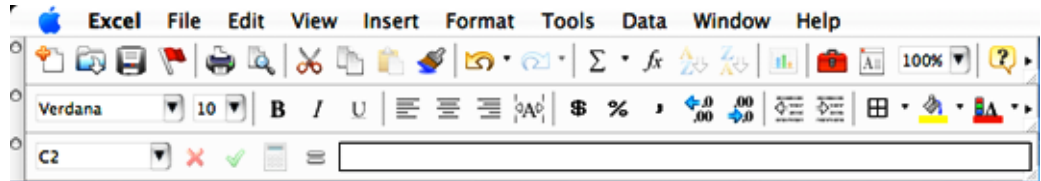


Data Entry, Cell Formatting, and Cell Protection in Excel 2004

In this workshop, you start by adding to the number of sheets in your workbook and then grouping four of the sheets to set up a small spreadsheet report that will contain quarterly data for four departments. You will also create a summary sheet. As you proceed to develop these report spreadsheets, you will use the MERGE AND CENTER feature, the AUTOFILL feature, and the AUTOSUM feature. You will practice naming ranges and cell formatting. Finally, you will protect certain cells from modification.

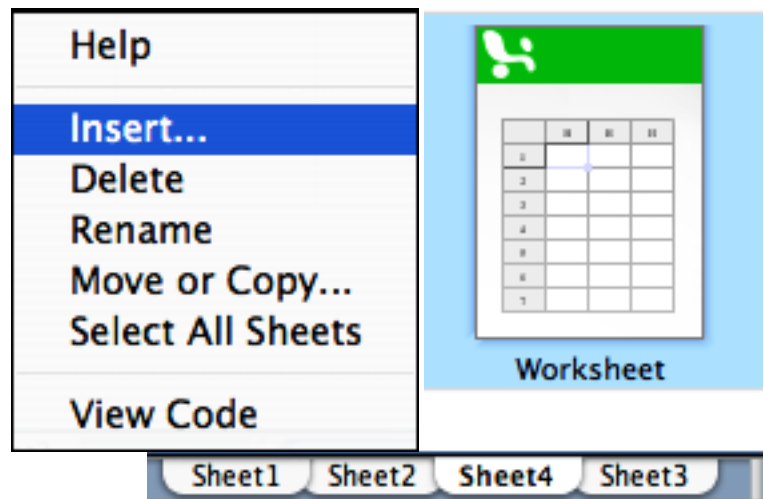
Add more sheets to a workbook

Open a new, blank workbook and select the NORMAL view from the VIEW menu. Select the FORMULA BAR on the



VIEW menu. You should have these toolbars showing: the MENU BAR, the FORMATTING toolbar, and the FORMULA BAR. See a screen picture of these toolbars above. The default workbook comes with three worksheets. For this exercise, you will use five worksheets. Add more sheets to a workbook as follows:

1. Control-click (right-click with a two-button mouse) on one of the worksheets, and see the context menu that appears.
2. From this menu, click on INSERT.
3. In the dialog that appears, click to highlight the worksheet thumbnail and click the OPEN button.
4. Notice that your sheet numbers are out of order.
5. Drag SHEET 3 tab to the left over SHEET 4 tab. When you see the marker between Sheet 2 and Sheet 4, release the mouse.
6. Click on SHEET 4 and add one more sheet as instructed above and move the sheets so they are in order.
7. Later in this lesson, you will learn how to change the sheet names so that they better reflect the content of each sheet.
8. Save this EXCEL file and name it REPORT.



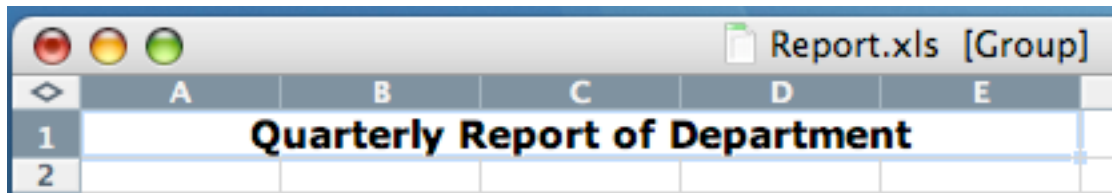
Using grouped sheets

Since the small quarterly report spreadsheets you will set up will be similar, and identical in some respects, you will save time when you group four sheets for the four quarters, and enter the identical parts of the spreadsheets at the same time.

Group sheets 2, 3, 4, and 5

1. Click on SHEET 2.
2. Hold down the CMD key and as you continue to hold it down, click on sheets 3, 4, and 5.

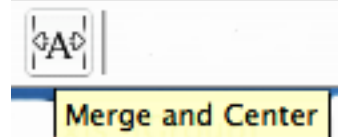
- Release the **CMD** key. What you enter on **SHEET 2** will now be entered on all four sheets at the same time.
- Notice on the **TITLE BAR**, following the file name is the word **Group** in brackets.



Create Quarterly Report

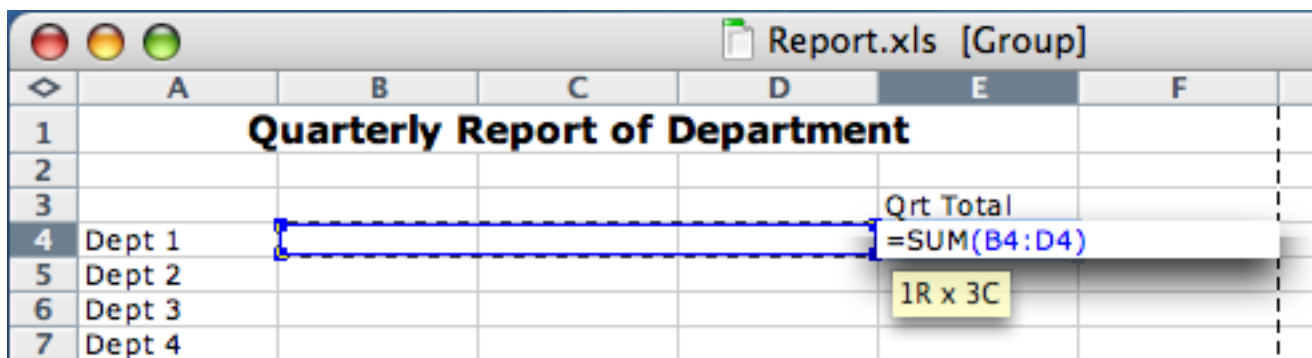
On Sheet 2, which is the top sheet of the group of four sheets, create the quarterly report.

- In cell A1, type **Quarterly Report of Department** and press **RETURN**.
- Drag over cells A1, B1, C1, D1, and E1 to select these cells.
- Click on the **MERGE AND CENTER** button on the **FORMATTING** toolbar. This command causes these cells to be merged and the title to be centered in the merged cells.
- Select a larger font size from the **FORMATTING** toolbar for the title and click on the **B** icon to bold the title.



Enter row and column labels

- In cell A4, type **Dept 1**.
- With cell A4 the current cell, move the cursor to the lower right corner of the cell until the cursor acquires the shape of a “+” sign.
- Using the **AUTOFILL** feature, drag the cursor down over cells A5, A6, and A7. Note that **AUTOFILL** has automatically entered Dept 2, Dept 3, and Dept 4 down the column.
- In cell A8, type **Totals**.
- You will not type in the column labels with the sheets grouped (except for the total column), because those titles are not identical for the four quarters.
- Click on cell E3, type **Qtr Total** and press **ENTER**.



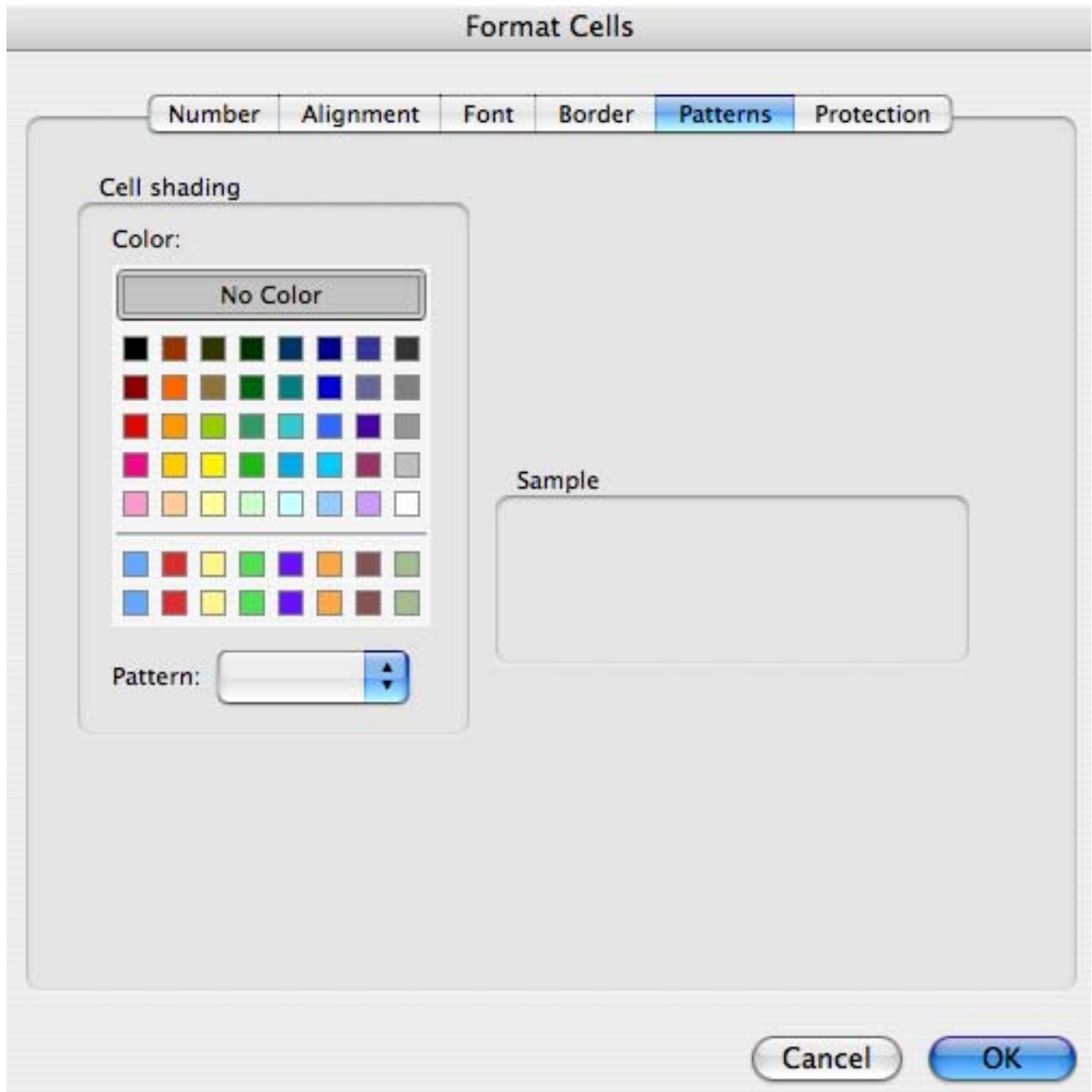
Enter formulas that will sum the numbers

- With the cursor in cell E4, click on the **AUTOSUM** icon.
- You see the insertion point inside the parentheses in the following formula: **=SUM()**.
- Drag to select cells B4, C4, and D4. You will see the range B4:D4 selected and placed inside the parentheses. Note the screen picture above showing the insertion point within the parenthesis and the selected cells.
- Press **RETURN**.
- With the cursor in cell E4, use the **AUTOFILL** feature by moving the cursor to the lower right corner of the cell, and when the cursor is the shape of an “+” sign, drag down over cells E5, E6, and E7.

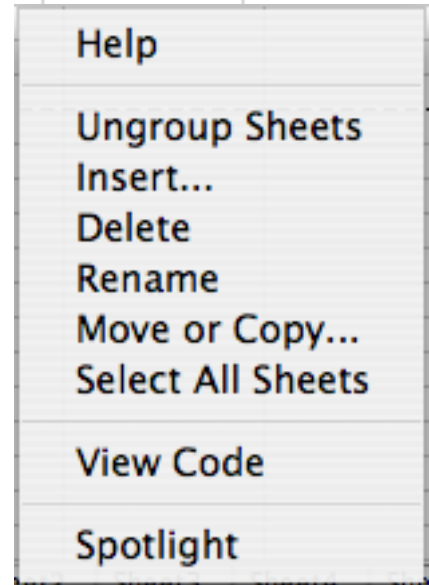
6. Place the cursor in cell B8 and click on the AUTOSUM icon on the FORMATTING toolbar.
7. With the cursor inside the parentheses, click on cell B4 and drag to cell B7 so that the SUM formula now contains the cell range of B4:B7. Press RETURN. If you prefer, you may type in the range.
8. With the cursor in cell B8, use the AUTOFILL feature by moving the cursor to the lower right corner of the cell, and when the cursor is the shape of an “+” sign, drag to the right over cells C8, D8, and E8. This copies the sum formula to the cell range C8:E8.

Format the cells that will contain the totals

1. Select the cell range A8:E8.
2. On the FORMAT menu, click on CELLS, and in the CELL FORMAT dialog, click on PATTERNS tab.
3. Select a pale color to shade the selected cells that will contain the totals and click on the OK button.
4. In the partially finished spreadsheet, note that since there is no data entered, all the cells that contain the SUM formulas contain zeros. Before entering any data, you will have to ungroup the sheets.



	A	B	C	D	E
1	Quarterly Report of Department				
2					
3					Qrt Total
4	Dept 1				0
5	Dept 2				0
6	Dept 3				0
7	Dept 4				0
8	Totals	0	0	0	0
9					



Ungroup the sheets

1. Right-click (CONTROL-click with one-button mouse) on SHEET 2.
2. See the pop-up menu and click on UNGROUP SHEETS.

Rename the Sheet Tabs

Renaming your sheet tabs will assist you in identifying which sheet holds which spreadsheet data. Do not put any spaces in the names. It is easy to do, as follows:

1. Double-click on the Sheet1 tab, and type **Summary** then press the RETURN key.
2. Double-click on the Sheet2 tab, and type **Qtr1** then press the RETURN key.
3. Double-click on the Sheet3 tab, and type **Qtr2** then press the RETURN key.
4. Double-click on the Sheet4 tab, and type **Qtr3** then press the RETURN key.
5. Double-click on the Sheet5 tab, and type **Qtr4** then press the RETURN key.

Complete column labels individually

1. On Qtr1 sheet, type **January** in cell B3.
2. Use the AUTO FILL feature and fill in **February** and **March** in cells C3 and D3.
3. Click on sheet QTR2 and cell B3. Enter **April** and use the AUTO FILL feature to fill in **May** and **June**.
4. Click on sheet QTR3 and cell B3. Enter **July** and use AUTO FILL for **August** and **September**.
5. Click on sheet QTR4 and cell B3. Enter **October** and use the AUTO FILL feature to fill in **November** and **December**.

Name the data ranges for each sheet

When you want to be able to select a range of cells, or use a range of cells in a formula, it helps to name the data ranges. When you name a cell or a range of cells, that cell or range becomes an absolute address.

You will select the data range in each sheet and name it, so that when you are ready to format the data cells, you will select the data range name, and that range of cells will be selected. A range name must start with either a letter or an underscore and it cannot contain spaces. Make the name as short as possible.

1. On sheet QTR1, select the range B4:D7.
2. Click in the NAME BOX and type in **Data1**, with no space between the letters and the number in the name (let this stand for the data for QUARTER 1), and press RETURN.

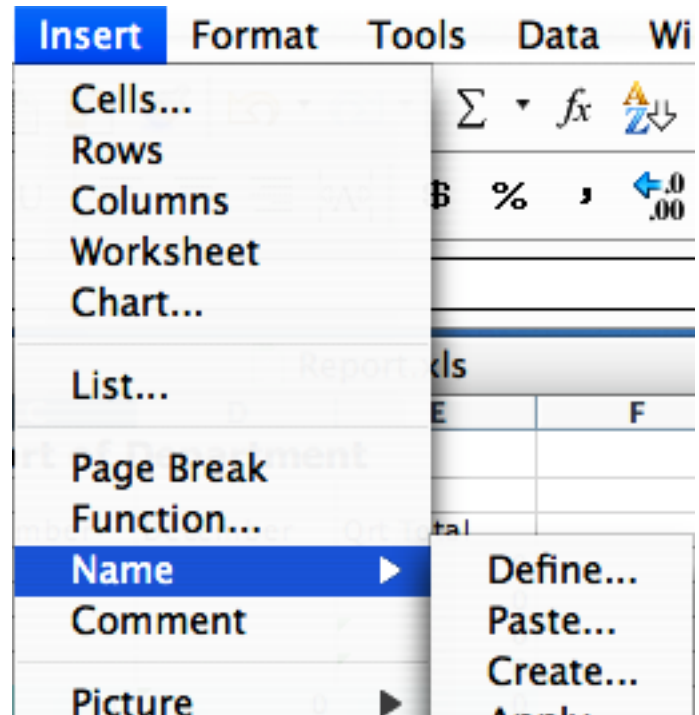
3. On sheet QTR2, select the range B4:D7.
4. Click in the NAME BOX and type in **Data2** (the data for Quarter 2) and press RETURN.
5. On sheet QTR3, select the range B4:D7.
6. Click in the NAME BOX and type in **Data3** and press RETURN.
7. On QTR4, select the range B4:D7.
8. Click in the NAME BOX and type in **Data4** and press RETURN.

Note: The NAME BOX is at the left on the FORMULA toolbar.

Edit the Range Name ranges

If you have made an error in selecting a range, and you have already named it, you may want to simply edit the range identified with the name. If so, use the NAME command on the INSERT menu and choose DEFINE on the menu which appears. See the screen picture of these menus at the right.

When you select DEFINE, you will see the NAMES IN WORKBOOK dialog, which lists all the range names you have defined for the workbook. Click on any of the names and you will see in the REFERS TO box, the range address. Here is where you can modify the cell range if needed. You can delete any range name here. You can also define a new range name by typing in the name, specifying the range, and then clicking the ADD button. See the screen picture of this dialog box below right.



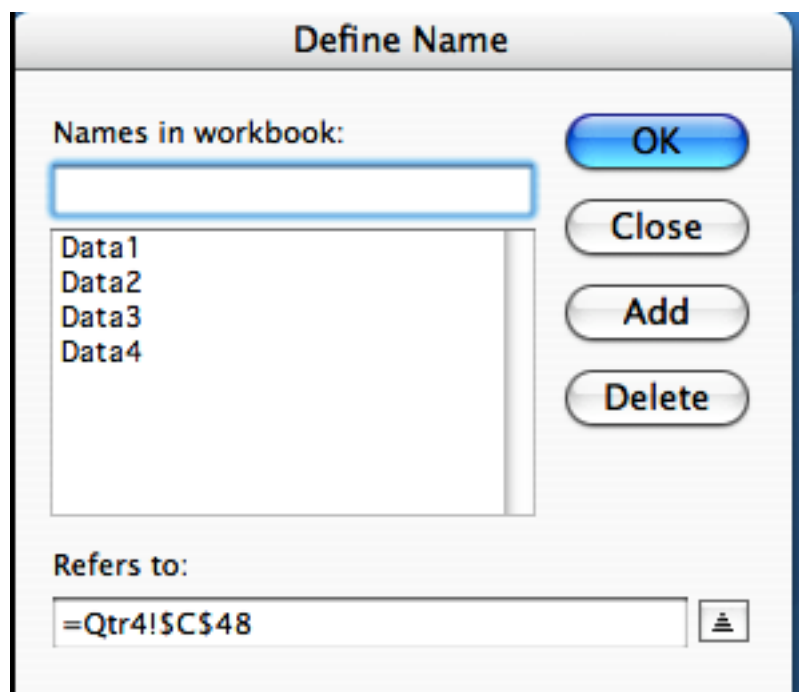
Entering Data

Enter data for the first two quarters

1. Click on the Qtr1 sheet and enter data in the appropriate cells. Notice, as you type in the numbers, that the total columns keep a running total.
2. Press the TAB key each time you have completed entering a number in a cell to move to the next cell.
3. Enter data for QUARTER 2, as instructed above for QUARTER 1.

Edit data

There are two ways to edit your data quickly—editing directly in the worksheet cell or editing in the FORMULA BAR. To edit directly in the cell, double-click the cell to edit a specific part of the entry. To change the entire cell contents, simply type the new entry over the old



entry and press RETURN. To edit using the FORMULA BAR, select the cell and click once in the FORMULA BAR.

Delete data from a cell

Two elements exist in a cell—the data and the formatting. When the DELETE key is used on a selected cell, only the data is removed, leaving the formatting in the blank cell. The next time data is entered into the cell, the formatting which remained in the cell is applied to the new data. To clear both the data and the formatting in the current cell or highlighted range, choose EDIT > CLEAR, ALL.

The UNDO tool on the STANDARD toolbar now has a drop-down arrow that enables you to see the specific actions you will be undoing. The maximum number of actions you can undo is 16.

Set up the Summary Report

You can set up a summary report even if you have not yet entered all the data into the quarterly reports. The summary report will be continually updated as you enter the data in the quarterly reports.

Set up the Summary sheet

1. Click on SUMMARY tab.
2. In cell A1, enter the title, **Summary of Department Totals by Quarter** and press the RETURN key.
3. Highlight the cell range A1:F1 and click on the MERGE & CENTER button on the FORMATTING toolbar.
4. Enlarge the type of the title and make it bold.
5. Click cell A4, and type **Dept 1** then use AUTOFill to fill cells A5:A7 with Dept 2, Dept 3, and Dept 4.
6. In cell A8, type **Totals** and press RETURN.
7. In cell B3 enter Qtr1 then use the AutoFill feature to fill in Qtr2, Qtr3, and Qtr4 in cells C3:E3.
8. In cell F3, type **Department Totals** and double-click on the column line between the F and G columns to make the column wider.
9. In cell F4, click on the AUTOSUM icon, identify the Sum range (B4:E4) then press RETURN.
10. Use the AUTOFill feature to insert the formula from cell F4 down the column into the cell range F5:F7.
11. In Cell B8 place a formula to sum cells B4:B7 and use the AutoFill feature to copy the sum formula to cell range C8 through F8.
12. Bring (link) values of cells from other sheets into the summary

Link cell values from Quarter Reports to Summary Sheet

1. In the cell into which you want to place (link) the value from another worksheet, type an equal sign.
2. The equal sign in *Excel* begins the formula.
3. The next step is to move to an appropriate worksheet and click on the cell that contains the value you want to place in the cell that will hold that value.

	A	B	C	D	E	F
1	Summary of Department Totals by Quarter					
2						
3		Qtr1	Qtr2	Qtr3	Qtr4	Department Totals
4	Dept 1	140.10	0	0	0	140.10
5	Dept 2	141.90	0	0	0	141.90
5	Dept 3	129.40	0	0	0	129.40
7	Dept 4	150.50	0	0	0	150.50
8	Totals	561.90	0.00	0.00	0.00	561.90
9						

4. Press the RETURN key. You are returned to the SUMMARY sheet and the link has been made.
5. Following are listed the cell addresses on the SUMMARY sheet and the corresponding cells on the various worksheets, the values of which you want linked to the cells on the summary worksheet.

Summary Sheet cell addresses and Quarter 1 Totals cell addresses

Click on B4 and type = (equal sign) then click on Qtr1!E4 and press RETURN
Click on B5 and type = (equal sign) then click on Qtr1!E5 and press RETURN
Click on B6 and type = (equal sign) then click on Qtr1!E6 and press RETURN
Click on B7 and type = (equal sign) then click on Qtr1!E7 and press RETURN

Summary Sheet cell addresses and Quarter 2 Totals cell addresses

Click on C4 and type = (equal sign) then click on Qtr2!E4 and press RETURN
Click on C5 and type = (equal sign) then click on Qtr2!E5 and press RETURN
Click on C6 and type = (equal sign) then click on Qtr2!E6 and press RETURN
Click on C7 and type = (equal sign) then click on Qtr2!E7 and press RETURN

Summary Sheet cell addresses and Quarter 3 Totals cell addresses

Click on D4 and type = (equal sign) then click on Qtr3!E4 and press RETURN
Click on D5 and type = (equal sign) then click on Qtr3!E5 and press RETURN
Click on D6 and type = (equal sign) then click on Qtr3!E6 and press RETURN
Click on D7 and type = (equal sign) then click on Qtr3!E7 and press RETURN

Summary Sheet cell addresses and Quarter 4 Totals cell addresses

Click on E4 and type = (equal sign) then click on Qtr4!E4 and press RETURN
Click on E5 and type = (equal sign) then click on Qtr4!E5 and press RETURN
Click on E6 and type = (equal sign) then click on Qtr4!E6 and press RETURN
Click on E7 and type = (equal sign) then click on Qtr4!E7 and press RETURN

Formatting Cells

You will now want to format the cells within the various tables. You first highlight the cells on which you want to place the formats. You may want to put number formats on numbers in the tables that include two decimal places. If your numbers are large, you would click to include the comma thousands separator. If you want dollar signs placed on any numbers at any time, you would choose the appropriate format for that. Remember, never type in a thousands separator or a dollar sign. These are part of a numbers format. You may bold text or increase the size of text by using the formatting toolbar. You may change the orientation of text by using the ALIGNMENT tab of the FORMAT CELLS dialog.

You can start by pulling down the NAME box arrow and clicking on the name range DATA1. This will highlight the cells on QTR1 sheet in which numbers will be typed. Choose two decimal places.

You open the FORMAT CELLS dialog with the CELLS command on the FORMAT menu. This dialog contains the following tabs: NUMBER, ALIGNMENT, FONT, BORDER, PATTERNS, and PROTECTION. Click the NUMBER TAB and then in the CATEGORY section, choose NUMBER.

Number formats

There are several categories of number formats as listed under CATEGORY on the NUMBER panel. See the screen picture below right.

General

The GENERAL number format is the default number format. Mostly, when you enter a number in a cell that is formatted with the GENERAL format, that is what is displayed. If the cell is not wide enough to show the entire number, the GENERAL format rounds numbers with decimals and uses scientific notation for large numbers.

Number

The NUMBER format is used for general display of numbers. You can set decimal places and indicate thousands separator.

Currency

CURRENCY formats are used for general monetary values. This format provides you with a choice of the following symbols: dollar sign, English pound sign, Euro currency sign, and miscellaneous currency signs for other countries.

Accounting

ACCOUNTING formats line up the currency symbols and decimal points in a column.

Date

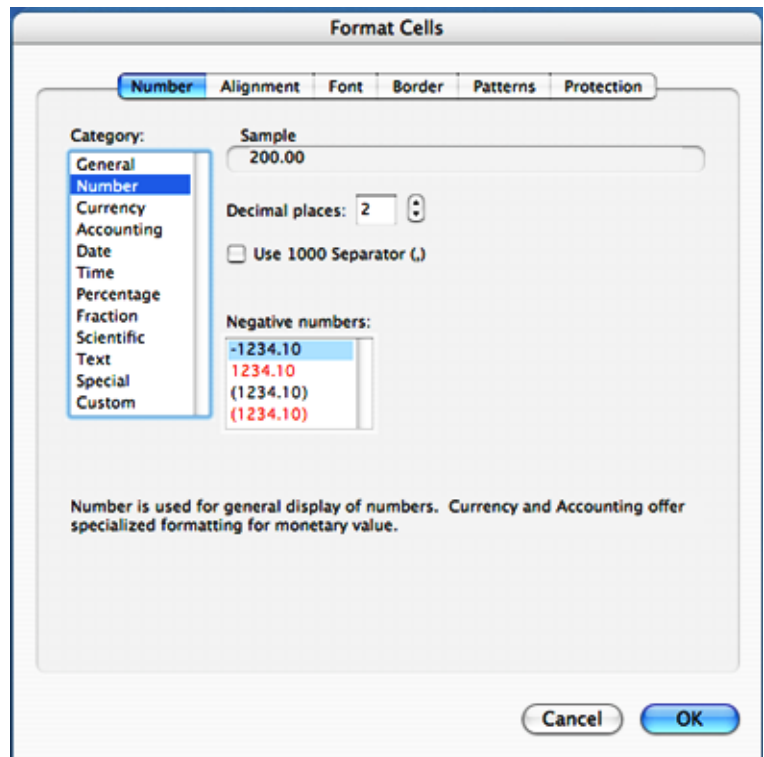
DATE formats display date or date and time. See samples of date styles under TYPE, then select the style in which you want a date or date and time displayed.

Time

TIME displays time formats and some data and time formats. Under TYPE, you can select how you want time or date and time displayed.

Percentage

Percentage formats multiply the cell value by 100 and display the result with a percentage symbol. For example, entering 0.1 results in 10%. You can also click the PERCENT STYLE icon on the FORMATTING toolbar.



Fraction

In the **TYPE** area, you can choose how you want a fraction displayed. To avoid entering a fraction as a date, precede fractions with a **0** (zero); for example, type **0 1/2** (with a space between the zero and the fraction). If you are going to enter a series of fractions, you may prefer to select the cells then apply a fraction format to the cells in advance.

Scientific

You can choose the number of decimal places you want displayed in the scientific notation. To display numbers in scientific format, use “E-,” “E+,” “e-,” or “e+” exponent codes in a section. If a format contains a 0 (zero) or # (number sign) to the right of an exponent code, Excel displays the number in scientific format and inserts an “E” or “e”. The number of 0’s or #’s to the right of a code determines the number of digits in the exponent. E- or e- places a minus sign by negative exponents. E+ or e+ places a minus sign by negative exponents and a plus sign by positive exponents.

Text

Excel stores numbers as numeric data even if you later apply the text format to cells that contain the numbers. If you want Excel to interpret numbers such as part numbers as text, first apply the text format to empty cells and then type the numbers. If you have already entered the numbers, you can change the numbers to text data. If the numbers are aligned to the left of the cell and if you have not changed the default alignment (**GENERAL**), the numbers are formatted or entered as text.

Special

When you chose **SPECIAL** in the **CATEGORY** list, you have the choice of the following types: Zip code, Zip code + 4, Phone number, or Social Security number.

Custom

You type the number format code using one of the existing codes as a starting point. Custom number formats use format codes that describe how you want to display a number, date, time, or text. For example, to display 12 as 00012, use this code: 00000. To display .631 as 0.6, use this code: 0.#.

Text Alignment

You see the following selections:

Text Alignment

Under **HORIZONTAL**, you have these choices: General, Left (Indent). You can set the indent. Center, Right, Fill, Justify, Center Across Selection.

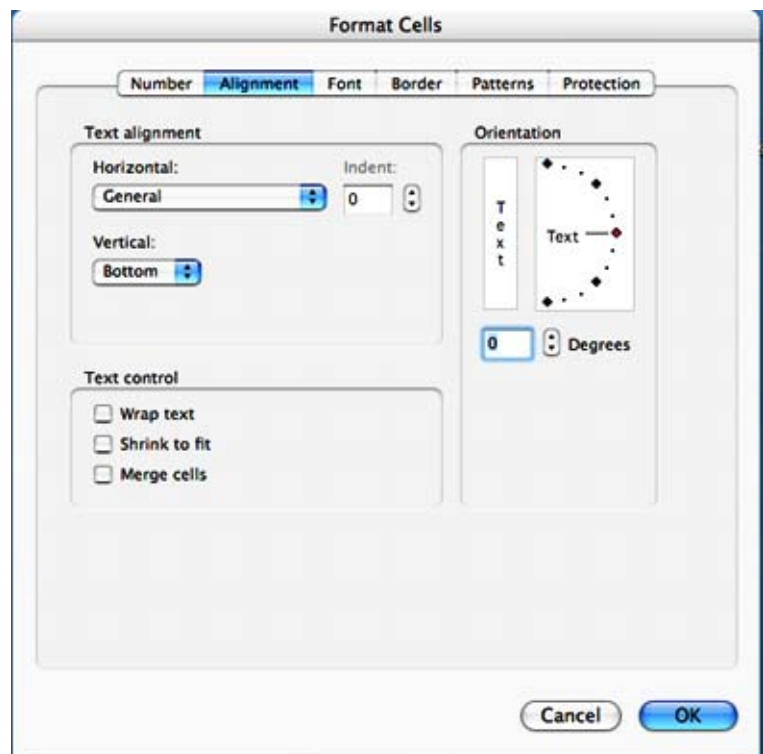
Under **VERTICAL**, you have these choices: Top, Center, Bottom, Justify.

TEXT CONTROL

You can click to wrap text, shrink to fit, or to merge cells.

ORIENTATION

You can orient text by degrees.



Font

The **FORMAT CELLS** dialog **FONT** tab displays a panel that allows you to choose the **FONT**, **FONT STYLE**, **FONT SIZE**, **UNDERLINE**, **COLOR**, and **EFFECTS** (strikethrough, Superscript, or Subscript). The **FORMATTING** toolbar provides most of these features except for the **EFFECTS**.

Border

The **BORDER** tab on the **FORMAT CELLS** dialog opens the **BORDER** panel (pictured lower right). It consists of the following three sections:

Presets

In this section, there are three buttons, **NONE**, **OUTLINE**, and **INSIDE**. Choosing one of these presets places no border around the selected cell, an outline border in the line style that has been selected under **Line**, or inside borders between cells in the line style that has been selected in the **Style** box under **Line**.

Line

In this section, in the **STYLE** box, you can select **NONE** for no border, or a variety of line styles. A line style must be selected for that line style to be applied when the **OK** button is clicked.

In the **COLOR** list, you can click the arrow and scroll down the list to select the color you want. The color you select here applies to the line style selected and used as a border.

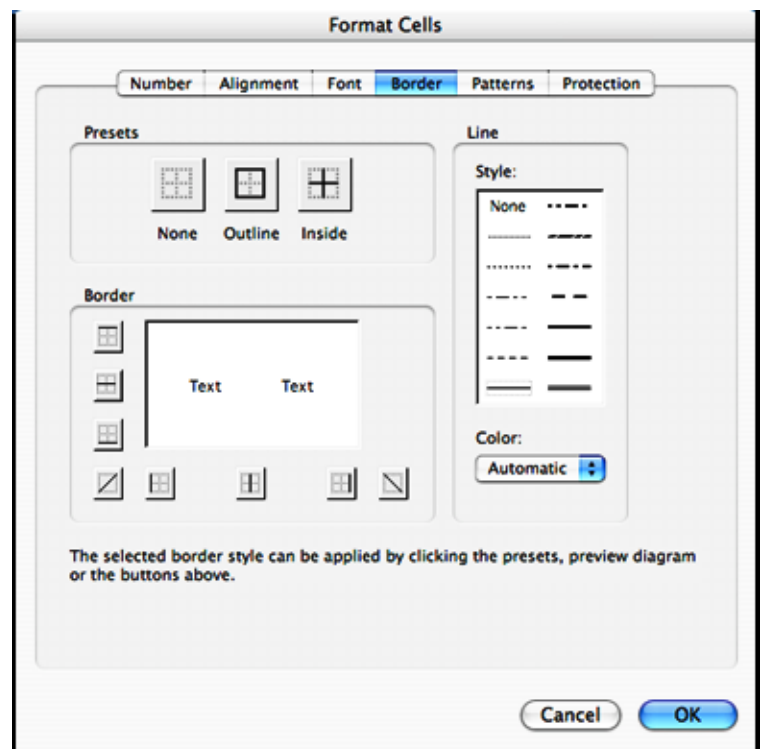
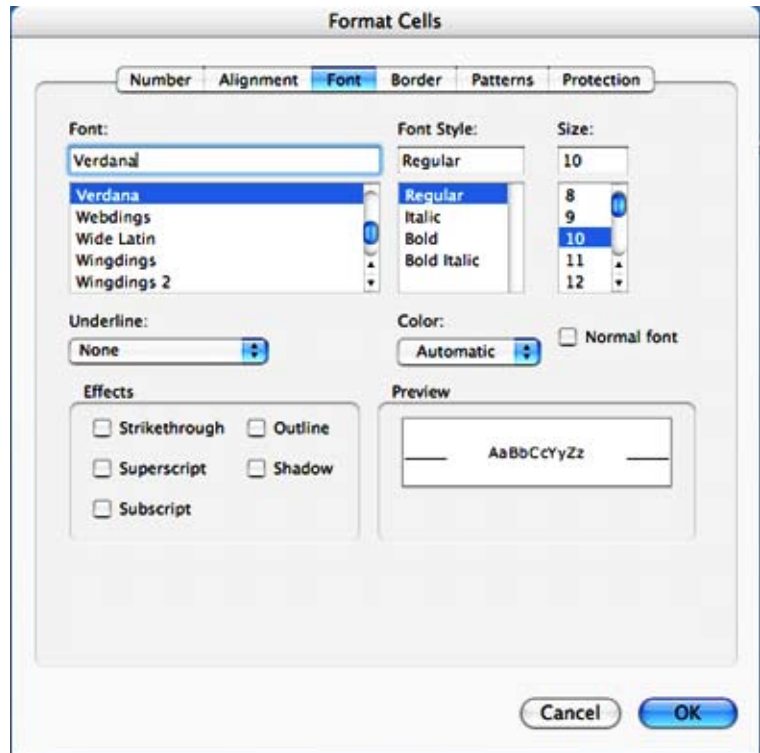
Border

In this section, you have the choice of 8 buttons to use to select a border style.

To check out an option, simply click on it and see how that choice affects the cells in the **Border** section of this dialog.

If you want to undo your selection(s), click **NONE** in the **PRESETS** section. When you are satisfied with the combination of the selected preset, border selection, border line style and/or color, click the **OK** button.

Remember that you must make a selection of cells in your spreadsheet before applying any border to that selection.



Patterns

The PATTERNS tab on the FORMAT CELLS dialog opens the PATTERNS panel, pictured here. This cell format feature was introduced earlier in this guide.

Cell Shading

Under CELL SHADING, you see two choices: COLOR and PATTERN. You can choose to have no color, or you can click on a color sample to use to shade the current cell or a selected range of cells.

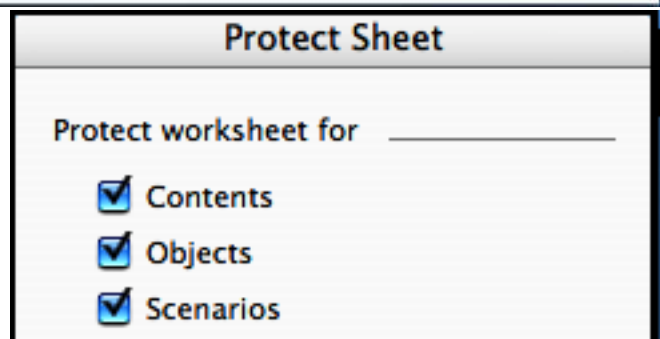
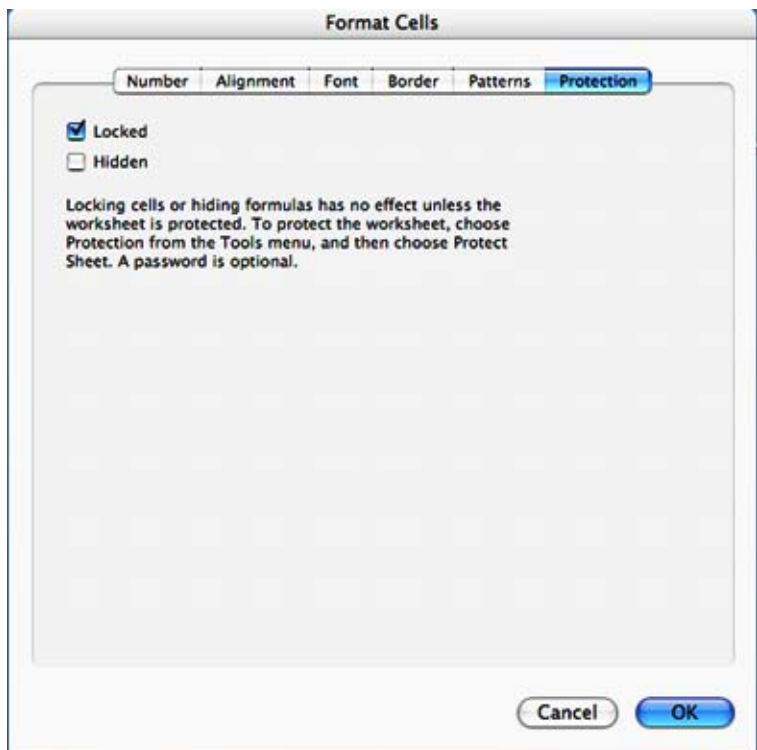
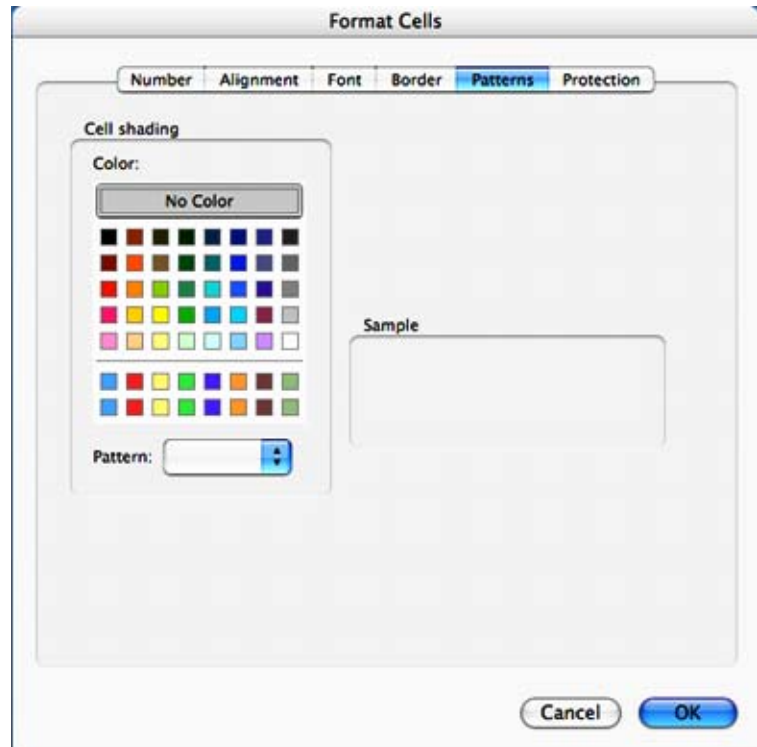
Clicking on the DOWN ARROW at the right of the PATTERN box pops up a panel containing a variety of patterns you can use to shade the current cell or a range of selected cells. You can use a combination of a pattern and a color.

You will see a sample of your selection in the SAMPLE rectangle. Be sure to use good contrast between the cell background and the type. When you are satisfied with your selections, click the OK button.

Protection

You should protect those areas of the spreadsheet that contain formulas, especially those in the SUMMARY sheet. To do this, you will first select the cells you do want to allow others to modify or edit, and follow these steps:

1. On the FORMAT menu, select CELLS.
2. Choose the PROTECTION tab. The PROTECTION panel is shown here.
3. Make sure there is no check mark in the LOCKED box. If so, click to uncheck it.
4. Click on the OK button. Don't forget, this action applies to those cells that have been previously selected.
5. From the TOOLS menu, choose PROTECTION.
6. Choose PROTECT SHEET from the submenu that appears.
7. See the PROTECT SHEET dialog that appears.
8. Leave the Contents selected, and click to deselect the Objects and Scenarios.



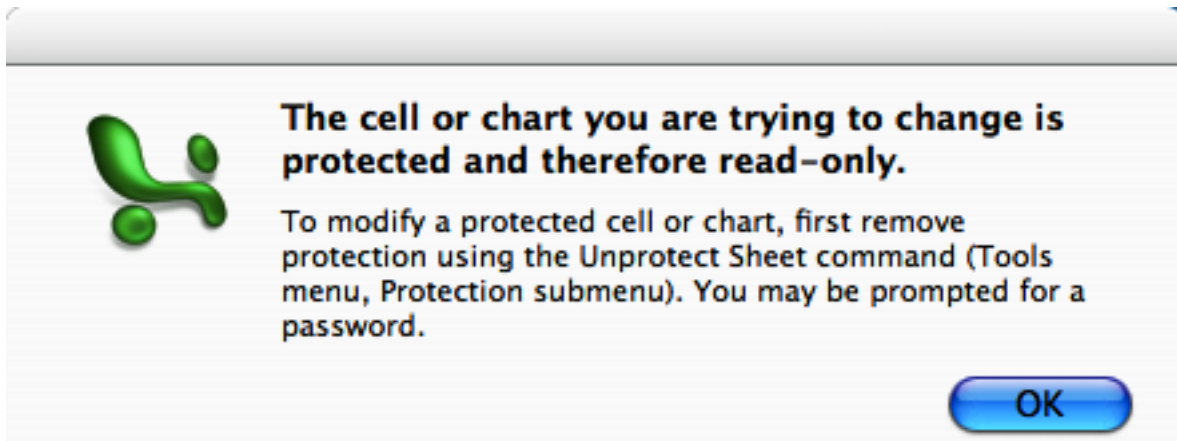
9. Type in a password if you want to use one, and click OK.

8. Confirm the password and click OK.

Note: Do not forget this password. Be sure to write it down and keep it somewhere safe. If you ever forget your password or lose it, you will not be able to use this spreadsheet. Since the password feature is optional, you may not want to use a password.

Test your spreadsheet protection

Try to edit some cells that have been protected. You should see a warning, such as you see displayed below.



Remove protection from the worksheet:

1. Drop down the TOOLS menu.
2. Point to PROTECTION.
3. Click UNPROTECT SHEET.
4. If prompted, enter the password assigned when the worksheet was protected.

Shortcut keys for moving and scrolling in a worksheet

Press	To
Arrow keys	Move one cell up, down, left, or right
CONTROL+Arrow key ..	Move to the edge of the current data region
HOME	Move to the beginning of the row
CONTROL+HOME	Move to the beginning of the worksheet
CONTROL+END	Move to the last cell on the worksheet, which is the cell at the intersection of the right-most used column and the bottom-most used row (in the lower right corner)
PAGE DOWN	Move down one screen
PAGE UP	Move up one screen
OPTION+PAGE DOWN ...	Move one screen to the right
OPTION+PAGE UP	Move one screen to the left
CONTROL+PAGE DOWN .	Move to the next sheet in the workbook
CONTROL+PAGE UP	Move to the previous sheet in the workbook
CONTROL + TAB	Move to the next workbook or window
CONTROL+SHIFT+TAB ..	Move to the previous workbook or window
CONTROL+G	Display the Go To dialog box
CMD+F	Display the Find dialog box
CMD+G	Repeat the last Find action (same as Find Next)
TAB	Move between unlocked cells on a protected worksheet