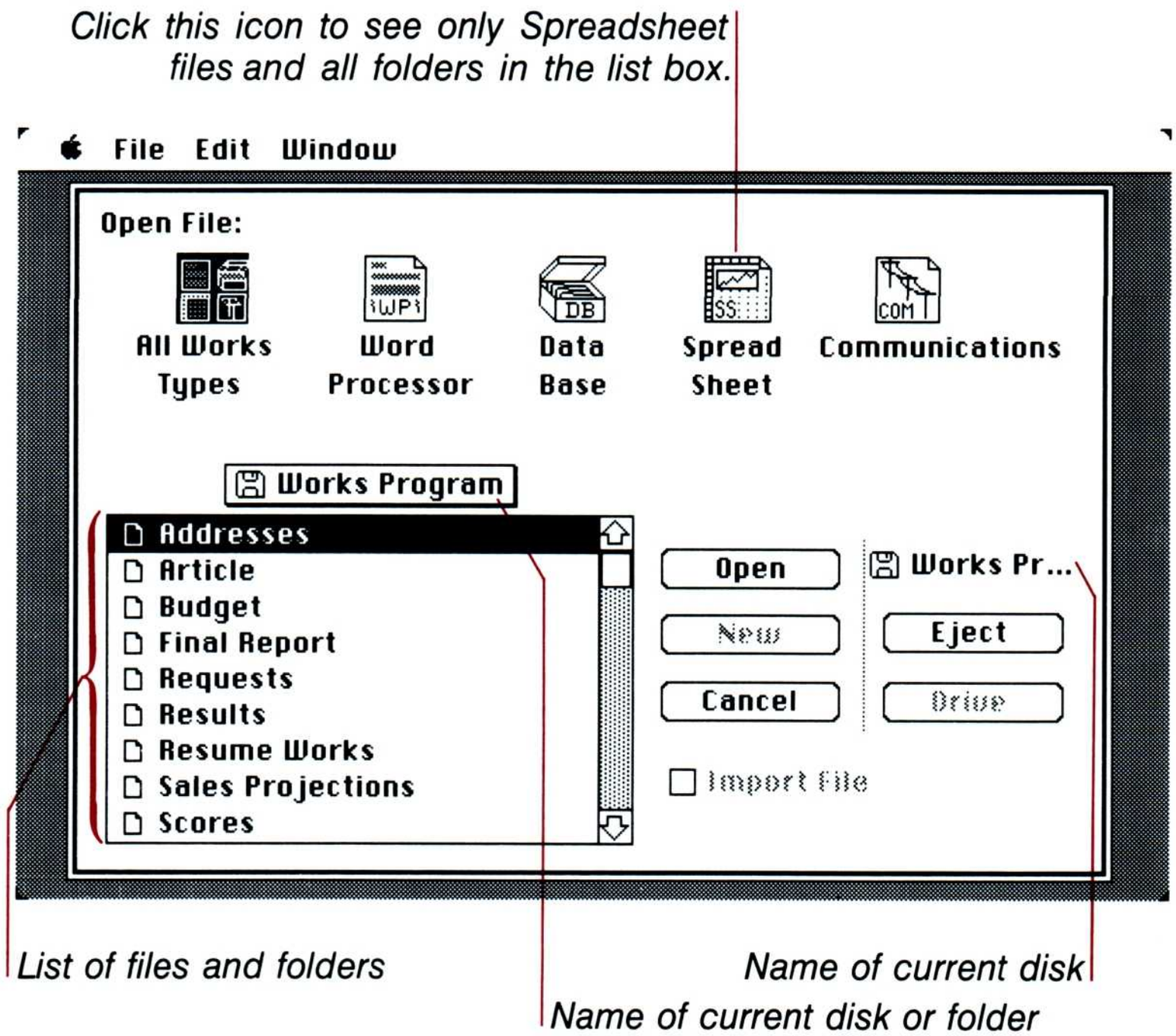
- Set up a pie chart.
- Make changes to a Spreadsheet document and see the pie chart change.
- Draw a bar chart and convert it to a line chart.
- Print a chart.

If your Macintosh is turned off, see "Getting Started" in "Welcome" to start Works.

Open the Spreadsheet File

Open the file

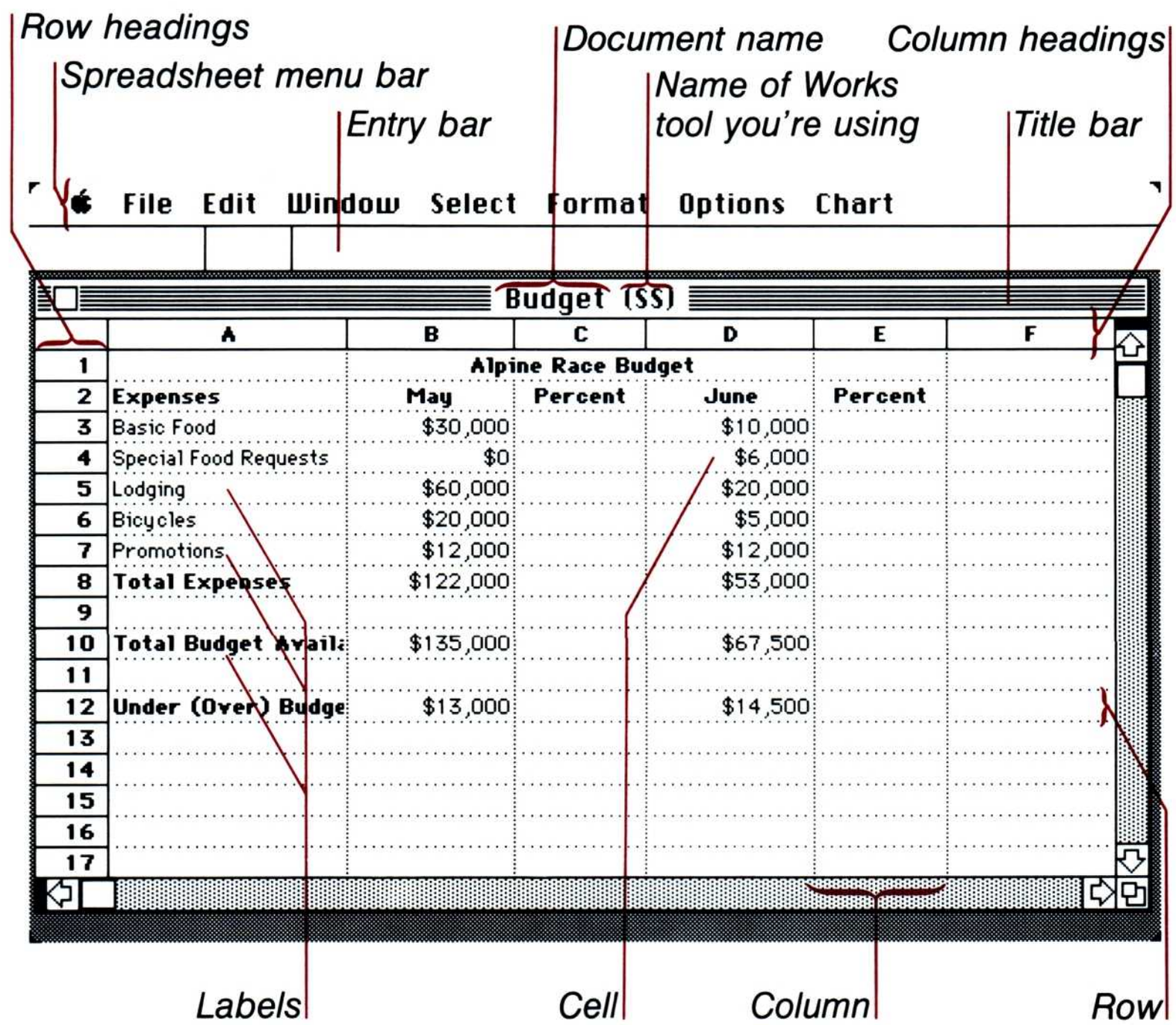
The file containing your budget is stored on the Works Program disk. To start calculating with the race budget Spreadsheet file, you need to open it. When you start Works, you'll see the Open dialog box containing a list of files and folders on the disk.



1. To see a list of Spreadsheet files and all folders, click the Spreadsheet icon.

2. The file named Budget is already selected, so just click the Open button.

A window opens with the budget in it.



The title bar shows you the title of the document — Budget — and the part of Works you're using — the Spreadsheet (SS).

Change a Value

The big race from France to Italy through the Swiss Alps is all set. Still, the budget isn't quite final — you need to insert some numbers and change some others to reflect your current estimates more accurately.

The column letters and row numbers, called headings, guide you around a Spreadsheet document, providing coordinates for each cell's location. You use a cell's coordinates to locate the cell. For example, to find cell B4 you'd look across to column B and down 4 rows.

Looking at cell B4, you find an obvious mistake. The cost to provide special foods for the participating racing teams is listed as zero. You can change that number now and see its effect on the Total Expenses amount in cell B8.

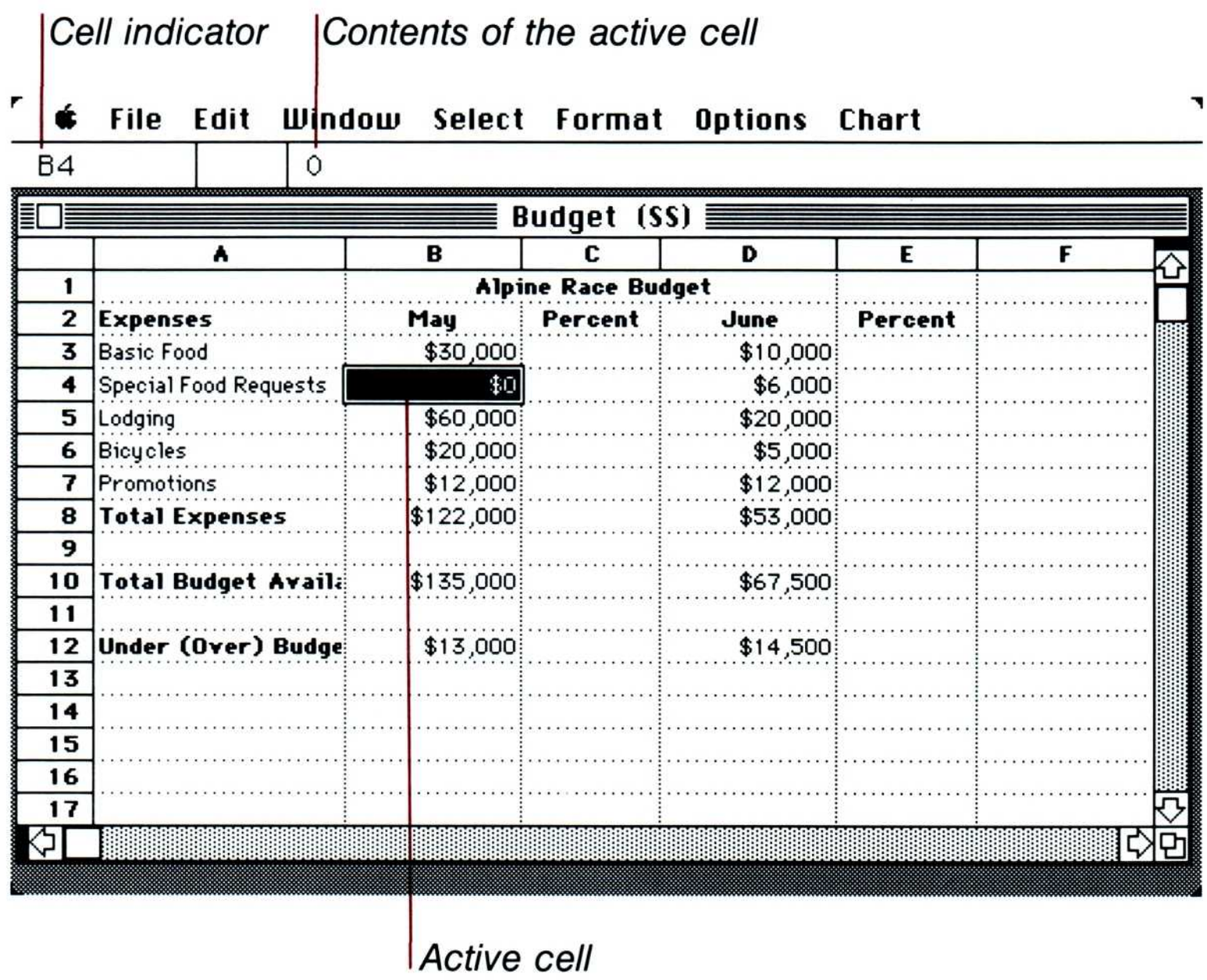
Change a value

A value in the Spreadsheet can be either a number or a label (text). To change a value, you select the cell containing it and type a new value. When you select a cell, it becomes active — its contents appear in the entry bar, and the result of any formula you enter shows up in that cell.

1 Position the pointer on cell B4 and click to select it.

The active cell's current contents, 0, appears in the entry bar at the top of the screen.

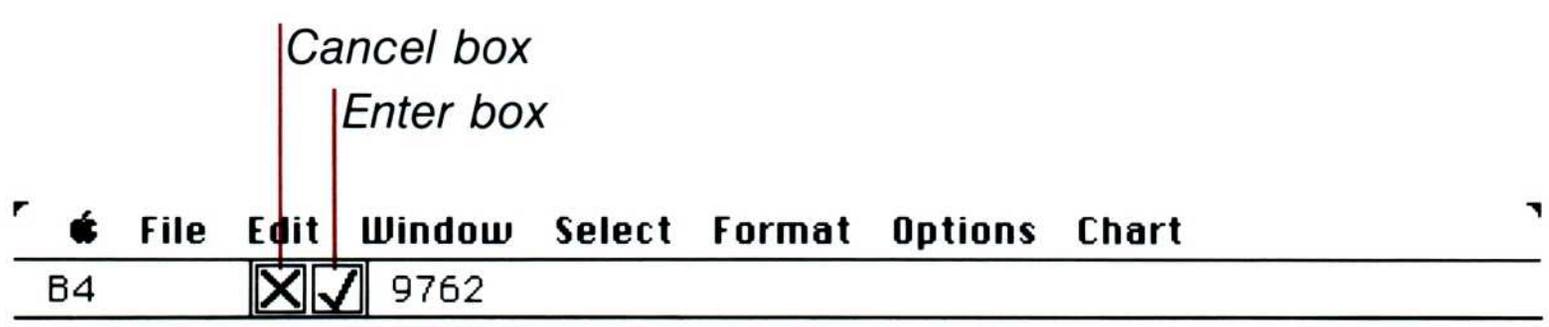
The cell indicator in the upper-left corner of the screen confirms the coordinates of the active cell.



When a cell is active, you can type in the entry bar.

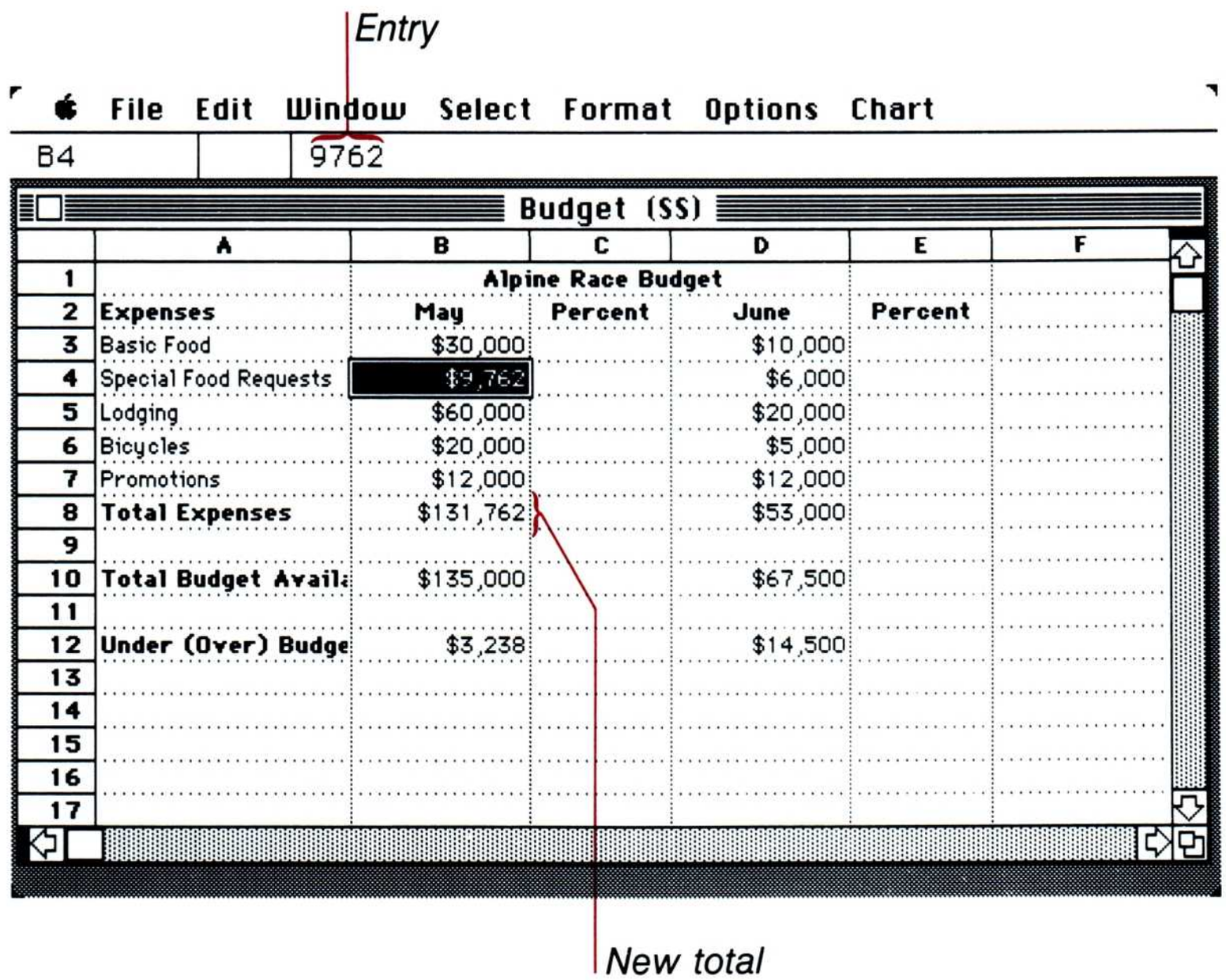
2 Type *9762*

That's the amount required for the cyclists' special food requests, in addition to the basic food they will eat.



3 Click the enter box in the entry bar, and watch the Total Expenses number change in cell B8 as you enter the new number.

Works inserts the amount you typed into cell B4 and recalculates the whole Spreadsheet document, coming out with a new Total Expenses amount in cell B8.



Your total expenses still fit within the total budgeted amount in cell B10.

Insert a Row

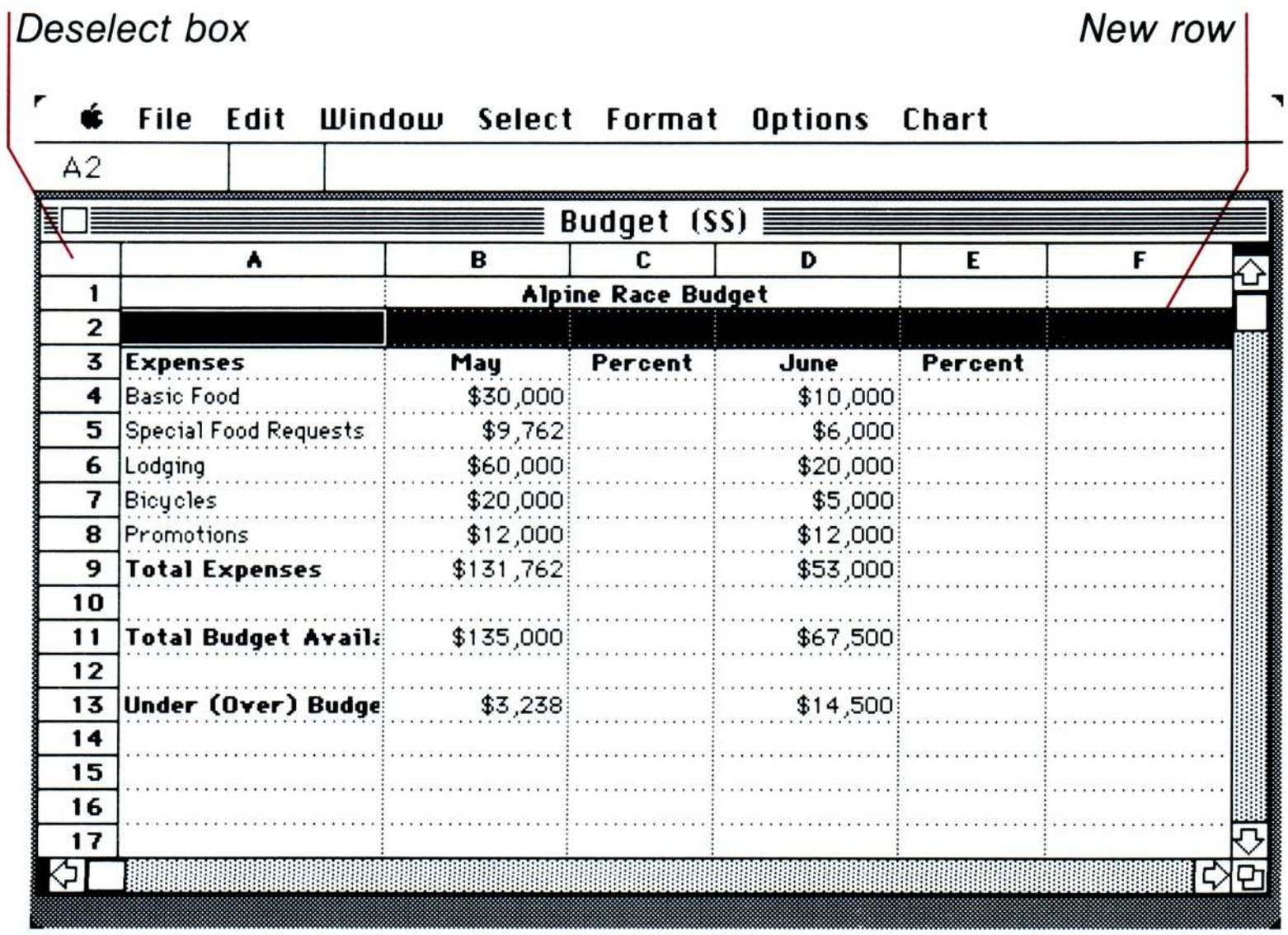
Insert a row

The top of the Spreadsheet document looks crowded. You can make it easier to read by inserting a blank row between the title and the body of the document.

To insert a blank row:

1. Click the row heading to select row 2.
   The heading is the box that contains the row number.
2. Choose Insert from the Edit menu.

Works inserts a new row above the row you selected. The new row is now row 2.



The new row is selected.

To remove this selection so that you can see how the new format looks:

- Click the deselect box, the empty square above the row headings.

Now you can get on with the work of budget planning.

Set up a formula

Set Up a Formula

You already know how much you're spending on the different budget items for the race. For an easier comparison of the relative amounts, you can include percentages as part of your budget. Percentages will show you at a glance where you're concentrating the most money. You'll see whether enough of your overall budget is dedicated to promotions. Or whether you've allocated enough to feed the teams. How do you get percentages? You tell Works to make some calculations.

About cell references

When you want Works to perform a calculation, you set up a formula. The formula tells Works which cells and values to use and what to do with them. You refer to individual cells with cell references. For example, X19 refers to the cell in column X at row 19. To specify cell references in a formula, you point and click with the mouse.

You enter formulas into cells, just as you enter numbers and labels into cells. When you finish setting up a formula, the result — a value — is displayed in the selected cell. The formula remains displayed in the entry bar, so that you can see how the result was calculated.

Start the formula

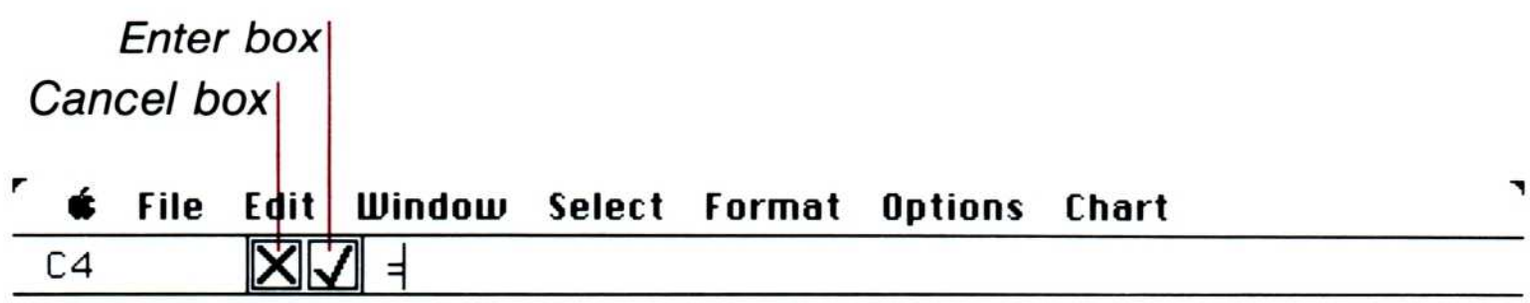
To start the formula:

1. Click cell C4.

   If you accidentally select the wrong cell, just click again to select the cell you want.

2. Type = (an equal sign).

The equal sign tells the Spreadsheet that you want to set up a formula. It means that you want Works to calculate a value that equals the result of the formula you set up. That value will be displayed in the active cell when your formula is finished and you click the enter box.



Reminder If you find that you've clicked the wrong cell while you're setting up a formula, you can click the cancel box to start again.

In cell C4, you want Works to calculate the percentage of the total budget available in May that will be spent on basic food for the cyclists; that is, the amount spent for Basic Food divided by the amount for the Total Budget Available.

Point to the dividend

To tell Works which numbers to use, point to the appropriate cells. The first cell you need to refer to should contain the amount to be spent for basic food.

▣ Click cell B4.

Works enters that cell reference as the first part of the formula, following the equal sign. Now, whenever you change the value in B4, the formula will include that value in its calculations.

To get the percentage, you want to divide the number in cell B4 by the Total Budget Available amount in cell B11.

Division requires an arithmetic operator. This kind of operator tells the Spreadsheet to perform an arithmetic operation.

Type an arithmetic operator

The division operator (a slash) will tell Works to divide the value in cell B4 by the value in cell B11.

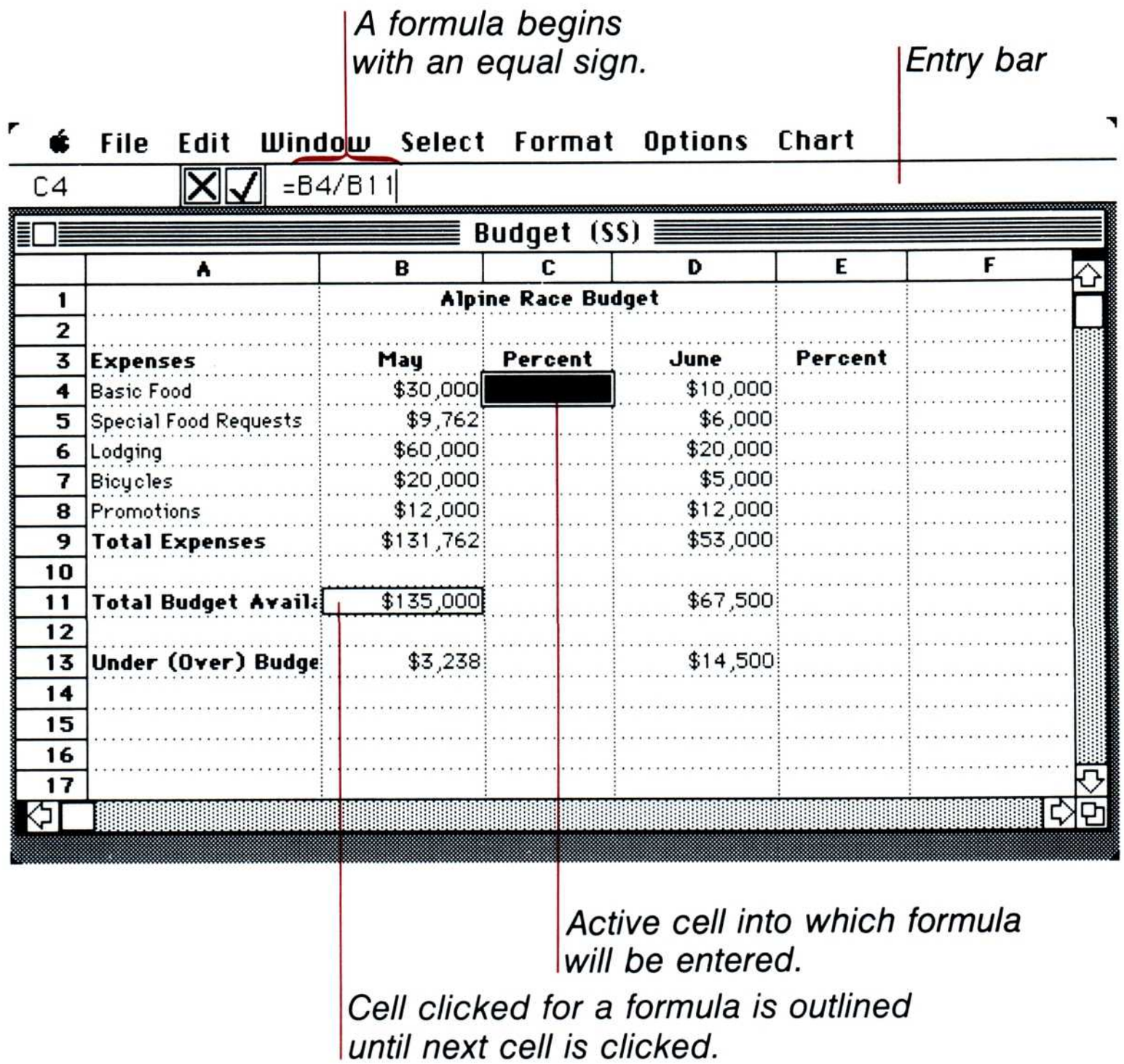
▣ Type /

Point to the divisor

Now specify the number to divide by:

▣ Click cell B11, the total budget available in May.

Now you have the whole formula in the entry bar.



If you've made a mistake, you can use the standard Macintosh editing techniques. Either backspace over the mistake, or select and cut it with the Cut command from the Edit menu; then insert the correction.

Enter the formula

Once you have the correct formula, enter it the same way you enter a value.

- Click the enter box ☑ in the entry bar.

Now a value — 0.22222222, the result of the calculation — appears in cell C4.

This value represents the percentage of the Total Budget Available currently being spent on basic food for the athletes. The number doesn't look like a percentage right now; you'll be changing its format later on. So that you know how the value was calculated, the formula remains displayed in the entry bar. It looks like the Basic Food expenses make up approximately 22% of the Total Budget Available.

Fill with a Formula

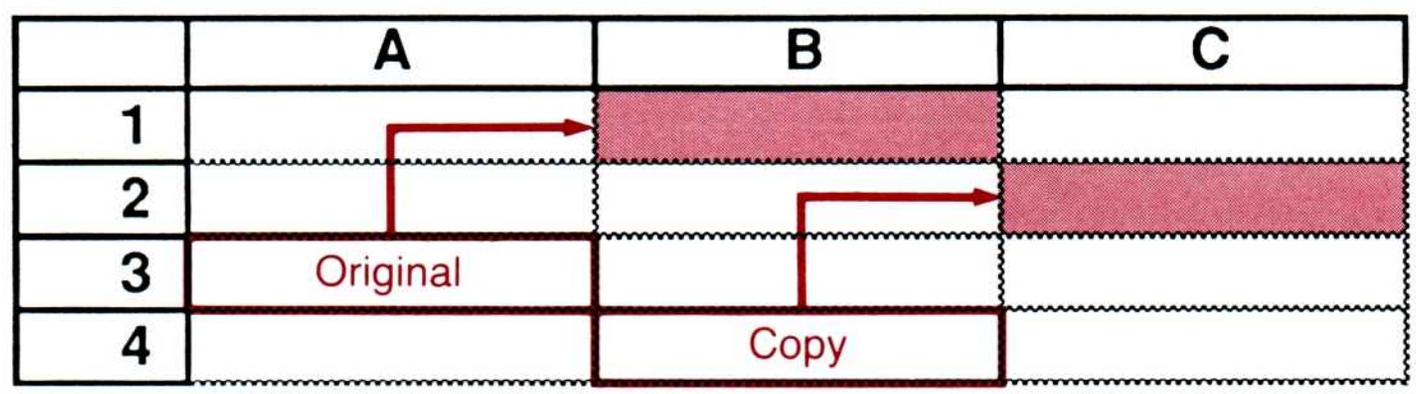
Fill with a formula

You have a useful Spreadsheet document set up now. But you could do a better analysis of your expenses if you knew how all the categories compare as percentages of the total budget. Putting in all the necessary formulas may look like a lot of typing, but with Works, it's quick and easy to do.

Here's a quick lesson on relative and absolute references to help you understand the quickest way to fill in or copy all the remaining formulas you need.

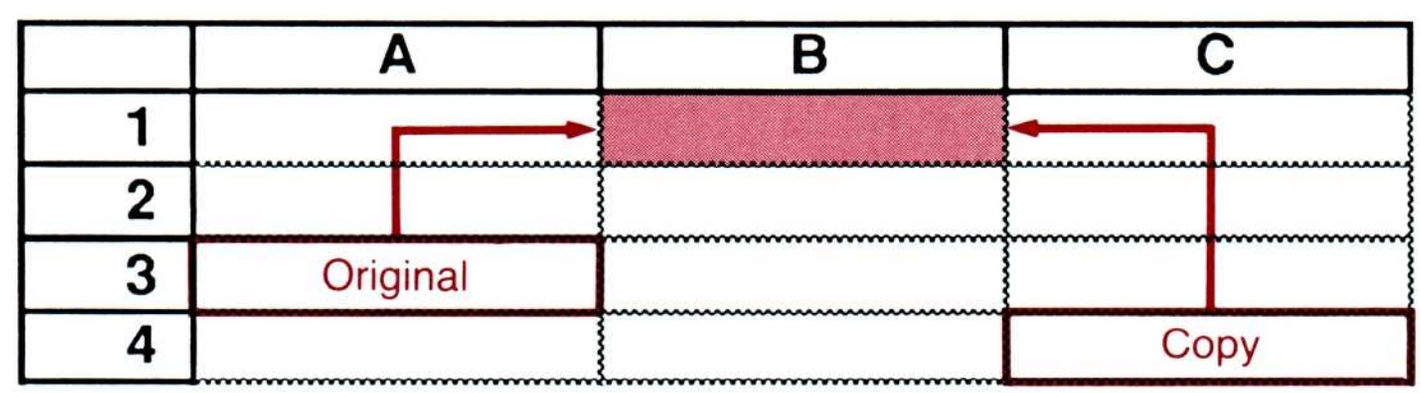
Relative references

Using a relative reference is like giving directions. If you tell your friends to go up two blocks and over one, their destination will depend on their current location. If you moved across town and told your friends to go up two blocks and over one, they would go to a different place. So if you have a relative reference to a cell up two rows and over one column, and you copy it to another cell, Works will look up two rows and over one column from the new cell.



Absolute references

On the other hand, using an absolute reference is like giving Works a specific address to look for. If you copy an absolute reference to cell B1 to another cell across the screen, the new reference still refers to cell B1.



You can combine absolute and relative references in one formula. That's what you need to do here.

You'll copy the formula you just created for the percentage into several cells. The first reference in each copied formula will refer to the amount of one of the budgeted items. This should be a relative reference, because each budget figure is in the same relative position. The second reference in each copied formula will always refer to the Total Budget Available amount. This should be an absolute reference, because it always points to the same cell.

Make an absolute reference

To make an absolute reference, use the Absolute Cell Ref command.

1. If cell C4 is not currently selected, select it now.
   Works displays the formula you just entered in the entry bar.
2. In the entry bar, position the insertion point to the right of the cell reference, B11. Just point and click.
3. Choose Absolute Cell Ref from the Edit menu.
   Dollar signs appear before the column letter and row number to show you that B11 is now an absolute reference.

The relative reference is changed to an absolute reference, as shown by dollar signs.

File Edit Window Select Format Options Chart

C4 =B4/$B$11

Budget (SS)

	A	B	C	D	E	F
1		Alpine Race Budget				
2						
3	Expenses	May	Percent	June	Percent	
4	Basic Food	$30,000	0.22222222	$10,000		
5	Special Food Requests	$9,762		$6,000		
6	Lodging	$60,000		$20,000		
7	Bicycles	$20,000		$5,000		
8	Promotions	$12,000		$12,000		
9	Total Expenses	$131,762		$53,000		
10						
11	Total Budget Availa	$135,000		$67,500		
12						
13	Under (Over) Budge	$3,238		$14,500		
14						
15						
16						
17						

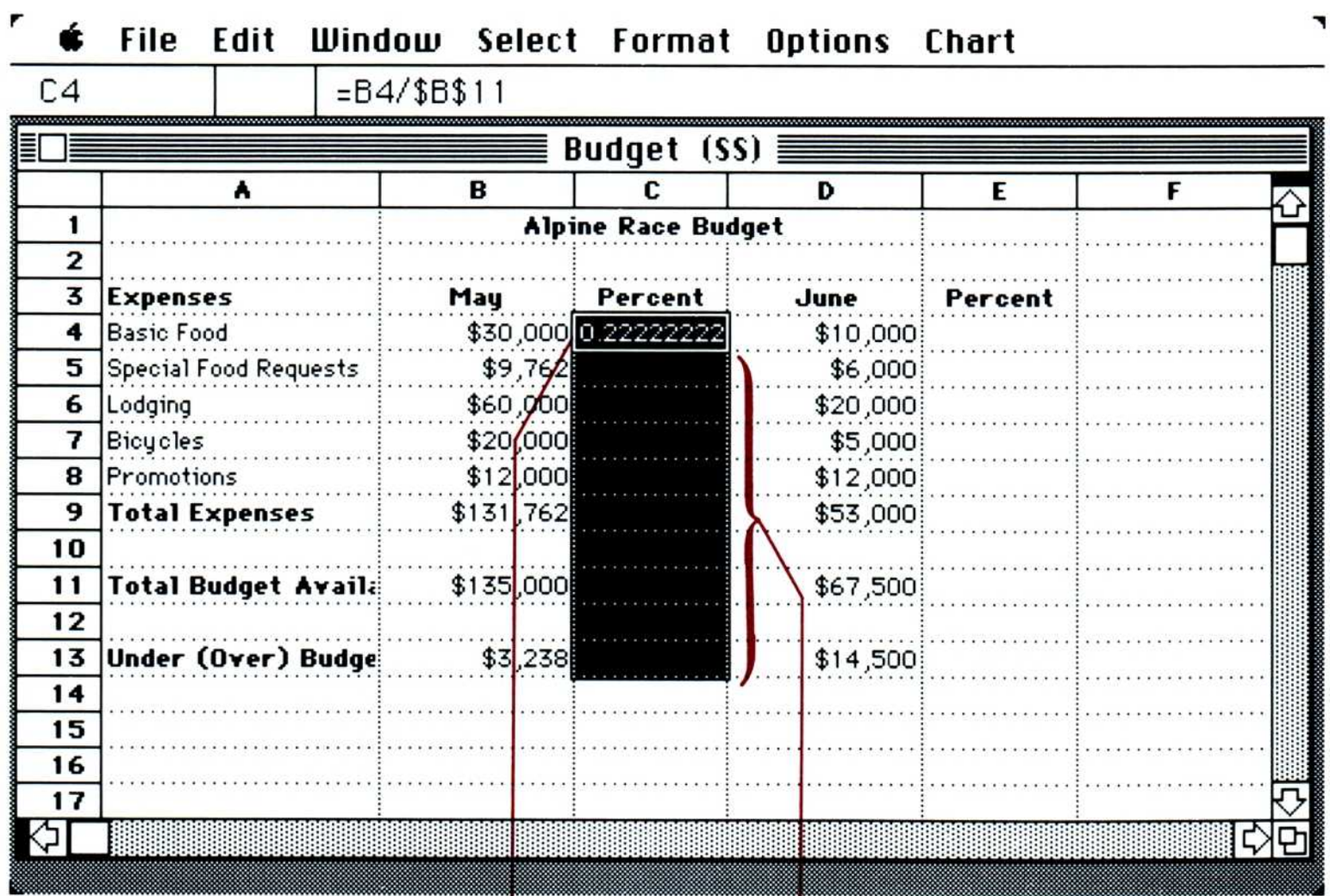
4. Click the enter box to enter the modified formula.

No matter where you copy this formula, the absolute reference, $B$11, will refer to the same cell. When you copy the formula to get percentages for each budgeted item, the relative reference will reflect each respective budgeted item, and the absolute reference will continue to reflect the Total Budget Available. This way, each cell into which you copy the formula will show the appropriate percentage of the Total Budget Available.

Fill in the empty cells

Now you'll copy the formula to the empty cells (fill them in). To fill in the empty cells:

1. Point to cell C4 and drag down to cell C13.
   The whole block of cells is highlighted.



2. Choose Fill Down from the Edit menu.

Works fills all the highlighted cells with formulas, then displays the resulting values.

The numbers don't look like real percentages yet; you'll change the format of these cells shortly.

File Edit Window Select Format Options Chart

C4 =B4/$B$11

Budget (SS)

	A	B	C	D	E	F
1		Alpine Race Budget				
2						
3	Expenses	May	Percent	June	Percent	
4	Basic Food	$30,000	0.22222222	$10,000		
5	Special Food Requests	$9,762	0.07231111	$6,000		
6	Lodging	$60,000	0.44444444	$20,000		
7	Bicycles	$20,000	0.14814814	$5,000		
8	Promotions	$12,000	0.08888888	$12,000		
9	Total Expenses	$131,762	0.97601481	$53,000		
10			0			
11	Total Budget Availa	$135,000	1	$67,500		
12			0			
13	Under (Over) Budge	$3,238	0.02398518	$14,500		
14						
15						
16						
17						

Cells filled with result of calculation

You can see by looking at cell C5 that only about 7% (or 0.07231111) of your budget will go to providing the cyclists with their special food requests.

Clear some cells

You'll want blank spaces, not zeroes, in cells C10 and C12. So you need to clear those cells.

To clear cells:

- Select the cells one at a time and choose Clear from the Edit menu after each one is selected.

Works removes the contents of each cell, but leaves any formatting attributes.

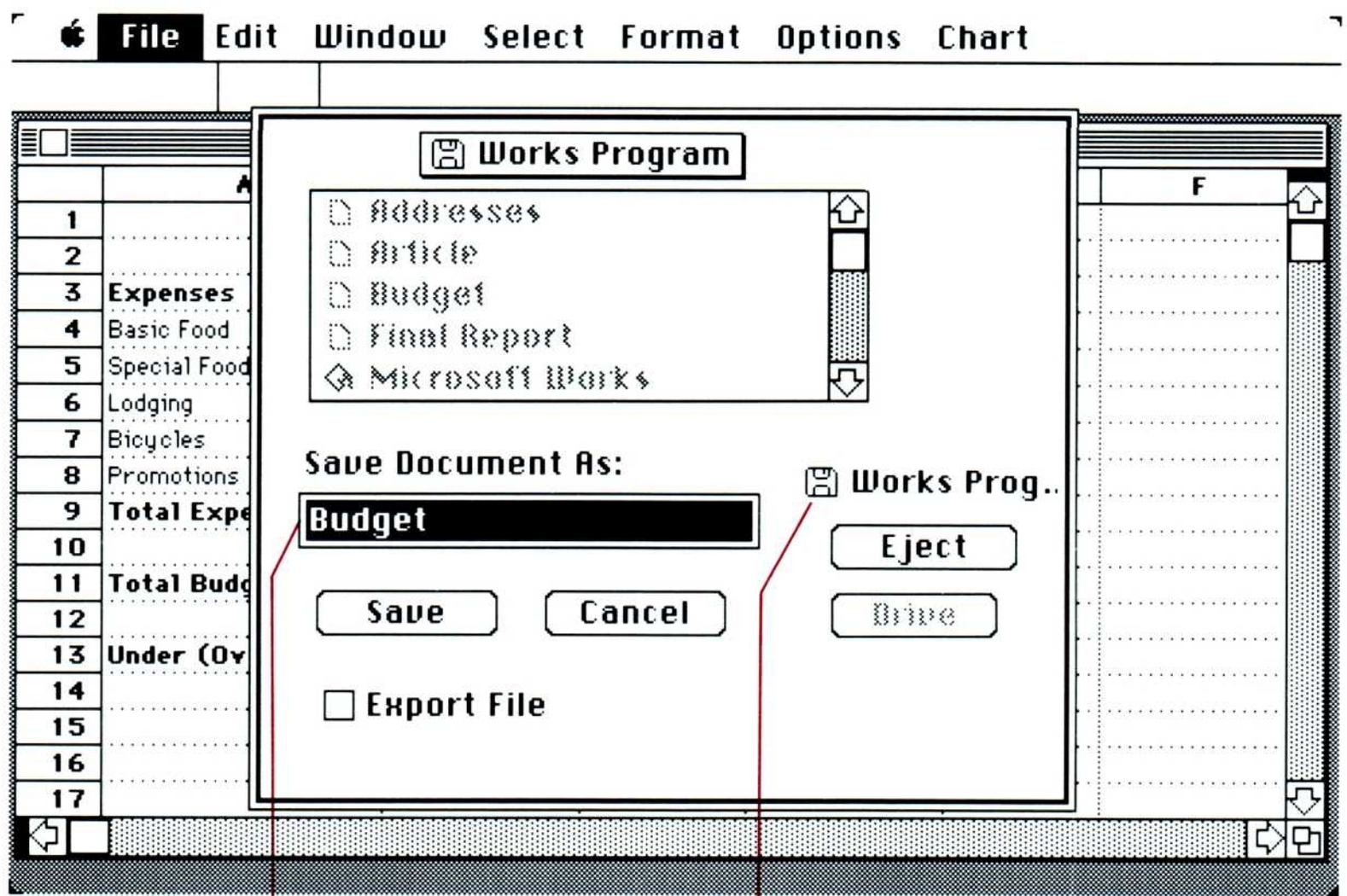
Save with a Different Name

Save with a different name

You've made several changes to your Spreadsheet document. You'd better save them — a power failure could cause you to lose all you've done.

To keep the sample document unchanged for other people to use, save your changes with a different name.

1. Choose Save As from the File menu.
   The Save As dialog box appears.



   When you save with a different name, the original file remains on the disk, and you save a new document containing all your changes. That way, if you're dissatisfied with your changes, you can go back to the original file.

2. Type *New Budget*
3. Click the Save button.

Works saves the changes, and displays the new name in the title bar of the window. Now you're working with the new document. Any changes you save from now on alter the New Budget file, but not the original.

Change column width

Change Column Width

You'll be working with the New Budget document in the next group of Spreadsheet lessons. This Spreadsheet document shows clearly how much everything will cost for the Great Alpine Race, and what percentage each expense is of the total budget. But there are a few changes you can make so your document will be clearer.

For example, some text in column A is cut off by the edge of the column. You can make the column wider to show the full text.

To change the column width:

1. Point to the right edge of the heading for column A.
   When the pointer becomes a two-way arrow, you can adjust the width of a column by dragging.
2. Drag the edge of the column a little to the right, until you can read all the labels in the column.

Add some emphasis

Add Some Emphasis

Your budget looks pretty good now, but there's one problem. The numbers are all there, but you may want to emphasize the totals. Putting the totals in bold type would probably help. It's easy to do.

To change to bold type:

1. Click the row heading to select row 9.
2. Choose Bold from the Format menu.
   Remember, to remove the highlight you can click the deselect box.

Works emphasizes the totals in bold type.

Column is widened so all text is readable.

File Edit Window Select Format Options Chart

New Budget (SS)

	A	B	C	D	E	F
1		Alpine Race Budget				
2						
3	**Expenses**	**May**	**Percent**	**June**	**Percent**	
4	Basic Food	$30,000	0.22222222	$10,000		
5	Special Food Requests	$9,762	0.07231111	$6,000		
6	Lodging	$60,000	0.44444444	$20,000		
7	Bicycles	$20,000	0.14814814	$5,000		
8	Promotions	$12,000	0.08888888	$12,000		
9	**Total Expenses**	**$131,762**	**0.9760148**	**$53,000**		
10						
11	**Total Budget Available**	$135,000	1	$67,500		
12						
13	**Under (Over) Budget**	$3,238	0.02398518	$14,500		
14						
15						
16						
17						

Bold type emphasizes a row of numbers.

Show Percentages

Show percentages

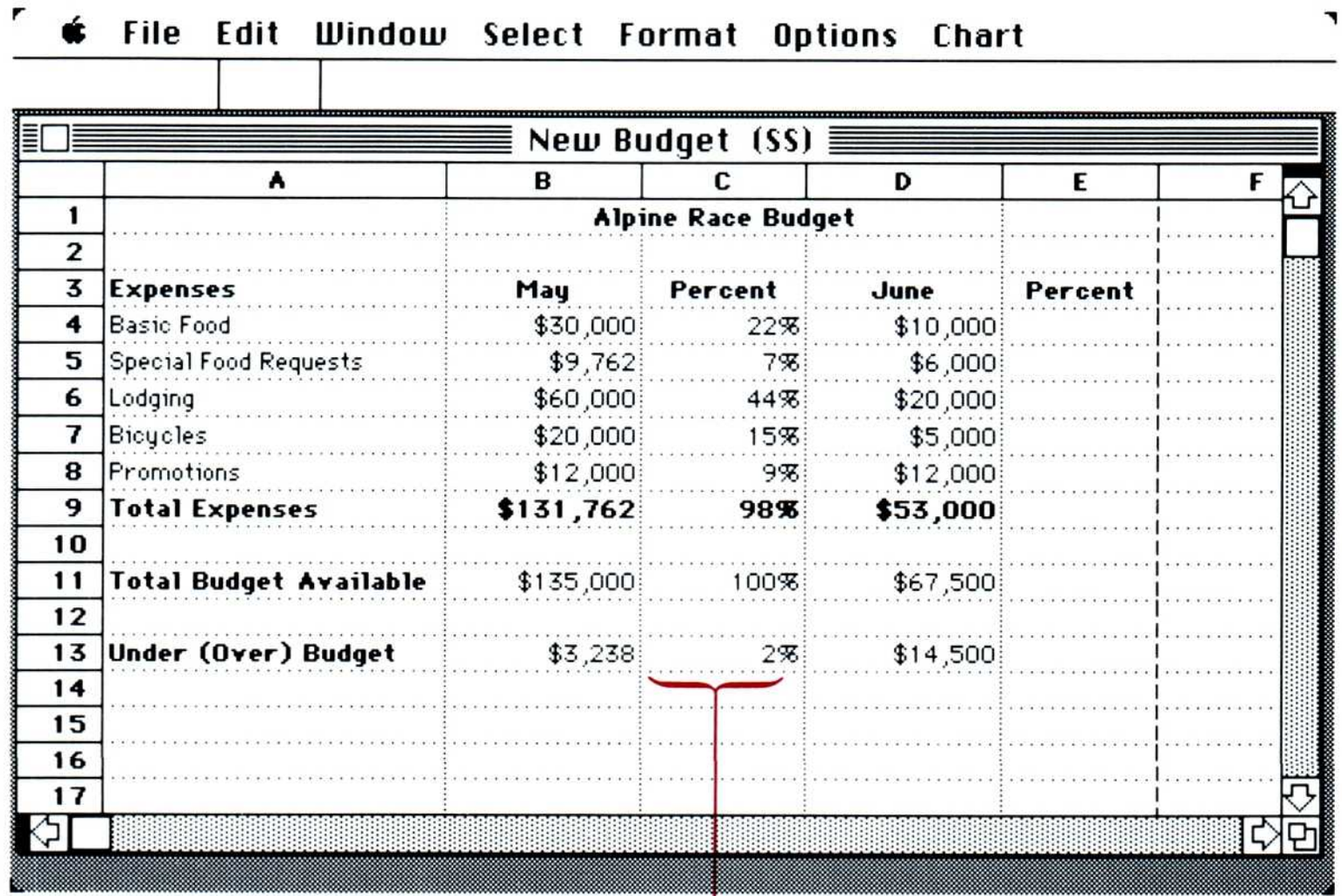
What else needs polishing? The percentages in column C — they don't look like percentages! The Format menu lets you change the way numbers are displayed. Right now, your percentages are displayed as decimals. They would be easier to read if they actually looked like percentages.

To display the values as percentages:

1. Click the column heading to select column C.
2. Choose Percent from the Format menu.

   Now your numbers look like percentages. But you don't really need to see the decimals.
3. Choose Number of Decimals from the Format menu.
4. In the dialog box, type *0* (zero).
5. Click the OK button.

Remove the highlight by clicking the deselect box. And there you have it — the decimal fractions have turned into clear percentages. Nobody will have any trouble understanding what these numbers represent now.



These numbers are now displayed as percentages.

Protect cells

Protect Cells

When you're setting up a budget, you should be able to change numbers at will to see how they affect your total budget. But you want to make those changes without affecting the crucial formulas or labels.

Cell protection protects selected cells from changes. You can do what you want to the other cells, and experiment with different values as much as you want. But you'll prevent yourself from accidentally changing the contents of protected cells, until you remove cell protection.

1. Click the row heading to select row 11.

   This is the row you need to protect. These budget figures were approved by Mr. Wheeler, and they should not be changed.

2. Choose Protected from the Options menu.

Now, try to change the information in these cells. (If you need a refresher, see "Change a Value" earlier in this chapter.) You'll get a message telling you they're protected.

You can remove cell protection, too. You'll learn how in the next section.

Recalculate Your Budget

Recalculate your budget

The power of the Spreadsheet is clear when you change a value and watch all the other values change. The way this Spreadsheet document is set up, you can watch the percentage calculated for each expense change as you change the total amount allotted for the race.

Now practice changing a value. For example, the Total Budget Available could change. What if Mr. Wheeler cut your budget by 30% so you had only $94,500 available?

Remove cell protection and change a key value

To change a value, you select a cell with a value in it and type a new value. Because you just protected the cells in row 11, you'll first need to remove cell protection to make this change.

1. Click cell B11, the cell containing the budgeted amount.
2. Choose Not Protected from the Options menu.

Now you're ready to change the value.

1. Type *94500* (don't type a comma; Works inserts it automatically).
2. Click the enter box ☑ to enter the number into the cell.
   Clicking the enter box enters the number you typed, while keeping the same cell selected.

You are now over budget, so the amount in cell B13 is displayed in parentheses.

Because of a change in this single number, the percentages for all the categories change. The Total Budget Available number is a key value. The individual percentages in row C all depend on what the key value is. Every time you change the key value, you automatically change all the other calculated numbers, too. Try some other numbers for the key value.

If you want to continue to work with this Spreadsheet document after you finish these lessons, you might consider adapting it to your own needs. You already know how to change the contents of a cell and perform other Spreadsheet tasks. To learn more, see "The Spreadsheet" in *Using Microsoft Works*.

Save your budget

Save Your Budget

Save your changes to the new budget. Since you've already saved with a different name, saving these changes won't affect the original budget.

To save your budget document:

- Choose Save from the File menu.

Works adds the changes to the New Budget file.

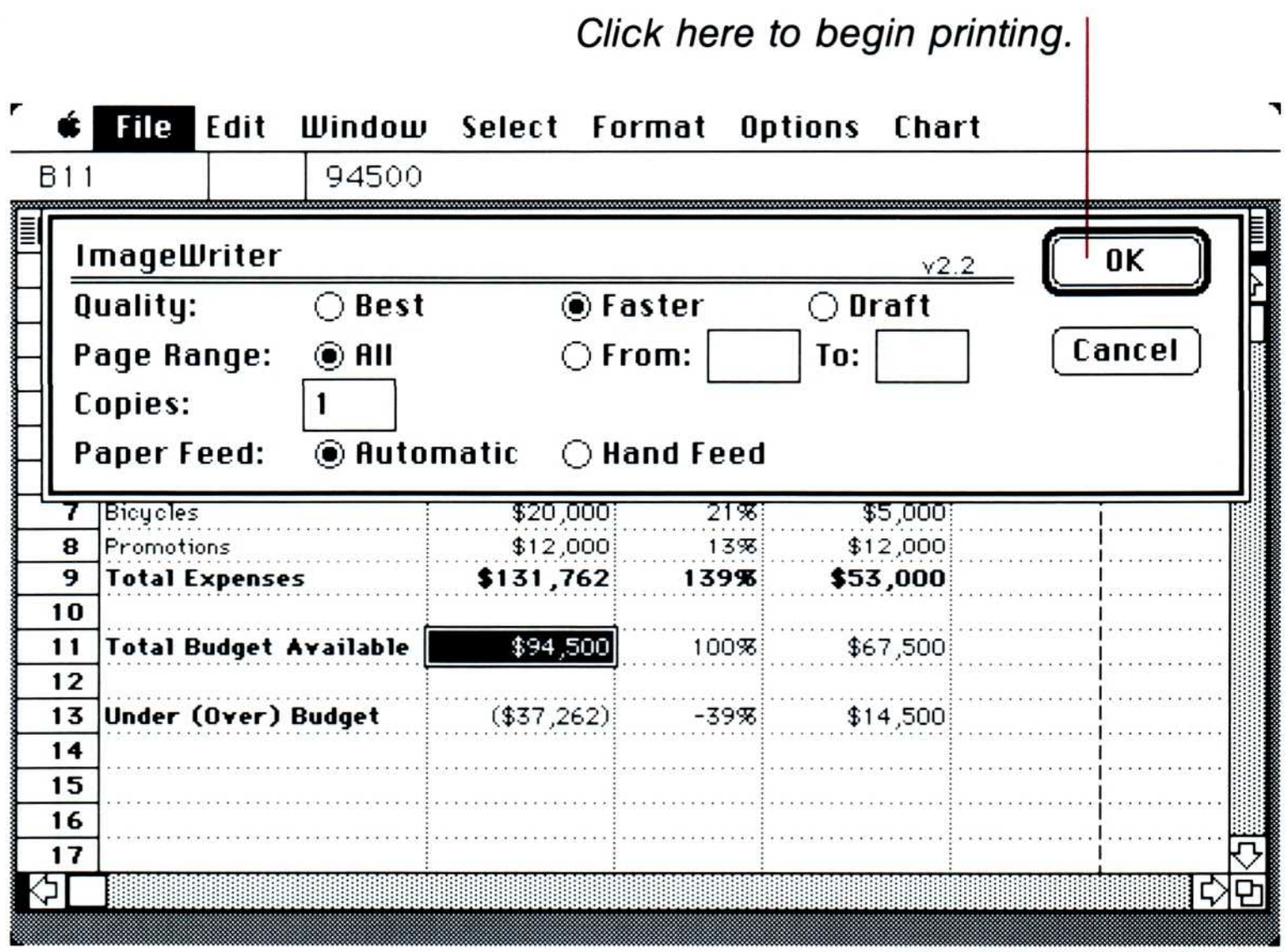
Print your document

Print Your Document

You're ready to print the Spreadsheet document. This section is optional. If you have a printer, set it up according to the instructions in your Macintosh owner's guide and the manual for your printer. Make sure you have paper in your printer before printing.

To print the entire document:

1. Choose Print from the File menu.
   The Print dialog box appears.



If the settings in your dialog box are not the same as the ones in the figure above, click the appropriate options.

2 When your settings are correct, click the OK button.

Works prints the Spreadsheet document.

There you have it: a printed estimate of the costs of the Great Alpine Race.

Use Charts To Analyze Sales Projections

Use charts to analyze sales projections

You've practiced changing values in a Spreadsheet document, setting up a formula, copying a formula to empty cells, and recalculating your budget. Since you're the product manager, and your job is to make the Mountain Wheeler a strong seller, you'd probably like the reassurance of seeing the projected sales figures in chart form.

The Chart menu in the Spreadsheet makes it easy for you to analyze numbers visually, and to see what happens if you make some changes. For example, you can draw a chart of your projected sales by region, so you'll know where to concentrate your promotional dollars, then change those projections slightly and watch the chart change.

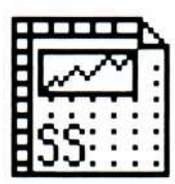
Open the Sales Projections File

Open the file

With the Spreadsheet's charting capability, you make a picture out of a Spreadsheet document without leaving the Spreadsheet tool. The Chart menu is part of the Spreadsheet menu bar. When you want to draw a chart, you just open the Spreadsheet file containing the numbers you want to chart.

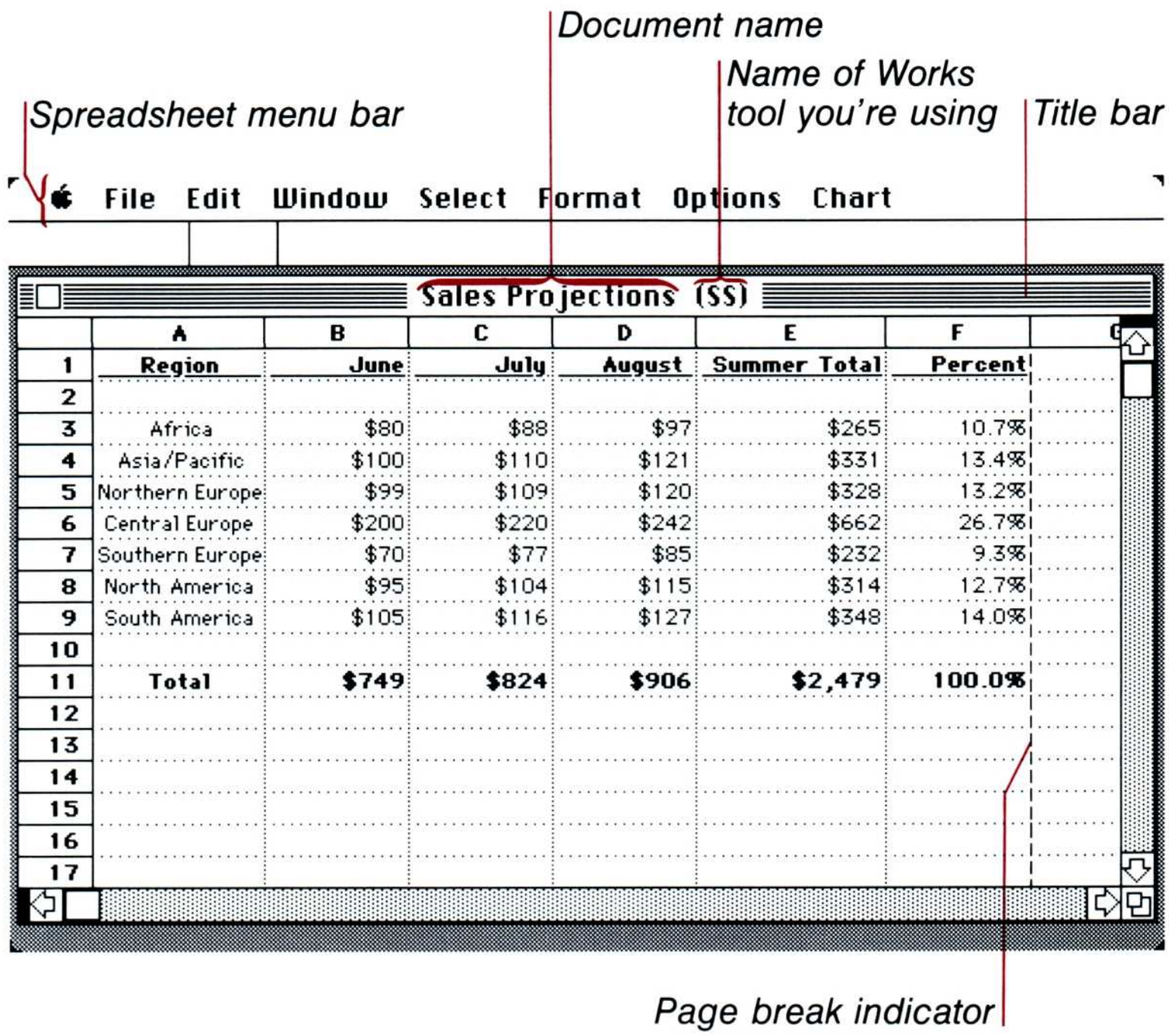
The file containing the sales projections for the Mountain Wheeler is stored on your Works Program disk. To return to the Open dialog box:

- Click the close box in the title bar of the New Budget document.



1. To see a list of Spreadsheet files and all folders, click the Spreadsheet icon.
2. Select Sales Projections, then click the Open button.

A window opens with the Spreadsheet document in it.



	A	B	C	D	E	F
1	Region	June	July	August	Summer Total	Percent
2						
3	Africa	$80	$88	$97	$265	10.7%
4	Asia/Pacific	$100	$110	$121	$331	13.4%
5	Northern Europe	$99	$109	$120	$328	13.2%
6	Central Europe	$200	$220	$242	$662	26.7%
7	Southern Europe	$70	$77	$85	$232	9.3%
8	North America	$95	$104	$115	$314	12.7%
9	South America	$105	$116	$127	$348	14.0%
10						
11	**Total**	**$749**	**$824**	**$906**	**$2,479**	**100.0%**
12						
13						
14						
15						
16						
17						

The title bar shows you the title of the document — Sales Projections — and the part of Works you're using — the Spreadsheet (SS).

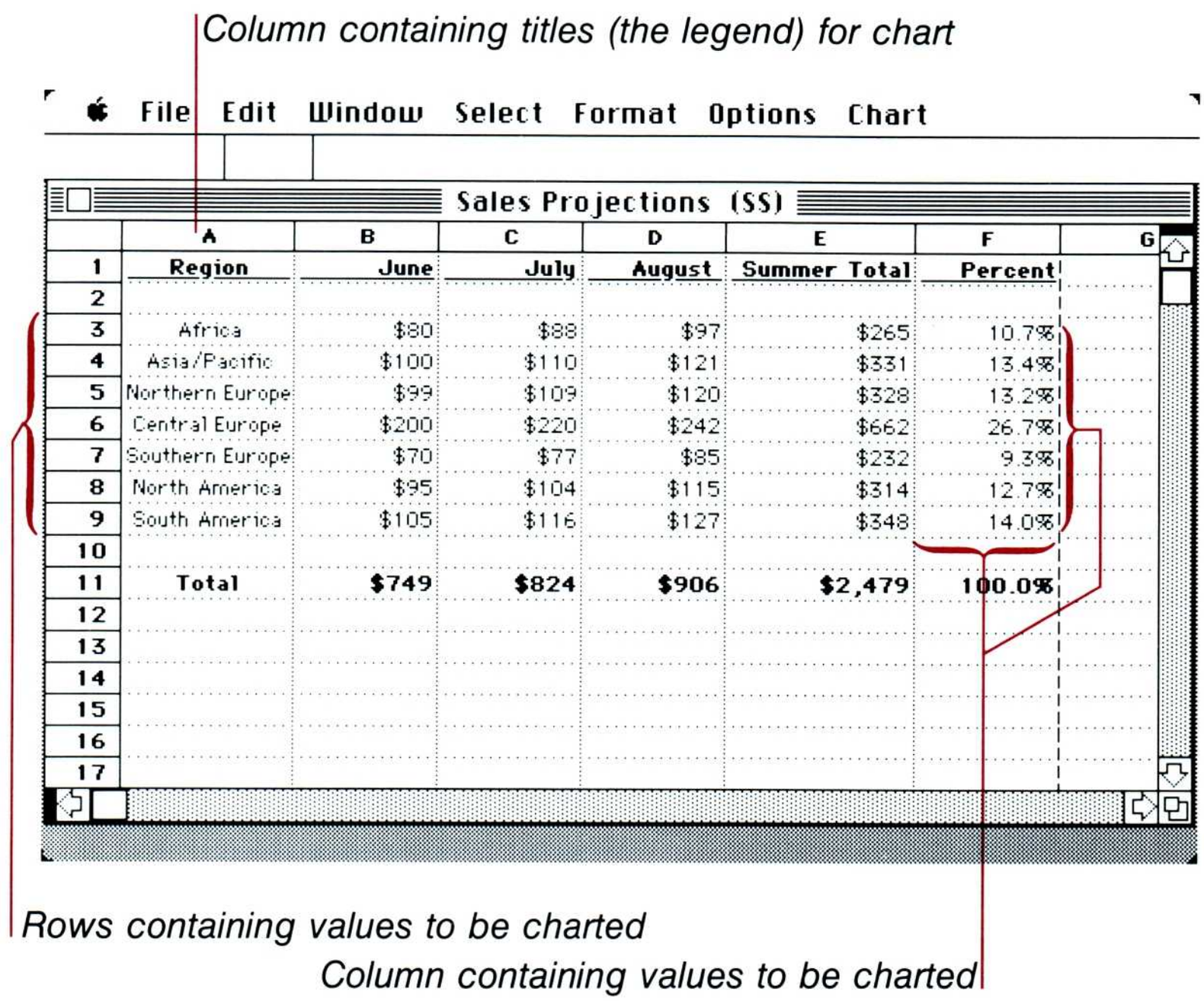
Define a Pie Chart

The Great Alpine Race kicks off the worldwide release of the Mountain Wheeler. In addition, each region has its own promotional event on a different date. So your Spreadsheet document shows sales estimates that vary according to region and date.

To get a better idea of the distribution of sales by region, you can draw a pie chart. Sales for each region are then shown as a slice of the pie.

Works draws a chart based on the information you provide. For a pie chart from this document, for example, you could chart the percentages in column F to see how sales percentages relate to each other as slices of a pie.

The percentages extend from row 3 to row 9. The titles that will label the percentages (in other words, the regional names) are in column A. These row and column headings are the kind of information you provide to make a pie chart.



	A	B	C	D	E	F	G
1	Region	June	July	August	Summer Total	Percent	
2							
3	Africa	$80	$88	$97	$265	10.7%	
4	Asia/Pacific	$100	$110	$121	$331	13.4%	
5	Northern Europe	$99	$109	$120	$328	13.2%	
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8	North America	$95	$104	$115	$314	12.7%	
9	South America	$105	$116	$127	$348	14.0%	
10							
11	Total	$749	$824	$906	$2,479	100.0%	
12							
13							
14							
15							
16							
17							

Define a pie chart

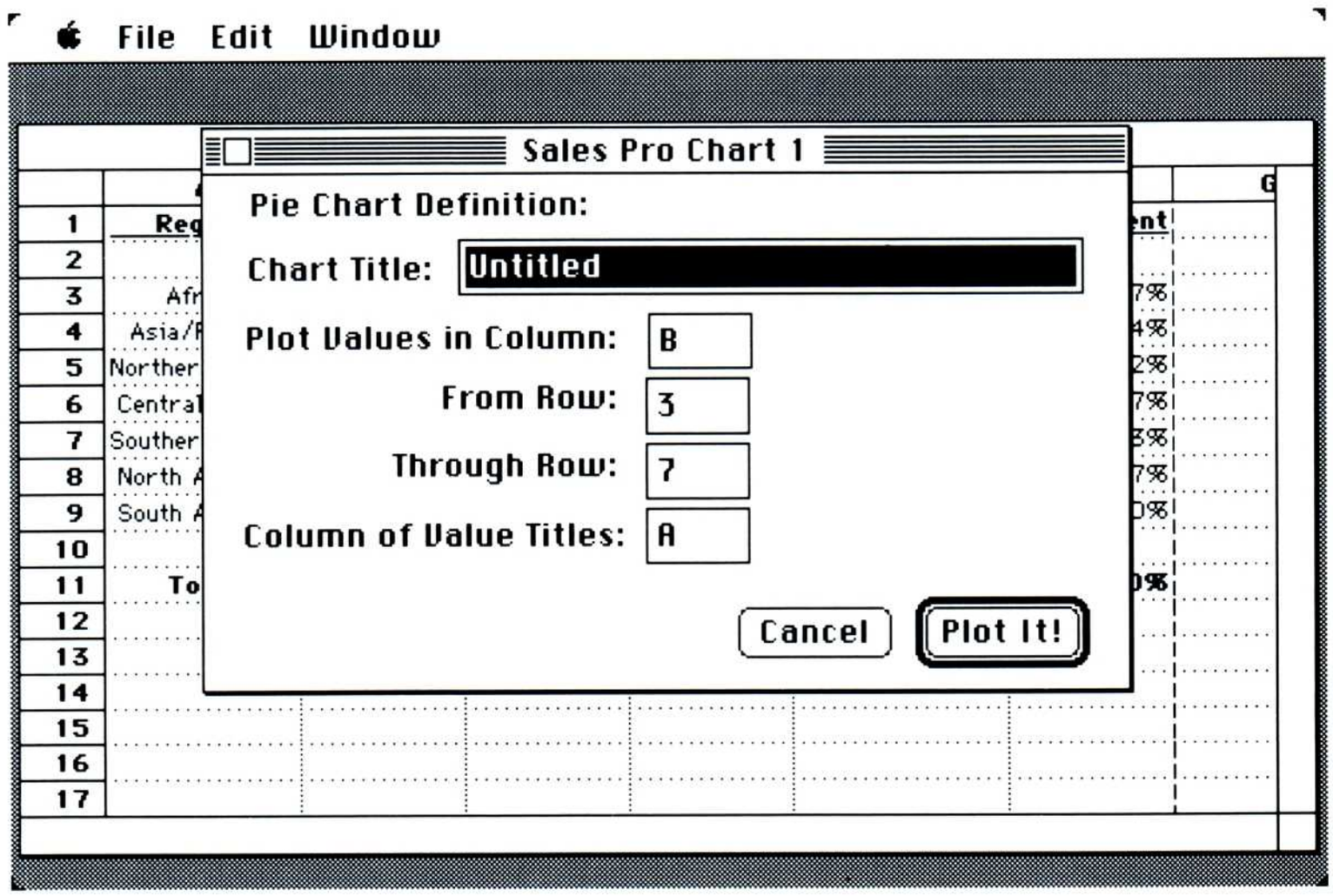
Give the information to Works by defining a pie chart. All charting commands are on the Chart menu.

To define a pie chart:

1. Choose New Pie Chart from the Chart menu.

   The Pie Chart definition dialog box appears. You fill out the box to tell Works where to look in the Spreadsheet document for the information to chart.

   If you want to look at the Spreadsheet document with the dialog box open, you can. Just drag the title bar of the dialog box window to move it aside.



Works proposes which information you might want to plot — for example, column B is proposed for the column containing values. However, you want to chart the values in column F. You'll have to change that setting.

2. Press the Tab key to select the Plot Values in Column text box.
3. Type *F*

   Works proposes to chart the values from row 3 through row 7. Your information (not including the total) is in rows 3 through 9, so you'll have to change the number for the last row, also.
4. Press the Tab key twice to select the Through Row text box.
5. Type *9*

Works proposes column A for the column containing titles (labels) for the information to be charted. That's where you have your labels, so leave the Column of Value Titles text box as is.

Don't bother to give the chart a title — you're just comparing numbers for now. You're ready to plot the information.

Plot a Pie Chart

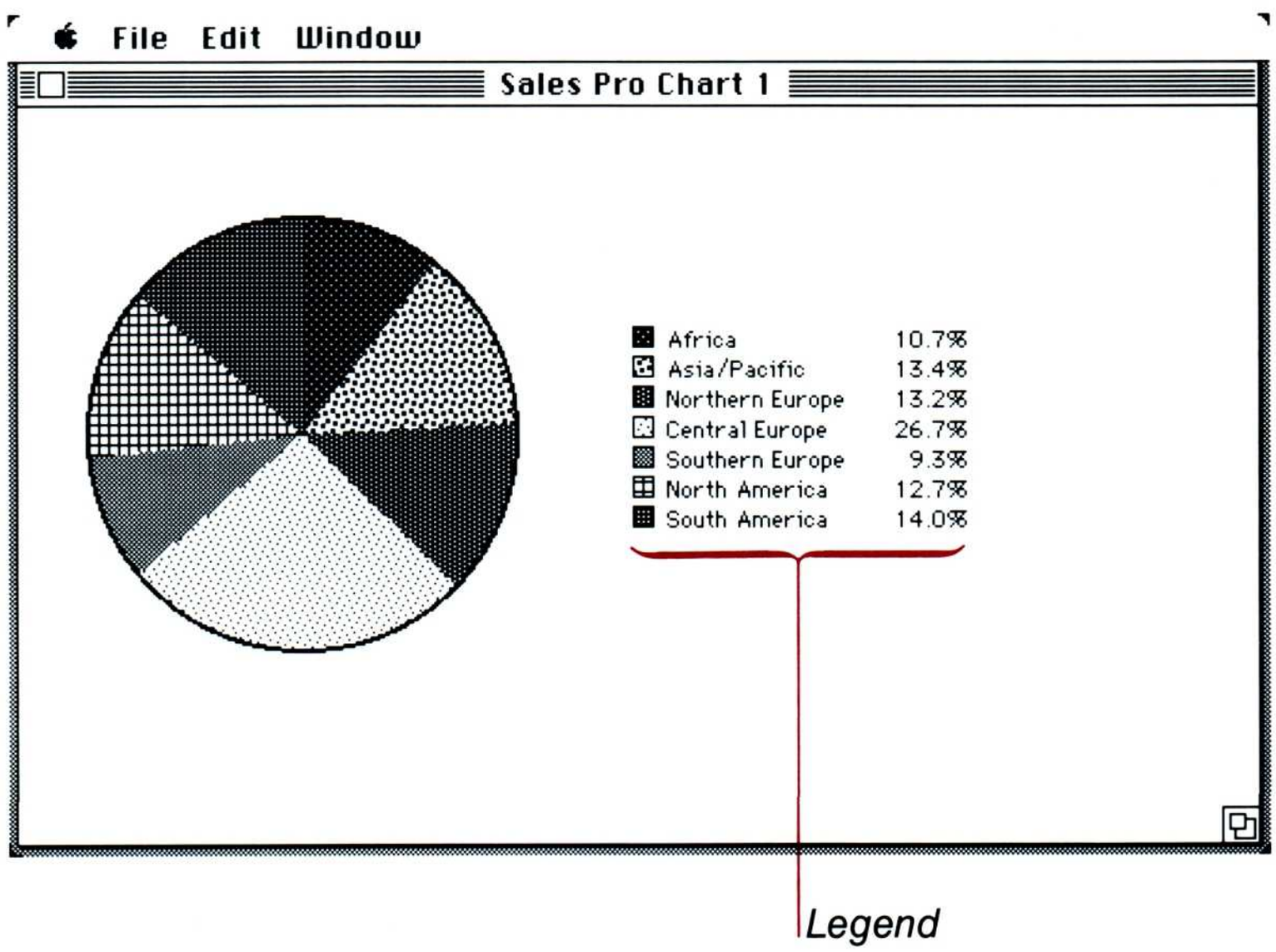
Plot a pie chart

When you complete a chart definition, you're ready to draw the chart. Works calls this plotting the chart, from the term for making a chart on graph paper. When you plot this pie chart, you'll see which region has the biggest slice of your sales pie. If your plans are working right, you should sell the most Mountain Wheelers where you concentrate most of your promotional dollars.

The Plot It! button in the Pie Chart definition dialog box lets you plot your chart.

- Click Plot It!

Works draws the chart.



It looks as if most sales will be in central Europe, near the Alps. Since the big race will also be in the Alps, that makes good sense. You'll have extra publicity in that region because of the race.

Size the windows

Size the Windows

You now have two full-size windows, one on top of the other. If you make both the chart and document windows smaller, you'll be able to see both at the same time. That makes it possible to change numbers on the Spreadsheet document and see the results reflected immediately in the chart.

You size a window by dragging the size box in the lower-right corner of the window.

First, size the chart window:

- Drag the size box up and to the left a few inches.

When you release the mouse button, Works redraws the chart in a smaller size. (If you make the window very small, Works leaves off the legend from the right side of the window.)

Now, size the Spreadsheet document window:

1. Click anywhere in the document window to make it active.
2. Drag the size box up so that the outline of the window is just below row 11, where the totals are.

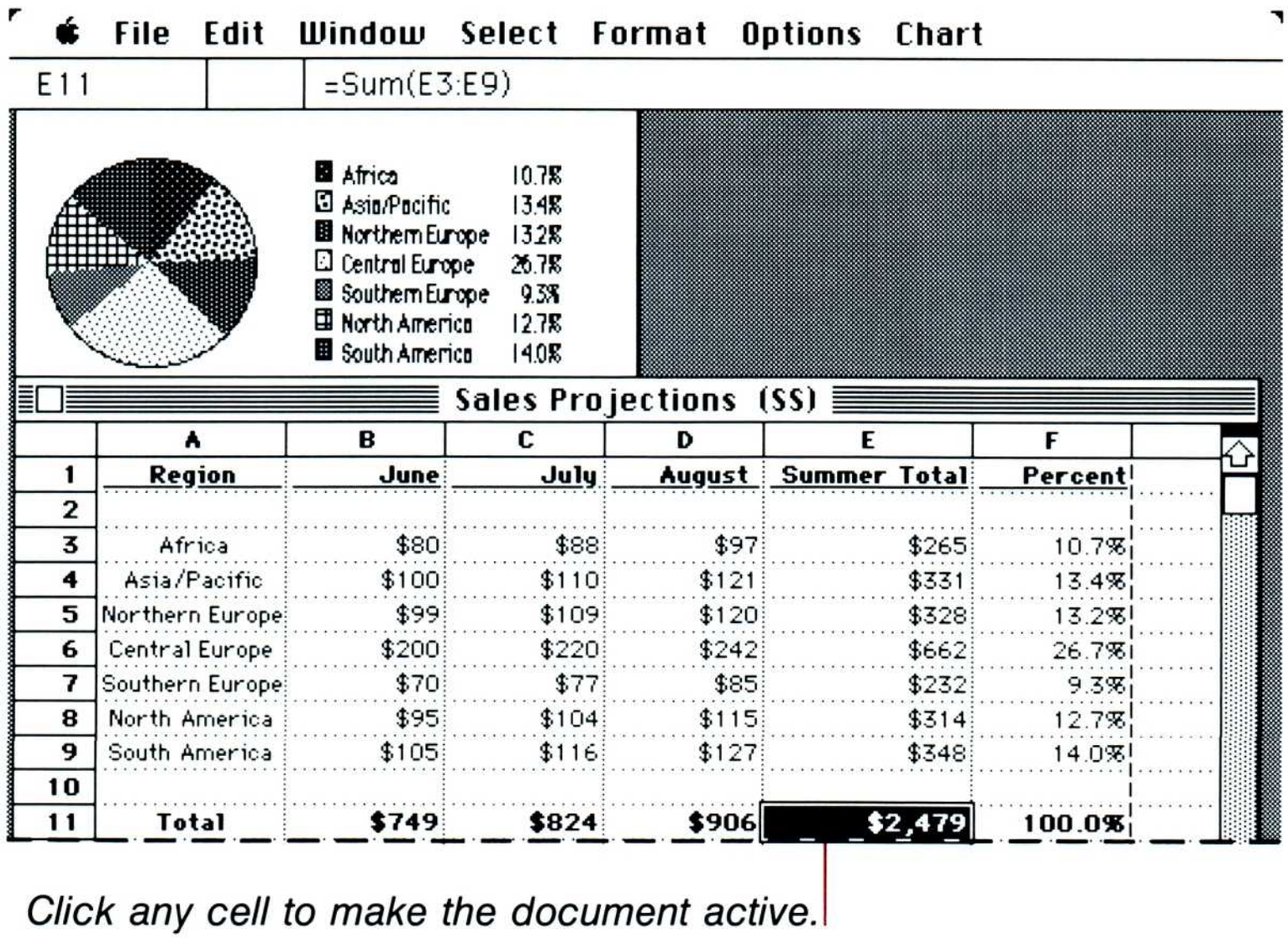
Drag the window

To see both windows at the same time, move the Spreadsheet window down to the bottom of the screen.

To move a window, drag the title bar at the top of the window.

- Drag the Spreadsheet window about halfway down the screen.

Now you can watch as your recalculations show up in both the Spreadsheet document and the chart.



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6	Central Europe	$200	$220	$242	$662	26.7%
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8	North America	$95	$104	$115	$314	12.7%
9	South America	$105	$116	$127	$348	14.0%
10						
11	Total	$749	$824	$906	$2,479	100.0%

If your windows don't look like those above, size them and move them until they're roughly in position.

Change a Number in the Spreadsheet Document

This chart is linked directly to the Spreadsheet document. That means you can make changes in your assumptions in the Spreadsheet document and instantly see how they're reflected in the chart.

Although you can do this kind of What-If analysis with the Spreadsheet alone, charting gives you a more visual perspective on your alternative models.

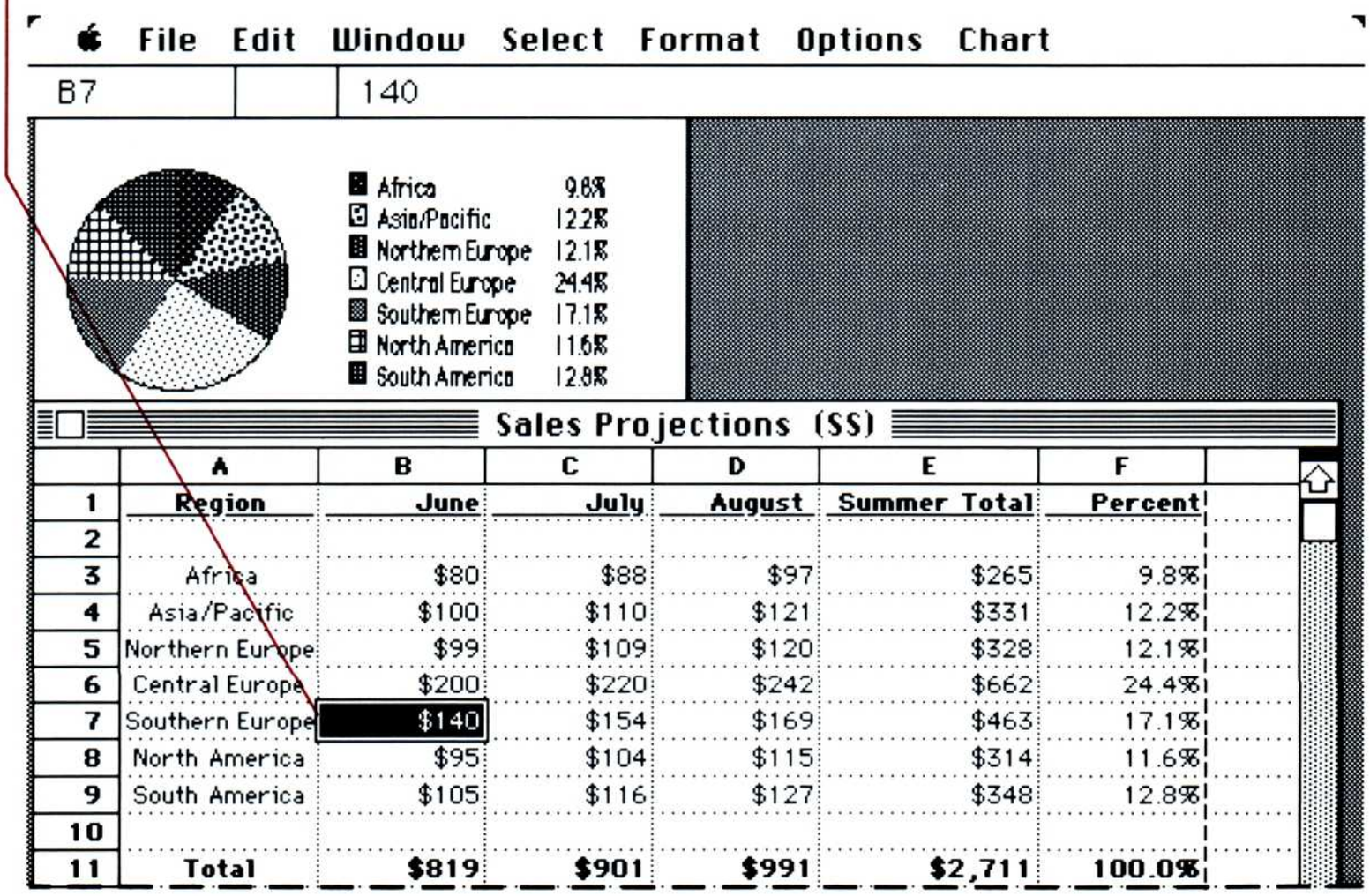
Play What-If

For example, what if sales in southern Europe in June are actually twice as high as your original estimate? Change the number and see what happens.

1. Click cell B7 (the cell for southern Europe for June) to select it.
2. Type *140* (double the original estimate).
3. Click the enter box ☑.

The Spreadsheet document changes automatically — the percentage of sales estimated for southern Europe goes up. And the chart changes at the same time!

When you change a value in the Spreadsheet document...



	A	B	C	D	E	F
1	Region	June	July	August	Summer Total	Percent
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3	Africa	$80	$88	$97	$265	9.8%
4	Asia/Pacific	$100	$110	$121	$331	12.2%
5	Northern Europe	$99	$109	$120	$328	12.1%
6	Central Europe	$200	$220	$242	$662	24.4%
7	Southern Europe	$140	$154	$169	$463	17.1%
8	North America	$95	$104	$115	$314	11.6%
9	South America	$105	$116	$127	$348	12.8%
10						
11	Total	$819	$901	$991	$2,711	100.0%

...Works redraws the chart to reflect the change.

What if sales aren't as high in central Europe in June as you've assumed?

You can change the amount to find out what happens.

1. Click cell B6 (the cell for central Europe for June) to select it.
2. Type *110* (a lower amount).
3. Click the enter box ☑.

Works recalculates immediately.

By comparing the sales in southern Europe and central Europe over time, you can see whether your regional promotions will influence sales as you hope. You'll do that in the next section.

When you're testing assumptions like these, the Spreadsheet with its charting capability becomes your personal statistics and art departments. They work together efficiently so that you can concentrate on the reasons behind the numbers, rather than on the calculations.

Define a Bar Chart

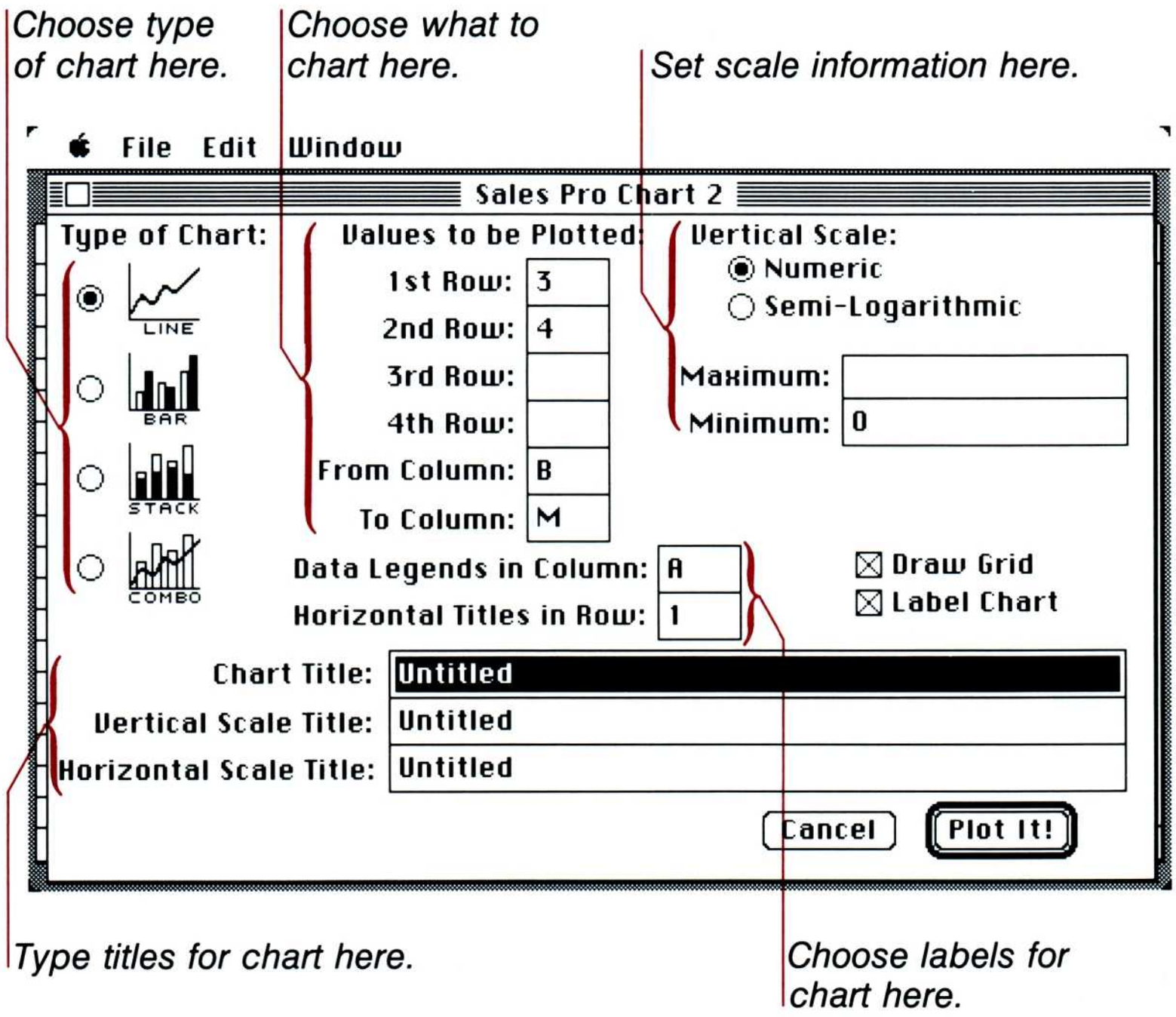
Define a bar chart

Your sales projections for the Mountain Wheeler extend several months into the future. To make the numbers more meaningful, you can turn them into a bar chart and compare them, region by region, over time. This way you can see which areas indicate the greatest potential and which need more attention.

To define a bar chart:

- With the Spreadsheet document window active, choose New Series Chart from the Chart menu.

The Series Chart definition dialog box appears.



A bar chart makes comparisons easy, lining up solid bars against each other. As you change numbers in the Spreadsheet document, the relationship between the bars changes. To learn about other kinds of charts, see Chapter 14, "Charting a Spreadsheet Document," in *Using Microsoft Works*.

Choose the type of chart

The icons on the left side of the dialog box let you choose the type of chart.

To choose a bar chart:

- Click the icon for a bar chart.

A black dot appears in the circle next to the icon, indicating which chart type is chosen.

Notice that Works has proposed a name for the chart definition in the title bar of the chart window, based on the name of the Spreadsheet document. You choose the chart by this name when you want to draw it, but the name doesn't appear on the chart itself. You can give any chart a title, however; that title then appears directly above the chart.

Title the chart

The Chart Title box is already selected. Anything you type will replace what's there now.

- Type *Central vs. Southern Europe*

Label the scales

The next two boxes are for labeling the scales of the chart. The Spreadsheet document lists bike sales in thousands. The months, of course, are measured in months.

To label the scales:

1. Press the Tab key to select the Vertical Scale Title text box.
2. Type *Thousands*
3. Press the Tab key to select the Horizontal Scale Title text box.
4. Type *Months*

Choose the values to plot

Works doesn't automatically know what values you want to chart. The area in the center of the dialog box lets you specify up to four rows that contain values to chart. Central Europe, row 6, is the first row you want to chart. Southern Europe, row 7, is the second row. The figures for the next three months appear in columns B, C, and D.

Note You can drag the Series Chart definition dialog box around to see underneath where the Spreadsheet data is. Just drag the title bar to move the box out of the way.

To enter Spreadsheet information for your chart, use the Tab key to select each text box, then type the appropriate information.

1. For the first row, type *6*
2. For the second row, type *7*
3. For the beginning column (From Column), Works proposes B. Since this is what you want, you don't need to change it.
4. For the ending column (To Column), type *D*

Set labels for data legends and horizontal titles

Works can put labels on the months and set up a key with descriptions of the two categories being compared. Works calls the contents of the key the data legends. You specify which column to use for the data legends, and which row to use for the horizontal titles, or labels.

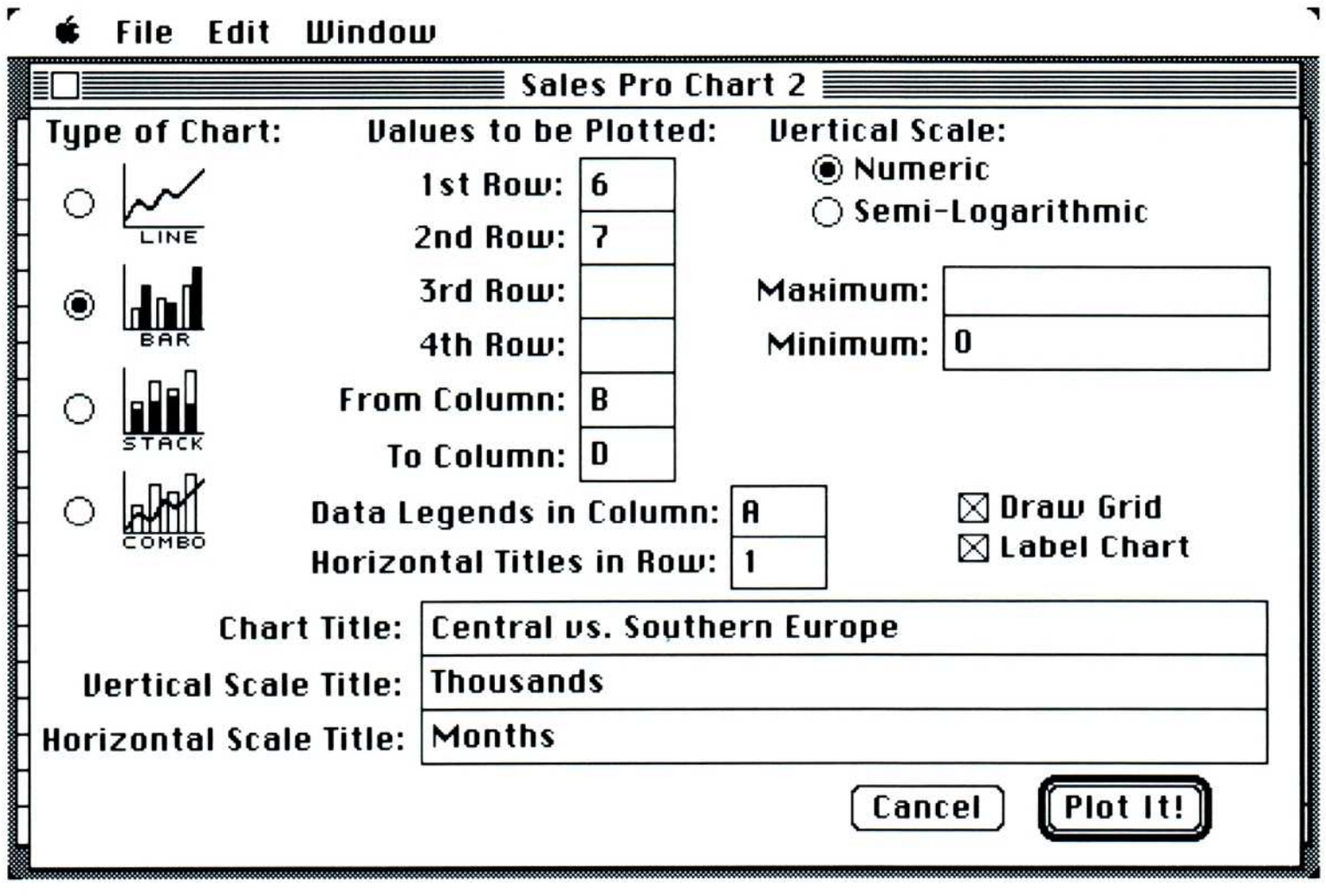
Works has proposed column A in the Data Legends in Column text box, and row 1 in the Horizontal Titles in Row text box. You don't need to change the contents of either box.

In the upper-right corner of the dialog box, leave Numeric selected, because this chart will use a normal numeric scale. You needn't do anything in the Maximum or Minimum text boxes, because you're not setting a maximum or minimum value for the scale. Works automatically adjusts the scale depending on the numbers you choose to chart.

Finally, the Draw Grid and Label Chart check boxes are both checked. Leave them as they are. If you did not want a grid or labels on your chart, you'd click the appropriate box to remove the checkmark.

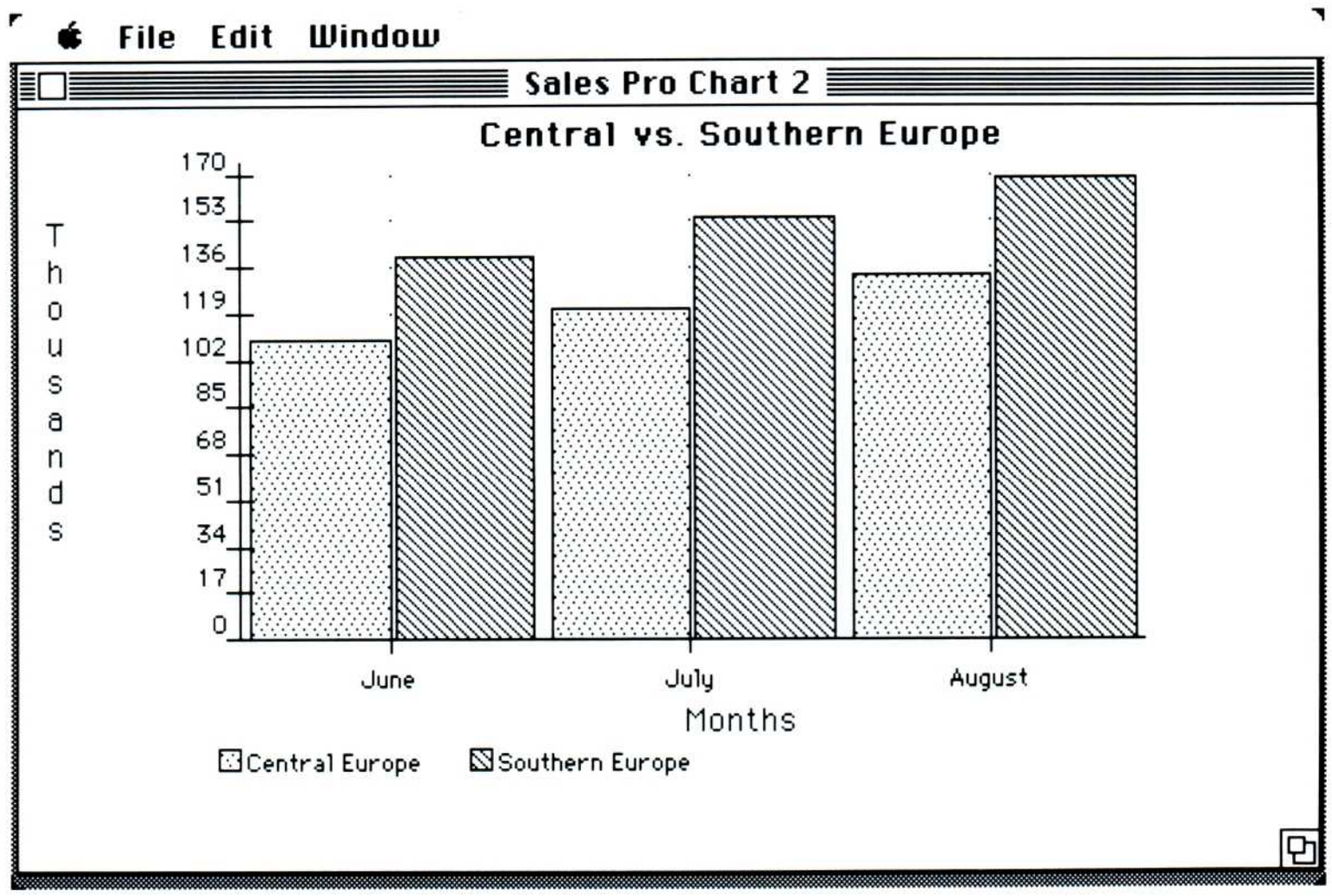
Plot the chart

With the dialog box filled in, you're ready to see some pictures.



■ Click Plot It!

Works opens a window for the chart, draws it, and stores the chart definition with your document.



Your chart now compares the forecasted sales in southern Europe with those in central Europe.

Change the type of chart

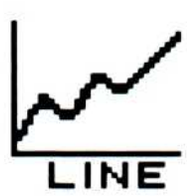
Change the Type of Chart

Bar charts present information differently than line charts. Bar charts highlight quantities next to each other. Line charts show trends. An upward line means an upward trend, for example. With the Spreadsheet's charting capability, you can review your numbers both ways — or in combination.

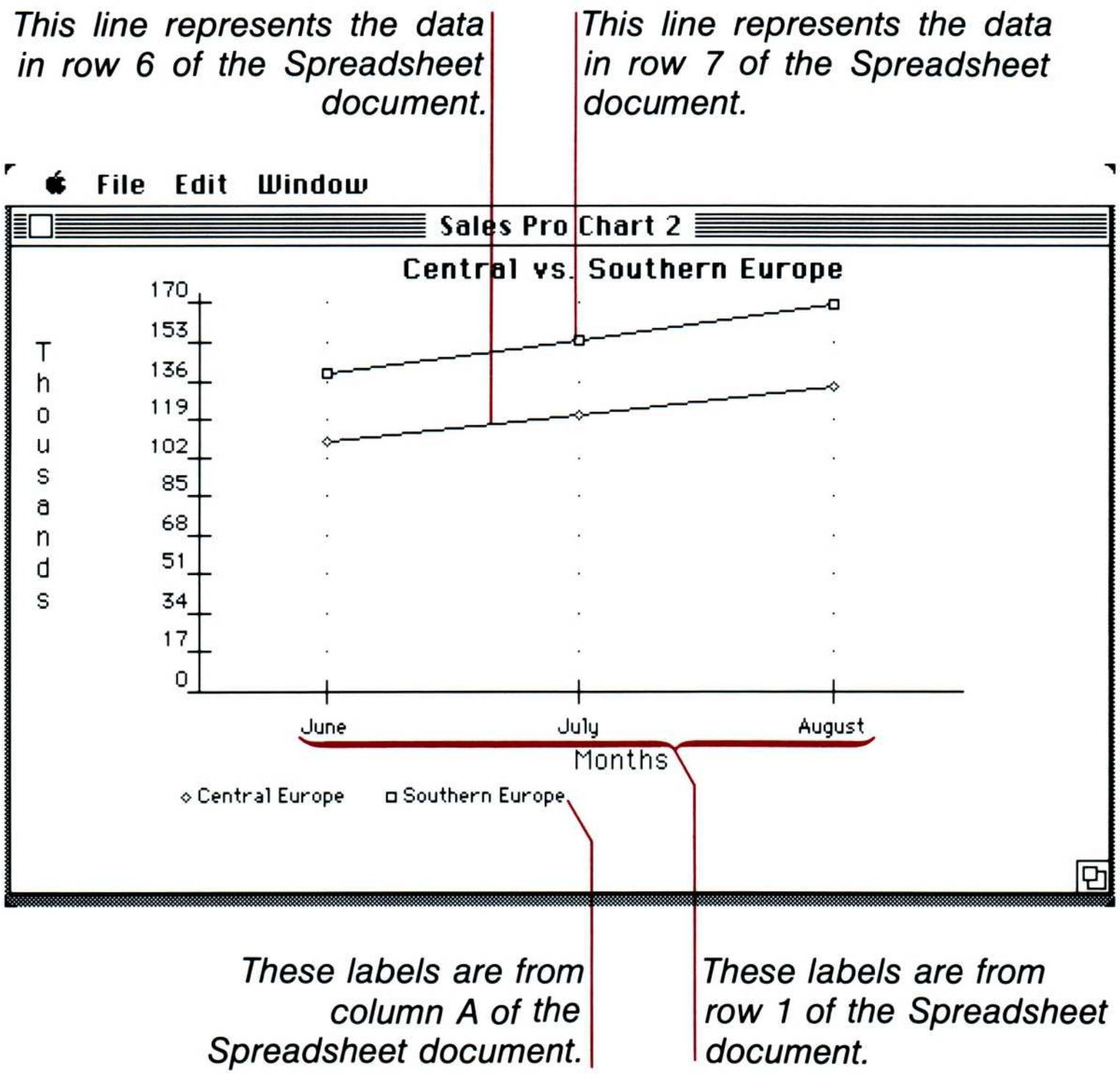
Change to a line chart

For your Sales Projections document, you may get a different perspective by switching to a line chart.

1. Double-click anywhere in the chart window.
   Works displays the Series Chart definition dialog box.
2. Click the line chart icon.
3. Click Plot It!



Works plots your new line chart and stores the definition with your document, so when you save the document, the chart definition will be saved along with it.



The trends look good. There's a peak in southern Europe during the month of August because you're planning a highly publicized race around the heel of the Italian boot at that time.

Print Your Chart

Print your chart

You can print a chart for a presentation or for review at a later time. This section is optional. If you have a printer, set it up according to the instructions in your Macintosh owner's guide and the manual for your printer. Make sure you have paper in your printer before printing.

To print the chart:

1. Make sure the chart window is open and activated.
2. Choose Print Window from the File menu.

Works prints the chart.

To close the chart window:

- Click the close box.

Summary

Summary of Spreadsheet tasks

In this chapter, you've performed many tasks with the Works Spreadsheet. This summary briefly reviews the tasks you just learned. For more detailed procedures, return to the appropriate part of the chapter.

To do this	Follow these basic steps
Open an existing Spreadsheet file from the Open dialog box	1. Select the filename. 2. Click Open.
Change a value	1. Select a cell containing a value. 2. Type a value. 3. Click the enter box.
Insert a row	1. Select a row. 2. Choose Insert from the Edit menu.
Set up a formula	1. Select a cell to contain the formula. 2. Type an equal sign. 3. Insert numbers, cell references, operators, and functions. 4. Click the enter box.
Copy cell contents into empty cells below	■ Use Fill Down from the Edit menu
Save with a different name	■ Use Save As from the File menu.
Change column width	■ Drag the edge of the column heading.

To do this	Follow these basic steps
Add bold type	■ Use Bold from the Format menu.
Change number formats	■ Use the Format menu.
Protect cells	■ Use Protected from the Options menu.
Recalculate with a new value	■ Type a new key value and enter it, then watch the numbers change.
Save changes, replacing the original file	■ Choose Save from the File menu.
Print a document	■ Choose Print from the File menu.

For more information about these and other Spreadsheet commands, see "The Spreadsheet" in *Using Microsoft Works*.

Summary of charting tasks

In this chapter, you've also practiced using commands from the Chart menu in the Spreadsheet.

To do this	Follow these basic steps
Define a new chart	■ Use New Pie Chart or New Series Chart from the Chart menu.
Plot a chart	■ Click Plot It! in a chart definition dialog box.
Size a window so you can see both a Spreadsheet document and a chart at the same time	■ Drag the size box in the window.
Store a chart definition with the Spreadsheet document	■ Click the close box or Plot It! in the chart definition dialog box.
Print a chart	■ Choose Print Window from the File menu.

For more information about these and other Chart commands, see Chapter 14, "Charting a Spreadsheet Document," in *Using Microsoft Works*.

Where To Go from Here

To learn more about the Spreadsheet and its charting capability, and to start using it for your own purposes, see "The Spreadsheet" in *Using Microsoft Works*.

For an explanation of all the menu items in the Spreadsheet (including the Chart menu), see Chapter 16, "Spreadsheet Command Reference," in *Using Microsoft Works*.

If you'd like to take a break from using Microsoft Works for now, the next section shows you how to close the document or quit.

To Take a Break for Now

You may want to take a break before trying another tool to learn more about Works.

To leave the Spreadsheet

To leave the Spreadsheet for now so you can take a break and then use another tool:

- Choose Close from the File menu, or click the close box in the title bar.

  When Works asks if you want to save changes, click No so that someone else can use these lessons with the original file.

Works closes the document and returns you to the Open dialog box.

To quit Works

If you want, you can quit Works entirely at this point.

To quit the Works program:

- Choose Quit from the File menu.

Works closes the document and returns you to the Finder.

5 Communications: Changing Settings and Adding a Phone Number

As the product manager for the new Mountain Wheeler bicycle, you have to organize promotional events around the world. You've arranged for the Acme Information Service, an international message service, to set up the Wheeler Hot Line. Anyone with a computer can dial the hot line to send and read messages about the Mountain Wheeler.

In this chapter, you'll adjust your settings and add a number to your computerized phone book, so you can contact the Wheeler Hot Line yourself.

The lessons in this chapter will show you how to:

- Create a new Communications document.
- Change settings to match those of another computer.
- Add a new phone number to your electronic phone book.

If your Macintosh is turned off, see "Getting Started" in "Welcome" to start Works.

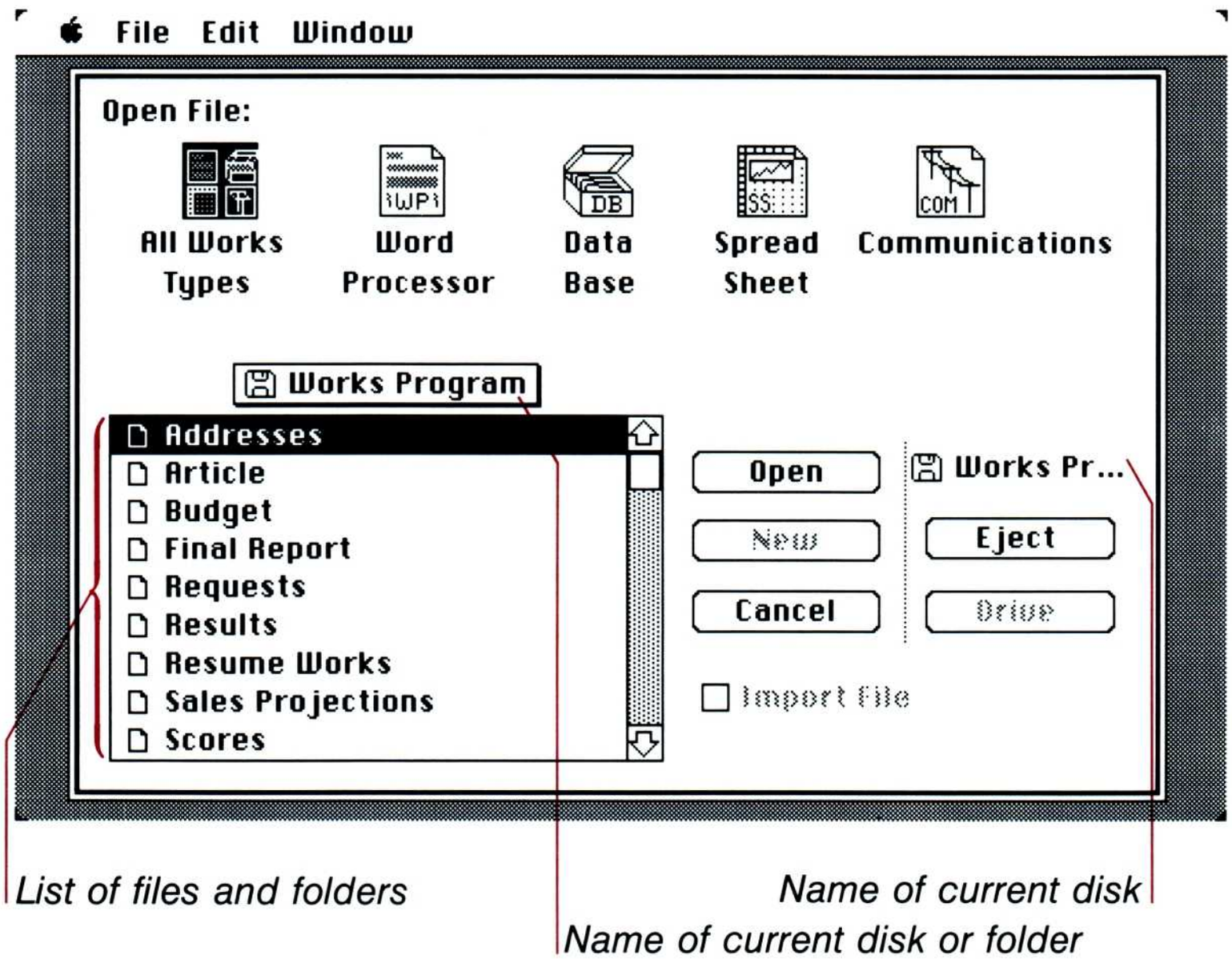
To actually use Works Communications for sending and receiving information, you need a modem or an acoustic coupler hooked up to your Macintosh. These devices convert computer signals into voice-frequency signals that can travel over the telephone lines. You don't need one for this lesson, though.

Create a New Document

Create a new document

Communications documents are like other Works documents.

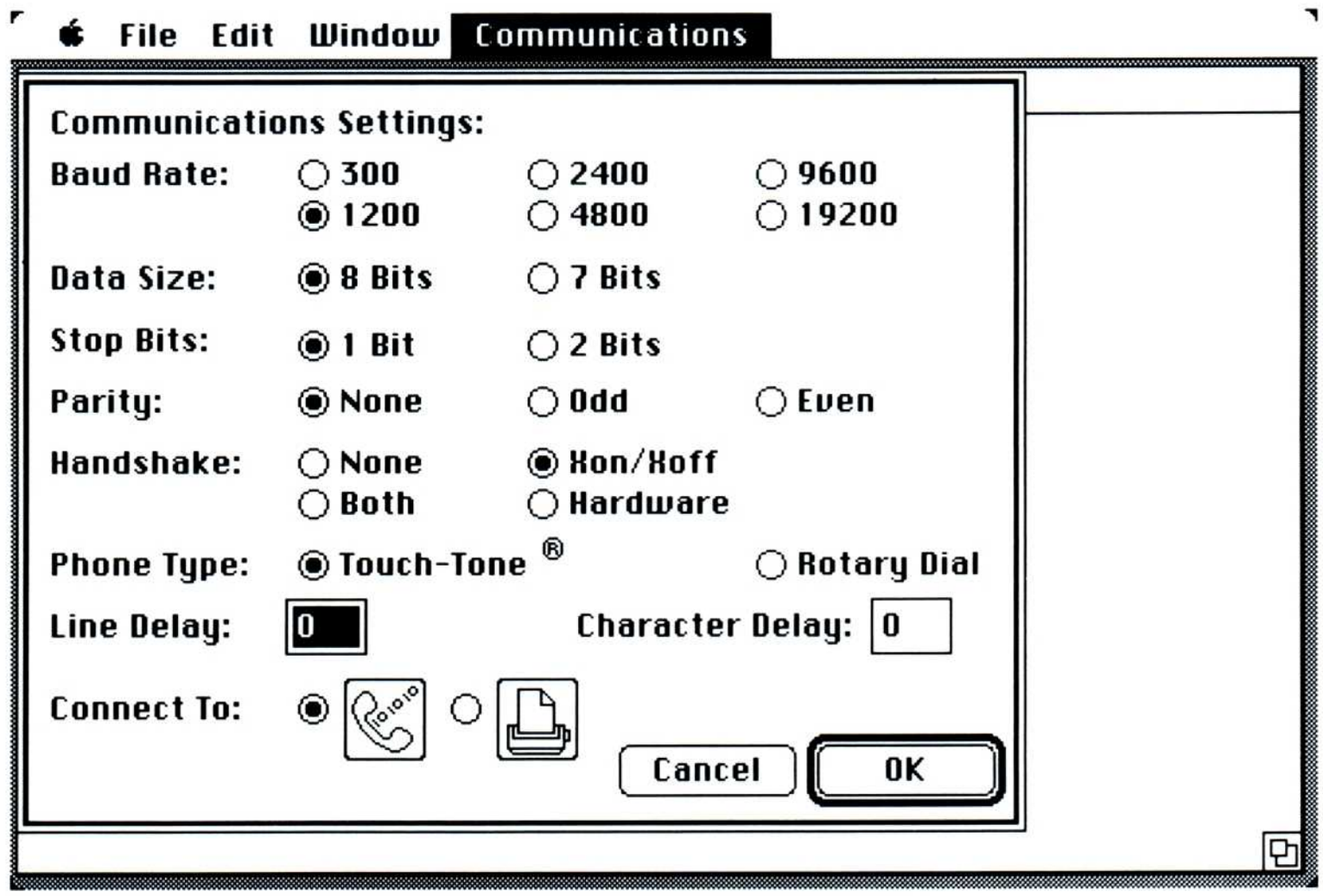
When you start Works, you'll see the Open dialog box containing a list of all files and folders on the disk.



There isn't a sample Communications file on your disk, so you'll need to start from scratch by creating a new document. You can create a new document from the Open dialog box.

1. Click the Communications icon.
2. Click the New button.

Works creates a new Communications document and puts it on your desktop, then opens the Settings dialog box in front of it.



Change the settings

Change the Settings

Computers don't always talk the same language over the phone. To communicate with another computer, you need to be sure that the settings in the dialog box match those of the other computer. When you're calling another computer, like the one with the Wheeler Hot Line, you may have to adjust your settings.

Although the Wheeler Hot Line and Acme Information Service aren't real, you'd follow the same procedure to adjust your settings for a real service, like Dow Jones News/Retrieval or CompuServe. The information service will provide you with the correct settings when you subscribe.

Change the baud rate

Baud Rate The baud rate is the data transmission speed, measured in the number of bits that can pass through a communications line in a second. The Acme Information Service sends and receives information at 300 baud.

- Click 300 to change the baud rate.

Change the data size

Data Size Each character that you send — a letter, number, or symbol — is made up of bits. A bit is a 1 or 0. Bits are arranged according to a code to represent each character. The Acme Information Service uses seven bits to represent a character.

- Click 7 Bits to change the data size.

Stop bits, parity, and handshake

Stop Bits Stop bits tell a receiving computer when one character ends and the next one begins. As with most information services, Acme expects only one stop bit, the current setting, so you don't have to make an adjustment.

Parity Some computers use the parity setting to check for the accuracy of information being transmitted. Acme doesn't require this check, so leave the setting at None.

Handshake Sometimes the Acme computer sends out information so fast that another computer can't keep up. When this happens, your computer needs to say so. That's where the handshake setting comes in.

The Xon/Xoff option sets up a handshake. (The X stands for transmission.) When your Macintosh gets behind, it can send an Xoff signal to tell the other computer to turn off transmission. When it's ready to receive some more information, it sends an Xon signal.

Since the setting for Xon/Xoff is already chosen, you don't need to adjust anything.

Change the phone type

Change the Phone Type If you have a touch-tone telephone, you're all set. If you have a dial phone:

- Click Rotary Dial.

Now Works knows how to dial your telephone.

Other Settings Two other settings, for line delay and character delay, allow for pauses in fast transmissions. These settings aren't used by the Wheeler Hot Line.

The last setting, for the connection port, comes set for the modem port. You don't have to change this setting, either.

Confirm the settings

With all your settings adjusted, you're ready to move on to the phone book.

- Click the OK button.

Works returns you to the empty Communications document.

Add to the phone book

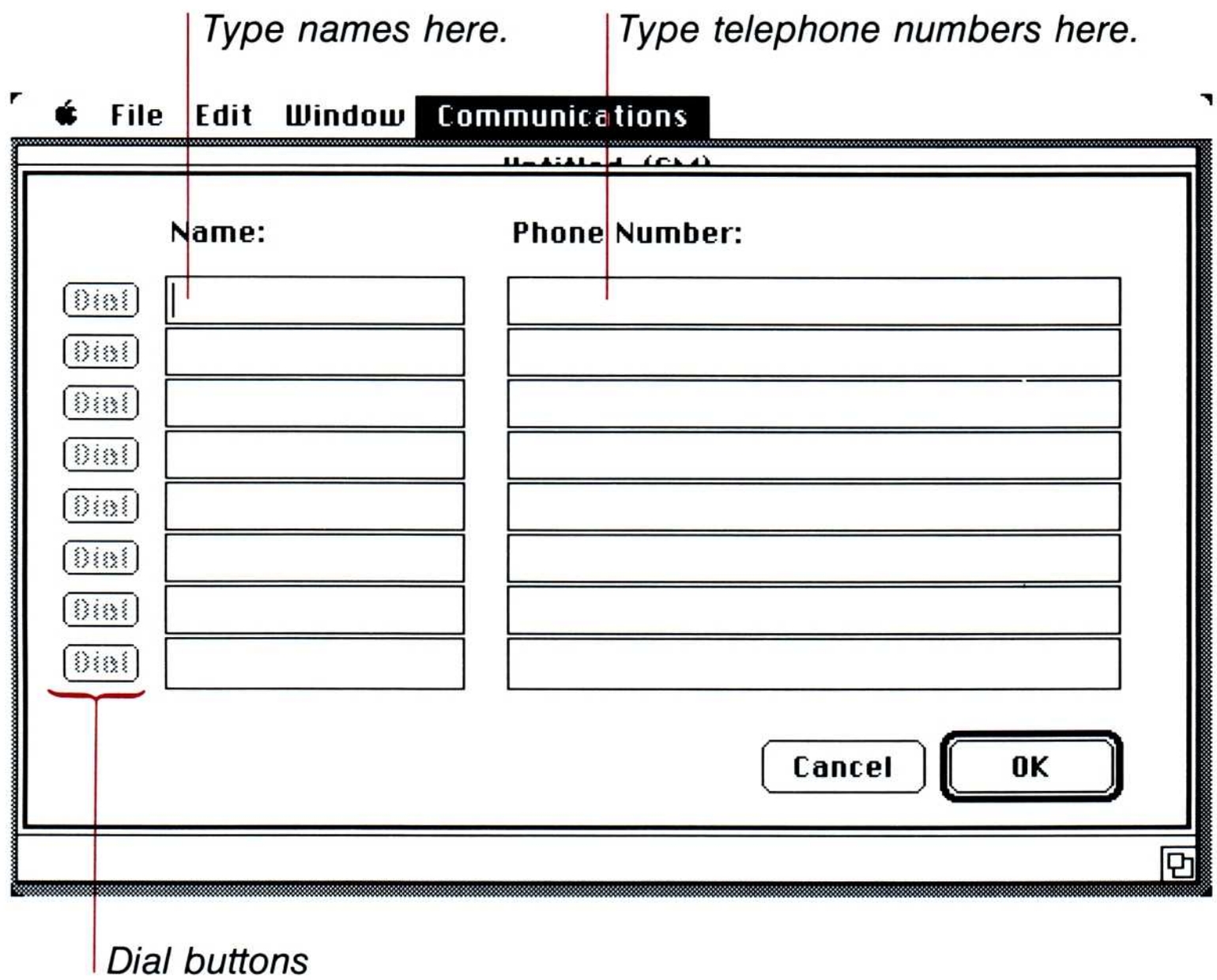
Add to the Phone Book

Works can hold up to eight phone numbers for each Communications document. When you have a number in the electronic phone book, you can click the Dial button next to that number, and Works will automatically dial it. This procedure applies to Hayes-compatible modems only.

Since the Wheeler Hot Line is new, you don't have the number in your phone book yet. Now's the time to add it.

- Choose Dial from the Communications menu.

The Dial dialog box appears.



Add the name of the service

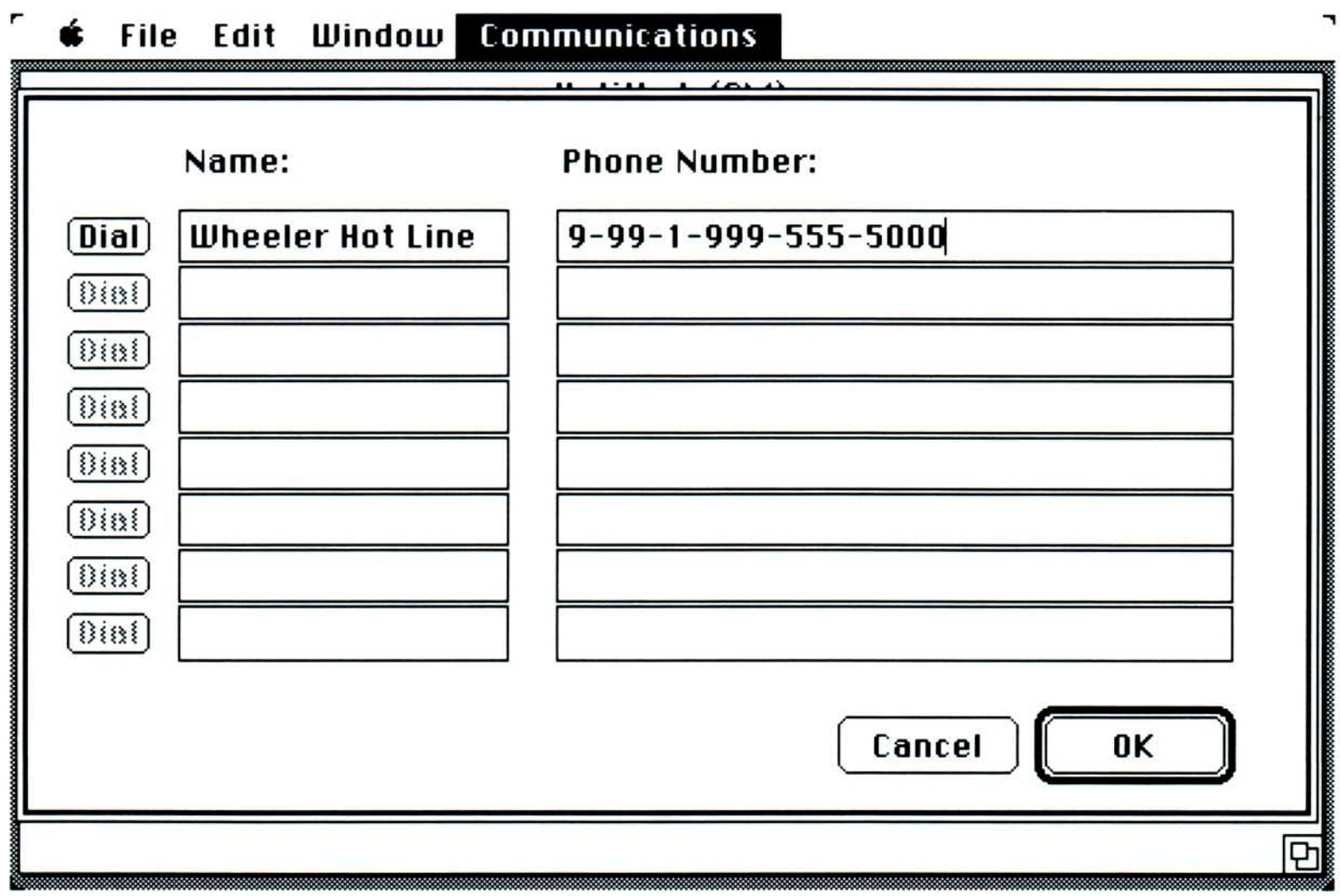
So that you'll know what each number is for, Works lets you type a name to go with it. The insertion point blinks in the first blank Name box, waiting for you to type a name.

- Type *Wheeler Hot Line* (don't press the Return key yet).

Add a phone number

When you make long-distance calls for the Wheeler Bicycle Company, you have to dial a number for the outside line, an accounting code, and a long-distance service. You can save yourself the work by having your modem dial the numbers automatically.

1. Press the Tab key to move the insertion point to the Phone Number box opposite the name you just typed.
2. Type *9-* to get an outside line from your office phone.
   The hyphens in this procedure are optional.
3. Type *99-* for the accounting code.
   (The Wheeler Bicycle Company uses accounting codes to keep track of their telephone volume.)
4. Type *1-* to engage long distance.
   Now you can type the hot line's phone number:
5. Type *999-555-5000*



6. Click the OK button.

Works stores the name and number you typed and returns you to your Communications document.

Of course, since this was all a simulation, you can't really call the Acme Information Service. But now you know what it's like to get ready to use a real information service. For a real information service, you would call the number by clicking the Dial button to the left of the number you want in the Dial dialog box.

Summary

In this chapter, you've used some of the Communications commands to prepare for connecting with an information service. This summary briefly reviews the tasks you just learned. For more detailed procedures, return to the appropriate part of the chapter.

To do this	Follow these basic steps
Create a new Communications document from the Open dialog box	1 Click the Communications icon. 2 Click New.
Adjust your settings	■ In the Settings dialog box, click the appropriate settings or type the appropriate numbers.
Add a number to the phone book	1 Choose Dial from the Communications menu. 2 Type the name and number.
Dial a number automatically	■ In the Dial dialog box, click the Dial button to the left of a phone number.

Where To Go from Here

To practice advanced tasks with the other Works tools, see the other chapters in this manual.

You may want to learn more about Communications and start transmitting on your own. For detailed instructions, see "Communications" in *Using Microsoft Works*.

For an explanation of all the menu items in Communications, see Chapter 19, "Communications Command Reference," in *Using Microsoft Works*.

If you'd like a break from using Microsoft Works, the next section shows you how to close the document or quit.

To Take a Break for Now

You may want to take a break before trying another tool to learn more about Works.

To leave Communications

To leave Communications for now so you can take a break and then use another tool:

1. Choose Close from the File menu, or click the close box in the title bar.

   Works asks if you want to save changes to the Communications document.

2. If you want to save this document on a disk, click Yes. Otherwise, click No.

Works closes the document and returns you to the Open dialog box.

To quit Works

If you want, you can quit Works entirely at this point.

To quit the Works program:

- Choose Quit from the File menu.

Works closes the document and returns you to the Finder.

6 Putting the Tools Together: A Final Report

With help from Microsoft Works, you were able to organize the Great Alpine Race, promoting the Mountain Wheeler bicycle. The race was a tremendous success, and Hiram Wheeler has asked you to prepare a final report.

In this chapter, you'll prepare your final report by integrating pieces from the Database and Spreadsheet — including a chart — into a new Word Processor document. When you're finished, you'll be able to merge some names from the Database and send the final report to Hiram Wheeler, with personalized copies for each member of the board of directors of the Wheeler Bicycle Company.

The lessons in this chapter will help you put all your data together. You'll learn to:

- Create a new Word Processor document and prepare it to contain merged information.
- Bring windows to the front.
- Copy Database information into the Spreadsheet to make a bar chart.
- Copy a chart into the Word Processor.
- Add a label to the chart in the Word Processor.
- Copy a table from the Database into the Word Processor.
- Merge entries from the Database into the Word Processor, and print the final report.

If your Macintosh is turned off, see "Getting Started" in "Welcome" to start Works.

Open the File

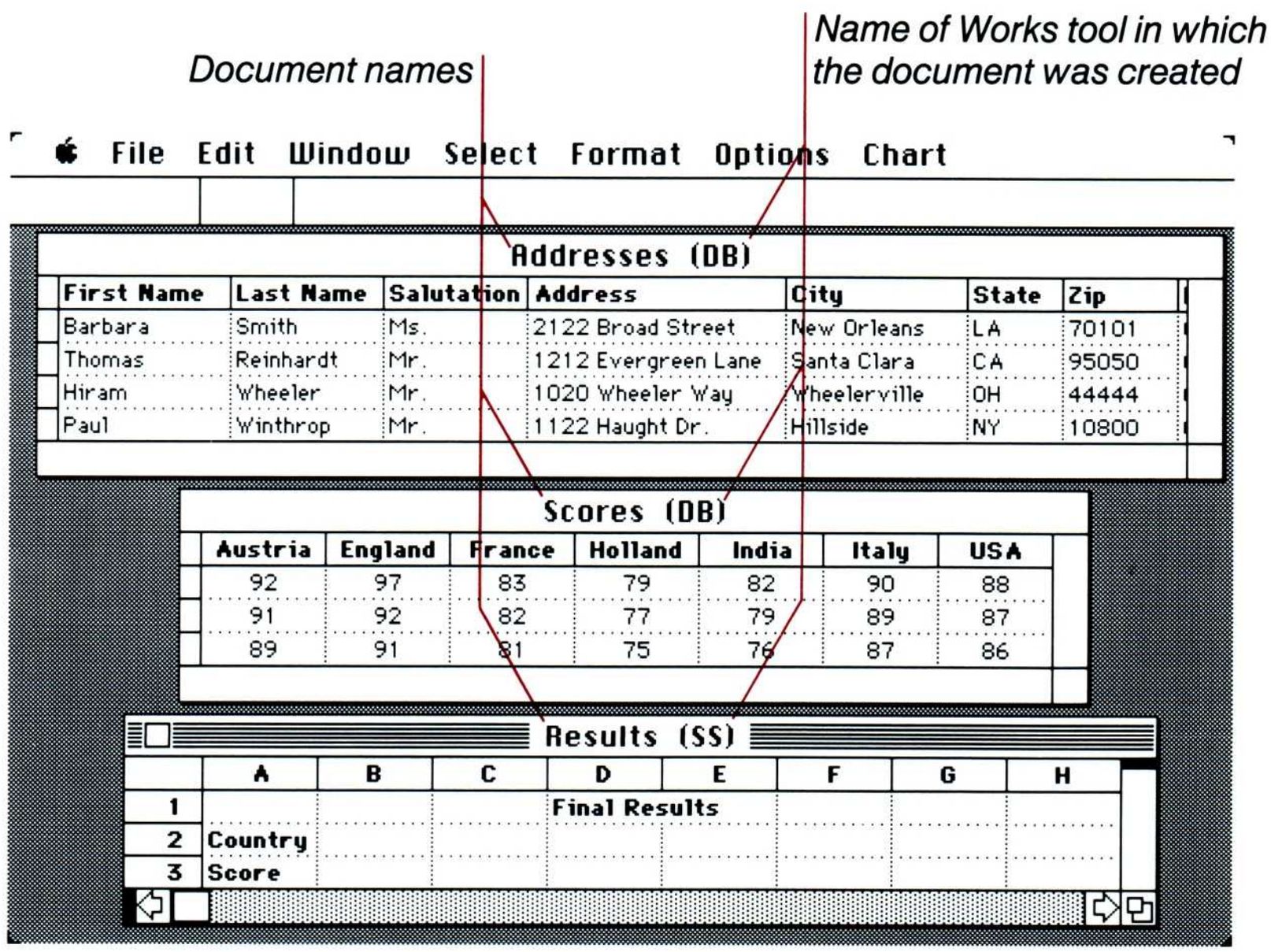
You'll be working with files that are stored on your Works Program disk. The names of the three files you'll use to compile your final report are stored in a file named "Final Report." For information on storing the names of several documents, see "Quitting Works" in Chapter 1 of *Using Microsoft Works*. You can open the Final Report file from the Open dialog box.

Open the file

To open the Final Report file:

1. Select Final Report.
2. Click the Open button.

Works opens three windows containing three separate documents: Addresses, Scores, and Results.



The Database document, Addresses, contains names and addresses of the Wheeler board of directors. The Database document, Scores, contains the top three scores of each of the seven highest scoring teams that competed in the Great Alpine Race. The Spreadsheet document, Results, is ready for you to copy in the top score from each team.

These documents all include some information for your final report. But you also need a document to hold everything together — a Word Processor document.

Create a new Word Processor document

Create a New Word Processor Document

First, you need to create a new Word Processor document to receive all your merged information and become your final report.

1. Choose New from the File menu.
2. The Word Processor icon is already highlighted, so just click the OK button.

Works opens a new Word Processor window on top of the other windows.

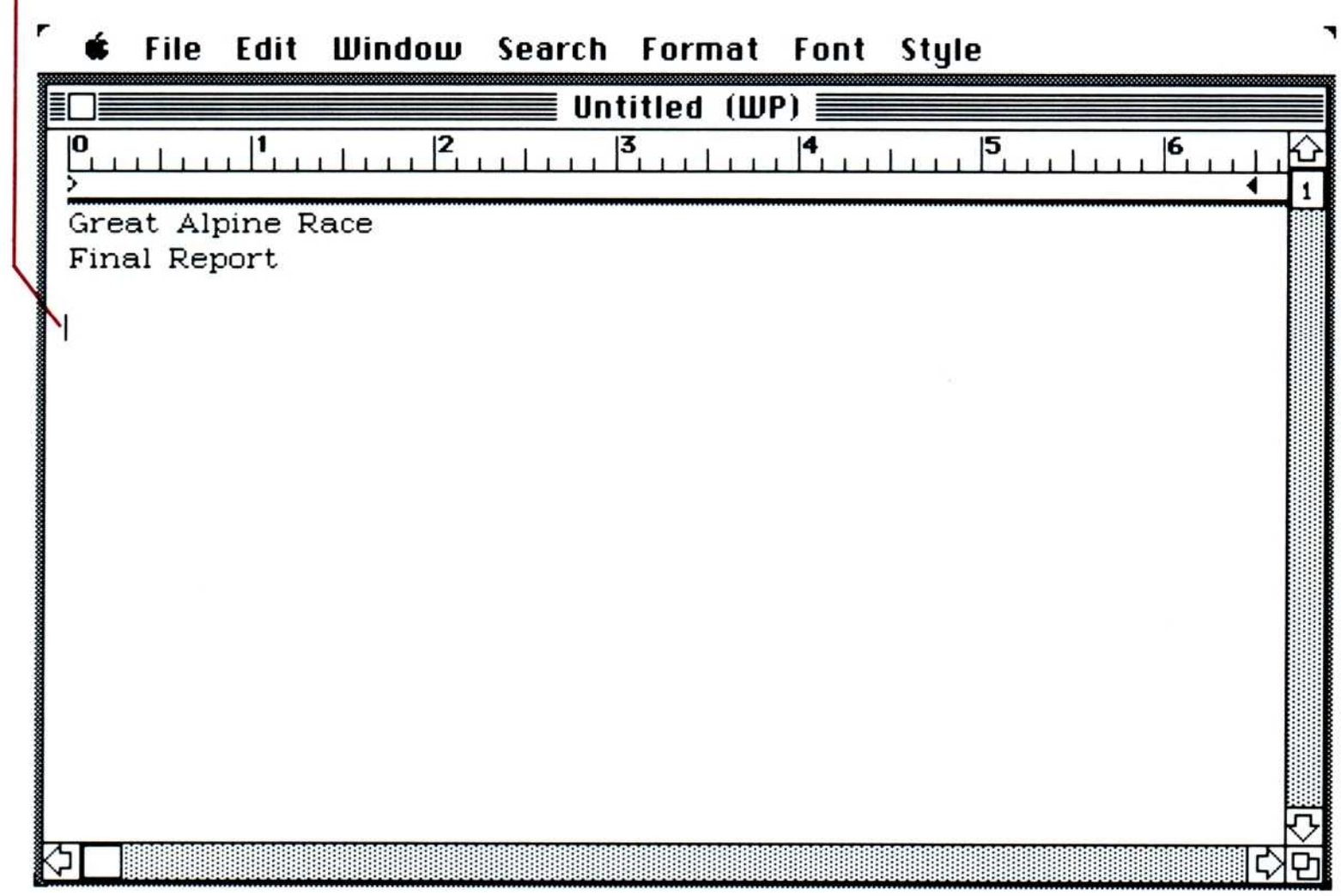
Begin the Report

Start with a title

At this point, you haven't given the report a title. (This differs from your document title, which you will type when you save the Word Processor document.) The insertion point is at the upper-left corner of the Word Processor window, ready for you to type a title.

1. Type *Great Alpine Race*
2. Press the Return key.
3. Type *Final Report*
4. Press the Return key twice.

The insertion point should be at the left margin.

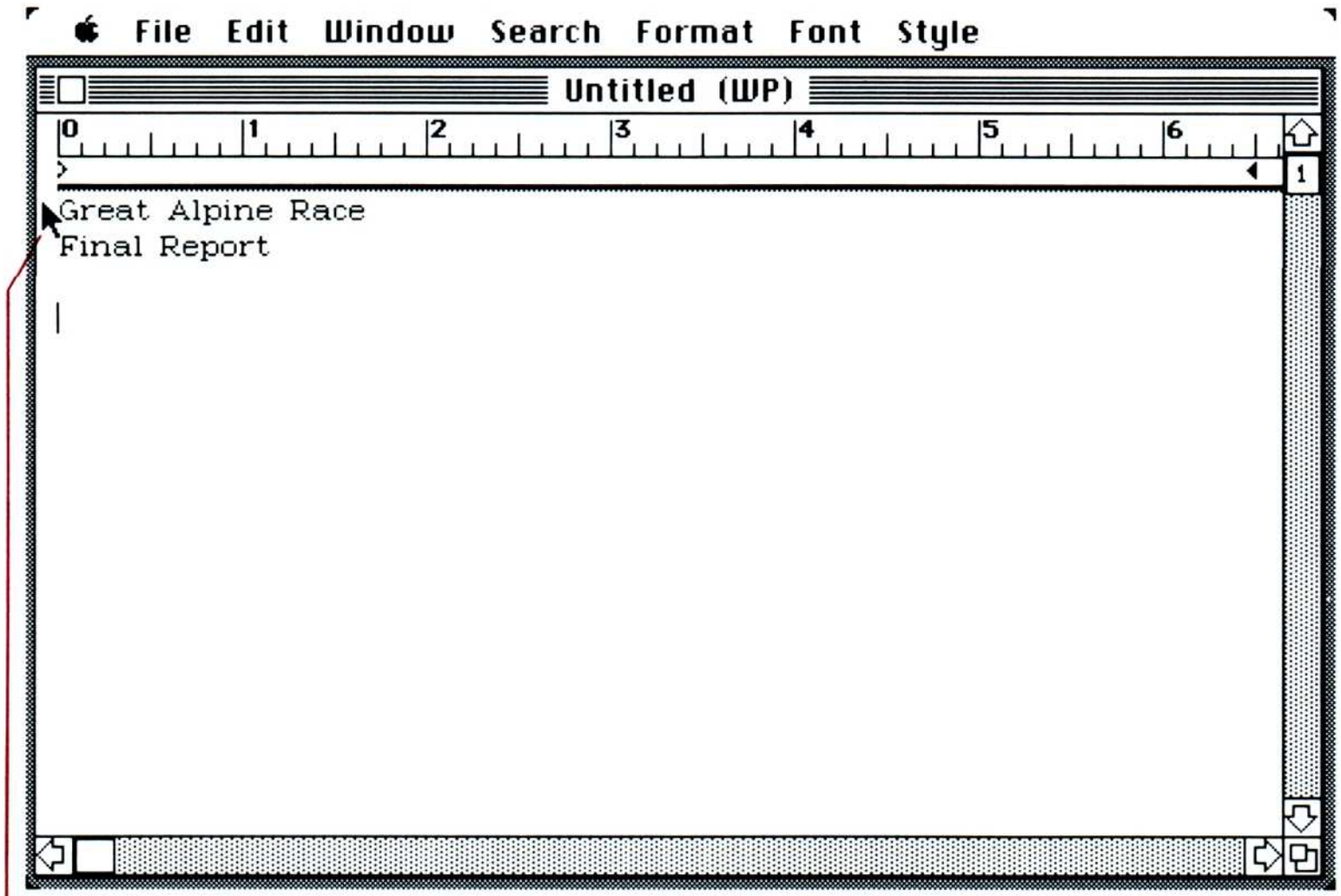


Add emphasis to the title

But this title doesn't really jump out at you — yet. Try a different type size and style to add emphasis.

1. Move the pointer to the left edge of the first line until it turns into an arrow.

   The arrow shows you that you can select a whole line at a time.

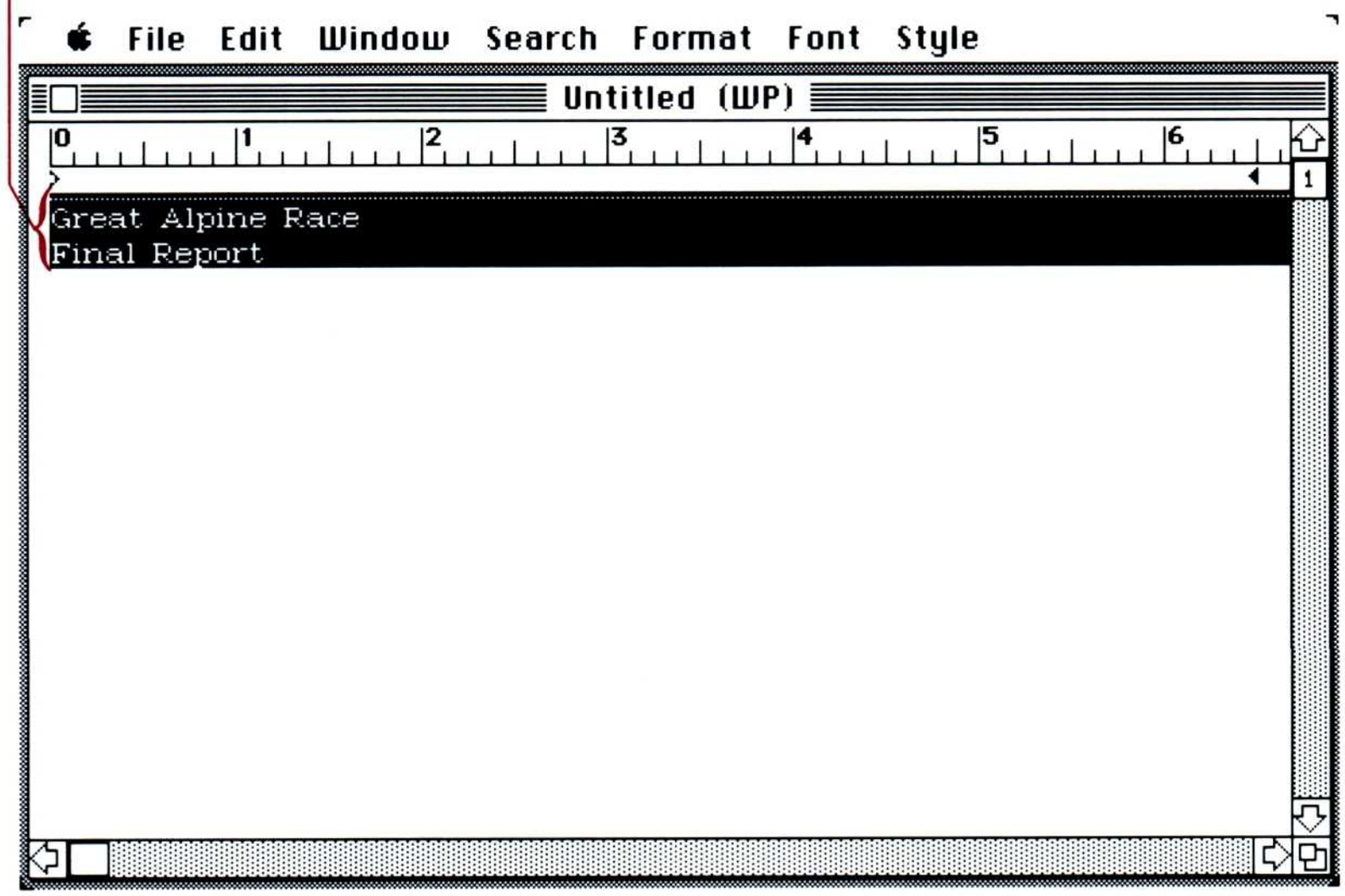


When you move the pointer into the blank area at the left edge of the window, it turns into an arrow.

2. Select both lines by dragging from the first to the second line.

   Works highlights the selection.

The selected title should look like this.



Now you can center it and change its style and size with the Format and Style menus.

3 Choose Centered from the Format menu.

4 Choose Outline from the Style menu.

5 Choose 18 Point from the Style menu.

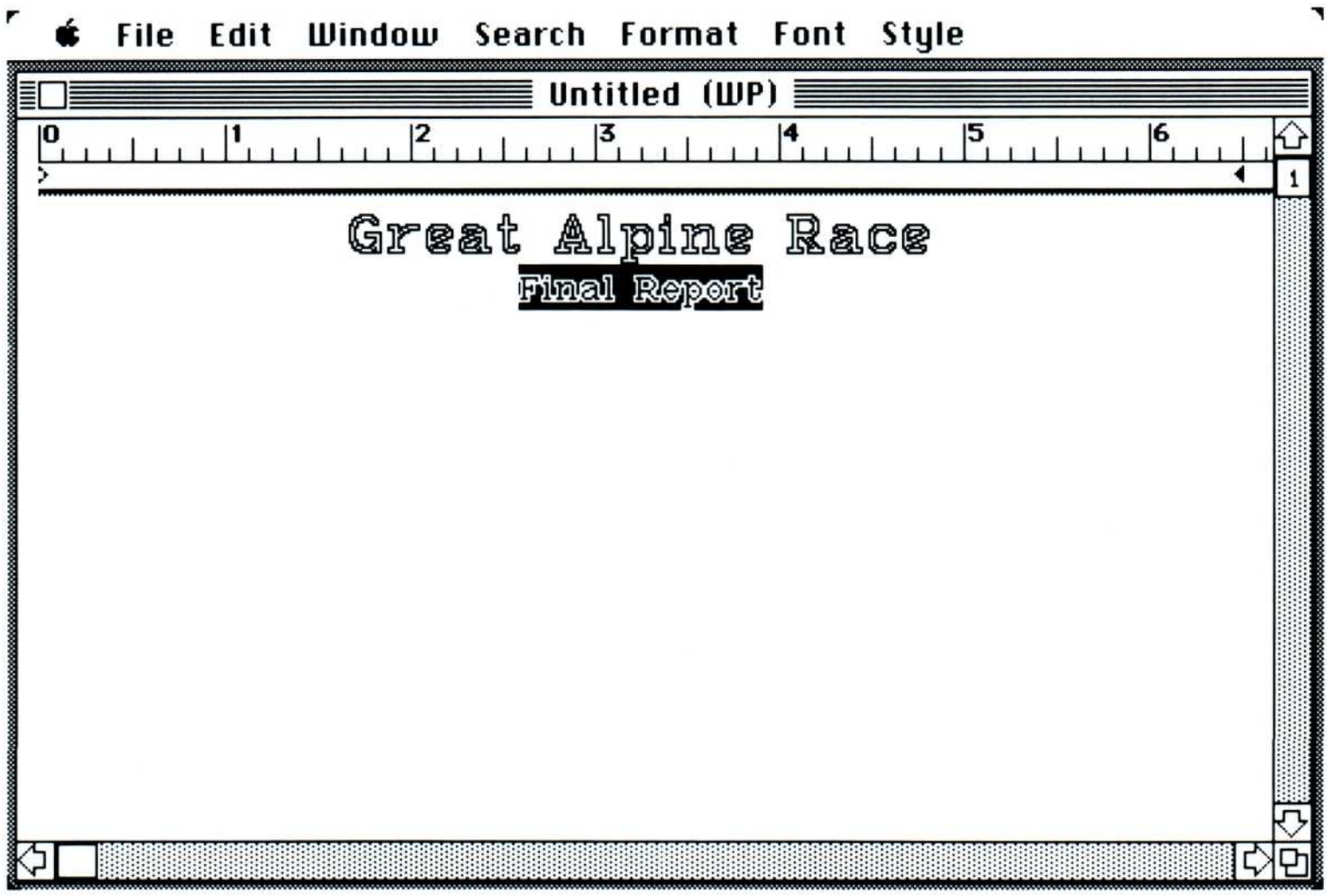
Adjust the style of the title

Now that's a title that will get attention! Maybe too much attention — tone down the second line by making it a little smaller:

1 Select the words "Final Report".

2 Choose 12 Point from the Style menu.

Perfect! The title is all set.



Now you're ready to get on with the rest of the report.

- Click at the left margin on the line below the title.

Prepare To Merge

You're sending this report to the board of directors of the Wheeler Bicycle Company. You could prepare a separate document for Mr. Wheeler and each member of the board of directors —but that's a lot of unnecessary work. Using the Works merge capability, you can print personalized documents for each of them. You type the original document only once. Works will customize the documents by merging information from the Database.

Merging information includes two steps: preparing to merge, and merging by printing the document with Print Merge. When you prepare to merge, you insert placeholders into the Word Processor document. A placeholder is made up of the name of a Database document followed by a field name. "Addresses:Last Name" is an example of a placeholder. When you print, Works looks for the placeholders and replaces them with specific information from the specified Database document and field. For example, "Addresses:Last Name" might be replaced in your final documents with "Smith" or "Reinhardt."

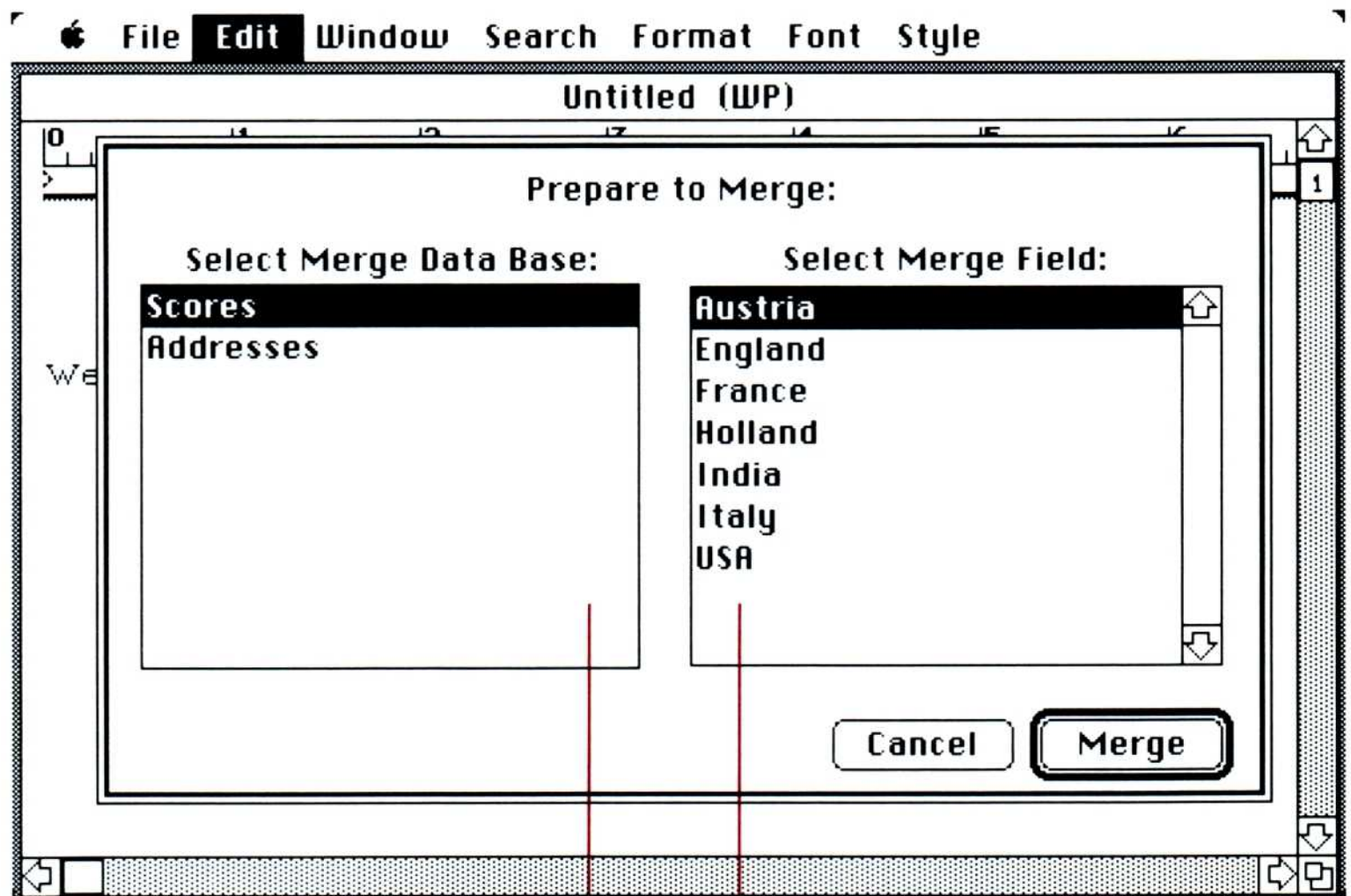
Start typing the report

In this section, you'll prepare to merge information from the Database document, Addresses, into the Word Processor document. (At the end of this lesson, you'll see how to print the merged documents.)

1. Press the Return key to create a blank line.
2. Type *Well,* followed by a space.

   Don't forget the comma and the space. That's enough to get the report started. This is a good place to add the name of each board member.
3. Choose Prepare to Merge from the Edit menu.

   The Prepare to Merge dialog box appears.



This list box contains the names of all open Database documents.

This list box contains the field names of the document highlighted in the left list box.

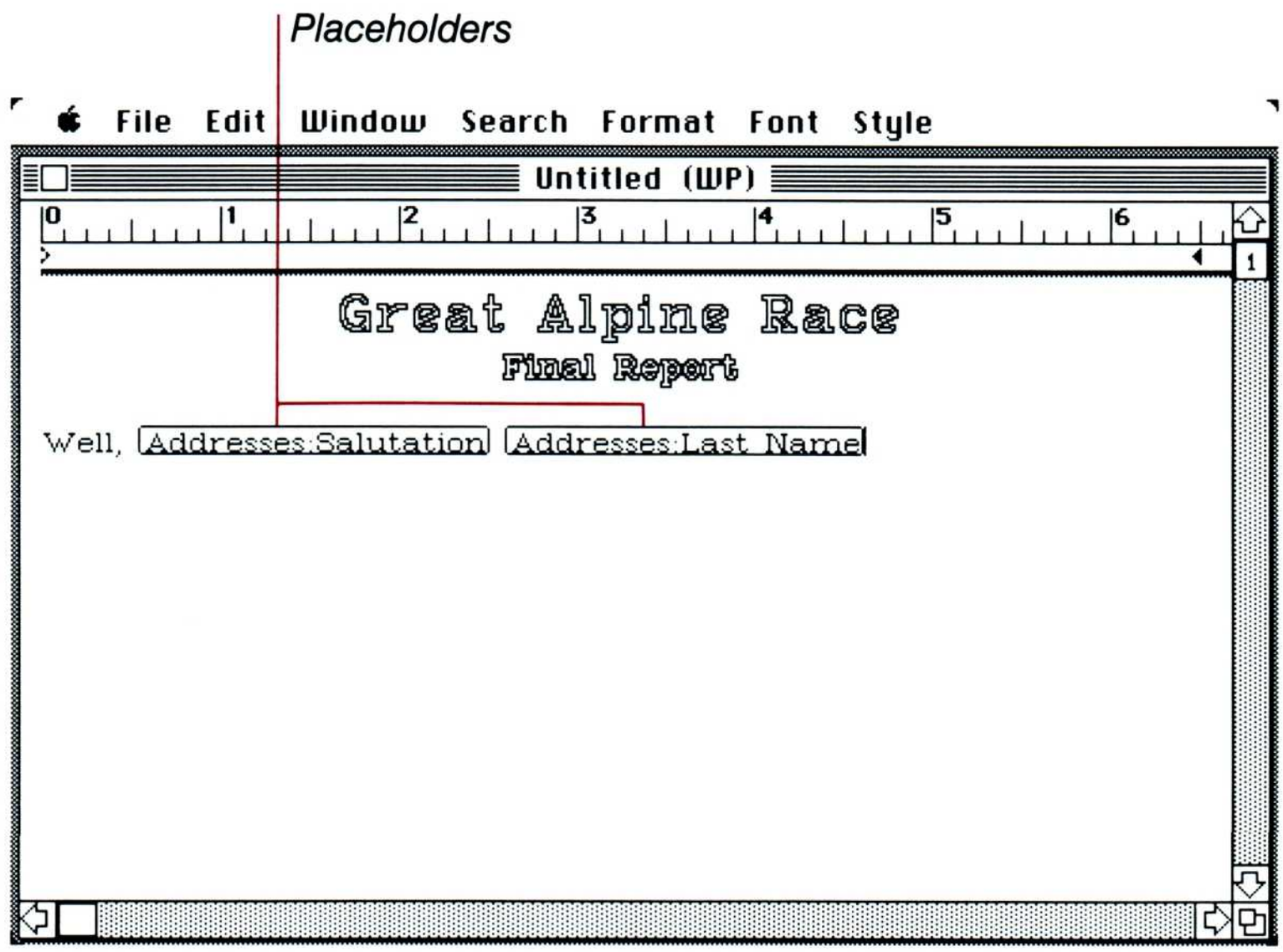
Insert placeholders

To tell Works where you want the board members' names to appear, you insert placeholders. To insert a placeholder, you select a Database document and a field name from the document in the Prepare to Merge dialog box. For example, since you're sending this report to Mr. Wheeler and the board members, you want to include their names. The "Mr." in "Mr. Wheeler" is included in the Salutation field of the Addresses document. "Wheeler" is in the Last Name field. With these two placeholders, Salutation and Last Name, in the document, Works will automatically personalize each printed copy.

1. Select Addresses from the Select Merge Database list box.
2. Select Salutation from the Select Merge Field list box.
3. Click the Merge button.

   Works inserts the placeholder for the Salutation field into the document at the insertion point.
4. Press the spacebar once.
5. Choose Prepare to Merge from the Edit menu.
6. Select Addresses from the Select Merge Database list box.
7. Select Last Name from the Select Merge Field list box.
8. Click the Merge button.

Now both placeholders are in place. Works will know which document and field to pull information from, and where to put it.



When you print and merge, Works will replace the placeholders with information from each record in the specified Database document. Instead of printing "Well, Addresses:Salutation Addresses:Last Name", the first report will say "Well, Ms. Smith", the second will say "Well, Mr. Reinhardt", and so on.

See how the merged information looks

To see how the merged information will look in the final document:

- Choose Show Field Data from the Edit menu.

The merged Database information from the first record appears in place of the placeholders.

To return the placeholders:

- Choose Show Field Names from the Edit menu.

Type more text

To finish up the first paragraph:

1. Type , *the race is over! This chart shows the best performers:*
   Be sure to type the comma and the space before the first word.
2. Press the Return key three times to add two blank lines.

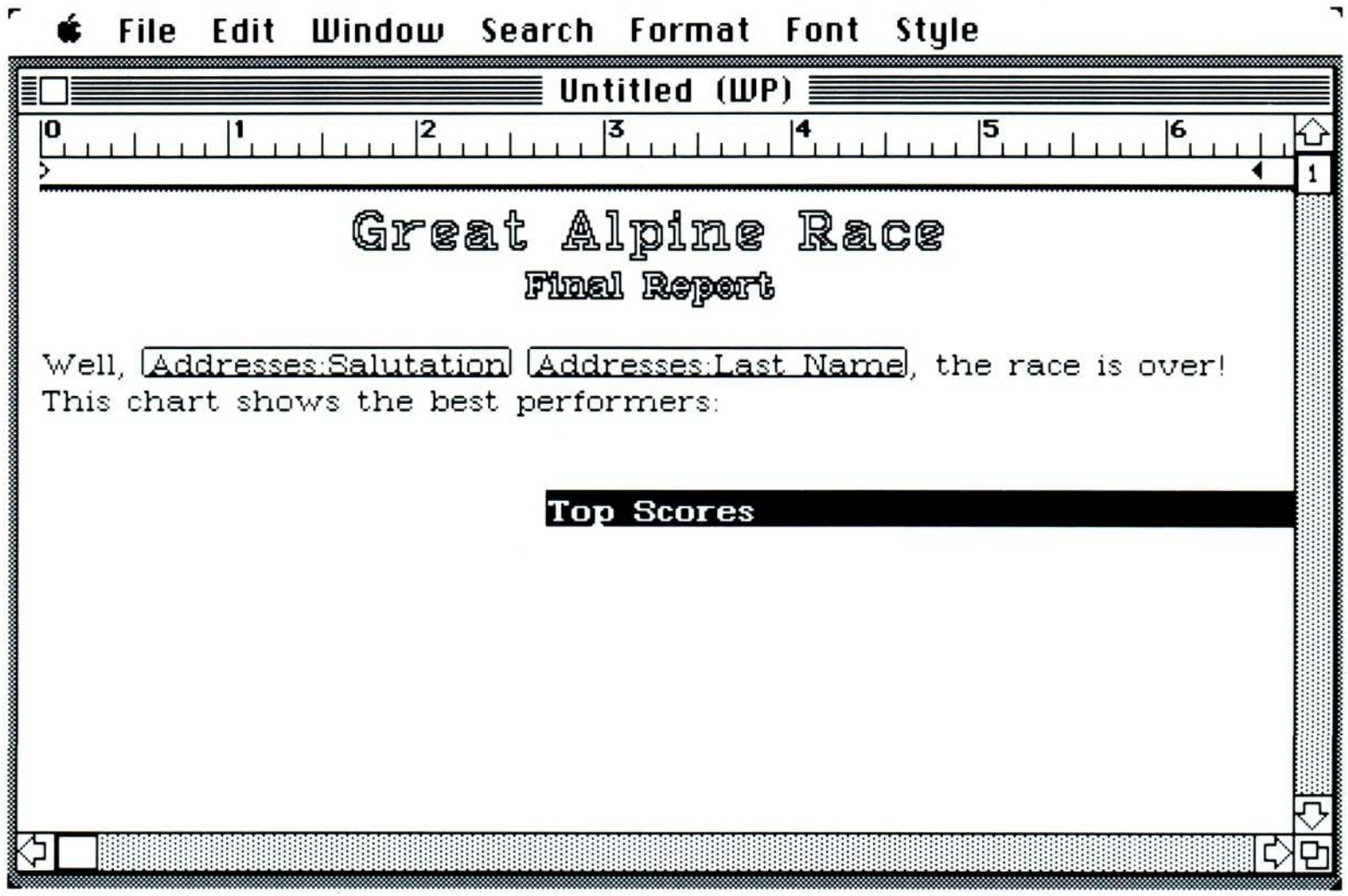
Add a chart heading

Now for the chart heading.

1. Type *Top Scores*
2. Press the Return key to move the insertion point to the left margin of the following line.
   Next, you will center the heading and put it in bold type to make it stand out.
3. Move the pointer to the left of the heading until the pointer becomes an arrow, then select Top Scores.
4. Choose Centered from the Format menu.
5. Choose Bold from the Style menu.

Now your report has a heading for the chart you will create.

You've made a good start on your document.



Save the document

You should save your documents often. Then, if the power fails, your information will be safe. Now is a good time to save this document. Since you haven't titled it yet, you'll use the Save As command to give the document a title and save it at the same time.

1. Choose Save As from the File menu.
2. Type *Report*
3. Click the Save button.

Works saves Report on the disk and displays the new name in the title bar of the window. You're ready for the chart — but you have to make it first. The next section will show you how.

Make a Chart from Database Information

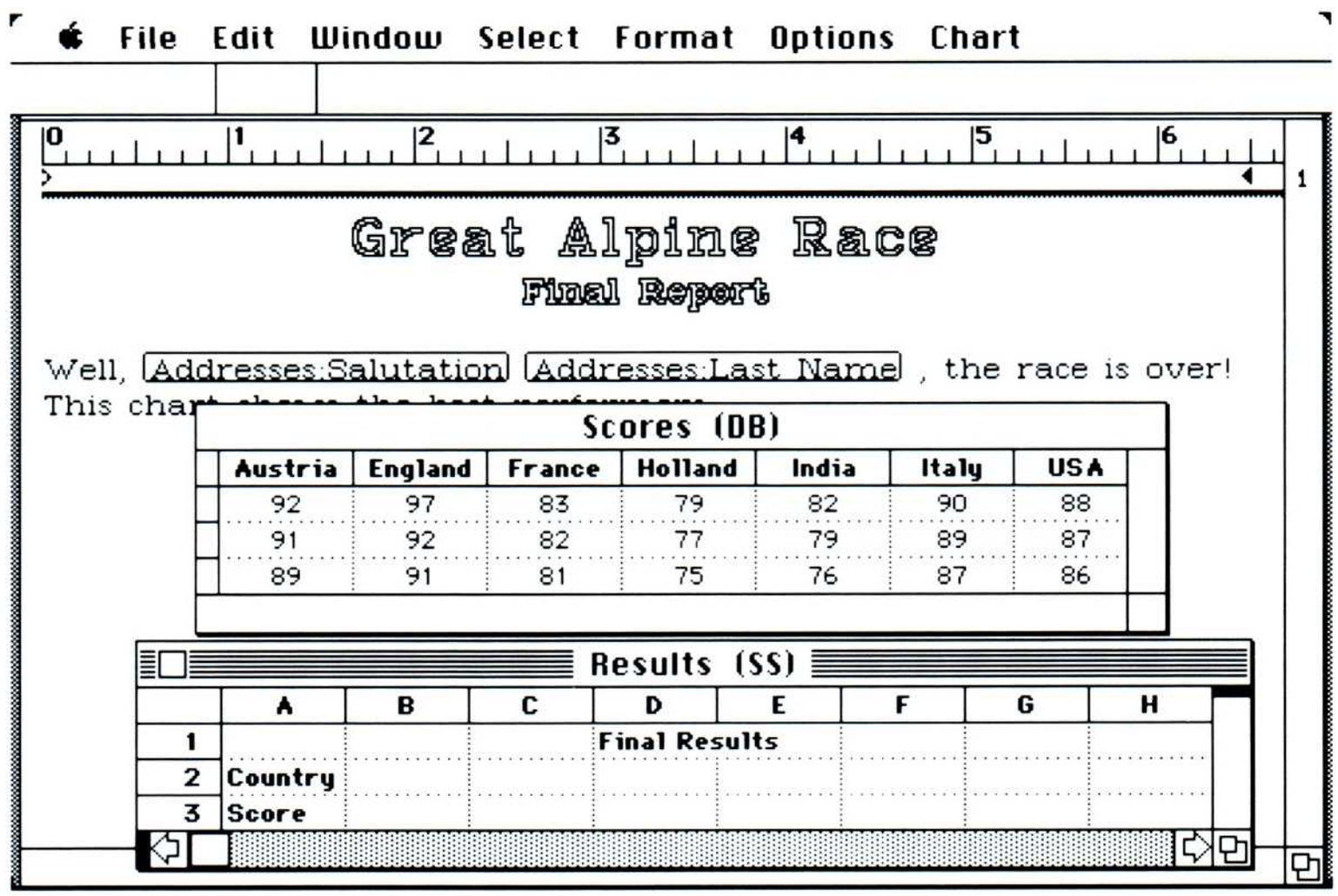
You don't have a chart yet, because the information you need is still in the Database document, Scores. You have to copy the top scores into the Spreadsheet document, Results, and make a chart from that. That's where integration comes in. With Works, moving information between tools is as easy as moving it within a document.

Bring windows to the front

The Scores and Results windows are behind the Word Processor document. With the Window menu, you can bring them to the front. The Window menu lists the names of all the documents currently on the desktop. You can bring a window to the front even if it's completely covered by another window.

1. Choose Scores from the Window menu.
2. Choose Results from the Window menu.

Now the Scores and Results windows are on top, where you can work with them. The Results window is active, because it's the last window you moved to the front.



Copy Database information into the Spreadsheet

You need to copy the top scores from the Great Alpine Race into the Results document, so that you can make a chart of those scores. The scores are presently in the Scores document.

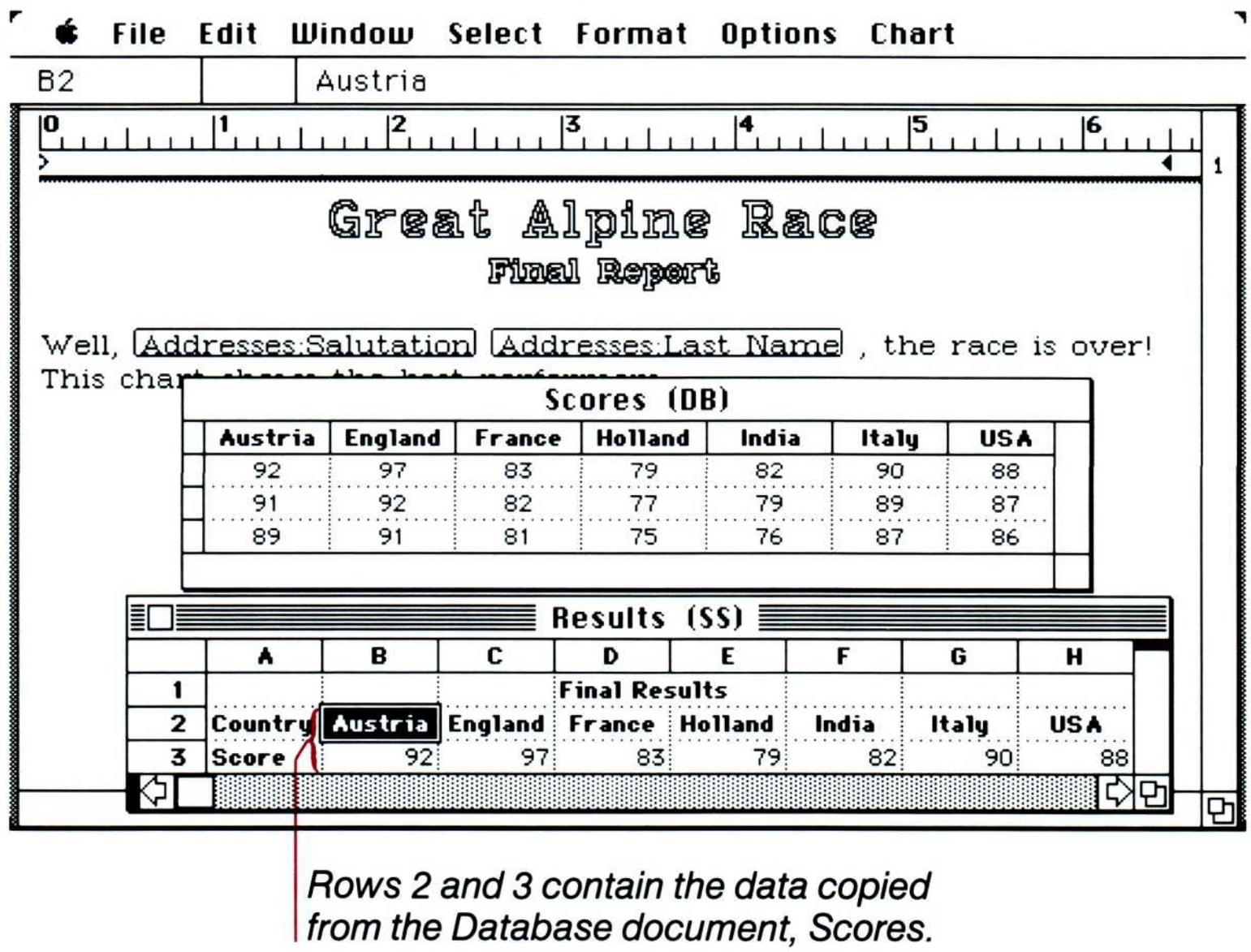
To copy the scores from the Database into the Spreadsheet:

1. Select the first row in the Scores document — this row contains the top scores of the seven highest-scoring teams. (Click the leftmost box in the row.)
2. Choose Copy from the Edit menu.
3. Select cell B2 in the Results document.

   That's where you want the Database information to begin. The information you paste will fill up the window, beginning at cell B2.

4 Choose Paste from the Edit menu.

Works pastes both the row containing the field names (countries) and the row you selected into the Results document.



Rows 2 and 3 contain the data copied from the Database document, Scores.

And there you have it — a Spreadsheet document that contains the top score of each of the top seven teams. From these scores, you can make a bar chart to include in the report.

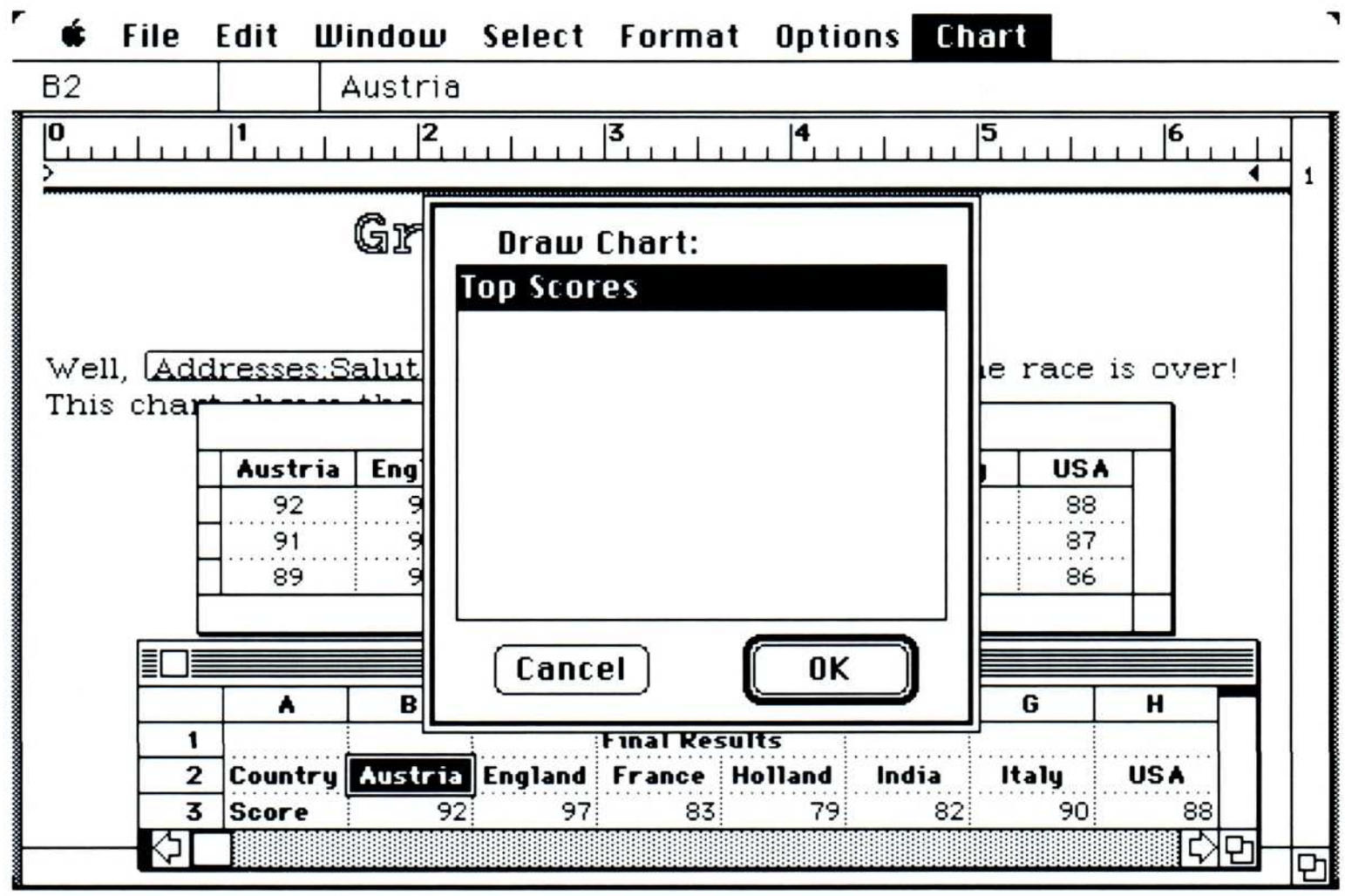
Draw a chart

The Results document now lists the top scores in the race by country. You want Hiram Wheeler to see instantly which countries performed best in the race, so you'll draw a chart of the results and copy it into the Word Processor. To save time, the chart definition has already been set up for you from the Results document.

To draw the chart from the Chart menu:

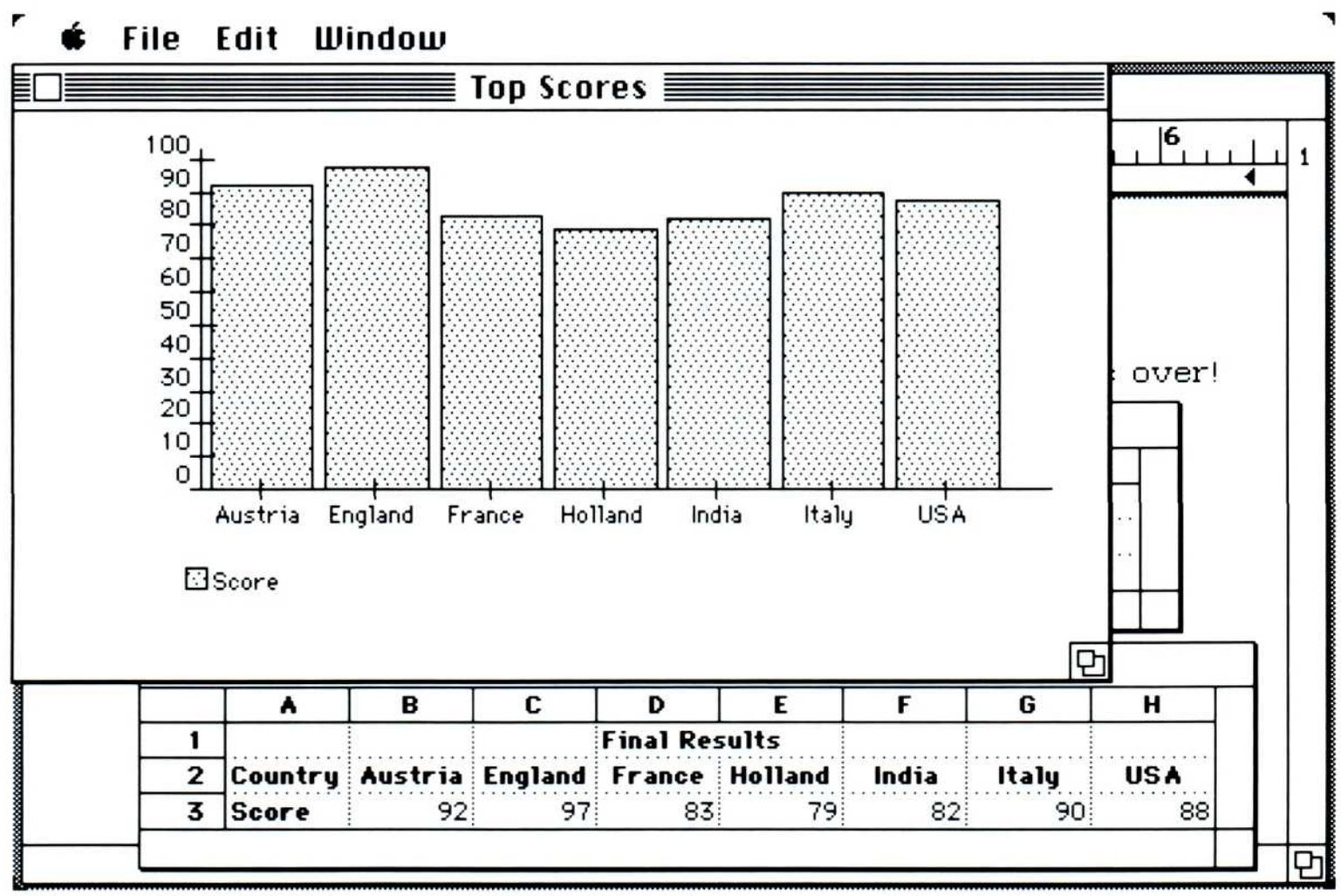
1 Choose Draw Chart from the Chart menu.

A dialog box lists the charts defined from the Spreadsheet document, Results.



2 Top Scores is selected already, so just click the OK button.

Works draws the Top Scores chart.



This is the chart you want to put into the Word Processor document, Report.

Copy the Chart to the Word Processor

The Works Word Processor lets you insert pictures to illustrate your documents. The Top Scores chart presents a quick visual summary of the race winners.

Copy the chart to the Clipboard

The Clipboard holds information that you cut or copy — until you cut or copy again, or turn off the computer. That means you can use the Clipboard to move information not only within a document, but also between documents.

- Choose Copy from the Edit menu.

Works places a copy of the chart onto the Clipboard. You're ready to move to the Word Processor and paste the chart.

Move to the Word Processor

Right now, the Chart window is active. To paste the chart into the Word Processor document, the Word Processor window has to be active. Since you've finished drawing the chart, you can close its window and make the Word Processor window active.

1. Click the close box in the upper-left corner of the chart window.

   Works closes the chart window, leaving the Spreadsheet window active on top of the Word Processor window.
2. Click the Word Processor window to make it active.

Now the report fills the whole screen again.

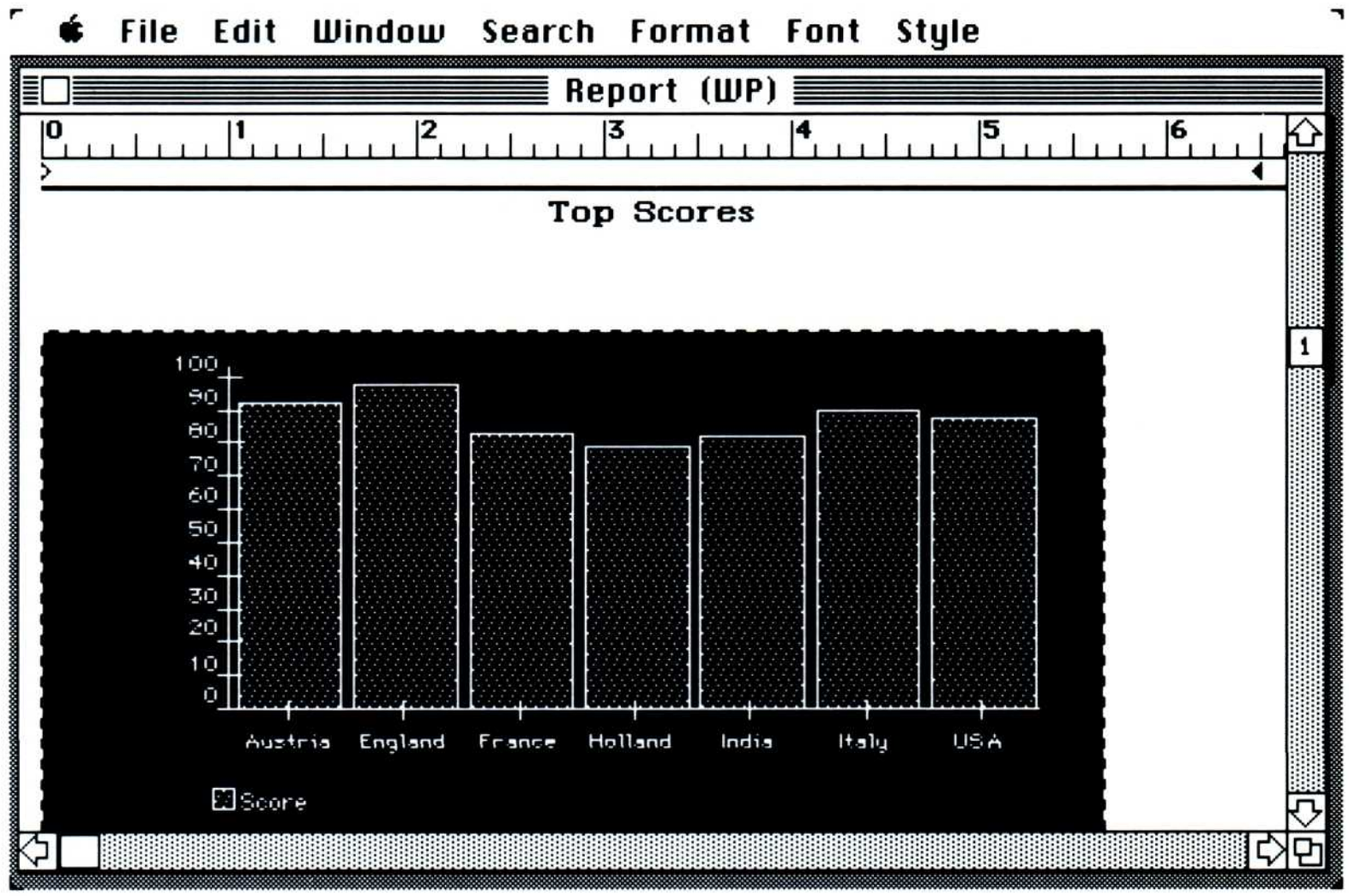
Paste the chart

Next, you'll paste the chart after the chart heading, at the bottom of the window.

1. Click to put the insertion point on the line following "Top Scores."
2. Press the Return key twice to add some blank space.
3. Choose Paste from the Edit menu.

Works pastes the chart into the Word Processor document.

- Scroll down until you can see the legend box for "Score," below the chart.



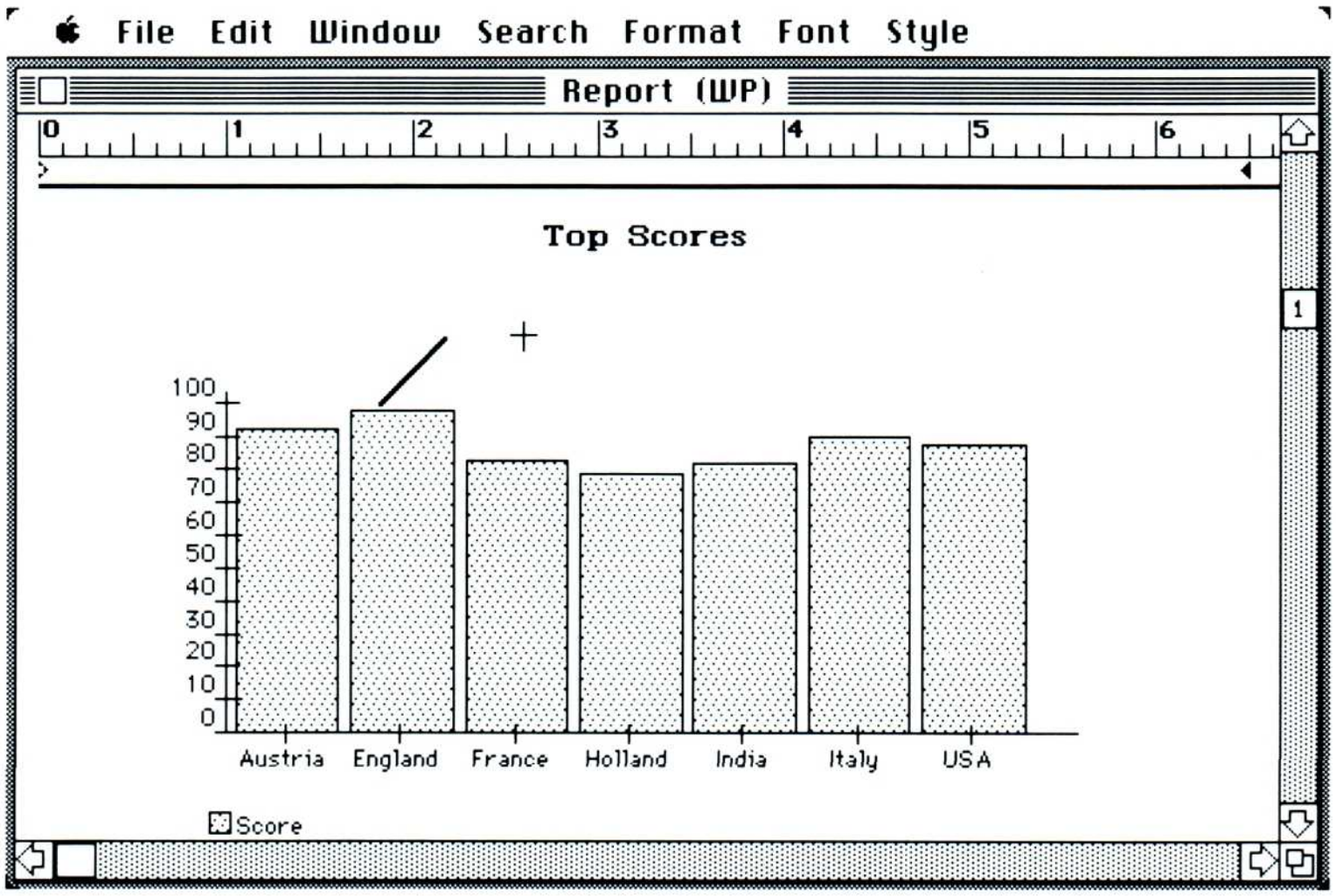
Add a Label to the Chart

The chart is just about ready, but Hiram Wheeler has asked you to indicate which team had the top-scoring athlete, so he can send a letter of congratulations. Using the Draw command, you can add a label that points out the top-scoring athlete. Do this by drawing a line pointing to the tallest column, then adding the winning athlete's name.

Draw the label line

To draw the line for the label:

1. Choose Draw from the Edit menu.
   The Draw dialog box appears.
2. Click the middle line, on the left side of the dialog box.
3. Click the OK button.
   The pointer turns into a cross to show you that you're using the Draw command.
4. Put the cross above the tallest bar, England.
5. Drag a line up and to the right about three quarters of an inch.
   When finished, the line should look something like this:



If you make a mistake, choose Undo from the Edit menu and try again. When you're finished, turn off the Draw command.

6 Choose Draw Off from the Edit menu.

Type the label

The label should go to the right of the line you drew.

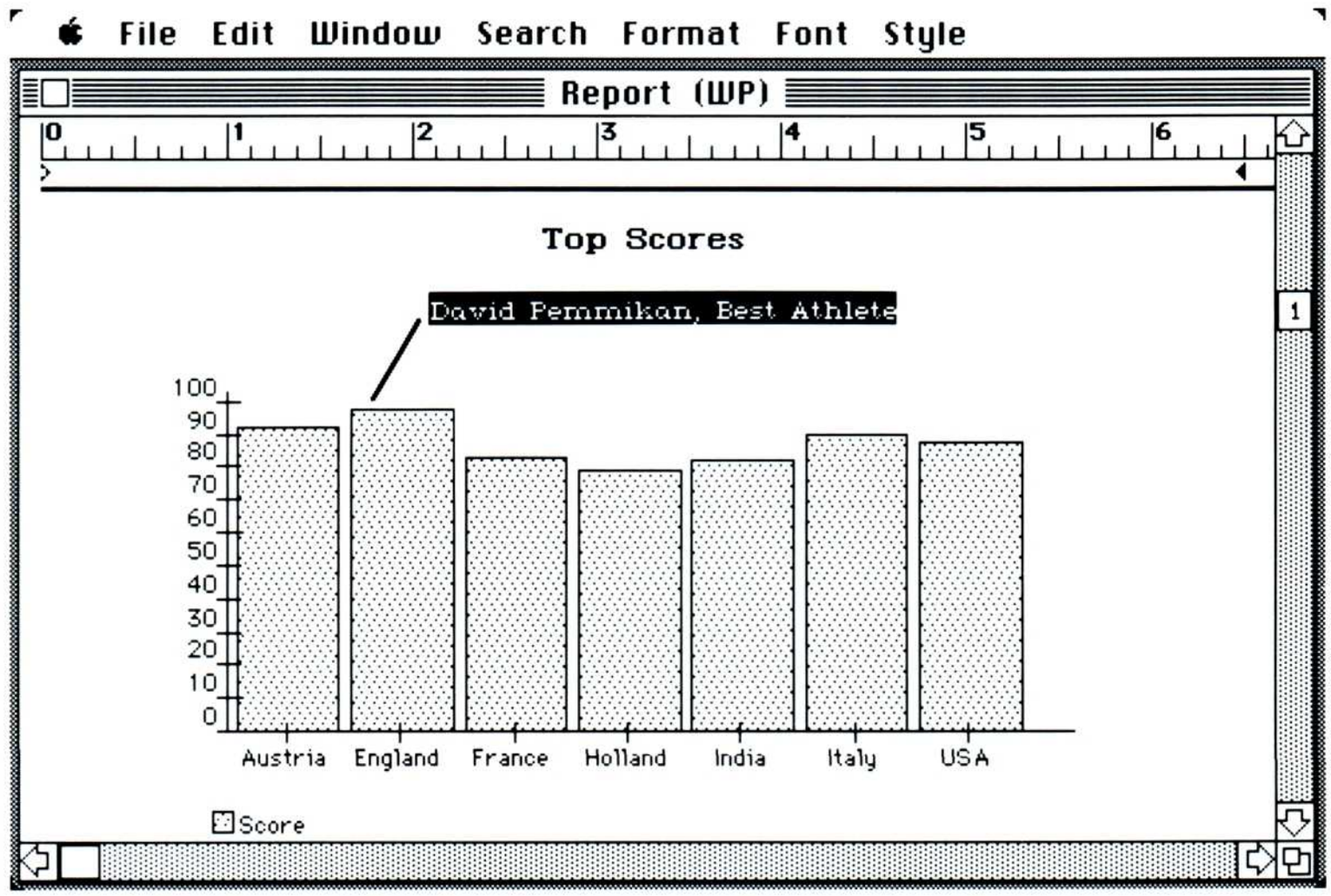
1 Position the insertion point to the right of the line you just drew.

Use the Tab key and spacebar to move the insertion point.

2 Type *David Pemmikan, Best Athlete*

3 Select what you just typed.

4 Choose 9 Point from the Style menu.



Copy a Table from the Database

The members of the board have asked you to include in your report the Database table you used to create the chart of top scores. You can copy information from the Database directly into the Word Processor by using the Copy and Paste commands.

Introduce the table

Begin by typing a short paragraph to introduce the table.

1. Click the line following the chart.
2. Press the Return key once to move down a line.

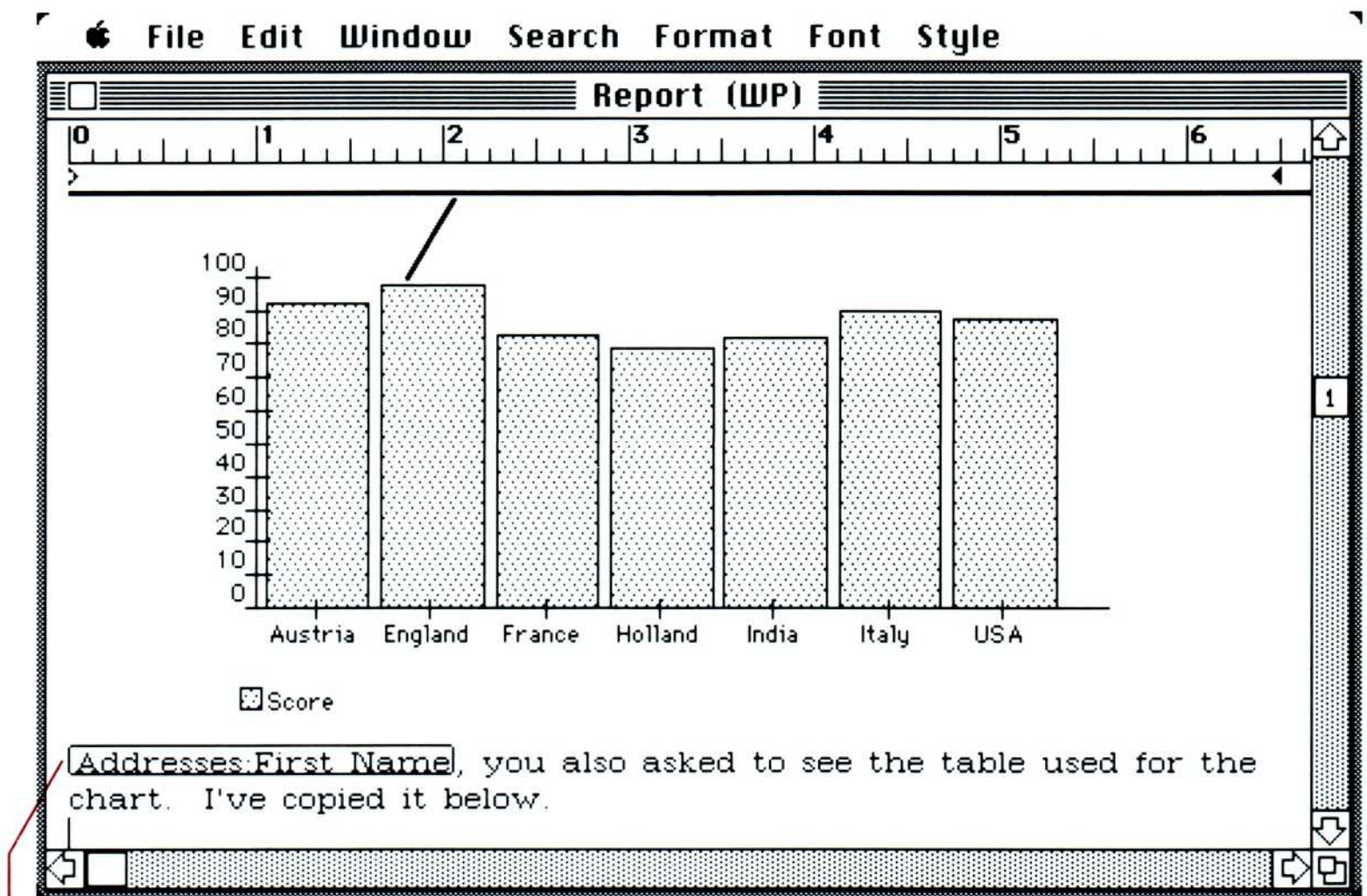
   To make the report more personal, merge in the recipient's first name here. You'll follow the same procedure you used to merge in the recipient's last name at the beginning of the Word Processor document.
3. Choose Prepare to Merge from the Edit menu.
4. Select Addresses from the Select Merge Database list box.
5. First Name is already selected in the Select Merge Field list box, so click the Merge button.

   Works puts a placeholder for the first name into the document. Now you can type the rest of the paragraph.
6. Type , *you also asked to see the table used for the chart. I've copied it below.*

   Be sure to begin with a comma and a space.

7 Press the Return key to move the insertion point to the next line.

The final report is almost finished. Just copy the table, and you're through.



This is the placeholder you just inserted.

Copy the table

The table is the same one you used before, from the Scores document. To copy it, make the Scores window active, select and copy the information, then paste it into the report.

1 Choose Scores from the Window menu.

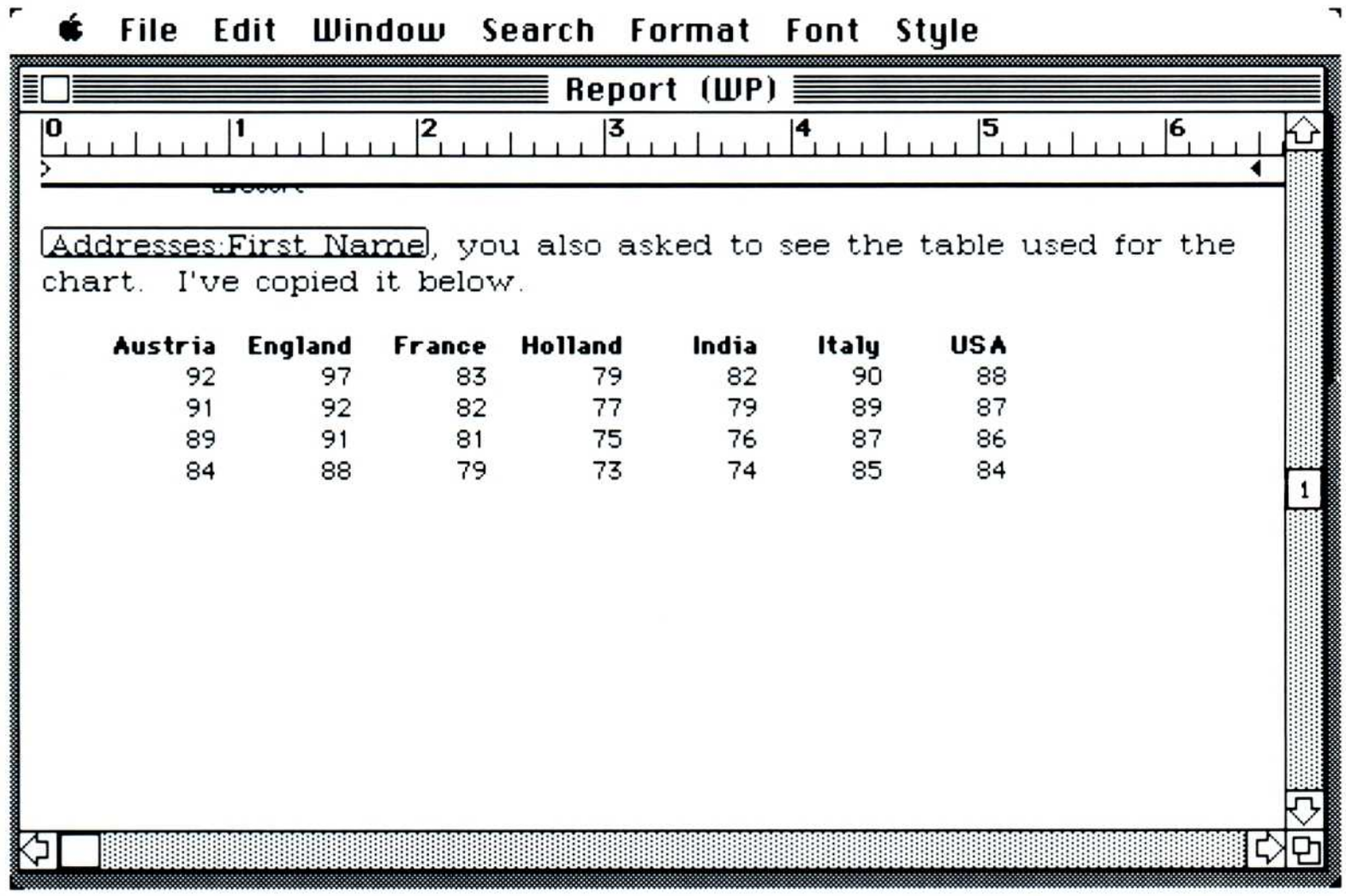
2 Choose Select All from the Edit menu.

3 Choose Copy from the Edit menu.

4 Click at the bottom of the Word Processor window to make it active and to position the insertion point.

5 Choose Paste from the Edit menu.

You've finished the report. The table appears just where you want it.



You're ready to print the report — or reports, since you'll have Works print a personalized report for each of the four board members.

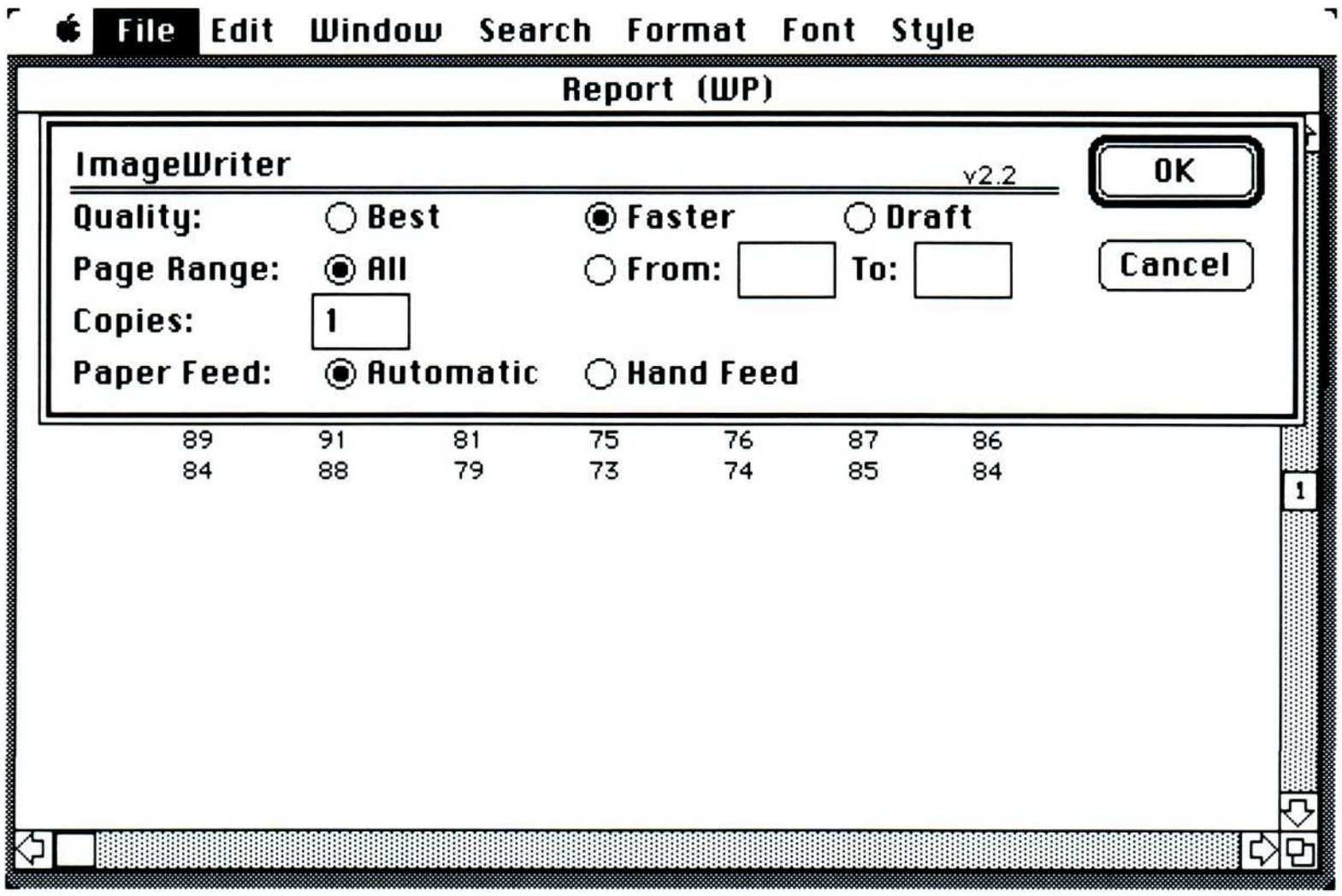
Print the Reports

Print the reports

This section is optional. If you have a printer, set it up according to the instructions in your Macintosh owner's guide and the manual for your printer. Make sure you have paper in your printer before printing.

Since there are four records in the Database document, Works will print four reports, one for each record.

1. Choose Print Merge from the File menu.
   The Print dialog box appears.



If the settings in your dialog box are not the same as the ones in the illustration, click the appropriate options to change the settings.

2 When your settings are correct, click the OK button.

The reports begin to print.

For more information about merging, see Chapter 21, "Merging: Creating Mailing Labels, Form Letters, and Forms," in *Using Microsoft Works*.

Because of your hard work, Hiram Wheeler has offered you a promotion based on the successful race and tremendous sales of the Mountain Wheeler bike. And you've practiced advanced tasks with all four tools in Microsoft Works!

Save Your Work

Save the report

If you want to save the work you've done in the Word Processor document, Report, you can.

1 Choose the Close command from the File menu or click the close box in the window.

2 If you want to save your work, click Yes; otherwise, click No.

Close the other documents

Then, to close the other three documents on the desktop:

1. Choose Close from the File menu for each document.
   Works displays an alert box for each document you've made changes to.
2. Click No to save the documents as they were when you began, so that someone else can try this lesson later on.

Works returns you to the Open dialog box.

Summary

Summary

In this chapter, you've performed many advanced tasks with Works. Here is a summary of the tasks and the steps you take to accomplish them. For more detailed procedures, return to the appropriate part of the chapter.

To do this	Follow these basic steps
Prepare a document for merging	1. Choose Prepare to Merge from the Edit menu. 2. Select a Database document and a field name. 3. Click Merge.
Move between documents	■ Click another document window to make it active or use the Window menu.
Copy Database information into the Spreadsheet	1. Select the information in the Database document. 2. Choose Copy from the Edit menu. 3. Select a cell in the Spreadsheet document. 4. Choose Paste from the Edit menu.

To do this	Follow these basic steps
Copy a chart into a Word Processor document	1 Draw the Chart. 2 Choose Copy from the Edit menu. 3 Position the insertion point in the Word Processor document. 4 Choose Paste from the Edit menu.
Draw in the Word Processor	1 Choose Draw from the Edit menu. 2 When you finish drawing, choose Draw Off from the Edit menu.
Copy Database information into the Word Processor	1 Select the information in the Database document. 2 Choose Copy from the Edit menu. 3 Position the insertion point in the Word Processor document. 4 Choose Paste from the Edit menu.
Merge Database information into the Word Processor	1 Prepare the Word Processor document. 2 Choose Print Merge from the File menu.

Where To Go from Here

You've practiced integrating information from one Works tool into another.

If you want to learn more about integration, and how you can use it for your own purposes, see "Using the Tools Together" in *Using Microsoft Works*.

To Take a Break for Now

If you've already practiced with the four Works tools, then this chapter completes your practice with Microsoft Works. You've already closed your documents and should be at the Open dialog box, ready to head out on your own — writing, filing, calculating, charting, communicating, and integrating information.

To practice with another tool, just turn to the appropriate chapter in this manual.

To quit Works

If you want, you can quit Works entirely at this point.

To quit the Works program:

- Choose Quit from the File menu.

Works returns you to the Finder.

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Rev. _____ Supplier _____

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