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# Training Guide Corel® Quattro Pro 8



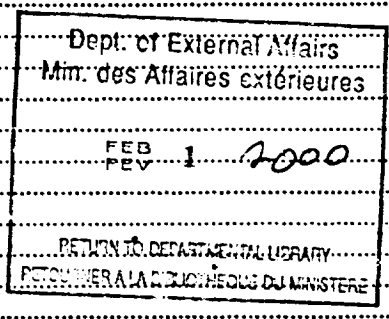
January 1999

**DFAIT**

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Section

***1***

## ***Quattro Pro Essentials***

- Getting Started with Quattro Pro
- Identifying Objects and Their Properties
- Entering Data
- Saving a Notebook
- Using Help
- Finishing a Job

## Section Skills and Their Importance

In the following section you will learn to:

- **Get started with Quattro Pro**

After you start Quattro Pro, identifying Quattro Pro functions and screen elements helps you to learn how to create spreadsheets efficiently.

- **Identify objects and their properties**

Objects are parts of the program that are easily changed, such as blocks of data, notebooks, spreadsheets, graphs, or the Quattro Pro application itself. The characteristics of these objects are called properties. You can change object properties with the Property Bar or the Object Inspector.

- **Enter data**

There are several different ways of entering data in Quattro Pro. Knowing each method lets you choose the one that saves the most time.

- **Save a notebook**

Saving a notebook periodically while you work on it helps prevent accidental data loss. Once you save your finished notebook, you can open it later to refer to it or to make changes.

- **Use Help**

Quattro Pro's Help system can quickly provide you with information about a specific topic or feature.

- **Finish a job**

When you've finished working on a notebook, you might want to print the notebook before closing it. When you're finished with your Quattro Pro session, you can exit the program.

## Getting Started with Quattro Pro

Before you can begin working with Quattro Pro, you need to know several basic skills and concepts: how to start Quattro Pro from the Windows 95 desktop, how to use the Quattro Pro interface, how spreadsheets are used, and how to select cells. This section introduces you to spreadsheets and notebooks and shows you how to begin working with Quattro Pro.

### Starting Quattro Pro

To start Quattro Pro, you access the Start menu and the Corel WordPerfect Suite 8 submenu. If you use Quattro Pro often, you might want to create a Quattro Pro shortcut icon on the desktop.

#### METHOD

To start Quattro Pro:

1. From the Start Menu, choose Corel WordPerfect Suite 8.
2. From the Corel WordPerfect Suite 8 submenu, choose Corel Quattro Pro 8.

#### EXERCISE

In the following exercise, you will start Quattro Pro.

- |   |   |
|---|---|
| 1. From the Start Menu, choose Corel WordPerfect Suite 8                    | <i>The Corel WordPerfect Suite 8 submenu appears.</i> |
| 2. Choose Corel Quattro Pro 8   | <i>A blank spreadsheet appears.</i>                   |
| 3. If necessary, maximize the Quattro Pro window and the spreadsheet window |   |

END

## Defining Spreadsheets

A *spreadsheet* is the electronic equivalent of a pencil and traditional ledger paper. It is a powerful platform used to enter, analyze, calculate, and manipulate data. You can use a spreadsheet for basic calculations such as addition and subtraction, as well as more complicated applications such as statistics, audits, or mortgage tables. Moreover, spreadsheets allow you to quickly format your data into a professional-looking report.

A spreadsheet consists of a grid of *rows* and *columns*, and in QuattroPro it is simply referred to as a *sheet*. In Quattro Pro, a sheet is identified by a letter that appears on the sheet *tab*. The rows are labeled with numbers (1, 2, 3, and so forth) and the columns are labeled with letters (A, B, C, and so forth). The intersection of a row and column is called a *cell*. The *cell address*, or name, is a combination of its sheet letter followed by a colon and the column and row coordinates. For example, the intersection of column B and row 2 in sheet A is cell A:B2. These elements are illustrated in Figure 1-1.

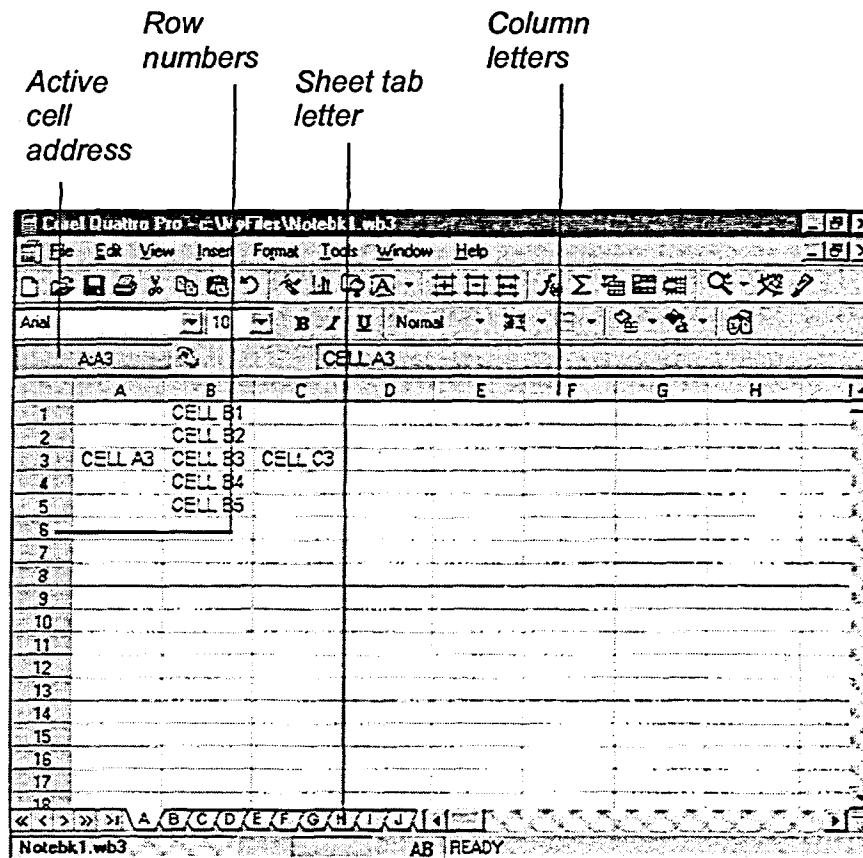


Figure 1-1: Sheets, Rows, Columns, and Cells



## Defining Notebooks

A *notebook* is a collection of spreadsheet sheets stored in the same *file*. In Quattro Pro, a file is the same as a notebook. These sheets can contain different types of information that are usually related in some fashion. For example, each sheet of a sales notebook might contain sales data for a specific division.

Notebooks can contain up to 256 sheets and an *Objects sheet*, which is the last sheet in the notebook. The sheets consist of the usual column and row grid. The Objects sheet contains an icon for each graph and slide you create, as well as icons for any custom dialog boxes you might create.

## Identifying Elements of the Screen

The Quattro Pro screen consists of several different elements, as illustrated in Figure 1-2. The bulk of the screen is occupied by the spreadsheet itself. This grid provides a work surface where you can enter and manage your data. Surrounding the sheet are several different command interfaces and display areas. Each of these items allows you to receive information about, or apply functions to, the data on the sheet. Table 1-1 describes the various parts of the Quattro Pro screen.

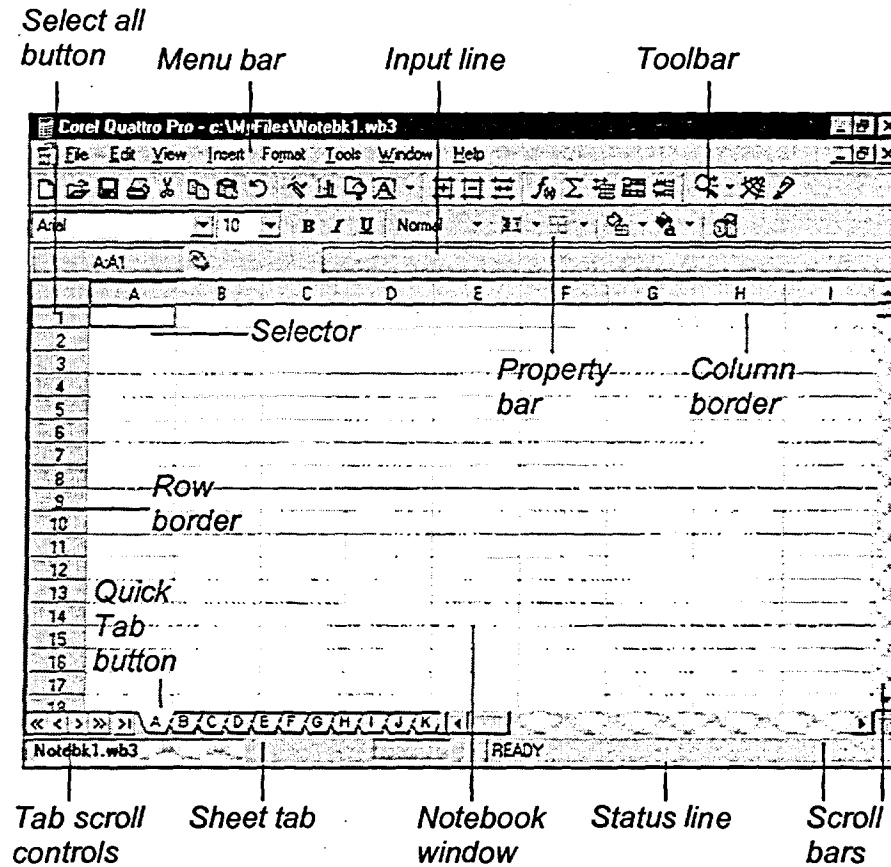


Figure 1-2: Elements of the Quattro Pro Screen

Screen Elements	Function
Column border	The column border identifies the columns.
Input line	The input line is where you enter or edit data.
Menu bar	The menu bar is where the menus are located.
Notebook window	The notebook window contains an open sheet. Notebook windows can be moved and sized.
Property Bar	The Property Bar contains buttons, tools, and lists that are needed to complete a specific activity. Like the Toolbar, when you point at a tool or button, its function or name appears. Also, the contents of the Property Bar automatically change according to the current activity.
QuickTab button	The QuickTab button lets you quickly access the Objects sheet, which is the last sheet in the notebook.
Row border	The row border identifies the rows.
Scroll bars	The scroll bars let you move through the screen.
Select all button	The Select All button selects all the cells on the active sheet.
Selector	The selector is a dark outline, indicating the active cell.
Sheet tab	The sheet tab lets you switch to a specific sheet in a notebook.
Status line	The Status line displays the present mode or status of Quattro Pro.
Tab scroll controls	The tab scroll controls let you display tabs for sheets not currently visible.
Toolbar	The Toolbar contains tools and buttons that give you quick access to commands. When you point at a tool or button, its function or name appears in a box slightly below and to the right of that tool or button. The contents of the Toolbar change according to the current activity.

Table 1-1: *Elements of the Quattro Pro Screen*

## Selecting Cells

Selecting a cell is the first step in entering data or executing most commands in a spreadsheet. The single cell that receives the data or formula you enter is the *active cell*. The *selector* is the black outline around a cell that indicates that the cell is selected.

### METHOD

To select a cell:

1. Click the cell.  
or
1. Use the arrow keys to move the selector to the cell.

### EXERCISE

In the following exercise, you will select cells using the keyboard and the mouse.

1. Press **DOWN ARROW** four times      *Cell A5 becomes the active cell.*
2. Press **RIGHT ARROW** four times      *Cell C5 becomes the active cell.*
3. Click cell E5      *Cell E5 becomes the active cell.*

END

## Selecting Blocks

A selection of multiple cells is referred to as a *block*. You might want to select a block when entering a group of data or when you want to perform the same action on several cells. You can select data with either the *pointer* or the keyboard. The active cell in a block is delineated by a bold border and white background.

### METHOD

To select a block of cells:

#### Mouse method

1. Drag the pointer through the block of cells.

#### Keyboard method

1. Select the first cell of the block.
2. Press **SHIFT** and the arrow keys to highlight the block.  
or
2. Press and hold **SHIFT**, and then click the last cell in the block.
3. Release **SHIFT** when done.

### EXERCISE

In the following exercise, you will select a block of cells using both the keyboard and mouse methods.

1. Drag the pointer from cell A1 to cell D5 *The block A1 through D5 is selected.*
2. Select cell B2 *The block is deselected and cell B2 is selected.*
3. Press and hold **SHIFT**
4. Click cell E7 *The block B2 through E7 is selected.*
5. Release **SHIFT**
6. Select cell A1 *The block is deselected.*
7. Press and hold **SHIFT**
8. Press **RIGHT ARROW** three times *The block A1 through D1 is selected.*



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9. Release **SHIFT**

10. Select cell A1

*The block is deselected.*

**END**

## Using the Toolbar

The Quattro Pro *Toolbar* gives you quick access to frequently used commands and procedures with a single click of the mouse button. All Toolbar functions can also be accessed through the menu. The Toolbar contains *buttons* and *tools*. Toolbar buttons let you quickly choose commonly used commands or properties. Toolbar tools let you create objects, such as charts and maps.

The tools and buttons on the Toolbar change depending on the task you are performing. The Zoom button and the Drawing Object tool have drop-down arrows on the buttons, indicating the availability of a list of selections. When you click the Drawing Object tool arrow, a list of shapes appears. Once you select one of the objects from the list, that object appears on the face of the button. If you want to apply that shape at future locations on the spreadsheet, all you have to do is click the button part of the Drawing Object tool (not the drop-down arrow) and draw the object on the sheet.

In addition, Quattro Pro lets you display different Toolbars. The Toolbar displayed by default is the Main Toolbar, shown in Figure 1-3, which contains the most frequently used tools and buttons.

Also, when you position the pointer on a Toolbar button or tool, the definition of that button or tool appears in a box slightly below and to the right of that button.

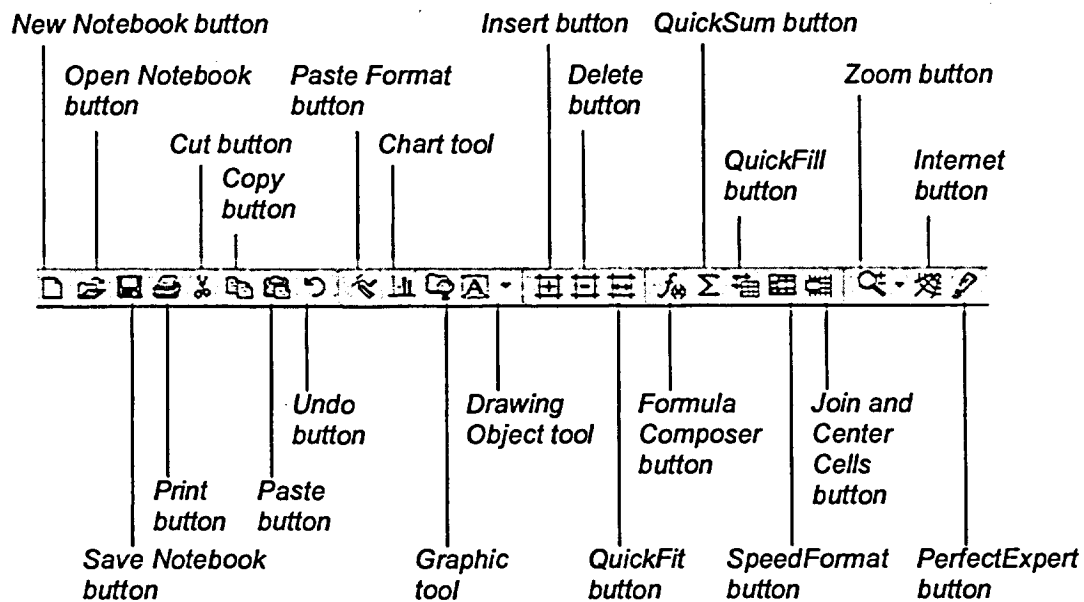


Figure 1-3: The Main Toolbar

**METHOD**

To see Toolbar definitions:

1. On the Toolbar, point to the button or tool.
2. Read the definition provided.

To use the Toolbar to execute a command:

1. If necessary, select the cell or block of cells.
2. On the Toolbar, click the button or tool.

### **EXERCISE**

In the following exercise, you will view Toolbar definitions and access the Save button on the Toolbar.

- |  |  |
|--|--|
| 1. On the Toolbar, point to the Chart tool           | <i>The definition appears slightly below and to the right of the tool.</i> |
| 2. On the Toolbar, point to the Save Notebook button | <i>The definition appears.</i>   |
| 3. On the Toolbar, click the Save Notebook button    | <i>The Save File window appears.</i>                                       |
| 4. Choose Close                                      | <i>The Save File window is closed and the file is not saved.</i>           |

**END**

## Using the QuickMenu

A context-sensitive *QuickMenu* appears when you right-click most objects. This menu appears right where you are working and displays frequently used commands regarding your current task. The QuickMenu saves time by eliminating the need to wade through several menu layers to access frequently used commands. Besides offering basic commands, the QuickMenu also contains a Properties command, which displays the appropriate *Object Inspector*. An Object Inspector is a dialog box used to format or modify an object.

### METHOD

To use a QuickMenu:

1. Point to the object.
2. Right-click the mouse.
3. From the QuickMenu, choose the command.

### EXERCISE

In the following exercise, you will use the right mouse button to open a QuickMenu.

- |   |  |
|---|--|
| 1. Point to cell C5                           |  |
| 2. Right-click the mouse                      | <i>The QuickMenu appears.</i>                              |
| 3. From the QuickMenu, choose Cell Properties | <i>The Object Inspector for the selected cell appears.</i> |
| 4. Choose Cancel                              | <i>The Object Inspector is closed.</i>                     |

END

## Identifying Objects and Their Properties

*Objects* are parts of the program that are easily changed. For example, blocks of data, entire notebooks, spreadsheets, graphs, or even the Quattro Pro application itself are all objects.

The characteristics of objects are called *properties*. For example, the font property of a block of data can be set to bold or italics. The name that appears on a sheet tab is one of the sheet's properties, and the notebook name is one of the file's properties.

You use the right mouse button to change the properties of an object or to use a command on that object. Right-clicking the object will bring up a QuickMenu, from which you can choose the Object Inspector as illustrated in Figure 1-4.

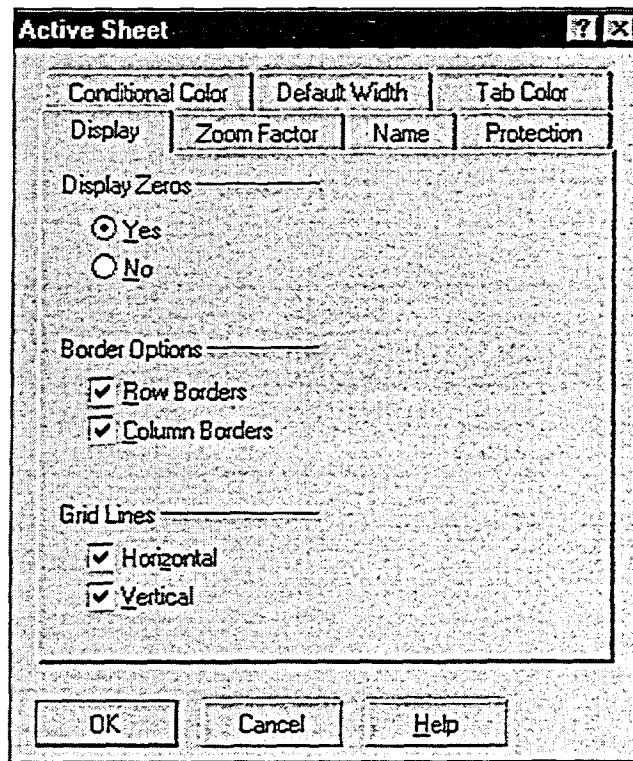


Figure 1-4: *The Active Sheet Object Inspector*



## Using the Property Bar

The Property Bar contains buttons, tools, and lists that automatically change depending on what is selected in your sheet.

Figure 1-5 shows the Property Bar with its default buttons, tools, and lists. Like the Toolbar, if you point to an item on the Property Bar, a definition of that button, tool, or list appears. Some of the buttons and tools on the Property Bar contain a drop-down list that appears underneath when you click the tool or button. From this list, you can select the desired change. For example, clicking the Style list on the Property Bar lets you select a type of format and apply it to a cell or block of cells. Table 1-2 describes the functions of each button on the Property Bar.

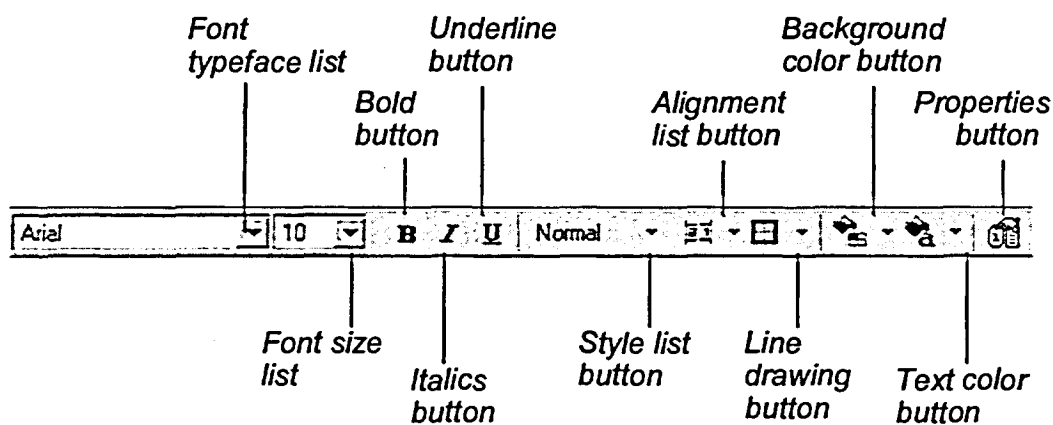


Figure 1-5: Default Settings of the Property Bar

Property Bar Button	Property Bar Button Description
Font typeface list	Shows the font typeface of the selected text. Clicking the drop-down arrow shows a list of the available typefaces.
Font size list	Show the font size of the selected text. Clicking the drop-down arrow shows a list of the available font sizes.
Bold button	Clicking the Bold button bolds the selected text.
Italics button	Clicking the Italics button italicizes the selected text.
Underline button	Clicking the Underline button underlines the selected text.
Style list	Clicking the Style list provides a list of formats available, and selecting a style formats the selected text.
Alignment list	Clicking the Alignment list provides a list of the available horizontal alignments. Selecting an alignment from this list applies the alignment to the selected text.
Line drawing button	Clicking the drop-down arrow provides a list of lines available for drawing around and inside a cell. Once a drawing is selected, you can click the Line drawing button to apply it to a cell or block.
Background color buttons	Clicking the drop-down arrow provides a list of colors available for cell backgrounds. Once a background color is selected, you can click the Background color button to apply it to a cell or block.
Text color button	Clicking the Text color button drop-down arrow provides a list of colors available for text.
Properties button	Clicking the Properties button displays all the properties of the selected cell or block.

**Table 1-2: Description of Property Bar Buttons**

**METHOD**

To see Property Bar definitions:

1. On the Property Bar, point to the button, list or arrow.
2. Read the definition provided.

To use the Property Bar:

1. If necessary, select the cell or block of cells.
2. On the Property Bar, click the button, list, or arrow.
3. If necessary, from the drop-down list, select the option.

**EXERCISE**

In the following exercise, you will use the Property Bar to view button definitions and to change properties.

- |  |  |
|--|--|
| 1. Select cell A1  |  |
| 2. On the Property Bar, point to the Background color button | <i>A description of the list appears.</i>                  |
| 3. On the Property Bar, click the Background color button    | <i>The Property Bar list of background colors appears.</i> |
| 4. Select black (row 1, column 2)                            | <i>Cell A1 becomes black.</i>                              |
| 5. On the Property Bar, click the Background color button    | <i>The Property Bar list of background colors appears.</i> |
| 6. Select white (row 1, column 4)                            | <i>The cell returns to its previous color.</i>             |

**END**

## Using the Object Inspector

The Object Inspector is used to change object properties. To open it, right-click the mouse at the appropriate place. For example, to change the cell's properties, right-click the desired cell. To change the sheet's properties, right-click the appropriate sheet tab. When the QuickMenu appears, access the Object Inspector by choosing the Properties option.

### **METHOD**

To use an Object Inspector:

1. Point to the object.
2. Right-click the mouse.
3. When a QuickMenu appears, choose the appropriate Properties command.
4. In the Object Inspector, select the tab for the property to be changed.
5. Select the settings.
6. Choose OK.

### **EXERCISE**

In the following exercise, you will use the Sheet Object Inspector, and then exit it without saving the changes.

- |  |   |
|--|---|
| 1. Point to sheet tab A  |   |
| 2. Right-click the mouse   | <i>The QuickMenu appears.</i>                     |
| 3. Choose Sheet Properties   | <i>The Active Sheet Object Inspector appears.</i> |
| 4. Select the Tab Color tab  | <i>The Tab Color page appears.</i>                |
| 5. Deselect the Use System Color check box   | <i>The color control is enabled.</i>              |
| 6. Below the Use System Color check box from the color drop-down list, click the drop-down arrow |   |

7. Select a tab color of your choice

*The new color for the tab is selected.*

8. Choose Cancel

*The Object Inspector is closed and changes are not saved.*

**END**



## Entering Data

The first step in creating a useful spreadsheet is entering *data*. When you enter data, you are inputting the information that you want Quattro Pro to display, calculate, and store. You can enter data into a cell or a block of cells. You can even set up a sequence of data and then let Quattro Pro fill in the remainder of the sequence based on your first few entries.

Quattro Pro spreadsheets contain two types of data: *labels* and *values*. Labels are text entries such as the word "Expenses." Values are divided into three groups: numbers, dates and times, and formulas.

As you type in the data, the status line indicates whether that entry is a label or a value. After you enter the data, the READY indicator reappears, as illustrated in Figure 1-6.

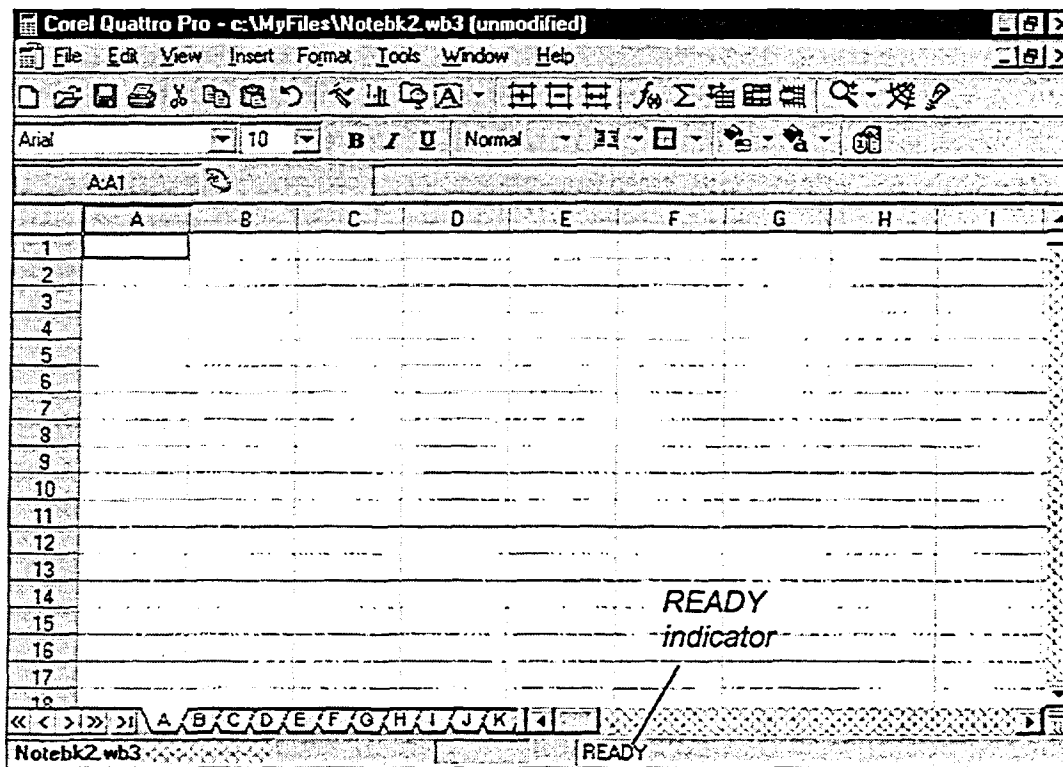


Figure 1-6: *The READY Indicator*

## Entering Labels

Labels can be alphanumeric characters or symbols. A label can begin with any letter or punctuation mark except the following:

+ - / \$ ( @ . # =

Often you might need to enter a number, such as a phone number or a year, as a label. In some cases, Quattro Pro can tell that the number you are entering should be treated as a label rather than a value. For example, when you enter a phone number such as 555-2365 in a cell, Quattro Pro treats that number as a label rather than attempting to calculate the result of 555 minus 2365.

Quattro Pro also treats street addresses as labels. In addition, if you enter a date in an appropriate date format—for example, 02/23/97—Quattro Pro treats that entry as a date rather than attempting to calculate the division of the three numbers. Quattro Pro considers dates to be a special type of value.

In some cases, Quattro Pro will not recognize that a number you have entered should be treated as a label. For example, if you enter the year 1997 into a cell, Quattro Pro will treat that entry as a number, thus right-aligning it. If you want the year to be treated as a label, you must type a *label prefix* before the number. This tells Quattro Pro that the year is a label, and the entry is aligned accordingly. Table 1-3 lists the various label-prefix characters. The label prefix does not show up in the spreadsheet cell.

Label prefix character	Alignment
' (apostrophe)	Left-aligned
^ (caret)	Centered
" (quotation mark)	Right-aligned

Table 1-3: *Label Prefix Characters*

To enter data into your spreadsheet, select the desired cell and type the data. Your data appears both in the cell and in the *input line*. To complete your entry, press ENTER, or click the Enter button, or move to another cell. Alternatively, if you do not want to enter the data into the cell, you can press ESC or click the Cancel button. Both the Enter Button and the Cancel button are illustrated in Figure 1-7.

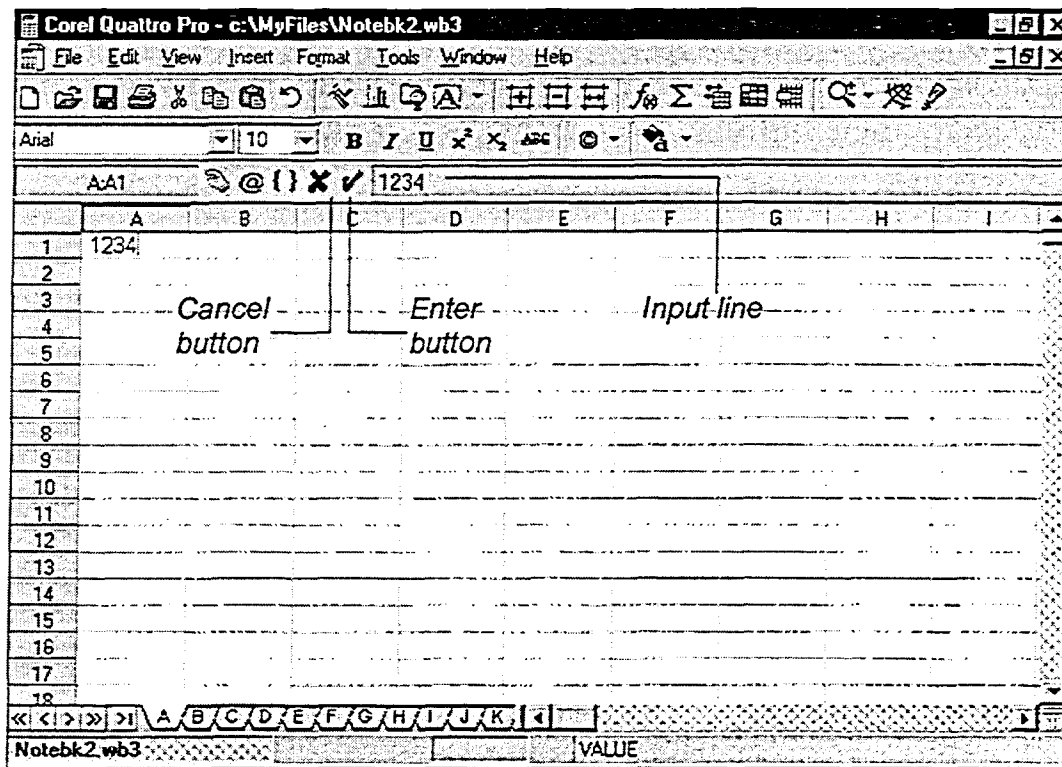


Figure 1-7: The Enter Button, Cancel Button, and Input Line

**METHOD**

To enter a label into a cell:

1. Select the cell.
2. Type the information.
3. Click the Enter button.
- or
3. Press ENTER
- or
3. Move to a different cell by clicking another cell, pressing an arrow key, or pressing TAB

To cancel an entry before it is entered:

1. Click the Cancel button.
- or
1. Press ESC

3. Press **ENTER**  
or
3. Move to a different cell by clicking another cell, pressing an arrow key, or pressing **TAB**

**To cancel an entry before it is entered:**

1. Click the Cancel button.  
or
1. Press **ESC**

**To enter values into a cell:**

1. Select the cell.
2. Type the value in the input line.
3. Click the Enter button.  
or
3. Press **ENTER**  
or
3. Move to another cell by clicking it, pressing an arrow key, or pressing **TAB**

**To enter data into a block:**

1. Drag the pointer through the block of cells to be included in the block.  
or
1. Select the cells to be included in the block by pressing **SHIFT** in combination with the appropriate arrow key.
2. Type the information into the first cell.
3. Press **ENTER** to move to the next cell.
4. Type the appropriate information.
5. Repeat steps 3 and 4 until all information is entered.

**To enter data using QuickFill:**

1. Select the first one or two cells of the series.
2. Enter the values (seed) into the selected block.

3. Select the block containing the seed data and the cells to be filled.
4. On the Toolbar, click the QuickFill button.

**To save an unnamed notebook:**

1. From the File menu, choose Save.  
or
1. From the File menu, choose Save As.
2. In the Name edit field, type the filename.
3. Choose Save.

**To save a named notebook:**

1. On the Toolbar, click the Save button.  
or
1. From the File menu, choose Save.

**To use context-sensitive help:**

1. In the dialog box.
2. Press **F1**
3. When finished, close the Help dialog box.

**To use the Help menu:**

1. From the Help menu, select the option.
2. When finished, close the Help dialog box.

**To access Object Help:**

1. Press **SHIFT+F1**
2. Click the object.
3. When finished, close the Help dialog box.

**To print preview the spreadsheet:**

1. From the File menu, choose Print Preview.
2. On the Toolbar, click the Print button to print the spreadsheet.  
or
2. On the Toolbar, click the Close button to return to the spreadsheet.

**To print a spreadsheet by using the Print button:**

1. On the Toolbar, click the Print button.
2. In the Spreadsheet Print dialog box, select the options.
3. Choose Print.  
or
3. Choose Close to return to the spreadsheet without printing.

**To close a notebook:**

1. From the File menu, choose Close.

**To exit Quattro Pro:**

1. From the File menu, choose Exit.

**EXERCISE**

In the following exercise, you will enter labels in the form of titles and headings.

1. Select cell C2
2. Type **Bob's Boats** *The label **Bob's Boats** appears in the cell and in the input line.*
3. Press ENTER *The label entry is completed.*
4. In cell C3, type **Sales Report**
5. Select cell C5 *The label **Sales Report** is entered in cell C3.*
6. Type '1995
7. Select cell D5 *1995 appears in cell C5. The number is entered as a label.*
8. Type '1996
9. Select cell E5 *1996 appears in cell D5. The number is entered as a label.*
10. Type '1997
11. Click the Enter button *1997 appears in cell E5. The number is entered as a label.*
12. Select cell F5
13. Type '1998
14. Click the Cancel button *The entry is canceled and does not appear in the cell.*

**END**

## Entering Values

In Quattro Pro, a value can be a number, a date, a formula, or the result of a formula. You enter values into the spreadsheet the same way that you enter labels.

A number entry can contain only Arabic numerals (0 to 9), a leading equal (=), negative (-), or positive (+) sign, a single decimal point, and an ending percent sign. Numbers are automatically right-aligned, as illustrated in Figure 1-8. When you type a very large number in a spreadsheet, the cell might display a row of asterisks (\*\*\*\*) or a scientific notation entry instead of the number. This indicates that the column is not wide enough to display the entire number. You can easily adjust the column width by pointing to the line dividing the columns in the column border. When the pointer becomes a two-headed arrow, drag the column to the desired width.

	A	B	C	D	E	F
1						
2			Bob's Boats			
3			Sales Report			
4						
5			1995	1996	1997	
6						
7			1024	1000	989	
8			2599	500	789	
9						

**Figure 1-8:** *Values, Right Aligned in the Cells*

### **METHOD**

To enter values into a cell:

1. Select the cell.
2. Type the value in the input line.
3. Click the Enter button.  
or
3. Press **ENTER**  
or
3. Move to another cell by clicking it, pressing an arrow key, or pressing **TAB**

**EXERCISE**

In the following exercise, you will enter values into the spreadsheet.

- |  |  |
|--|--|
| 1. Select cell C7                            |  |
| 2. Type 1024                                 | <i>The value 1024 appears in the cell and in the input line.</i> |
| 3. Press ENTER                               | <i>The value entry is completed.</i>                             |
| 4. Select cell D7                            |  |
| 5. Type 1000                                 |  |
| 6. Select cell E7                            | <i>The value 1000 appears in cell D7.</i>                        |
| 7. Type 989                                  |  |
| 8. Select cell C8                            | <i>The value 989 appears in cell E7.</i>                         |
| 9. Type 2599                                 |  |
| 10. Select cell D8                           | <i>The value 2599 appears in cell C8.</i>                        |
| 11. Type 500                                 |  |
| 12. Select cell E8                           | <i>The value 500 appears in cell D8.</i>                         |
| 13. Type 798                                 |  |
| 14. Click the Enter button                   | <i>The value 798 appears in cell E8.</i>                         |
| 15. Compare your spreadsheet with Figure 1-8 |  |

**END**



## Entering Data into a Block

When you have to enter data into several cells, you can save time and reduce keystroking by first designating the block of cells with which you want to work, as illustrated in Figure 1-9. Pressing **ENTER** places the data in the cell and automatically selects the next cell in the block, eliminating the need for you to click the next cell or press an arrow key.

	A	B	C	D	E	F
1						
2			Bob's Boats			
3			Sales Report			
4						
5			1995	1996	1997	
6						
7			1024	1000	989	
8			2599	500	798	
9			3456	1000		
10			5647			
11			9284			
12						

**Figure 1-9:** *Entering Data into a Block of Cells*

### METHOD

To enter data into a block:

1. Drag the pointer through the cells to be included in the block.  
or
1. Select the cells to be included in the block by pressing **SHIFT** in combination with the appropriate arrow key.
2. Type the information into the first cell.
3. Press **ENTER** to move to the next cell.
4. Type the appropriate information.
5. Repeat steps 3 and 4 until all information is entered.

### EXERCISE

In the following exercise, you will enter data into a selected block.

1. Drag the pointer from cell C9 to cell E11  
to cell E11 *Cells C9 through E11 are selected.*
2. Type 3456
3. Press **ENTER** *Cell C10 becomes active.*

4. Type 5647
5. Press ENTER *Cell C11 becomes active.*
6. Type 9284
7. Press ENTER *Cell D9 becomes active.*
8. Using Figure 1-10 as a guide,  
fill in the rest of the numbers
9. Select cell A1 *The data entry block is  
deselected and cell A1 is  
active.*

END

	A	B	C	D	E	F
1						
2			Bob's Boats			
3			Sales Report			
4						
5			1995	1996	1997	
6						
7			1024	1000	989	
8			2599	500	798	
9			3456	1000	723	
10			5647	4536	890	
11			9284	890	1000	
12						

**Figure 1-10: The Spreadsheet after Entering Data in a Block**

## Entering Data Using QuickFill

When you create a spreadsheet, you frequently need to type a long series of data that is sequential or that increases or decreases in predictable increments. The *QuickFill* feature can fill such a series for you, thus saving time and keystrokes. You can use this feature for both numeric and non-numeric sequences. QuickFill can figure out the pattern based on one or two cells, called the *seed*, as long as you specify a sequence of data that Quattro Pro can understand. QuickFill then continues the pattern across a designated block. For example, you can use QuickFill to create column headings titled "Monday, Tuesday, Wednesday..." and so forth or to create a column of sequential numbers such as "1, 2, 3..." and so forth.

### METHOD

To enter data using QuickFill:

1. Select the first cells of the series.
2. Enter the values (seed) into the selected block.
3. Select the block containing the seed data and the cells to be filled.
4. On the Toolbar, click the QuickFill button.

### EXERCISE

In the following exercise, you will enter data using QuickFill.

- |   |   |
|---|---|
| 1. Select cell A7                             |   |
| 2. Type <b>Region 1</b>                       |   |
| 3. Press <b>ENTER</b>                         | <i>The seed data is entered into cell A7.</i>                                   |
| 4. Select cells A7 through A11                | <i>Cells A7 through A11 are highlighted.</i>                                    |
| 5. On the Toolbar, click the QuickFill button | <i>Quattro Pro fills each cell with the appropriate text and region number.</i> |
| 6. Select cell A1                             | <i>The block is deselected.</i>   |

END

## Adding, Viewing, and Deleting Comments

The Comments feature lets you add comments to your cells as if you were attaching a yellow sticky note to your spreadsheet. You type your comments in the comment bubble, shown in Figure 1-11. The comments do not print out, but a small triangle appears in the upper right corner of the cell to indicate that a comment is present. You can view a comment by moving your pointer over the cell containing the comment. Figure 1-12 shows the result of moving your pointer over cell C3.

	A	B	C	D	E	F	
1							
2							
3			Bob's Boats				
4			Sales Report				
5							
6			This is the sales report for the past three years.				
7	Region 1						
8	Region 2						
9	Region 3						
10	Region 4		5647	4536	890		
11	Region 5		9284	890	1000		

Figure 1-11: The Comment Bubble

	A	B	C	D	E
1					
2					
3			Bob's Boats		
4			Sales Report		
5					
6			199	This is the sales report	197
7	Region 1		107	for the past three years.	189
8	Region 2		2599	500	798
9	Region 3		3456	1000	723
10	Region 4		5647	4536	890
11	Region 5		9284	890	1000

Figure 1-12: The Comments Feature in Cell C3

### METHOD

To add a comment:

1. Select the cell to contain the comment and right-click the mouse.
2. From the QuickMenu, choose Insert Comment.
3. In the comment bubble, type your comment.
4. Click outside the comment bubble.

To view a comment:

1. Place the pointer over the small triangle in the upper right of the cell containing the comment.

To delete a comment:

1. Select the cell containing the comment and right-click the mouse.
2. From the QuickMenu, choose Delete Comment.

---

### EXERCISE

---

In the following exercise, you will add, view, and delete a comment from a cell.

1. Select cell C3
2. Right-click the mouse *A QuickMenu appears.*
3. Choose Insert Comment *A comment bubble appears.*
4. Inside the comment bubble, type **This is the sales report for the past three years.**
5. Click outside the comment bubble *The comment bubble disappears and a small triangle appears in the upper right corner of the cell.*
6. Place the pointer over cell C3 *The message appears in a small box.*
7. Select cell C3
8. Right-click the mouse *A QuickMenu appears.*
9. Choose Delete Comment *The comment is deleted.*

END

## Saving a Notebook

While you work, make sure that you save your notebook file to a disk. It's good practice to save your work every fifteen minutes during the course of creating and editing. That way, if there is a power outage or power surge, you will lose only fifteen minutes of work at most.

There are three ways to save notebooks to disk. If the notebook has never been saved, choosing Save from the File menu opens the Save File window, illustrated in Figure 1-13. You use this window to tell Quattro Pro where to save the notebook and to give the notebook a filename. If the notebook was previously saved, using the Save command saves the notebook to the filename and location under which it was last saved. If the notebook has already been saved to disk, using the Save As command opens the Save File window and lets you save the notebook under a new name or different location that you specify.

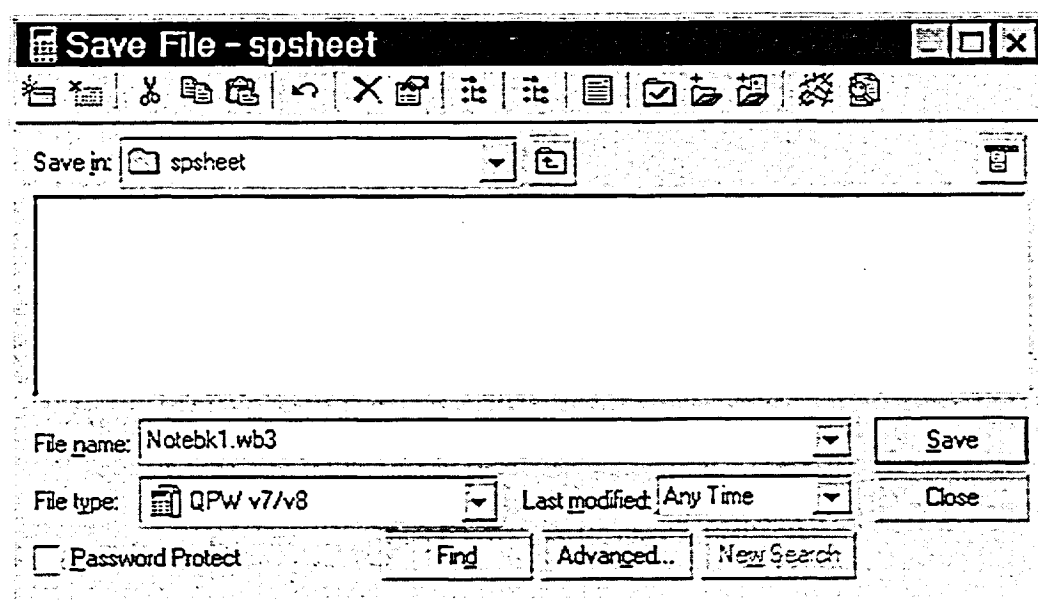


Figure 1-13: *The Save File Window*

## Saving a New Notebook

Quattro Pro can save a notebook only if you assign a name to that notebook. If you access the Save command in an unnamed notebook, Quattro Pro prompts you to name the notebook before it will save it to a disk. From then on, Quattro Pro saves the notebook under that name unless you specify otherwise. In addition, when Quattro Pro saves your file, it automatically appends the file extension `.wb3` to the end of the filename.

**METHOD**

To save a new notebook:

1. From the File menu, choose Save.  
or
1. From the File menu, choose Save As.
2. If necessary, select the desired drive and folder.
3. In the Save File window, in the File name text box, type the filename.
4. Choose Save.

**EXERCISE**

In the following exercise, you will save a new notebook.

1. From the File menu, choose Save *The Save File window appears.*
2. In the Save in drop-down list, select the **Spsheet** folder on your H:\ drive
3. In the File name text box, select the existing text, and then type **Exercise 1**
4. Choose Save *The notebook is saved in the Spsheet folder, and the filename appears in the title bar as Exercise 1.wb3.*

**END**

## Saving a Named Notebook

While you are working on a notebook, you will want to save your changes. This helps safeguard your changes in case of power outages, computer crashes, and other such mishaps. Fortunately, Quattro Pro makes saving your changes easy. Once you have named your notebook, all you have to do is access the Save command. Quattro Pro automatically saves your notebook under its filename. Quattro Pro updates the copy on disk with the version with which you have been working.

### METHOD

To save a named notebook:

1. On the Toolbar, click the Save Notebook button.  
or
1. From the File menu, choose Save.

### EXERCISE

In the following exercise, you will make changes to **Exercise 1** and save the file.

1. Select cell A12
2. Type **Yearly Totals** and press **Enter**
3. On the Toolbar, click the Save Notebook button

*The notebook is saved again under the filename **Exercise 1**.*

END



## Using Help

Quattro Pro's Help system can provide you with information about Quattro Pro's commands, features, and interface. Table 1-4 describes the various ways of accessing the Help system.

Type of Help	Description
Context-sensitive help	Press <b>F1</b> while a menu command is highlighted to bring up information about that particular command.
Help menu	Invoke the Help menu to bring up several options, including Help Topics, Ask the PerfectExpert, Corel Web Site, and About Corel Quattro Pro.
Dialog box help	Click the Help button in a dialog box to bring up Help information about the dialog box controls.
Object help	Press <b>SHIFT+F1</b> , then click an object. Help information about that specific object appears.

Table 1-4: *Ways of Accessing Help*

## Using Context-Sensitive Help

One way to access the Help system is by using the context-sensitive method. This method is particularly useful if you need information about a menu command.

**METHOD**

To use context-sensitive help:

1. Highlight the desired menu command.
2. Press **F1**
3. When finished, close the Quattro Pro Help dialog box.

**EXERCISE**

In the following exercise, you will use context-sensitive help to get information about the Copy Cells command.

1. From the Edit menu, point to the command Copy Cells *The command Copy Cells is highlighted.*
2. Press F1 *The Corel Quattro Pro Help window appears, displaying information about the Copy Cells command.*
3. Close the Corel Quattro Pro Help window

**END**

## Using the Help Menu

The Help menu offers several options for obtaining information. The option you select depends on the type of information you need. Table 1-5 describes the various Help menu options.

Menu Option	Description
Help Topics	<p>Contents—Displays a dialog box of general topics, including How Do I, @Functions, and Macros. The same dialog box appears when you press F1 from Ready mode.</p> <p>Index—Displays the Help Index.</p> <p>Find—Displays the Find dialog box and a list of keywords you can use to find Help topics.</p>
Ask the PerfectExpert	The Ask the PerfectExpert option lets you ask a question about any topic you need. The expert does the searching and displays a list of information related to your question.
PerfectExpert	The PerfectExpert option lists categories of tasks on the left side of your screen. When you click a category, subcategories appear with more tasks, or the task is performed for you. When you click a subcategory, you are provided with even more tasks, or the task is performed for you.
Corel Web Site	The Corel Web Site option lets you connect to the WordPerfect Suite page on the Internet to view manuals, hints, news, and product support.
About Corel Quattro Pro	The About Corel Quattro Pro option provides you with Corel Quattro Pro information, such as the serial number, personal identification number (PIN), release version, memory use, and copyright information.

Table 1-5: *Help Menu Options*

### **METHOD**

To use the Help menu:

1. From the Corel Quattro Pro Help menu, choose the desired option.
2. Perform additional steps as needed.
3. When finished, close the Corel Quattro Pro Help dialog box or window.

**EXERCISE**

In the following exercise, you will use the Help menu to find information about entering data.

- |   |  |
|---|--|
| 1. From the Help menu, choose Help Topics                         | <i>The Help Topics dialog box appears.</i>   |
| 2. Select the Index tab   | <i>The Index page appears.</i>   |
| 3. In the text box, type entering data                            | <i>The index list adjusts as you type.</i>   |
| 4. Choose Display   | <i>The Topics Found dialog box appears, displaying all topics pertaining to entering data.</i> |
| 5. In the Topics Found dialog box, select <i>Basic data entry</i> |  |
| 6. Choose Display   | <i>A Corel Quattro Pro Help window with information on basic data entry appears.</i>           |
| 7. Close the Help window  |  |

**END**

## Using Object Help

The quickest and easiest way of obtaining information about an object is by using the Object Help feature. You access Object Help by pressing **SHIFT+F1**. The pointer becomes a question mark with a pointer. When you click an object with the question mark pointer, a Help dialog box or a description appears.

### **METHOD**

To access Object Help:

1. Press **SHIFT+F1**
2. Click the object.
3. When finished, close the Help dialog box or the description box.

### **EXERCISE**

In the following exercise, you will access Object Help for the Chart tool.

- |  |  |
|--|--|
| 1. Press <b>SHIFT+F1</b>                         | <i>The pointer becomes a question mark with a pointer.</i> |
| 2. On the Toolbar, click the Chart tool          | <i>The Help dialog box for creating a chart appears.</i>   |
| 3. Close the Help window                         |  |
| 4. Press <b>SHIFT+F1</b>                         | <i>The pointer becomes a question mark with a pointer.</i> |
| 5. Click a sheet tab at the bottom of the window | <i>A box describing sheet tabs appears.</i>                |
| 6. Click anywhere outside the description box    | <i>The description box is closed.</i>                      |

**END**

## Finishing a Job

When you have finished entering data, you might want to print your spreadsheet. Using the Print button is a quick and easy way of doing this. In addition, when you are finished working with a notebook, you can close it. When you close a notebook, a new, blank spreadsheet appears.

### Using Print Preview and Print

The Print button, located on the Toolbar, provides a quick and easy way of printing the active notebook as it appears in the *Print Preview* screen. The Print Preview screen lets you see exactly what your spreadsheet will look like when it is printed.

#### METHOD

To print preview the spreadsheet:

1. From the File menu, choose Print Preview.
2. In the Print Preview screen, on the Toolbar, click the Print button to print the spreadsheet.  
or
2. On the Toolbar, click the Close button to return to the spreadsheet.

To print a spreadsheet by using the Print button:

1. On the Toolbar, click the Print button.
2. In the Spreadsheet Print dialog box, select the desired options.
3. Choose Print.  
or
3. Choose Close to return to the spreadsheet without printing.

#### EXERCISE

In the following exercise, you will preview and then print the Bob's Boats spreadsheet.

- |   |  |
|---|--|
| 1. From the File menu, choose Print Preview   | <i>The Print Preview screen appears.</i>                                     |
| 2. On the Toolbar, click the Close button (the X over the printer on the far right) | <i>The Print Preview screen is closed and the spreadsheet appears again.</i> |

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3. On the Toolbar, click the Print button

*The Spreadsheet Print dialog box appears.*

4. Choose Print

*The spreadsheet prints and the spreadsheet window reappears.*

END

## Closing a Notebook

Closing a notebook removes it from your screen but leaves you in Quattro Pro with a new, blank spreadsheet. Before you close a notebook, you should make sure that you have saved your work. If you have forgotten, however, Quattro Pro reminds you that you need to save the document and gives you a chance to do so.

### METHOD

To close a notebook:

1. From the File menu, choose Close.
2. If prompted to save changes, choose Yes.

### EXERCISE

In the following exercise, you will close the Exercise 1 notebook.

1. From the File menu, choose Close      *The notebook is closed.*
2. If prompted to save changes, choose Yes

END



# Section **1** Summary

## To start Quattro Pro:

1. From the Start Menu, choose Corel WordPerfect Suite 8.
2. From the Corel WordPerfect Suite 8 submenu, choose Corel Quattro Pro.

## To select a cell:

1. Click the cell.  
or
1. Use the arrow keys to move the selector to the cell.

## To select a block of cells:

### Mouse method

1. Drag the pointer through the block of cells.

### Keyboard method

1. Select the first cell of the block.
2. Press **SHIFT** and the arrow keys to highlight the block.  
or
2. Press and hold **SHIFT**, and then click the last cell in the block.
3. Release **SHIFT** when done.

## To see Toolbar definitions:

1. On the Toolbar, point to the button or tool.
2. Read the definition provided.

## To use the Toolbar to execute a command:

1. If necessary, select the cell or block of cells.
2. On the Toolbar, click the button or tool.

## To use a QuickMenu:

1. Point to the object.
2. Right-click the mouse.
3. From the QuickMenu, choose the command.

## To see Property Bar definitions:

1. On the Property Bar, point to the list.
2. Read the definition provided.

## To use the Property Bar to change properties:

1. If necessary, select the cell or block of cells.
2. On the Property Bar, click the list.
3. In the Property Bar list, choose the option.

## To invoke and adjust an Object Inspector:

1. Point to the object.
2. Right-click the mouse.
3. If a QuickMenu appears, choose the appropriate Properties command.
4. In the Object Inspector, select the tab for the property to be changed.
5. Select the settings.
6. Choose **OK**.

## To enter a label into a cell:

1. Select the cell.
2. Type the information in the input line.
3. Click the Enter button.  
or

# **I** *Self-Check Exercise*

1. Begin to create the spreadsheet shown in Figure 1-14 using the guidelines listed below:

In cell C3, type **Carrie's Computers**

In cell C4, type **Sales Report**

In cells C6 through F6, enter the years as labels using QuickFill.

Enter the product names in the block A7 through A10.

2. Using Figure 1-14 as your guide, fill in the rest of the data for 1994, 1995, 1996, and 1997 by selecting a block, and then entering the data.
3. Save the spreadsheet as **Self-Check.wb3**, on **H:\spsheet**.
4. Add the following comment to cell F6: **The data for 1997 has not been verified.**
5. Delete the comment added to cell F6.
6. Using the Print button, print the spreadsheet.
7. Use the Zoom button on the Toolbar to enlarge the spreadsheet view to 200%, and then use the Zoom button to return the spreadsheet to its normal size.
8. Use Object Help to get information about the Save feature.
9. Close the Help window.
10. Use the Help menu to search for information about Toolbars.
11. Close the Help window.
12. Display the Object Inspector for the active sheet.
13. Close the Active Sheet Object Inspector dialog box.
14. In cell A11, type **Yearly Total**.
15. Save the spreadsheet again.
16. Close the notebook.

	A	B	C	D	E	F	G
1							
2							
3			Carrie's Computers				
4			Sales Report				
5							
6			1994	1995	1996	1997	
7	Printers		535	2123	1000	121	
8	Monitors		3432	3453	1333	6442	
9	Keyboards		454	1233	7437	2322	
10	Disk Drives		865	5782	664	767	
11	Yearly Total						
12							

**Figure 1-14: The Completed Spreadsheet**

Section

2

## *Creating a Notebook*

- Opening and Creating Notebooks
- Creating Simple Formulas
- Using @Functions
- Editing Data on the Spreadsheet

## Section Skills and Their Importance

In the following section you will learn to:

- **Open and create notebooks**

After you have saved and closed a notebook, you can open it again to view it or modify it. Creating a new notebook lets you enter data for a new spreadsheet on a blank notebook.

- **Create simple formulas**

One of the most important features of a spreadsheet is its ability to use formulas to perform calculations on data.

- **Use @Functions**

@Functions are a component of Quattro Pro that let you easily apply formulas to data. You will practice using the most frequently used @function, the SUM function, as well as the QuickSum button.

- **Edit data on the spreadsheet**

Quattro Pro makes it easy for you to modify data or correct mistakes. If you make a mistake, Quattro Pro's Undo command lets you change selected cells back to their former state.

## Opening and Creating Notebooks

Besides working in the blank notebook that appears when you start Quattro Pro, you can either work in an existing notebook that has been saved to disk or create a new notebook.

### Opening an Existing Notebook

To work with a Quattro Pro notebook that was saved on a disk, you first need to open it. To open a notebook, you use the Open command or the Open Notebook button on the Toolbar. Both options access the Open File window, which is where you specify the appropriate directory, folder, and filename. The Open File window is illustrated in Figure 2-1.

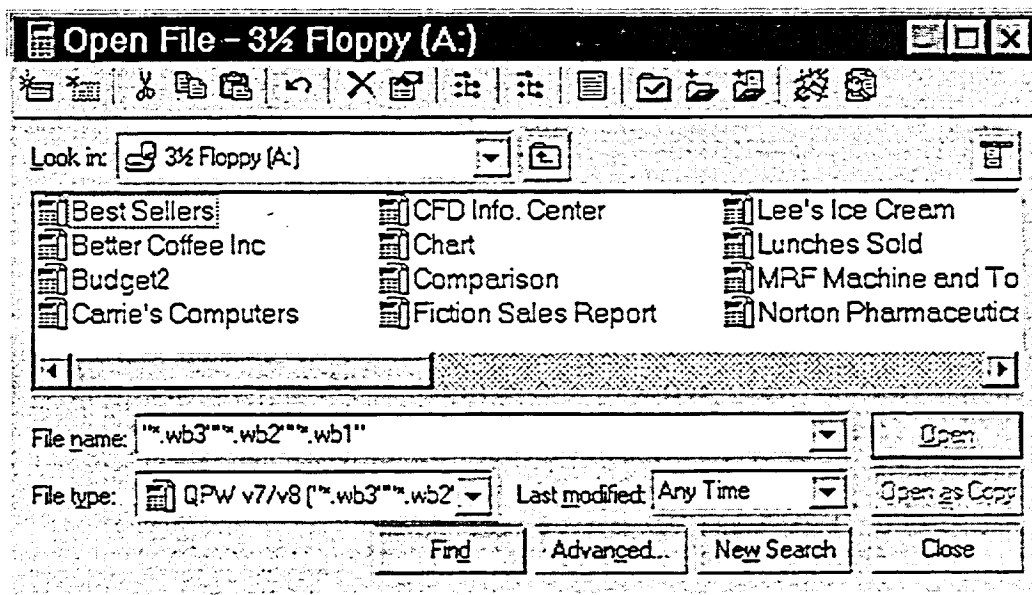


Figure 2-1: The Open File Window

#### METHOD

To open an existing notebook:

1. From the File menu, choose Open.  
or
1. On the Toolbar, click the Open Notebook button.
2. In the Open File window, in the Look in drop-down list, select a drive and folder.

## Section 2: Creating a Notebook

---

3. Select a file from the list.
4. Choose Open.

### **EXERCISE**

---

In the following exercise, you will open the file **Sales Report 1**.

1. From the File menu, choose Open *The Open File window appears.*
2. If necessary, in the Look in drop-down list, select A:\
3. Select the file **Sales Report 1**
4. Choose Open *Sales Report 1 opens.*

**END**

## Creating a New Notebook

You might want to create a new notebook while having another notebook open. To create a new notebook, you need to open a new notebook window.

The default notebook that appears has 256 sheets and an Objects sheet. A file in Quattro Pro is the same as a notebook, so when you save or open a file, you are saving or opening a single notebook that can contain many sheets.

Creating a new notebook from the File menu in Quattro Pro lets you choose from several pre-designed *templates* or the standard Quattro Pro Notebook template. Figure 2-2 shows the New dialog box, which you can use to open a new notebook template.

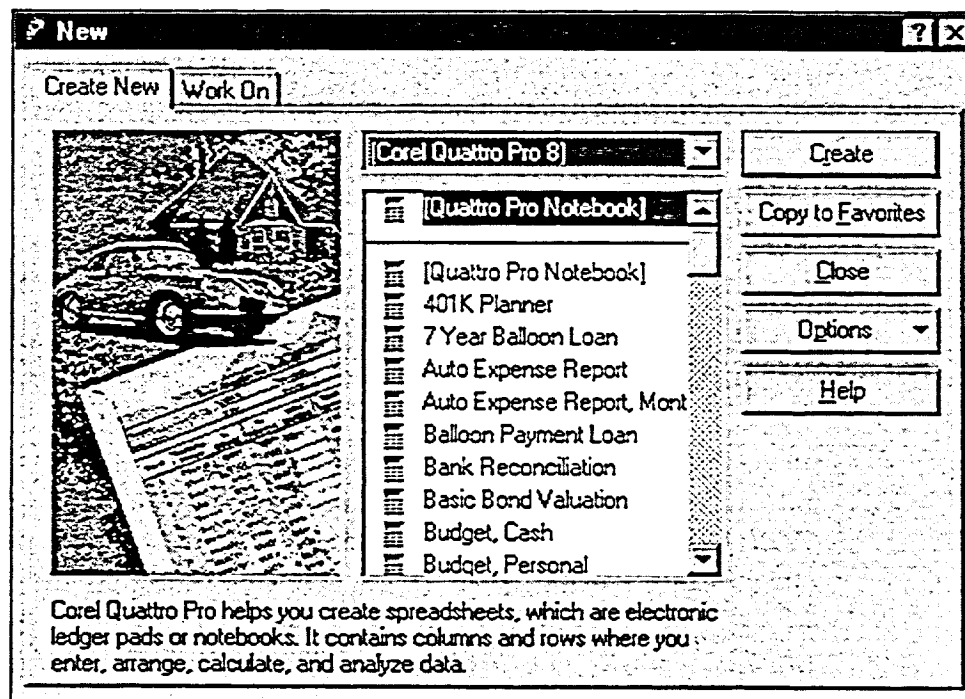


Figure 2-2: The New Dialog Box

### METHOD

To create a new notebook:

#### Toolbar method

1. On the Toolbar, click the New Notebook button.



## Section 2: Creating a Notebook

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### Menu method

1. From the File menu, choose New.
2. In the New dialog box, make sure the Create New tab is selected.
3. On the Create New page, in the list box, make sure Quattro Pro Notebook is selected.
4. Choose Create.

### **EXERCISE**

---

In the following exercise, you will create a new notebook.

- |  |   |
|--|---|
| 1. From the File menu, choose New                                    | <i>The New dialog box appears.</i>  |
| 2. If necessary, on the Create New page, select Quattro Pro Notebook |   |
| 3. Choose Create   | <i>A new notebook window appears on top of the previously opened spreadsheet.</i> |
| 4. Close both windows  | <i>You now have a blank spreadsheet.</i>  |
| 5. If prompted to save changes, choose No                            |   |

**END**

## Creating Simple Formulas

Now that you've learned to enter data into a spreadsheet, you are ready to manipulate that data. You can do this by using *formulas*, which are cell entries that Quattro Pro uses to perform calculations. You can use formulas to perform simple calculations such as addition and subtraction, or more complicated applications such as complex financial or statistical functions.

Formulas are made up of *operators* and *cell references*. Operators are mathematical symbols that show which type of calculation is being performed. For example, + (addition), - (subtraction), \* (multiplication), and / (division) are all arithmetic operators. There are several other operators available, but only arithmetic operators are covered in this course. Cell references are those letters and numbers that refer to a cell's location. For example, A4, H78, and Z9 are all cell references because they refer to a cell's address.

In addition, all formulas begin with a plus sign (+). The plus sign indicates to Quattro Pro that the cell data should be interpreted as a formula. Otherwise, Quattro Pro interprets the data as a label and simply inserts exactly what you type into the cell. For example, to create a formula to add the contents of cells C5 through C7, you must type `+C5+C6+C7`.

There are two ways of entering a formula into your spreadsheet: by typing and by pointing. Both methods are covered in this section.

How Quattro Pro interprets operators depends, in part, on where the operators appear in the formula. Quattro Pro uses standard order of operations to interpret formulas. It evaluates operators enclosed in parentheses first, then multiplication and division operators, and lastly, addition and subtraction operators. For example, the formula `+6+8/2` is equal to *10* because Quattro Pro calculates the *8/2* portion of the formula before it interprets the *+6* portion. The formula `+(6+8)/2` equals *7* because Quattro Pro calculates the *6+8* portion first and then divides that sum by 2.

### Creating a Formula by Typing

One way to create a formula is simply by typing it into the cell where you want the results to appear, as illustrated in Figure 2-3. Notice that the same formula that you are typing appears in the input line above your spreadsheet. The input line contains four buttons to assist you while you are inputting your data. These buttons are also shown in Figure 2-3.

## Section 2: Creating a Notebook

@ functions    Cancel

Navigate    Macros    Enter    Input line

A:F8    @ {} X ✓    +C8+D8+E8							
	A	B	C	D	E	F	G
1							
2			Bob's Boats				
3			Sales Report				
4							
5			1995	1996	1997	Region Total	
6							
7	REGION 1		1024	1000	989	3013	
8	REGION 2		2599	500	798	+C8+D8+E8	
9	REGION 3		3456	1000	723		
10	REGION 4		5647	4536	890		
11	REGION 5		9284	890	1000		
12	Yearly Total						
13							

**Figure 2-3:** *The Spreadsheet with a Formula Created by Typing*

### METHOD

To create a formula by typing:

1. Select the cell where the formula results are to appear.
  2. Press the plus sign (+) to designate the entry as a formula.
  3. Type the appropriate cell references and mathematical operators.
  4. Click the Enter button.
- or
4. Press ENTER

### EXERCISE

In the following exercise, you will enter formulas to calculate the sums (totals) of blocks.

1. Open **Sales Report 1**
2. Select cell F5

## Creating Simple Formulas

---

3. **Type Region Totals** *Region Totals appears in the cell and in the input line.*
4. **Select cell F7**
5. **Type +C7+D7+E7 and press ENTER** *The formula is entered in the input line and the result appears in cell F7.*
6. **In cell F8, type +C8+D8+E8**
7. **Click the Enter button** *The formula is entered in the input line and the result appears in cell F8.*

**END**

## Creating a Formula by Pointing

Typing formulas can be very time-consuming if the formula includes a large number of cell references. Quattro Pro provides for this situation by allowing you to click cells to insert references. For example, instead of typing **B10**, you can click cell B10, and Quattro Pro inserts the reference for you.

### METHOD

To create a formula by pointing:

1. Select the cell where the formula results are to appear.
2. Press the plus sign (+) to designate the entry as a formula.
3. Type the formula, selecting each cell to place its reference in the input line.
4. Click the Enter button.  
or
4. Press **ENTER**

### EXERCISE

In the following exercise, you'll create formulas by pointing.

1. Select cell F9
2. Press + *The input line is activated.*
3. Click cell C9 *C9 appears in the cell and in the input line.*
4. Press +
5. Click cell D9 *D9 appears in the cell and in the input line.*
6. Press +
7. Click cell E9 *E9 appears in the cell and in the input line. The formula is now complete.*
8. Click the Enter button *The result appears in cell F9.*

9. Select cell F10
10. Repeat steps 2 through 8, substituting row 10 for row 9

*Your spreadsheet should resemble Figure 2-4.*

END

	A	B	C	D	E	F	G
1							
2			Bob's Boats				
3			Sales Report				
4							
5			1995	1996	1997	Region Totals	
6							
7	REGION 1		1024	1000	989	3013	
8	REGION 2		2599	500	798	3897	
9	REGION 3		3456	1000	723	5179	
10	REGION 4		5647	4536	890	11073	
11	REGION 5		9284	890	1000		
12	Yearly Total						
13							

**Figure 2-4: The Spreadsheet Results**

## Using @Functions

Another way of performing calculations on your data is by using *@functions*. @Functions are special commands you type into your formulas to perform specific calculations. They are called @functions because they all begin with the @ (“at”) sign, which is typed by pressing **SHIFT+2**. These ready-made formulas can save you the time and trouble of typing and pointing. For example, the @SUM function adds all cells within a given block. So, for instance, if you wanted to add cells B8, B9, B10, B11, B12, B13, and B14, you wouldn’t need to enter all the cell references and operators by typing or pointing. You would just insert the name of the function and the block of cells you want to add. Instead of entering a long string of cell references such as +B8+B9+B10+B11+B12+B13+B14, you would enter @SUM(B8..B14).

### Using the @SUM Function

The @SUM function is the most frequently used @function. It totals the numeric value of all cells in the block it references. The @SUM function is illustrated on the input line in Figure 2-5.

If you want to enter a block of cells in a formula, you do so by entering the *block coordinates*. Enter the block coordinates as follows: the address of the top left cell, two periods, and the address of the right bottom cell. In @functions, the cell coordinates are called *arguments*. In a formula, cells in the referenced block that contain text or error values are ignored.

A:F11		@SUM(C11..E11)					
	A	B	C	D	E	F	G
1							
2			Bob's Boats				
3			Sales Report				
4							
5			1995	1996	1997	Region Totals	
6							
7	REGION 1		1024	1000	989	3013	
8	REGION 2		2599	500	798	3897	
9	REGION 3		3456	1000	723	5179	
10	REGION 4		5647	4536	890	11073	
11	REGION 5		9284	890	1000	11174	
12	Yearly Total						
13							

Figure 2-5: Entering the @SUM Function

**METHOD**

To enter the @SUM function by typing:

1. Select the cell where the @SUM function results are to appear.
2. Type @ to designate the entry as a function.
3. Type SUM
4. In the parentheses, type the appropriate block coordinates, separating the beginning and ending arguments with two periods.
5. Click the Enter button.  
or
5. Press ENTER

**EXERCISE**

In the following exercise, you will total row 11 using the @SUM function.

1. Select cell F11
2. Press **SHIFT+2** (@ sign) *The @function is activated in the input line.*
3. Type **SUM**
4. Press **SHIFT+9** (left parenthesis)
5. Type **C11..E11**
6. Press **SHIFT+0** (right parenthesis)
7. Click the Enter button *The function is entered and the result appears in cell F11. Your spreadsheet should resemble Figure 2-5.*

**END**



## Using the @Functions Button

Quattro Pro has more than 450 @functions. To make entering these @functions easier, Quattro Pro provides an @Functions button. This button appears in the input line when you enter or edit a cell entry, as illustrated in Figure 2-6. You can also make the @Functions button appear by clicking the input line. When activated, this button displays the Functions dialog box, illustrated in Figure 2-7. The Functions dialog box contains a list of @function categories. Each category lists all the @functions pertaining to it. For example, selecting the Financial-Annuity category in this list displays all Financial-Annuity @functions.

@ Functions button

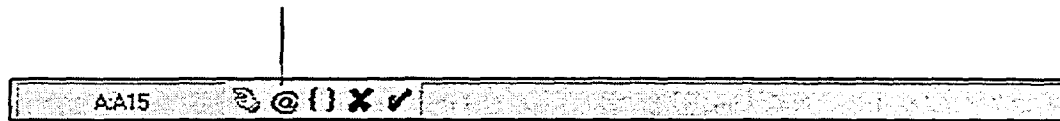


Figure 2-6: The @Functions Button

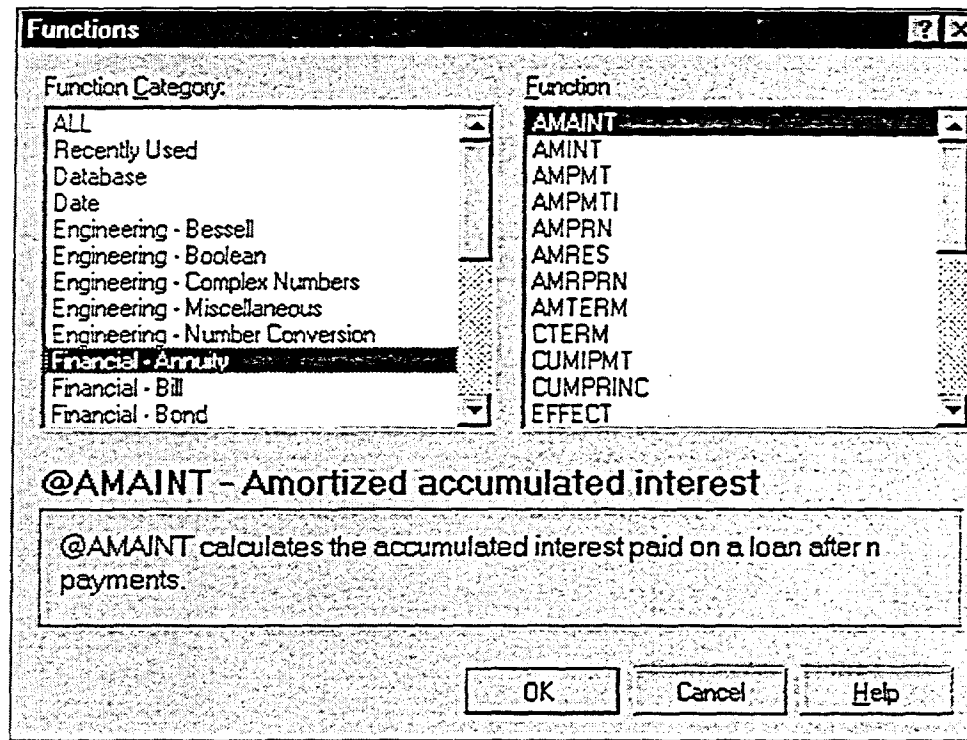


Figure 2-7: The Functions Dialog Box

**METHOD**

To use the @Functions button:

1. Select the cell in which the @function results are to appear.
2. Click the input line to activate it and make the @Functions button appear.
3. On the input line, click the @Functions button.
4. In the Functions dialog box, in the Function Category list, select a category.
5. In the Function list, double-click an @function.
6. In the input line, finish entering the required arguments.
7. Press ENTER

*Note:* The complete syntax of the @function you select appears in the status line.

**EXERCISE**

In the following exercise, you will use the @Functions button to enter an @SUM function.

1. Select cell C12
2. Click the input line  
*The input line is activated and the @Functions button appears to the left.*
3. Click the @Functions button  
*The Functions dialog box appears.*
4. In the Function Category list, select Financial-Annuity  
*The list of all Financial-Annuity functions is visible in the Function list on the right side of the dialog box.*
5. In the Function Category list box, select ALL  
*The list of all @functions is visible in the Function list on the right side of the dialog box.*
6. In the Function list, drag the scroll box down until SUM appears

## Section 2: Creating a Notebook

---

7. Double-click SUM

*The Functions dialog box is closed and @SUM( appears in the cell and in the input line.*

8. Type C7..C11)

*@SUM(C7..C11) appears in the cell and in the input line.*

9. Click the Enter button

*The result appears in cell C12.*

END

## Using the QuickSum Button

The most efficient way to total a group of cells is by clicking the QuickSum button on the Toolbar. QuickSum automatically totals the values of a specified block. You can use it to total a single row or column, or to total multiple rows or columns simultaneously.

### METHOD

To use the QuickSum button:

1. Select the block that includes the data to be totaled, plus a blank cell (or cells) beneath or to the right to contain the results.
2. On the Toolbar, click the QuickSum button.

### EXERCISE

In the following exercise, you will use the QuickSum button to sum columns D through F.

1. Select the block D7 through D12
2. On the Toolbar, click the QuickSum button *The column total appears in cell D12.*
3. Select the block E7 through E12
4. On the Toolbar, click the QuickSum button *The column total appears in cell E12.*
5. Select the block F7 through F12
6. On the Toolbar, click the QuickSum button *The column total appears in cell F12.*
7. Compare your results with Figure 2-8

END

## Section 2: Creating a Notebook

	A	B	C	D	E	F	G
1							
2			Bob's Boats				
3			Sales Report				
4							
5			1995	1996	1997	Region Totals	
6							
7	REGION 1		1024	1000	989	3013	
8	REGION 2		2599	500	798	3897	
9	REGION 3		3456	1000	723	5179	
10	REGION 4		5647	4536	890	11073	
11	REGION 5		9284	890	1000	11174	
12	Yearly Total		22010	7926	4400	34336	
13							

**Figure 2-8: The Completed Spreadsheet**

## Editing Data on the Spreadsheet

Once you have entered data in a cell, you can always go back and change it. Quattro Pro allows you to access a cell's contents so that you can add, delete, and edit information.

### Changing the Data in a Cell

To completely change a cell's contents, you can simply select the cell, type the new data, and then press ENTER. The original contents of the cell are replaced with the new information. After you change the *constant value* or value in a cell, the formula cells that refer to that cell also change.

#### METHOD

To change a cell's data:

1. Select the cell.
2. Type the new data.
3. Press ENTER  
or
3. Click the Enter button.

#### EXERCISE

In the following exercise, you will change the contents of a cell.

1. Select cell E7
2. Type 1500
3. Press ENTER

*The value 1500 replaces 989.  
The sums in cells F7, E12, and  
F12 also change.*

END

## Editing a Cell

Instead of overwriting the cell data, you can edit the existing cell contents. Quattro Pro provides two methods in which you can do this. One way to edit the contents of a cell is to edit the cell contents directly in the spreadsheet. This technique is known as *in-cell editing*. Another way to edit the data in a cell is to edit that cell directly in the input line. Before you can edit the cell using either method, you must first select the cell.

### METHOD

To edit data directly in the cell:

1. Select the cell containing the data to be edited.
2. Double-click the cell.  
or
2. Press F2
3. Edit the data in the cell.
4. Press ENTER to accept the changed data.  
or
4. Click the Enter button to accept the changed data.

To edit data in the input line:

1. Select the cell containing the data to be edited.
2. Click the input line.  
or
2. Press F2
3. Edit the data in the input line.
4. Press ENTER to accept the changed data.  
or
4. Click the Enter button to accept the changed data.

*Note:* If you start to edit the contents of a cell and then change your mind, you can press ESC or click the Cancel button to leave the contents unchanged.

**EXERCISE**

In the following exercise, you will edit text in a cell.

1. Select cell F5
2. Press F2 *The insertion point appears in the cell at the end of the contents of cell F5. The input line is also activated.*
3. Press BACKSPACE once *The ending s in the word **Totals** is deleted in both the cell and the input line.*
4. Press ENTER *The word **Total** replaces **Totals**.*
5. Select cell A12
6. Click the input line *The input line is activated.*
7. Make sure that the insertion point is situated at the end of the input line
8. Type s *The ending s is added to the word **Total** in both the input line and the cell.*
9. Click the Enter button *The word **Totals** replaces **Total**.*

END



## Clearing a Cell

You can clear data from a cell, a block of cells, or an entire spreadsheet. Clearing a cell removes only the cell's contents, leaving the cell itself intact. It does not remove the cell from the spreadsheet, nor does it affect the position of any surrounding cells.

When you choose to clear a cell, you can select whether to clear both the data and the property settings such as alignments, formats, and fonts, only the data, only the property settings, or only the comments. As shown in Figure 2-9, you choose these options from the submenus of the Clear command on the Edit menu. The Cells command clears the data and property settings, the Values command clears only the data, the Formats command clears only the format, and the Comments command clears only the comment from the cell.

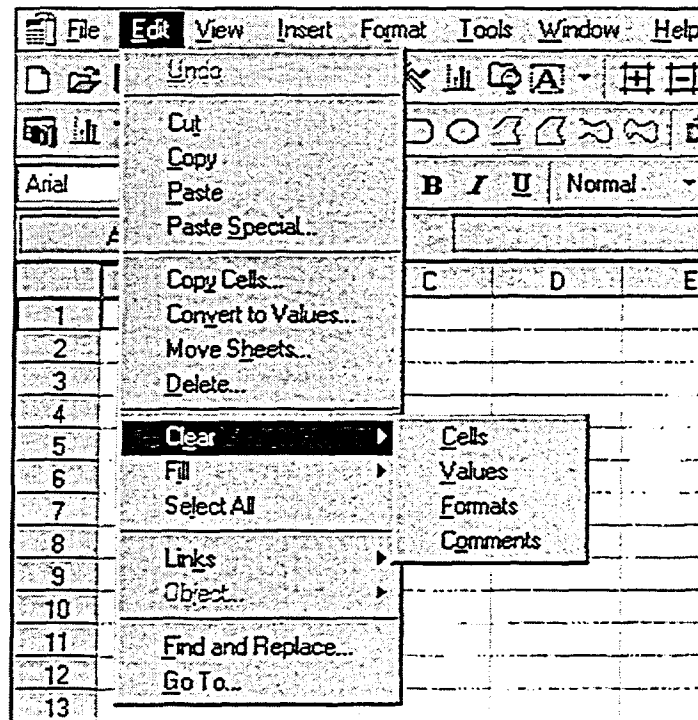


Figure 2-9: The Submenus of the Clear Command

**METHOD**

To clear the contents of a cell:

1. Select the cell.
2. From the Edit menu, choose Clear, and from the submenu, choose Cells.  
or
2. Right-click the mouse, and then, from the QuickMenu, choose Clear.  
or
2. Press **DELETE**

**EXERCISE**

In the following exercise, you will clear the contents of a cell using the QuickMenu.

- |  |  |
|--|--|
| 1. Select cell C11 and right-click the mouse | <i>The QuickMenu appears.</i>  |
| 2. Choose Clear                              | <i>The data is cleared from the cell. The results in cells C12, F11, and F12 change.</i> |

**END**

## Clearing a Block

Instead of clearing cells individually, you can save time by selecting a block of cells and clearing them together. The procedure for clearing a block is exactly the same as that for clearing an individual cell.

### METHOD

To clear data in a block of cells:

1. Select the cell block.
2. From the Edit menu, choose Clear, and from the submenu, choose Cells.  
or
2. Right-click the mouse, and then, from the QuickMenu, choose Clear.  
or
2. Press **DELETE**

### EXERCISE

In the following exercise, you will clear data in a block of cells.

1. Select the block D11 through F11
2. From the Edit menu, choose Clear *The Clear submenu appears.*
3. From the Clear submenu, choose Cells *The data is cleared from the cell block.*
4. Select cell A1 *The block of cells is deselected and cell A1 is active.*

END

## Using Undo

The *Undo* command on the Edit menu lets you undo, or reverse, the last action you performed. For the Undo command to work, you must choose it immediately after the action you want to cancel. For that reason, you cannot clear three cells, type some data, do some formatting, and then undo the cleared cells. If a command or action cannot be undone, the Undo command appears on the Edit menu in dimmed letters.

### METHOD

To use the Undo command:

1. From the Edit menu, choose Undo.
- or
1. On the Toolbar, click the Undo button.

### EXERCISE

In the following exercise, you will use the Undo command to return the cleared data to row 11.

- |  |   |
|--|---|
| 1. From the Edit menu, choose Undo Clear   | <i>The data returns to cells D11 through F11.</i> |
| 2. Select cell C11                         |   |
| 3. Type <b>9284</b> and press <b>ENTER</b> | <i>The value 9284 appears in cell C11.</i>        |
| 4. From the File menu, choose Save         | <i>The changes to the spreadsheet are saved.</i>  |
| 5. From the File menu, choose Close        | <i>The spreadsheet is closed.</i>                 |

END

## Section **2** Summary

### To create a new notebook:

#### Toolbar method

1. On the Toolbar, click the New Notebook button.

#### Menu method

1. From the File menu, choose New.
2. In the New File dialog box, in the Create New group box, select the Quattro Pro Notebook option button.
3. Choose OK.

### To open an existing notebook:

1. From the File menu, choose Open.  
or
1. On the Toolbar, click the Open button.
2. In the Open File window, in the Look in drop-down list, select the drive and folder.
3. Select the file from the list.
4. Choose Open.

### To create a formula by typing:

1. Select the cell where the formula results are to appear.
2. Press the plus sign (+) to designate the entry as a formula.
3. Type the appropriate cell references and mathematical operators.
4. Click the Enter button.  
or
4. Press ENTER

### To create a formula by pointing:

1. Select the cell where the formula results are to appear.
2. Press the plus sign (+) to designate the entry as a formula.

3. Type the formula, selecting each cell to place its reference in the input line.
4. Click the Enter button.  
or
4. Press ENTER

### To enter the @SUM function by typing:

1. Select the cell where the @SUM function results are to appear.
2. Type @ to designate the entry as a function.
3. Type SUM
4. In the parentheses, type the appropriate block, separating the beginning and ending arguments with two periods.
5. Click the Enter button.  
or
5. Press ENTER

### To use the QuickSum button:

1. Select the block that includes the data to be totaled, plus a blank cell (or cells) beneath or to the right to contain the results.
2. On the Toolbar, click the QuickSum button.

### To use the @Functions button:

1. Select the cell in which the @function results are to appear.
2. Click the input line to activate it and make the @Functions button appear.  
or
2. Press +
3. On the input line, click the @Functions button.
4. In the Functions dialog box, in the Function Category list, select the category.
5. Double-click the @function.

6. In the input line, finish entering the required arguments.
7. Press **ENTER**  
or
7. Click the Enter button.

**To change a cell's data:**

1. Select the cell.
2. Type the new data.
3. Press **ENTER**  
or
3. Click the Enter button.

**To edit data directly in the cell:**

1. Select the cell containing the data to be edited.
2. Double-click the cell.  
or
2. Press **F2**
3. Edit the data in the cell.
4. Press **ENTER** to accept the changed data.  
or
4. Click the Enter button to accept the changed data.

**To edit data in the input line:**

1. Select the cell containing the data to be edited.
2. Click the input line.  
or
2. Press **F2**
3. Edit the data in the input line.
4. Press **ENTER** to accept the changed data.  
or
4. Click the Enter button to accept the changed data.

**To clear the contents of a cell:**

1. Select the cell.
2. From the Edit menu, choose **Clear**.  
or
2. From the QuickMenu, choose **Clear**.  
or
2. Press **DELETE**

**To clear data in a block of cells:**

1. Select the cell block.
2. From the Edit menu, choose **Clear**.  
or
2. From the QuickMenu, choose **Clear**.  
or
2. Press **DELETE**

**To use the Undo command:**

1. From the Edit menu, choose **Undo**.  
or
1. On the Toolbar, click the Undo button.

## Self-Check Exercise

1. Open the file **Carrie's Computers**.
2. Create a new notebook.
3. Close the new notebook to return to **Carries' Computers**.
4. In cell G6, enter **Totals**.
5. In cell G7, type the formula to total cells C7 through F7.
6. Using the pointing method, enter the formula in cell G8 to total cells C8 through F8.
7. In cell G9, use the @Functions button to insert the @SUM formula to total cells C9 through F9.
8. In cell G10, use the @SUM function to total cells C10 through F10.
9. Use the QuickSum button to total columns C through G, putting the results in cells C11 through G11.
10. Clear the contents of cells D7 through D11.
11. Undo the Clear command.
12. Change the contents of cell E7 from *1341* to **1000**.
13. Edit cell G6 so that it reads **Total** instead of *Totals*.
14. Compare your results with Figure 2-10.
15. Save and close the notebook.

Self-Check Exercise

	A	B	C	D	E	F	G
1							
2							
3			Carrie's Computers				
4			Sales Report				
5							
6			1994	1995	1996	1997	Total
7	Printers		535	2123	1000	121	3779
8	Monitors		3432	3453	1333	6442	14660
9	Keyboards		454	1233	7437	2322	11446
10	Disk Drives		865	5782	664	767	8078
11	Yearly Total		5286	12591	10434	9652	37963

Figure 2-10: *The Completed Spreadsheet*



Section 2: Creating a Notebook

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Section



## *Developing a Spreadsheet*

- Navigating in a Spreadsheet
- Changing the Spreadsheet Structure
- Moving and Copying Data

## Section Skills and Their Importance

In the following section you will learn to:

- **Navigate in a spreadsheet**  
Using Quattro Pro's shortcuts, commands and scroll bars, you can navigate a large spreadsheet with minimal keystrokes.
  
- **Change the spreadsheet structure**  
You can change the overall structure of a spreadsheet by inserting and deleting cells, columns, and rows.
  
- **Move and copy data**  
You can copy and move spreadsheet data quickly and easily by using some of Quattro Pro's many Copy and Move commands.

## Navigating in a Spreadsheet

To go directly to a specific cell on a spreadsheet, you can simply position the pointer on the cell you want and then click. This method works well when the desired cell is on the screen, but it is not quite as effective when the desired cell is not visible. Quattro Pro, therefore, has many functions that allow you to move through a notebook more quickly and effectively.

## Switching Sheets

Notebooks can contain 256 sheets. Instead of placing data tables on different parts of the same sheet, you can use a separate sheet for each table, making your data easier to manipulate and view. You can access the various sheets of the notebook by clicking the appropriate sheet tab, as shown in Figure 3-1.

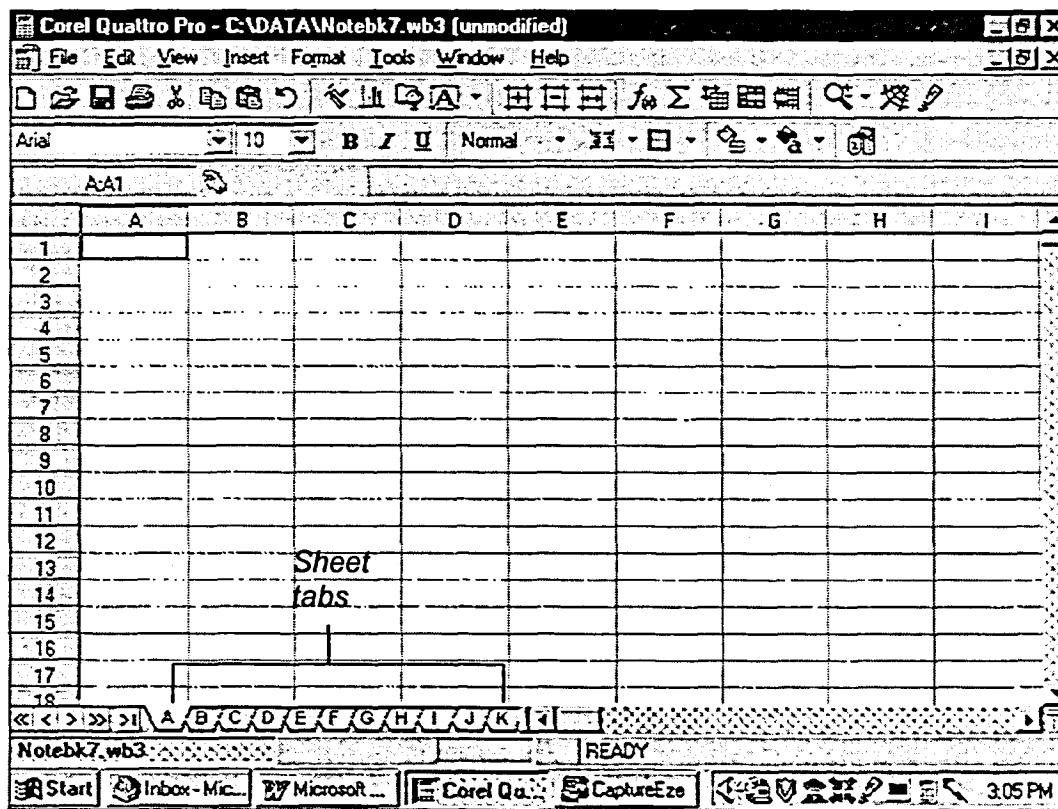


Figure 3-1: The Sheet Tabs

### Section 3: Developing a Spreadsheet

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#### **METHOD**

To switch to a different spreadsheet sheet:

1. Click the sheet tab.

#### **EXERCISE**

In the following exercise, you will switch to sheet B of the notebook.

1. Open **A:\Norton Pharmaceuticals.wb3**

2. Click sheet tab B

*Sheet B appears.*

**END**

## Using the Home Key

The **HOME** key moves the cell selector to cell A1 of the active sheet. When used together with the **CTRL** key, it positions the cell selector in cell A1 of the first sheet. These keystrokes provide a quick and accurate way to navigate in a large spreadsheet or notebook.

### METHOD

To move to cell A1 on the active sheet:

1. Press **HOME**

To move to cell A1 on the first sheet:

1. Press **CTRL+HOME**

### EXERCISE

In the following exercise, you will use the **HOME** key to move around a spreadsheet.

1. Select cell E12
2. Press **HOME**
3. Press **CTRL+HOME**

*Cell A1, on sheet B, is selected.*

*Cell A1, on sheet A, is selected.*

END

## Using the Scroll Bars and Boxes

When a large spreadsheet opens, only a small portion of it will be visible on the screen at once. To access those cells that are not on the screen, you need to move, or scroll, the window up, down, left, or right to see the remainder of the spreadsheet. The spreadsheet itself stays still, and you move the window over the top of the spreadsheet, bringing different areas into view.

You scroll through a spreadsheet by using the *scroll bars*. You can scroll through the spreadsheet one line at a time by clicking a scroll arrow, indicated in Figure 3-2. If the spreadsheet is particularly long, you can move to a general area of the spreadsheet by dragging the scroll box, also shown in Figure 3-2, to the desired position. For example, if you want to move halfway through a spreadsheet, you can drag a scroll box halfway down or across a scroll bar.

As you drag the horizontal or vertical scroll box, a box appears in the spreadsheet, telling you at what row or column the scroll bar is located.

	H	I	J	K	L	M	N	O	P
4									
5	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	
6									
7	\$3,432	\$6,544	\$6,520	\$2,315	\$8,025	\$3,589	\$1,587	\$6,547	
8	\$5,645	\$6,555	\$8,564	\$5,214	\$1,264	\$1,254	\$4,258	\$3,526	
9	\$5,645	\$7,777	\$3,601	\$7,542	\$9,201	\$6,032	\$1,365	\$7,854	
10	\$1,233	\$3,422	\$3,021	\$6,984	\$6,547	\$3,256	\$9,874	\$8,974	
11	\$1,232	\$3,422	\$9,874	\$2,541	\$6,547	\$3,256	\$9,874	\$8,974	
12	\$3,453	\$3,422	\$9,852	\$8,520	\$3,125	\$2,058	\$2,587	\$9,875	
13	\$6,546	\$3,453	\$3,601	\$7,542	\$9,201	\$6,032	\$1,365	\$7,854	
14	\$6,765	\$3,453	\$2,503	\$3,465	\$6,532	\$6,541	\$2,365	\$7,125	
15	\$33,951	\$38,048	\$47,536	\$44,123	\$50,442	\$32,018	\$33,275	\$60,729	
16									
17									
18									

Scroll arrow      Scroll box      Scroll bar

Figure 3-2: The Scroll Arrows, Bars, and Boxes

**METHOD**

To scroll through a spreadsheet one line at a time:

1. Click the appropriate scroll arrow once.

To move to a general area of a spreadsheet:

1. Drag the scroll box in the horizontal or vertical scroll bar.

**EXERCISE**

In the following exercise, you will use the scroll bars to move around the spreadsheet.

1. Select cell A13
2. Click the down scroll arrow ten times *The spreadsheet scrolls one line at a time.*
3. Select cell H24
4. Click the right arrow on the horizontal scroll bar ten times *The spreadsheet scrolls one column at a time.*
5. Drag the vertical scroll box up to the top of the vertical scroll bar *As you drag, a box appears, telling you at what row the scroll bar is located, and then the top of the spreadsheet appears.*
6. Click and hold the left scroll arrow *The left side of the spreadsheet appears.*
7. Release the mouse button
8. Press HOME *Cell A1 is selected.*

**END**



## Navigating a Spreadsheet One Screen at a Time

If your spreadsheet is particularly large, you might want to move through the data one screen at a time. This is much more efficient than scrolling through the spreadsheet bit by bit. Table 3-1 lists the various methods used to navigate around the spreadsheet, screen by screen.

Movement	Keyboard Method	Mouse Method
One screen down	Press <b>PAGE DOWN</b>	Click the vertical scroll bar below the scroll box.
One screen up	Press <b>PAGE UP</b>	Click the vertical scroll bar above the scroll box.
One screen right	Press <b>CTRL+RIGHT ARROW</b>	Click the horizontal scroll bar to the right of the scroll box.
One screen left	Press <b>CTRL+LEFT ARROW</b>	Click the horizontal scroll bar to the left of the scroll box.

**Table 3-1: Moving One Screen at a Time**

### METHOD

To move one screen at a time:

1. Press the appropriate key or key combination.  
or
1. Click the appropriate place on the scroll bars.

### EXERCISE

In the following exercise, you will use the scroll bars and the keyboard to move through the spreadsheet one screen at a time.

1. On the horizontal scroll bar, click to the right of the scroll box *The spreadsheet moves right one screen.*
2. On the vertical scroll bar, click below the scroll box *The spreadsheet moves down one screen.*

## Navigating in a Spreadsheet

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- |    |   |  |
|----|---|--|
| 3. | On the horizontal scroll bar, click to the left of the scroll box | <i>The spreadsheet moves left one screen.</i>  |
| 4. | On the vertical scroll bar, click above the scroll box            | <i>The spreadsheet moves up one screen.</i>    |
| 5. | Press <b>PAGE DOWN</b>  | <i>The spreadsheet moves down one screen.</i>  |
| 6. | Press <b>CTRL+RIGHT ARROW</b>                                     | <i>The spreadsheet moves right one screen.</i> |
| 7. | Press <b>PAGE UP</b>  | <i>The spreadsheet moves up one screen.</i>    |
| 8. | Press <b>CTRL+LEFT ARROW</b>                                      | <i>The spreadsheet moves left one screen.</i>  |

**END**

## Using the Go To Command

The scroll boxes and bars are helpful when you need to move to a general area of a spreadsheet. If, however, you know the exact cell to which you want to move, you can access it by using the Go To command. When you use this command, you specify the cell address in the Go To dialog box, which is shown in Figure 3-3.

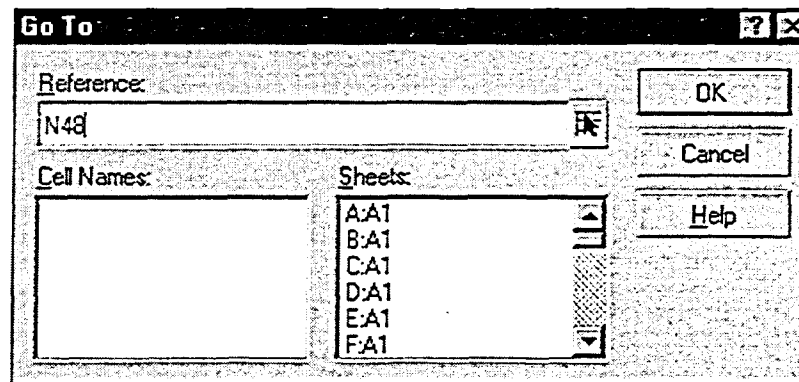


Figure 3-3: The Go To Dialog Box

### METHOD

To use the Go To command to move to a specific cell on a spreadsheet:

1. From the Edit menu, choose Go To.  
or
1. Press **F5**
2. In the Go To dialog box, in the Reference text box, type the cell address to which you want to move.
3. Choose OK.

### EXERCISE

In the following exercise, you will use the Go To command to move directly to a cell.

1. Press **F5** *The Go To dialog box appears.*
2. In the Reference text box, type **N48**

3. Choose OK

*Cell N48 becomes active.*

4. Close the notebook

**END**

## Changing the Spreadsheet Structure

As your needs change, keeping your spreadsheet up to date allows you to make the most efficient use of the data it contains. To keep your spreadsheet flexible, Quattro Pro lets you add and remove cells, columns, rows, and spreadsheets as needed.

### Inserting Rows and Columns

In Quattro Pro, you can insert rows and columns at any time. This might be necessary if you need more space within a specific area of your spreadsheet. When you insert a new row or column, existing data moves to the right or down to accommodate the new cells.

To insert a row or column, you first need to select the *row border* below or the *column border* to the right of where you want the insertion to occur. Each row is identified by the number in the row border to its left; each column is identified by the letter in the column border above it. Row and column borders are shown in Figure 3-4. When you point to the row or column border, the pointer becomes an arrow pointing to the right or down, respectively. Clicking the row or column border selects that entire row or column.

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Figure 3-4: Row and Column Borders

#### METHOD

To select an entire row or column:

1. Click the row or column border.

## Changing the Spreadsheet Structure

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To select multiple rows or columns:

1. Drag over the rows or columns in the row or column border.

To insert a row:

1. Click the row below where the new row is to be inserted.
2. On the Toolbar, click the Insert button.  
or
2. From the Insert menu, choose Row.

To insert a column:

1. Click the column to the right of where the new column is to be inserted.
2. On the Toolbar, click the Insert button.  
or
2. From the Insert menu, choose Column.

*Note:* If you want to insert multiple rows or columns, select as many row or column borders as you want to insert.

### EXERCISE

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In the following exercise, you will select rows and columns. You will also insert rows and columns into a spreadsheet.

1. Open **A:\CFD Info. Center**
2. Drag over column borders B and C *Columns B and C are highlighted.*
3. On the Toolbar, click the Insert button *Two columns are inserted.*
4. Drag over row borders 15 and 16 *Rows 15 and 16 are selected.*
5. On the Toolbar, click the Insert button *Two rows are inserted.*

**END**

## Deleting Rows and Columns

Just as there are times when you need to insert new rows or columns, there might also be times when you need to delete existing ones. You can accomplish this easily by using the Delete button or the Delete command on the Edit menu. Unlike the Clear command, the Delete command removes the entire row or column from the spreadsheet, not just the contents.

### METHOD

To delete a row:

1. Click the row border of the row to be deleted.
2. On the Toolbar, click the Delete button.  
or
2. From the Edit menu, choose Delete Row(s).

To delete a column:

1. Click the column border of the column to be deleted.
2. On the Toolbar, click the Delete button.  
or
2. From the Edit menu, choose Delete Column(s).

### EXERCISE

In the following exercise, you will delete rows and columns.

- |   |                                     |
|---|-------------------------------------|
| 1. Click column border B                    | <i>Column B is selected.</i>        |
| 2. On the Toolbar, click the Delete button  | <i>The column is removed.</i>       |
| 3. Select row borders 15 and 16             | <i>Rows 15 and 16 are selected.</i> |
| 4. From the Edit menu, choose Delete Row(s) | <i>The rows are removed.</i>        |

END

## Inserting Sheets

Quattro Pro lets you insert entire sheets into your notebook. Doing this lets you organize your notebook in an orderly fashion even if you forget to enter a certain sheet at the onset.

### METHOD

To insert a sheet into a notebook:

1. Click the tab of the sheet that will follow the new sheet.
2. On the Toolbar, click the Insert button.
3. In the Insert Cells dialog box, in the Dimension area, select the Sheets option button.
4. Choose OK.

*Note:* To insert more than one sheet, select the corresponding number of sheets in step 1. (To select more than one sheet, click the first sheet tab, and then press **SHIFT** while you click the last sheet tab.)

### EXERCISE

In the following exercise, you will insert a new sheet between sheet A and sheet B.

- |   |   |
|---|---|
| 1. Click sheet tab B                                      | <i>Sheet B appears.</i>                     |
| 2. On the Toolbar, click the Insert button                | <i>The Insert Cells dialog box appears.</i> |
| 3. In the Dimension area, select the Sheets option button |   |
| 4. Choose OK  | <i>A new blank sheet B appears.</i>         |

END



## Deleting Sheets

Besides letting you insert sheets into a notebook, Quattro Pro lets you delete entire sheets anywhere within the notebook.

### METHOD

To delete sheets:

1. Click the tab of the sheet to be deleted.
2. On the Toolbar, click the Delete button.
3. In the Delete dialog box, in the Dimension area, select the Sheets option button.
4. Choose OK.

### EXERCISE

In the following exercise, you will delete sheet B from the notebook.

1. Make sure that sheet B is selected
2. On the Toolbar, click the Delete button
3. In the Dimension area, select the Sheets option button
4. Choose OK

*The Delete dialog box appears.*

*Sheet B is removed. Sheet C shifts over and becomes the new sheet B.*

END

## Inserting Partial Blocks

There might be times when you need to insert part of a row, column, or sheet—that is, a partial block—rather than an entire spreadsheet element. Luckily, Quattro Pro's Insert feature lets you to do this easily. When you insert partial rows or columns, the data in adjacent cells shifts down or to the right to accommodate the inserted cells. When you insert a partial sheet, the selected data shifts to the next sheet.

### METHOD

To insert a partial block:

1. Select a block in the same location in which the data is to be inserted. The block should be the same size as the block you want to insert.
2. On the Toolbar, click the Insert button.
3. In the Insert Cells dialog box, in the Span area, select the Partial option button.
4. In the Dimension area, select the Rows option button to shift entries to the down.  
or
4. In the Dimension area, select the Columns option button to shift entries to the right.  
or
4. In the Dimension area, select the Sheets option button to shift entries to the next sheet.
5. Choose OK.

### EXERCISE

In the following exercise, you will insert a partial block into a spreadsheet.

1. Make sure sheet B is active
2. Select the block F7 through H12
3. On the Toolbar, click the Insert button *The Insert Cells dialog box appears.*
4. In the Span area, select the Partial option button

### Section 3: Developing a Spreadsheet

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5. In the Dimension area, make sure the Rows option button is selected
6. Choose OK

*The new block appears and the selected block of data shifts down.*

**END**

## Deleting Partial Blocks

To delete a partial block of cells, you select the block you want to remove, execute the Delete command, and then indicate which way to shift the remaining cells. Deleting a block is not the same as clearing a block. When you clear a block, you simply erase the contents of the block. When you delete a block, you remove the entire block from the spreadsheet, causing the cells around it to shift to fill the space left by the deleted block.

### METHOD

To delete a partial block:

1. Select the block to be deleted.
2. On the Toolbar, click the Delete button.
3. In the Delete dialog box, in the Span area, select the Partial option button.
4. In the Dimension area, select the Rows option button to shift entries up into the selected block.  
or
4. In the Dimension area, select the Columns option button to shift entries to the left.  
or
4. In the Dimension area, select the Sheets option button to shift entries from the next sheet.
5. Choose OK.

### EXERCISE

In the following exercise, you will delete a partial block of cells.

1. Make sure the block F7 through H12 is selected
2. On the Toolbar, click the Delete button  
*The Delete dialog box appears.*
3. In the Span area, select the Partial option button

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4. In the Dimension area, make sure the Rows option button is selected
5. Choose OK

*The block disappears and the block of data beneath it shifts up to its original position.*

**END**

## Moving and Copying Data

As you edit and format a spreadsheet, you might find that you need to rearrange data in cells, rows, or columns. In the following topic, you will learn how to modify spreadsheets using the Move and Copy commands.

### Moving Data

When you move data from one cell to another, you are removing (cutting) data from one cell and placing (pasting) it in another. There are two ways of accomplishing this. You can use the Drag and Drop feature or you can use the Cut and Paste commands.

The Drag and Drop feature involves using the mouse to move the data. If you use this method to paste data in a cell that contains data, Quattro Pro asks if you want to overwrite the contents of the destination block. In this course, you will practice using both the Drag and Drop method and the Cut and Paste commands to move data. However, the Drag and Drop feature does not work with noncontiguous blocks. In those cases, you need to use the Cut and Paste method.

#### **METHOD**

To move data:

##### Drag and Drop method

1. Select the cell or block to be moved.
2. Point to an edge of the cell or block until the pointer becomes a four-way arrow.
3. Drag the cell or block to the new position.
4. Release the mouse button to drop the cell or block into place.

##### Cut and Paste method

1. Select the cell or block of cells to be moved.
2. From the Edit menu, choose Cut.  
or
2. On the Toolbar, click the Cut button.
3. Select the cell or block to which the cells are to be moved.
4. From the Edit menu, choose Paste.  
or
4. On the Toolbar, click the Paste button.

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#### **EXERCISE**

In the following exercise, you will move data. Assume that the figures for S. Goods were mistakenly entered under the column for D. Mays. You will correct this error by moving this data to its appropriate block, first by using the Drag and Drop method, and then by using the Cut and Paste command.

1. Make sure sheet B is active
2. Select the block I7 through I12
3. Point to an edge on the block of cells *The pointer becomes a four-way arrow.*
4. Drag the block to cells J7 through J12
5. Release the mouse button *The contents of the block I7 through I12 are moved to the block J7 through J12.*
6. Select the block I13 through I18
7. From the Edit menu, choose Cut *The contents of the block are moved to the Clipboard.*
8. Select cell J13
9. From the Edit menu, choose Paste *The contents of the block I13 through I18 are moved to the block J13 through J18.*
10. Select cell H7
11. Point to an edge on the cell *The pointer becomes a four-way arrow.*
12. Drag the cell to cell J7

## Moving and Copying Data

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13. Release the mouse button

*A confirmation message box appears with the message, **Overwrite non-blank cells in destination block?***

14. Choose Yes

*The data is moved from cell H7 and the contents of cell J7 are replaced with the contents of cell H7.*

**END**



## Copying Data

When you copy data from one cell to another, you are duplicating (copying) data in one cell and placing (pasting) it in another. You can use the Drag and Drop method, the Copy and Paste method, or the Copy Cells method to copy data. The Drag and Drop method, however, does not work with noncontiguous blocks. The Copy Cells method can copy data from both contiguous and noncontiguous blocks and has an additional option called *Model Copy*. This option allows you to copy property settings, row and column settings, and cell types (labels or values) and can control how formulas are adjusted when copied.

### METHOD

To copy data:

#### Drag and Drop method

1. Select the cell or block to be copied.
2. Press and hold **CTRL**
3. Click an edge of the cell or block until the pointer becomes a hand with a plus sign.
4. Drag the cell or block of cells to its new position.
5. Release the mouse button, and then release **CTRL** to drop the cell or block of cells into place.

#### Copy Cells method

1. Select the cell or block to be copied.
2. From the Edit menu, choose Copy Cells.
3. In the Copy Cells dialog box, make sure the correct block coordinates are entered in the From text box.
4. In the To text box, type the coordinates of the cell or block that will receive the data.
5. Choose OK.

*Hint:* You can also use a Copy and Paste method by selecting the cell or block to be copied and clicking the Copy button on the Toolbar. Select the cell or block where the data is to be copied, and then click the Paste button.

**EXERCISE**

In the following exercise, you will copy the contents of blocks using the Drag and Drop method and the Copy Block method.

1. Select cell C15
2. Press and hold **CTRL**
3. Click an edge of the cell *The pointer becomes a hand with a plus sign.*
4. Drag the pointer to cell H7
5. Release the mouse button
6. Release **CTRL** *The contents of cell C15 are copied to cell H7.*
7. Select the block E7 through E18
8. From the Edit menu, choose Copy Cells *The Copy Cells dialog box appears.*
9. In the From text box, make sure B:E7..E18 appears
10. In the To text box, delete the current entry and type I7..I18
11. Choose OK *The contents of the block E7 through E18 are copied to the block I7 through I18.*

**END**

## Identifying Relative and Absolute Addresses

When you move or copy values, Quattro Pro pastes the exact value of the source cell in the destination cell. Formulas, however, are treated differently. When you move or copy a cell that contains a formula, the cell references in the formula adjust to reflect their new position. For example, if you copy the contents of cell B5, which contains the formula `@SUM(B7..B10)`, to cell C5, the formula changes to `@SUM(C7..C10)`. This happens because the cell references are *relative references*. They change relative to the location of the cell containing the formula on the spreadsheet. Unless you specify otherwise, Quattro Pro uses relative referencing for cell addresses when you enter a formula. This means that the cell references in the formula change after you copy the formula to a new location.

The second type of cell referencing is called an *absolute reference*. Absolute references always refer to the same cell. When you move or copy absolute references, they do not adjust to reflect their new position. You indicate absolute references by putting a dollar sign (\$) in front of the column letter or row number that you want to “freeze” in the formula. All or part of the address can be absolute. You put a dollar sign in front of both the column letter and row number if you want neither to change, but you can also freeze just the column or just the row. For example, `$A1` freezes column A; `A$1` freezes row 1; and `$A$1` freezes both. Pressing F4 while the insertion point is in the input line automatically places dollar signs on the cell references. Pressing F4 repeatedly cycles through the possible combinations. Table 3-2 illustrates the different types of referencing.

Original formula in cell B11	Formula when copied to cell C11
@SUM(B7..B10)	@SUM(C7..C10)
@SUM(\$B7..\$B10)	@SUM(\$B7..\$B10)
@SUM(B\$7..B\$10)	@SUM(C\$7..C\$10)
@SUM(\$B\$7..\$B\$10)	@SUM(\$B\$7..\$B\$10)
Original formula in cell B11	Formula when copied to cell B12
@SUM(B7..B10)	@SUM(B8..B11)
@SUM(\$B7..\$B10)	@SUM(\$B8..\$B11)
@SUM(B\$7..B\$10)	@SUM(B\$7..B\$10)
@SUM(\$B\$7..\$B\$10)	@SUM(\$B\$7..\$B\$10)
Original formula in cell B11	Formula when copied to cell C12
@SUM(B7..B10)	@SUM(C8..C11)
@SUM(\$B7..\$B10)	@SUM(\$B8..\$B11)
@SUM(B\$7..B\$10)	@SUM(C\$7..C\$10)
@SUM(\$B\$7..\$B\$10)	@SUM(\$B\$7..\$B\$10)

Table 3-2: Relative and Absolute Referencing

## Copying Formulas

To copy a formula to a new cell, you use the same method that you would to copy a constant value. The only difference is that you must consider whether relative or absolute referencing should be used. Remember, unless you specify otherwise, Quattro Pro uses relative referencing.

### **METHOD**

To copy formulas:

#### Drag and Drop method

1. Select the cell or block to be copied.
2. Press and hold CTRL
3. Click an edge of the cell or block until the pointer becomes a hand with a plus sign.
4. Drag the block to its new position.
5. Release CTRL and the mouse button to drop the cell or block into place.

#### Copy and Paste method

1. Select the cell or block to be copied.
2. From the Edit menu, choose Copy.  
or
2. On the Toolbar, click the Copy button.
3. Select the cell or block to which the data is to be copied.
4. From the Edit menu, choose Paste.  
or
4. On the Toolbar, click the Paste button.

#### Copy Cells method

1. Select the cell or block to be copied.
2. From the Edit menu, choose Copy Cells.
3. In the Copy Cells dialog box, make sure the correct coordinates are entered in the From text box.
4. In the To text box, enter the coordinates of the cell or block that will receive the data.
5. Choose OK.

**EXERCISE**

In the following exercise, you will copy relative and absolute formulas.

1. Make sure sheet B is active
2. Select cells C7 through C19
3. On the Toolbar, click the QuickSum button *The total of cells C7 through C18 appears in cell C19.*
4. Click any blank area to deselect the block
5. Select cell C19
6. On the Toolbar, click the Copy button *The formula is copied to the Clipboard.*
7. Select cells D19 through J19
8. On the Toolbar, click the Paste button *The formula is pasted into the cells. The column totals appear in cells D19 through J19.*
9. Select cell C25
10. Type **+C19\*B23** and then click the Enter button *The result appears in cell C25.*
11. On the Toolbar, click the Copy button *The formula is copied.*
12. Select cells D25 through J25
13. On the Toolbar, click the Paste button *Incorrect results appear and the Cell Reference Checker dialog box appears.*
14. Choose Close *The Cell Reference Checker dialog box disappears.*
15. Delete the block C25 through J25
16. Click any blank area to deselect the block
17. Select cell C25

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- |   |   |
|---|---|
| 18. Type <b>+C19*\$B\$23</b>  | <i>The formula has both a relative and an absolute address.</i> |
| 19. Press <b>ENTER</b>  | <i>The result appears in cell C25.</i>                          |
| 20. Using the Toolbar method, copy the formula in cell C25 to the block D25 through J25 | <i>The correct results appear in the block.</i>                 |
| 21. Examine the formulas in the row   |   |
| 22. Save and close the notebook   |   |

**END**

**To switch to a different sheet:**

1. Click the sheet tab.

**To move to cell A1 on the active sheet:**

1. Press HOME.

**To move to cell A1 on the first sheet:**

1. Press CTRL+HOME.

**To scroll through a spreadsheet one line at a time:**

1. Click the appropriate scroll arrow once.

**To move to a general area of a spreadsheet:**

1. Drag the scroll box in the horizontal or vertical scroll bar.

**To move one screen at a time:**

1. Press the appropriate key or key combination.  
or
1. Click the appropriate place on the scroll bars.

**To use the Go To command to move to a specific cell on a spreadsheet:**

1. From the Edit menu, choose Go to.  
or
1. Press F5.
2. In the Go To dialog box, in the Reference text box, type the cell address.
3. Choose OK.

**To select a row or column:**

1. Click the row or column border.

**To select multiple rows or columns:**

1. Drag over the rows or columns in the row or column border.

**To insert a row:**

1. Click the row border where the new row is to be inserted.
2. On the Toolbar, click the Insert button.  
or
2. From the Insert menu, choose Row(s).

**To insert a column:**

1. Click the column border where the new column is to be inserted.
2. On the Toolbar, click the Insert button.  
or
2. From the Insert menu, choose Column(s).

**To delete a row:**

1. Click the row border of the row to be deleted.
2. On the Toolbar, click the Delete button.  
or
2. From the Edit menu, choose Delete Row(s).

**To delete a column:**

1. Click the column border of the column to be deleted.
2. On the Toolbar, click the Delete button.  
or
2. From the Edit menu, choose Delete Column(s).



## Section 3: Developing a Spreadsheet

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### To insert a sheet into a notebook:

1. Click the tab of the sheet that will follow the new sheet.
2. On the Toolbar, click the Insert button.
3. In the Insert Cells dialog box, in the Dimension area, select the Sheets option button.
4. Choose OK.

### To delete sheets:

1. Click the tab of the sheet to be deleted.
2. On the Toolbar, click the Delete button.
3. In the Delete dialog box, in the Dimension area, select the Sheets option button.
4. Choose OK.

### To insert a partial block:

1. Select a block in the same location in which the data is to be inserted. The block should be the same size as the block you want to insert.
2. On the Toolbar, click the Insert button.
3. In the Span area, select the Partial option button.
4. In the Dimension area, select the Rows option button to shift entries down.  
or
4. In the Dimension area, select the Columns option button to shift entries right.  
or
4. In the Dimension area, select the Sheets option button to shift entries to the next sheet.
5. Choose OK.

### To delete a block:

1. Select the block to be deleted.
2. On the Toolbar, click the Delete button.

3. In the Span area, select the Partial option button.
4. In the Dimension area, select the Rows option button to shift entries up into the selected block.  
or
4. In the Dimension area, select the Columns option button to shift entries left.  
or
4. In the Dimension area, select the Sheets option button to shift entries from the next sheet.
5. Choose OK.

### To move data in a cell or block of cells:

#### Drag and Drop method

1. Select the cell or block to be moved.
2. Click and hold the pointer in the first selected cell. Your pointer will become a four-way arrow.
3. Drag the block to its new position.
4. Release the mouse button to drop the block into place.

#### Move Block method

1. Select the block to be moved.
2. From the Edit menu, choose Cut
3. Place the pointer where you want to move the block and from the Edit menu, choose Paste.

### To copy data from one block to another:

#### Drag and Drop method

1. Select the cell or block to be copied.
2. Press and hold **CTRL**.
3. Click and hold the pointer in the first selected cell. Your pointer will become a four-way arrow.
4. Drag the block to its new position.
5. Release the mouse button, and then release **CTRL** to drop the block into place.

**Copy Block method**

1. Select the block to be copied.
2. From the Edit menu, choose Copy
3. Place the pointer where you want to move the block. From the Edit menu, choose Paste.

**To copy formulas:**

**Drag and Drop method**

1. Select the cell or block to be copied.
2. Press and hold CTRL.
3. Click and hold the pointer in the first selected cell. Your pointer will become a four-way arrow
4. Drag the block to its new position.
5. Release CTRL and the mouse button to drop the block into place.

**Copy and Paste method**

1. Select the cell or block to be copied.
2. From the Edit menu, choose Copy.  
or
2. On the Toolbar, click the Copy button.
3. Select the block to which the cells are to be copied.
4. From the Edit menu, choose Paste.  
or
4. On the Toolbar, click the Paste button.

**Copy Block method**

1. Select the block to be copied.
2. From the Edit menu, choose Copy
3. Place the pointer where you want to move the block. From the Edit menu, choose Paste.

Section **3** *Self-Check Exercise*

1. Open the file A:\Better Coffee Inc.
2. Use the scroll boxes to view the data for the week ending January 26.
3. Return to cell A1 and insert a row after row 5.
4. Insert two rows after row 15.
5. Delete row 28.
6. Insert two columns to the right of column A.
7. Delete column B.
8. Insert a new sheet between sheet A and sheet B.
9. Delete sheet B and switch to sheet A.
10. Insert partial rows at the block E6 through G8, shifting the data in the selected cells down.
11. Delete the block E6 through G8, shifting the surrounding cells up.
12. Switch to sheet B.
13. Move the block H7 through H18 to I7 through I18.
14. Copy the block F7 through F12 to H7 through H12.
15. Copy the block D13 through D18 to H13 through H18.
16. In cell C19, use the @SUM function to total cells C7 through C18.
17. Copy cell C19 to the block D19 through I19.
18. In cell C25, calculate the cost of the coffee by typing the formula  $+C19*\$B\$23$ .
19. Copy cell C25 to the block D25 through I25.
20. Return to sheet A.
21. Save and close the notebook.

Section

4

## *Formatting the Spreadsheet*

- Using Selection Techniques
- Changing Column Width and Row Height
- Changing the Appearance of Data

## Section Skills and Their Importance

In the following section you will learn to:

- **Use selection techniques**

By selecting columns, rows, or multiple cells, you can apply formatting features to many cells at one time. Quattro Pro lets you select rows, columns, or entire spreadsheets. It even lets you select cells that are noncontiguous.

- **Change column width and row height**

Changing column width and row height lets you expand or shrink the size of columns and rows so that they perfectly fit the data they hold. Quattro Pro even lets you set column width to fit the largest entry in that column or row.

- **Change the appearance of data**

To make your spreadsheet more visually appealing, you can use different font styles, font sizes, and text enhancement features. You can also use borders and shading to emphasize key areas.

## Using Selection Techniques

Until now, you have worked only with individual cells and individual blocks. As you begin to use more complex formatting commands, you will need to know how to select noncontiguous blocks, entire spreadsheets, rows, columns, and even blocks of cells selected on consecutive sheets. In the lessons that follow, you will learn how to do so.

### Selecting Noncontiguous Blocks

When you want to apply a formatting feature to several blocks throughout a spreadsheet, it can become tedious to select the cell, apply the feature, select the next cell, apply the feature, and so on. To avoid this tiresome process, you can select noncontiguous blocks. By selecting all the cells together, you can apply the feature in one efficient step.

#### METHOD

To select noncontiguous blocks:

1. Select the first cell or block.
2. Press and hold **CTRL**
3. Select the next cell or block.
4. Continue selecting cells or blocks.
5. Release **CTRL**

#### EXERCISE

In the following exercise, you will select noncontiguous blocks.

1. Open **Sandy's Subs**
  2. Select the block A9 through A14
  3. Press and hold **CTRL**
  4. Select the block B8 through I8
- Two noncontiguous blocks are selected.*

## Section 4: Formatting the Spreadsheet.

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5. Release CTRL
6. Select cell A1

*The blocks are deselected.*

END

## Selecting Noncontiguous Rows and Columns

Besides selecting contiguous rows and columns, you can also select noncontiguous rows and columns. This can save you time when you want to apply the same format to noncontiguous rows and columns. After you have selected noncontiguous rows or columns, any changes you make are applied to all the selected data.

### METHOD

To select noncontiguous rows and columns:

1. Click a row or column border.
2. Press and hold **CTRL**
3. Continue clicking row or column borders.
4. Release **CTRL**

### EXERCISE

In the following exercise, you will select noncontiguous rows and columns.

- |                               |   |
|-------------------------------|---|
| 1. Click the column C border  | <i>Column C is selected.</i>                  |
| 2. Press and hold <b>CTRL</b> |   |
| 3. Click the row 7 border     | <i>Both column C and row 7 are selected.</i>  |
| 4. Release <b>CTRL</b>        |   |
| 5. Select cell A5             | <i>The row and the column are deselected.</i> |

END



## Selecting the Entire Sheet

As you format, you will often find that you need to apply a command to the entire spreadsheet. Instead of having to drag through the entire spreadsheet to select it, you can select all the cells on that sheet with one click of the mouse button.

### METHOD

To select the entire sheet:

1. At the intersection of the row and column borders, click the Select All button.

*Note:* When you point at the Select All button, the pointer becomes a pair of arrows, one pointing at the column borders and one pointing at the row borders.

### EXERCISE

In the following exercise, you will select the entire sheet.

- |   |                                      |
|---|--------------------------------------|
| 1. At the intersection of the row and column borders, click the Select All button | <i>The entire sheet is selected.</i> |
| 2. Select cell C5   | <i>The sheet is deselected.</i>      |

END

## Creating 3-D Selection

A *3-D selection* is a block of cells selected on a series of consecutive sheets. For example, the block C5 through E12 selected on sheets A through D is a 3-D selection. When a 3-D selection is defined, a black line appears under the tabs of the sheets included in the selection.

### METHOD

To create a 3-D selection:

1. On the first sheet of the series, select the block.
2. Press and hold **SHIFT**
3. Click the tab for the last sheet in the series.
4. Release **SHIFT**

### EXERCISE

In the following exercise, you will create a 3-D selection.

1. On sheet A, select the block B9 through H9
2. Press and hold **SHIFT**
3. Click sheet tab C
4. Release **SHIFT**
5. Click sheet tab A

*The block B9 through H9 is selected on sheets A through C. A black line appears under the tabs of the sheets included in the selection.*

*The 3-D selection is deselected and sheet A becomes active.*

END

## Changing Column Width and Row Height

Sometimes, a column might not be wide enough to display its contents. You might also want to increase row height to add more white space to a sheet. Quattro Pro lets you easily change both column width and row height.

### Changing Column Width

To accommodate long strings of data or make your spreadsheet easier to read, you can adjust its column widths. Quattro Pro provides several ways to adjust column width. The QuickFit button tailors the column width to the longest entry in the column. The mouse method lets you see exactly what the column looks like as you adjust its width. Finally, the Cell Properties method allows you to enter an exact size entry, as illustrated in Figure 4-1.

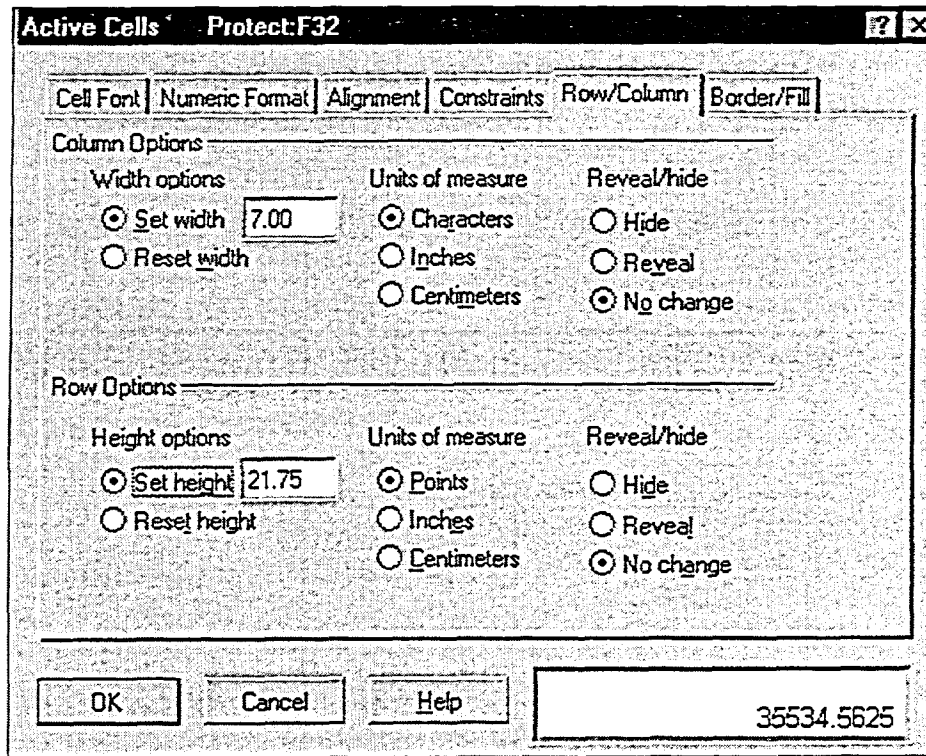


Figure 4-1: The Row/Column Page of the Active Cells Object Inspector

### **METHOD**

To change the column width by using the QuickFit button:

1. Select the column to be adjusted.
2. On the Toolbar, click the QuickFit button.

To change the column width manually:

#### Mouse method

1. Move the pointer over the right edge of the column border until it turns into a double-headed arrow.
2. Drag the double-headed arrow to the desired position while verifying the position on the Status line.

#### Cell Properties method

1. Select a cell in the column to be adjusted, and then right-click the mouse.
2. From the QuickMenu, choose Cell Properties.
3. In the Active Cells Object Inspector, select the Row/Column tab.
4. On the Row/Column page, in the Column Options area, under Width options, select the Set width option button.
5. Under Units of measure, select a unit of measure (Characters, Inches, or Centimeters).
6. Under Width options, in the Set width text box, type the column width.
7. Choose OK.

*Hint:* You can also position the pointer on the right column border and double-click to automatically adjust the column width to the largest entry in a column.

**EXERCISE**

In the following exercise, you will change the width of columns. The resulting spreadsheet is shown in Figure 4-2.

- |   |   |
|---|---|
| 1. Point to the right edge of the column A border   | <i>The pointer becomes a double-headed arrow.</i>                                       |
| 2. Drag the right line of the column A border until the Status line shows <b>.94 inches</b>           | <i>The column width increases and cell A13 displays <b>Steak Bomber</b> completely.</i> |
| 3. Click the column border of H   | <i>Column H is selected.</i>  |
| 4. On the Toolbar, click the QuickFit button  | <i>The column border adjusts to accommodate the text in the column.</i>                 |
| 5. Select cell I1 and right-click the mouse   | <i>The QuickMenu appears.</i>   |
| 6. Choose Cell Properties   | <i>The Active Cells Object Inspector appears.</i>                                       |
| 7. Select the Row/Column tab  | <i>The Row/Column page appears.</i>   |
| 8. In the Column Options area, under Width options, make sure the Set width option button is selected |   |
| 9. Under Units of measure, make sure the Characters option button is selected                         |   |
| 10. Under Width options, in the Set width text box, select the existing text, and then type 7         |   |
| 11. Choose OK   | <i>The width of column I becomes seven characters.</i>                                  |

**END**

## Changing Column Width and Row Height

	A	B	C	D	E	F	G	H	I
1	Sandy's Subs								
2									
3	Subs Sold								
4									
5	Week Ending								
6	18-Oct-97								
7									
8		Mon	Tues	Wed	Thur	Fri	Sat	Weekly Total	Price
9	BLT	5	0	23	12	6	20	66	2.5
10	Italian	4	0	4	23	7	12	50	2.45
11	Deli	6	9	5	12	9	4	45	3
12	Super Spicy	7	23	12	5	4	15	66	2.75
13	Steak Bomber	3	1	5	1	12	19	41	4
14	Total by Day	25	33	49	53	38	70	268	

**Figure 4-2: The Spreadsheet with Adjusted Column Widths**

## Changing Row Height

Often, you will want to change row heights to make space between columns and totals or between titles and spreadsheets. You can change row height by using the mouse or the Active Cells Object Inspector.

### METHOD

To change the row height:

#### Mouse method

1. Move the pointer over the bottom edge of the row border until it turns into a double-headed arrow.
2. Drag the border to the new position.

#### Cell Properties method

1. Point to a cell in the row to be adjusted, and then right-click the mouse.
2. From the QuickMenu, choose Cell Properties.
3. In the Active Cells Object Inspector, select the Row/Column tab.
4. On the Row/Column page, in the Row Options area, under Height options, select the Set height option button.
5. Under Units of measure, select a unit of measure (Points, Inches, or Centimeters).
6. Under Height options, in the Set height text box, type a row height.
7. Choose OK.

### EXERCISE

In the following exercise, you will change row height.

- |   |   |
|---|---|
| 1. Point to the bottom edge of the row 3 border   | <i>The pointer becomes a double-headed arrow.</i> |
| 2. Drag the line downward until the Status line shows .50 inches, and then release the mouse button | <i>The row height increases.</i>                  |

## Changing Column Width and Row Height

---

3. Select cell A5 and right-click the mouse *The QuickMenu appears.*
4. Choose Cell Properties *The Active Cells Object Inspector appears.*
5. If necessary, select the Row/Column tab *The Row/Column page appears.*
6. Under Row Options, under Height options, make sure the Set height option button is selected
7. Under Units of measure, make sure the Points option button is selected
8. Under Height options, in the Set height text box, select the existing text, and then type **17.25**
9. Choose OK *The row height increases.*

**END**



## Changing the Appearance of Data

In many instances, you will want to change the appearance of your data. Quattro Pro allows you to change the appearance of your data by adjusting such elements as number formats, *font* sizes, and font attributes.

By formatting cells in your spreadsheet, you enhance the appearance of your data and improve readability. You can format the cells before or after entering data. If you format cells before entering data, the data you enter in those cells will be in the new format. If the cells you want to format already contain data, you must highlight the block and then apply formatting.

### Formatting Numbers

The default number format for a new spreadsheet is the General format, which displays numbers exactly as you enter them. These numbers can be integers, decimal fractions, or even scientific notation. A number of other formats are available, including Currency, Comma, Date, and Percent. All numeric formats leave the cell values intact; they affect only the way values appear in the cells.

You use the Numeric Format page of the Active Cells Object Inspector, illustrated in Figure 4-3, to change the assigned format of your data. In addition, if the numeric format you select allows a variable number of decimal places, a spin box will appear. This spin box is also illustrated in Figure 4-3.

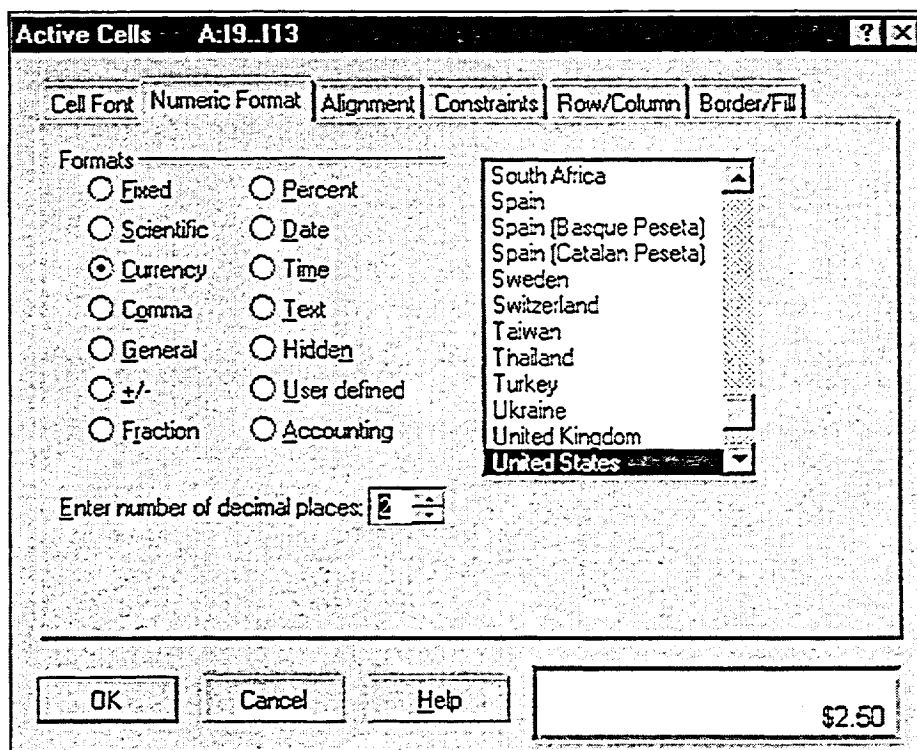


Figure 4-3: The Numeric Format Page of the Active Cells Object Inspector

**METHOD**

To format numbers:

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Numeric Format tab.
5. On the Numeric Format page, in the Formats area, select an option button.
6. If necessary, enter the number of decimal places in the *Enter number of decimal places* spin box.
7. Choose OK.

**EXERCISE**

In the following exercise, you will change the format of the numbers in the price column to show currency.

1. Select cells I9 through I13
2. Right-click the mouse *The QuickMenu appears.*
3. Choose Cell Properties *The Active Cells Object Inspector appears.*
4. Select the Numeric Format tab *The Numeric Format page appears.*
5. In the Formats area, select the Currency option button *A list containing countries appears, and the **Enter number of decimal places** spin box appears.*
6. In the *Enter number of decimal places* spin box, make sure that the number of decimal places is 2
7. Choose OK *The Price column figures are formatted as currency with two decimal places.*

**END**

## Changing Fonts

Quattro Pro lets you control the fonts used in your spreadsheet. Fonts are the typesets that apply to the data you enter. You can control the font of each cell individually, if desired, or you can change fonts in blocks of cells.

A font is expressed in terms of a font name and a *point size*. A font's name determines its typeface—for example, some common fonts include Courier, Times New Roman, and Helvetica. A font's size is measured in units called points. The larger the point size, the larger the font. To give you an idea of how point sizes look, one point equals 1/72 inches and the text you are reading is 12-point text. You can change some of the font features by using the Property Bar. You can also change both font and point size by using the Cell Font page of the Active Cells Object Inspector, shown in Figure 4-4.

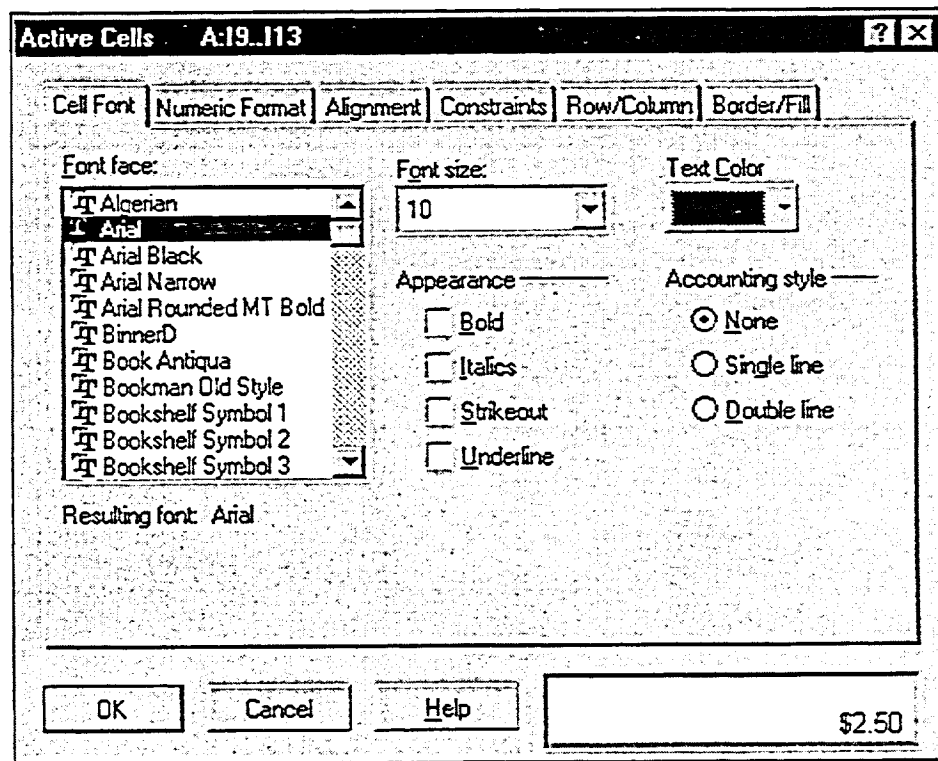


Figure 4-4: The Cell Font Page of the Active Cells Object Inspector

**METHOD**

To change font styles:

Property Bar method

1. Select the cells to be formatted.
2. On the Property Bar, from the Font typeface drop-down list, select a font.

Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Cell Font tab.
5. On the Cell Font page, in the Font face list, select a typeface.
6. Choose OK.

**EXERCISE**

In the following exercise, you will change the font of the spreadsheet titles.

- |  |   |
|--|---|
| 1. Select cells A1 through A3  |   |
| 2. On the Property Bar, click the arrow to the right of the Font typeface drop-down list | <i>The list of available fonts appears.</i>       |
| 3. Scroll through the list of fonts until Times New Roman appears                        |   |
| 4. Select Times New Roman  | <i>The text becomes Times New Roman.</i>          |
| 5. Select cells A4 through A6  |   |
| 6. Right-click the mouse   | <i>The QuickMenu appears.</i>                     |
| 7. Choose Cell Properties  | <i>The Active Cells Object Inspector appears.</i> |
| 8. Select the Cell Font tab  | <i>The Cell Font page appears.</i>                |

## Changing the Appearance of Data

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9. In the Font face list, select Times New Roman

*The text in the example box reflects the change.*

10. Choose OK

*The selected text becomes Times New Roman.*

**END**

## Changing Font Size

Just as you can change the font style, you can also increase or decrease the font size. You can do this by using either the Property Bar or the Object Inspector.

### METHOD

To change the font size:

#### Property Bar method

1. Select the cells to be formatted.
2. On the Property Bar, from the Font Size drop-down list, select a font size.

#### Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Cell Font tab.
5. On the Cell Font page, in the Font size drop-down list, select a point size.
6. Choose OK.

*Note:* For some fonts, the available point sizes might be limited depending on how your printer has been set up, as well as the way Quattro Pro was set up.

### EXERCISE

In the following exercise, you will change the font size of selected cells.

1. Select cell A1
2. On the Property Bar, click the arrow to the right of the Font Size drop-down list *The list of point sizes appears.*
3. Select 18 *The text increases in size.*
4. Select cell A3
5. Right-click the mouse *The QuickMenu appears.*

## Changing the Appearance of Data

6. Choose Cell Properties *The Active Cells Object Inspector appears.*
7. If necessary, select the Cell Font tab *The Cell Font page appears.*
8. In the Font size drop-down list, select 16 *The example box shows 16-point text.*
9. Choose OK *The selected text becomes 16 points.*
10. Select cells A5 and A6
11. Use the Property Bar to increase the font size to 12 points
12. Compare your results to Figure 4-5

END

	A	B	C	D	E	F	G	H	I	J	K
1	<b>Sandy's Subs</b>										
2											
3	<b>Subs Sold</b>										
4											
5	<b>Week Ending</b>										
6	18-Oct-97										
7											
8		Mon	Tues	Wed	Thur	Fri	Sat	Weekly Total	Price		
9	BLT	5	0	23	12	6	20	66	\$2.50		
10	Italian	4	0	4	23	7	12	50	\$2.45		
11	Deli	6	9	5	12	9	4	45	\$3.00		
12	Super Spicy	7	23	12	5	4	15	66	\$2.75		
13	Steak Bomber	3	1	5	1	12	19	41	\$4.00		
14	Total by Day	25	33	49	53	38	70	268			

**Figure 4-5: The Spreadsheet with Different Font Sizes**



## Adding Enhancements

Besides changing the font type and point size, you can also alter the appearance of your data by adding font enhancements such as bold, italics, and underline. You can add bold, italics and underline by using the buttons on the Property Bar. A few more options are available through the Cell Font page of the Active Cells Object Inspector.

### METHOD

To add enhancements:

Property Bar method

1. Select the data you want to enhance.
2. On the Property Bar, click the Bold, Italics or Underline button.

Cell Properties method

1. Select the data you want to format.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Cell Font tab.
5. On the Cell Font page, in the Appearance area, select an enhancement.
6. Choose OK.

### EXERCISE

In the following exercise, you will add enhancements to text.

1. Select cells A1 through A6
2. On the Property Bar, click the Bold button *The text is bolded.*
3. Select cell A1
4. On the Property Bar, click the Italics button *The text is now both bolded and italicized.*
5. Select cells B8 through I8
6. Right-click the mouse *The QuickMenu appears.*

## Changing the Appearance of Data

7. Choose Cell Properties *The Active Cells Object Inspector appears.*
8. If necessary, select the Cell Font tab
9. In the Appearance area, select the Bold check box *The text in the example box is now bolded.*
10. Choose OK *The text appears bolded. Compare your spreadsheet to Figure 4-6.*

END

	A	B	C	D	E	F	G	H	I
1	<b><i>Sandy's Subs</i></b>								
2									
3	<b>Subs Sold</b>								
4									
5	<b>Week Ending</b>								
6	<b>18-Oct-97</b>								
7									
8		<b>Mon</b>	<b>Tues</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>	<b>Weekly Total</b>	<b>Price</b>
9	BLT	5	0	23	12	6	20	66	\$2.50
10	Italian	4	0	4	23	7	12	50	\$2.45
11	Deli	6	9	5	12	9	4	45	\$3.00
12	Super Spicy	7	23	12	5	4	15	66	\$2.75
13	Steak Bomber	3	1	5	1	12	19	41	\$4.00
14	Total by Day	25	33	49	53	38	70	268	

Figure 4-6: *The Spreadsheet with Boldfaced and Italicized Text*

## Aligning Data in Cells

In an unformatted cell, text aligns against the left edge of the column, and numbers align against the right edge. This is known as *general alignment*. To enhance your spreadsheet, however, you can change the way text and numbers are aligned.

Quattro Pro lets you right align, left align, or center data from the right or left edge of the cell. This is known as *horizontal alignment*, and it is the most common type of alignment. You can even use the horizontal alignment option to center data across a block. In addition, Quattro Pro lets you position data from top to bottom within a cell. For example, you can align data at the top, bottom, or center of the cell. This is known as *vertical alignment*. In this course, however, you will practice changing only horizontal alignment.

You can align data using either the Property Bar or the Alignment page of the Active Cells Object Inspector, shown in Figure 4-7.

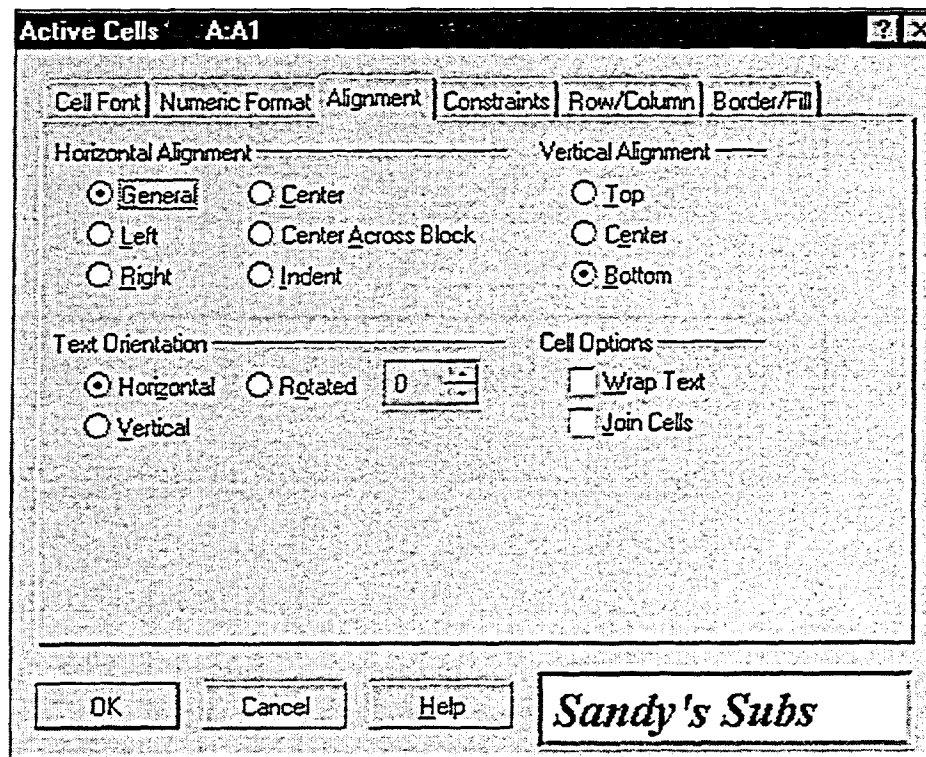


Figure 4-7: The Alignment Page of the Active Cells Object Inspector

**METHOD**

To align data in a cell:

Property Bar method

1. Select the cells to be formatted.
2. On the Property Bar, from the Alignment drop-down list, select an alignment.

Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Alignment tab.
5. On the Alignment page, in the Horizontal Alignment area, select a horizontal alignment.
6. If desired, in the Vertical Alignment area, select a vertical alignment.
7. Choose OK.

**EXERCISE**

In the following exercise, you will horizontally align entries in several different cells.

1. Select cells A9 through A14
2. On the Property Bar, click the arrow to the right of the Alignment drop-down list *The list of alignment options appears.*
3. Select Right *The cell entries are right aligned.*
4. Select cells B8 through I8
5. Right-click the mouse *The QuickMenu appears.*
6. Choose Cell Properties *The Active Cells Object Inspector appears.*
7. Select the Alignment tab *The Alignment page appears.*

## Section 4: Formatting the Spreadsheet

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- |  |   |
|--|---|
| 8. In the Horizontal Alignment area, select the Center option button | <i>The text in the example box is now centered.</i> |
| 9. Choose OK   | <i>The cell entries are centered.</i>               |
| 10. Select cell A1   | <i>The block is deselected.</i>                     |

**END**

## Centering Text across Columns

Besides aligning data in a cell, Quattro Pro also lets you center text across a block of cells, as illustrated in Figure 4-8. This feature is particularly useful when you want to center a title or heading on a spreadsheet.

	A	B	C	D	E	F	G	H	I
1	<b><i>Sandy's Subs</i></b>								
2									
3	<b>Subs Sold</b>								
4									
5	<b>Week Ending</b>								
6	<b>18-Oct-97</b>								
7									
8		<b>Mon</b>	<b>Tues</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>	<b>Weekly Total</b>	<b>Price</b>
9	BLT	5	0	23	12	6	20	66	\$2.50
10	Italian	4	0	4	23	7	12	50	\$2.45
11	Deli	6	9	5	12	9	4	45	\$3.00
12	Super Spicy	7	23	12	5	4	15	66	\$2.75
13	Steak Bomber	3	1	5	1	12	19	41	\$4.00
14	Total by Day	25	33	49	53	38	70	268	

Figure 4-8: The Titles Centered across Columns

### METHOD

To center text across columns:

#### Property Bar method

1. Select the cells to be centered including the cells across which they are to be centered.
2. On the Property Bar, from the Alignment drop-down list, select Center Across Cells (second row, second column).

#### Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Alignment tab.
5. In the Horizontal Alignment area, select the Center Across Block option button.
6. Choose OK.

**EXERCISE**

In the following exercise, you will center text across columns A through I.

1. Select cells A1 through I1
2. On the Property Bar, click the arrow to the right of the Alignment drop-down list *The list of alignment options appears.*
3. Select Center Across Cells (second row, second column) *The title is centered across columns A through I.*
4. Select cells A3 through I6
5. Right-click the selected cells *The QuickMenu appears.*
6. Choose Cell Properties *The Active Cells Object Inspector appears.*
7. If necessary, select the Alignment tab
8. In the Horizontal Alignment area, select the Center Across Block option button
9. Choose OK *The titles are centered across columns A through I.*

**END**

## Adding Borders and Fill Color

Borders and *fill* color can make your spreadsheet easier to read. They can also help emphasize critical areas. Quattro Pro has a number of border and line styles from which you can choose, as well as several fill color options.

To apply borders or fill color to cells in your spreadsheet, activate the Active Cells Object Inspector. You use the Border/Fill page, shown in Figure 4-9, to apply borders and fill color.

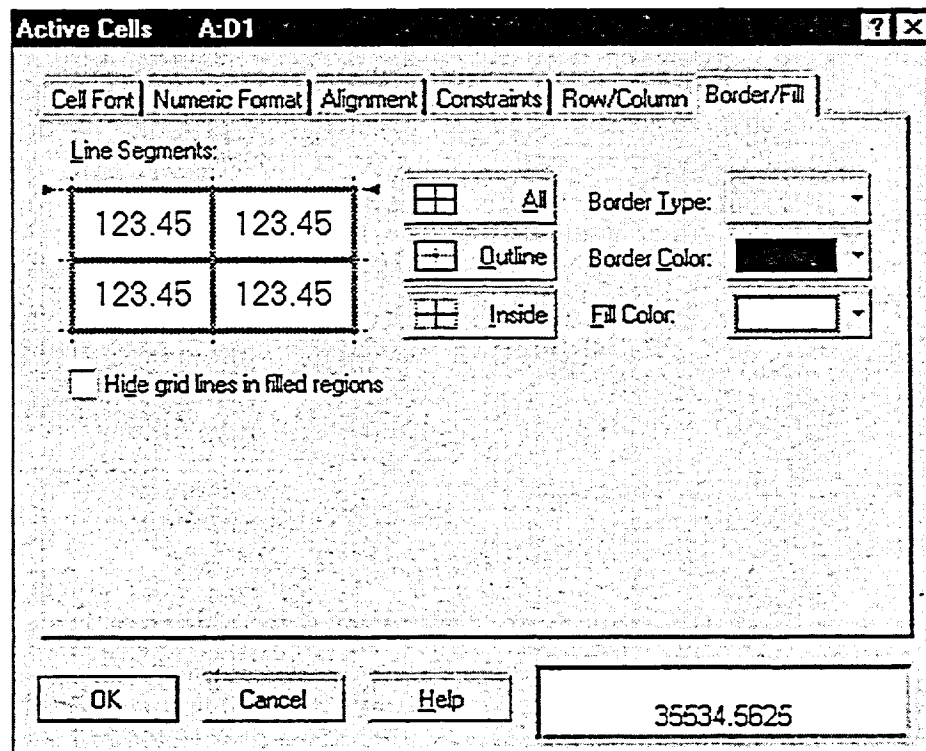


Figure 4-9: The Border/Fill Page of the Active Cells Object Inspector

### METHOD

To add a border:

1. Select the cells to be formatted.
  2. Right-click the mouse.
  3. From the QuickMenu, choose Cell Properties.
  4. In the Active Cells Object Inspector, select the Border/Fill tab.
  5. On the Border/Fill page, in the Line Segments area, click the button to determine where the line is to be placed.
- or



## Section 4: Formatting the Spreadsheet

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5. Click the borders in the Line Segments display to specify where the lines are to be placed.
6. From the Border Type drop-down palette, click the Border type.
7. Choose OK.

To add fill color:

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Border/Fill tab.
5. From the Fill Color drop-down list, choose a color.
6. Choose OK.

### EXERCISE

In the following exercise, you will add borders and fill color to a block.

- |   |   |
|---|---|
| 1. Select cells A8 through I14  |   |
| 2. Right-click the mouse  | <i>The QuickMenu appears.</i>   |
| 3. Choose Cell Properties   | <i>The Active Cells Object Inspector appears.</i>                         |
| 4. Select the Border/Fill tab   | <i>The Border/Fill page appears.</i>                                      |
| 5. In the Line Segments area, click All                                 | <i>Arrows point to all borders in the example.</i>                        |
| 6. From the Border Type drop-down palette, click the second line button | <i>A thin border appears around each block in the Line Segments area.</i> |
| 7. Choose OK  | <i>A thin border appears around each cell in the block.</i>               |
| 8. Select cell A1   | <i>The block is deselected.</i>   |
| 9. Select cells A9 through I14  |   |
| 10. Right-click the mouse   | <i>The QuickMenu appears.</i>   |
| 11. Choose Cell Properties  | <i>The Active Cells Object Inspector appears.</i>                         |

## Changing the Appearance of Data

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- |  |  |
|--|--|
| 12. If necessary, select the Border/Fill tab                                   | <i>The Border/Fill page appears.</i>   |
| 13. From the Fill color drop-down list, select gray (third color in first row) | <i>The rectangle in the lower right becomes gray to indicate the selected color.</i> |
| 14. Choose OK  | <i>The fill color in the selected cells changes to gray.</i>                         |
| 15. Select cell A1   | <i>The block is deselected.</i>  |

**END**

## Using SpeedFormat

With the *SpeedFormat* feature, you can apply preset formats to text and numbers in your tables. These formats are designed for tables of information in which labels run down the left column and across the top row. Quattro Pro expects totals to be appear in the bottom row or right column.

When you invoke SpeedFormat, the SpeedFormat dialog box appears, as shown in Figure 4-10. This dialog box lists all the format options and shows an example of the selected format. The SpeedFormat dialog box also lets you decide which parts of the table will be formatted (such as column or row headings) and which properties of the format to apply (such as shading or font).

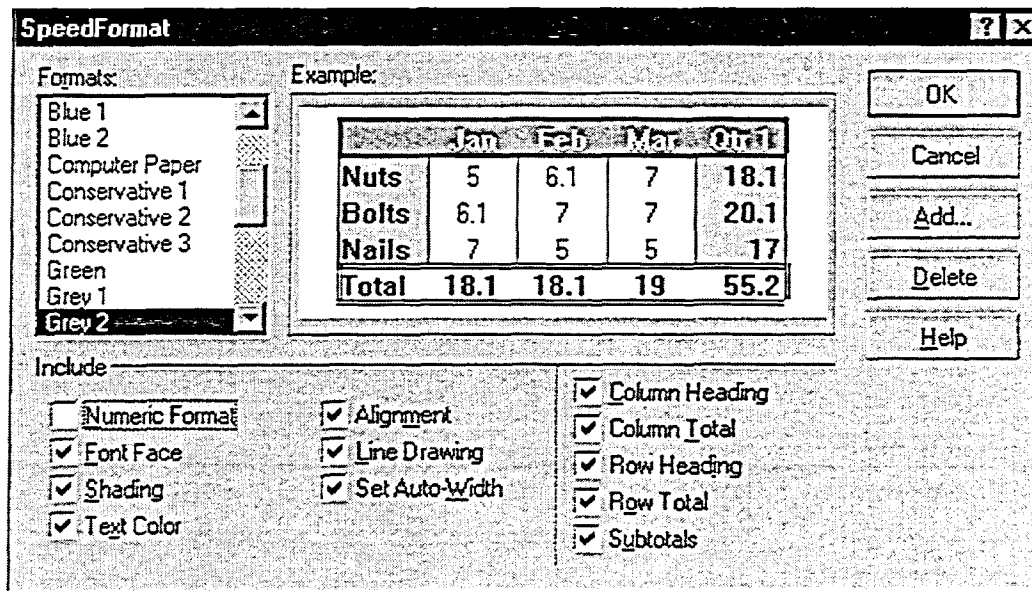


Figure 4-10: The SpeedFormat Dialog Box

### METHOD

To use SpeedFormat to format the spreadsheet:

1. Select the block of cells to be formatted.
2. On the Toolbar, click the SpeedFormat button.
3. In the SpeedFormat dialog box, in the Formats list, select a format.
4. In the Include area, deselect any unwanted properties.
5. Choose OK.

**EXERCISE**

In the following exercise, you will use SpeedFormat.

1. Select cells A8 through I14
2. On the Toolbar, click the SpeedFormat button *The SpeedFormat dialog box appears.*
3. In the Formats list, select Grey 2 *An example of Grey 2 format appears in the Example box.*
4. In the Include area, deselect Numeric Format
5. Choose OK *The table is formatted automatically.*
6. Select cell A1 *The table is deselected.*
7. If needed, increase the height of row 14
8. Compare your results with Figure 4-11
9. Save and close the spreadsheet

**END**

	A	B	C	D	E	F	G	H	I
1	<i>Sandy's Subs</i>								
2									
3	<b>Subs Sold</b>								
4									
5	Week Ending								
6	18-Oct-97								
7									
8									
9	BLT	5	0	23	12	6	20	66	\$2.50
10	Italian	4	0	4	23	7	12	50	\$2.45
11	Deli	6	9	5	12	9	4	45	\$3.00
12	Super Spicy	7	23	12	5	4	15	66	\$2.75
13	Steak Bomber	3	1	5	1	12	19	41	\$4.00
14	<b>Total by Day</b>	<b>25</b>	<b>33</b>	<b>49</b>	<b>53</b>	<b>38</b>	<b>70</b>	<b>268</b>	
15									

Figure 4-11: *The Completed Spreadsheet*

## Section **4** Summary

### To select noncontiguous cells and blocks:

1. Select the first cell or block.
2. Press and hold **CTRL**
3. Select the next cell or block.
4. Continue selecting cells or blocks as desired.
5. Release **CTRL**

### To select noncontiguous rows and columns:

1. Click a row or column border.
2. Press and hold **CTRL**
3. Continue clicking row or column borders as desired.
4. Release **CTRL**

### To select the entire spreadsheet:

1. At the intersection of the row and column borders, click the **Select All** button.

### To select a 3-D block:

1. On the first sheet of the series, select the block.
2. Press and hold **SHIFT**
3. Click the tab for the last sheet in the series.
4. Release **SHIFT**

### To change the column width by using the QuickFit button:

1. Select the column to be adjusted.
2. On the Toolbar, click the QuickFit button.

### To change the column width manually:

#### Mouse method

1. Move the pointer over the right edge of the column border until it turns into a double-headed arrow.
2. Drag the double-headed arrow to the new position.

#### Cell Properties method

1. Select a cell in the column to be adjusted.
2. Right-click the mouse.
3. From the QuickMenu, choose **Cell Properties**.
4. In the Active Cells Object Inspector, select the **Row/Column** tab.
5. In the Options area, select the **Set Width** option button.
6. In the Units area, select a units of measure (**Characters**, **Inches**, or **Centimeters**).
7. In the **Column Width** text box, type the column width.
8. Choose **OK**.

### To change the row height by using the QuickFit button:

1. Select the border of the row you want to adjust.
2. On the Toolbar, click the QuickFit button.

### To change the row height manually:

#### Mouse method

1. Move the pointer over the bottom edge of the row border until it turns into a double-headed arrow.
2. Drag the border to the new position.

**Cell Properties method**

1. Point to a cell in the row to be adjusted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cell Object Inspector, select the Row/Column tab.
5. In the Row Options area, select the Set Height option button.
6. In the Units area, select a unit of measure (Points, Inches, or Centimeters).
7. In the Row Height text box, type the row height.
8. Choose OK.

**To format numbers:**

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Numeric Format tab.
5. From the list of numeric formats, select a format.
6. If necessary, enter the number of decimal places in the spin box.
7. Choose OK.

**To format cells with font styles:**

**Cell Properties method**

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Font tab.
5. In the Font face list, select a Font face.
6. Choose OK.

**Property Bar method**

1. Select the cells to be formatted.
2. On the Property Bar, click the Font list button.
3. Select a font.

**To increase or decrease the font size:**

**Property Bar method**

1. Select the cells to be formatted.
2. On the Property Bar, click the Font Size list button.
3. Select a point size.

**Cell Properties method**

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Cell Font tab.
5. In the Font Size drop-down list, select a point size.
6. Choose OK.

**To enhance text:**

**Toolbar method**

1. Select the data you wish to enhance.
2. On the Toolbar, click the Bold button.  
or
2. On the Toolbar, click the Italics button.

**Cell Properties method**

1. Select the data you want to format.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Cell Font tab.
5. In the Appearance area, select an enhancement.
6. Choose OK.

**To align text in a cell:**

**Property Bar method**

1. Select the cells to be formatted.
2. On the Property Bar, click the Align list button.
3. Select an alignment.

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### Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Alignment tab.
5. In the Horizontal Alignment area, select a horizontal alignment.
6. If desired, in the Vertical Alignment area, select a vertical alignment.
7. Choose OK.

### To center text across columns:

#### Property Bar method

1. Select the cells to be centered and the cells across which they are to be centered.
2. On the Property Bar, click the Align list button.
3. Select Center across block.

#### Cell Properties method

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cell Object Inspector, select the Alignment tab.
5. In the Horizontal Alignment area, select the Center Across Block option button.
6. Choose OK.

### To add a border:

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Border/Fill tab.
5. In the Line Segments area, click a button to determine where the line is to be placed.  
or

5. Click the borders in the Line Segments display to specify where the lines are to be placed.
6. In the Border Types box, click the line type.
7. Choose OK.

### To add shading:

1. Select the cells to be formatted.
2. Right-click the mouse.
3. From the QuickMenu, choose Cell Properties.
4. In the Active Cells Object Inspector, select the Border/Fill tab.
5. From the Fill color button, choose a shading color.
6. Choose OK.

### To apply SpeedFormat to a table:

1. Select the block of cells to be formatted.
2. On the Toolbar, click the SpeedFormat button.
3. In the Speed Format dialog box, in the Formats list, select the format.
4. In the Include area, deselect any unwanted properties.
5. Choose OK.

## Self-Check Exercise

1. Open the file A:\Lee's Ice Cream.wb3.
2. Select the block A11 through A16 and the block B10 through I10 at the same time, and then deselect the two blocks.
3. Select row 4 and column E at the same time, and then deselect the row and the column.
4. Select the entire spreadsheet, and then deselect the entire sheet.
5. Select the block A10 through I16 on sheet A through sheet F.
6. Use the QuickFit Button to increase the width of column A so that Cookies and Cream is displayed in its entirety in cell A15.
7. Change the width of column H to 13 characters.
8. Using the mouse method, increase the height of row 3 to 0.50 inches.
9. Using the Active Cells Object Inspector, change the height of row 5 to 17 points.
10. Format cells I11 through I15 as currency with 2 decimal places.
11. Change the font of cells A3 through A8 to Times New Roman.
12. Change the font size of cell A3 to 18 points.
13. Change the font size of cell A5 to 16 points.
14. Using the Active Cells Object Inspector, increase the size of the text in cells A7 and A8 to 14 points.
15. Bold cells A3 through A8, cells B10 through I10, and cells A11 through A16.
16. Italicize cell A3.
17. Right align cells A11 through A16.
18. Align cells A3 through A8 across cells A3 through I8.
19. Center cells B10 through I10.



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20. Place the thickest border possible around all the lines in block A10 through I16.
21. Fill block A10 through I16 with the color yellow (the fifth color in the fourth row).
22. Use SpeedFormat to format cells A10 through I16 in the Sculpted 1 format style, including all format properties except the numeric format option.
23. Save and close the spreadsheet.

Section

5

## *Printing the Spreadsheet*

- Printing a Simple Spreadsheet
- Printing Longer Spreadsheets

## Section Skills and Their Importance

In the following section you will learn to:

- **Print a simple spreadsheet**

Printing a spreadsheet is the final step in your application of Quattro Pro. A hard copy of your spreadsheet lets you present your data to colleagues through a report or even a fax. You will learn how to print a simple report, how to add headers and footers, and how to center the spreadsheet on the printout.

- **Print longer spreadsheets**

Sometimes your reports are too large to fit conveniently on one sheet. When this happens, Quattro Pro offers several options to make your report as functional as possible. You will learn how to set page breaks, set and remove print titles, and print reports in landscape orientation. You will even learn how to fit a spreadsheet on a minimum number of pages. All these functions let you present your data in the best way to get your point across.

## Printing a Simple Spreadsheet

Once you've edited, saved, and previewed your spreadsheet, it's ready to be printed. Before you send a spreadsheet to the printer, Quattro Pro lets you select from a number of print options, including headers and footers. It can also center the spreadsheet on the printout.

### Using Print Preview

Print Preview shows you how the spreadsheet will look when printed. In the Print Preview window, you can zoom in on one portion of the spreadsheet, zoom out, move from sheet to sheet, change your page setup, print the spreadsheet, and more. You can easily access these functions from the Print Preview Toolbar, shown in Figure 5-1.

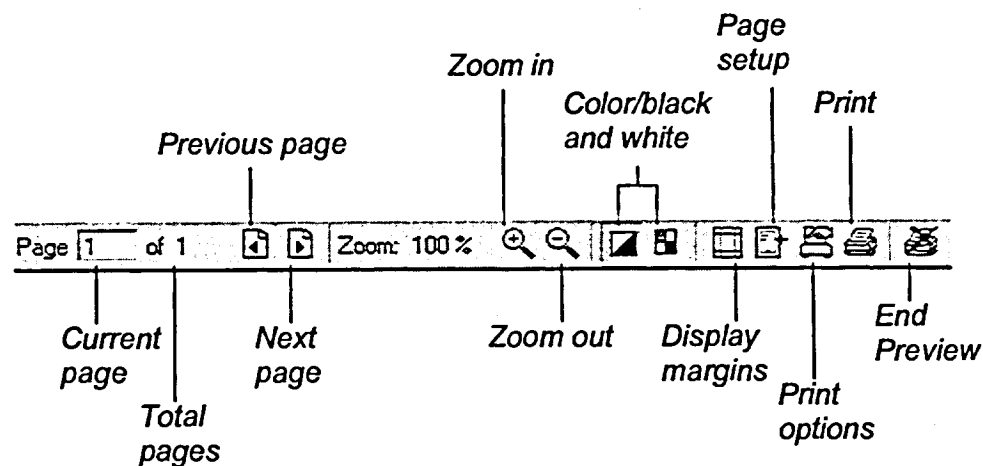


Figure 5-1: The Print Preview Toolbar

#### METHOD

To zoom in:

1. On the Print Preview Toolbar, click the Zoom in button.  
or
1. Point to the part of the sheet to be magnified.
2. Click the mouse.

## Section 5: Printing the Spreadsheet

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To zoom out:

1. On the Print Preview Toolbar, click the Zoom out button.  
or
1. Point anywhere on the sheet.
2. Right-click the mouse.

### EXERCISE

---

In the following exercise, you will preview the spreadsheet before printing.

- |   |  |
|---|--|
| 1. Open A:\Budget 2                                     |  |
| 2. From the File menu, choose Print Preview             | <i>The spreadsheet appears in Print Preview.</i> |
| 3. Move the pointer to the title <i>Personal Budget</i> | <i>The pointer resembles a magnifying glass.</i> |
| 4. Click the mouse                                      | <i>The sheet is magnified.</i>                   |
| 5. Right-click the mouse                                | <i>The sheet returns to the previous view.</i>   |
| 6. On the Toolbar, click the End preview button         | <i>The spreadsheet window reappears.</i>         |

END

## Using the Print Command

Besides printing by clicking the Print button, you can also send a document to the printer by choosing the Print command from the File menu. This lets you change the defaults.

When you choose the Print command, the Spreadsheet Print dialog box, shown in Figure 5-2, appears. The Spreadsheet Print dialog box contains the settings that let you specify the type of printer you are using, the block you want to print, and the number of copies you want to print. You can change the settings each time you print.

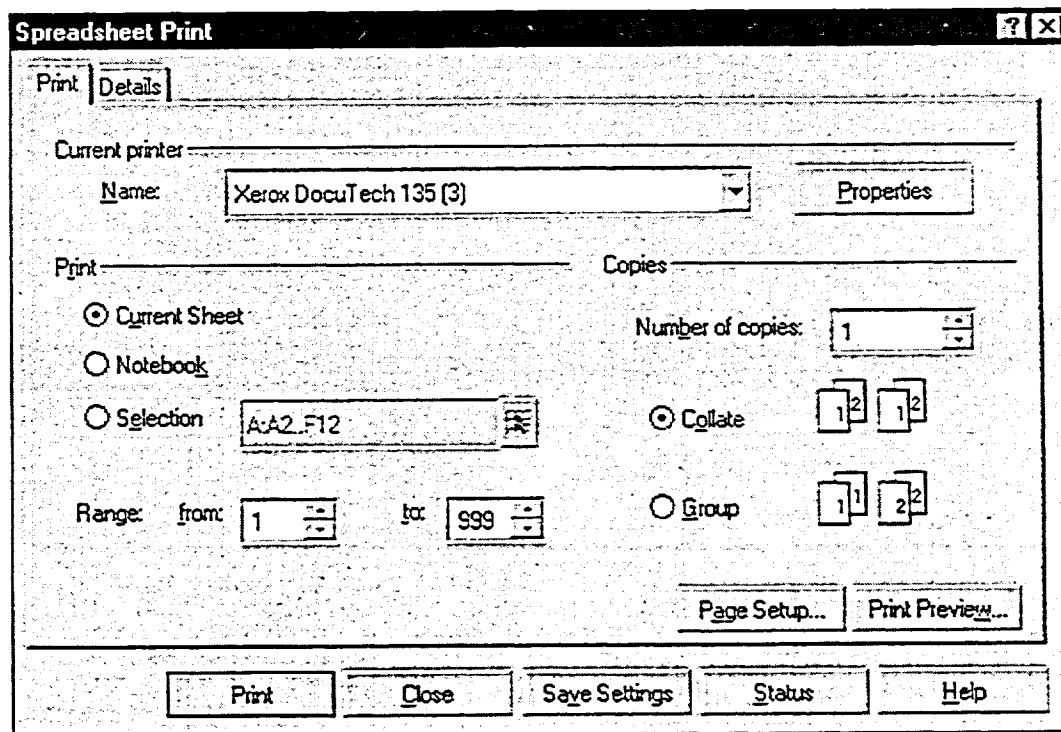


Figure 5-2: The Spreadsheet Print Dialog Box

### METHOD

To use the Print command:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, select the desired option.
3. Choose Print.

**EXERCISE**

In the following exercise, you will use the Print command.

1. From the File menu, choose Print *The Spreadsheet Print dialog box appears.*
2. In the Spreadsheet Print dialog box, in the Copies area, in the Number of copies text box, select the text and type 2 *The number 2 appears in the Number of copies text box.*
3. Choose Print *Two copies of the spreadsheet print.*

**END**

## Printing the Gridlines

There might be times when you want the sheet gridlines to appear on the printed sheet. Quattro Pro provides for this by making it easy for you to print those gridlines. Simply access the Options page in the Spreadsheet Page Setup dialog box and select the Gridlines checkbox, as illustrated in Figure 5-3. This also lets you view the gridlines in Print Preview.

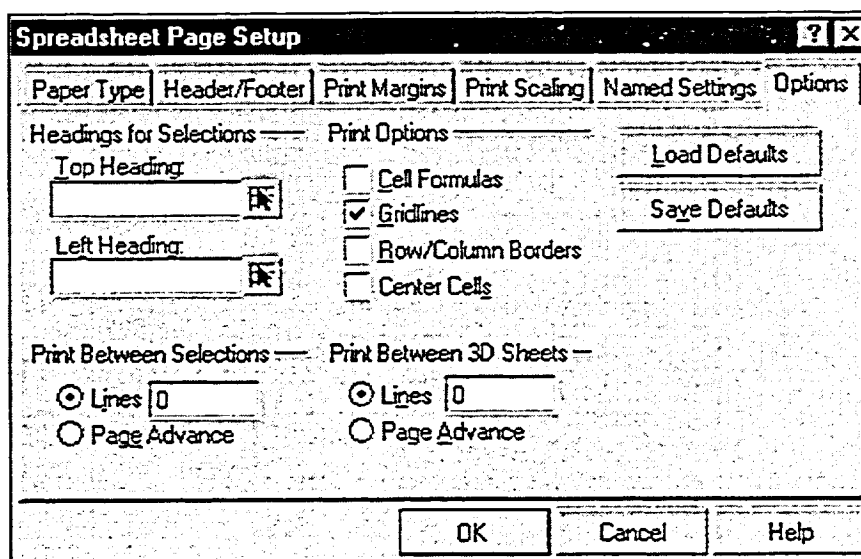


Figure 5-3: The Spreadsheet Page Setup Dialog Box

### METHOD

To print the gridlines:

1. From the File menu, choose Print.
  2. In the Spreadsheet Print dialog box, choose Page Setup.
  3. In the Spreadsheet Page Setup dialog box, on the Options page, in the Print Options area, select the Gridlines check box.
  4. Choose OK.
  5. Choose Print to print the spreadsheet.
- or
5. Choose Close to return to the spreadsheet window without printing.



**EXERCISE**

In the following exercise, you will print preview the spreadsheet with gridlines.

- |  |   |
|--|---|
| 1. From the File menu, choose Print  | <i>The Spreadsheet Print dialog box appears.</i>                            |
| 2. Choose Page Setup   | <i>The Spreadsheet Page Setup dialog box appears.</i>                       |
| 3. Select the Options tab  | <i>The Options page appears.</i>  |
| 4. If necessary, in the Print Options area, select the Gridlines check box |   |
| 5. Choose OK   | <i>The Spreadsheet Print dialog box reappears.</i>                          |
| 6. Choose Print Preview  | <i>The spreadsheet appears in Print Preview. Gridlines are now visible.</i> |
| 7. On the Toolbar, click the End preview button                            | <i>The Spreadsheet Print dialog box reappears.</i>                          |
| 8. Choose Close  | <i>The spreadsheet window reappears.</i>                                    |

**END**

## Creating Headers and Footers

Quattro Pro lets you assign *headers* and *footers* to your sheet. Headers and footers are most often used to display information, such as a page number, a filename, or a date, at the top and/or bottom of every page. Unless you specify otherwise, headers and footers are left aligned.

Quattro Pro has a number of special codes you can use in headers and footers to insert dates, times, filenames, page numbers, and so forth. Table 5-1 lists some of the most commonly used codes.

Code	Description
(vertical bar)	Centers or right aligns text.
#ds	Inserts the current date in the Short Date format (DD-MMM).
#Ds	Inserts the current date in the Long Date format (DD-MMM-YY).
#ts	Inserts the current time in the Short Time format (HH:MM).
#Ts	Inserts the current time in the Long Time format (HH:MM:SS).
#p	Inserts the current page number.
#P	Inserts the number of pages in the document.
#f	Inserts the name of the notebook.

Table 5-1: Header and Footer Codes

The *vertical bar* character (|), which is accessed by holding down **SHIFT** while pressing **BACKSLASH**, is used to center or right align header and footer text. You can use the vertical bar in conjunction with any of the other codes listed in the table, and you can use up to two vertical bars in one line. Each vertical bar moves the text following it one position to the right. Some examples are shown in Table 5-2.

Entry	Result
Weekly Expenses	Weekly Expenses
Weekly Expenses	Weekly Expenses
Weekly Expenses	Weekly Expenses
Weekly Expenses  Page #p	Weekly Expenses Page 4

Table 5-2: Using the Vertical Bar

**METHOD**

To create a header or footer:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Header/Footer tab.
4. On the Header/Footer page, in the Header area or the Footer area, select the Create check box, and in the text box, type the text.
5. Choose OK.
6. In the Spreadsheet Print dialog box, choose Close.

To format a header or footer:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Header/Footer tab.
4. In the Header area or Footer area, select the Create option button, and then choose Font.
5. In the Select Font dialog box, from the Typeface list, select a typeface.
6. From the Point Size drop-down list, select a point size.
7. In the Options area, select an option.
8. Choose OK.
9. In the Spreadsheet Page Setup dialog box, choose OK.
10. In the Spreadsheet Print dialog box, choose Close.

*Note:* You can also access the Spreadsheet Page Setup dialog box directly through the File menu. In addition, you can access it from Print Preview by clicking the Page Setup button on the Print Preview Toolbar.

**EXERCISE**

In the following exercise, you will create and format a header and a footer in the notebook.

- |  |   |
|--|---|
| 1. From the File menu, choose Print                              | <i>The Spreadsheet Print dialog box appears.</i>  |
| 2. Choose Page Setup   | <i>The Spreadsheet Page Setup dialog box appears.</i>                                     |
| 3. Select the Header/Footer tab                                  | <i>The Header/Footer page appears.</i>  |
| 4. If necessary, in the Header area, select the Create check box | <i>The Header text box is activated.</i>  |
| 5. In the Header text box, type #f #ds                           | <i>The codes to enter the filename on the left and the date on the right are entered.</i> |
| 6. If necessary, in the Footer area, select the Create check box | <i>The Footer text box is activated.</i>  |
| 7. In the Footer text box, type  #p                              | <i>The code to enter the page number in the center is entered.</i>                        |
| 8. In the Header area, choose Font                               | <i>The Select Font dialog box appears.</i>  |
| 9. From the Typeface list, select Times New Roman                | <i>A sample of the text appears at the bottom of the Select Font dialog box.</i>          |
| 10. In the Options area, select the Bold check box               | <i>A sample of the typeface appears at the bottom of the dialog box.</i>                  |
| 11. Choose OK  | <i>The Spreadsheet Page Setup dialog box reappears.</i>                                   |
| 12. Choose OK  | <i>The Spreadsheet Print dialog box reappears.</i>  |
| 13. Choose Close   | <i>The spreadsheet window reappears.</i>  |

## Section 5: Printing the Spreadsheet

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- |   |   |
|---|---|
| 14. From the File menu, choose Print Preview      | <i>The spreadsheet appears in Print Preview with headers and footers.</i>   |
| 15. Point to the header, and then click the mouse | <i>The spreadsheet enlarges, letting you view your header more clearly.</i> |
| 16. Right-click the mouse                         | <i>The spreadsheet returns to normal size.</i>                              |
| 17. Point to the footer, and then click the mouse | <i>The spreadsheet enlarges, letting you view your footer more clearly.</i> |
| 18. Right-click the mouse                         | <i>The spreadsheet returns to normal size.</i>                              |
| 19. On the Toolbar, click the End preview button  | <i>The spreadsheet reappears.</i>   |

**END**

## Centering the Spreadsheet on the Printout

By default, when you print a spreadsheet, the left side of the first column aligns with the left margin. In many instances, your printout will look better with the spreadsheet centered horizontally on the sheet.

### METHOD

To center a spreadsheet on the printout:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Options tab.
4. On the Options page, in the Print Options area, select the Center Cells check box.
5. Choose OK.
6. Choose Print to print the spreadsheet.  
or
6. Choose Close to return to the spreadsheet window without printing.

### EXERCISE

In the following exercise, you'll center the spreadsheet on the printout.

1. Choose Sheet tab B
2. From the File menu, choose Print *The Spreadsheet Print dialog box appears.*
3. Choose Page Setup *The Spreadsheet Page Setup dialog box appears.*
4. Select the Options tab *The Options page appears.*
5. In the Print Options area, select the Center Cells check box
6. Choose OK *The Spreadsheet Print dialog box appears again.*

## Section 5: Printing the Spreadsheet

---

- |  |   |
|--|---|
| 7. Choose Print Preview                                  | <i>The spreadsheet appears in Print Preview. It is centered horizontally on the page.</i> |
| 8. On the Toolbar, click the End preview button          | <i>The Spreadsheet Print dialog box reappears.</i>  |
| 9. Choose Print  | <i>The spreadsheet prints, and then the spreadsheet reappears.</i>                        |
| 10. Save as H:\spsheet\budget2 and close the spreadsheet |   |

**END**

## Printing Longer Spreadsheets

Quattro Pro has several print features well suited to printing long sheets. For example, it lets you modify a spreadsheet's page breaks and orientation and gives you the flexibility to print selected parts of your notebook. In addition, Quattro Pro lets you include print headings on each page and fit your printout on a minimum number of pages.

### Printing a Sheet in Landscape Orientation

When you create a spreadsheet in Quattro Pro, your pages are set up so that data will print in *portrait orientation*. That is, your data prints across the short part of the paper—the part that measures 8-1/2 inches. Sometimes, however, you might create a chart or table that fits only in *landscape orientation*. When a spreadsheet is printed in landscape orientation, the data prints along the long part of the paper—the part that measures 11 inches. Both portrait and landscape orientations are illustrated in Figure 5-4.

Quattro Pro defaults to portrait orientation. This means that unless you indicate otherwise, data is placed across the short edge of the page. If you need to create a wide printout, you can change the orientation to landscape.

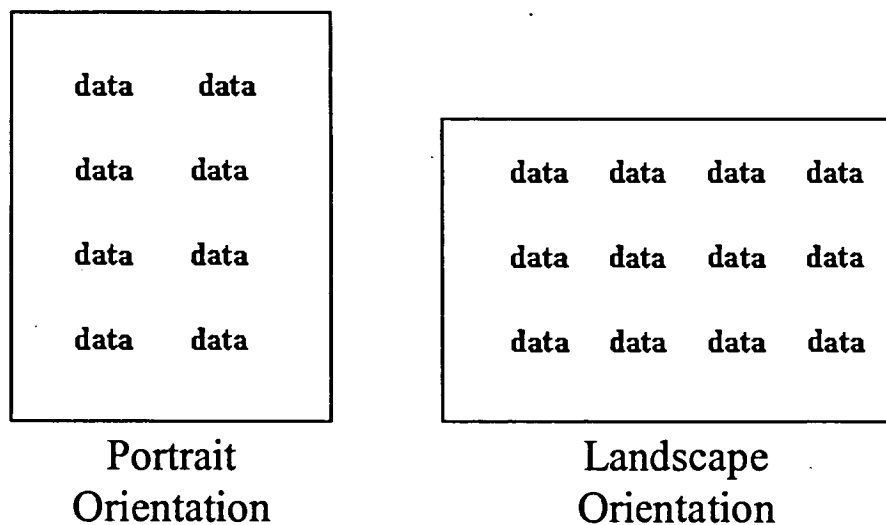


Figure 5-4: Portrait and Landscape Orientations



**METHOD**

To print a spreadsheet in landscape orientation:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Paper Type tab.
4. On the Paper Type page, select the Landscape option button.
5. Choose OK.
6. In the Spreadsheet Print dialog box, choose Print.

**EXERCISE**

In the following exercise, you will print the spreadsheet in landscape orientation.

1. Open **H:\spsheet\Budget 2** and be sure sheet tab A is selected
2. From the File menu, choose Print *The Spreadsheet Print dialog box appears.*
3. Choose Page Setup *The Spreadsheet Page Setup dialog box appears.*
4. Select the Paper Type tab *The Paper Type page appears.*
5. Under the Type list, select the Landscape option button
6. Choose OK *The Spreadsheet Print dialog reappears.*
7. Choose Print *The spreadsheet prints in landscape orientation and the spreadsheet reappears.*

**END**

## Setting the Print Block

Instead of printing the entire spreadsheet each time you need to work with it, you can set a *print block*. A print block is a block address that tells Quattro Pro to print only a portion of that spreadsheet.

### METHOD

To set a print block:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, in the Print area, select the Selection option button.
3. In the Selection text box, enter the block coordinates.
4. Choose Print.  
or
4. Choose Close to return to the spreadsheet window without printing.

*Note:* You can select the block of cells you want to print before accessing the Spreadsheet Print dialog box. When you do this, the block reference is automatically inserted in the Selection text box. If the contents of the cells spill over into adjacent cells on-screen, include the spill over cells in the selection; otherwise, only part of the entry will print.

### EXERCISE

In the following exercise, you will set a print block.

- |  |  |
|--|--|
| 1. From the File menu, choose Print                      | <i>The Spreadsheet Print dialog box appears.</i> |
| 2. In the Print area, select the Selection option button | <i>The Selection text box becomes activated.</i> |
| 3. In the Selection text box, type A9..L13               | <i>The print block is specified.</i>             |
| 4. Choose Close  | <i>The spreadsheet reappears.</i>                |

## Section 5: Printing the Spreadsheet

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5. Print preview the spreadsheet

*Only the selected block  
appears in Print Preview.*

6. Return to the Spreadsheet  
window

**END**

## Removing the Print Block

Once you're ready to print the entire spreadsheet again, you need to remove the print block.

### METHOD

To remove the print block:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, in the Print area, select the Notebook option button.  
or
2. In the Spreadsheet Print dialog box, in the Print area, select the Current Sheet option button.
3. Choose Close.

### EXERCISE

In the following exercise, you will remove the print block you just set.

- |   |   |
|---|---|
| 1. From the File menu, choose Print                     | <i>The Spreadsheet Print dialog box appears.</i>  |
| 2. In the Print area, select the Notebook option button | <i>The Selection text box becomes grayed out.</i> |
| 3. Choose Close   |   |
| 4. Print preview the spreadsheet                        | <i>The whole spreadsheet appears.</i>             |
| 5. Return to the spreadsheet window                     |   |
| 6. Close the file without saving the changes            |   |

END

## Inserting and Removing Hard Page Breaks

Quattro Pro determines where each of a document's pages should begin and end, or break. These automatic breaks are called *soft page breaks*. As you edit multipage documents, however, you will often find that you need to manipulate Quattro Pro's page breaks. You can do this by setting manual page breaks, called *hard page breaks*. Hard page breaks override the soft page breaks created by Quattro Pro, and they also insert a new row into the spreadsheet. When you insert a hard page break, a line appears across the spreadsheet.

### METHOD

To insert hard page breaks:

1. Select a cell in the first column of a print block where the page break is to appear.
2. From the Insert menu, choose Page Break.
3. From the Page Break submenu, choose Create.

To remove hard page breaks:

1. Select a cell below the hard page break.
2. From the Insert menu, choose Page Break.
3. Choose Delete.

### EXERCISE

In the following exercise, you will insert and remove hard page breaks for the spreadsheet **Weekly Report**.

1. Open **A:\Weekly Report**
2. From the File menu, choose Print Preview *The spreadsheet appears in Print Preview.*
3. On the Toolbar, click the Next page button *Page 2 appears.*
4. On the Toolbar, click the End preview button *The spreadsheet reappears.*
5. Select cell A34

## Printing Longer Spreadsheets

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6. From the Insert menu, choose Page Break *The Page Break submenu appears.*
7. Choose Create *A line is inserted across the spreadsheet.*
8. From the File menu, choose Print Preview *Page 1 appears in Print Preview.*
9. On the Toolbar, click the Next Page button *Page 2 appears.*
10. On the Toolbar, click the End preview button *The spreadsheet reappears.*
11. Make sure cell A34 is selected
12. From the Insert menu, choose Page Break *The Page Break submenu appears.*
13. Choose Delete *The hard page break is deleted.*
14. Print preview the spreadsheet *The hard page break is deleted and the spreadsheet returns to its previous pagination.*
15. Return to the spreadsheet window

**END**

## Setting Print Headings

When a spreadsheet is more than one page long, it can be difficult to read. Because the column and row headings, called *top headings* and *left headings*, are listed only on the first page, it is not evident how the data on the other pages will look. Quattro Pro lets you place row and column headings automatically on each page of a multi-page document.

To print headings, you must first set a print block. If you include the headings in the print block, they will print twice.

### METHOD

To set print headings:

1. Make sure a print block is set.
2. From the File menu, choose Print.
3. In the Spreadsheet Print dialog box, choose Page Setup.
4. Select the Options tab.
5. On the Options page, in the Headings for Selections area, in the Top Heading text box, type the address of any cell in the row containing the headings.  
and/or
5. In the Headings for Selections area, in the Left Heading text box, type the address of any cell in the column containing the headings.
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Close.

*Note:* The entire row (for top headings) or the entire column (for left headings) is used regardless of which cell address you enter.

### EXERCISE

In the following exercise, you will set headings on a document.

1. From the File menu, choose Print *The Spreadsheet Print dialog box appears.*
2. In the Print area, select the Selection option button *The Selection text box becomes activated.*

- |   |  |
|---|--|
| 3. In the Print area, make sure <b>A2..I65</b> appears in the Selection text box    | <i>The print block is selected.</i>  |
| 4. Choose Page Setup  | <i>The Spreadsheet Page Setup dialog box appears.</i>  |
| 5. Select the Options tab   | <i>The Options page appears.</i>   |
| 6. In the Headings for Selections area, in the Top Heading text box, type <b>A1</b> | <i>Row 1 data will be used for the top headings.</i>   |
| 7. Choose OK  | <i>The Spreadsheet Print dialog box reappears.</i>   |
| 8. Choose Close   |  |
| 9. Select cell A34  |  |
| 10. From the Insert menu, choose Page Break   |  |
| 11. Choose Create   | <i>A line appears across the spreadsheet.</i>  |
| 12. From the File menu, choose Print Preview  | <i>The document appears in Print Preview. The headings appear across the top of the table.</i> |
| 13. On the Toolbar, click the Next Page button                                      | <i>The second page appears. The headings appear across the top of the table.</i>               |
| 14. Zoom in on the headings   | <i>The headings are clearly visible along the top of the page.</i>                             |
| 15. On the Toolbar, click the End preview button                                    | <i>The spreadsheet window reappears.</i>   |
| 16. Select cell A1  |  |

**END**



## Removing Print Headings

If you decide that you no longer need print headings on each page of your document, you can remove those headings.

### METHOD

To remove print headings:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. Select the Options tab.
4. On the Options page, in the Headings for Selections area, select the text in the Top Heading and/or the Left Heading text box.
5. Press **DELETE**
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Close.

### EXERCISE

In the following exercise, you will remove the print headings you just set.

- |  |   |
|--|---|
| 1. From the File menu, choose Print  | <i>The Spreadsheet Print dialog box appears.</i>                    |
| 2. Choose Page Setup   | <i>The Spreadsheet Page Setup dialog box appears.</i>               |
| 3. Select the Options tab  |   |
| 4. In the Headings for Selections area, make sure the text in the Top Heading text box is selected |   |
| 5. Press <b>DELETE</b>   | <i>The block coordinates in the Top Heading text box disappear.</i> |
| 6. Choose OK   | <i>The Spreadsheet Print dialog box reappears.</i>                  |
| 7. Choose Print Preview  | <i>The spreadsheet appears in print preview.</i>                    |

## Printing Longer Spreadsheets

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- |  |   |
|--|---|
| 8. Examine both pages of the spreadsheet | <i>The headings no longer appear in the document.</i> |
| 9. Close the Print Preview window        | <i>The Spreadsheet Print dialog box reappears.</i>    |
| 10. Choose Close                         | <i>The spreadsheet reappears.</i>                     |

END

## Fitting a Spreadsheet on the Minimum Number of Pages

If your spreadsheet is longer than one page, you can have Quattro Pro shrink it so that it prints on one page or on as few pages as possible. You can use this feature to shrink the print block, headers, footers, and headings so that they fit on as few pages as possible. The text can only be reduced to fit on fewer pages, however—not enlarged to fill the page. You use the Print Scaling page of the Spreadsheet Page Setup dialog box, illustrated in Figure 5-5, to invoke this feature.

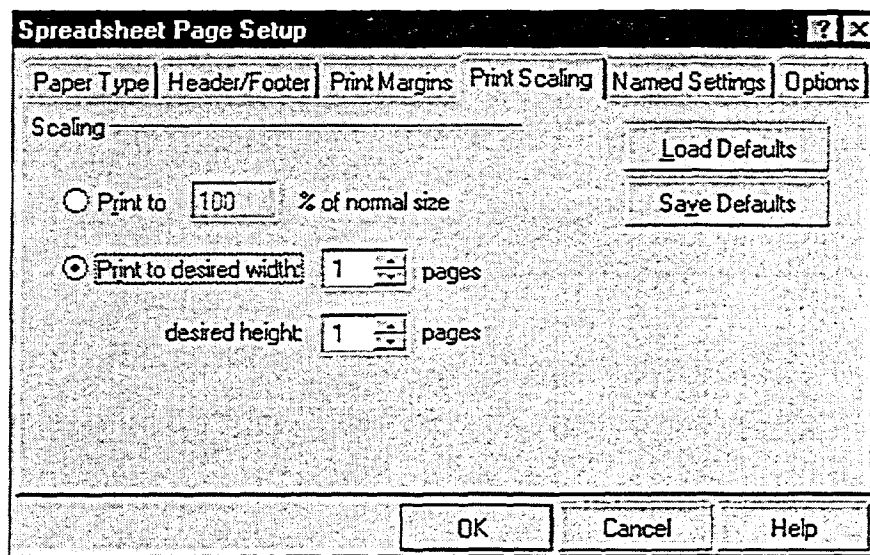


Figure 5-5: The Print Scaling Page of the Spreadsheet Page Setup Dialog Box

### METHOD

To fit a spreadsheet on the minimum number of pages:

Print to desired width or desired height method

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Print Scaling tab.
4. On the Print Scaling page, in the Scaling area, select the *Print to desired width* option button.

5. In the *Print to desired width* spin box or the *desired height* spin box, select the desired number of pages, or type a number in the appropriate text box.
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Print to print the spreadsheet.  
or
7. Choose Close to return to the spreadsheet window without printing.

Print to % of normal size method

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Print Scaling tab.
4. On the Print Scaling page, in the Scaling area, select the *Print to % of normal size* option button.
5. In the *Print to % of normal size* text box, select the text and type a number.
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Print to print the spreadsheet.  
or
7. Choose Close to return to the spreadsheet window without printing.

*Note:* If you want to enlarge or reduce output by a specific percentage, select the *Print to % of normal size* option button. Then adjust the number in the text box to the desired percentage.

**EXERCISE**

In the following exercise, you'll fit the entire spreadsheet to print on one page. Then, you will return the original spacing to the spreadsheet.

1. In cell A34, delete the page break *The page break is removed.*
2. From the File menu, choose Print Preview *The spreadsheet appears in Print Preview.*
3. On the Toolbar, click the Next page button *Page 2 appears.*

## Section 5: Printing the Spreadsheet

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4. On the Toolbar, click the Page setup button *The Spreadsheet Page Setup dialog box appears.*
5. Select the Print Scaling tab *The Print Scaling page appears.*
6. In the Scaling area, select the *Print to desired* option button
7. In the *Print to desired width* spin box and the *desired height* spin box, make sure the number of pages is 1
8. Choose OK *The spreadsheet appears in Print Preview again. This time, the entire spreadsheet fits on one page.*
9. On the Toolbar, click the Page Setup button *The Spreadsheet Page Setup dialog box appears.*
10. Select the Print Scaling tab *The Print Scaling page appears.*
11. Select the *Print to % of normal size* option button
12. Change the % of normal size to 100
13. Choose OK *The spreadsheet appears in Print Preview again. The original spacing has returned.*
14. Return to the spreadsheet window
15. Save and close the spreadsheet

**END**

**To print preview a spreadsheet:**

1. From the File menu, choose Print Preview.
2. On the Print Preview Toolbar, click the Print button to print.  
or
2. On the Print Preview Toolbar, click the End preview button to return to the spreadsheet without printing.

**To zoom in:**

1. On the Print Preview Toolbar, click the Zoom in button.  
or
1. Point to the part of the page to be magnified.
2. Click the left mouse button.

**To zoom out:**

1. On the Print Preview Toolbar, click the Zoom out button.  
or
1. Point anywhere on the page.
2. Click the right mouse button.

**To print a spreadsheet by using the Print command:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, select the options.
3. Choose Print.

**To print the gridlines:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, in the Options group box, select the Gridlines check box.
4. Choose OK.

5. Choose Print to print the spreadsheet.  
or
5. Choose Close to return to the spreadsheet window without printing.

**To create a header or footer:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, select Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Header/Footer tab.
4. In the Header text box or the Footer text box, type the text.
5. Choose OK.
6. Choose Close.

**To format a header or footer:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, select Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Header/Footer tab.
4. Choose Font for your Header and/or Font for your Footer.
5. In the Typeface list, select the typeface.
6. In the Point Size list, select the point size.
7. In the Options group box, select the option.
8. Choose OK.
9. Choose OK.
10. Choose Close.

**To center a spreadsheet on the printout:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.

## Section 5: Printing the Spreadsheet

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3. In the Spreadsheet Page Setup dialog box, in the Print Options group box, select the Center Cells check box.
4. Choose OK.
5. Choose Print to print the spreadsheet.  
or
5. Choose Close to return to the spreadsheet window without printing.

### To print a spreadsheet in landscape orientation:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. If necessary, in the Spreadsheet Page Setup dialog box, select the Paper Type tab.
4. Under the Type box, select the Landscape option button.
5. Choose OK.
6. Choose Print.

### To add hard page breaks to a spreadsheet:

1. Select a cell in the first column of a print block where the page break is to appear.
2. From the Insert menu, choose Page Break and Create.

### To remove page breaks:

1. Select the cell containing the hard page break code.
2. From the Insert menu, choose Page Break, and Delete.

### To fit a spreadsheet on one page:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Print Scaling tab.
4. In the Scaling group box, select the Print to desired width.

5. Select the number of desired pages
6. Choose OK
7. Choose Print to print the spreadsheet.  
or
7. Choose Close to return to the spreadsheet window without printing.

### To set a print block:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, in the Print Area, select the Selection option button.
3. In the Selection text box, enter the block coordinates.
4. Choose Print.  
or
4. Choose Close to return to the spreadsheet window without printing.

### To remove the print block:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, in the Print area, select the Notebook option button or the Current Sheet option button.
3. Choose Close.

### To set print headings:

1. Make sure a print block is set.
2. From the File menu, choose Print.
3. In the Spreadsheet Print dialog box, choose Page Setup.
4. Select the Options tab.
5. In the Headings for Selections area, in the Top Heading text box, type the address of any cell in the row containing the headings.  
and/or
5. In the Headings for Selections area, in the Left Heading text box, type the address of any cell in the column containing the headings.

6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Close.

**To remove print headings:**

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, in the Print Area group box, select the Current Page option button.
3. Choose Page Setup.
4. In the Spreadsheet Page Setup dialog box, select the Options tab, in the Headings for selections box, select the text in the Top Heading and/or the Left Heading text box.
5. Press **DELETE**
6. Choose OK.
7. Choose Close.

**To fit a spreadsheet on the minimum number of pages:**

Print to desired width or desired height method

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Print Scaling tab.
4. On the Print Scaling page, in the Scaling area, select the Print to desired width option button.
5. In the Print to desired width spin box or the desired height spin box, select the desired number of pages, or type a number in the appropriate text box.
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Print to print the spreadsheet.  
or
7. Choose Close to return to the spreadsheet window without printing.

Print to % of normal size method

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, choose Page Setup.
3. In the Spreadsheet Page Setup dialog box, select the Print Scaling tab.
4. On the Print Scaling page, in the Scaling area, select the Print to % of normal size option button.
5. In the Print to % of normal size text box, select the text and type a number.
6. Choose OK.
7. In the Spreadsheet Print dialog box, choose Print to print the spreadsheet.  
or
7. Choose Close to return to the spreadsheet window without printing.



***Self-Check Exercise***

1. Open the file A:\MRF Machine and Tool.
2. Set the print options so that gridlines print.
3. Create a header containing the filename on the left side and the page number on the right.
4. Create a footer containing the date, in the Short Date format, on the right.
5. Format the header for Times New Roman, bold.
6. Print preview your spreadsheet and zoom in to check the headers and footers.
7. Insert a page break at cell A38.
8. Center the table horizontally on the page.
9. Change the page layout to landscape orientation. Print preview the change.
10. Set the print block to A6 through I70.
11. Set the headings in row 5 to print on every page. Print preview your changes.
12. Remove the print block.
13. Remove the print headings.
14. Remove the page break.
15. Return the layout to portrait orientation.
16. Fit the spreadsheet on one page.
17. Print the spreadsheet.
18. Save and close the spreadsheet.

Section

6

## *Using Function Construction*

- Creating and Using Cell Names
- Using Advanced Functions
- Using Dates and Times

## Section Skills and Their Importance

In the following section you will learn to:

- **Create and use cell names**

When you create a cell name, you create an easy-to-remember identifier that refers to a range of cells. Once named, these cells can be used to navigate within a sheet, to complete function arguments, and to print sheet selections. You can create, edit, redefine, and delete cell names.

- **Use advanced functions**

Functions are built-in mathematical operations that you can use alone or within formulas. Functions are like shortcuts in calculations. You can use the Formula Composer to build and edit complex functions.

- **Use dates and times**

Quattro Pro stores dates and times in a numeric format so that you can perform calculations with them. When you enter dates and times in a recognizable format, Quattro Pro automatically converts them to a serial date or time, which is a type of value.

## Creating and Using Cell Names

*Cell names* are easy-to-remember identifiers created to refer to a range of cells on a sheet. Cell names allow you to quickly identify information and navigate within your notebook. Formulas that use cell names are often more intuitive and informative than formulas using cell addresses. For example, it is easier to understand the formula **Profit=Income-Expenses** than the formula **H5=A5-F5**.

### Naming Cells

You can name cells almost anything at all, as long as they conform to the following rules:

- A cell name can be up to 63 characters in length. However, keep in mind that a shorter name is easier to use and remember.
- Cell names can contain any characters (A to Z, 0 to 9, punctuation marks, and spaces). Cell names cannot consist of only numbers, and commas cannot start a cell name.
- Cell names cannot contain the following characters: + - \* ( ) ^ = < > # & ~ \$ and /.
- Avoid using cell names that resemble cell coordinates or functions.

The Cell Names dialog box, illustrated in Figure 6-1, lets you create cell names.

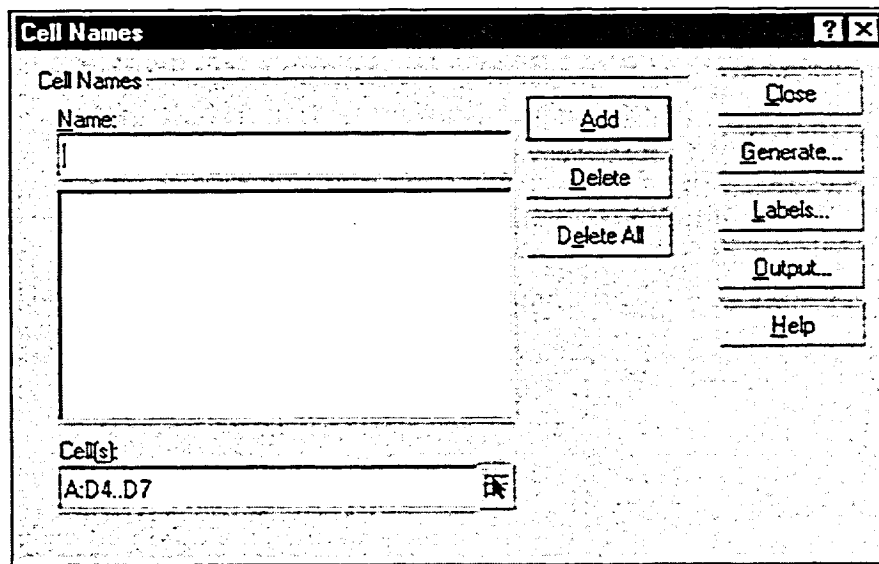


Figure 6-1: The Cell Names Dialog Box

## Section 6: Using Function Construction

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### **METHOD**

To name a cell:

1. Select the cell(s) you want to name.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, in the Name text box, type a name for the selected cell(s).
4. Choose Add.
5. Choose Close.

### **EXERCISE**

In the following exercise, you will name selected cells in a sheet.

1. Start Quattro Pro
2. Open **A:\Lunches Sold**
3. Select cells D4..D7
4. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
5. In the Name text box, type **Mar**
6. Choose Add *The cell name Mar appears in the cell name list. To the left of the input line, the new cell name replaces the cell address.*
7. Choose Close *The Cell Names dialog box closes.*

**END**

## Automatically Naming Cells

In Quattro Pro, you can create names for multiple cells at the same time by using your sheet labels. This helps when you are working on large notebooks because it makes naming cells quick and simple.

Use the Generate Cell Names dialog box, illustrated in Figure 6-2, when you want to name more than one cell using one or more label locations. You access this dialog box by choosing Generate from the Cell Names dialog box.

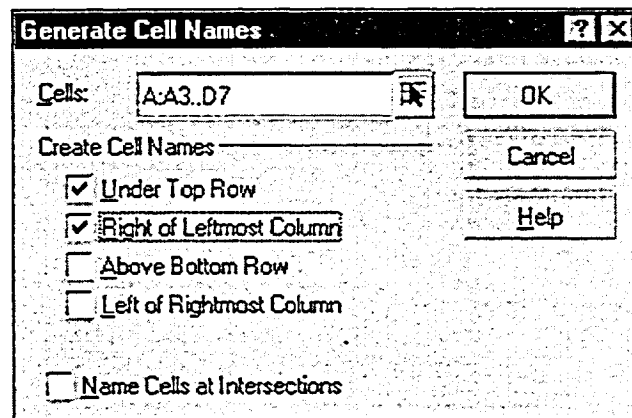


Figure 6-2: The Generate Cell Names Dialog Box

### METHOD

To automatically name a cell:

1. Select the cells you want to name, including the labels.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, choose Generate.
4. In the Generate Cell Names dialog box, in the Create Cell Names area, select the location(s) of the cells to name.
5. Choose OK.
6. Choose Close.

**EXERCISE**

In the following exercise, you will automatically name cells.

1. Select cells A3..D7
2. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
3. Choose Generate *The Generate Cell Names dialog box appears.*
4. In the Create Cell Names area, select the Under Top Row check box and the Right of Leftmost Column check box
5. Choose OK *The Generate Cell Names dialog box closes. Both the column and row labels are used as cell names and the Cell Names dialog box reappears.*
6. Examine the cell name list *Cell names appear for the lunch items and the months of the year.*
7. Choose Close *The Cell Names dialog box closes.*
8. Select cells E3..E7
9. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
10. Choose Generate *The Generate Cell Names dialog box appears.*
11. In the Create Cell Names area, select the Under Top Row check box
12. Choose OK *The column label is used as the cell name and the Cell Names dialog box reappears.*

## Creating and Using Cell Names

---

13. Examine the cell name list

*The label **Total by Meal** appears in the list of cell names.*

14. Choose Close

*The Cell Names dialog box closes.*

**END**



## Navigating with Cell Names

You can use cell names to move from one location in the sheet to another. This is especially useful when you work with a large sheet.

To move to a specific named cell on the sheet, you can access the Go To dialog box, shown in Figure 6-3, by using the Go To key (F5). You use this dialog box to select the cells to which you want to move. You can also use the Navigate button on the input line, shown in Figure 6-4, to move to a named cell.

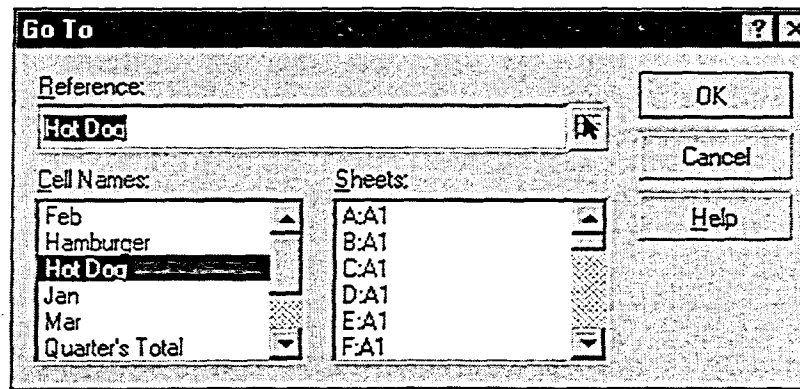
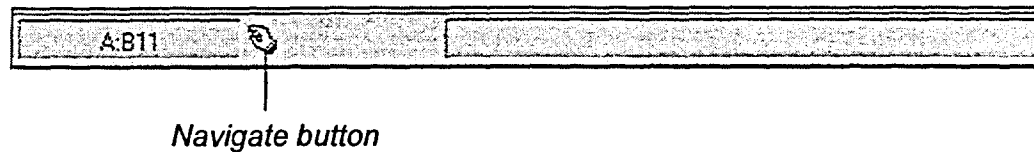


Figure 6-3: The Go To Dialog Box



Navigate button

Figure 6-4: The Navigate Button on the Input Line

### METHOD

To navigate with cell names:

#### Keyboard method

1. Press the Go To key (F5).
2. In the Go To dialog box, from the Cell Names list, select the cell name to which you want to move.
3. Choose OK.

Mouse method

1. On the input line, click the Navigate button.
2. From the list of cell names, click the cell name to which you want to move.

**EXERCISE**

In the following exercise, you will navigate with cell names.

- |  |  |
|--|--|
| 1. Press F5  | <i>The Go To dialog box appears.</i>                                   |
| 2. From the Cell Names list, select <b>Hot Dog</b> | <i>The cell name <b>Hot Dog</b> appears in the Reference text box.</i> |
| 3. Choose OK                                       | <i>The cells named <b>Hot Dog</b> are selected on the sheet.</i>       |
| 4. On the input line, click the Navigate button    | <i>A list of cell names appears.</i>                                   |
| 5. Click <b>Jan</b>                                | <i>The cells named <b>Jan</b> are selected on the sheet.</i>           |

**END**

## Using Cell Names in Formulas

You can use cell names in formulas in place of cell coordinates. This makes the sheet easier to understand and ensures that you always use the correct numbers or cell coordinates in calculations.

A cell could, for example, contain a particular month's data on the sheet. By giving this cell the name **January**, you can use the cell name to perform calculations. For example, you can total January sales.

By default, cell names are absolute references. In some cases, Quattro Pro makes cell names into relative references instead. It does this by placing a tilde (~) in front of the cell name in the formula.

If you use QuickSum to total named cells, Quattro Pro automatically inserts the cell name in the formula. If there is a blank cell between the named cells and the cell containing the formula, however, the cell name will not be inserted into the formula.

### METHOD

To use cell names in a formula:

#### Keyboard method

1. Type the formula as you normally would, but substitute cell names for cell coordinates.
2. Press ENTER

#### Mouse method

1. Type the formula up to the point where you would usually type in the cell coordinates.
2. On the input line, click the Navigate button, and from the drop-down list, select the cell name to paste.  
or
2. Press F3 and then, from the Cell Names list, select the cell name to paste.
3. Complete the formula in the usual manner, repeating step 2 as required.
4. Press ENTER

*Hint:* When you press F3 to display the Cell Names list, you can press + (plus sign) to view the cell coordinates associated with the cell names.

**EXERCISE**

In the following exercise, you will use cell names in a formula.

1. Name cells B9..D9 **Quarter**
2. Select cell B9
3. Type **@Sum(Jan)**
4. Press **RIGHT ARROW** *The amount for January appears in cell B9.*
5. Select cells B4..E4
6. Select cell E4 and examine the formula *The cell name is used in place of the cell coordinates. The tilde (~) in front of the cell name indicates that the cell name is being used as a relative reference.*
7. Select cell C9
8. Click the input line *The input line is activated and the @function button appears to the left.*
9. On the input line, click the @function button *The Functions dialog box appears.*
10. In the Function Category list, make sure ALL is selected
11. In the Function list, scroll down, and then double-click SUM *The Functions dialog box closes and @SUM( appears in the input line.*
12. Press **F3** *The Cell Names list appears.*
13. Make sure the cell name **Feb** is selected and choose **OK**
14. Press **ENTER** *The formula is completed and the result appears in the cell.*

## Section 6: Using Function Construction

15. Use your preferred method to total the remaining month and meals for the first quarter
16. Use your preferred method to calculate the quarter's total in cell E9

*The completed sheet should resemble Figure 6-5.*

END

	A	B	C	D	E
1	<b>Lunches Sold</b>				
2					
3		Jan	Feb	Mar	Total by Meal
4	Hamburger	457	472	477	1406
5	Hot Dog	345	356	371	1072
6	Tuna Surprise	232	125	17	374
7	Veggie Delight	275	367	453	1095
8					
9	Total by Month	1309	1320	1318	3947

**Figure 6-5: The Completed Sheet**

## Creating a Table of Cell Names

You can create a table of cell names and their locations on the sheet for future reference. In a way, this list works like a table of contents. This is especially useful when you work with a large sheet where it might be difficult to remember all the cell names in a notebook or to identify cell names that someone else has created. Cell name tables are not updated automatically. If you change, add, or delete cell names, you must re-create the table to reflect the changes.

### METHOD

To create a table of cell names:

1. Select the cell that will become the upper left corner of the table.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, choose Output.
4. In the Name Table dialog box, in the Cells text box, verify the table location cell coordinates.
5. Choose OK.
6. In the Cell Names dialog box, choose Close.

*Warning:* The table will overwrite any existing data, so be sure to allow enough room for the table on the sheet.

### EXERCISE

In the following exercise, you will create a table of cell names.

1. Select cell F3
2. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
3. Choose Output *The Name Table dialog box appears.*
4. In the Cells text box, verify the table location cell coordinates

## Section 6: Using Function Construction

5. Choose OK

*Quattro Pro outputs all the names in the notebook onto the sheet, as illustrated in Figure 6-6. The Cell Names dialog box reappears.*

6. Choose Close

*The Cells Name dialog box closes.*

7. Select cells A1..E9

8. Name the cells **Lunches**

9. Repeat steps 1 through 6 to re-create the table

*The table includes the new cell name **Lunches**.*

END

	A	B	C	D	E	F	G
1	<b>Lunches Sold</b>						
2							
3		Jan	Feb	Mar	Total by Meal	Feb	A:C4..C7
4	Hamburger	457	472	477	1406	Hamburger	A:B4..D4
5	Hot Dog	345	356	371	1072	Hot Dog	A:B5..D5
6	Tuna Surprise	232	125	17	374	Jan	A:B4..B7
7	Veggie Delight	275	367	453	1095	Mar	A:D4..D7
8						Quarter	A:B9..D9
9	Total by Month	1309	1320	1318	3947	Total by Meal	A:E4..E9
10	Quarter's Total					Tuna Surprise	A:B6..D6
11						Veggie Delight	A:B7..D7

**Figure 6-6: A Table of Cell Names**

## Printing Named Cells

Printing named cells is easy. When you print the active notebook, you automatically print the active sheet, which includes the named cells on that sheet. If you want to print the named cells by themselves, you can do so by accessing the Sheet Print dialog box, as shown in Figure 6-7.

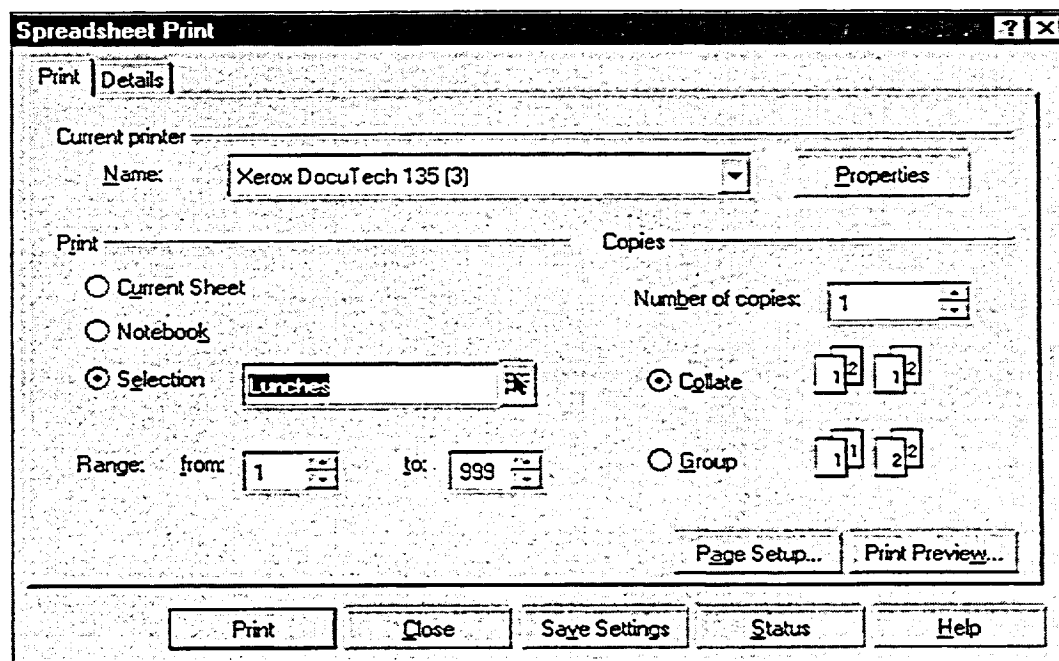


Figure 6-7: The Print Page of the Spreadsheet Print Dialog Box

### METHOD

To print named cells:

1. From the File menu, choose Print.
2. In the Spreadsheet Print dialog box, be sure the Print page is active.
3. In the Print area, select the Selection option button.
4. In the Selection text box, type the cell name.  
or
4. Press F3, and from the Cell Names list, select the cell name and choose OK.
5. Choose Print.



**EXERCISE**

In the following exercise, you will print named cells.

- |  |   |
|--|---|
| 1. From the File menu, choose Print  | <i>The Spreadsheet Print dialog box appears.</i>  |
| 2. Make sure the Print page is active and, in the Print area, select the Selection option button | <i>The Selection text box is activated.</i>   |
| 3. Press F3  | <i>The Cell Names list appears.</i>   |
| 4. From the list of cell names, select <b>Lunches</b> and choose OK                              | <i>The Spreadsheet Print dialog box reappears with <b>Lunches</b> replacing the cell coordinates in the Selection text box.</i> |
| 5. Choose Print  | <i>The cells named <b>Lunches</b> are printed.</i>  |
| 6. Save as <b>H:\spsheet\lunches sold</b> and close the notebook                                 |   |

**END**

## Deleting Cell Names

You might find that you no longer need a cell name. If this is true, you can delete that cell name. You can keep your table of cell names orderly and easy to work with by deleting unnecessary cell names.

Deleting a cell name does *not* affect the data in the named cells because Quattro Pro deletes only the name of the cells, not the contents of the cells. Any formulas in the sheet that reference the cell names change automatically to reference the cell coordinates instead.

### METHOD

To delete a cell name:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the name you want to delete.
3. Choose Delete.
4. Choose Close.

*Warning:* You cannot undo the deletion of cell names.

### EXERCISE

In the following exercise, you will create and delete cell names. First, you will create new cell names.

1. Open A:\Sales Leaders
2. Make sure sheet tab A is selected
3. Select cells A4..B7
4. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
5. Choose Generate *The Generate Cell Names dialog box appears.*

## Section 6: Using Function Construction

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6. In the Create Cell Names area, select the Right of Leftmost Column check box and choose OK *The Generate Cell Names dialog box closes. The Cell Names dialog box reappears, listing the new cell names.*
7. Choose Close
8. Name cells C4..C7 Total Sales
9. Name cells A4..A7 Realtors
10. On the input line, click the Navigate button *The list of cell names appears.*
11. Press Esc *The list of names closes.*

Next, you will delete a cell name.

12. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
13. From the cell name list, select Realtors
14. Choose Delete *The name Realtors is removed from the cell name list.*
15. Choose Close

**END**

## Changing Cell Names and Modifying a Cell Name's Coordinates

To change a cell name, you must first assign a new name to the cells, then delete the original name. Changing a cell name might be necessary when a cell name's coordinates are no longer appropriate or when you want to change a cell name so that it is easier to remember.

Sometimes, the cells coordinates to which an existing cell name refer are no longer correct. You can increase or decrease the coordinates of that cell name and you can modify an existing cell name so that it refers to newly defined coordinates.

### METHOD

To change a cell name:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the name you want to change.
3. In the Name text box, type a new name or modify the existing name.
4. Choose Add.
5. From the cell name list, select the original cell name.
6. Choose Delete.
7. Choose Close.

To modify a cell name's coordinates:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the cell name.
3. In the Cell(s) text box, modify the cell coordinates or use the Point mode button to select new coordinates.
4. Choose Add.
5. Choose Close.

**EXERCISE**

In the following exercise, you will change cell names and modify a cell name's coordinates.

1. From the QuickMenu, choose **Name Cells**  
*The Cell Names dialog box appears.*
2. From the cell name list, select **Jon Lee**  
*The cell name appears in the Name text box.*
3. In the Name text box, change the cell name to **Lee**, and then choose **Add**  
*The cell name Lee is added to the cell name list.*
4. From the cell name list, select **Jon Lee**
5. Choose **Delete**  
*The original cell name Jon Lee is deleted.*
6. Change the cell names of the other Realtors from their full names to their last names
7. Delete the original cell names of the other realtors
8. Choose **Close**
9. Use the **Navigate** button to examine the modified list of cell names  
*The new cell names have replaced the deleted cell names.*
10. Name cells **A4..A8 Agents** and then close the Cell Names dialog box
11. From the QuickMenu, choose **Name Cells**  
*The Cell Names dialog box appears.*
12. From the Cell Name list, select **Agents**  
*The cell name appears in the Name text box and its coordinates appears in the Cell(s) text box.*
13. In the Cell(s) text box, change the coordinates to **A4..A7**  
*The cell name coordinates are modified.*

## Creating and Using Cell Names

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14. Choose Add
15. Choose Close
16. Use the Navigate button to go to the cells named **Agents** *The newly defined cells are selected.*
17. Save as **H:\spsheet\sales**

**END**

## Using Advanced Functions

A function is a predefined formula that can automatically calculate results, perform sheet actions, or assist with decision making. Quattro Pro comes equipped with many advanced functions. These let you simplify engineering, logical, mathematical, statistical, and financial calculations.

As illustrated in Figure 6-8, all functions in Quattro Pro begin with an @ symbol followed by a function name. The information enclosed within parentheses is called the *arguments*.

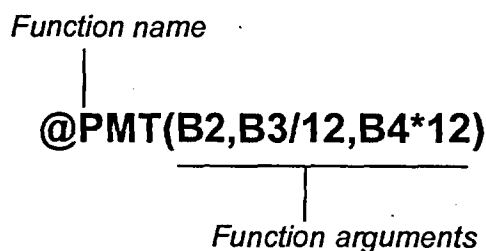


Figure 6-8: *Function Syntax*

A function often includes more than one argument because you might have to provide more than one piece of information to obtain a solution. As an example, to determine the monthly payments on a loan, you must supply three arguments—the amount borrowed, the interest rate, and the number of loan payments—before Quattro Pro can determine the payments. Using the PMT function and these three arguments, Quattro Pro can rapidly calculate the monthly payment.

Each function also has a predetermined *syntax*. These are the rules you must follow when you enter the information that you want to use in the function. You must pay close attention to the way Quattro Pro interprets the information you provide, or you will not obtain the correct results.

## Using the Formula Composer

You can access the Formula Composer from the Toolbar, as shown in Figure 6-9. The Formula Composer dialog box, shown in Figure 6-10 helps you through the process of building and editing functions in your sheet.

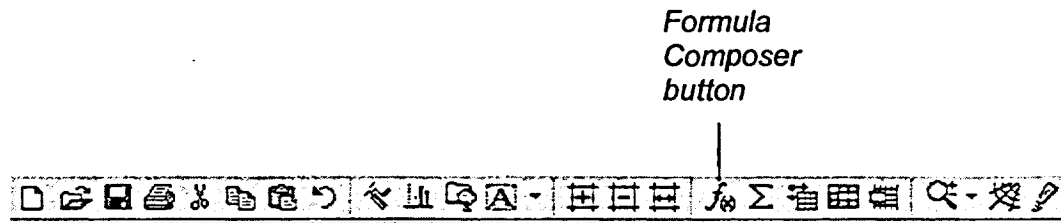


Figure 6-9: The Formula Composer Toolbar Button

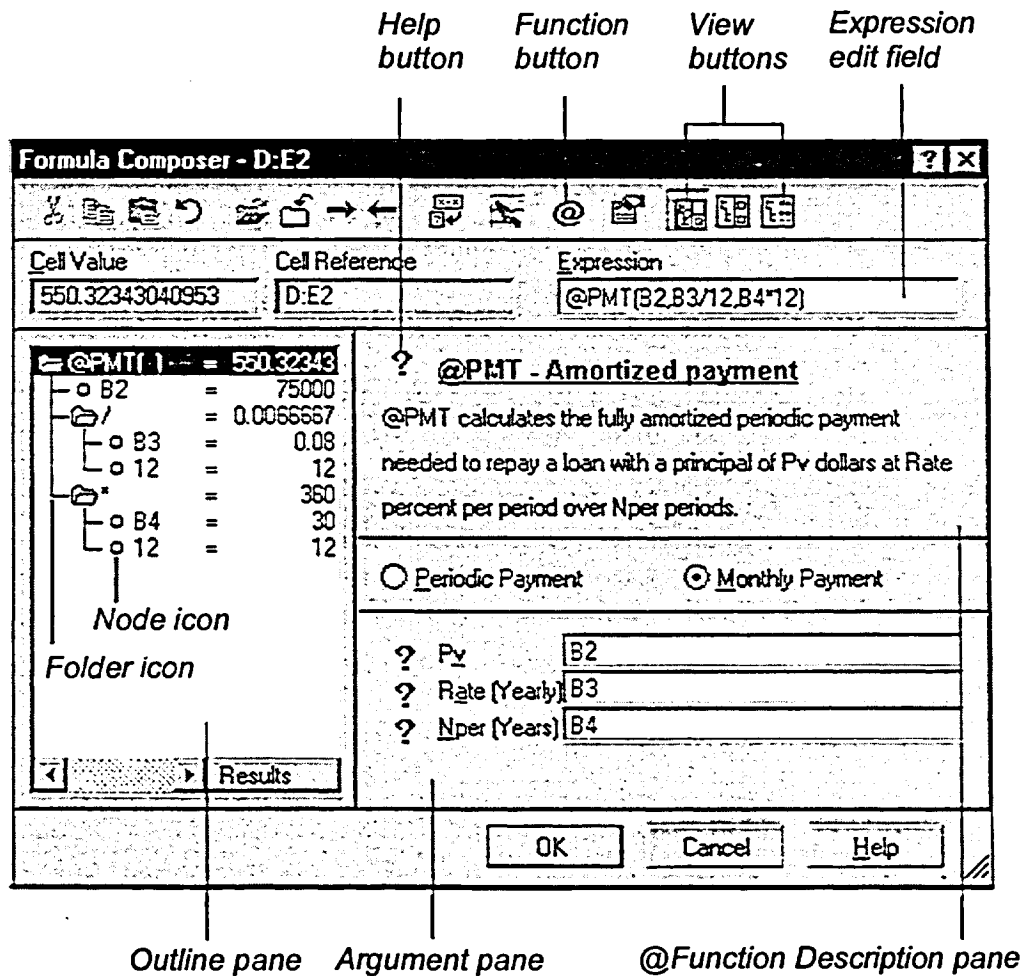
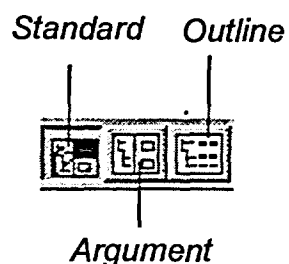


Figure 6-10: The Formula Composer Dialog Box



## Section 6: Using Function Construction

Figure 6-11 shows the three view buttons on the Toolbar of the Formula Composer dialog box. You use these buttons to change the appearance of the Formula Composer. Table 6-1 lists the Formula Composer components and their functions.



**Figure 6-11:** *The View Buttons of the Formula Composer Dialog Box*

Formula Composer Components	Function Description
Outline pane	Displays the formula in an outline format. You can expand or collapse the outline to concentrate on an expression (part) of the formula you want to change or edit.  Folder icons indicate whether expressions have been expanded or collapsed.  Node icons (circles) represent parts of the formula that cannot be expanded, such as values.
@Function Description pane	Contains a description of the selected function.
Argument pane	Contains edit fields for entering arguments.
Help buttons	Provides Help for specific or additional information on a function or an argument.
View buttons	The formula composer provides you with three viewing options: Standard: to view all panes of the dialog box. Argument: to view only the outline and argument panes. Outline: to view only the outline pane.
Expression edit field	Contains the function used.

**Table 6-1:** *Formula Composer Components and their Functions*

**METHOD**

To use the Formula Composer:

1. Select the cell where you want to enter the function.
2. On the Toolbar, click the Formula Composer button.
3. In the Formula Composer dialog box, on the Toolbar, click the Function button.
4. In the Functions dialog box, in the Function Category list, select the category, and in the Function list, double-click the function name.
5. In the argument pane, enter the values for the arguments in the edit field(s).
6. Choose OK.

**EXERCISE**

In the following exercise, you will use the Formula Composer to calculate the total sales.

- |   |  |
|---|--|
| 1. Make sure sheet tab A is selected                            |  |
| 2. Select cell C9   |  |
| 3. On the Toolbar, click the Formula Composer button            | <i>The Formula Composer dialog box appears.</i>  |
| 4. On the Formula Composer Toolbar, click the Function button   | <i>The Functions dialog box appears.</i>   |
| 5. In the Function Category list, make sure ALL is selected     |  |
| 6. In the Function list, scroll down, and then double-click SUM | <i>The Functions dialog box closes and the Function Composer dialog box reappears.</i> |
| 7. Examine the Expression edit field                            | <i>The function has been entered without its arguments.</i>                            |

## Section 6: Using Function Construction

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8. Examine the Outline pane *A question mark icon appears in the Outline pane, indicating that the expression is incomplete.*
9. In the @Function Description pane, click the Help button *A window containing additional help specific to the SUM function appears.*
10. Close the Corel Quattro Pro Help window
11. In the Argument pane, click the Help button *A What's This tip specific to the SUM function argument appears.*
12. Click the What's This tip *The What's This tip disappears.*
13. On the Formula Composer Toolbar, click the Argument View button *The view changes to display only the Outline and Argument panes.*
14. On the Formula Composer Toolbar, click the Outline View button *The view changes to display only the Outline pane.*
15. On the Formula Composer Toolbar, click the Standard View button *The view changes to include all three panes.*
16. In the Argument pane, click the List1 text box and press F3 *The Cell Names list appears.*
17. Select **Total Sales** and choose OK *The cell name is added to the SUM function in the Expression edit field and the function is completed.*
18. In the Outline pane, if the Folder icon is already expanded, double-click the Folder icon *The Folder collapses and the formula is shown as a whole.*

## Using Advanced Functions

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19. In the Outline pane,  
double-click the Folder icon

*The Folder expands to display  
each part of the formula.*

20. Choose OK

*The Formula Composer dialog  
box closes and the formula  
result is entered in cell C9.*

**END**

## Using the PMT Function

The *PMT function* is a financial function that you can use to calculate periodic payments for loans based on constant payments and a consistent interest rate. You can use this function to calculate car loans, mortgages, or any other amortized loan payments.

The syntax for a PMT function using the Periodic or Monthly payment option requires three pieces of information, all of which must be preceded by @PMT and must be enclosed by parentheses:

- the *principle (pv)*: the amount being borrowed.
- the *interest rate (rate)*: the rate at which the money is being borrowed.
- the *period (nper)*: the total number of payment periods in an annuity.

It is critical that all argument information be expressed in comparable units. For example, if you are computing monthly payments on a four-year loan based on a 12 percent annual interest rate, use *12%/12* for *rate* and *4\*12* for *nper*. If you make annual payments on the same loan, use *12%* for *rate* and *4* for *nper*. Although you can do the division and multiplication yourself, it is easier to let Quattro Pro take care of it by using the Monthly payment option in the Formula Composer.

The payment returned by the PMT function includes principal and interest only. These calculations do not include any taxes, reserve payments, or fees sometimes associated with loans.

### METHOD

To use the PMT function:

#### Keyboard method

1. Select the cell where you want to enter the function.
2. Type **@PMT(pv,rate,nper)**
3. For *pv*, substitute the amount of the loan.
4. For *rate*, substitute the interest rate.
5. For *nper*, substitute the number of payment periods.
6. Press ENTER

#### Formula Composer method

1. Select the cell where you want to enter the function.
2. On the Toolbar, click the Formula Composer button.
3. In the Formula Composer dialog box, on the Toolbar, click the Function button.

4. From the Function Category list, select Financial-Annuity.
5. From the Function list, select @PMT.
6. Choose OK.
7. Select the Periodic Payment option button or the Monthly Payment option button.
8. In the Argument pane, fill in the text boxes with the values according to the following guidelines:
  - For *Pv*, substitute the amount of the loan.
  - For *Rate*, substitute the interest rate.
  - For *Nper*, substitute the number of payment periods.
9. Choose OK.

*Note:* In the methods above, the substituted values can be numeric or a combination of numbers, mathematical operators, and/or cell coordinates.

### EXERCISE

In the following exercise, you will use the PMT function. Your first purchase is a house. You need a loan of \$75,000. Annual mortgage interest rates are 8% for a 30-year loan.

1. Select sheet tab D *Sheet D in the Sales Leaders notebook opens.*
2. Select cell E2
3. Type @PMT(B2,B3/12,B4\*12) and press ENTER *The PMT function calculates the monthly mortgage payments as \$550.32.*

Your second purchase is a car. The principal of your loan is \$12,000 at a 9% annual interest rate for a 3-year loan.

4. Select cell E10
5. On the Toolbar, click the Formula Composer button *The Formula Composer dialog box appears.*
6. On the Formula Composer Toolbar, click the Function button *The Functions dialog box appears.*
7. From the Function Category list, select Financial-Annuity *The Function list shows financial functions.*

## Section 6: Using Function Construction

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8. From the Function list, select PMT  
*The Functions dialog box displays a description of the function.*
9. Choose OK  
*The Functions dialog box closes. The Formula Composer dialog box reappears.*
10. Select the Monthly Payment option button  
*The options in the Argument pane change to reflect the monthly payments.*
11. Type the cell coordinates in each of the argument text boxes to complete the formula
12. Choose OK  
*The PMT function calculates the monthly car payments as \$381.60.*
13. In cell B10, change the price of the car to \$20,000 and press ENTER  
*The amount of the monthly payment changes to \$635.99.*
14. Save the changes in the notebook

**END**

## Using the ROUND Function

The *ROUND* function is a mathematics and trigonometry function that rounds a number to the number of digits you specify. Usually you would use the Format menu to change the number of decimal places displayed on your sheet.

However, no matter how many decimal places you have specified through the Format menu, the actual cell contents remain the same. This is significant because Quattro Pro performs calculations using the cell contents and not the number displayed in the cell. If you merely format the cell contents to a number of decimal places, a calculation using that cell might result in an undesirable or inaccurate solution being displayed.

To prevent this error, use the ROUND function to round values to a specified precision. The numbers that appear on the screen will then be identical to those used in the calculations.

### METHOD

To use the ROUND function:

1. Select the cell where you want to enter the function.
2. Type `@Round(x,num)`
3. For *x*, substitute the cell reference of the number or formula to be rounded.
4. For *num*, substitute the number of digits to which you want Quattro Pro to round the number or formula.

### EXERCISE

In the following exercise, you will use the ROUND function.

- |  |   |
|--|---|
| 1. Select sheet tab B  | <i>Sheet B in the Sales Leaders notebook opens.</i>                                     |
| 2. In cell E4, type <code>+B4*C4*D4</code> and press ENTER       | <i>Quattro Pro calculates the tax amount for hammers. Note the format of the value.</i> |
| 3. Using QuickFill, copy the formula in cell E4 to E5 through E8 | <i>Quattro Pro calculates the tax amounts for the other items.</i>                      |



## Section 6: Using Function Construction

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4. Format the cells from E4 through E10 to Currency with 2 decimal places  
*The format is applied to the cells, but the underlying value remains the same.*
5. In cell E10, use the QuickSum function to total the tax  
*The total tax is shown to be \$39.36, which appears to be incorrect. The total should be \$39.35.*
6. Select cell E4
7. On the Input line, before the formula, type @round(
8. Press END  
*The insertion point moves to the end of the formula.*
9. Type ,2) and press ENTER  
*The number is rounded to two decimal places.*
10. Using the Copy and Paste buttons on the Toolbar, copy the formula in cell E4 to the cells E5..E8  
*Quattro Pro calculates the taxes for all items and recalculates the total in cell E10. The total is now \$39.35, which is the correct result.*
11. Save the changes to your notebook

**END**



## Section 6: Using Function Construction

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The syntax for an IF function requires three pieces of information:

- a *Condition*, which is usually a comparison of two pieces of information using a logical operator.
- the *TrueExpr* argument, indicating the information to display if the result of the condition is true.
- the *FalseExpr* argument, indicating the information to display if the result of the condition is false.

These arguments must be enclosed by parentheses and preceded by @IF. Note, too, that if the *TrueExpr* or *FalseExpr* arguments are text, they must be enclosed in double quotation marks, as illustrated in Figure 6-12.

### METHOD

To use the IF function:

1. Select the cell where you want to enter the function.
2. Type @IF(*condition*,*TrueExpr*,*FalseExpr*)
3. For *condition*, substitute a logical formula.
4. For *TrueExpr*, substitute the value or text to be shown if the condition is true.
5. For *FalseExpr*, substitute the value or text to be shown if the condition is false.

### EXERCISE

In the following exercise, you will use the IF function to determine the status of inventory items in a sheet.

1. Select sheet tab C *Sheet C in the Sales Leaders notebook opens.*
2. Select cell C6
3. Type @IF(B6<=25,"Reorder", "In Stock") and press ENTER *The function calculates the inventory status for that item.*
4. Copy the function from cell C6 to the cells C7..C13 *Quattro Pro calculates the inventory status for each item, as illustrated in Figure 6-13.*

5. Change the number in cell B7 to 20 and press ENTER *The status in cell C7 changes to Reorder.*
6. Save the changes in your sheet

END

	A	B	C	D
1	<b>Sam's Seed Shack</b>			
2	<b>Discount Seeds for the Serious Gardener</b>			
3	<i>Inventory Sheet for May</i>			
4				
5	<b>Seeds</b>	<b>Amount on Shelf</b>	<b>Status</b>	
6	Marigolds	35	In Stock	
7	Cucumbers	45	In Stock	
8	Mums	25	Reorder	
9	Wildflowers	30	In Stock	
10	Peppers	19	Reorder	
11	Watermelon	27	In Stock	
12	Carnations	10	Reorder	
13	Posies	7	Reorder	

Figure 6-13: *The Inventory Sheet*

## Using Dates and Times

Because Quattro Pro reads and stores date and time information in a numeric format, you can perform calculations using dates and times. This lets you easily date-stamp and time-stamp reports. You can also use dates and times in formulas to calculate receivable, employee probation, and retirement dates.

Quattro Pro represents dates and times by using *serial numbers*. The serial numbers range from -109,571 to 474,816, corresponding to the dates January 1, 1600 through December 31, 3199. In a serial date, the date and time elements are separated by a decimal point. The numbers to the right of the decimal point in a serial number represent time, while the numbers to the left represent the date. For example, the serial date number 367.5 represents 12 P.M. on January 1, 1901.

## Using the TODAY Function

The *TODAY* function returns the serial number of the current date as registered by the computer's internal clock. Quattro Pro updates this function when you open or recalculate the sheet. You can use the date and time formatting options on the Numeric Format page of the Active Cells dialog box to format the output of the *TODAY* function into the format that you prefer.

### METHOD

To display the current date using the *TODAY* function:

1. Select the cell where you want to enter the function.
2. Type **@Today**
3. Press **ENTER**

### EXERCISE

In the following exercise, you will display the current date using the *TODAY* function.

1. Select sheet tab E *Sheet E opens.*
2. Select cell C3

3. Type @Today
4. Press ENTER

*Today's date is entered into  
cell C3 as a serial number.*

**END**

## Entering Dates and Changing the Date Format

When you enter the date in a format that Quattro Pro recognizes, Quattro Pro displays the date in the entered format but uses the serial number to perform calculations using that date. For example, you can type 01-Jan-97, or you can type 01/01/97. Quattro Pro understands both entries, converts them into serial date numbers, and then displays them as dates in the default format.

Sometimes you might need to change the date format selected by Quattro Pro. You do this by first accessing the Numeric Format page of the Active Cells dialog box, and then selecting the Date option button. Select the format from the Date Formats area. Table 6-3 provides examples of the date formats used by Quattro Pro shown in the Date Formats area.

Format	Example
DD-MMM-YY	12-Jan-97
DD-MMM	12-Jan
MMM-YY	Jan-97
DD-MMM-YYY	12-Jan-1997
MMM-YYY	Jan-1997
Long Date Intl	01/12/97
Short Date Intl	01/12

Table 6-3: *Date Formats*

### **METHOD**

To enter a date:

1. Select the cell where you want to enter the date.
2. Type the date in the format.
3. Press ENTER

To change the date format:

1. Select the cell(s) where you want to change the date format.
2. Right-click the selected cells, and from the QuickMenu, choose Cell Properties.
3. In the Active Cells dialog box, select the Numeric Format tab.

4. On the Numeric Format page, from the Formats area, select the Date option button.
5. In the Date Formats area, select the format.
6. Choose OK.

**EXERCISE**

In the following exercise, you will enter dates and change date formats.

1. Select cell B7
2. Enter a date that was at least thirty days ago using the format DD-MMM-YY (for example, 23-Nov-97) *The date that Quattro Pro will use to calculate the days overdue for Johnson Plumbing is entered.*
3. Complete the table by entering different invoice dates of at least thirty days ago for the remainder of the companies in column B
4. Select cell C7
5. Enter the formula **+\$C\$3-B7-30** *Quattro Pro calculates the number of days past thirty days for Johnson Plumbing.*
6. Copy the formula in cell C7 to the cells C8..C11 *Quattro Pro calculates the number of days past thirty days for the remainder of the accounts.*
7. Select cells B7..B11
8. From the QuickMenu, choose Cell Properties *The Active Cells dialog box appears.*
9. Make sure the Numeric Format page is selected *The Numeric Format page appears.*
10. In the Formats area, make sure the Date option button is selected *The date formats are shown.*



## Section 6: Using Function Construction

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11. In the Date Formats area, select the Long Date Intl option button

*A sample of the selected date format appears in the lower right corner.*

12. Choose OK

*The date format for the cells B7..B11 is changed to the Long Date format.*

13. Format cell C3 with the Short Date Intl format

14. Save the changes and close the notebook

**END**

**To name a cell:**

1. Select the cell(s) you want to name.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, in the Name text box, type a name for the selected cell(s).
4. Choose Add.
5. Choose Close.

**To automatically name a cell:**

1. Select the cells you want to name, including the labels.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, choose Generate.
4. In the Generate Cell Names dialog box, in the Create Cell Names area, select the location(s) of the cells to name.
5. Choose OK.
6. Choose Close.

**To navigate with cell names:**

## Keyboard method

1. Press the Go To key (F5).
2. In the Go To dialog box, from the Cell Names list, select the cell name to which you want to move.
3. Choose OK.

## Mouse method

1. On the input line, click the Navigate button.
2. From the list of cell names, click the cell name to which you want to move.

**To use cell names in a formula:**

## Keyboard method

1. Type the formula as you normally would, but substitute cell names for cell coordinates.
2. Press ENTER

## Mouse method

1. Type the formula up to the point where you would usually type in the cell coordinates.
2. On the input line, click the Navigate button, and from the drop-down list, select the cell name to paste.  
or
2. Press F3 and then, from the Cell Names list, select the cell name to paste.
3. Complete the formula in the usual manner, repeating step 2 as required.
4. Press ENTER

**To create a table of cell names:**

1. Select the cell that will become the upper left corner of the table.
2. From the QuickMenu, choose Name Cells.  
or
2. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
3. In the Cell Names dialog box, choose Output.

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4. In the Name Table dialog box, in the Cells text box, verify the table location cell coordinates.
5. Choose OK.
6. In the Cell Names dialog box, choose Close.

### To print named cells:

1. From the File menu, choose Print.
2. From the Spreadsheet Print dialog box, in the Print area, select the Selection option button.
3. In the Selection text box, type the cell name.  
or
3. Press F3, and from the Cell Names list, select the cell name and choose OK.
4. Choose Print.

### To delete a cell name:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the name you want to delete.
3. Choose Delete.
4. Choose Close.

### To change a cell name:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the name you want to change.
3. In the Name text box, type a new name or modify the existing name.
4. Choose Add.
5. From the cell name list, select the original cell name.

6. Choose Delete.
7. Choose Close.

### To modify a cell name's coordinates:

1. From the QuickMenu, choose Name Cells.  
or
1. From the Insert menu, choose Name, and then, from the Name submenu, choose Cells.
2. In the Cell Names dialog box, from the cell name list, select the cell name.
3. In the Cell(s) text box, modify the cell coordinates or use the Point mode button to select new coordinates.
4. Choose Add.
5. Choose Close.

### To use the Formula Composer:

1. Select the cell where you want to enter the function.
2. On the Toolbar, click the Formula Composer button.
3. In the Formula Composer dialog box, on the Toolbar, click the Function button.
4. In the Functions dialog box, in the Function Category list, select the category, and in the Function list, double-click the function name.
5. In the argument pane, enter the values for the arguments in the edit field(s).
6. Choose OK.

### To use the PMT function:

#### Keyboard method

1. Select the cell where you want to enter the function.
2. Type `@PMT(pv,rate,nper)`
3. For *pv*, substitute the amount of the loan.
4. For *rate*, substitute the interest rate.

5. For *nper*, substitute the number of payment periods.
6. Press ENTER

Formula Composer method

1. Select the cell where you want to enter the function.
2. On the Toolbar, click the Formula Composer button.
3. In the Formula Composer dialog box, on the Toolbar, click the Function button.
4. From the Function Category list, select Financial-Annuity.
5. From the Function list, select @PMT.
6. Choose OK.
7. Select the Periodic Payment option button or the Monthly Payment option button.
8. In the Argument pane, fill in the text boxes with the values according to the following guidelines:  
For *Pv*, substitute the amount of the loan.  
For *Rate*, substitute the interest rate.  
For *Nper*, substitute the number of payment periods.
9. Choose OK.

**To use the ROUND function:**

1. Select the cell where you want to enter the function.
2. Type @Round(*x,num*)
3. For *x*, substitute the cell reference of the number or formula to be rounded.
4. For *numb*, substitute the number of digits to which you want Quattro Pro to round the number or formula.

**To use the IF function:**

1. Select the cell where you want to enter the function.
2. Type @IF(*condition,TrueExpr,FalseExpr*)

3. For *condition*, substitute a logical formula.
4. For *TrueExpr*, substitute the value or text to be shown if the condition is true.
5. For *FalseExpr*, substitute the value or text to be shown if the condition is false.

**To display the current date using the TODAY function:**

1. Select the cell where you want to enter the function.
2. Type @Today
3. Press ENTER

**To enter a date:**

1. Select the cell where you want to enter the date.
2. Type the date in the format.
3. Press ENTER

**To change the date format:**

1. Select the cell(s) where you want to change the date format.
2. Right-click the selected cell(s), and from the QuickMenu, choose Cell Properties.
3. In the Active Cells dialog box, select the Numeric Format tab.
4. On the Numeric Format page, from the Formats area, select the Date option button.
5. In the Date Formats area, select the format.
6. Choose OK.

## Self-Check Exercise

1. Open the A:\Self 1 notebook.
2. Make sure the Sheet One sheet tab is selected.
3. Generate cell names for cells A3 through D10, using both column and row headings.
4. In cell E4, total the sales for J. Ross for the first quarter. Be sure to increase column width if necessary.
5. Use QuickFill to copy the formula in cell E4 to the cells E5..E10.
6. Use cell names to calculate the total sales for January, February, and March in row 11. Be sure to increase column width if necessary.
7. Calculate the total for the first quarter sales in E11. Be sure to increase column width if necessary.
8. Name cell E11 **TOTAL**.
9. In cell F4, enter the formula to calculate the % OF TOTAL by dividing the value in cell E4 by the cell name **TOTAL**. Be sure to make the cell name **TOTAL** absolute.
10. Copy the formula in cell F4 to the cells F5..F10.  
*Hint: You do not need to change the formatting of the column because it is already formatted for percentages.*
11. Generate the cell name % of Total for the cells F3..F10.
12. In cell G1, use a function to display today's date. Format the cell with the Short Date Intl date format.
13. Fill cells H4..H10 with any dates between 1-Oct-97 and 31-Dec-97.
14. Name cells A1..F11 **Qtr 1**.
15. Print the cells named **Qtr 1**.
16. Use the Navigate button to go to the J. Ross cell.
17. Change the cell name **J. Ross** to **Ross**.

18. Delete the cell name **J. Ross**.
19. Name cells B3..E3 **Months**.
20. Redefine the coordinates of the cell name **Months** so that it refers to the cells B3..D3.
21. Create a table of all defined names at the bottom of the sheet in cell A15. Compare your table with Figure 6-14.
22. Go to the Sheet Two sheet.
23. In cell D3, use the PMT function to calculate the monthly payments for the mortgage described in column A. If necessary, increase the width of column D.
24. Select cell D11. Using the appropriate function, calculate the monthly payments for the car loan described in column A.
25. Compare your sheet with Figure 6-15.
26. Return to the Sheet One sheet.
27. In cell G4, use the IF function to compose a formula that returns YES if the salesperson's total sales are greater than \$60,000 or NO if total sales are less than \$60,000. Copy the formula to cells G5..G10.
28. Format cells F4..F10 with the general option.
29. Revise the formula in cell F4 using the ROUND function to round the number to two decimal places. Be sure to change the relative address to an absolute address. Copy the formula to cells F5..F10.
30. Compare your version with Figure 6-16.
31. Save as H:\spsheet\self 1 and close the notebook.

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	A	B	C
14			
15	% OF TOTAL	Sheet One:F4..F10	
16	A. Holtzman	Sheet One:B5..D5	
17	F. Gomez	Sheet One:B8..D8	
18	FEB	Sheet One:C4..C10	
19	G. Ellwood	Sheet One:B7..D7	
20	H. Weisman	Sheet One:B10..D10	
21	JAN	Sheet One:B4..B10	
22	M. Siegel	Sheet One:B6..D6	
23	MAR	Sheet One:D4..D10	
24	Months	Sheet One:B3..D3	
25	NAME	Sheet One:B3..D3	
26	Qtr 1	Sheet One:A1..F11	
27	R. Pierce	Sheet One:B9..D9	
28	Ross	Sheet One:B4..D4	
29	Total	Sheet One:E11	

Figure 6-14: Table of Defined Names

	A	B	C	D	E	F
1	<i>Mortgage</i>					
2	Principal:	\$150,000.00		Monthly Mortgage Payment:		
3	Interest:	9.000%		1206.934		
4	Term (years):	30				
5						
6						
7						
8						
9	<i>Car Loan</i>					
10	Principal:	\$21,000		Monthly Car Payment:		
11	Interest:	9.000%		667.7944		
12	Term (years):	3				

Figure 6-15: The Sheet Two Sheet

	A	B	C	D	E	F	G	H
1	<b>Quarterly Sales by Employee Mid-Atlantic Region</b>						10/07	
2						COMMISSION	BONUS	
3	NAME	JAN	FEB	MAR	TOTAL	% OF TOTAL	ELIGIBILITY	DUE DATE
4	J. Ross	\$25,146	\$24,967	\$27,018	\$77,131	0.15	YES	18-Oct-97
5	A. Holtzman	\$22,987	\$24,794	\$26,912	\$74,693	0.14	YES	17-Oct-97
6	M. Siegel	\$34,912	\$34,008	\$35,365	\$104,285	0.2	YES	18-Oct-97
7	G. Ellwood	\$12,749	\$15,822	\$14,577	\$43,148	0.08	NO	19-Oct-97
8	F. Gomez	\$19,443	\$20,893	\$23,644	\$63,980	0.12	YES	20-Oct-97
9	R. Pierce	\$23,578	\$22,665	\$24,198	\$70,441	0.13	YES	21-Nov-97
10	H. Weisman	\$31,956	\$32,905	\$32,443	\$97,304	0.18	YES	22-Nov-97
11	Total/Region :	\$170,771	\$176,054	\$184,157	\$530,982			

Figure 6-16: The Sheet One Sheet

Section

7

## *Managing and Editing Sheets*

- Using Multiple Sheets
- Verifying Your Work
- Creating Multiple Views
- Protecting Sheets and Notebooks



## Section Skills and Their Importance

In the following section you will learn to:

- **Use multiple sheets**

Keeping related sheets together in a notebook makes it easy to organize your work and share data between sheets. You can insert, delete, view and navigate multiple sheets, as well as share information among multiple sheets.

- **Verify your work**

Even the most careful typists make mistakes. You can find and fix errors in spelling after they occur by using the Spell Checker. The QuickCorrect feature, on the other hand, automatically corrects your errors as soon as you enter misspelled words. You can also use this feature to create typing shortcuts.

- **Create multiple views**

Often you might have more data than you can see on your screen at one time. Splitting the sheet screen lets you view two parts of the sheet at the same time or view the same part of the sheet in two windows. You can also freeze one part of the sheet while you scroll in another.

- **Protect sheets and notebooks**

You can safeguard your sheets so that others cannot make changes to them. You can do this by protecting the individual cells in a sheet or by password protecting an entire notebook.

## Using Multiple Sheets

One of Quattro Pro's strongest features is its ability to allow you to analyze and consolidate large amounts of data. Notebooks, divided into sheets, make moving and organizing data quick and easy. By default, a new notebook contains 256 sheets and an Objects sheet. The Objects sheet contains icons that represent any charts or slide shows you have created in the notebook.

## Renaming Sheet Tabs

You can rename sheet tabs by double-clicking the sheet tab, and then typing the new name. You can create sheet names up to 64 characters long, including spaces. The sheet name cannot be enclosed in square brackets and cannot include the following characters: colon (:) or asterisk (\*). In addition, sheet names cannot begin with spaces. If you try to create a name that is incorrect, a dialog box appears with the message *Page name contains illegal leading blank or invalid characters*. In addition, you cannot rename the Objects sheet.

### METHOD

To rename a sheet tab:

1. Double-click the sheet tab.
2. Type the sheet name.
3. Press **ENTER**

### EXERCISE

In the following exercise, you will rename sheet tabs.

- |  |   |
|--|---|
| 1. Open A:\Fiction Sales Report              |   |
| 2. Double-click sheet tab A                  | <i>The sheet tab expands, and the A is highlighted.</i> |
| 3. Type <b>FISCAL</b> and press <b>ENTER</b> | <i>The sheet is renamed <b>FISCAL</b>.</i>              |
| 4. Double-click sheet tab B                  | <i>The sheet tab expands.</i>                           |
| 5. Type <b>FY95</b> and press <b>ENTER</b>   | <i>The sheet is renamed <b>FY95</b>.</i>                |

## Section 7: Managing and Editing Sheets

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6. Rename sheet tab C to **FY96**, and then rename sheet tab D to **FY97**
7. Rename sheet tab E **SUMMARY**, and then rename sheet tab F **BEST SELLERS**

**END**

## Navigating Multiple Sheets

You can use the tab scroll controls at the bottom of the notebook window to make different sheet tabs visible. These controls are illustrated in Figure 7-1.

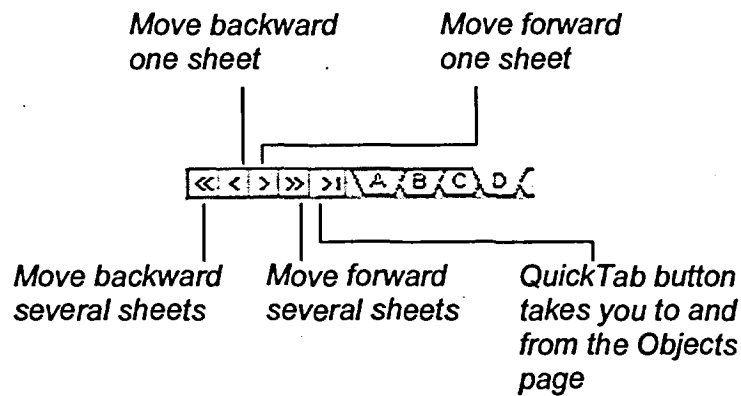


Figure 7-1: Tab Scroll Controls

There are two keyboard methods you can use to navigate multiple sheets. Use **CTRL+PAGE DOWN** to move forward one sheet at a time and use **CTRL+PAGE UP** to move backwards one sheet at a time. By pressing **CTRL+HOME**, you can move directly to A1 on the first sheet.

### METHOD

To navigate multiple sheets:

#### Mouse method

1. Click the appropriate tab scroll control until the sheet tab appears on the screen.
2. Select the sheet tab.

#### Keyboard method

1. Press **CTRL+PAGE DOWN** to move forward one sheet.  
or
1. Press **CTRL+PAGE UP** to move backward one sheet.

**EXERCISE**

In the following exercise, you will navigate multiple sheets.

1. Make sure the Best Sellers sheet is selected
2. On the tab scroll controls, click the Move forward several sheets button *Additional sheet tabs become visible.*
3. Click the Move backwards several sheets button until the FISCAL sheet becomes visible again
4. Select the FISCAL sheet tab *The FISCAL sheet is selected.*
5. Press **CTRL+PAGE DOWN** *The FY95 sheet is selected.*
6. Press **CTRL+PAGE DOWN** three times *The SUMMARY sheet is selected.*
7. Press **CTRL+PAGE UP** *The FY97 sheet is selected.*
8. Click the QuickTab button *The Objects page is selected and the arrow on the QuickTab button now points to the left.*
9. Click the QuickTab button again *The last active sheet is selected and the arrow on the QuickTab button now points to the right.*
10. Use the tab scroll controls to move forward and backward through several sheet tabs
11. Select the FISCAL sheet tab
12. Insert a new sheet in front of the FISCAL sheet
13. Rename the newly inserted sheet tab A as **New Sheet**

**END**

## Moving a Sheet

Sometimes, you might want to change the order of sheets in a notebook to make the notebook easier to manage. For instance, assume you created a sequence of sheets named 1994, 1993, 1996, 1997, and 1995. At the time it might have been convenient, but now it does not make much sense. Luckily, Quattro Pro provides tools to make reorganizing the notebook easy. You can reorder sheets by moving them.

### METHOD

To move a sheet:

1. Click and hold the left mouse button over the tab of the sheet to be moved, and drag to the left or to the right until the tab separates from the sheet and a + (plus sign) appears on it.
2. Drag the tab on top of the tab where you want to move the sheet.
3. Release the mouse button.

### EXERCISE

In the following exercise, you will move a sheet.

- |  |   |
|--|---|
| 1. Click and drag the New Sheet sheet tab on top of the FY95 sheet tab | <i>The pointer changes to a tab with a + on it.</i>                 |
| 2. Release the mouse button  | <i>The New Sheet sheet is relocated in front of the FY95 sheet.</i> |

END

## Copying a Sheet

Making copies of sheets is useful for a number of reasons. For example, you might want to experiment with a table without affecting the original data. Using a duplicate sheet makes it easy to do this.

### METHOD

To copy a sheet:

1. Press and hold **CTRL**
2. Click and hold the left mouse button over the tab of the sheet to be copied, and drag in any direction until the tab separates from the sheet and a + (plus sign) appears on it.
3. Drag the tab on top of the tab where you want to copy the sheet.
4. Release the mouse button.
5. Release **CTRL**

### EXERCISE

In the following exercise, you will copy a sheet.

1. Press and hold **CTRL**
2. Click and drag the New Sheet sheet tab on top of the FISCAL sheet tab *The pointer changes to a tab with a + on it.*
3. Release the mouse button *A copy of the New Sheet sheet appears in front of the FISCAL sheet. This copy is named New Sheet 2.*
4. Release **CTRL**
5. Delete the sheets New Sheet and New Sheet 2

END

## Viewing Multiple Sheets

Often it is useful to see more than one sheet at a time. You can arrange sheets on your screen so that you can view them simultaneously. You do this by using the New View option on the Window menu. This opens several *views*, or copies of the notebook.

Once you have more than one copy of your notebook open, you can select different sheets to view from each copy of the notebook, and then arrange the windows to best suit your needs. For example, Figure 7-2 displays four sheets from the same notebook at once. Each view is identified by a different view number, indicated by a colon and number following the filename in the title bar.

Once you have divided the sheet into windows, you can move between different sections by clicking the window in which you want to work. Remember that it takes one click to activate a window and another click to select anything in that window.

View	Year	Category	Circulation
1	1995	Beverly	985,134
2	1995	Cherrydale	1,369,696
3	1996	Beverly	1,075,443
4	1996	Cherrydale	1,382,143
5	1997	Beverly	1,185,421
6	1997	Cherrydale	1,445,600

Figure 7-2: Tiled Sheets

As with most of Quattro Pro's features, saving the notebook also saves the views. If you don't want to save the views or if you are finished working with them, close the windows as you would any other before saving the notebook. As you close the views, the view numbers change accordingly. Closing all the window views also closes the notebook.



## Section 7: Managing and Editing Sheets

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The Window menu provides three options that let you arrange your views on the screen. Table 7-1 describes these options.

Option	Function
Cascade	Stacks the windows so that they are offset vertically with the title bar of each window showing.
Tile Top to Bottom	Arranges windows so that each vertically fills an equal portion of the work area.
Tile Side by Side	Arranges windows so that each horizontally fills an equal portion of the work area.

**Table 7-1: The Window Menu Options**

If you want to view more sheet tabs at once, point to the area between the sheet tabs and the scroll bar until the pointer becomes a double-headed arrow. Then, drag to the right or left to increase or decrease the amount of space allocated to the sheet tabs. This can be useful if you can't see the sheet tab you want to select.

### **METHOD**

To view multiple sheets:

1. From the Window menu, choose New View.
2. Repeat step 1 until you have as many windows open as needed.
3. From the Window menu, choose the arrange option you want to use.
4. Choose OK.

*Note:* The order in which the windows tile or cascade might vary.

*Hint:* If a sheet tab's name is not visible, use the scroll tabs to bring it into view. You might have to drag the double-headed pointer to the right to increase the space in which the scroll tabs can be viewed. Then, click the sheet tab. If the name on the sheet tab is still not completely visible, double-click the sheet tab to expand it, and then click a cell in the sheet. You will then be able to view the entire name.

**EXERCISE**

In the following exercise, you will view multiple sheets.

1. If necessary, select the FY95 sheet tab
2. From the Window menu, choose New View *A copy of the notebook appears on top of the original.*
3. Examine the title bar *The window is now referenced as the notebook name followed by a colon (:) and the number of the view. The new window reference appears as **Fiction Sales.wb3:2**.*
4. From the Window menu, choose New View *A third copy of the notebook appears.*
5. From the Window menu, choose New View *A fourth copy of the notebook appears.*
6. From the Window menu, choose Tile Side by Side *The notebook windows are tiled vertically. All windows display the FY95 sheet.*
7. If the sheet tab in the active window is not totally visible, use the scroll tabs to view the sheet tab (dragging to decrease the size of the scroll bar if needed)
8. If the sheet tab is still not visible, double-click the sheet tab, and then click anywhere in the sheet *The sheet tab is expanded to view the name (FY95) in its entirety.*
9. Click anywhere in the window view **Fiction Sales Report.wb3:2** *The second window view becomes active.*
10. In the window view **Fiction Sales Report.wb3:2**, select the FY96 sheet tab *The FY96 sheet is selected.*

## Section 7: Managing and Editing Sheets

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11. Expand the sheet tab if necessary to display the complete sheet tab name
12. Click anywhere in the window view **Fiction Sales Report.wb3:3** *The third window view becomes active.*
13. Expand the sheet tab if necessary to display the complete sheet tab name
14. In the window view **Fiction Sales Report.wb3:3**, select the FY97 sheet tab *The FY97 sheet is selected.*
15. Make the window view **Fiction Sales Report.wb3:1** active, expand the tab sheet (if necessary), and select the SUMMARY sheet tab *The SUMMARY sheet is selected.*

**END**

## Copying and Moving Data between Multiple Sheets

You can copy and move data between multiple sheets just as you would within a single sheet. Instead of specifying the destination in the same sheet, however, you specify the destination in the *target sheet*, which is the sheet to which you are copying the data. The sheet that originally contained the data is called the *source sheet*.

When you copy or move a formula to a location on the target sheet that refers to cells that are empty, the Cell Reference Checker dialog box, as shown in Figure 7-3, will appear with a message indicating that the new formula uses empty cells. For example, if you copy the formula `@SUM(C5..C9)` from cell A11 on sheet FY95 to cell A11 on sheet Summary where the cells C5..C9 are empty, the Cell Reference Checker assumes you want the copied formula to contain the original formula using absolute addresses. If this is the case you simply choose Fix It. If you want the formula to adjust to the new location (by using relative addresses), however, choose Close.

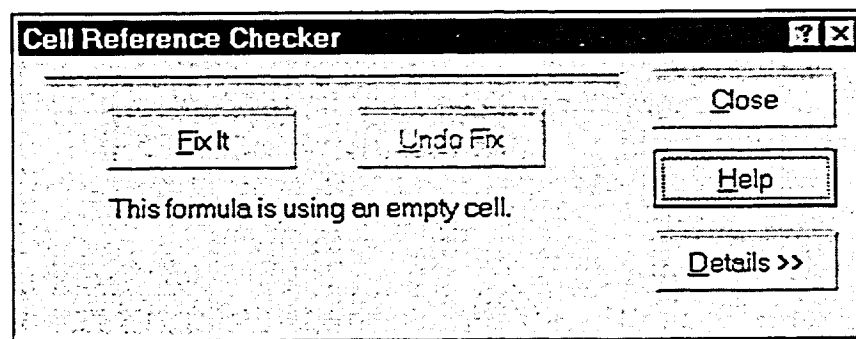


Figure 7-3: The Cell Reference Checker Dialog Box

### METHOD

To copy and move data between multiple sheets:

#### Drag and Drop method

1. Select the data you want to move or copy in the source sheet.
2. Use the drag and drop method to cut or copy from the source sheet to the target sheet.
3. If necessary, in the Cell Reference Checker dialog box, choose Fix It or choose Close.

#### Toolbar Button method

1. Select the data you want to move or copy in the source sheet.
2. From the Toolbar, click the Cut button or the Copy button.

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3. Select the destination for the data in the target sheet.
4. On the Toolbar, click the Paste button.
5. If necessary, in the Cell Reference Checker dialog box, choose Fix It or choose Close.

### EXERCISE

In the following exercise, you will copy and move data between multiple sheets.

1. Activate **Fiction Sales.wb3:4**
2. In the FY95 sheet, select cells A11..C11
3. On the Toolbar, click the Copy button
4. In **Fiction Sales.wb3:2**, on the FY96 sheet, select cell A11
5. On the Toolbar, click the Paste button  
*The cells are pasted into the sheet and the formula results are automatically updated to reflect the new location.*
6. In **Fiction Sales.wb3:3**, in the FY97 sheet, paste the selection beginning at cell A11  
*The cells are pasted into the sheet and the formula results are automatically updated to reflect the new location.*
7. In **Fiction Sales.wb3:1**, in the Summary sheet, paste the selection beginning at cell A11  
*The cells are pasted into the sheet and the formula results are automatically updated to reflect the new location.*
8. If necessary, in the Cell Reference Checker dialog box, choose Close  
*The Cell Reference Checker dialog box closes.*

END

## Creating a Formula That Links Data across Multiple Sheets

To fully access the power of a notebook, you should learn to link data between different sheets. When you link data in this way, you create a *3-D block reference*. One of the most important uses for 3-D block references in Quattro Pro is creating formulas that incorporate data from more than one sheet. These are called *3-D formulas*.

You create a 3-D formula the same way you would any formula. The only difference is in the naming convention Quattro Pro uses to record data locations. In 3-D block referencing, Quattro Pro needs the location of the source sheet, not just the cell reference. To record a 3-D reference in the target sheet, you must include the name of the source sheet followed by a colon in addition to any cell references or cell names. For example, `FY95:A5..B7` refers to cells A5 through B7 in the FY95 sheet. Because the naming convention is slightly more complicated, you might find that the best method to create 3-D formulas is by pointing. When you select the data using the mouse, Quattro Pro automatically records the corresponding cell location in the formula, including sheet names as appropriate.

Because you are actually linking the data and not just moving or copying it, this type of data is called *dynamic data*. In other words, if you change the data in the source cell, you automatically change the results in the target cell.

### METHOD

To create a formula that links data across multiple sheets:

1. Select the cell that is to contain the formula.
2. Create the formula as you would for any other sheet, using the mouse to select the cells from each sheet to be used in the formula.
3. Press ENTER

**EXERCISE**

In the following exercise, you will create a formula that links data across multiple sheets.

1. In the **Fiction Sales.wb3:1** view, be sure that the **SUMMARY** sheet is selected
2. Select cell C5
3. Type + *The formula is started.*
4. In the **Fiction Sales.wb3:4** view, in the FY95 sheet, select cell C5 *A border appears around cell C5. The reference is added to the formula in the SUMMARY sheet.*
5. Type +
6. In the **Fiction Sales.wb3:2** view, in the FY96 sheet, select cell C5 *Cell C5 in FY96 is selected and added to the formula.*
7. Type +
8. In the **Fiction Sales.wb3:3** view, in the FY97 sheet, select cell C5 *Cell C5 in FY97 is selected.*
9. Press **ENTER** *Quattro Pro calculates the formula.*
10. If necessary, widen column C so that the total is visible
11. In the **SUMMARY** sheet, copy the formula from C5 to cells C6..C9
12. Examine the new result in cell C11 of the Summary sheet, scrolling down and resizing if needed

13. In the **Fiction Sales.wb3:3**, in the **FY97** sheet, in cell **C7**, type **1965333** and press **ENTER**  
*Quattro Pro updates the 1997 circulation data for Jamestown. Quattro Pro also updates the results in cells C7 and C11 in the Summary sheet.*
14. Close the window views in the following order: **Fiction Sales.wb3:4**, **Sales.wb3:3**, and **Sales.wb3:2**  
*The three views have been closed.*
15. Maximize the remaining window
16. Save as **H:\spsheet\fiction sales**

**END**



## Verifying Your Work

Quattro Pro has two tools to help you verify your work. The *Spell Checker* checks for spelling errors in existing text, and *QuickCorrect* corrects spelling errors as you type.

### Using the Spell Checker

The Spell Checker works by searching through your selection for words not contained in its dictionary, such as misspelled, duplicated, or irregularly capitalized words. The Spell Checker locates the discrepancies and asks you how you want to resolve them. As you can see from the dialog box shown in Figure 7-4, when the Spell Checker comes across a word not found in its dictionary, it provides you with several options. You can add the word to your custom word list, accept the word Quattro Pro suggests as a replacement, select an alternative from the Replacements list, edit the word manually, or skip the word.

The Spell Checker does a great job with most words and terms, but it is not perfect. For instance, many professions require the use of acronyms or job-specific jargon, such as WMAR or biomonitoring, which are not always found in the Quattro Pro dictionary. However, you can add the word to your *user word list* or tell Quattro Pro to skip it once or throughout the entire selection. Either way, Quattro Pro's Spell Checker accepts it as a valid word and passes it by. The user word list is a file that includes words you want the Spell Checker to ignore.

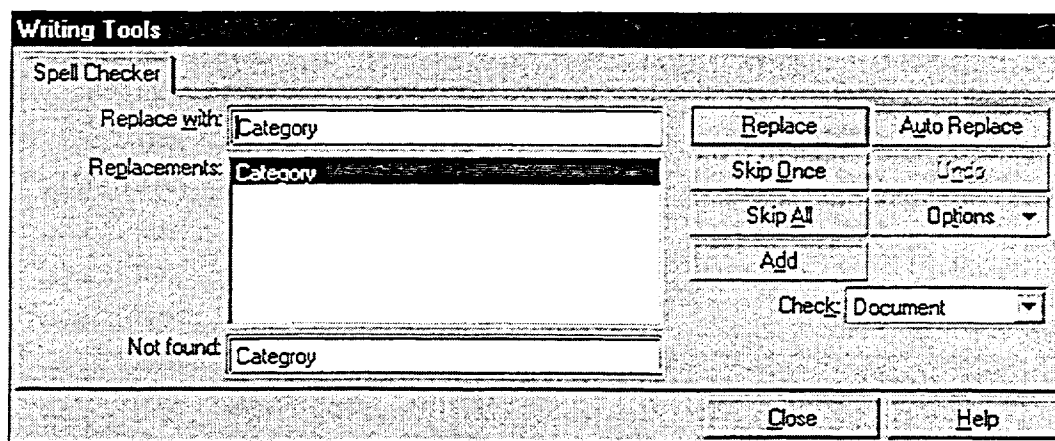


Figure 7-4: The Spell Checker Page of the Writing Tools Dialog Box

**METHOD**

To use the Spell Checker:

1. From the Tools menu, choose Spell Check.
2. In the Writing Tools dialog box, to replace a word or all instances of a word, in the Replace with text box, type the new word or in the Alternatives list box, select a word, and then choose Replace or choose Replace All.  
or
2. To skip a word or all instances of a word, choose Skip or choose Skip All.  
or
2. If desired, to add a word to the Dictionary, choose Add to Dictionary.
3. Repeat step 2 as necessary.
4. When finished, in the message box, choose Yes.

**EXERCISE**

In the following exercise, you will use the Spell Checker.

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Select the Best Sellers sheet tab and be sure cell A1 is selected</li> </ol> |  |
| <ol style="list-style-type: none"> <li>2. Click the Select all button</li> </ol>                                       | <p><i>The entire sheet is selected.</i></p>  |
| <ol style="list-style-type: none"> <li>3. From the Tools menu, choose Spell Check</li> </ol>                           | <p><i>The Writing Tools dialog box appears. In the Not found text box, the word <b>Category</b> appears. A suggested replacement appears in the Replace with text box.</i></p> |
| <ol style="list-style-type: none"> <li>4. Choose Replace</li> </ol>  | <p><i>Category is replaced with <b>Category</b>, and <b>Grisham</b> appears in the Not Found text box as the next suspect word.</i></p>  |

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5. Choose Add  
*Grisham is added to the dictionary, and Pbk appears in the Not Found text box as the next suspect word. A list of alternative replacements is shown in the Replacements list box.*
6. Choose Skip All  
*Pbk is unchanged and all other occurrences will be ignored. Cycl appears in the Not Found text box as the next suspect word.*
7. From the Replacements list box, select Cycle  
*Cycle appears in the Replace with text box.*
8. Select Replace  
*Cycl is replaced with Cycle. A Spell Checker message box appears with the message, **Spell check completed. Close Spell Checker?***
9. Choose Yes  
*The Writing Tools dialog box closes.*

**END**

## Using QuickCorrect

Unlike the Spell Checker, which works only on command, QuickCorrect works with you as you type. With the QuickCorrect dialog box, shown in Figure 7-5, you can avoid common typos such as **teh** for **the** or **acomodate** for **accommodate**. If you make certain typing errors often, you can add them to the QuickCorrect list. Then, whenever you make the error, QuickCorrect automatically replaces the erroneous word with the correct one.

You can also use QuickCorrect to create typing shortcuts. For instance, you can tell it that every time you type **w/** it should replace it with the word **with**. It is important to note that the QuickCorrect feature is not case-sensitive.

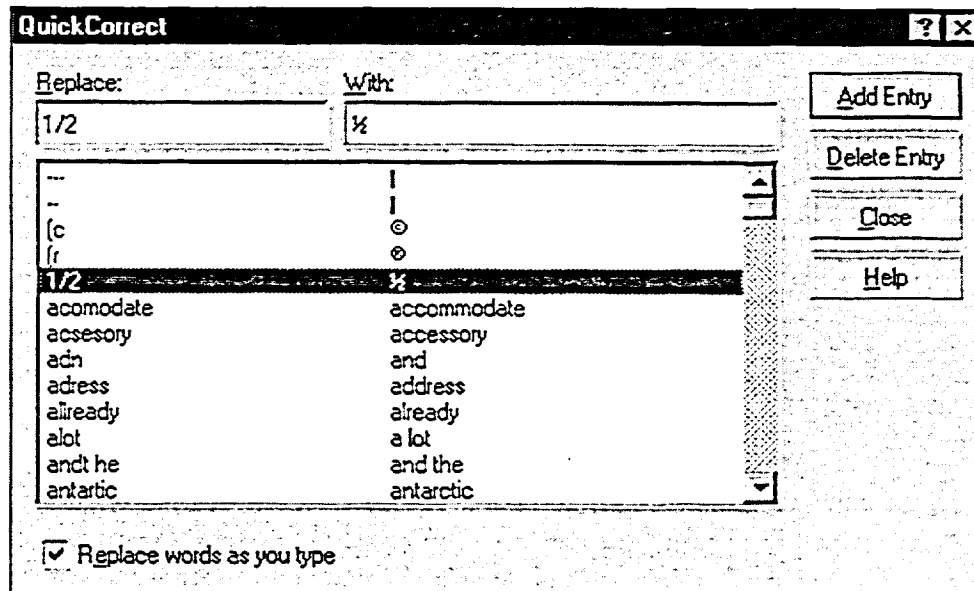


Figure 7-5: The QuickCorrect Dialog Box

### METHOD

To add words to QuickCorrect:

1. From the Tools menu, choose QuickCorrect.
2. In the QuickCorrect dialog box, in the Replace text box, type the incorrect spelling of the word.
3. In the With text box, type the correct spelling of the word.
4. Choose Add Entry.
5. Repeat steps 2 through 4 as needed.
6. Choose Close.

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To delete words from QuickCorrect:

1. From the Tools menu, choose QuickCorrect.
2. In the QuickCorrect dialog box, from the list, select the word to delete.
3. Choose Delete Entry.
4. Repeat steps 2 and 3 as needed.
5. Choose Close.

*Note:* If you want to disable the QuickCorrect feature, deselect the *Replace words as you type* check box in the QuickCorrect dialog box.

### EXERCISE

In the following exercise, you will use QuickCorrect.

1. Be sure the Best Sellers sheet is selected
2. From the Tools menu, choose QuickCorrect *The QuickCorrect dialog box appears.*
3. In the Replace text box, type **covre**
4. In the With text box, type **cover**
5. Choose Add Entry *The entry is added to the list. Now, wherever covre is typed in the notebook, Quattro Pro will replace it with the correct spelling, cover.*
6. Choose Close *The QuickCorrect dialog box closes.*
7. In any empty cell, type **covre** and press ENTER *Covre is replaced with cover.*
8. From the Tools menu, choose QuickCorrect *The QuickCorrect dialog box appears.*
9. From the list, select the entry **covre**

## Verifying Your Work

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- |                         |   |
|-------------------------|---|
| 10. Choose Delete Entry | <i>The selected entry is deleted from the list.</i> |
| 11. Choose Close        | <i>The QuickCorrect dialog box closes.</i>          |
| 12. Close the notebook  |   |

**END**

## Creating Multiple Views

In many cases, you might find it helpful to work with different parts of your sheet at the same time. You might, for example, want to keep the labels in row 4 visible while you scroll down to look at information located in row 35.

You can accomplish this by dividing your sheet into multiple *panes*. Panes are small windows that let you break your sheet into sections that you can use independently.

### Splitting the Panes

When you split a pane, Quattro Pro creates identical copies of the sheet side-by-side (vertically), as illustrated in Figure 7-6, or one on top of the other (horizontally). Panes are automatically *synchronized* so that when you scroll one pane, the other scrolls at the same time. By deselecting the Synchronize check box, you can *unsynchronize* the panes to allow each pane to scroll independently of the other, within limits, with each pane using its own set of scroll bars. Remember, however, that the panes are still views of the same sheet. A change to one pane means a change to the selected sheet or sheets.

	A	B	C	D		N	O	P	Q
1					1				
2					2				
3			Jan	Feb	3	Dec			
4		Biology	95	10	4	325			
5		Chemistry	155	2	5	355			
6		Children's	112	2	6	300			
7		Fiction	102	1	7	350			
8		General	155	2	8	355			
9		Horror	78	5	9	345			
10		Mathematics	103	3	10	333			
11		Mysteries	102	1	11	350			
12		Physical Science	78	5	12	345			
13		Physics	112	2	13	300			
14		Romance	103	3	14	333			
15		Science Fiction	95	10	15	325			
16					16				
17					17				
18					18				

Figure 7-6: Vertical Panes

You can split the panes by accessing the Split Window command from the View menu. This opens the Split Window dialog box, shown in Figure 7-7. You can also use this dialog box to synchronize or unsynchronize the panes.

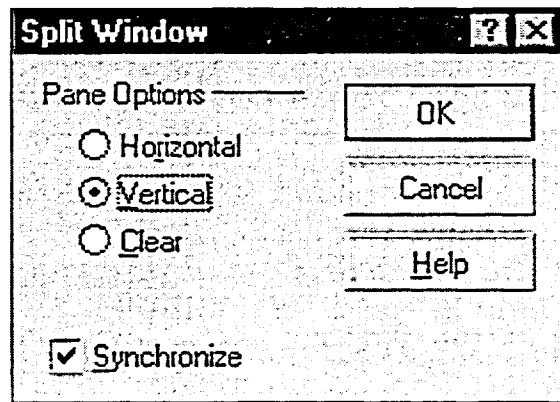


Figure 7-7: *The Split Window Dialog Box*

You can also split panes by using the *pane splitter*, illustrated in Figure 7-8. You can manipulate the pane splitter only by using the mouse. When you drag the pane splitter, a dotted line appears. You drag the mouse until the dotted line reaches the area at which you want the screen to be divided, also known as the *separation point*.

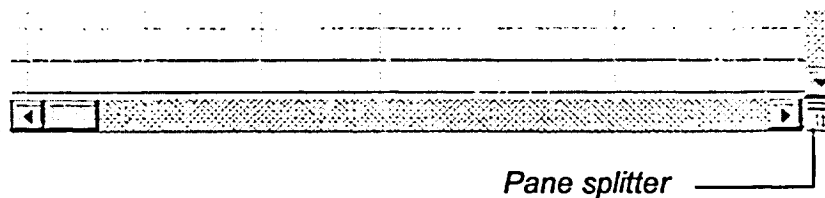


Figure 7-8: *The Pane Splitter*

As was true when viewing multiple sheets, once you have divided the sheet into panes, you can move between the different sections by clicking the pane in which you want to work.

#### METHOD

To split the panes:

##### Mouse method

1. To split the pane vertically, position the pointer on the pane splitter until a vertical arrow appears.  
or
1. To split the pane horizontally, position the pointer on the pane splitter until a horizontal arrow appears.



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2. Drag the pane splitter to the new location.
3. Release the mouse.

### Menu method

1. Click the cell to the right of the location for a vertical split and below the location for a horizontal split.
2. From the View menu, choose Split Window.
3. In the Split Window dialog box, in the Pane Options area, select an option.
4. If desired, deselect or select the Synchronize check box.
5. Choose OK.

### To remove a split:

1. From the View menu, choose Split Window.
  2. In the Split Window dialog box, in the Pane Options area, select the Clear option button.
  3. Choose OK.
- or
1. Drag the pane splitter to the side, top, or bottom of the sheet area.

## EXERCISE

In the following exercise, you will split the panes. Then, you will remove the split.

1. Open **A:\Best Sellers**
2. Make sure the **FISCAL** sheet tab is selected
3. Position the pointer on the pane splitter until it becomes a vertical arrow (a double arrow pointing left and right)
4. Drag the pane splitter to the right of column B

*As you drag, an outline of the split bar appears. Then the window is split into two panes and the left pane is selected.*

5. Select the right pane, and scroll to the right until the December column is next to the Jan column in the left pane
6. In the right pane, scroll down to row 34 *The columns in each pane are synchronized.*
7. From the View menu, choose Split Window *The Split Window dialog box appears.*
8. Deselect the Synchronize check box, and then choose OK
9. In the right pane, scroll up to row 1 *The right pane scrolls up while the left pane doesn't move.*
10. From the View menu, choose Split Window *The Split Window dialog box appears.*
11. Select the Synchronize check box
12. In the Pane Options area, select the Clear option button, and then choose OK *The sheet is restored to a single pane.*
13. Position the pointer over the pane splitter until it becomes a horizontal arrow (a double arrow pointing up and down)
14. Drag the mouse up to row 12 and release *As you drag, an outline of the split bar appears. Then the window is split into two panes after row 12.*
15. Drag the pane splitter back to the bottom of the sheet *The sheet is restored to a single pane.*

END

## Working with Locked Titles

You can also divide your workspace by using the Lock Titles feature. *Locking* titles is useful when you are working with large tables because you can hold horizontal and vertical headings stationary while you move through the data. When you no longer need your titles to be locked, you can *unlock* those titles.

When you lock titles, a blue line appears dividing the locked area and the sheet data. The locked section of the pane cannot be scrolled, unlike in a split where all panes are available for scrolling. The locked section remains stationary, even when you scroll the rest of the data. You lock and unlock titles by using the Locked Titles option on the View menu.

### METHOD

To lock rows and/or columns as titles:

1. Select the cell below and to the right of the location for the locked titles.
2. From the View menu, choose Locked Titles.

To unlock titles:

1. From the View menu, choose Locked Titles.

### EXERCISE

In the following exercise, you will work with locked titles.

1. Be sure the FISCAL sheet tab is selected
2. Select cell B4
3. From the View menu, choose Locked Titles
4. Scroll to the right until the Dec column is the only visible month

*A blue line appears to the left of column B and above row 4 indicating that the rows above row 4 and the columns to the left of column B are locked.*

*The labels to the left of the line remain stationary.*

## Creating Multiple Views

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- |  |   |
|--|---|
| 5. Scroll down until Science Fiction is the only row label visible | <i>The Science Fiction books for Dec is the only value visible.</i> |
| 6. From the View menu, choose Locked Titles                        | <i>The titles are no longer locked.</i>                             |
| 7. Select cell A1  |   |

**END**

## Protecting Sheets and Notebooks

When you are developing sheets for others to use, it might be wise to restrict the changes they can make to the sheet. You might want to keep certain cells from modification, such as cells containing formulas. If even more serious security measures are required, you can protect an entire notebook with a password.

### Using Sheet Protection

By default, all cells in a sheet are designated as *protected cells*. This means that when you enable *sheet protection*, none of the protected cells can be modified. You enable sheet protection by using the options on the Protection page of the Active Sheet dialog box, shown in Figure 7-9.

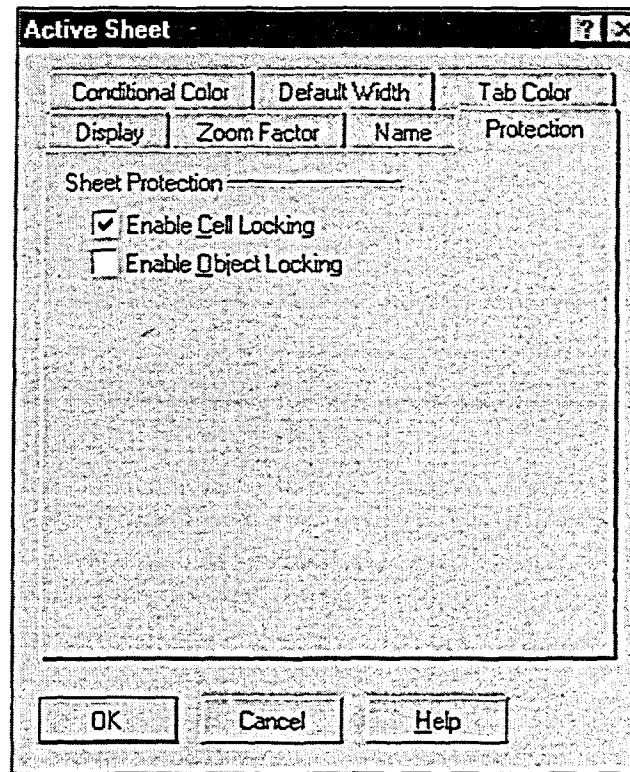


Figure 7-9: The Protection Page of the Active Sheet Dialog Box

Before enabling cell protection on a sheet, you must designate any cell or blocks of cells you want to change as *unprotected cells*. This means that those cells are immune to the protection and thus available for modification after sheet protection is enabled. You use the Constraints page of the Active Cells dialog box to protect and unprotect cells, as shown in Figure 7-10.

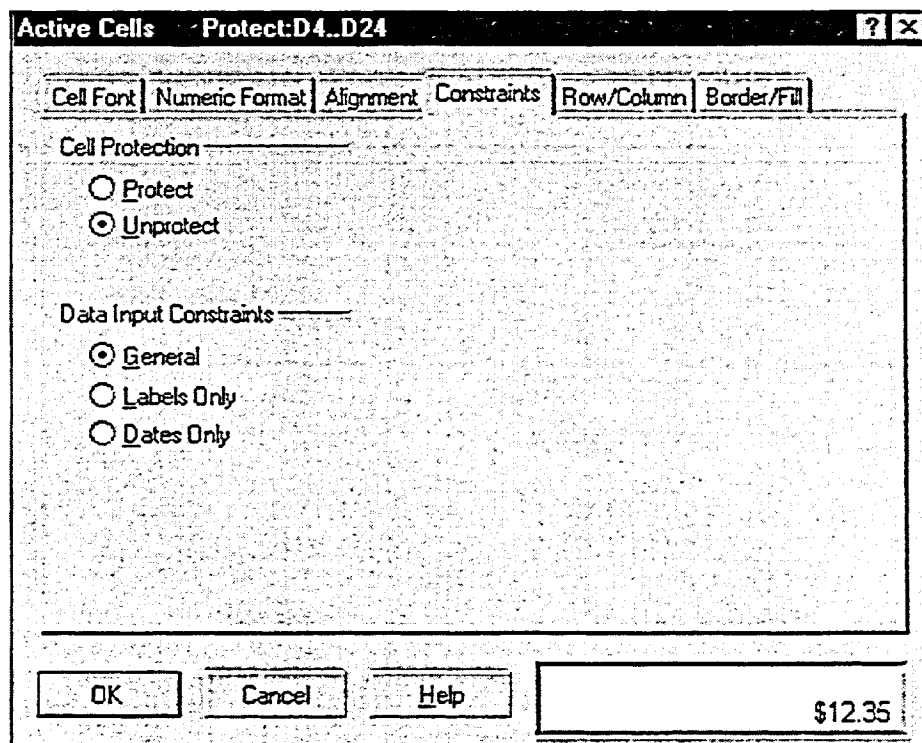


Figure 7-10: The Constraints Page of the Active Cells Dialog Box

#### METHOD

To unprotect cells before locking a sheet:

1. Select the block of cells you want to unprotect.
2. From the Format menu, choose Selection.
3. In the Active Cells dialog box, select the Constraints tab.
4. On the Constraints page, in the Cell Protection area, select the Unprotect option button.
5. Choose OK.

To enable sheet protection:

1. From the Format menu, choose Sheet.
2. In the Active Sheet dialog box, select the Protection tab.
3. On the Protection page, in the Sheet Protection area, select the Enable Cell Locking check box.
4. Choose OK.

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*Note:* The contents of all unprotected cells can be changed, even after the rest of the sheet is protected. In addition, when cell contents in unprotected cells are changed, the results of formulas in any cells in the protected portion of the sheet that are dependent on these unprotected cells also change to reflect any updates.

### EXERCISE

In the following exercise, you will use sheet protection.

1. Select the Protect sheet tab
2. Select D4..D24
3. From the Format menu, choose Selection *The Active Cells dialog box appears.*
4. Select the Constraints tab *The Constraints page appears.*
5. In the Cell Protection area, select the Unprotect option button
6. Choose OK *The cells into which your changes can be input have been unprotected.*
7. From the Format menu, choose Sheet *The Active Sheet dialog box appears.*
8. Select the Protection tab *The Protection page appears.*
9. In the Sheet Protection area, select the Enable Cell Locking check box
10. Choose OK *The sheet is protected.*
11. Select cell C5
12. Press DELETE *A message box appears with the message Protected cell or block.*
13. Choose OK *The message box closes.*
14. Select cell D5

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15. Press **DELETE** *The unprotected value is deleted.*
16. On the Toolbar, click the Undo button *The deleted value is restored to the cell.*

**END**



## Clearing Sheet Protection

To clear sheet protection, you use many of the same steps that you used to protect the document. However, it is not necessary to unprotect the cells.

### METHOD

To clear sheet protection:

1. From the Format menu, choose Sheet.
2. In the Active Sheet dialog box, select the Protection tab.
3. On the Protection page, in the Sheet Protection area, deselect the Enable Cell Locking check box.
4. Choose OK.

### EXERCISE

In the following exercise, you will clear the sheet protection.

1. Make sure the Protect sheet tab is selected
2. From the Format menu, choose Sheet *The Active Sheet dialog box appears.*
3. Make sure the Protection page is active
4. In the Sheet Protection area, deselect the Enable Cell Locking check box
5. Choose OK *The Active Sheet dialog box closes and the sheet is unprotected.*
6. Select cell C5, and then press **DELETE** *The data is deleted.*
7. Undo the deletion *The data in cell C5 is restored.*

END

## Hiding and Revealing Columns

At times, you might want to print or display a sheet in such a way that some of the data is hidden from view, but not deleted from the notebook. Quattro Pro lets you selectively *hide* columns of the sheet when you want to conceal confidential, confusing, or superfluous data.

After you have hidden columns, you can easily reveal those columns again. You hide and reveal columns by accessing the Reveal/Hide options in the Column Options area on the Row/Column page of the Active Cells dialog box, shown in Figure 7-11.

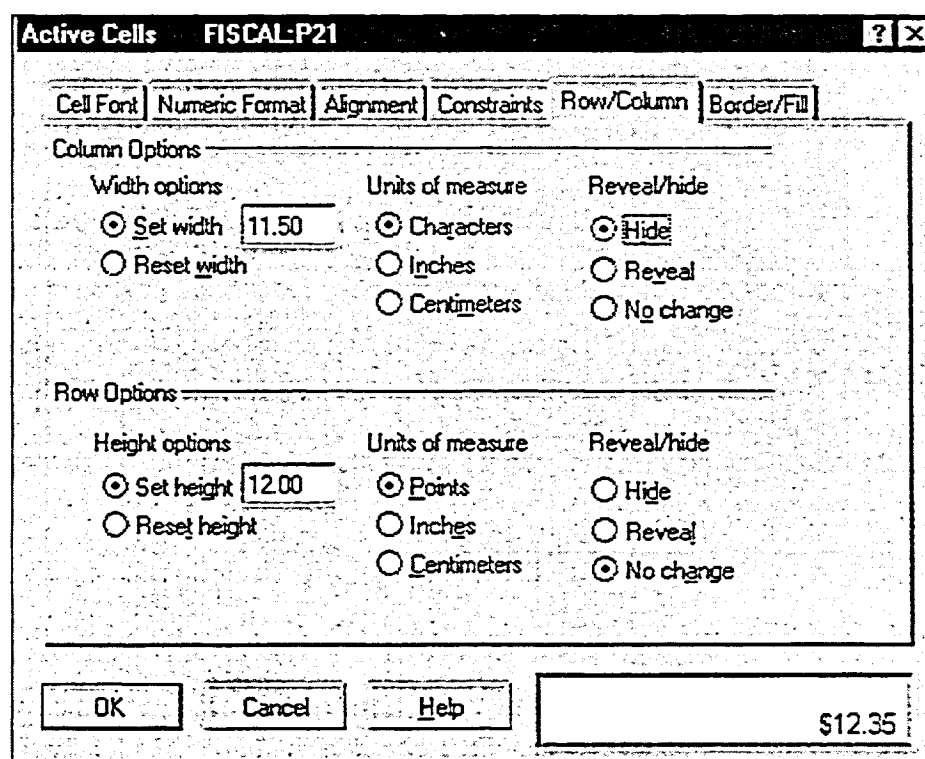


Figure 7-11: The Row/Column Page of the Active Cells Dialog Box

**Warning:** Use caution when using these options to hide sensitive data. Keep in mind that knowledgeable users of Quattro Pro know how to reveal data with a few steps. Hiding data is best used to keep superfluous or unnecessary data out of the sight of users.

**METHOD**

To hide columns:

1. Select cells in the columns that you want to hide.
2. From the Format menu, choose Selection.
3. From the Active Cells dialog box, select the Row/Column tab.
4. On the Row/Column page, in the Column Options area, under Reveal/hide, select the Hide option button.
5. Choose OK.

To reveal hidden columns:

1. Select a block containing cells on both sides of the hidden area.
2. From the Format menu, choose Selection.
3. In the Active Cells dialog box, select the Row/Column tab.
4. On the Row/Column page, in the Column Options area, under Reveal/hide, select the Reveal option button.
5. Choose OK.

**EXERCISE**

In the following exercise, you will hide and reveal columns.

1. Make sure the Protect sheet tab is selected
2. Select cell D4
3. From the Format menu, choose Selection The Active Cells dialog box appears.
4. Select the Row/Column tab The Row/Column page appears.
5. In the Column Options area, under Reveal/hide, select the Hide option button
6. Choose OK The dialog box closes and column D is hidden.
7. Select cells A1..E1

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- |     |  |   |
|-----|--|---|
| 8.  | From the Format menu, choose Selection   | The Active Cells dialog box appears.                  |
| 9.  | Be sure the Row/Column page is active  |   |
| 10. | In the Column Options area, under Reveal/hide, select the Reveal option button |   |
| 11. | Choose OK  | The dialog box closes and column D is revealed again. |

**END**

## Using Password Protection

On occasion, you might create a notebook with confidential data and decide to restrict access to the notebook. Password protecting the notebook lets you protect sensitive data such as personnel or financial information. The options on the Password Level page of the Active Notebook dialog box are shown in Figure 7-12. When you are using the password protection option, Quattro Pro offers several password protection levels. These levels are summarized in Table 7-2. In this course, you will only work with the High protection level.

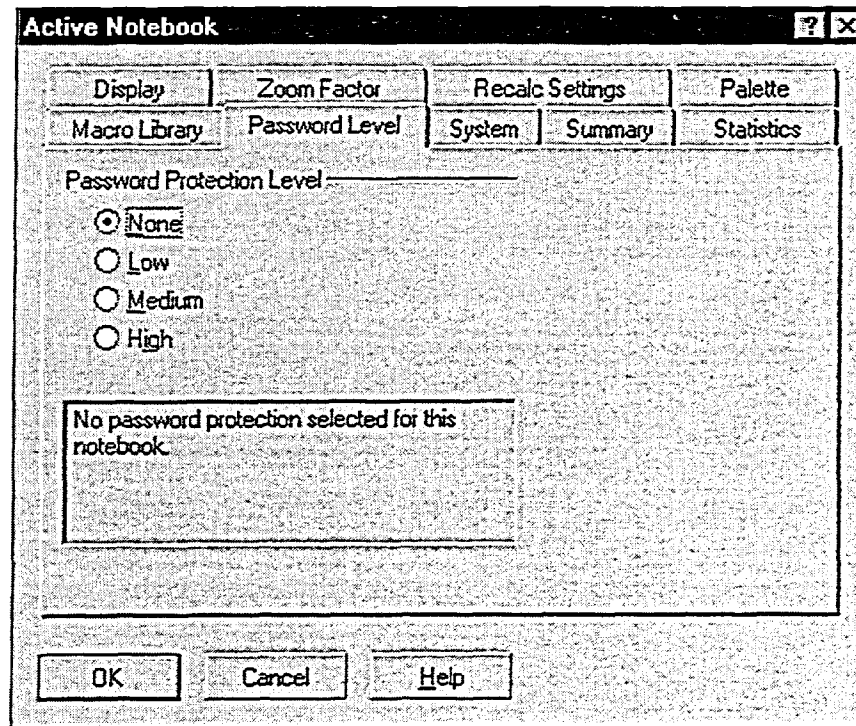


Figure 7-12: The Password Level Page of the Active Notebook Dialog Box

Option	Function
None	No password is required to open or use the notebook.
Low	The notebook can be opened, but a password is required to view or edit formulas. Non-password holders see asterisks (****) in place of formulas in the input line when viewing the notebook.
Medium	When opened without the password, the notebook is always hidden from user view and access.
High	When opened, the notebook prompts for the password, and only password holders can access the notebook.

Table 7-2: Password Protection Levels

When you use a password in a notebook, be sure to use one that you can remember. Once you password protect a notebook, the only way to unprotect it is by entering that password again. Keep in mind that passwords in Quattro Pro are case-sensitive, depending on exact capitalization. For example, the password Marie is not the same as the password marie.

*Caution:* Once you save and close a notebook with a low or medium password protection level, the Password Level tab is no longer available in the Active Notebook dialog box. The only way to edit or view formulas (if Low Protection Level) or view and access the notebook (if Medium Protection Level) is to exit Quattro Pro, and then restart it with a special startup command that incorporates the password.

**METHOD**

To password protect a notebook with a high protection level:

1. From the Format menu, choose Notebook.
2. In the Active Notebook dialog box, on the Password Level page, in the Password Protection Level area, select the High option button.
3. Choose OK.
4. In the Enter Password dialog box, in the Password text box, type a password.
5. Choose OK.
6. In the Verify password dialog box, in the Password text box, retype the password.
7. Choose OK.
8. Save and close the notebook.

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*Note:* You can also password protect a notebook when you save it. In this case, the protection level defaults to High.

To open a file stored with a password:

1. Open the file.
2. In the dialog box that appears, in the Password text box, type the password.
3. Choose OK.

To remove the password protection from a notebook:

1. From the Format menu, choose Notebook.
2. In the Active Notebook dialog box, on the Password Level page, in the Password Protection Level area, select the None option button.
3. Choose OK.
4. Save and close the notebook.

### EXERCISE

In the following exercise, you will use password protection. First, you will password protect a notebook.

- |   |  |
|---|--|
| 1. From the Format menu, choose Notebook  | <i>The Active Notebook dialog box appears.</i>                 |
| 2. Select the Password Level tab  | <i>The Password Level page appears.</i>                        |
| 3. In the Password Protection Level area, select the High option button and choose OK | <i>The Enter Password dialog box appears.</i>                  |
| 4. In the Password text box, type <b>Books</b>  | <i>As you type, the characters appear as number signs (#).</i> |
| 5. Choose OK  | <i>The Verify Password dialog box appears.</i>                 |
| 6. In the Password text box, type <b>Books</b> and choose OK                          | <i>The dialog box closes.</i>                                  |
| 7. Save as <b>H:\spsheet\bestsellers</b> and close the notebook                       |  |

Next, you will open a notebook stored with a password.

8. From the File menu, choose **Best Sellers.wb3** *The Best Sellers dialog box appears, requesting a password.*
9. In the Password text box, type **Books** and choose OK *The Best Sellers notebook opens.*

Now, you will remove the password protection from the notebook.

10. From the Format menu, choose Notebook *The Active Notebook dialog box appears.*
11. If necessary, select the Password Level tab
12. In the Password Protection Level area, select the None option button
13. Choose OK
14. Save and close the notebook
15. Reopen the notebook *The Best Sellers notebook opens without the password prompt.*
16. Close the notebook

**END**



**To rename a sheet tab:**

1. Double-click the sheet tab.
2. Type the sheet name.
3. Press **ENTER**

**To navigate multiple sheets:**

## Mouse method

1. Click the appropriate tab scroll control until the sheet tab appears on the screen.
2. Select the sheet tab.

## Keyboard method

1. Press **CTRL+PAGE DOWN** to move forward one sheet.  
or
1. Press **CTRL+PAGE UP** to move backward one sheet.

**To move a sheet:**

1. Click and hold the left mouse button over the tab of the sheet to be moved, and drag to the left or to the right until the tab separates from the sheet and a + (plus sign) appears on it.
2. Drag the tab on top of the tab where you want to move the sheet.
3. Release the mouse button.

**To copy a sheet:**

1. Press and hold **CTRL**
2. Click and hold the left mouse button over the tab of the sheet to be copied, and drag in any direction until the tab separates from the sheet and a + (plus sign) appears on it.
3. Drag the tab on top of the tab where you want to copy the sheet.
4. Release the mouse button.
5. Release **CTRL**

**To view multiple sheets:**

1. From the Window menu, choose **New View**.
2. Repeat step 1 until you have as many windows open as needed.
3. From the Window menu, choose the arrange option you want to use.
4. Choose **OK**.

**To copy and move data between multiple sheets:**

## Drag and Drop method

1. Select the data you want to move or copy in the source sheet.
2. Use the drag and drop method to cut or copy from the source sheet to the target sheet.
3. If necessary, in the Cell Reference Checker dialog box, choose **Fix It** or choose **Close**.

## Toolbar Button method

1. Select the data you want to move or copy in the source sheet.
2. From the Toolbar, click the **Cut** button or the **Copy** button.
3. Select the destination for the data in the target sheet.
4. On the Toolbar, click the **Paste** button.
5. If necessary, in the Cell Reference Checker dialog box, choose **Fix It** or choose **Close**.

**To create a formula that links data across multiple sheets:**

1. Select the cell that is to contain the formula.
2. Create the formula as you would for any other sheet, using the mouse to select the cells from each sheet to be used in the formula.
3. Press ENTER

**To use the Spell Checker:**

1. From the Tools menu, choose Spell Check.
2. In the Writing Tools dialog box, to replace a word or all instances of a word, in the Replace with text box, type the new word or in the Alternatives list box, select a word, and then choose Replace or choose Auto Replace.  
or
2. To skip a word or all instances of a word, choose Skip Once or choose Skip All.  
or
2. If desired, to add a word to the Dictionary, choose Add.
3. Repeat step 2 as necessary.
4. When finished, in the message box, choose Yes.

**To add words to QuickCorrect:**

1. From the Tools menu, choose QuickCorrect.
2. In the QuickCorrect dialog box, in the Replace text box, type the incorrect spelling of the word.
3. In the With text box, type the correct spelling of the word.
4. Choose Add Entry.
5. Repeat steps 2 through 4 as needed.
6. Choose Close.

**To delete words from QuickCorrect:**

1. From the Tools menu, choose QuickCorrect.
2. In the QuickCorrect dialog box, from the list, select the word to delete.
3. Choose Delete Entry.
4. Repeat steps 2 and 3 as needed.
5. Choose Close.

**To split the panes:**

**Mouse method**

1. To split the pane vertically, position the pointer on the pane splitter until a vertical arrow appears.  
or
1. To split the pane horizontally, position the pointer on the pane splitter until a horizontal arrow appears.
2. Drag the pane splitter to the new location.
3. Release the mouse.

**Menu method**

1. Click the cell to the right of the location for a vertical split and below the location for a horizontal split.
2. From the View menu, choose Split Window.
3. In the Split Window dialog box, in the Pane Options area, select an option.
4. If desired, deselect or select the Synchronize check box.
5. Choose OK.

**To remove a split:**

1. From the View menu, choose Split Window.
2. In the Split Window dialog box, in the Pane Options area, select the Clear option button.

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3. Choose OK.  
or
3. Drag the pane splitter to the side, top, or bottom of the sheet area.

### To lock rows and/or columns as titles:

1. Select the cell below and to the right of the location for the locked titles.
2. From the View menu, choose Locked Titles.

### To unlock titles:

1. From the View menu, choose Locked Titles.

### To unprotect cells before locking a sheet:

1. Select the block of cells you want to unprotect.
2. From the Format menu, choose Selection.
3. In the Active Cells dialog box, select the Constraints tab.
4. On the Constraints page, in the Cell Protection area, select the Unprotect option button.
5. Choose OK.

### To enable sheet protection:

1. From the Format menu, choose Sheet.
2. In the Active Sheet dialog box, select the Protection tab.
3. On the Protection page, in the Sheet Protection area, select the Enable Cell Locking check box.
4. Choose OK.

### To clear sheet protection:

1. From the Format menu, choose Sheet.
2. In the Active Sheet dialog box, select the Protection tab.

3. On the Protection page, in the Sheet Protection area, deselect the Enable Cell Locking check box.
4. Choose OK.

### To hide columns:

1. Select cells in the columns that you want to hide.
2. From the Format menu, choose Selection.
3. From the Active Cells dialog box, select the Row/Column tab.
4. On the Row/Column page, in the Column Options area, under Reveal/hide, select the Hide option button.
5. Choose OK.

### To reveal hidden columns:

1. Select a block containing cells on both sides of the hidden area.
2. From the Format menu, choose Selection.
3. In the Active Cells dialog box, select the Row/Column tab.
4. On the Row/Column page, in the Column Options area, under Reveal/hide, select the Reveal option button.
5. Choose OK.

### To password protect a notebook with a high protection level:

1. From the Format menu, choose Notebook.
2. In the Active Notebook dialog box, on the Password Level page, in the Password Protection Level area, select the High option button.
3. Choose OK.
4. In the Enter Password dialog box, in the Password text box, type a password.
5. Choose OK.

6. In the Verify password dialog box, in the Password text box, retype the password.
7. Choose OK.
8. Save and close the notebook.

**To open a file stored with a password:**

1. Open the file.
2. In the dialog box that appears, in the Password text box, type the password.
3. Choose OK.

**To remove the password protection from a notebook:**

1. From the Format menu, choose Notebook.
2. In the Active Notebook dialog box, on the Password Level page, in the Password Protection Level area, select the None option button.
3. Choose OK.
4. Save and close the notebook.

## Self-Check Exercise

1. Open A:\Self 2.
2. Make sure the May 1 sheet is selected.
3. Open three additional views of the notebook.
4. Use the Window menu to tile the four window views on your desktop.
5. In the **Self 2.wb3:4** window view, select the May 1 sheet; in the **Self 2.wb3:2** window view, select the May 2 sheet; in the **Self 2.wb3:3** window view, select the May 3 sheet; and in the **Self 2.wb3:1** window, select the Summary sheet.

*Hint:* Expand the sheet tabs if needed so that you can see the names clearly.

6. Copy the text in cells A1..A2 of the May 1 sheet to the block A1..A2 in sheets May 2, May 3, and Summary.
7. In the Summary sheet, in cell C6, use the mouse to enter a formula that calculates the total for Account A for 8 A.M. for May 1, May 2, and May 3. Repeat the process for cell C7 of the Summary sheet for 9 A.M. for May 1, May 2, and May 3.
8. Close all the windows but the one showing the May 1 sheet, and then maximize that sheet.
9. Select the Repairs sheet tab.
10. Move the Repairs sheet to just before the Summary sheet.

*Hint:* You might have to decrease the size of the scroll bar so that you can see all the sheet tabs.

11. Copy the Summary sheet to just before the May 1 sheet.
12. Change the name of the copy of the Summary 2 sheet to **June Totals**.
13. Delete the June Totals sheet.
14. On the May 1 sheet, select cell A1.
15. Spell check the sheet and correct any errors you find.

16. Open QuickCorrect and have it always replace *poss* with **possible**.
17. Test the new addition to QuickCorrect, and then delete the entry from QuickCorrect.
18. On the May 1 sheet, use the pane splitter to vertically split the sheet, using the center of Column B as the separation point.
19. Arrange the work screen so that Account D is located beside the Time labels.
20. Clear the split, and then lock the row and column titles at cell B5.
21. Position the columns so that Account E appears next to the time labels.
22. Unlock the locked titles.
23. Unprotect the account data in the block C6..C18 so that it can be changed.
24. Enable cell locking for the sheet, so that locked cells cannot be changed. Test the protection in the sheet.
25. Turn off cell locking.
26. Hide the data in column D, and then reveal that column again.
27. Password protect the notebook using the High Protection level so that it can be opened only by authorized users with the password **Phone**.
28. Save and close the notebook, and then use the password to open it again.
29. Remove the password protection from the notebook.
30. Save as **H:\spsheet\self 2** and close your notebook.



Section

8

## *Using Databases*

- Creating a Database
- Maintaining a Database
- Finding Information in a Database
- Sorting a Database



## Section Skills and Their Importance

In the following section you will learn to:

- **Create a database**

Although Quattro Pro notebooks are most often used to manipulate numeric data, you can also use your sheets as databases to help you manage information efficiently. Creating a database is the first step.

- **Maintain a database**

Once you create a database, you can add, delete, or modify your information, or even restructure it to suit your needs.

- **Find information in a database**

One of the benefits of using a database is that it becomes easy for you to find specific information. Using the criteria table, you can search through your database for information based on specific conditions. Using output cells, you can copy the results of your search into cells that do not have to be on the same sheet but must be within the same notebook.

- **Sort a database**

Quattro Pro maintains the data in your database in the order in which it was entered. The Sort command makes it easy for you to organize your data into more meaningful arrangements.

## Creating a Database

A *database* is an organized list of information. In Quattro Pro, the area containing the database cells is referred to as the *database cells*. You can use databases whenever you need to organize a large amount of similar data, such as a list of names and addresses. The database capabilities of Quattro Pro let you manipulate this information to best suit your needs. For example, you can sort or search an address database by city, state, zip code, or last name.

You create a database in much the same way as you would create a sheet. You enter information into a database by entering data into cells. In a database, you can use many of the same techniques you have used to enter, modify, and delete information in a sheet.

### Identifying the Parts of a Database

A database consists of *records* and *fields*, as shown in Figure 8-1. A record is a set of related data that corresponds to a row in the database. It contains alphanumeric data that, for example, might refer to the name, address, zip code, and telephone number of one person. To make working with records easier, records are organized into fields according to the column titles in your database and named according to the column titles. For example, a *field name* in a database might be "Last Name," "Address 2," or "Phone Number." Each field refers to one category of information within a record.

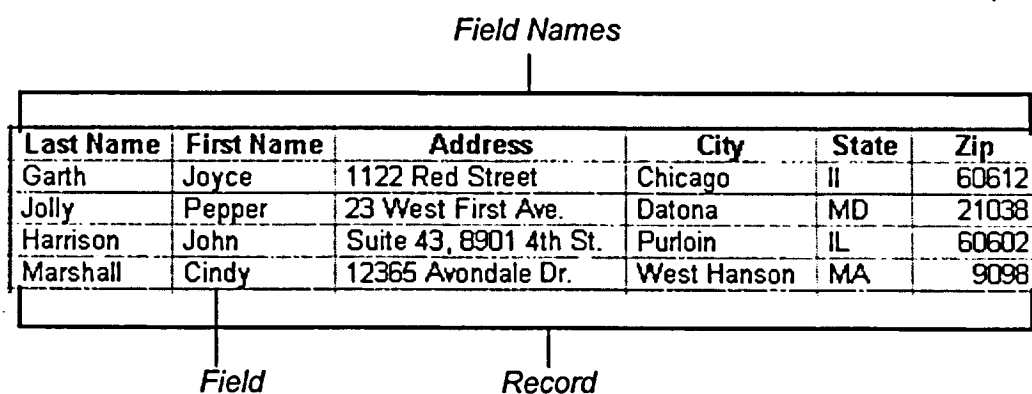


Figure 8-1: *The Parts of a Database*

## Planning a Database

Although you can change database elements after you have created a database, it is best to spend time planning your database before you begin entering data.

Each column of information in a database must have a label identifying the data in that column. Quattro Pro uses column titles for *field names* when setting up the database. Because of this, it is best to begin the data in the row directly below the column titles without leaving an empty row. If the field names are not contiguous with the data in the columns, Quattro Pro does not recognize the field names as belonging to the database. If you must separate the field names from the actual data, underline the labels or use a border along the bottom of the field name row rather than inserting a row of empty cells.

Start planning your database by determining the field names you want to include. Think carefully about your desired output and how you might want to report or sort information in your database. Then plan your database accordingly. For example, if you need to sort the database by last name, be sure to include a separate field for last names. Do not combine first and last names all in one column—unless, of course, you put the last name first.

## Creating Field Names

Once you have decided which fields you need and the order in which you want them displayed in your database, you can start to create the database in the sheet by entering the field names. The column titles are the field names. You enter field names into the sheet in the same way you would enter any text into a notebook cell.

Remember the following rules when creating field names:

- Use only alphanumeric characters.
- Field names can be up to 63 characters long, but shorter names are easier to use.
- Field names cannot contain leading or trailing spaces.
- Field names must be unique.
- Do not put blank rows or dashed lines under the field names.
- Do not use field names that look like cell names, formulas, or cell coordinates.

### **METHOD**

To create field names:

1. In the first row of the database, enter the field names.

### **EXERCISE**

In the following exercise, you will create field names.

1. Open a new notebook
2. On sheet tab A, beginning in cell A2, type the field names shown in Figure 8-2
3. Format the field names using Arial 12 point, bold

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4. If necessary, adjust the column widths of the sheet so that you can clearly see all the field names
5. Save the notebook as  
H:\spsheet\Auto Research

END

	A	B	C	D	E	F	G	H	I
1									
2	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CONVRT	IN	RATE
3									
4									

Figure 8-2: *The Field Names*

## Entering Data into a Database

Once you have created the field names in your database, you can begin to enter data. Enter the data as you would for any sheet, making sure that there are not any blank rows until after the last record is entered.

### METHOD

To enter data into a database:

1. Start entering the data directly below the field names. (Do not leave any blank rows.)
2. Enter the data into each cell as you would for any cell.

### EXERCISE

In the following exercise, you will enter data into a database.

1. Enter the database information as shown in Figure 8-3
2. If necessary, adjust the column widths so that you can clearly see all the data
3. Format column I as currency, and format column A and columns D through H as center aligned
4. Save the notebook

*Your database should resemble Figure 8-3.*

END

	A	B	C	D	E	F	G	H	I
1									
2	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CONVRT	IN	RATE
3	1	Ford	Taurus	4	y	n	n	n	\$24.95
4	2	Chevy	Cavalier	2	n	n	n	n	\$19.95
5	3	Ford	Tempo	4	n	n	n	n	\$19.95
6	5	Chevy	Astrovan	5	y	n	n	y	\$34.95

Figure 8-3: The Database Cells

## Naming Database Cells

Database cells consist of field names and data entered into records. Although naming your database cells is not mandatory, as you work with your database, the cell names make it easier and faster to work with database functions and queries. Naming database cells is exactly the same as naming cells.

### **METHOD**

To name database cells:

1. Select the database cells.
2. From the QuickMenu, choose Name Cells.
3. In the Cell Names dialog box, in the Name text box, type the name.
4. Choose Add.
5. Choose Close.

### **EXERCISE**

In the following exercise, you will name database cells.

1. Select all the database cells, including the field names
2. From the QuickMenu, choose Name Cells *The Cell Names dialog box appears.*
3. In the Name text box, type **database**
4. Choose Add *The cell name **database** appears in the cell name list.*
5. Choose Close *The Cell Names dialog box closes.*
6. Save the notebook

**END**

## Maintaining a Database

Once you create a database, you can add and delete records. If you find the database structure does not suit your current needs, you can add and delete fields. You can modify cell contents in a database by using any of the techniques that you use in a sheet.

### Adding and Deleting Records

To add records, you can insert new rows anywhere in the database, or add information after the last row. If you add records after the last row, and have given your database cells a name such as **database**, you must use the Cell Names dialog box to redefine the cells to include the new information.

To delete records, select the rows you want to delete, and then delete them as you would delete any other rows in a sheet. When you delete records, the cell name of the database cells automatically adjusts to accommodate the deletion. In this case, you do not have to redefine the cells.

#### METHOD

To add records anywhere in a database:

1. Select the row(s) where the new record is to be inserted.
2. On the Toolbar, click the Insert button.
3. Add the new information as appropriate.
4. If required, update the database cell name.

To delete records in a database:

1. Select the row(s) of the record to be deleted.
2. On the Toolbar, click the Delete button.

#### EXERCISE

In the following exercise, you will add and delete records in your database.

1. Select cell A6
2. On the Toolbar, click the Insert button *The Insert Cells dialog box appears.*



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3. In the Dimension area, be sure the Rows option button is selected, and then choose OK *A blank row appears.*
4. Enter the data shown in Figure 8-4 *The new record has been added to the database.*
5. Select cell A8
6. Enter the data shown in Figure 8-5 *Two more records are added to the database.*
7. Modify the cells named **database** to include the newly added rows *The cell name now includes the newly added rows.*
8. Select the row for the record where ID NO is 5 *Row 7 is selected.*
9. On the Toolbar, click the Delete button *The record is deleted.*
10. Delete the record where ID NO is 18
11. Use the Navigator button to go to the cell name **database** *The newly defined database cells are selected.*
12. Deselect the cells
13. Save and close the notebook

END

	A	B	C	D	E	F	G	H	I
1									
2	<b>ID NO</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DOORS</b>	<b>AUTO</b>	<b>SMOKE</b>	<b>CONVRT</b>	<b>IN</b>	<b>RATE</b>
3	4	Geo	Prizm	2	y	n	n	n	\$19.95

**Figure 8-4: New Database Data for Step 4**

	A	B	C	D	E	F	G	H	I
1									
2	<b>ID NO</b>	<b>MAKE</b>	<b>MODEL</b>	<b>DOORS</b>	<b>AUTO</b>	<b>SMOKE</b>	<b>CONVRT</b>	<b>IN</b>	<b>RATE</b>
3	18	Pontiac	Sunbird	2	n	y	n	y	\$10.95
4	33	Ford	Festiva	2	n	n	n	y	\$14.95

**Figure 8-5: New Database Data for Step 6**

## Adding and Deleting a Field

Once you have created a database, Quattro Pro lets you alter the database structure by adding and deleting fields. You add fields to a database by inserting columns anywhere in the database cells. If you add fields after the last column, and have given your database cells a name, you must use the Cell Names command to expand the cells to include the new information. You delete a field by deleting the appropriate column from the sheet. Again, in this case, the cell name of the database cells automatically adjusts to accommodate the deletion. You do not have to redefine the cells.

### METHOD

To add a field:

1. Click the column heading where the new column is to be inserted.
2. On the Toolbar, click the Insert button.

To delete a field:

1. Click the column heading of the column to be deleted.
2. On the Toolbar, click the Delete button.

### EXERCISE

In the following exercise, you will add and delete a field.

1. Open A:\Comparison
2. Make sure the RENTAL sheet is selected
3. Click the column heading for column G *Column G is selected.*
4. On the Toolbar, click the Insert button *A new column appears to the left of the CNVRT column.*
5. In cell G1, type the field name **COLOR** and press ENTER *The new field COLOR is created.*

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6. Select column G again
7. On the Toolbar, click the Delete button

*The field COLOR is deleted.*

**END**

## Finding Information in a Database

A computerized database lets you quickly and easily search for information meeting any criteria that you specify. Quattro Pro uses a method called *query by example* for locating information in your database. These examples, which allow you to define the search criteria, are entered into an area called the *criteria table*.

### Creating a Criteria Table

A criteria table is a special workspace that lets you locate, select, and display information without changing the original database. Each criteria table has at least two rows, as illustrated in Figure 8-6. One row contains the field names (exactly as they appear in the database cells) to search, and an example row indicates what to search for in those fields.

	K	L	M	N	O	P	Q	R	S
1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2		Ford							

Figure 8-6: Search Criteria Using a Single Field

#### METHOD

To create a criteria table:

1. Select a cell that will become the upper left corner of the table, and copy the names of the fields you want to include in the query.
2. Name the cells to be used in the query.

#### EXERCISE

In the following exercise, you will create a criteria table.

1. Make sure the RENTAL sheet is open
2. Name the database cells (A1..I17) **database**

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3. Copy the field names from A1..I1 to K1, adjusting the column widths if necessary
4. Name the cells K1..S2 **criteria**     *The criteria table is named.*
5. Deselect cells K1..S2

END

## Defining Search Criteria

Defining search criteria lets you find and work with a subset of the data in your database by displaying only the records that contain a certain value or meet specific criteria. Search criteria can be either *exact matches* or *conditions*. You define exact matches by entering search criteria in one field or more than one field of the same example row. For example, in Figure 8-6, the example row defines a search to match any records that contain Ford in the MAKE field.

Criteria searches are not case-sensitive. You can type the criteria in uppercase or lowercase letters without affecting the results of your search.

You can also use special symbols referred to as *wildcards* to represent characters that might vary, letting you locate data that contains some or all of the characters. For example, in Figure 8-7, the example row defines a search to match any records in the MODEL field that begin with Ca and any group of characters that follow.

	J	K	L	M	N	O	P	Q	R
1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2			Ca*						

Figure 8-7: Search Criteria Using Wildcards

The wildcard symbols are summarized in Table 8-1.

Wildcard	Purpose
?	Holds the place of any one character in a label.
*	Holds the place of any group of characters in a label.
~	Represents all characters except the character you specify and must occur at the start of the label.

Table 8-1: The Wildcard Symbols

If you place search criteria in more than one field, then all the criteria must be met before Quattro Pro displays a record. This is referred to as an *AND query*. For example, in Figure 8-8, the example row defines a search to match any records that contain Chevy in the MAKE field AND 2 in the DOORS field.

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	J	K	L	M	N	O	P	Q	R
1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2		Chevy		2					

**Figure 8-8: Search Criteria Using an AND Query**

If you expand the criteria table by placing search criteria in additional example rows, Quattro Pro will display records that match the criteria for all example rows. This is referred to as an *OR query*. For example, in Figure 8-9, the example rows define a search to match any records that contain Chevy in the MAKE field **OR** any records that contain 2 in the DOORS field.

	J	K	L	M	N	O	P	Q	R
1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2		Chevy							
3				2					

**Figure 8-9: Search Criteria Using an OR Query**

You define conditions by entering search criteria as logical formulas. When you are performing a criteria search, these formulas are referred to as *search formulas*. Search formulas use the same operators as those used in logical functions such as the IF function. When entered into the criteria table, they display either 1 (true) or 0 (false). To enter a search formula, use the cell address of the field in the database cell's first record (second row) to define the field in which to search. For example, in Figure 8-10, the example row defines a search formula to match any records whose Rate is greater than \$29.95. The tilde (~) that appears in the input line is placed in the formula by Quattro Pro to indicate that the cell name is relative.

RENTAL-S2									
	K	L	M	N	O	P	Q	R	S
	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2									0

**Figure 8-10: Search Criteria Using a Condition**

## Locating Records in a Database with Search Criteria

When your database cells and criteria table are ready, you can use the Notebook Data Query dialog box, illustrated in Figure 8-11, to locate, extract, and delete records found by a search. Once the Database Cells text box and the Criteria Table text box are completed, the contents are saved with the notebook and become the defaults.

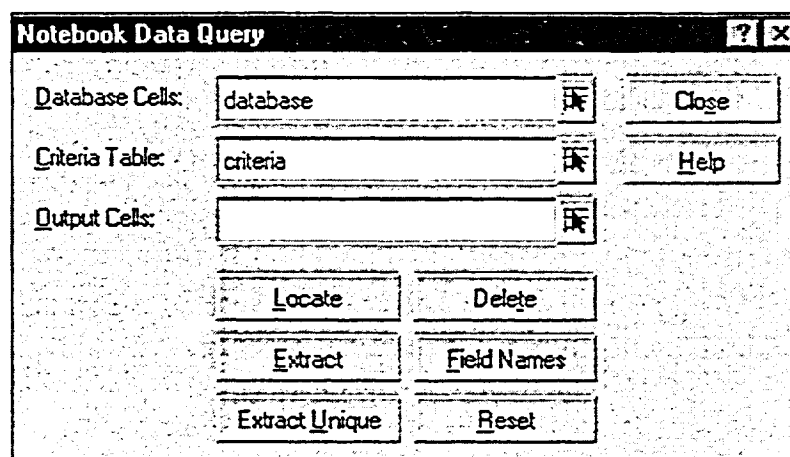


Figure 8-11: The Notebook Data Query Dialog Box

*Note:* When you are locating records in a database, the status bar indicates that you are in *FIND mode*.

### METHOD

To locate records in a database with search criteria:

1. In the criteria table, underneath the appropriate field name(s), enter the data for which you want to search.
2. From the Tools menu, choose Data Tools, and then, from the Data Tools submenu, choose Notebook Query.
3. In the Notebook Data Query dialog box, in the Database Cells text box, enter the database cell coordinates or cell name.
4. In the Criteria Table text box, enter the criteria table cell coordinates or cell name.
5. Choose Locate.



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6. Use the **UP ARROW** and **DOWN ARROW** to move between records, and use the **LEFT ARROW** and **RIGHT ARROW** to move between fields.
7. When finished, press **ESC** or **ENTER** to exit **FIND** mode.
8. Choose **Close**.

### **EXERCISE**

In the following exercise, you will locate records in a database with search criteria.

First, you will define search criteria to find all the records for Ford automobiles.

1. In the criteria table, under the **MAKE** field, type **Ford** and press **ENTER**
2. From the **Tools** menu, choose **Data Tools**, and from the **Data Tools** submenu, choose **Notebook Query**  
*The Notebook Data Query dialog box appears.*
3. In the **Database Cells** text box, type **database**
4. In the **Criteria Table** text box, type **criteria**
5. Choose **Locate**  
*The first record matching the criterion is selected. The notebook status bar indicates that you are in FIND mode.*
6. Press **DOWN ARROW**  
*The next record matching the criterion is selected.*
7. Continue to press **DOWN ARROW** until you hear a beep indicating that you have viewed all the records matching the criterion
8. Press **ESC**  
*You are returned to the Notebook Data Query dialog box.*

- |   |  |
|---|--|
| 9. Choose Close   | <i>The Notebook Data Query dialog box closes.</i>                        |
| 10. In the criteria table, delete the previous search criterion | <i>The previous search criterion is deleted from the criteria table.</i> |

Next, you will use a wildcard to find records in the database.

- |  |  |
|--|--|
| 11. In the criteria table, under the MODEL field, type <b>Ca*</b> and press ENTER  | <i>The new criterion is entered using a wildcard.</i>  |
| 12. From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query                           | <i>The Notebook Data Query dialog box appears.</i>   |
| 13. Choose Locate  | <i>The first record matching the criterion is selected. The notebook status bar indicates that you are in FIND mode.</i> |
| 14. Press DOWN ARROW   | <i>The next record matching the criterion is selected.</i>   |
| 15. Continue to press DOWN ARROW until you hear a beep indicating that you have viewed all the records matching the criteria |  |
| 16. Press ESC  | <i>You are returned to the Notebook Data Query dialog box.</i>   |
| 17. Choose Close   | <i>The Notebook Data Query dialog box closes.</i>  |
| 18. In the criteria table, delete the previous search criterion  | <i>The previous search criterion is deleted from the criteria table.</i>   |

## Section 8: Using Databases

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Now, you will define multiple criteria to locate records for all Chevys with two doors in the database.

- |     |  |   |
|-----|--|---|
| 19. | In the criteria table, under the MAKE field, enter <b>Chevy</b> and under the DOORS field, enter <b>2</b> and press <b>ENTER</b> | <i>The new criteria are entered. This is an AND search.</i>   |
| 20. | From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query                                   | <i>The Notebook Data Query dialog box appears.</i>  |
| 21. | Choose Locate  | <i>The first record matching the criteria is selected. The notebook status bar indicates that you are in FIND mode.</i> |
| 22. | Press <b>DOWN ARROW</b>  | <i>A beep sounds immediately, indicating that there are no additional records to which you can move.</i>                |
| 23. | Press <b>ESC</b>   | <i>You are returned to the Notebook Data Query dialog box.</i>  |
| 24. | Choose Close   | <i>The Notebook Data Query dialog box closes.</i>   |
| 25. | In the criteria table, delete the previous search criteria   |   |

Now, you will define multiple criteria to locate records for cars with four doors or to locate convertibles in the database.

- |     |   |  |
|-----|---|--|
| 26. | In the criteria table, under the DOORS field, enter <b>4</b> and in row 3, under the CNVRT field, enter <b>y</b> and press <b>ENTER</b> | <i>The new criteria are entered. This is an OR search.</i> |
| 27. | Redefine the cell name <i>criteria</i> to include the additional row  |  |
| 28. | From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query  | <i>The Notebook Data Query dialog box appears.</i>         |

## Finding Information in a Database

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29. Choose Locate *The first record matching the criteria is selected and the notebook status bar indicates that you are in FIND mode.*
30. Press DOWN ARROW until the beep sounds
31. Press ESC *You are returned to the Notebook Data Query dialog box.*
32. Choose Close *The Notebook Data Query dialog box closes.*

**END**

## Initializing Field Names

*Initializing* field names creates a group of cell names that reference the first row in the database cells. Initializing field names is not mandatory; however, when you are specifying conditions using search formulas, you can use the cell names to represent fields. Field names or named cells on the left side of a search formula must be relative. To make a cell name relative, place a tilde (~) before the cell name. For example, if you wanted to locate all records whose Rate was greater than \$29.95, your search condition in the Rate field would read +~RATE>29.95 instead of +~J2>29.95, making the search condition easier to understand.

### METHOD

To initialize field names:

1. From the Tools menu, choose Data Tools, and then, from the Data Tools submenu, choose Notebook Query.
2. From the Notebook Data Query dialog box, in the Database Cells text box, enter the database cell coordinates or cell name.
3. Choose Field Names.
4. Choose OK.

### EXERCISE

In the following exercise, you will initialize field names.

1. From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query  
*The Notebook Data Query dialog box appears.*
2. Make sure the cell name **database** is entered in the Database Cells text box
3. Choose Field Names  
*The field names are initialized.*
4. Choose Close  
*The Notebook Data Query dialog box closes.*
5. In the criteria table, delete the previous search criteria

## Finding Information in a Database

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6. Use the Navigate button to confirm that the field names are now cell names
7. Redefine the cell name *criteria* to include K1..S2
8. In the criteria table, under the RATE field, type  
**+~Rate>29.95** and press  
**ENTER**  
*The search formula displays a 0 under the RATE field.*
9. In the criteria table, under the MAKE field, type **Dodge** and press **ENTER**
10. From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query  
*The Notebook Data Query dialog box appears.*
11. Choose Locate  
*The first record matching the criteria is selected. The notebook status bar indicates that you are in FIND mode.*
12. Press the **DOWN ARROW** until you hear a beep indicating that you have viewed all the records meeting the criteria
13. Press **ESC**  
*You are returned to the Notebook Data Query dialog box.*
14. Choose Close  
*The Notebook Data Query dialog box closes.*

**END**

## Creating Output Cells

You can *extract*, or copy, the outcome of a criteria search into designated cells referred to as *output cells*. You can then manipulate and analyze this subset of data without affecting the original data. An example of output cells is illustrated in Figure 8-12. The output cells are defined as the field names only and can be any length. For this reason, you should not put data below the output cells because that data might be overwritten when the data is extracted.

	K	L	M	N	O	P	Q	R	S	
Criteria table	1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
	2		Chevy							
	3									
Output cells	4	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
	5	2	Chevy	Cavalier	2	n	n	n	n	\$19.95
	6	27	Chevy	Cavalier	4	n	n	y	n	\$24.95
	7	4	Chevy	Astrovan	5	y	n	n	y	\$34.95
	8	5	Chevy	Lumina	4	y	y	n	n	\$22.95
	9	18	Chevy	Lumina	4	y	n	n	y	\$24.95
	10									
11										
12										

Figure 8-12: The Results of an Extract

### METHOD

To create output cells:

1. Select a cell that will become the upper left corner of the output cells, and then copy the names of the fields you want to include in the extract.
2. Name the cells, making sure it is an area with enough space to hold extracted data plus the names of the fields.
3. In the criteria table, specify the search criteria.
4. From the Tools menu, choose Data Tools, and then, from the submenu, choose Notebook Query.
5. From the Notebook Data Query dialog box, in the Output Cells text box, enter the output cells' cell coordinates or cell name.
6. Choose Extract.
7. Choose Close.

**EXERCISE**

In the following exercise, you will create output cells.

1. Make sure the Rental sheet is open
2. Copy the field names from A1..I1 to K4, adjusting the column widths if necessary *The field names are copied to K4.*
3. Name the cells K4..S4 **output** *The output cells are named.*
4. In the criteria table, delete the existing criteria
5. Under the MAKE field, type **Chevy** and then press **ENTER**
6. From the Tools menu, choose Data Tools, and from the Data Tools submenu, choose Notebook Query *The Notebook Data Query dialog box appears.*
7. In the Output Cells text box, type **output** *The cell name for the output cells is entered.*
8. Choose Extract *The records that match the criterion are copied to the output cells.*
9. Choose Close *The Notebook Data Query dialog box closes.*

**END**



## Sorting a Database

Quattro Pro lets you sort your database according to the contents of one or more fields. The cells to be sorted are referred to as *sort cells*, and each field that you sort by is called a *sort key*. For each key that you choose, you can sort in either *ascending order* or *descending order*. Ascending order sorts your data from lowest value to highest (A-Z or numerical). Descending order sorts your data in reverse (Z-A or inverse numerical) order. Ascending order is the default sort order.

You can sort a database in a number of ways. For example, you can sort a database of names and addresses based on the last names of the individuals in the database or based on the state in which the individuals live. These are examples of sorting with a single sort key. In a very large database, you might want to sort the database by multiple sort keys. For instance, you could sort first by last name and then by first name, thus grouping the records of people in your database who have the same last name.

### Using a Single Sort Key

To sort a database, you must first select the sort cells. Be careful not to include the field names in the sort cells because this causes them to be rearranged along with the data. If for any reason the sort results are not what you expected or wanted, you can immediately undo the sort by using the Undo command. You complete the Data Sort dialog box, shown in Figure 8-13, by entering the sort keys and selecting any options by which Quattro Pro sorts your database.

When you choose the Sort command, Quattro Pro rearranges rows and columns using the sort order that you specify: ascending or descending. If you do not specify a specific order, Quattro Pro sorts the rows in ascending order.

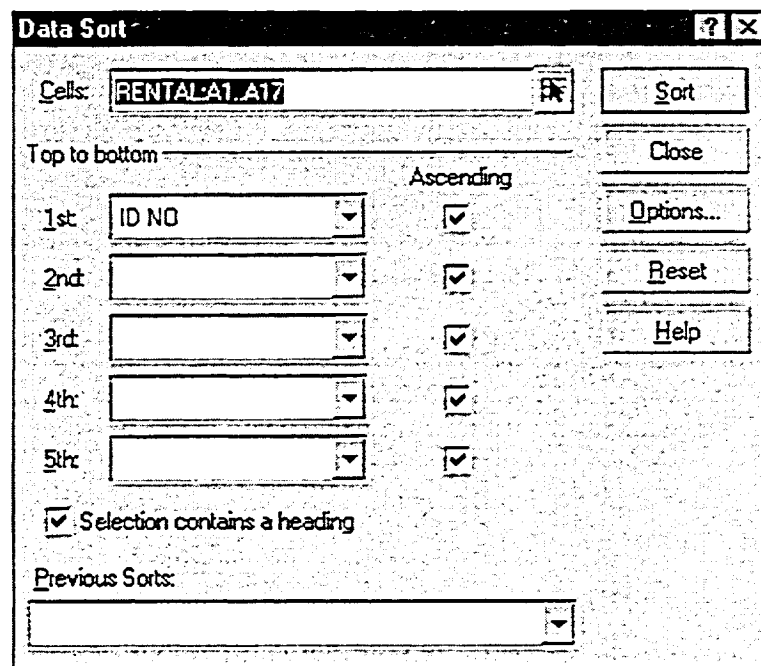


Figure 8-13: The Data Sort Dialog Box

Quattro Pro sorts data in the following order:

- Labels starting with numbers (in numerical order)
- Labels starting with letters and special characters (in ASCII order)
- Values (in numerical order)
- Rows with blank cells are placed at the top of the sorted database

In addition, the following guidelines are observed:

- If the *Sort blank cells first* check box is selected in the Options dialog box, the blank cells in a column are sorted and placed as a group before the labels in the column.
- If the *Sort numbers last* check box is selected in the Options dialog box, the values in a column are sorted and placed as a group after the blank cells in the column.
- The sort options are saved from the last sort done until the cell names are changed or the sort is changed in the database.

**METHOD**

To use a single sort key:

1. Select the sort cells.
2. From the Tools menu, choose Sort.

## Section 8: Using Databases

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3. In the Data Sort dialog box, in the Top to bottom area, in the 1st text box, type the cell name of the primary field or the cell coordinates by which you want to arrange your database.
4. Select the Ascending check box to sort in ascending order, if necessary.  
or
4. Deselect the Ascending check box to sort in descending order.
5. Choose Sort.

*Hint:* If you want to use the field names in the Data Sort dialog box, you must first initialize the field names.

*Note:* Undo the sort by choosing Undo Sort Go from the Edit menu.

### EXERCISE

In the following exercise, you will use a single sort key.

1. Select cells A2..I17  
*The sort cells are selected.*
2. From the Tools menu, choose Sort  
*The Data Sort dialog box appears, and the sort cells' coordinates are shown in the Cells text box.*
3. In the Top to bottom area, select the existing data in the 1st text box, and then type ID NO
4. Make sure the Ascending check box is selected
5. Choose Sort  
*The Data Sort dialog box closes, and the database is sorted by the ID NO in ascending order.*

END

## Using Multiple Sort Keys

Sometimes the information in your database needs to be sorted by more than one field. For example, in the rental car database, you might want to sort the cars alphabetically by make, and then under each make, sort the cars alphabetically by model. You perform multiple key sorts exactly as you perform single key sorts, except that after you select the first key, you then move down to a second key and add additional sort keys as required.

### METHOD

To use multiple sort keys:

1. Select the sort cells.
2. From the Tools menu, choose Sort.
3. In the Data Sort dialog box, in the Top to bottom area, in the 1st text box, type the field name of the first field or the cell coordinates by which you want to arrange your database.
4. If necessary, select the Ascending check box to sort in ascending order.  
or
4. Deselect the Ascending check box to sort in descending order.
5. In the Top to bottom area, in the 2nd text box, type the field name of the secondary field or the cell coordinates by which you want to arrange your database.
6. If necessary, select the Ascending check box to sort in ascending order.  
or
6. Deselect the Ascending check box to sort in descending order.
7. If you want to sort by additional keys, move to the next text box and repeat steps 5 and 6.
8. Choose Sort.

*Hint:* If you want to use the field names in the Data Sort dialog box, you must first initialize the field names.

**EXERCISE**

In the following exercise, you will use multiple sort keys.

1. Select the CARS sheet tab
2. Initialize the field names using the cell coordinates A1..I1 as the database cells
3. Select cells A2..I33
4. From the Tools menu, choose Sort  
*The Data Sort dialog box appears, and the coordinates for the selected cells appear in the Cells text box.*
5. In the Top to bottom area, in the 1st text box, select the data and type **MAKE**  
*The first field is selected.*
6. Make sure the Ascending check box is selected
7. In the Top to bottom area, in the 2nd text box, type **MODEL**  
*The second field is selected.*
8. Make sure the Ascending check box is selected
9. Choose Sort  
*The database is sorted by both fields, as shown in Figure 8-14.*
10. Save and close the notebook

**END**

	A	B	C	D	E	F	G	H	I
1	ID NO	MAKE	MODEL	DOORS	AUTO	SMOKE	CNVRT	IN	RATE
2	4	Chevy	Astrovan	5	y	n	n	y	\$34.95
3	2	Chevy	Cavalier	2	n	n	n	n	\$19.95
4	14	Chevy	Cavalier	2	y	n	y	y	\$23.95
5	27	Chevy	Cavalier	4	n	n	y	n	\$24.95
6	5	Chevy	Lumina	4	y	y	n	n	\$22.95
7	18	Chevy	Lumina	4	y	n	n	y	\$24.95
8	34	Chrysler	LeBaron	2	n	n	y	y	\$29.95
9	11	Dodge	Caravan	5	y	n	n	y	\$34.95
10	29	Dodge	Caravan	5	y	n	n	y	\$34.95
11	22	Dodge	Caravan	5	y	n	n	n	\$39.95
12	8	Ford	Festiva	2	y	y	n	n	\$14.95
13	33	Ford	Festiva	2	n	n	n	n	\$14.95
14	9	Ford	Taurus	4	y	y	n	y	\$24.95
15	21	Ford	Taurus	4	y	n	n	y	\$24.95
16	1	Ford	Taurus	4	y	n	n	n	\$24.95
17	17	Ford	Tempo	2	y	n	n	y	\$19.95

Figure 8-14: *The Sorted Database*

**To create field names:**

1. In the first row of the database, enter the field names.

**To enter data into a database:**

1. Start entering the data directly below the field names. (Do not leave any blank rows.)
2. Enter the data into each cell as you would for any cell.

**To name database cells:**

1. Select the database cells.
2. From the QuickMenu, choose Name Cells.
3. In the Cell Names dialog box, in the Name text box, type the name.
4. Choose Add.
5. Choose Close.

**To add records anywhere in a database:**

1. Select the row(s) where the new record is to be inserted.
2. On the Toolbar, click the Insert button.
3. Add the new information as appropriate.
4. If required, update the database cell name.

**To delete records in a database:**

1. Select the row(s) of the record to be deleted.
2. On the Toolbar, click the Delete button.

**To add a field:**

1. Click the column heading where the new column is to be inserted.
2. On the Toolbar, click the Insert button.

**To delete a field:**

1. Click the column heading of the column to be deleted.
2. On the Toolbar, click the Delete button.

**To create a criteria table:**

1. Select a cell that will become the upper left corner of the table, and copy the names of the fields you want to include in the query.
2. Name the cells to be used in the query.

**To initialize field names:**

1. From the Tools menu, choose Data Tools, and then, from the Data Tools submenu, choose Notebook Query.
2. From the Notebook Data Query dialog box, in the Database Cells text box, enter the database cell coordinates or cell name.
3. Choose Field Names.
4. Choose OK.

**To locate records in a database with search criteria:**

1. In the criteria table, underneath the appropriate field name(s), enter the data for which you want to search.
2. From the Tools menu, choose Data Tools, and then, from the Data Tools submenu, choose Notebook Query.
3. In the Notebook Data Query dialog box, in the Database Cells text box, enter the database cell coordinates or cell name.
4. In the Criteria Table text box, enter the criteria table cell coordinates or cell name.

5. Choose Locate.
6. Use the **UP ARROW** and **DOWN ARROW** to move between records, and use the **LEFT ARROW** and **RIGHT ARROW** to move between fields.
7. When finished, press **ESC** or **ENTER** to exit **FIND** mode.
8. Choose Close.

**To create output cells:**

1. Select a cell that will become the upper left corner of the output cells, and then copy the names of the fields you want to include in the extract.
2. Name the cells, making sure it is an area with enough space to hold extracted data plus the names of the fields.
3. In the criteria table, specify the search criteria.
4. From the Tools menu, choose Data Tools, and then, from the submenu, choose Notebook Query.
5. From the Notebook Data Query dialog box, in the Output Cells text box, enter the output cells' cell coordinates or cell name.
6. Choose Extract.
7. Choose Close.

**To use a single sort key:**

1. Select the sort cells.
2. From the Tools menu, choose Sort.
3. In the Data Sort dialog box, in the Top to bottom area, in the 1st text box, type the cell name of the primary field or the cell coordinates by which you want to arrange your database.
4. Select the Ascending check box to sort in ascending order, if necessary.  
or

4. Deselect the Ascending check box to sort in descending order.
5. Choose Sort.

**To use multiple sort keys:**

1. Select the sort cells.
2. From the Tools menu, choose Sort.
3. In the Data Sort dialog box, in the Top to bottom area, in the 1st text box, type the field name of the first field or the cell coordinates by which you want to arrange your database.
4. If necessary, select the Ascending check box to sort in ascending order.  
or
4. Deselect the Ascending check box to sort in descending order.
5. In the Top to bottom area, in the 2nd text box, type the field name of the secondary field or the cell coordinates by which you want to arrange your database.
6. If necessary, select the Ascending check box to sort in ascending order.  
or
6. Deselect the Ascending check box to sort in descending order.
7. If you want to sort by additional keys, move to the next text box and repeat steps 5 and 6.
8. Choose Sort.



**Self-Check Exercise**

1. Open A:\Self 3.
2. If necessary, select the Self-Check Three sheet tab.
3. Name the database cells **Clients**.
4. Add a new field called **Division** between the Company and Account Number fields.
5. Delete the field *Division*.
6. Delete the records for George McClellan and Tony Classo.
7. Add records to the database as shown in Table 8-2.

Client Name	Company	Account Number	Credit Limit	Service
Jaime King	King Rolling	45622	1000	N
Kelly Carmichael	Red Bakeries	78965	500	N
Mike Gore	Gore and Co.	45833	6000	Y
Kris Kelly	Kelly's Kakes	45899	500	Y

**Table 8-2: Database Data to Add**

8. Redefine the cell name *Clients* to include the new records.
9. Create a criteria table starting in cell G1 and name it **criteria**.  
*Hint: Expand column widths if needed.*
10. Enter search criteria to locate all the clients who provide service, and then perform the search.
11. Enter search criteria to find all the companies whose names begin with a C and end with an s, and then perform the search.

12. Enter search criteria to find all clients whose name begins with a **D** and who provide service, and then perform the search.
13. Initialize the field names.
14. Enter search criteria to find all clients whose credit limit is greater than **\$7000.00** or who provide service, and then perform the search.

*Hint:* Remember to redefine the cell name **criteria**.

15. Create output cells starting in cell **G7**.
16. Enter search criteria to find all clients whose credit limit is over **\$1000.00** and perform the extract.

*Hint:* Remember to redefine the cell name **criteria**.

17. Sort the database by client names.
18. Sort the database by credit limits in descending order and within that, by client name in ascending order.
19. Save as **H:\spsheet\Self 3** and close the notebook.



Section

9

## *Charting Your Data*

- Using Charts
- Creating a Chart
- Working with a Chart
- Enhancing a Chart

## Section Skills and Their Importance

In the following section you will learn to:

### ■ Use charts

Charts are a graphical representation of your sheet data. With charts, you no longer have just a list of numbers, you have a message. Whether your audience is the boss, the stockholders, or your neighborhood association, you need to convey sheet information quickly and accurately. By using Quattro Pro's charting features, you can prepare a wide variety of charts to help you effectively communicate and analyze the information in your sheets.

### ■ Create a chart

Quattro Pro lets you create a chart from your sheet data quickly and easily by using the Chart Expert. The Chart Expert is a powerful utility that uses a step-by-step, prompted process to create a chart, letting you preview the results at each step. After creating your chart, you can modify your chart by changing the chart type and chart style, and by adding another data series to the chart.

### ■ Work with a chart

Once you've created a chart, you can move, resize, delete, and add chart objects to customize your charts.

### ■ Enhance a chart

After you've created a chart, you might decide to edit it to achieve the exact results you want. With Quattro Pro's charting options, you can add or edit titles, change color and line options, and change the chart type to better communicate the meaning of your sheet data.

## Using Charts

With Quattro Pro's charting features, creating attractive, effective *charts* from your sheet data is easy. Charts are graphical representations of your sheet data that help make that data clearer, more understandable, and easier to interpret, and are excellent vehicles for data analysis and presentation. Quattro Pro contains many tools for embellishing your charts, including the capability to add and modify chart elements, as well as modify text and drawn objects. This section introduces you to the *Chart Expert*, the easiest way to create charts in Quattro Pro.

The *chart* is usually linked to the sheet data. This means that when you change your sheet data, the chart created from the data changes to reflect the new information. You can create charts as part of a notebook sheet so that they print on the same sheet as the data from which they came.

Charts created on the notebook sheet are referred to as *floating charts*. You can also create charts in their own *chart window*. Every time you create a chart, an icon representing the new chart appears on the Objects page. Quattro Pro automatically gives each floating chart a default name (for example, Chart 1 or Chart 2) based on the order in which the charts were created. This section of the course deals only with floating charts.

## Identifying the Chart Objects

Before you begin to build a chart, you should become familiar with some of the terminology used to describe the different elements in a chart. Some of the most important terms are shown in Figure 9-1 and described in Table 9-1.

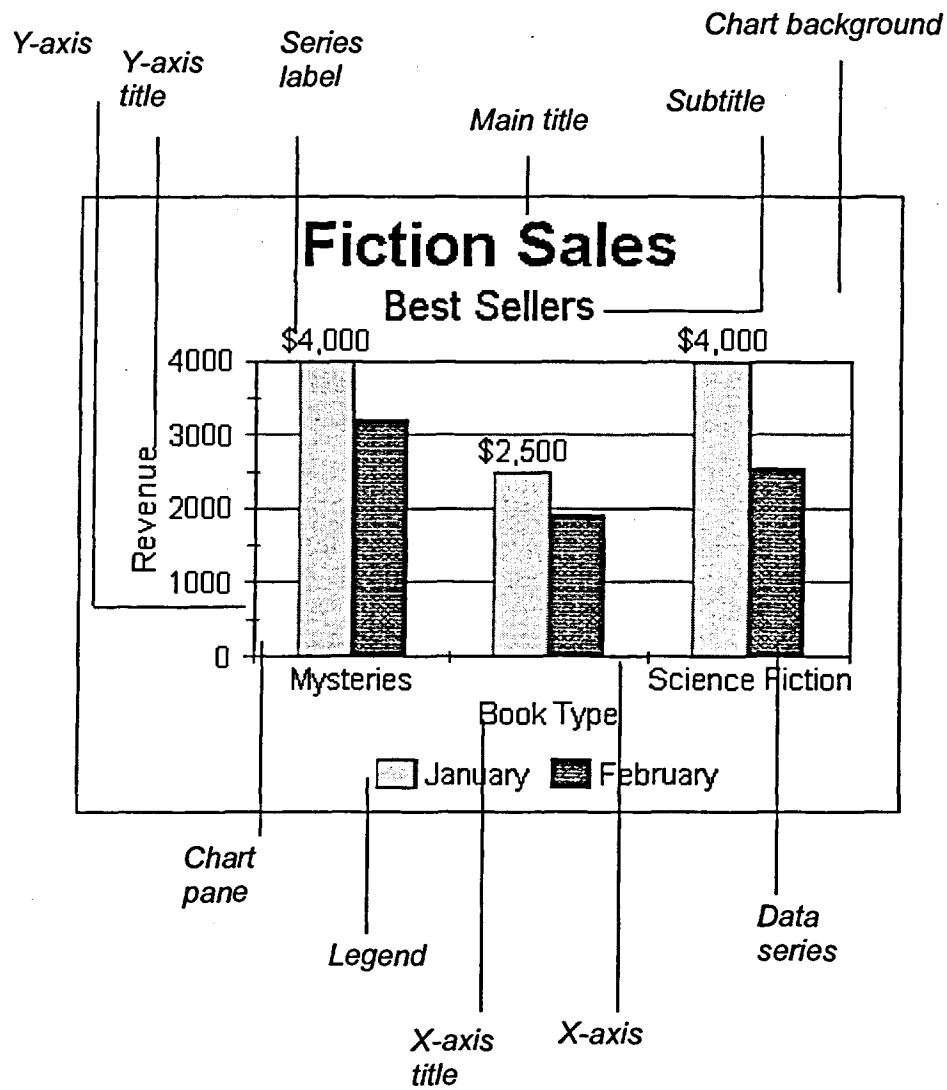


Figure 9-1: The Chart Objects

Chart Element	Description
Chart background	Includes the chart and the surrounding area.
Chart pane	The bars or lines that represent data series are drawn on top of the chart pane.
Data series	A block of values, taken from the sheet, from which the chart is graphed. In Figure 9-1, the bars each represent a data series. Each bar is drawn with a different color or pattern to distinguish it from the others.
Legend	The area of the chart that defines what each data series represents. In Figure 9-1, the legend indicates which bar color belongs to which month's data series.
Series label	A label attached to a data point. A data point is the value from a sheet cell that appears on the bar representing that value.
Titles	Identify the elements of the chart. There are four titles that can be added: main title, subtitle, x-axis title, and y-axis title.
X-axis	The reference line on a chart, usually horizontal. In Figure 9-1, the x-axis represents the months plotted.
Y-axis	The reference line, usually vertical. In Figure 9-1, the y-axis represents the amount of revenue.

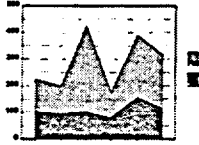
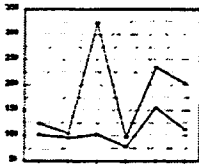
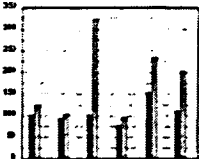
**Table 9-1: *The Chart Objects Described***



## Identifying Chart Types

Many people think chart selection is based on simple aesthetics. However, because you want a chart to convey a message, you have to be careful in your choice of *chart type*. This is sometimes known as the *general chart type*. The chart type determines the category of chart. No matter how attractive the chart seems, if you use the wrong chart type to represent your data, your chart might mislead your audience. The message conveyed might be totally opposite to the one you intended. For these reasons, keep in mind that the chart type you use depends on the type of data you are graphing and the message you want to convey.

One of the benefits of using Quattro Pro is that even after you complete your chart, you are not limited to using a single chart type. For example, if you create a pie chart and then decide a pie chart is not right, it is just a matter of a few steps to change it to something more suitable. Table 9-2 describes commonly used chart types in Quattro Pro.

Chart Type	Purpose
Area Chart 	Used to identify the relationship of each value to the total value over time. For example, it can show sales and production volume changes over time. Available in 3-D format.
Line Chart 	Used to plot the progression of values over time. For example, it can be used to compare trends. Available in 3-D format as a ribbon chart.
Bar Chart 	Used to compare related data at a set time or to plot the trend of numeric data over time. For example, it can illustrate budget variance for different items at a set time. Available in 3-D format.

(continued on next page)

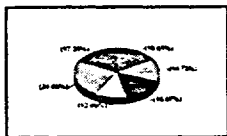

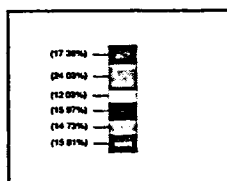

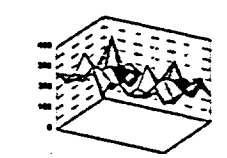
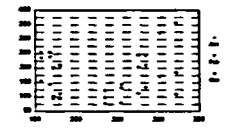
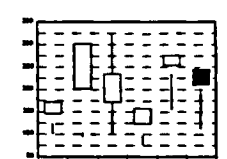
Chart Type	Purpose
<p>Pie Chart</p> 	<p>Used to show a single data series with each value plotted as a percentage of the whole. For example, it can be used to compare costs for travel, overhead, and supplies. Available in 3-D format.</p>
<p>Doughnut Chart</p> 	<p>Like the pie chart, except that the doughnut chart allows you to show more than one data series. Available in 3-D format.</p>
<p>Column Chart</p> 	<p>Usually used to compare individual values to other values and to the whole. For example, it can show supply costs over a year. Available in 3-D format.</p>
<p>Radar Chart</p> 	<p>Used to highlight trends. The chart itself is a circle with a line for each x-axis value stretching out from the center to the edge. Outward spirals show growth trends, while static or fluctuating values look more like circles or stars. For example, it can illustrate project management schedules.</p>
<p>3-D Surface Chart</p> 	<p>Used to show high and low points resulting from two changing variables. Resembles a topographical map. Only available in 3-D format.</p>
<p>XY (Scatter) Chart</p> 	<p>Used to compare trends over uneven time or measurement intervals. Often used for scientific and engineering data.</p>
<p>High-Low Chart</p> 	<p>Used to plot fluctuation of data over evenly defined time periods. Primarily used to chart the high, low, close, and open prices of stocks.</p>

Table 9-2: Commonly Used Chart Types in Quattro Pro

## Creating a Chart

In Quattro Pro, there are two ways to let Quattro Pro help you create a chart. The first way to create a chart is to use the *Chart Expert*, a powerful utility that walks you through each step of the chart creation process. You can also create a chart based on defaults by selecting the data you want to chart, clicking the QuickChart tool on the Toolbar, and then clicking the sheet where you want to insert the chart. In this course, you will work only with the Chart Expert.

### Creating a Chart Using the Chart Expert

You use the Chart Expert by filling in information in the dialog boxes, or *panes*, of the Chart Expert. The Chart Expert contains five panes. The first Chart Expert pane is shown in Figure 9-2.

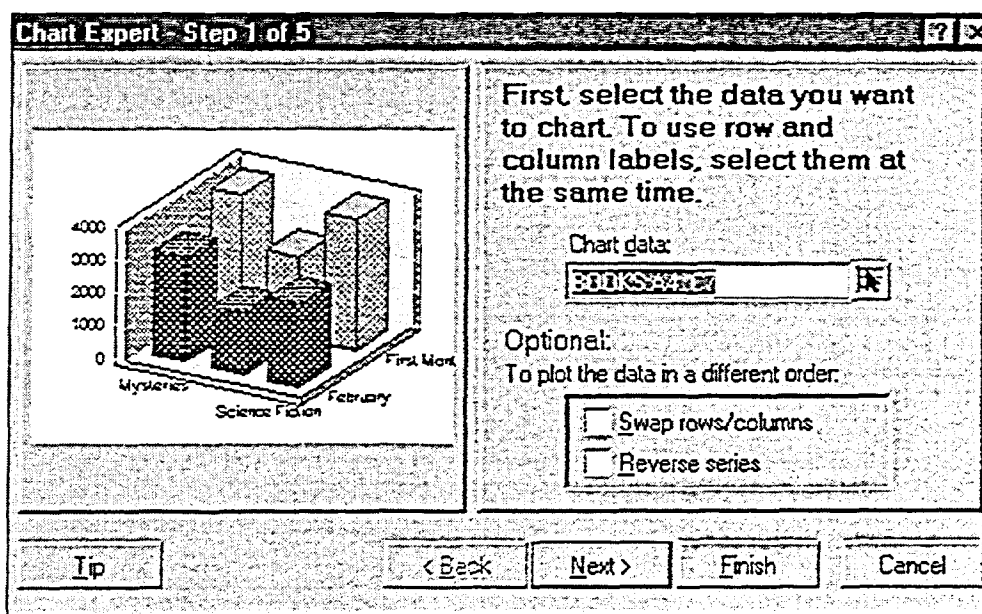


Figure 9-2: The Chart Expert - Step 1 of 5 Pane

The first step in creating a chart is to select the range of data that you want to chart. Although you can select the range using the range selector in the first Chart Expert pane, it is much easier to select the range first. In each pane, you make selections that determine your chart's final appearance. For example, if you include labels when you select the cells you want to chart, your chart includes a legend using those labels as the legend text.

In addition, some of the Chart Expert panes contain preview areas that let you see the effects of the changes to your chart as you make those changes. The functions of each of the five Chart Expert panes are described in Table 9-3. You move between the Chart Expert panes by using the buttons described in Table 9-4.

Each chart is defined by two factors, the chart type and the *chart style*. As mentioned earlier, the chart type is a general determination that indicates the category of chart. For example, the bar chart and the pie chart are chart types. The chart style is a determination that indicates the more specific characteristics or format of the chart. For example, a bar chart might be a three-dimensional bar chart or a stack bar chart. The chart style is sometimes known as the *specific chart type*.

Chart Expert Pane	Description
Step 1 of 5	Used to define the chart data—the cells of data on the sheet that contain the numeric information, and if desired, the x-axis and y-axis labels to be included in the chart.
Step 2 of 5	Used to select a general chart type—that is, a chart type, such as bar chart, pie chart, or line chart. If you are unsure, select Expert's Choice to have Quattro Pro automatically select what it thinks is the best chart type for the selected data.
Step 3 of 5	Used to select a specific chart type—that is, a chart style. For example, if you selected bar as the chart type in step 2 of 5, you can now select the style of the bar chart—regular, stacked, 3-D, and so forth.
Step 4 of 5	Used to select a color scheme for your chart. The color scheme is applied to all chart objects, such as the main title, subtitle, and data series.
Step 5 of 5	Used to enter a main title, subtitle, and x-axis and y-axis titles.  The Destination options allow you to choose where you want to place the final chart—as a floating chart on a notebook sheet or in a separate chart window.

Table 9-3: Chart Expert Panes Described

Button	Function
Cancel	Cancels the creation of the chart.
Tip	Displays information about the current Chart Expert step.
Next	Moves you to the next Chart Expert step.
Back	Takes you back to the previous Chart Expert step.
Finish	Completes the chart process using Chart Expert.

Table 9-4: Chart Expert Dialog Box Buttons

**METHOD**

To create a chart using the Chart Expert:

1. Select the cells with the numeric data to be charted.  
*Note: If adjacent cells contain text that you want to use as labels for the x-axis and y-axis, include those cells also.*
2. From the Insert menu, choose Chart.
3. In the Chart Expert pane, follow the instructions.
4. When you are finished with all the steps in the Chart Expert pane, choose Next to proceed to the next pane.
5. Repeat steps 3 and 4 as required.
6. When you have completed the Chart Expert Pane - Step 5 of 5, choose Finish.
7. On the sheet, position the pointer where you want the upper left corner of the chart and click the mouse.

**EXERCISE**

In the following exercise, you will create a chart using the Chart Expert. The finished chart should resemble Figure 9-3.

1. Open A:\Chart
2. Make sure the BOOKS sheet tab is selected
3. Select cells A4..C7

*The January and February sales for the first three book types are selected.*

4. From the Insert menu, choose Chart *The Chart Expert - Step 1 of 5 pane appears.*
5. Examine the Chart data text box *The data cells are identified as cells A4..C7 in the BOOKS sheet. A sample chart is shown based on this information.*
6. Choose Tip *The sample chart is replaced with information on the current Chart Expert step.*
7. Choose Tip *The tip information disappears and the sample chart reappears.*
8. Choose Next *The Chart Expert - Step 2 of 5 pane appears. The sample chart displays the data in what Quattro Pro has determined to be the optimal chart type, which is a bar chart.*
9. In the *Choose a general chart type* area, click Line or Area *The sample chart displays the data as a line chart.*
10. In the *Choose a general chart type* area, click Expert's Choice *The sample chart displays the data in what Quattro Pro has determined to be the optimal chart type and style, which is a 3-D bar chart.*
11. Choose Next *The Chart Expert - Step 3 of 5 pane appears.*
12. In the *Choose a specific chart type* area, in the Regular area, click the leftmost icon *The specific chart type is selected and the sample chart area reflects the change.*
13. Choose Next *The Chart Expert - Step 4 of 5 pane appears.*
14. From the *Choose a color scheme* list, select Color Patterns *The color scheme is applied to the sample chart.*
15. Choose Next *The Chart Expert - Step 5 of 5 pane appears.*

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- |     |  |  |
|-----|--|--|
| 16. | Make sure the insertion point is in the Title text box and type <b>Fiction Sales</b> | <i>The text appears in the sample chart.</i>   |
| 17. | In the Subtitle text box, type <b>Best Sellers</b>                                   | <i>The text appears in the sample chart.</i>   |
| 18. | In the X-Axis text box, type <b>Book Type</b>  | <i>The text appears in the sample chart.</i>   |
| 19. | In the Y-Axis text box, type <b>Revenue</b>  | <i>The text appears in the sample chart.</i>   |
| 20. | In the Destination area, be sure the Current Sheet option button is selected         |  |
| 21. | Choose Finish  | <i>The Chart Expert closes and the sheet is active. The pointer changes to a bar chart with a + (plus sign).</i>                     |
| 22. | Position the pointer over the upper left corner of cell F4 and click the mouse       | <i>The chart is inserted at cell F4. The title <b>Adventure</b> might not be visible, due to the limited size of the chart pane.</i> |
| 23. | If necessary, use the scroll bar to bring the entire chart into view                 |  |
| 24. | Click the QuickTab button  | <i>The Objects sheet appears.</i>  |
| 25. | Examine the chart icons  | <i>The Chart1 icon represents the chart you created. The Chart2 icon represents a chart on another sheet.</i>                        |
| 26. | Click the QuickTab button  | <i>The Books sheet reappears.</i>  |

END

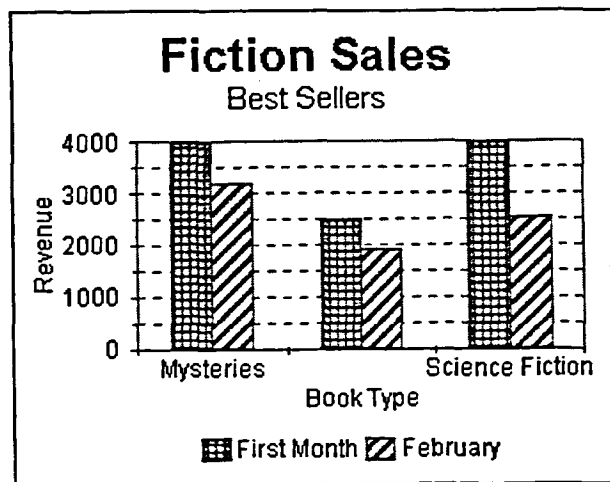


Figure 9-3: *The Created Chart*



## Changing the Chart Type and Style

Although building a chart using Quattro Pro's Chart Expert is quick and easy, once you have completed the chart, you might find that you want to make changes to it.

One of the easiest ways to change a chart is to use the Chart Tools Toolbar, shown in Figure 9-4. Once you have selected a chart, the Chart Tools Toolbar appears automatically. In addition, the Chart option automatically replaces the Table option on the menu.

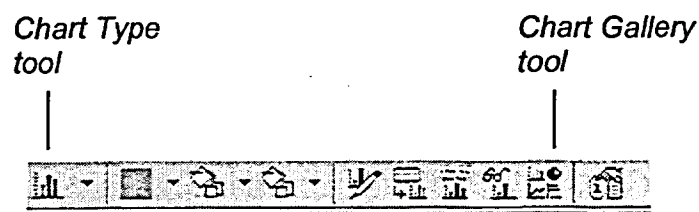


Figure 9-4: The Chart Tools Toolbar

You can use the Chart Gallery dialog box, shown in Figure 9-5, to change the chart type or style and the color scheme. If you are unsure or need help selecting the right style, choose Advisor to see suggestions.

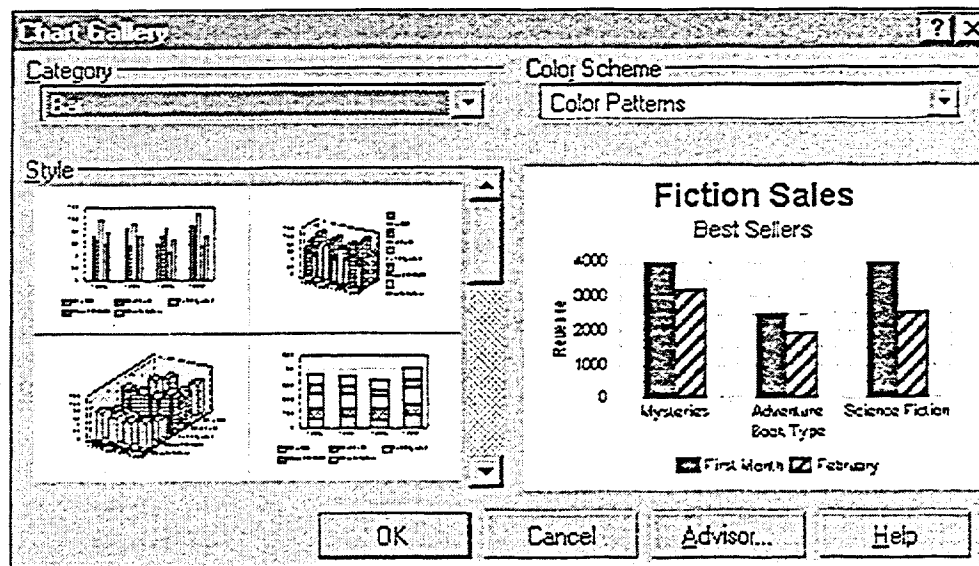


Figure 9-5: The Chart Gallery Dialog Box

**METHOD**

To select a chart for editing

1. Double-click the floating chart's border.

To deselect a floating chart:

1. Click anywhere outside a selected chart.

To change the chart type and style using the Chart Tools Toolbar:

1. Select the chart.
2. On the Chart Tools Toolbar, click the Chart Gallery tool.
3. In the Chart Gallery dialog box, from the Category drop-down list, select the chart type you want.
4. In the Style area, select the chart style.
5. Choose OK.

**EXERCISE**

In the following exercise, you will select a floating chart and change the chart type and style.

- |   |  |
|---|--|
| 1. Double-click the chart's border                                      | <i>A hatched border appears around the floating chart and the Chart Tools Toolbar appears.</i>     |
| 2. On the Chart Tools Toolbar, click the Chart Gallery tool             | <i>The Chart Gallery dialog box appears.</i>   |
| 3. From the Category drop-down list, select Line or Area                | <i>The chart styles for the Line or Area category appear in the Style area.</i>                    |
| 4. In the Style area, select the first icon (in the upper left corner). | <i>A red border appears around the style choice and the sample chart area reflects the change.</i> |
| 5. Choose OK  | <i>The Chart Gallery dialog box closes. The chart is changed to a line chart.</i>                  |

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- |  |  |
|--|--|
| 6. On the Chart Tools Toolbar, click the Chart Gallery tool            | <i>The Chart Gallery dialog box appears.</i>   |
| 7. From the Category drop-down list, select Bar                        | <i>The chart styles for the Bar category appear in the Style area.</i>                             |
| 8. In the Style area, select the first icon (in the upper left corner) | <i>A red border appears around the style choice and the sample chart area reflects the change.</i> |
| 9. Choose OK   | <i>The Chart Gallery dialog box closes. The chart is changed to a bar chart.</i>                   |
| 10. Deselect the chart   |  |

**END**

## Adding a Data Series to a Chart

Once you start to work with a chart, you might want to add a new data series to it. You do this by selecting the cells in the sheet table, and then dragging the new data onto the chart. Quattro Pro automatically inserts the new data series into the chart in the appropriate location.

### METHOD

To add a data series to a chart:

1. In the sheet, select the new data to be added.
2. Position the pointer on an edge of the selected cells until the pointer changes to a four-way arrow.
3. Drag the cells over the floating chart.
4. Release the mouse button.

### EXERCISE

In the following exercise, you will add a data series to the chart.

1. Make sure the Books sheet is active
2. Select cells D4..D7
3. Position the pointer on an edge of the selected cells until the pointer changes to a four-way arrow
4. Drag the cells over the floating chart
5. Release the mouse button

*The pointer changes to a bar chart with a + (plus sign) in the upper right corner.*

*The series is added, as shown in Figure 9-6.*

END

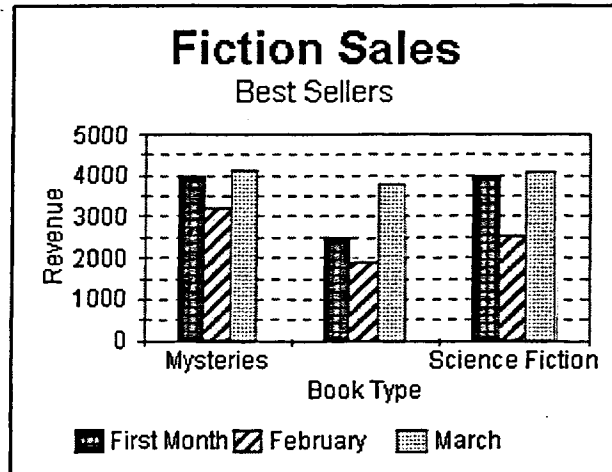


Figure 9-6: *The Chart with the Added Series*

## Working with a Chart

When you create a chart on an existing sheet, the chart might obscure the data or it might not be in the location you desire. If needed, you can change the location by moving or resizing the chart. You can also move, resize, delete and add chart objects.

### Selecting Chart Objects

Besides selecting a chart, you can also select individual chart objects. Some chart objects, such as a data series, contain items that are grouped together. When a chart object is selected, small black boxes called *selection handles* appear around the object. As is true of other objects in Quattro Pro, you can modify the properties of the chart objects once you have selected them.

#### METHOD

To select a chart object:

1. Click the object you want to select.

#### EXERCISE

In the following exercise, you will select chart objects.

- |   |  |
|---|--|
| 1. Click the March sales column for Mysteries | <i>The entire data series for March is selected.</i> |
| 2. Click the legend                           | <i>The legend is selected.</i>                       |
| 3. Click the x-axis                           | <i>The x-axis is selected.</i>                       |
| 4. Click the y-axis                           | <i>The y-axis is selected.</i>                       |
| 5. Click outside the chart                    | <i>The chart is no longer selected for editing.</i>  |

END

## Moving and Resizing a Chart or Chart Objects

You can move or resize the whole chart or a chart object. The chart objects that can be moved or resized are legends, pie slices, or the chart pane area. Chart titles can be moved but not resized. Once you select a chart or chart object, you can move it by dragging it. Some chart objects, such as the legend, can be moved by selecting a position from the Legend Position page of the Legend dialog box, shown in Figure 9-7. The chart size and position will automatically change to accommodate the legend placement when you use the legend position options in the Legend dialog box. However, when the legend or any chart object is moved manually (using the mouse) the chart does not move to accommodate its new position.

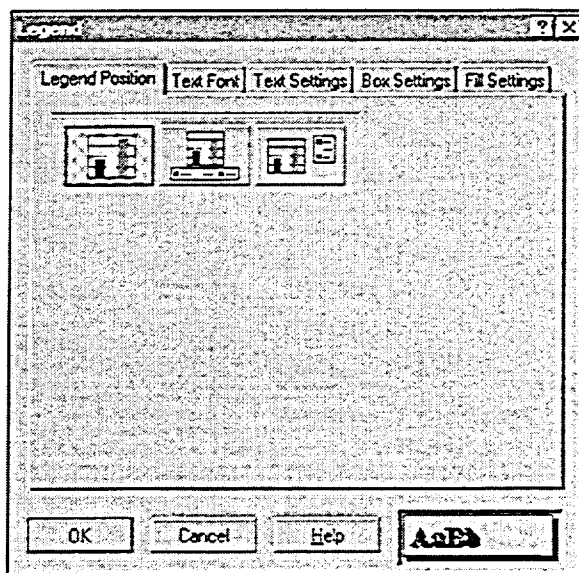


Figure 9-7: The Legend Position Page of the Legend Dialog Box

You can drag any of the selection handles to resize a selected chart or chart object. The selection handle you drag determines how Quattro Pro will resize the chart or chart object. For example, when you drag a corner handle, the height and the width of the chart or chart object are resized. Dragging a middle handle on the right or left of the selected chart or chart object resizes the width, and dragging a middle handle on the top or bottom resizes the height. If you want to resize the chart proportionally, hold down **SHIFT** while you drag.

**METHOD**

To move a chart or chart object:

1. Click the chart's border or the chart object.
2. Drag the chart or chart object to a new location.

To resize a chart or chart object:

1. Select a chart or chart object.
2. Drag the selection handles until the chart or chart object reaches the desired size.

*Hint:* To select a chart for resizing, click the border once.

To move a legend using the Legend dialog box:

1. Select a chart, and then, from the Chart menu, choose Legend.  
or
1. Double-click the legend.
2. If necessary, select the Legend Position tab.
3. From the Legend Position page, select an icon.
4. Choose OK.

**EXERCISE**

In the following exercise, you will move and resize a chart, chart objects, and use the Legend dialog box to position the legend.

- |   |  |
|---|--|
| 1. Click the chart's border once with the four-headed arrow pointer   | <i>Selection handles appear on the border of the chart.</i>  |
| 2. Position the pointer on the selection handle on the chart's right border, and then drag the chart to approximately cover the range F2..J13 | <i>As you drag, an outline of the chart area follows the mouse movement.</i>   |
| 3. Drag the lower right corner selection handle to the right edge of M15  | <i>When positioned over the selection handle, the pointer becomes a four-headed arrow. The chart area is enlarged.</i> |
| 4. Select the chart for editing   |  |



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5. Double-click the legend *The Legend dialog box appears.*
6. On the Legend Position page, click the last icon
7. Choose OK *The legend is placed at the right of the chart. The chart pane is automatically resized.*
8. Double-click the legend *The Legend dialog box appears.*
9. On the Legend Position page, click the second icon
10. Choose OK *The legend is placed at the bottom of the chart. The chart pane is automatically resized.*
11. Select the chart pane *Selection handles appear on the border of the chart pane.*
12. Drag the middle left selection handle to the left until the Adventure title is displayed *As you drag, an outline of the chart pane follows the mouse movement.*
13. Drag the chart pane to the center of the chart area *As you drag, an outline of the chart pane follows the mouse movement.*

**END**

## Deleting a Chart or Chart Objects

Occasionally, the chart you create will contain objects that are not needed. For example, you might not need a legend on a chart with only one data series or you might decide to delete the entire chart and start over. In addition, sometimes it is necessary to remove a data series from a chart. Because Quattro Pro clears the series only from the chart and not from the sheet, you can reapply the data later by dragging the data series back into the chart.

When you delete a data series from a chart, the legend is not automatically updated. You must define a new series for the legend in the Chart Series dialog box.

### METHOD

To delete a chart or chart object:

1. Select a chart or chart object.
2. Press **DELETE**

To define a new legend series:

1. Select the chart.
2. From the Chart menu, choose Series.
3. In the Chart Series dialog box, select the Legend text box and redefine the location of the legend series.
4. Choose OK.

### EXERCISE

In the following exercise, you will delete chart objects and define a new legend series.

1. Select the February Sales column for Mysteries

*The February data series is selected on the chart for all three categories.*

2. Press **DELETE**

*The February data series is removed from the chart. The legend does not reflect the change correctly.*

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- |   |  |
|---|--|
| 3. From the Chart menu, choose Series   | <i>The Chart Series dialog box appears.</i>                          |
| 4. Examine the Legend text box  | <i>The data series for the legend is still identified as B4..D4.</i> |
| 5. In the Legend text box, delete the existing text, and then type <b>B4,D4</b> | <i>The new data series for the legend is identified.</i>             |
| 6. Choose OK  | <i>The legend is updated to reflect the data series correctly.</i>   |
| 7. Select the x-axis title  |  |
| 8. Press DELETE   | <i>The x-axis title is deleted.</i>                                  |

**END**

## Enhancing a Chart

Once you have completed a chart, you can enhance it by using different typefaces and font sizes, different colors for chart objects, new patterns for data series, and different line styles and line widths. In addition, to provide more detailed information, you can add text to data series or include the sheet data used to create the chart as a part of the chart.

### Changing the Appearance of Chart Objects

Changing the appearance of chart objects lets you customize the chart to meet your needs. Double-clicking a chart object automatically opens the object's properties dialog box.

#### METHOD

To change the appearance of chart objects:

1. Double-click the chart object.
2. In the object's properties dialog box, on the desired page(s), select options.
3. Choose OK.

#### EXERCISE

In the following exercise, you will change the appearance of chart objects.

- |   |  |
|---|--|
| 1. Double-click the bar representing the First Month data series  | <i>The Bar Series dialog box appears.</i>                            |
| 2. On the Fill Settings page, from the Pattern Color drop-down list, select yellow (fourth row, sixth column) | <i>The sample box displays the selected color.</i>                   |
| 3. Choose OK  | <i>Quattro Pro applies the color to the First Month data series.</i> |
| 4. Double-click the main title  | <i>The Chart Title Properties dialog box appears.</i>                |

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5. On the Text Font page, from the Point Size drop-down list, select 24  
*The sample box reflects the change.*
6. On the Text Settings page, from the Color drop-down list, select dark blue (second row, second column)  
*The sample box reflects the change.*
7. Choose OK  
*The main title now displays the new size and color.*
8. In the sheet, change the entry in cell B4 to **January**
9. Examine the chart  
*Quattro Pro has updated the legend text in the chart.*
10. Select the chart for editing, and then double-click the legend  
*The Legend dialog box appears.*
11. On the Text Font page, from the Typeface list, select Times New Roman  
*The sample box reflects the change.*
12. On the Text Settings page, from the Fill Style drop-down list, select 3-D  
*The 3-D options appear and the sample box reflects the change.*
13. From the Color drop-down list, select dark blue (second row, second column)  
*The sample box reflects the change.*
14. From the Background Color drop-down list, select light blue (third row, last column)  
*The sample box reflects the change.*
15. On the Box Settings page, from the Box style icons, select the drop shadow style (third row, last column)  
*The sample box reflects the change.*
16. Choose OK  
*The dialog box closes. The legend displays your formatting changes.*

END

## Adding Text to a Chart

Quattro Pro has several types of chart text that you can format, move, and size to meet your needs. *Axis labels* show what each point on an axis represents—for example, \$1,000, \$2,000, and so forth. You cannot move this text.

*Text boxes* are additional text that you create and place anywhere on a chart. This text is not linked to an object on the chart. To create a text box, click the Text tool on the Toolbar, and then drag to create a text box to the size you want. Type in your text, and then click outside the text box when finished. To select the text inside the text box, click the text box to select it, and then drag to select the text. Once the text is selected, you can move, resize, or format it.

*Series labels*, sometimes known as *data labels*, are attached to some or all of the data points on the chart to provide additional information about the data. For example, the numbers next to each slice of pie in a pie chart are series labels. There are four data label options, described in Table 9-5, available on the Label Options page in the Pie Chart dialog box.

Option	Function
None	Suppresses all series labels.
Currency	Shows the series value using the currency format.
Percent	Shows the percentage of the total next to each data point.
Value	Shows the series value next to the data point.

Table 9-5: Data Label Options in the Pie Chart Dialog Box

### METHOD

To add a text box to a chart:

1. Double-click the chart's border.
2. On the Toolbar, click the Text tool.
3. Drag the mouse to create a text box the desired size.  
or
3. Click the chart for a default-size text box.
4. Enter the text.
5. Click outside the text box to deselect it.

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To modify a text box:

1. Double-click the text box.
2. In the Text Box dialog box, on the desired page(s), select options.
3. Choose OK.

To add series labels to a chart:

Pie Chart method

1. Double-click the data series.
2. In the Pie Chart dialog box, select the Label Options tab.
3. On the Label Options page, in the Data Label area, select an option button.
4. Choose OK.

Bar, Line, or Area Chart method

1. Double-click the data series.
2. In the dialog box that appears, be sure the Series Options page is active.
3. In the Label Series text box, enter a series or use the Point mode button to select a block of labels.
4. Choose OK.

*Note:* Adding series labels to a pie chart is somewhat different because on a pie chart, there is only one data series.

### EXERCISE

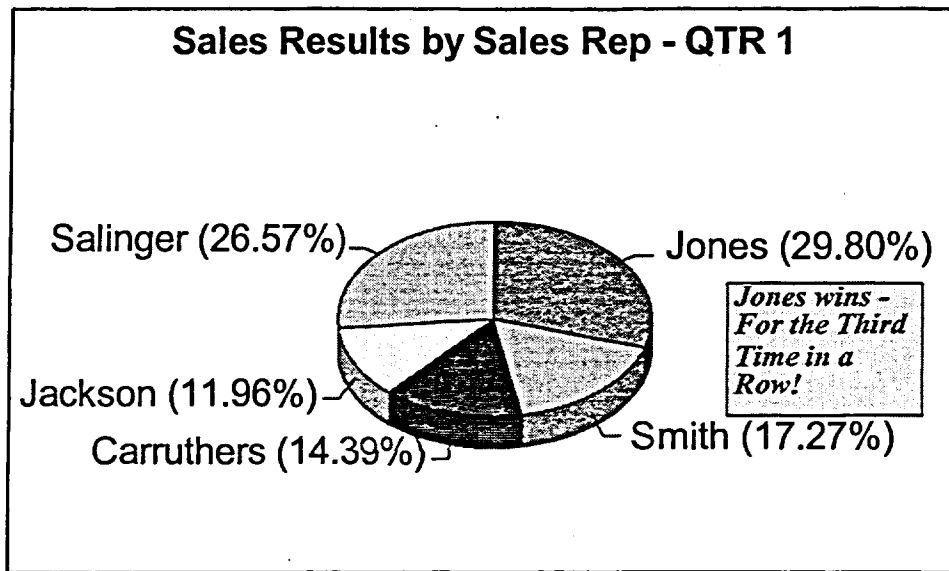
In the following exercise, you will add text to your chart.

- |   |   |
|---|---|
| 1. Select the Sales Reps 1996 sheet   | <i>The Sales Reps 1996 sheet opens.</i>                                 |
| 2. Double-click the chart   | <i>The chart becomes selected for editing.</i>                          |
| 3. On the Toolbar, click the Text button (the button with the large letter A) | <i>The pointer changes to a letter A in a box with a + (plus sign).</i> |
| 4. Position the pointer at the top left corner of the chart                   |   |

5. Drag the mouse to create a square approximately 2 inches high by 2 inches wide *As you drag, an outline of the text box appears.*
6. Type **Jones Wins - For the Third Time in a Row!** *The text appears in the text box.*
7. Drag the text box to the right side of the chart, near Jones' label *The text is now in the area shown in Figure 9-8.*
8. In the text box, select the text
9. Right-click the selected text, and from the QuickMenu, choose Text Box Properties *The Text Box dialog box appears.*
10. On the Text Font page, from the Point size drop-down list, select 16 *The sample box reflects the change.*
11. In the Options area, select the Italics check box and the Bold check box *The sample box reflects the change.*
12. Choose OK *The font changes take effect.*
13. Double-click the piece of pie that represents the Jones data series *The Pie Chart dialog box appears.*
14. On the Label Options page, in the Data Label area, select the Percent option button
15. Choose OK *The Pie Chart dialog box closes and the series labels show as percentages.*
16. If necessary, reposition the text box so that your chart resembles Figure 9-8

**END**





**Figure 9-8:** *The Chart with Text Added*

## Adding Linked Sheet Cells to a Chart

You can add the data used to create the chart to the chart as *linked sheet cells*. When the data in the sheet changes, the linked sheet cells on the chart are automatically updated. You might find, however, that including the sheet data takes up too much of the chart area, causing the chart to become less readable.

### METHOD

To add linked sheet cells to a chart:

1. Double-click the chart's border.
2. From the Insert menu, choose Link to Cells.
3. Drag the mouse over the area of the chart where the sheet cells are to be placed to define a rectangle.
4. In the Link To Cells dialog box, in the Select Cells text box, type the cell coordinates.  
or
4. Use the Point mode button to select cells.
5. Select Border, Grid Lines, or Display Scaling options.
6. Choose OK.

### EXERCISE

In the following exercise, you will add linked sheet cells to your chart.

1. Make sure the chart is selected for editing
2. From the Insert menu, choose Link to Cells
3. Position the pointer directly below the main chart title  
*The pointer resembles a chart with a + (plus sign).*
4. Drag the mouse to define a rectangle approximately the same height and width as the main chart title  
*The Link To Cells dialog box appears.*
5. In the Select Cells text box, type A1..F2  
*The sheet data used to create the chart is added to the chart.*
6. Choose OK

## Section 9: Charting Your Data

7. Resize the sheet block so that it is readable
8. Reposition the sheet block so that it is centered below the main chart title

Your chart should resemble Figure 9-9.

END

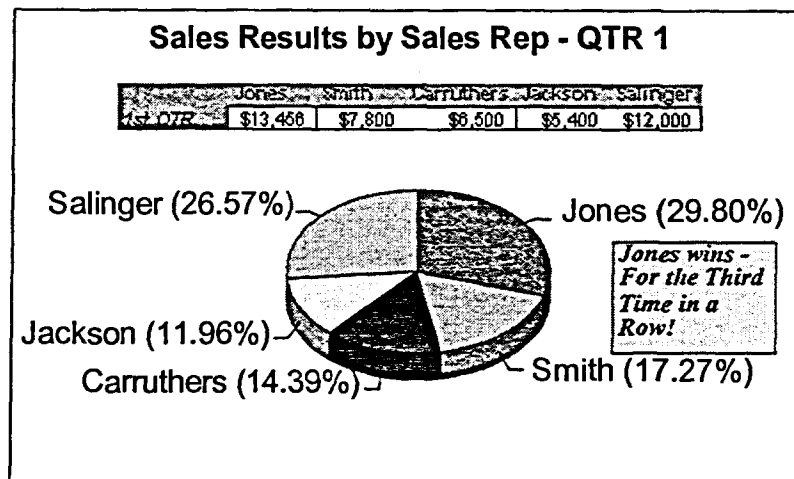


Figure 9-9: The Completed Chart

## Printing Charts

You print a chart in the same way that you would print any other Quattro Pro sheet or object. If you created the chart on a separate sheet, simply click the Print button on the Toolbar. Quattro Pro's default sets the page to print with the chart using the full page. If you created the chart on a sheet with data, you need to select the chart before choosing Print from the File menu, which opens the Chart Print dialog box, shown in Figure 9-10.

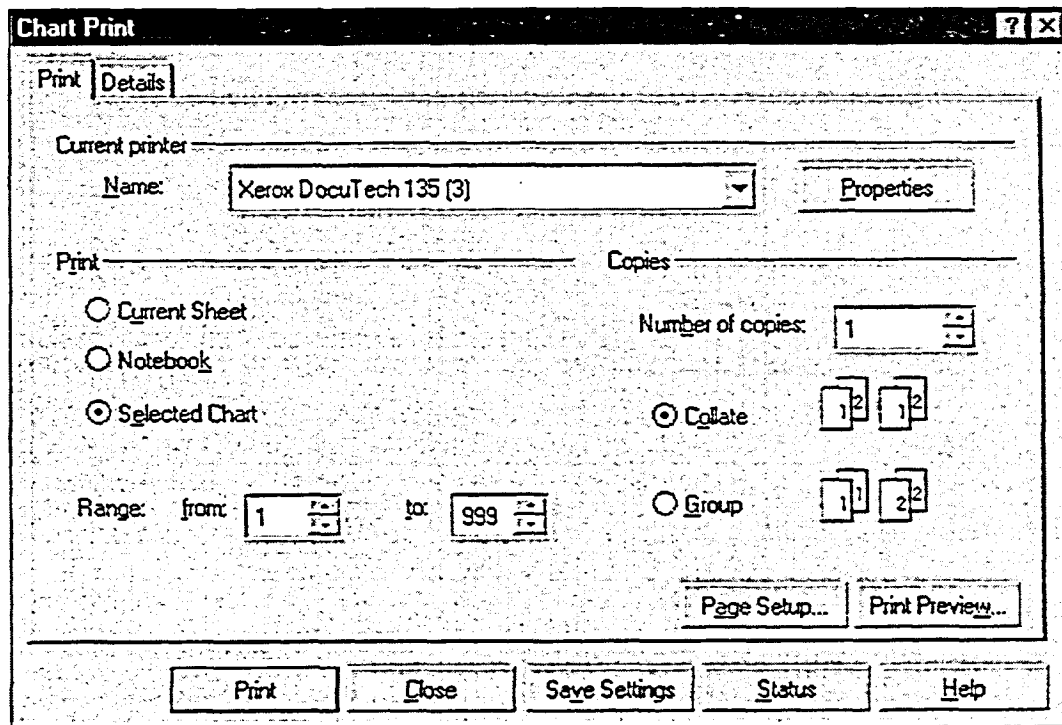


Figure 9-10: The Print Page of the Chart Print Dialog Box

You can use the page setup options, shown in Figure 9-11, to make page setup changes specific to your chart. The options in the Chart Print dialog box let you print a floating chart alone on a sheet of paper. If you need to print the sheet data with the floating chart, simply use normal sheet printing methods. To print multiple charts, go to the Objects sheet, select each chart's icon, and choose Print from the File menu. The charts print in the order in which they were selected.

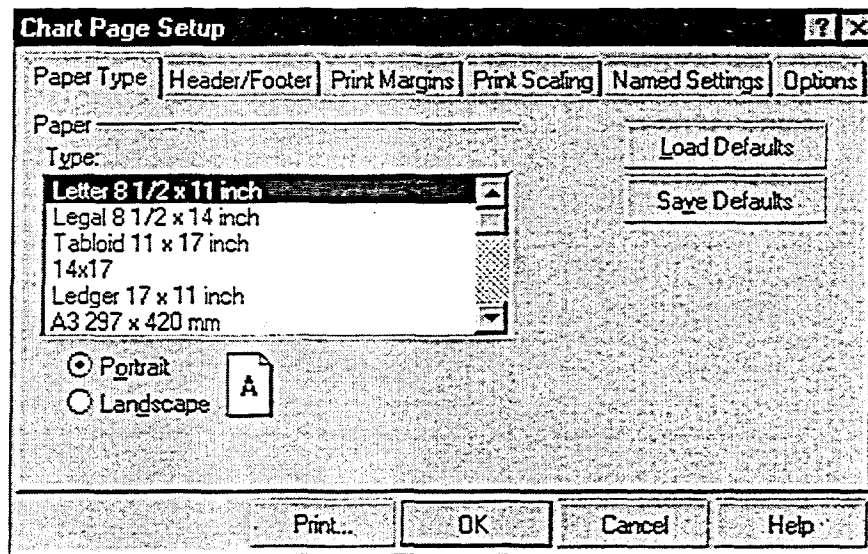


Figure 9-11: The Paper Type Page of the Chart Page Setup Dialog Box

**METHOD**

To print a floating chart alone on a sheet:

1. Select the floating chart.
2. From the File menu, choose Print.
3. From the Chart Print dialog box, select options.
4. Choose Print.

**EXERCISE**

In the following exercise, you will print a floating pie chart.

1. Select the BOOKS sheet tab
2. Select the Fiction Sales chart
3. From the File menu, choose Print
4. Choose Print
5. Save as H:\spsheet\Chart and close the workbook

*The Chart Print dialog box appears.*

*The Chart Print dialog box closes, and the chart prints.*

**END**

**To create a chart using the Chart Expert:**

1. Select the cells with the numeric data to be charted.
2. From the Insert menu, choose Chart.
3. In the Chart Expert pane, follow the instructions.
4. When you are finished with all the steps in the Chart Expert pane, choose Next to proceed to the next pane.
5. Repeat steps 3 and 4 as required.
6. When you have completed the Chart Expert Pane - Step 5 of 5, choose Finish.
7. On the sheet, position the pointer where you want the upper left corner of the chart and click the mouse.

**To select a chart for editing:**

1. Double-click the floating chart's border.

**To deselect a floating chart:**

1. Click anywhere outside a selected chart.

**To change the chart type and style using the Chart Tools Toolbar:**

1. Select the chart.
2. On the Chart Tools Toolbar, click the Chart Gallery tool.
3. In the Chart Gallery dialog box, from the Category drop-down list, select the chart type you want.
4. In the Style area, select the chart style.
5. Choose OK.

**To add a data series to a chart:**

1. In the sheet, select the new data to be added.
2. Position the pointer on an edge of the selected cells until the pointer changes to a four-way arrow.
3. Drag the cells over the floating chart.
4. Release the mouse button.

**To select a chart object:**

1. Click the object you want to select.

**To move a chart or chart object:**

1. Click the chart's border or chart object.
2. Drag the chart or chart object to a new location.

**To resize a chart or chart object:**

1. Select a chart or chart object.
2. Drag the selection handles until the chart or chart object reaches the desired size.

**To move a legend using the Legend dialog box:**

1. Select a chart, and then, from the Chart menu, choose Legend.  
or
1. Double-click the legend.
2. If necessary, select the Legend Position tab.
3. From the Legend Position page, select an icon.
4. Choose OK.

**To delete a chart or chart object:**

1. Select a chart or chart object.
2. Press **DELETE**.

## Section 9: Charting Your Data

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### To define a new legend series:

1. Select the chart.
2. From the Chart menu, choose Series.
3. In the Chart Series dialog box, select the Legend text box and redefine the location of the legend series.
4. Choose OK.

### To change the appearance of chart objects:

1. Double-click the chart object.
2. In the object's properties dialog box, on the desired page(s), select options.
3. Choose OK.

### To add a text box to a chart:

1. Double-click the chart's border.
2. On the Toolbar, click the Text tool.
3. Drag the mouse to create a text box the desired size.  
or
3. Click the chart for a default-size text box.
4. Enter the text.
5. Click outside the text box to deselect it.

### To modify a text box:

1. Double-click the text box.
2. In the Text Box dialog box, on the desired page(s), select options.
3. Choose OK.

### To add series labels to a chart:

#### Pie Chart method

1. Double-click the data series.
2. In the Pie Chart dialog box, select the Label Options tab.
3. On the Label Options page, in the Data Label area, select an option button.
4. Choose OK.

#### Bar, Line, or Area Chart method

1. Double-click the data series.
2. In the dialog box that appears, be sure the Series Options page is active.
3. In the Label Series text box, enter a series or use the Point mode button to select a block of labels.
4. Choose OK.

### To add linked sheet cells to a chart:

1. Double-click the chart's border.
2. From the Insert menu, choose Link to Cells.
3. Drag the mouse over the area of the chart where the sheet cells are to be placed to define a rectangle.
4. In the Link To Cells dialog box, in the Select Cells text box, type the cell coordinates.  
or
4. Use the Point mode button to select cells.
5. Select Border, Grid Lines, or Display Scaling options.
6. Choose OK.

### To print a floating chart alone on a sheet:

1. Select the floating chart.
2. From the File menu, choose Print.
3. From the Chart Print dialog box, select options.
4. Choose Print.

## Self-Check Exercise

1. Open A:\Self 4 and make sure the Rentals sheet tab is selected.
2. Select cells A3..D8, and use the Chart Expert to create a two-dimensional bar chart, using a color scheme of your choice.
3. Give the chart the title **Colossal Video Rentals**.
4. Give the x-axis the title **Categories**.
5. Give the y-axis the title **Number Rented**.
6. Create the chart on the notebook sheet.
7. Change the chart type to a line or area chart.
8. Change the chart type back to a two-dimensional bar chart.
9. Move the legend up so that it appears closer to the title.
10. Change the legend's font size and color.
11. Surround the legend with a box style of your choice.
12. Add text that reads **Our top sellers!** to the bottom right corner of the chart. Change the font to make it readable. (For example, change it to 20 points, bold.)
13. Select the title and change the font size so that the text is italicized with a font size two sizes larger.  
  
*Hint:* If a font two sizes larger isn't available in the list, type in the desired number.
14. Change the legend to read **Friday** instead of **Fri**.
15. Remove the Saturday data series from the chart.
16. Print preview the chart.
17. Return the Saturday data series to the chart, and then return the legend series to the original block.
18. Delete the text box below **Categories**.



## Section 9: Charting Your Data

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19. Use the cells A3..D4 to add linked sheet cells just below the chart title.
20. Print preview the chart again.
21. Print the chart.
22. Save as H:\spsheet\Self 4.
23. Close Quattro Pro.

# Glossary

**@function** A built-in formula that can be used alone or in other formulas. @Functions provide shortcuts for computations.

**3-D block references** Block references that link data between different notebook pages. 3-D block references are most often used in 3-D formulas.

**3-D formulas** Spreadsheet formulas that incorporate data from more than one page on a notebook by employing 3-D block references.

**3-D selection** A block of cells selected on a series of consecutive spreadsheet pages.

**absolute reference** A reference to a fixed point in a spreadsheet.

**active cell** The cell that receives the data or formula you enter.

**AND query** A query where search criteria are placed in more than one field and all those criteria must be met before Quattro Pro displays a record.

**arguments** The information used in a calculation.

**arguments** The cell coordinates used in @functions.

**ascending order** A sort order that sorts your data from lowest value to highest (A-Z or numerical).

Ascending order is the default sort order.

**axis labels** In a chart, text used to show what each point on an axis represents.

**block** A rectangular area consisting of two or more cells. A block can be selected before formatting or editing cells. A block can also be referenced in a formula.

**block coordinates** The cells within a block as designated by the address of the top left cell, two periods, and the address of the right bottom cell.

**button** On the Toolbars, an item that enables you to choose commonly used commands or series of commands with the mouse.

**cell** In an electronic spreadsheet, the intersection of a row and column. It is the most basic unit for storing data.

**cell address** The name of a cell, formed by the combination of its column and row coordinates. For example, the intersection of column B and row 2 is cell B2.

**cell names** Easy-to-remember identifiers created to refer to a range of cell on a sheet.

**cell reference** In a formula, the column and row number that refer to a cell's address.

**chart** A graphical representation of spreadsheet data that is usually linked to that data. Charts make the data clearer, more understandable, and easier to interpret. Charts are also excellent vehicles for data analysis and presentation.

**Chart Expert** A special feature of Quattro Pro that guides the user through the process of creating a chart.

**chart pane** The area of the chart containing the bars or lines that represent the data series.

**chart style** A determination that indicates the more specific characteristics of a chart within a chart type. For example, a bar chart might be a three-dimensional bar chart or a stack bar chart. Also known as specific chart type.

**chart type** The category of chart. For example, bar chart or pie chart. Also known as general chart type.

**chart window** A window that contains a chart. Charts created with

the Chart Expert usually do not open into chart windows.

**column** A vertical line of cells in a spreadsheet, identified by a column letter.

**column border** A letter at the top of each column that identifies that column.

**condition** In a logical function, a comparison of two pieces of information using a logical operator. Also used to refer to a type of search criteria defined when entered as a logical formula.

**constant value** The value entered in a cell.

**criteria table** In a database, an area in a spreadsheet into which search conditions are entered. Each criteria table has at least two rows.

**data** The information entered and stored in a spreadsheet. Data can be a number (including a date or a time), a formula, or text.

**data labels** In pie charts and column charts, text that delineates the data points. See also series labels.

**data points** Values from sheet cells represented on a chart.

**data series** In a chart, a cell of values, taken from a notebook sheet, from which the chart is graphed. Each bar is drawn with a different color or pattern to distinguish it from the others.

**database** An organized list of information.

**database cells** In Quattro Pro, a block of cells containing database information.

**descending order** A sort order that sorts your data in reverse (Z-A or inverse numerical) order.

**dynamic data** A type of data that updates in the target cell if you change the data in the source cell.

**exact match** A type of search condition. Exact matches are defined when you enter search criteria in one or more than one field of the same example row.

**Experts** A feature that demonstrates alternate ways to perform tasks and enables you to perform some features at a basic level with virtually no instruction.

**extract** To copy the outcome of a criteria search into designated cells referred to as output cells.

**field** In a database, one category of information. Records are organized into fields according to the column titles in the database and named according to the column titles.

**field name** The name of a field, as determined by the corresponding column title.

**file** A notebook that has been saved to disk.

**fill** A color or pattern used to fill a cell, block or selected object.

**Find mode** The mode that becomes active when a search is being performed for records in a database.

**floating chart** A chart created on the notebook sheet.

**font** The typeface used to display data.

**footer** Text at the bottom of the page, such as a page number or date.

**formula** A cell entry that Quattro Pro uses to perform calculations. A formula can include numbers, operators, and cell references.

**Formula Composer** A tool that helps you through the process of building and editing functions in your worksheet.

**general alignment** The default alignment in which Quattro Pro right-aligns values and left-aligns labels.

**general chart type** Another term occasionally used to refer to the chart type.

**hard page break** A manual page break, inserted by the user. Hard page breaks override the soft page breaks inserted by Quattro Pro, and they insert a new row into the spreadsheet.

**header** Text at the top of the page, such as a page number or date.

**hide** To conceal columns of data. Most useful when hiding confusing or superfluous data.

**horizontal alignment** Right aligning, left aligning, or centering data from the right or left edge of the cell.

**IF function** A logical function used to evaluate a condition by returning one of two possible expressions or values.

**in-cell editing** The technique that enables you to edit the contents of a cell directly in the cell itself rather than by activating the input line.

**initializing** The process of using field names to create a group of cell names that reference the first row in the database cells. This lets you use the cell names to represent fields when you are specifying conditions using search formulas, making the search condition easier to understand.

**input line** The area on the spreadsheet where data is entered and edited. It displays the data stored in the active cell.

**label** A text entry, such as the word "Total".

**label prefix** The character that comes at the beginning of a label and tells Quattro Pro how to align that text.

**landscape orientation** The page orientation where data is printed across the long part of the paper.

**left headings** Row borders that appear in printed copy.

**legend** In a chart, a graphic object that defines what each data series represents by listing the data series and using colors and patterns to differentiate one data series from another.

**linked sheet cells** The data used to create a chart and displayed on the chart. When the data in the sheet changes, the linked sheet cells on the chart are automatically updated.

**lock** To freeze specific rows and/or columns on the sheet as titles so that the horizontal and vertical headings remain stationary while you move through the sheet data.

**logical function** A type of function that enables you to make decisions by letting the sheet evaluate a condition.

**logical operator** An important part of any logical function, the equivalent of the operators used in any other type of formula. Quattro Pro uses logical operators to determine the appropriate response to a logical question.

**Model Copy** A copy command that allows absolute references to be copied relatively to a new location while retaining the absolute format.

**notebook** A collection of spreadsheets stored in the same file.

**notebook window** The window in which the spreadsheet is displayed.

**object** A part of the program that is easily changed. For example, blocks of data, entire notebooks, pages, and graphic are all objects.

**Object Inspector** A dialog box that provides a quick way to display all

the changes that can be made to individual objects.

**Objects sheet** The sheet at the end of a notebook that contains an icon for each graph and slide you create, as well as icons for custom dialog boxes.

**operator** A mathematical symbol that shows which type of calculation is being performed.

**OR query** A query where search criteria are placed in additional example rows of the criteria tables so that Quattro Pro will display records that match the criteria for all example rows.

**output cells** A designated block containing the extracted or copied outcome of a database search. This lets you manipulate and analyze this subset of data without affecting the original data.

**pane splitter** A sheet object that lets you split the panes. You can manipulate the pane splitter only by using the mouse.

**panes** Small windows that allow you to break your sheet into sections that you use independently. Also used to refer to the five screens of the Chart Expert.

**PMT function** A financial function that you can use to calculate periodic payments for loans based on constant payments and a consistent interest rate.

**point size** The unit used to measure the size of fonts. The larger the point size, the larger the font.

**pointer** The arrow-shaped cursor on the screen that indicates the position of the mouse.

**portrait orientation** The page orientation where data is printed across the short part of the paper.

**print block** A block address used to tell Quattro Pro to print only a portion of a spreadsheet.

**Print Preview** A screen that enables you to see exactly what your spreadsheet will look like when it is printed.

**Print Scaling** The feature in which Quattro Pro shrinks the page setup settings of a spreadsheet so that all the data fits on one page.

**properties** The characteristics of an object such as fonts, enhancements, and notebook names.

**Property Bar** The group of controls located under the Toolbar. The Property Bar allows you to change object properties without the use of menus or Object Inspectors.

**protected cells** The sheet cells that cannot be modified when sheet protection is enabled. By default, all cells are protected.

**pull-down menu** A list of menu items or commands that appears when a menu heading is accessed from the menu bar.

**query by example** A method used to locate information in a database. The examples are entered into the criteria table.

**QuickCorrect** A feature that works with you as you type, enabling you to avoid common typing errors.

**QuickFill** The Quattro Pro feature used to fill a block with a series such as Monday, Tuesday, Wednesday,... or 10, 20, 30.

**QuickMenu** Menus that contain the commands most often applied to the selected type of data. The QuickMenu appears when you right-click the mouse.

**record** In a database, a set of related data that corresponds to a row in the database. It contains alphanumeric data that, for example, might refer to

the name, address, zip code, and telephone number of one person.

**relative reference** A cell reference that changes when copied to reflect its new position on the spreadsheet.

**ROUND function** A mathematics and trigonometric function that rounds a number to the number of digits specified.

**row** A horizontal line of cells in a spreadsheet, identified by row numbers.

**row border** A number on the left side of each row that identifies that row.

**scroll bar** A graphic element that is used to scroll horizontally or vertically to view a large spreadsheet. There are two scroll bars. One is to the right of the document window, and the other is at its lower edge.

**search formulas** Logical formulas used in a database search.

**seed** The cell(s) used by the QuickFill feature as the basis for the pattern.

**Select All button** The button, located in the upper left of the notebook window, used to select all the cells on the active page.

**selection handles** Small black boxes that appear around the selected objects in a chart.

**selector** The black outline around a cell that indicates that the cell is selected.

**separation point** When splitting panes, the area at which you want the screen to be divided.

**serial number** The number used to represent dates and times. In the serial number, date and time elements are separated by a decimal point. Numbers to the right of the decimal point in a serial number

represent the time, numbers to the left represent the date.

**series labels** In a chart, text that delineates the data points. See also data labels.

**sheet** A spreadsheet page consisting of a grid that is divided by rows and columns.

**sheet protection** A way of protecting sheet data. With sheet protection, all the protected cells on the sheet cannot be modified.

**soft page break** Automatic ends or breaks in printed pages.

**sort cells** The database or block of cells to be sorted.

**sort key** The database field by which you sort.

**source sheet** In a notebook with multiple sheets, the sheet that originally contained the data being linked to another sheet.

**specific chart type** Another term occasionally used to refer to the chart style.

**SpeedFormat** The Quattro Pro feature used to apply preset formats to text and numbers.

**Spell Checker** The feature that searches through a selection for words not contained in its dictionary, such as misspelled, duplicated, or irregularly capitalized words.

**spreadsheet** The electronic equivalent of a pencil and traditional ledger paper. Spreadsheets are often used to store and manipulate data.

**synchronized** Panes that are arranged so that when you scroll one pane, the other scrolls at the same time. This is the default option.

**syntax** The rules you must follow when working with formulas.

**tab** A graphic element that enables you to switch to a specific page in a notebook.

**tab scroller** A graphic element that enables you to display tabs for pages not currently visible.

**target sheet** In a notebook with multiple sheets, the sheet to which you are copying sheet data taken from another sheet.

**templates** A spreadsheet designed for a specific application. A template can be edited for individual use.

**text boxes** Additional text that you create and place anywhere on a chart. This text is not linked to an object on the chart.

**title bar** The bar at the top of a window containing the program's title, filename, minimize button, maximize button, and close button.

**tool** On the Toolbar, an item that enables you to create an object.

**Toolbar** In Quattro Pro, the bar above the Property Bar containing tools and buttons used for formatting and performing various functions.

**top headings** The column borders that appear in printed copy.

**Undo** The command used to reverse the last action you performed.

**unlock** To unfreeze rows and/or columns on the sheet so that titles are no longer locked.

**unprotected cells** The cells that can be modified after sheet protection is enabled. You must designate which cells you want to be unprotected.

**unsynchronized** Panes that are arranged to allow each pane to scroll independently of the other, within limits, with each pane using its own set of scroll bars.

**user word list** A list where the user can store words not found in the main dictionary.

**value** A numeric entry. Values are divided into three groups: numbers, dates and times, and formulas.

**vertical alignment** The process of aligning cell entries at the top, center, or bottom of a cell.

**vertical bar** The | character, used to align text in headers and footers.

**views** Copies of the notebook displayed in separate panes.

**wildcards** In a database search, special symbols used to represent characters that might vary, allowing you to locate data that contains some or all of the characters.

**x-axis** The reference line in a chart, usually horizontal.

**y-axis** The reference line in a chart, usually vertical.

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