Click Finish to continue. Excel goes about importing the data from your FileMaker Pro file.

Note: This process may take a long time (depending, in part, on how much data you're importing); because there's no progress bar, spinning cursor, or any other sign that Excel is working, you might assume that the program has crashed. Be patient and don't switch out of Excel; the program is communicating with the database and constructing the spreadsheet.

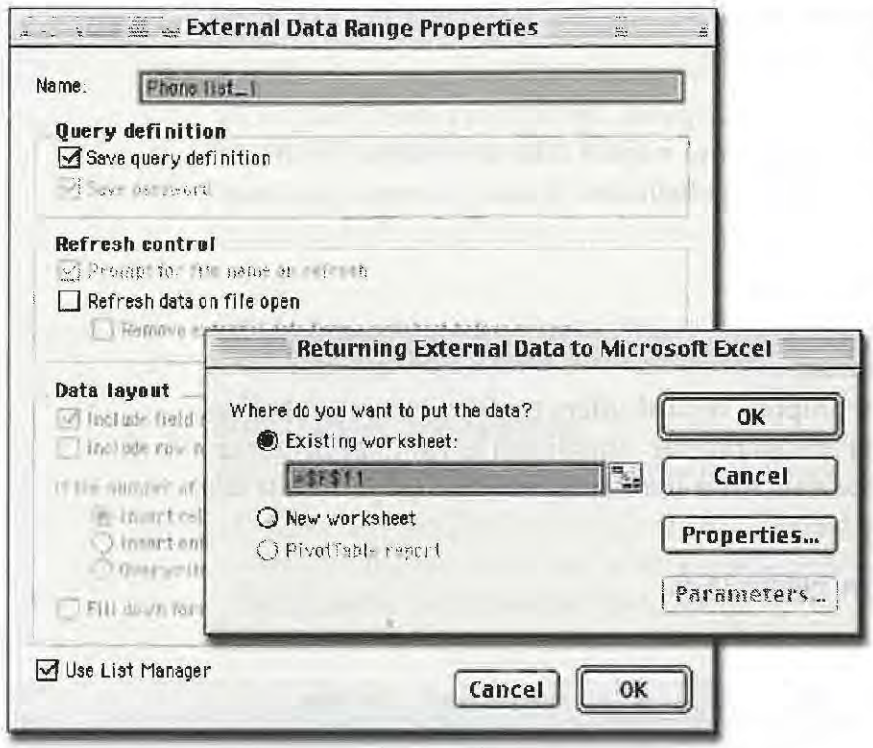


Figure 14-10:
The last step in bringing in FileMaker Pro data is choosing where the data goes (front). You can bring it into the currently open worksheet, or you can import it into a new worksheet with the click of a radio button. If you click the Properties button, you bring up the External Data Range Properties window (back) in which you can set some of the options that Excel exercises when dealing with databases. For example, you can set whether Excel gets fresh data every time the file is opened and whether or not the data is imported into a List Object.

TROUBLESHOOTING MOMENT

I Can't Drag a FileMaker File into an Excel Workbook

If Excel resists your attempts to import a FileMaker Pro database when you drag the file onto the Excel icon, it might be because you've recently installed either FileMaker Pro or Excel and your Mac's Desktop file hasn't been updated—or the Desktop file itself may be corrupted.

In either case, there's an easy solution: *rebuild* your Mac's Desktop file, a useful and popular troubleshooting technique. To do this, return to the Finder. Choose Special→ Restart; then, before the desktop icons and windows appear, hold down the ⌘ and Option keys. Eventually, the Mac asks you if you want to rebuild the desktop on your hard drive; click the OK button to do it.

Your Mac may take a few minutes to rebuild its Desktop file, but the rebuild should enable Excel to recognize FileMaker Pro files dropped on it.

If you began this process by dragging a FileMaker Pro file onto the Excel icon or choosing File→Open, you're all set; Excel produces a new workbook with the database's contents embedded in it as a List Object (Figure 14-10).

If, on the other hand, you chose Data→Get External Data→Import from FileMaker Pro, Excel now asks you where, exactly, you would like the imported data to be placed; you can specify a cell or opt to create a new worksheet.

In any case, two toolbars are now floating over your workbook: the List toolbar (for managing lists; see page 425) and the External Data toolbar (for handling database queries and refreshing data). The External Data toolbar packs a lot of power. It lets you quickly edit a database query that you created in Microsoft Query, change options on incoming database information, set special query criteria, and refresh data from a database.

Using Other Databases

FileMaker Pro is by far the most popular Macintosh database program. But it's not the most popular database program in the *world;* in corporations, for example, you're more likely to find such heavy-duty database programs as Oracle and Microsoft SQL. Fortunately, Excel can connect to these and almost any other database that understands the *ODBC* (Open Database Connectivity) *standard.*

There are restrictions, however. Before you connect to an ODBC database, you need a few things:

- **Access to the data source.** If the ODBC database isn't on your computer, you may need to talk to your company's database administrator to get connection information.
- **Microsoft Query.** Microsoft Query, part of the Value Pack (page 619), is a program that helps you build database queries using the Query Wizard. To install it, double-click the Value Pack installer in your Office 2001 CD-ROM, make sure the Microsoft Query checkbox is checked, and then click Continue.
- **An ODBC Driver for your database.** In order to connect to an ODBC database, you have to install an ODBC *driver* in your Mac.

  Unfortunately, Office 2001 doesn't come with any ODBC drivers. There are two solutions to this quandary, both of which can be dicey. First, if you own Office 98 or Excel 98, you can use the Value Pack installer on *their* CD-ROMs to install an ODBC driver; that version of Office came with one. Alternatively, you can contact the maker of the database to which you're trying to gain access (such as Oracle) to see if an ODBC driver is available. Check Microsoft's Support Web site at *http://support.microsoft.com/support/kb/articles/Q115/2/93.asp* for a list of ODBC drivers for use with Microsoft Query.

Once you have all of the pieces in place, you're ready to build a *query,* which is a way of asking a database for a chunk of data. To do this, choose Data→Get External Data→New Database Query, which launches the Microsoft Query program in the background.

Now the Choose Data Source window appears. Click the Database tab, and then choose the database from which you want to grab your data. Make sure the Use the Query Wizard to create/edit queries checkbox is checked. Click OK to start the Query Wizard, which walks you through the process of selecting the data you want to import.

Once the Wizard is done, click Return Data to Microsoft Excel, and then click Finish. This data won't automatically update unless you refresh it yourself with the Data→Refresh Data command (or clicking the Refresh Data or Refresh All buttons). You can also click the Refresh Status button to call up the External Data Refresh Status dialog box, in which you can see how long it's taking to get data from the database into Excel; you can also cancel a refresh in this dialog box.

Grabbing Data from the Web

If pulling data from a FileMaker Pro or ODBC database isn't exciting enough for you, Excel can also grab data from certain Web sites (and FTP, Gopher, or intranet sites).

Excel comes with four canned Web queries that help to demonstrate the power of this little-known feature:

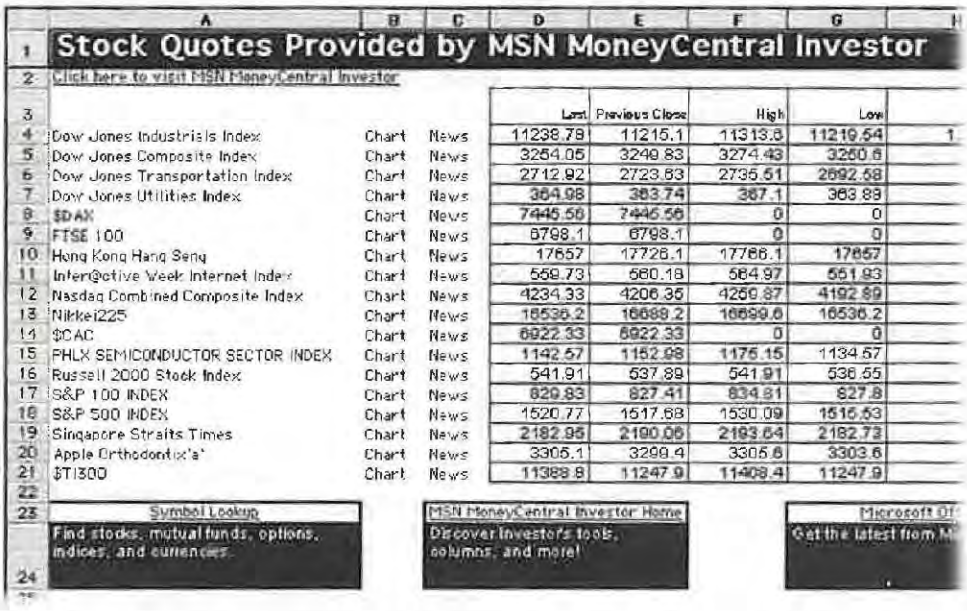
- **MSN MoneyCentral Currencies.** This query grabs the current currency value for 54 countries on an open exchange. Check it before you head out on an international trip, so you'll know how much you're being gouged at the currency-exchange counter.
- **MSN MoneyCentral Major Indices.** Grabs data for eighteen stock exchanges, including the Dow, S&P 500, DAX, FTSE 100, and Nasdaq.
- **MSN MoneyCentral Stock Quotes.** Looks up the last value, close value, volume, and change for a stock symbol you specify. (If you're among the thousands of people who use Excel to track your stock-market holdings, behold the dawn of a new era—now you don't even have to type in the latest stock prices. Your software can do it automatically.)
- **Get More Web Queries.** This last Web query is the most interesting. It grabs a list of saved Web queries and puts them into a sheet. This list has links to lots more Web Queries, which include more stock and currency quotes, plus a mortgage calculator and interest-rate finder. It also lists the somewhat user-hostile instructions for proceeding from this point.

Tip: This list changes from time to time, so it's a good idea to refresh it occasionally to see what's new.

To use one of these predesigned Web queries, choose Data→Get External Data→Run Saved Query, which brings up an Open dialog box. Double-click one of the queries listed here, which show up with text-file icons. (You can find the saved queries in the Microsoft Office 2001→Office→Queries folder.)

Excel then asks you where in the spreadsheet you want to put the information that it downloads from the Web (this modest window calls itself the Returning External Data to Microsoft Excel window). After you select a location and click OK, Excel connects to the Internet (if necessary), downloads the information, and inserts it into the spreadsheet.

Note: Excel may ask you if you want to accept *cookies* while importing Web-based data. (Cookies are small text files that Web sites place on your hard drive as preference files.) Excel, Entourage, and Internet Explorer all share a common cookies file; Excel is simply obeying the cookie-alert messages you've set up using the preferences settings in Internet Explorer.



	A	B	C	D	E	F	G
1	**Stock Quotes Provided by MSN MoneyCentral Investor**						
2	Click here to visit MSN MoneyCentral Investor						
3				Last	Previous Close	High	Low
4	Dow Jones Industrials Index	Chart	News	11238.78	11215.1	11313.8	11219.54
5	Dow Jones Composite Index	Chart	News	3254.05	3249.83	3274.43	3250.6
6	Dow Jones Transportation Index	Chart	News	2712.92	2723.63	2735.51	2692.58
7	Dow Jones Utilities Index	Chart	News	364.98	363.74	367.1	363.89
8	$DAX	Chart	News	7445.56	7445.56	0	0
9	FTSE 100	Chart	News	6798.1	6798.1	0	0
10	Hang Kong Hang Seng	Chart	News	17657	17726.1	17766.1	17657
11	Inter@ctive Week Internet Index	Chart	News	559.73	560.18	564.97	551.93
12	Nasdaq Combined Composite Index	Chart	News	4234.33	4206.35	4259.87	4192.89
13	Nikkei225	Chart	News	16536.2	16699.2	16699.6	16536.2
14	$CAC	Chart	News	6922.33	6922.33	0	0
15	PHLX SEMICONDUCTOR SECTOR INDEX	Chart	News	1142.57	1152.98	1176.15	1134.57
16	Russell 2000 Stock Index	Chart	News	541.91	537.89	541.91	536.55
17	S&P 100 INDEX	Chart	News	829.83	827.41	834.81	827.8
18	S&P 500 INDEX	Chart	News	1520.77	1517.68	1530.09	1516.53
19	Singapore Straits Times	Chart	News	2182.95	2190.06	2193.64	2182.73
20	Apple Orthodontix'a'	Chart	News	3305.1	3299.4	3305.6	3303.6
21	$TI300	Chart	News	11388.8	11247.9	11408.4	11247.9
22							
23	Symbol Lookup			MSN MoneyCentral Investor Home		Microsoft Of	
24	Find stocks, mutual funds, options, indices, and currencies			Discover investor's tools, columns, and more!		Get the latest from M	

Figure 14-11: *Using the saved MSN MoneyCentral Major Indices Web query, you can call up current information on eighteen major stock market indices directly in your Excel worksheet. Now all you need is some serious cash to be an international tycoon.*

Importing Data from a Text File

Databases and the World Wide Web both make great data sources, but sometimes you just want to pull some information out of a text file and into your Excel worksheet. Here's how to do it.

Choose Data→Get External Data→Import Text File; in the resulting Open dialog box, navigate to, and double-click, the text file that you want to import. The Text Import Wizard walks you through a three-step process to bring the data from the text file into the currently open worksheet.

Opening the Excel Toolbox

Like a good piece of Swiss Army software, Excel provides tools that go beyond the basics. Using features like PivotTables, Scenarios, and Goal Seeking, Excel lets you look at your data in new and interesting ways.

Making a PivotTable

A *PivotTable* is a special spreadsheet entity that helps summarize data into an easy-to-read table. You can rotate the table's rows and columns (thus the name PivotTable) to get different views on your data. PivotTables let you quickly plug in different sets of numbers into a table; Excel does the heavy lifting of arranging the data for you.

PivotTables are useful when you want to see how different but related totals compared to each other, such as how a retail store's sales per department, category of product, and salesperson relate. They let you build complicated tables on the fly by dragging various categories of data onto a premade template. PivotTables are especially useful when you have a large amount of data to wade through, partially because Excel takes care of subtotals and totals for you.

Here's how to create a PivotTable from data in an Excel sheet:

Step 1: Choose the data source

Suppose, for example, that you're a TV advertiser trying to decide which cable-TV cult-hit show should be the beneficiary of your advertising dollars. You have a spreadsheet that shows three days' worth of data on five TV shows (such as each show's ranking, number of viewers for the day, and ad revenues). But you can't yet see the trends that identify which shows reach the largest number of people for the least dollars while achieving the highest ranking in the ratings. A PivotTable, you realize, would make the answer crystal clear.

Select a cell in the data range from which you want to create a PivotTable. Choose Data→PivotTable Report, which brings up the PivotTable Wizard window. This wizard walks you through the process of creating a PivotTable in three steps.

In the first step, locate the data from which you want to create a PivotTable. Your choices include an Excel list, an external data source (such as a database), multiple consolidation ranges (which use ranges from one or more worksheets), or another PivotTable.

In this example, you want to create a PivotTable from existing data in an Excel sheet; choose "Microsoft Excel list or database." Click Next to continue.

Step 2: Choose the cells

This wizard screen asks for the cell range that you want to use in your PivotTable. Excel—bless its digital heart—takes its best guess, based on the active cell when the PivotTable Wizard was invoked. If that range is *not* correct, type the range you want in the Range field or use the spreadsheet icon (see page 459) to select the range yourself. Click Next to continue.

Step 3: Direct the PivotTable

Finally, Excel asks you where you want to place your new PivotTable. You can choose to put it in either a new worksheet or an existing worksheet at a specific location. Because this table is relatively small, place it in the same worksheet as the source data.

This last screen offers two additional buttons for your customization pleasure:

- The **Layout** button opens the Layout window, in which you can exercise some control over how the PivotTable is laid out.
- The **Options** button opens the Options window, in which you can choose to include grand totals, to preserve cell formatting, and how you want data sources handled.

To finish your PivotTable, click Finish.

Step 4: Pivot

At this point, Excel has dropped a blank PivotTable into the specified location, but there's still no data in it. To help with the data-insertion process, Excel opens the PivotTable toolbar, which you can use to add elements to your blank slate.

The bottom of the PivotTable toolbar shows a few names that coincide with the column names in your original data (Figure 14-12). These are called *field names*; to complete your PivotTable, you need to drop these field names onto the row axis (the column on the left), the column axis (the row across the top), or the data field (the big empty space in the center). A different table will form, depending on which data fields you drop on which axes.

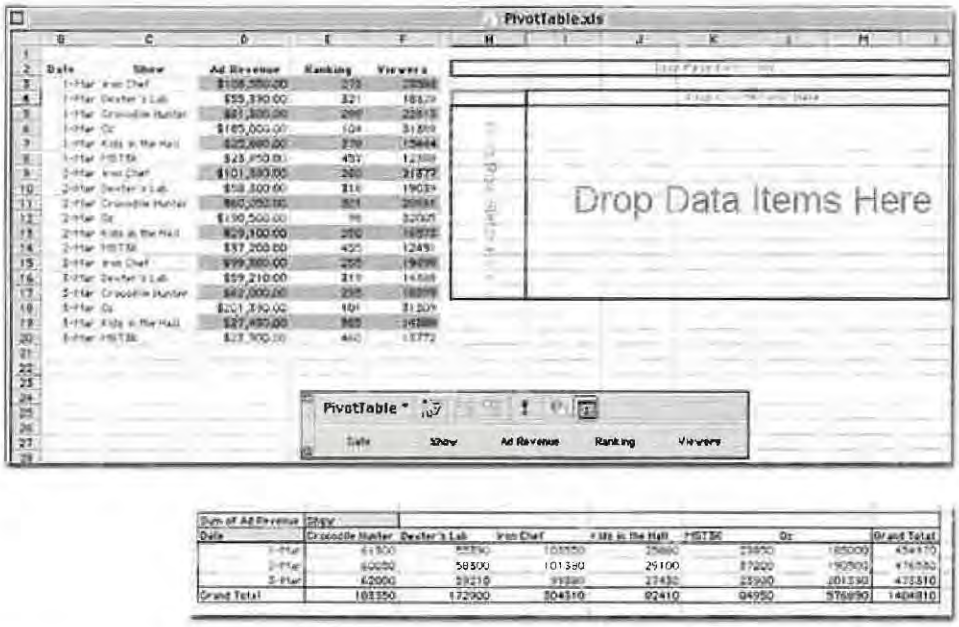


Figure 14-12: *To finish your PivotTable, fill in the blank table (top) with field items from the PivotTable toolbar. Drag those items onto the column to the left, the row across the top, or the data field in the middle to complete your PivotTable. Bottom: This table results from dragging field names from the PivotTable toolbar onto the waiting PivotTable.*

Step 5: Build the table

As the advertising buyer, suppose you wanted to build a table that shows how much ad revenue each show took in on each of three days. Drag the Date field name onto the Row Field area, the Show field name onto the Column Field area, and the Ad Revenue field name onto the data area.

As shown in Figure 14-13, Excel builds a graph that displays how much ad revenue each show took in, and adds totals for each show at the bottom and for each day at the right.

Step 6: Massage the data

Now that you've created your simple PivotTable, you can quickly rearrange it by dragging field names to different areas in the PivotTable, or you can add a new dimension by dragging yet another field name (in the case of the ad buyer, the number of viewers) onto the table. If you add a new field to the data area, Excel divides each row into two, showing how the data for each date interrelate. The more field names you drag into the data area, the more complex your table gets, but the more chance you'll have to spot any trends. You can also add field names to the row and column axes for an entirely different kind of table.

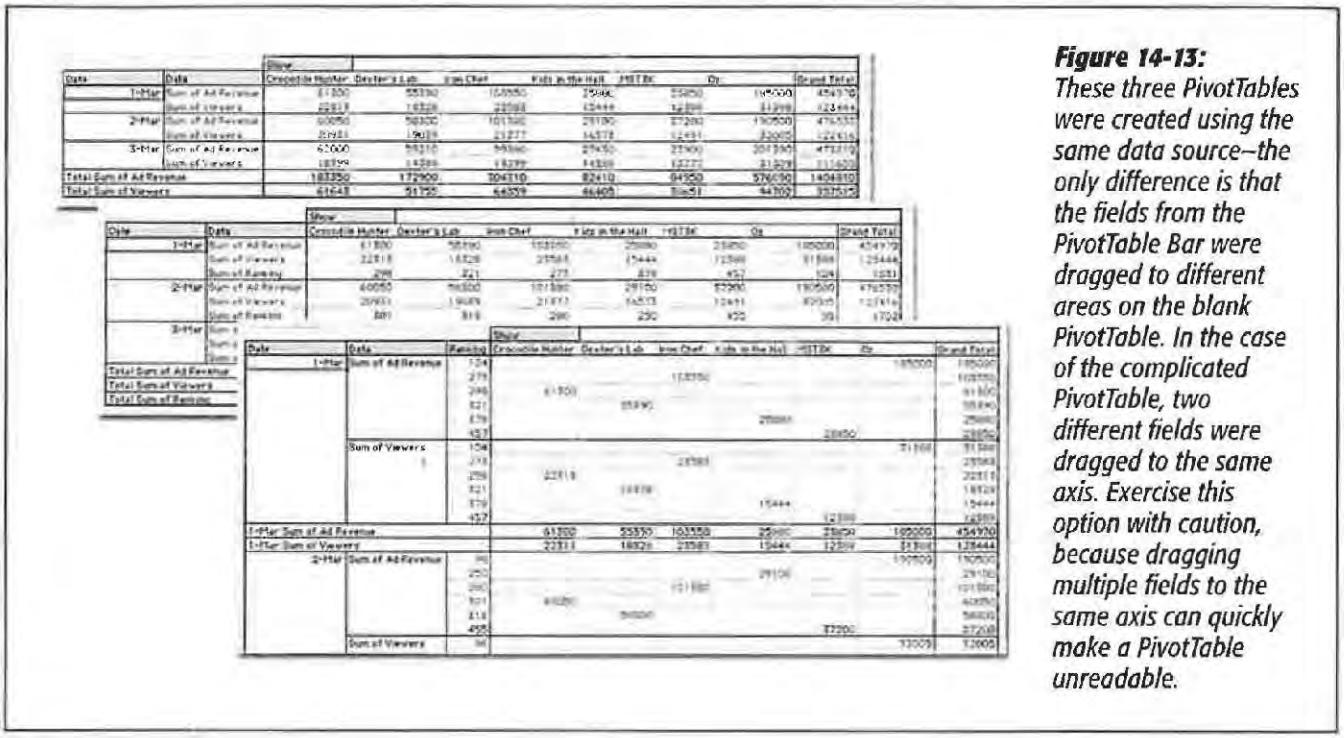


Figure 14-13: *These three PivotTables were created using the same data source–the only difference is that the fields from the PivotTable Bar were dragged to different areas on the blank PivotTable. In the case of the complicated PivotTable, two different fields were dragged to the same axis. Exercise this option with caution, because dragging multiple fields to the same axis can quickly make a PivotTable unreadable.*

Analyzing Your Data

PivotTables aren't the only way to analyze your Excel data. In fact, if you're the type who loves to pose "what-if" questions, then Excel has a few tools for you: *data tables, goal seek, scenarios,* and the *Solver.*

Data tables

Data tables let you plug several different values into a formula to see how they change its results. They're especially useful when, for example, you want to see how a few different interest rates might affect the size of your monthly payments over the life of a five-year loan.

Data tables come in two flavors: one-variable tables (in which you can change one factor to see how data is affected) and two-variable tables (in which you can change two factors). The hardest part about using a data table is setting it up. You'll need to place the formula, the data to substitute into the formula, and a placeholder item that will be substituted.

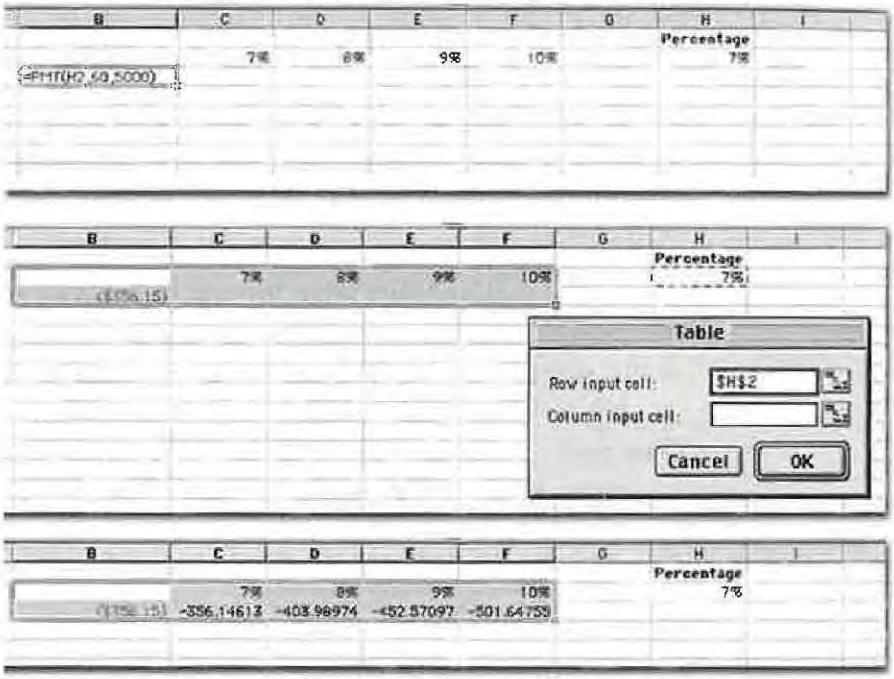


Figure 14-14:
Top: With the value candidates in row and a formula below and to the left, make a reference from the formula to another cell that holds a placeholder for the data you want to use–here, the 7% figure in cell H2.

Middle: Select the values and formula. Choose Data→Table, and specify the row input cell*–the placeholder cell H2. (If your data is arranged in a column, choose the* column input cell *instead.)*

Bottom: When you click OK, Excel builds the table, calculating the payment for each interest rate.

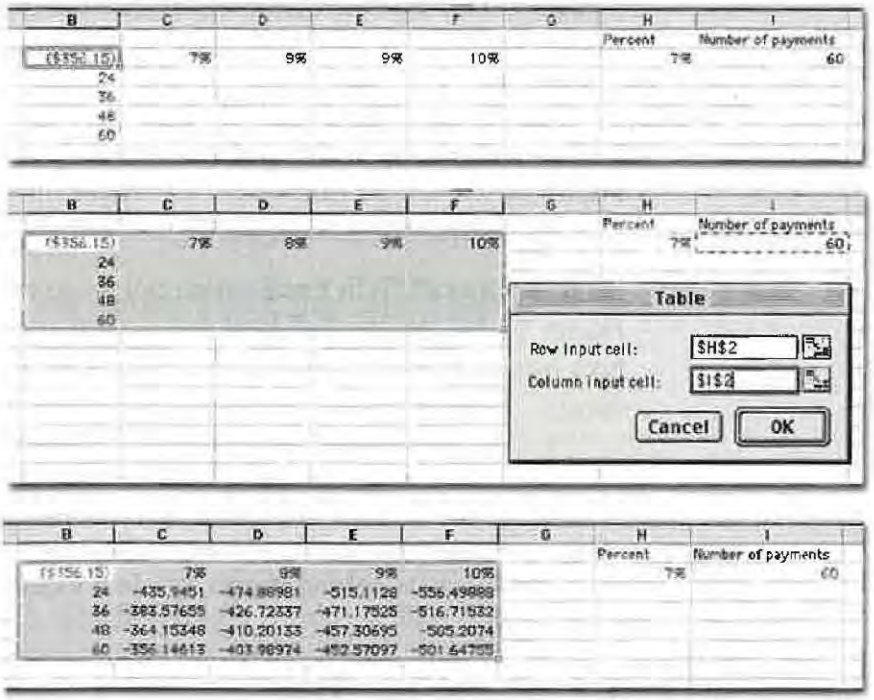


Figure 14-15:
Top: In a two-variable Data Table, two sets of data serve as the axes. The formula sits in the upper-left corner (B2).

Middle: Enter one set of values in a column below the formula, and the second set in a row to its right. Select all of these cells, and then choose Data→Table. Specify the input row and the input column–the two references that are outside of the table (here, H2 and I2).

Bottom: Click OK; Excel creates a beautiful table of payments based on how two variables interact.

To create a one-variable table, arrange the data in your cells so that the items that you want to plug into your calculation (the interest rate, for example) is in a continuous row or column; then proceed as shown in Figure 14-14. If you choose a row, type the formula that you want to use in your table in the cell that's *one column to the left* of that range of values, and one row below it. If you choose a column, type the formula in the row above the range of values, and *one column to the right* of it. Think of the values as row or column heads, and the place where the formula is as the actual row or column in your soon-to-be-formed table. You'll also need to place a cell with the value you want to substitute.

You can also command Excel to create a table that computes the size of a payment based on different interest rates *and* a different number of total payments. This is called a two-variable data table, and it's created in much the same way as a single-variable data table.

To create a two-variable table, enter a formula in your worksheet that refers to the *two* sets of values that get plugged into the formula; then enter the two sets of values as shown in Figure 14-15, and proceed as directed in that figure.

Goal seek

When you know the answer that you want a formula to give but you don't know the values to plug into the formula to *get* that answer, then it's time for Excel's *goal seek* feature.

To use it, choose Tools→Goal Seek. In the resulting dialog box (Figure 14-16), fill in the following three fields:

- **Set cell.** Specifies which cell to start from—the cell containing a formula that you're using to seek your goal. For example, Figure 14-16 shows a mortgage calculation. The Set cell would be H30 (the lower-right cell), which shows the monthly payments; the purpose of this exercise is to find a mortgage that permits lower monthly payments.
- **To value.** Specifies the value that you want to see in that cell. In the example of Figure 14-16, the To value is $1,300; that's the amount that the two-story house down the street would cost per month.
- **By changing cell.** Tells Excel which cell it can tinker with to make that happen. In Figure 14-16, the key cell here is C6, your monthly income; you want to know how much your salary would have to go up to afford that kind of mortgage payment.

Click OK to turn Excel loose on the problem. It reports its progress in a Goal Seek Status window, which lets you step Excel through the process of working toward your goal. There are a couple of caveats: You can select only single cells, not ranges, and the cell you're tweaking must contain a value, not a formula.

Tip: Another way to do a little goal seeking is to fiddle with a chart. First, set up a chart of the data, and then link a couple of cells with the Tools→Goal Seek function. Then, when you resize an element (such as a bar in a bar chart), the value in the cell represented by that element changes automatically. The Goal Seek window pops up, giving you the opportunity to seek the new value.

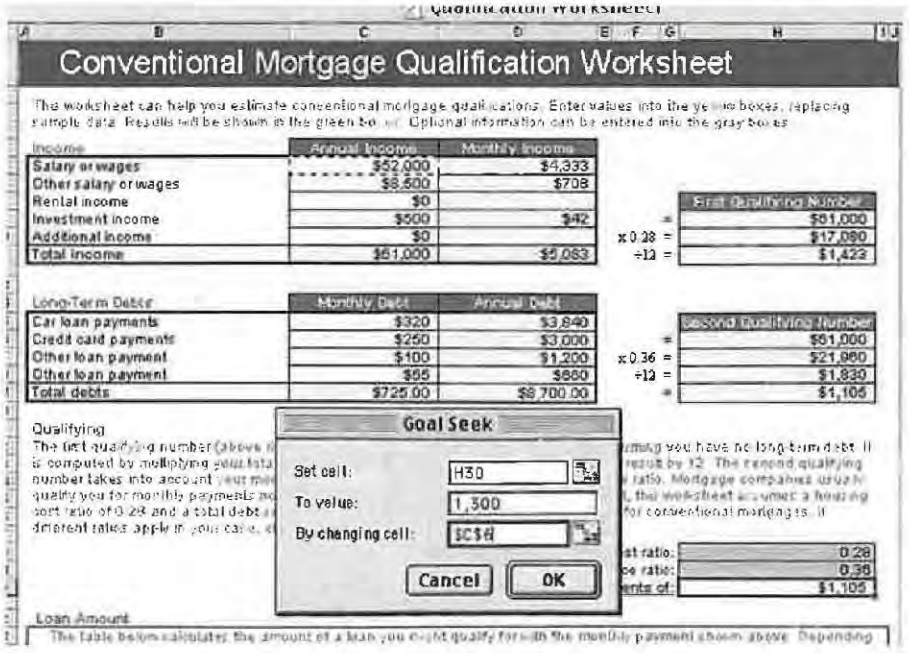


Figure 14-16: *By letting Excel retool the reported income on a mortgage qualification sheet via its goal-seek function, you can find out how much extra cash to ask for in your next performance evaluation to afford that nice house down the street.*

Scenarios

Scenarios are like little snapshots, each containing a different set of "what-if" data plugged into your formulas. Because Excel can memorize each set and recall it instantly, scenarios help you see how your worksheet model is likely to turn out given different situations. (You still have to enter the data and formulas into your spreadsheet before you play with scenarios, though.) In a way, scenarios are like saving several different copies of the same spreadsheet, each with variations in the data. You can switch between scenarios quickly, which lets you run through different situations without retyping any numbers.

To create a scenario, choose Tools→Scenarios. This brings up the Scenarios Manager, in which you can add, delete, edit, and merge different scenarios as shown in Figure 14-17.

The list box on the left side shows all of the scenarios that you've saved. By selecting a scenario and then clicking a button on the right, you can show your scenarios in your spreadsheet, merge them together, or even make a summary. Here's what each does:

- **Show.** The Show button lets you switch between scenarios; just select the set of data you want to look at, and then click Show.

- **Close.** This button simply closes the Scenario Manager window.
- **Add.** Click this button to design a new scenario, courtesy of the Add Scenario window (Figure 14-18). It lets you name your scenario and specify the cells you want to change (you can either enter the cell references or select them with the mouse). Excel inserts a comment about when the scenario was created; you can edit this comment to say anything you like, making it a great place to note exactly what the scenario affects in the spreadsheet.

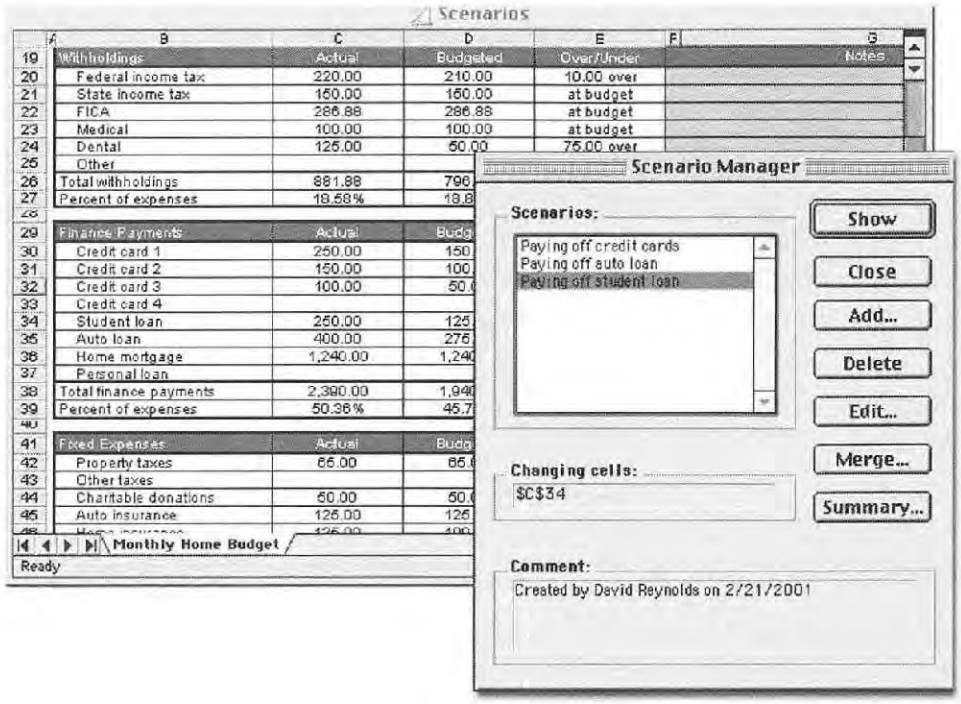


Figure 14-17: *In the Scenario Manager window, you can switch between saved scenarios, add new ones, edit existing ones, merge two or more scenarios into one, or even summarize your scenarios to a standard summary or PivotTable. The list area on the left shows all of the scenarios that you've created and saved, and by selecting a scenario and clicking a button, you can do wonderful things with it.*

Once you click OK, you're taken to the Scenario Values window, in which you enter new values for the cells you specified in the previous window. Once you're done entering your new values, click OK. The new scenario appears in the Scenario Manager.

- **Delete.** Deletes the currently selected scenario.
- **Edit.** Opens the Edit Scenario window, which looks just like the Add Scenario window. You can use this window to adjust a previously saved scenario.
- **Merge.** Merges scenarios together into a new worksheet. To merge scenarios, open all of the workbooks that contain scenarios that you want to merge, and then switch to the work*sheet* where you want the merged scenarios to appear. This is your destination worksheet for the merge.

  Open the Scenario Manager (Tools→Scenarios) and click Merge; proceed as shown in Figure 14-19.

Tip: When you're merging scenarios, make sure that your destination worksheet is the same as all of the scenarios. Otherwise, merged data will still appear in the proper cells, but if those cells aren't properly placed or formatted, it'll look all wrong.

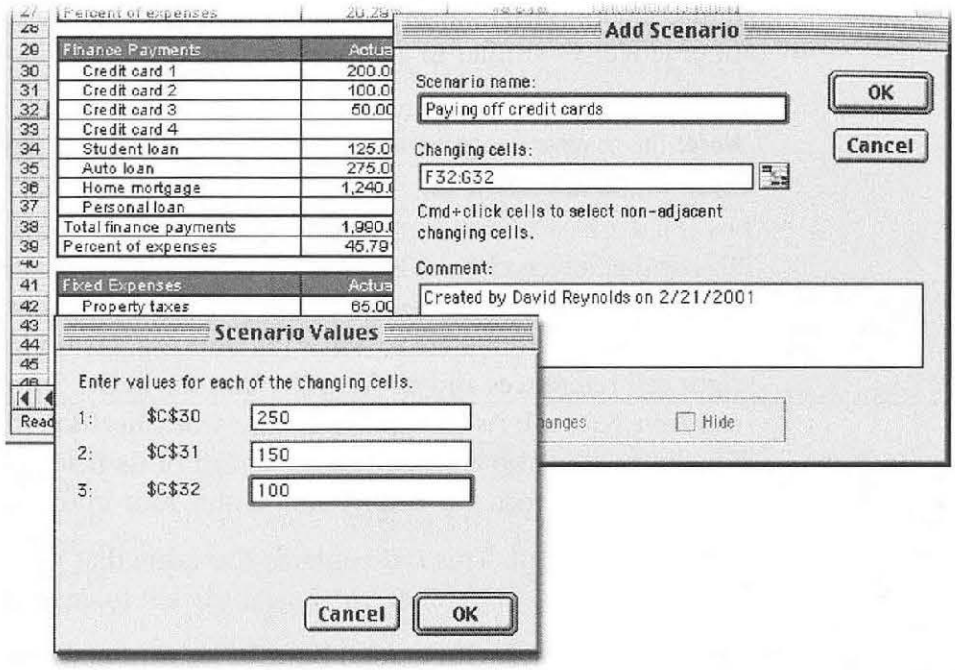


Figure 14-18:
Top right: By clicking the Add button in the Scenario Manager, you bring up the Add Scenario window. In this window, you name your scenario and tell Excel what cells to change when tweaking it.

Bottom left: Once you click OK, you see the Scenario Values window, in which you enter the new values for the cells you specified in the previous window.

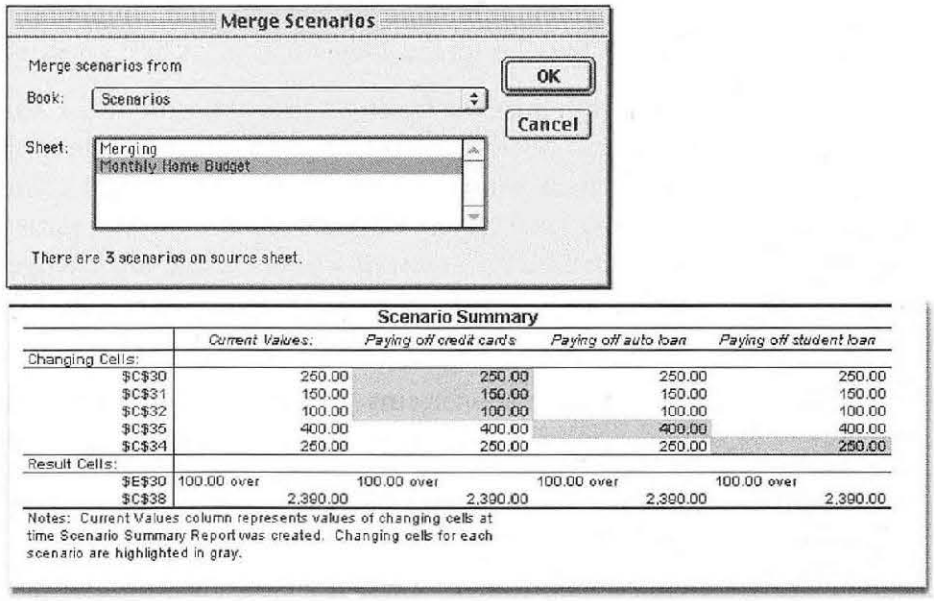


Figure 14-19:
Top: To merge several scenarios into one, click Merge in the Scenario Manager window, use the Book pop-up menu to select the workbook that has the scenarios you want to merge, then select the sheet *that contains the actual scenarios. Click OK; the new worksheet will contain all of the changes from the scenarios.*

Bottom: A scenario summary report shows all of the changes made in your scenario at a glance.

- **Summary.** When you click the Summary button, the Scenario Summary window appears. It has two radio buttons: one for a standard summary (which creates a

table) and one for a PivotTable summary (which, as you might imagine, creates a PivotTable of your changes so you can *really* tweak the numbers). Figure 14-19 shows the effect.

Solver

Excel's Solver builds a spreadsheet model that works by adjusting the values of some of the sheet's cells; it's a great tool for such tasks as balancing a complicated budget. In practice, it's similar to goal seeking, but it's more powerful.

Note: This command appears in the Data menu only if you've installed it using the Value Pack installer described on page 619.

To use the Solver, choose Tools→Solver. In the Solver Parameters window (see Figure 14-20), you can tell the Solver what its target solution is, what cells it can change, and some rules to adhere to while it's working toward its solution. By entering the right cell references and clicking the buttons in the Solver Parameter window, you can have Excel do its best to tweak your worksheet to reflect a reality that you hope (or fear) will come true. Here's what each of its fields do; you can go through the first few fields from top to bottom to enter your information.

- **Set Target Cell.** This cell contains the value that you want to solve for. You can type in the cell reference, or you can click it to enter it automatically.
- **Equal To.** These three radio buttons let you set a goal for the solver. This is the value that you want to end up in the Target Cell after the solver has done its work.
- **By Changing Cells.** Here, you tell Excel what cells are fair game to change while looking for a solution. You can also click the Guess button, which will tell Excel to examine the spreadsheet and take its best guess as to what cells to change.
- **Subject to the Constraints.** This field, with Add, Change, and Delete buttons, lets you enter conditions that the solver has to follow when coming up with a solution. When you click the Add button, you get a window in which you can tell Solver to keep certain cells in a certain range of values. This is important, because without adding constraints, Solver could just change the value of one cell and be done. You can use the Change button to edit an existing constraint, or select a constraint and hit the Delete button to get rid of it.

Once you enter a constraint (or several), five more buttons appears on the right side of the window: Solve, Close, Options, Reset All, and Help.

- **Solve.** This is the Go button. When you click it, Solver goes to work on your problem.
- **Close.** This button closes the Solver Parameters window without looking for a solution.
- **Options.** This button opens the Solver Options window, in which you can get very specific about how Solver goes about its task. You can set a time limit, an

iteration limit, and tell it how precise to be, plus you can load and save these Solver models for use later. This window also lets you control the intricacies inherent in the Solver, such as whether it uses a linear model for its changes, and how it handles estimates, derivatives, and searches. This window has a prominent Help button, which is a good thing. Clicking it will get you into the highly technical details behind the Solver, something you might want to tweak if you're *very* math-proficient.

- **Reset All.** Resets the items in the Solver Parameters window so you can start over.
- **Help.** Opens Excel's help system to the Solver's entries.

Once you hit the Solve button, Solver will go about its business, plugging new numbers into the spreadsheet. It will then put up a Solver Results window, which lets you change your spreadsheet back to the way it was or keep the Solver results. You can also save the Solver's changes as a scenario in your worksheet from this window, if you like.

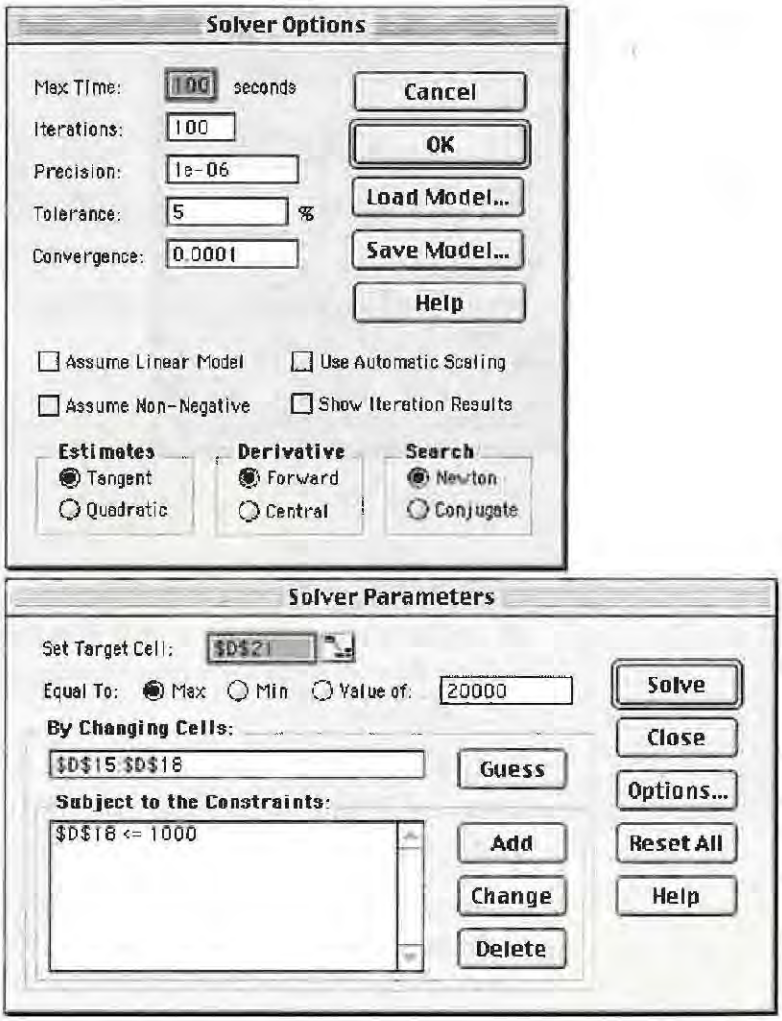


Figure 14-20:
Top: The Solver Parameters window is where you'll tell the Solver how to get started with coming up with solutions to a problem you pose. You give it a set of parameters, and then you tell it to go to work.

Bottom: Clicking the Options button opens the Solver Options window, in which you can set the specifics of how the Solver goes about its business.

Tapping the Data menu

PivotTables and databases are some of the most powerful elements found in the Data menu; but a few other commands in the Data menu let you perform all manner of additional tricks with your data.

- **Sort.** This powerful menu command lets you sort selected data alphabetically or numerically. You can perform several levels of sorting, just as you can when sorting database items—for example, sort by year, then by month *within* each year. As shown in Figure 14-21, the beauty of the Sort command is that it sorts entire *rows*, not just the one column you specified for sorting.

Tip: By clicking "Header row," you avoid sorting the top-row columns labels into the data—a common problem with other spreadsheets; Excel leaves the top row where it is, as shown in Figure 14-21.

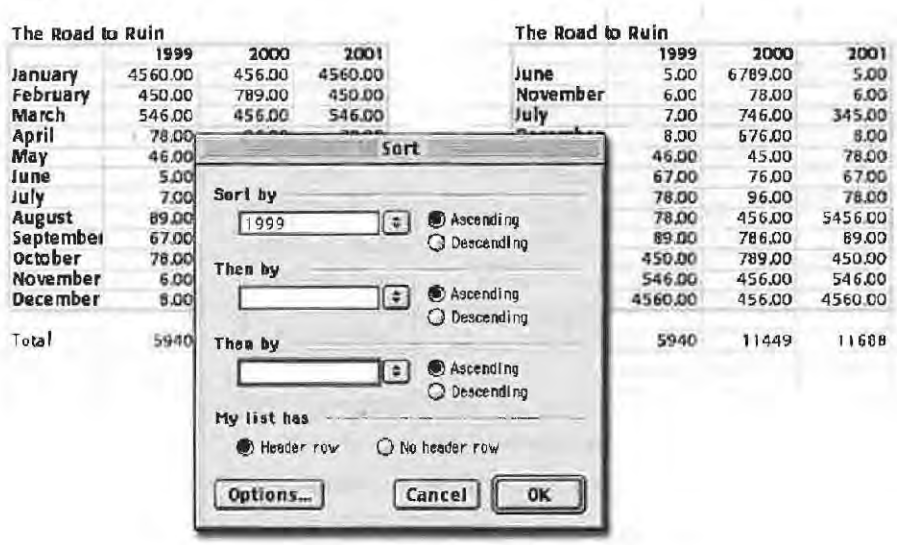


Figure 14-21: *Left: A table sorted by month. You highlight the table (including the year labels across the top), and then choose Data→ Sort. In the Sort dialog box, you specify (using the top pop-up menu) that you want to sort the rows according to the numbers in the 1999 column. When you click OK, all rows are sorted (right); the year totals for each June are still the same, but now June is the top row of the table.*

- **Filter.** When you choose AutoFilter from this submenu, you get pop-up menus at the top of each column in your selection (Figure 14-22); you can use them to hide or show certain rows or columns, exactly like the filters found in list objects (see page 425).
- **Show All** simply shows all items (it's unavailable unless you've set up a filter); Advanced Filter lets you build your own filter, using a dialog box that lets you first specify the cells to be filtered, and then provides a cell range with samples to filter.
- **Subtotals.** This command automatically puts subtotal formulas at the bottom of a selected column or columns of cells. It uses headers at the top of the columns to use as column names for which it can add subtotals.

  To use this feature, select a column, and then choose Data→Subtotals. In the window that pops up, you can tell Excel what kind of formula to put at the bot-

tom of the column (your choices include Sum, Count, StdDev, and Average, among others). If you've selected more than one column, you can have the subtotal added to whichever column or columns you choose. Figure 14-23 shows an example.

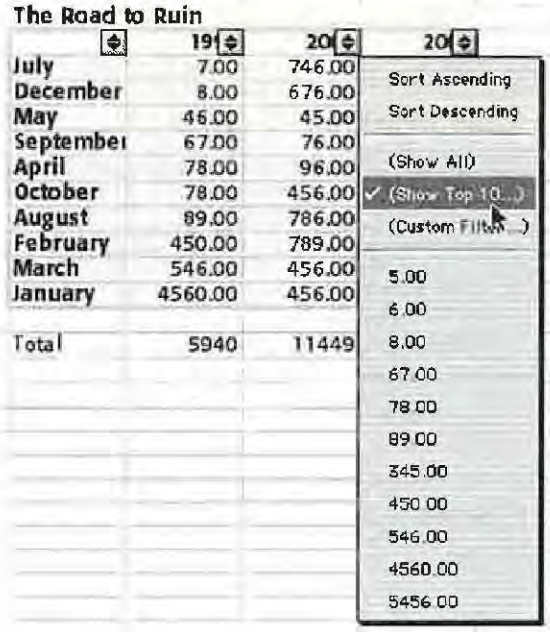


Figure 14-22:
You can quickly and easily sort the rows of some selected data by choosing Data→Filter→AutoFilter, then choosing from the pop-up menus that appear. For example, this command shows only the highest ten values within this column; all other rows of the table are temporarily hidden.

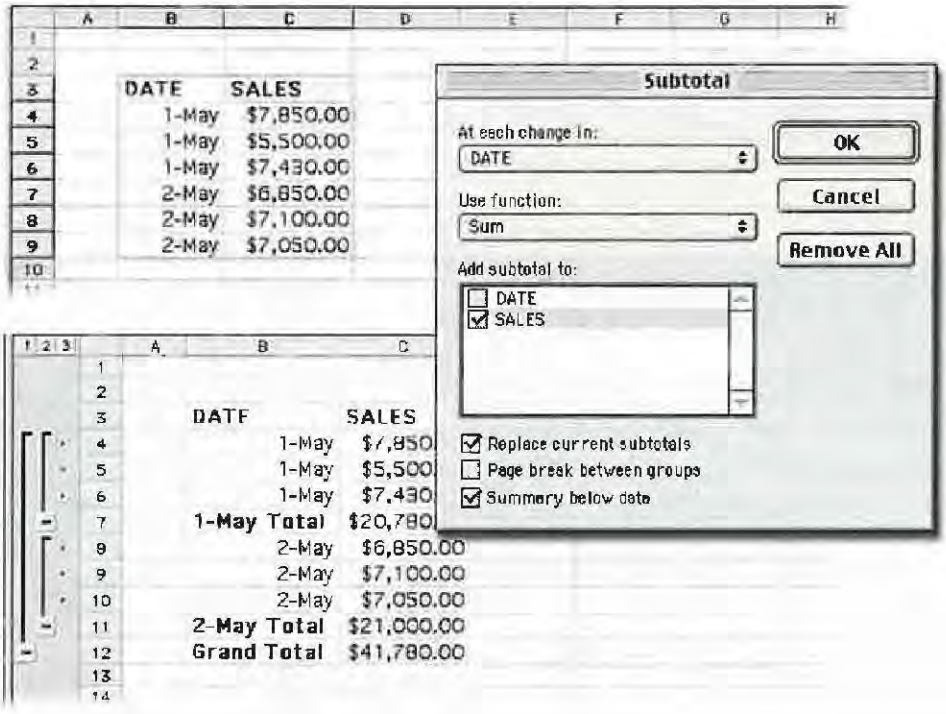


Figure 14-23:
Top left: Select some data, then choose Data→Subtotals.

Top right: Specify which column determines where subtotals go (in this case, at each change in the date), what function is used, and where the subtotal appears. Click OK.

Bottom: The subtotals are grouped according to the column you selected. (Excel uses its outlining notation, as described on page 513, making it easy to collapse the result to show subtotals only.)

- **Text to Columns.** Suppose you've pasted a phrase into a single cell, and now you'd like to split each word into a separate column. Or maybe a cell contains several cells' worth of text, each separated by a nonstandard delimiter (such as a semicolon) that you'd like to split in a similar fashion. Text to Columns is the solution, as shown in Figure 14-24.

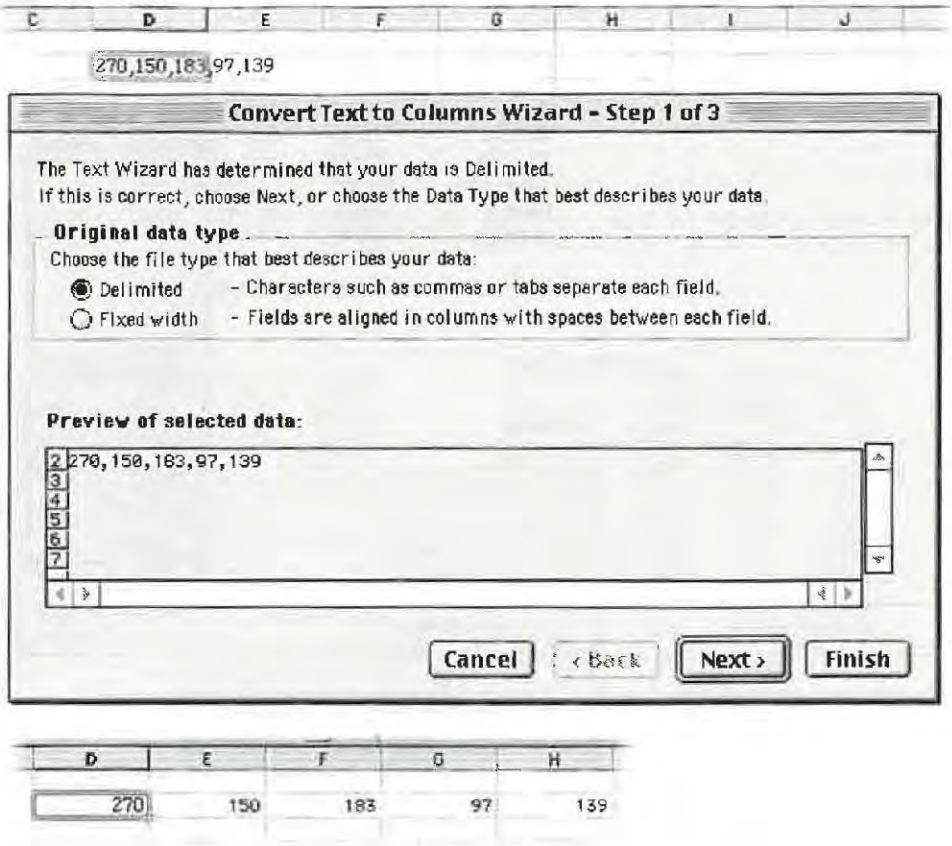


Figure 14-24: *Top: If you have some delimited text that you'd like to split into several columns, select the cell and choose Data→Text to Columns; the three-step Convert Text to Columns Wizard appears. You'll be asked what kind of split you'd like to perform, what punctuation serves as the delimiter, and what the data and cell formatting looks like.*

Bottom: Excel splits the data into the number of columns you specify.

POWER USERS' CLINIC

Validating Data

If you want to make sure that the right kind of data is entered in a cell or cells, you can use a built-in Excel feature called Data Validation, which makes sure that (for example) dates don't end up in cells meant for currency.

To set up data validation for a cell or cells, select them and then choose Data→Validation, which brings up the Data Validation window. This window has three tabs: Settings, Input Message, and Error Alert.

In the settings tab, you can choose what data types you'll allow to be entered (such as whole numbers, decimals, or lists). In the Input Message tab, you can enter a message that will pop up when you (or whoever uses this spreadsheet) selects the cell in question. In the Error Alert tab, you can specify what error message Excel should display when someone enters the wrong kind of data.

- **Consolidate.** The Consolidate command brings data from several different worksheets or workbooks together into the same area, turning it into a kind of summary. For example, if you track revenues for each region on four different worksheets, you can consolidate that data onto a fifth worksheet. Figure 14-25 shows the procedure.

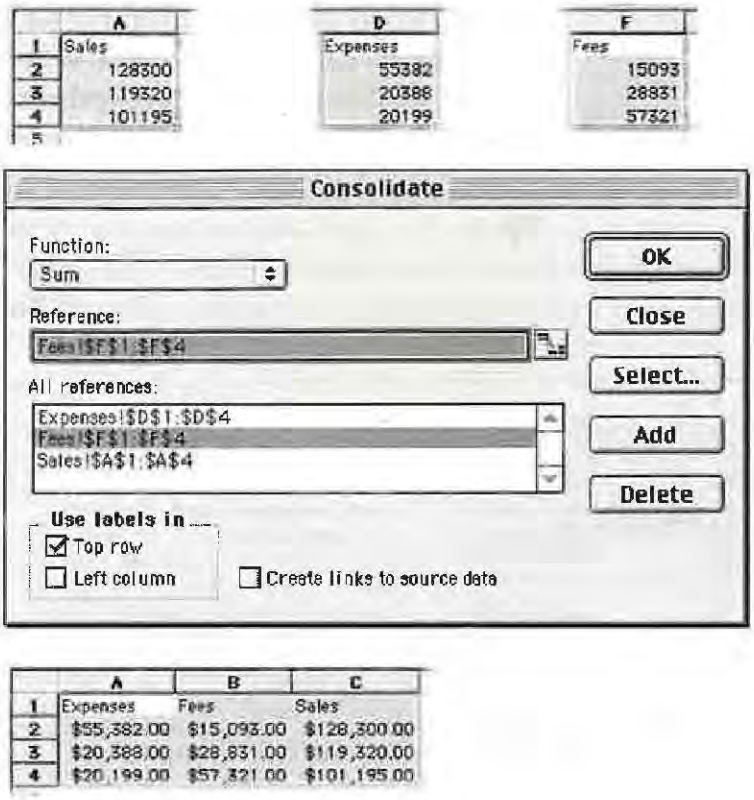


Figure 14-25:
Left: You have data from several different spreadsheets. Select the cell in the upper-left corner of the area where you want the consolidated data to appear; choose Data→Consolidate.

Middle: In the resulting window, choose a function that you want Excel to use for consolidating your data. In this window, you add the various cell references that you want to consolidate, and specify which cells you want consolidated (click Add after each selection). The "Use labels in" checkboxes lets you tell Excel to draw data labels from the top row or left column, if you've put them there. "Create links to source data" makes the links between the consolidated data and the source cells live, so that updates to the source cells will change the consolidated data.

Bottom: Once consolidated, the data appears in one place.

Template Wizard

This useful tool takes cells from an existing workbook and creates two specialized linked workbooks from them—one that acts as a database, and another that acts as a template. Any data you enter into the template gets collected in the database.

Note: The Template Wizard command appears in the Data menu only if you've installed it using the Value Pack installer described on page 619.

Such linked databases are fantastic when you want to gather data from several different sources—when gathering sales figures from several different sales reps into the same spreadsheet, for example, or when asking for several different sets of budget projections from a group of managers. Instead of sending around the same Excel spreadsheet to each person in turn, asking for the proper numbers, you can use a template to easily gather this information almost effortlessly.

The database portion of a template is the gathering place for your data. To gather information from several people at once, create a template and send a copy to each

person; keep the database portion of the template in a place that everyone can access—such as a file server or a common hard drive. Then, when any person enters information into the template, that information is copied into the database. Here's how to do it:

1. **Open the workbook that will serve as a model for your template. Choose Data→Template Wizard.**

   The wizard appears (see Figure 14-26). Using the pop-up menu of open documents, select the workbook that will serve as the model for your distributed template files. You can also specify where you want Excel to put the template on your hard drive.

Tip: By default, Excel puts a new template in the Microsoft Office 2001→Templates folder. But if you want the template to appear in the Project Gallery, add it to one of the folders *inside* the Templates folder, such as My Templates, onto the end of the file path. (See page 488 for details on folder path notation.)

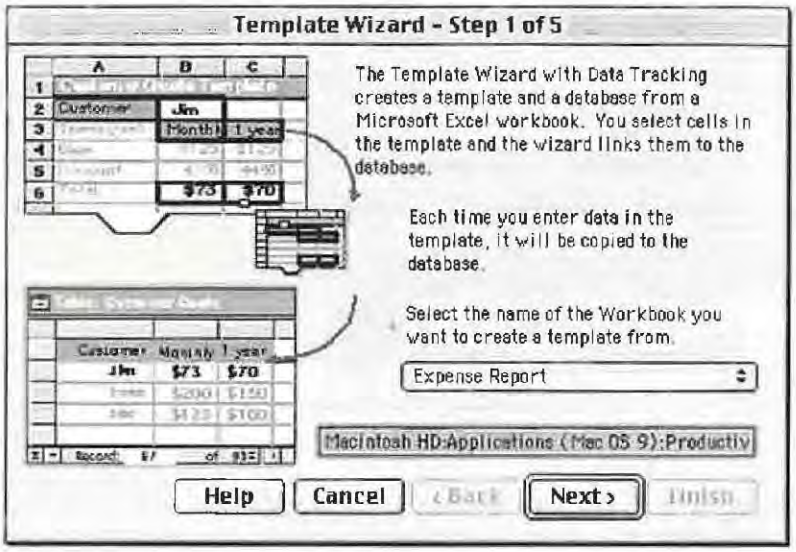


Figure 14-26:
When you start up the Template Wizard, you're asked to select a workbook to use as a starting point. In this example, the model spreadsheet is called Expense Report.

2. **Click Next. Indicate where you want the database file stored, if you like.**

   In the next window, you're asked for the kind of database you want to create, but you're only offered one choice—Microsoft Excel Workbook. Take it.

   You can also type in the location and name of where you'd like Excel to create the database file. Excel suggests the folder that contains the workbook you chose in step 1. (Once again, Excel uses folder path notation to identify this location; see page 488.)

   On this screen, you can also click the Select button in the window to select an existing workbook to use as a database.

3. **Click Next. Specify the cells you want to track.**

   This step is the most labor-intensive. In it, you'll name the sheet that contains your database; then Excel asks you to identify the cells in the template whose data you'll want to collect. You can do so either by typing their coordinates or—if you value your time at all—by using the cell-selection icons running down the center of the dialog box in Figure 14-27 and described on page 459.

   Once you've picked a cell to link, you'll need to give it a field name—if there's a column header above the cell, Excel uses *that* as the field name, also as shown in Figure 14-27. These cells that you're entering in this window will be the ones linked between the template and its database.



Figure 14-27: *On this screen, you link cells to the database file and give them field names. This wizard is very slow, so give it some time between clicks. If you select a cell below a column heading, the wizard automatically fills in the Field Name for you. In the case of this expense-report template, each field name is taken from the column heading above the indicated cell. The Up and Down buttons work as scroll arrows, letting you scroll up and down through the database.*

4. **Click Next. Add data from existing documents, if you like.**

   If you have workbooks that are arranged in the same way as the template, this screen lets you add data from those workbooks into the database. To do so, click "Yes, include." You'll then be presented with a window that asks for these workbooks to include.

   To go on to the next step *without* including other workbooks, click "No, skip it."

5. **Click Next.**

   The final wizard screen tells you that Excel has created a template and a database workbook in the folder you specified in step 2.

6. **Click Finish.**

   Now, when you open the template and make changes to the linked cells, Excel automatically copies the changes to the database worksheet. Now, you can distribute the template to several people; when the completed template documents

are returned to the folder you specified in step 1, Excel collects their data into the central database workbook.

Note: When you create a template, Excel embeds a *macro* in the template file (see page 517). Be sure to tell those to whom you distribute this template file that this macro is legitimate, lest they think it's a macro virus.

Data form

A spreadsheet is certainly a compact and tidy way to view information. But for the novice, it's not exactly self-explanatory. If you plan to turn some data-entry tasks over to an assistant who's not completely at home with the row-and-column scheme, you might prefer to set up a *data form* for him—a little dialog box that displays a single spreadsheet row as individual blanks that must be filled in (see Figure 14-28). Data forms also offer a great way to search for data or to delete it one row (that is, one record) at a time.

To set up a data form, start with a series of columns with column headers at the top—a list does nicely. These headers serve as categories for the data form. Then, with the cursor in the list, choose Data→Form, which brings up the data form window for that list (Figure 14-28).

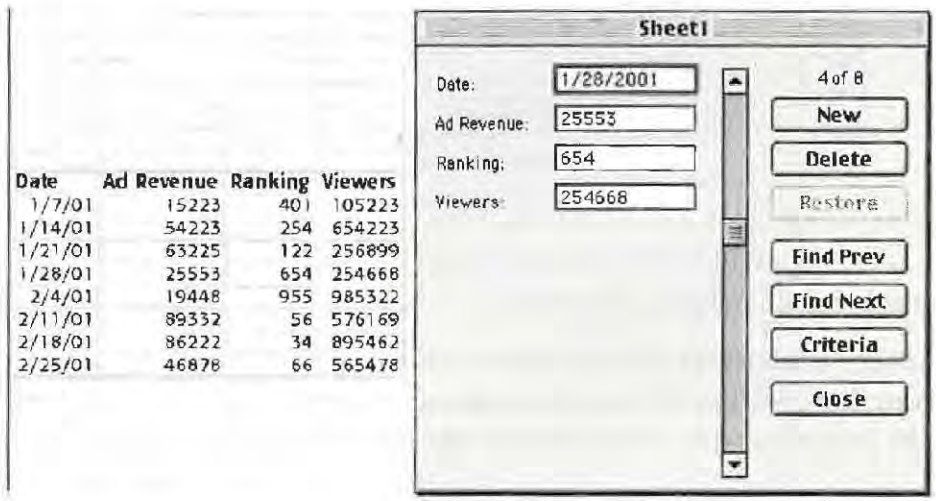


Figure 14-28: *The fields in a data form correspond to the columns in the spreadsheet. Data forms work like miniature databases. With them, you can quickly add and remove whole rows of data in a list, and you can search through a list for all matches. It even shows how many items there are in the list in the upper-right corner.*

When the form appears, the text boxes show the first row of data in the list. You can scroll through the rows (or records) using the scroll bar. On the right, eight buttons let you add a new record (or row) of data at the bottom, delete the currently selected row, click the Criteria button to enter search criteria in the text boxes next to the field names, and then search for that information using the Find Prev and Find Next buttons. Finally, the Close button closes the window.

Viewing Your Data

Excel worksheets can get big very quickly; fortunately, Excel has some great tools to help you look at just the data you want.

Custom views

Excel can memorize everything about a workbook's window—its size and position, any splits or frozen panes, which sheets are active and which cells are selected, and even your printer settings—in a *custom view*. Custom views are snapshots of your view options at the time that the view is saved. Using custom views, you can quickly switch from your certain-columns-hidden view to your everything-exposed view, or from your split-window view to your full-window view.

To create a custom view, choose View→Custom Views, which brings up the Custom Views window. You make Excel memorize your current window arrangement by clicking Add (and typing a name for the current setup); switch between custom views by clicking a view's name in the list.

Reports

Reports combine sheets, views, and scenarios into a convenient printable format. They're great when you have a sprawling spreadsheet from which you only want to print a few key cells. For example, if you want to create a report with just the capital expenditures sheet of a huge yearly budget, the Report Manger can do the trick.

Note: The Report Manager is yet another feature that's only available if you take the trouble to install it using the Value Pack installer described on page 619.

To create a report, choose View→Report Manager. In the Report Manager window, you can create, edit, print, and delete reports by clicking the buttons on the right.

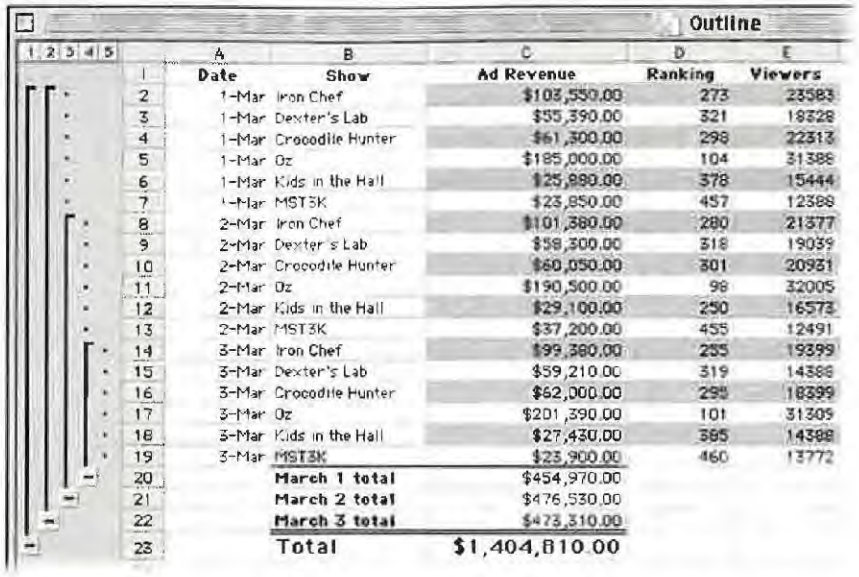
For example, to create a new report, click Add; in the Add Report window, choose the sheets, custom views, and scenarios that you want to add to the report. When you're done, click OK, which returns you to the Report Manager window. You should see your newly minted report in that window; you can print it by selecting it and then clicking the Print button.

Outlining

In Excel, *outlines* help to summarize many rows of data, hiding or showing levels of detail in lists so that only the bottom lines are visible (see Figure 14-29). Because they let you switch between overview and detail views in a single step, outlines are useful for worksheets that teem with subtotals and details. (If you're unfamiliar with the concept of outlining software, consult page 197, which describes the very similar feature in Microsoft Word.)

You can create an outline in one of two ways: automatically and manually. The automatic method works only if your worksheet is properly formatted:

- Summary *columns* must be to the right or left of the data they summarize. In Figure 14-30 at top, the D column is a summary column, and it's to the right of the data it summarizes.



Outline

	A	B	C	D	E
1	Date	Show	Ad Revenue	Ranking	Viewers
2	1-Mar	Iron Chef	$103,550.00	273	23583
3	1-Mar	Dexter's Lab	$55,390.00	321	18328
4	1-Mar	Crocodile Hunter	$61,300.00	298	22313
5	1-Mar	Oz	$185,000.00	104	31388
6	1-Mar	Kids in the Hall	$25,880.00	378	15444
7	1-Mar	MST3K	$23,850.00	457	12388
8	2-Mar	Iron Chef	$101,380.00	280	21377
9	2-Mar	Dexter's Lab	$58,300.00	318	19039
10	2-Mar	Crocodile Hunter	$60,050.00	301	20951
11	2-Mar	Oz	$190,500.00	98	32005
12	2-Mar	Kids in the Hall	$29,100.00	250	16573
13	2-Mar	MST3K	$37,200.00	455	12491
14	3-Mar	Iron Chef	$99,380.00	285	19399
15	3-Mar	Dexter's Lab	$59,210.00	319	14388
16	3-Mar	Crocodile Hunter	$62,000.00	298	18399
17	3-Mar	Oz	$201,390.00	101	31305
18	3-Mar	Kids in the Hall	$27,430.00	365	14388
19	3-Mar	MST3K	$23,900.00	460	13772
20		March 1 total	$454,970.00		
21		March 2 total	$476,530.00		
22		March 3 total	$473,310.00		
23		Total	$1,404,810.00		

Outline

	A	B	C	D	E
1	Date	Show	Ad Revenue	Ranking	Viewers
2	1-Mar	Iron Chef	$103,550.00	273	23583
3	1-Mar	Dexter's Lab	$55,390.00	321	18328
4	1-Mar	Crocodile Hunter	$61,300.00	298	22313
5	1-Mar	Oz	$185,000.00	104	31388
6	1-Mar	Kids in the Hall	$25,880.00	378	15444
7	1-Mar	MST3K	$23,850.00	457	12388
21		March 2 total	$476,530.00		
22		March 3 total	$473,310.00		
23		Total	$1,404,810.00		

Figure 14-29:
Top: An outlined spreadsheet fully expanded.

Bottom: The same spreadsheet that's been partially collapsed. Clicking the + and – boxes opens and closes detail areas.

- Summary *formulas* must be immediately above or below the cells that they summarize. For example, in Figure 14-30 at bottom, the subtotals are directly below the cells that they add together.

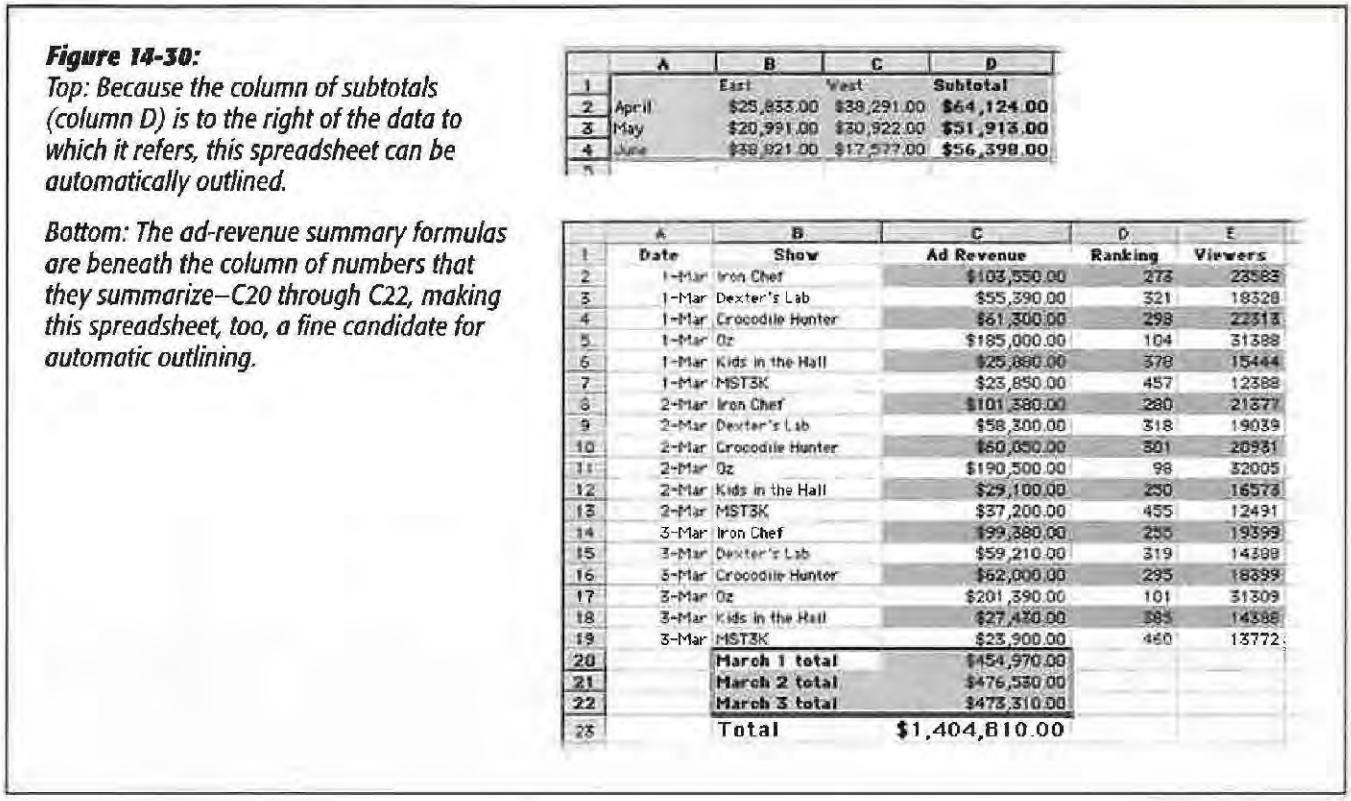
If your spreadsheet meets these conditions, creating an outline is as easy as selecting Data→Group and Outline→Auto Outline.

If your data isn't so neatly organized, you'll have to create an outline manually. Select the rows or columns of data that you want to group together into one level of the outline; choose Data→Group and Outline→Group. A bracket line appears outside the row numbers or column letters, connecting that group. Keep selecting rows or columns and grouping them together until you've manually created your outline.

Outlines can have eight levels of detail, letting you go from general to specific very quickly. Thick, left-side bracket lines connect the summary formula to the set of cells that's summarized *by* the formula; a square + or – button appears within this

line. A – indicates that particular portion of the outline has been expanded, while a + indicates that there is more to see inside.

To expand or collapse a single "branch" of the outline, click the + or – squares; if you see several nested bracket bars, click the outer + or – buttons to collapse greater chunks of the outline. The tiny numbers at the top of the columns identify these left-side lines, and correspond to Level 1, Level 2, and so on, exactly like the outliner level buttons in Word (see page 197).



	A	B	C	D
1		East	West	Subtotal
2	April	$25,833.00	$38,291.00	$64,124.00
3	May	$20,991.00	$30,922.00	$51,913.00
4	June	$38,921.00	$17,577.00	$56,398.00

	A	B	C	D	E
1	Date	Show	Ad Revenue	Ranking	Viewers
2	1-Mar	Iron Chef	$103,550.00	276	23583
3	1-Mar	Dexter's Lab	$55,390.00	321	18328
4	1-Mar	Crocodile Hunter	$61,300.00	298	22313
5	1-Mar	Oz	$185,000.00	104	31388
6	1-Mar	Kids in the Hall	$25,880.00	378	15444
7	1-Mar	MST3K	$23,850.00	457	12388
8	2-Mar	Iron Chef	$101,380.00	280	21377
9	2-Mar	Dexter's Lab	$58,300.00	318	19039
10	2-Mar	Crocodile Hunter	$60,050.00	301	20931
11	2-Mar	Oz	$190,500.00	98	32005
12	2-Mar	Kids in the Hall	$29,100.00	350	16573
13	2-Mar	MST3K	$37,200.00	455	12491
14	3-Mar	Iron Chef	$99,380.00	255	19399
15	3-Mar	Dexter's Lab	$59,210.00	319	14388
16	3-Mar	Crocodile Hunter	$62,000.00	295	18899
17	3-Mar	Oz	$201,390.00	101	31309
18	3-Mar	Kids in the Hall	$27,430.00	385	14388
19	3-Mar	MST3K	$23,900.00	460	13772
20		March 1 total	$454,970.00		
21		March 2 total	$476,530.00		
22		March 3 total	$473,310.00		
23		Total	$1,404,810.00		

Figure 14-30:
Top: Because the column of subtotals (column D) is to the right of the data to which it refers, this spreadsheet can be automatically outlined.

Bottom: The ad-revenue summary formulas are beneath the column of numbers that they summarize–C20 through C22, making this spreadsheet, too, a fine candidate for automatic outlining.

Tip: Although outlines were originally designed to hide or reveal detail, you can use this to hide *any* rows or columns that you like using the Outline tools.

Flag for Follow-Up

Sometimes, when you're presenting the contents of a workbook to someone else—or you're up battling a bout of insomnia by going through your old Excel workbooks—you come across something in a spreadsheet that needs updating, research, explanation, or some other kind of follow-up. Excel's *Flag for Follow-Up* feature lets you attach a reminder to a file, which you can program to appear (as a reminder box on your screen) at a specified time. See Figure 14-31 for details, or page 343 for more on Office 2001 reminders.

Adding a Comment

Here's another way to get your own attention (or somebody else's): add a *comment* to a cell—a great way to annotate a spreadsheet. A note might say, for example,

"This estimate seems way too high—call me" or "If you hadn't noticed, the dot-com era is over, pal." See Figure 14-32 for details.

To edit a comment that already exists, select the cell and then choose Insert→Edit Comment. To *delete* a comment, select the cell with the comment, and choose Edit→Clear→Comments.

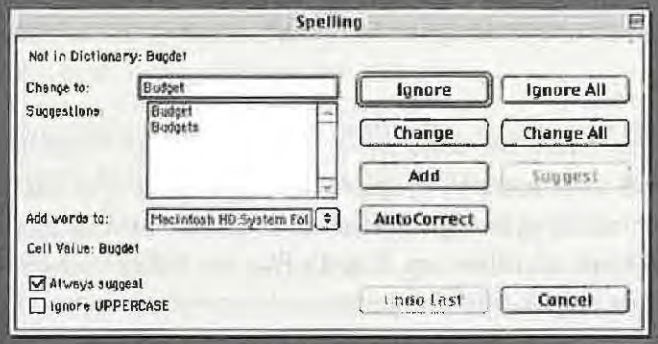


Figure 14-31:
To flag a file for follow-up, click the Flag for Follow Up button in the Standard toolbar (top), which brings up the Flag for Follow Up window (bottom). In this window, you can set a time and date to be reminded that you need to attend to your worksheet. Once the date is set, click OK and save the document. Excel creates a task *in Entourage (page 353); the reminder will pop up at the specified time, provided an Office 2001 program is running at the time.*

POWER USERS' CLINIC

Proofing Tools

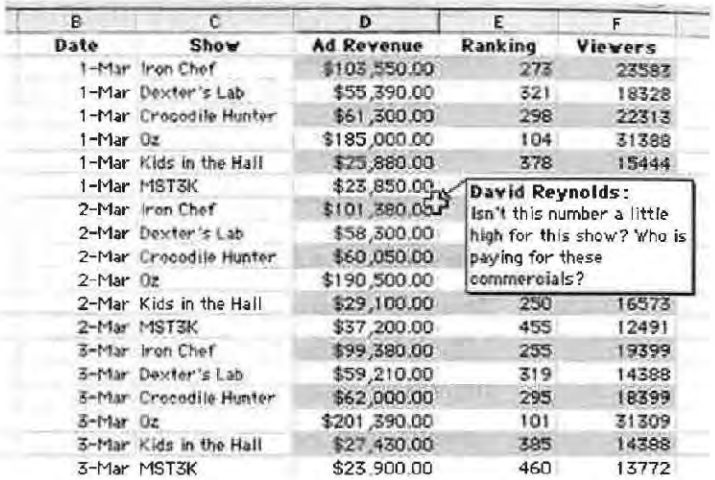
A spelling error can ruin the credibility of an otherwise brilliant spreadsheet, especially when you've gone through the trouble of getting it to look just right. By running a spell check on your spreadsheet before you show it to others, you can protect yourself from just such an embarrassing mishap. Fortunately, Excel is part of a larger office suite—one that includes spelling tools.



To run a spelling check on your spreadsheet, choose Tools→Spelling. Excel scans the text in your spreadsheet; if it comes across a suspect word, the Spelling window appears. It works exactly like the Word spelling checker described on page 71, and, in fact, relies on the same spelling dictionaries. (The AutoCorrect button is the sole enhancement here; once the dialog box shows both your typo and the proper spelling, click this button. From now on, Excel will correct this typo automatically and quietly whenever it occurs.)

There's probably not much call for a definitions dictionary in spreadsheets these days, but if you run across a term in a spreadsheet that you don't know (*profit*, for example), you can access Office 2001's new definitions dictionary, too, by choosing Tools→Dictionary and typing in the word you'd like defined. (See page 31 for more on this dictionary.)

Tip: Like the →Stickies program on every Mac, Excel comment boxes lack scroll bars. If you have a lot to say, you can keep typing past the bottom boundary of the box; Excel scrolls the note automatically. To scroll back up again, drag the cursor through the text until you bump the top edge of the note. (Alternatively, drag the tiny white handles to make the box bigger.)



B	C	D	E	F
Date	Show	Ad Revenue	Ranking	Viewers
1-Mar	Iron Chef	$103,550.00	273	23583
1-Mar	Dexter's Lab	$55,390.00	321	18328
1-Mar	Crocodile Hunter	$61,300.00	298	22313
1-Mar	Oz	$185,000.00	104	31388
1-Mar	Kids in the Hall	$25,880.00	378	15444
1-Mar	MST3K	$23,850.00		
2-Mar	Iron Chef	$101,380.00		
2-Mar	Dexter's Lab	$58,300.00		
2-Mar	Crocodile Hunter	$60,050.00		
2-Mar	Oz	$190,500.00		
2-Mar	Kids in the Hall	$29,100.00	250	16573
2-Mar	MST3K	$37,200.00	455	12491
3-Mar	Iron Chef	$99,380.00	255	19399
3-Mar	Dexter's Lab	$59,210.00	319	14388
3-Mar	Crocodile Hunter	$62,000.00	295	18399
3-Mar	Oz	$201,390.00	101	31309
3-Mar	Kids in the Hall	$27,430.00	385	14388
3-Mar	MST3K	$23,900.00	460	13772

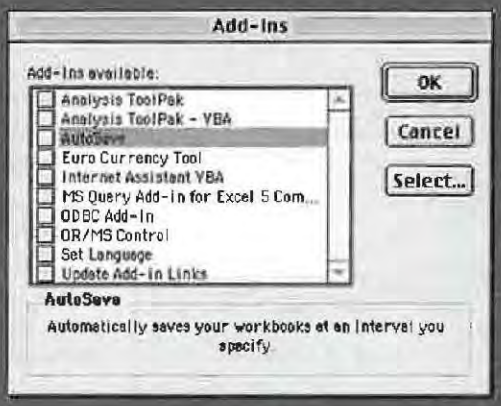
David Reynolds: Isn't this number a little high for this show? Who is paying for these commercials?

Figure 14-32:
To add a note to a cell, click the cell and then choose Insert→Comment. You get a nice yellow "sticky note" with your name on the top (as it appears in the Edit→Preferences→General tab). Type your comment in the window. When you click elsewhere, the note disappears, leaving only a small triangular mark in the upper-right corner of the cell (like the one in the "Crocodile Hunter" cell). To make the comment reappear, let the cursor hover over the triangle.

POWER USERS' CLINIC

Add-Ins

Hungry for even more customization? Excel can satisfy even that appetite with Add-Ins: little plug-in programs that add new abilities to Excel. Several come with Excel, and a few others are available for download on the Internet.



To use an Add-In, you must first put it into the Microsoft Office 2001→Office→Add-ins folder on your hard drive. Once they're there, launch Excel and choose Tools→Add-Ins. You get the Add-Ins window, in which you can enable the Add-Ins of your choice by checking the checkboxes next to their names. Click OK to load your Add-Ins.

One of the most useful included Add-Ins is AutoSave, which makes Excel save open workbooks automatically after a time interval that you set. Another useful Add-In for power users is something called the Analysis ToolPak, which, when turned on, adds a series of engineering, financial, and statistical formulas to Excel's function lists.

Macros: Making Excel Work for You

A *macro* is a recorded series of actions that Excel can play back automatically, at high speed and with perfect accuracy. Macros are useful for automating tedious processes, such as formatting or data entry tasks.

For example, if you're constantly getting malformed expense reports because someone in Sales insists on changing the formatting in mileage cells to Currency instead of Number, you can write a macro that fixes the problem in the blink of an eye.

But that's just the beginning. People who develop high-level macro-writing skill can use it as a full-on programming language; their macros can throw dialog boxes onto the screen to ask users for information, plug the provided responses into appropriate cells in a spreadsheet, massage it with formulas, and format it for beautiful printing. Such a macro, in other words, can ask for five stock symbols and their closing prices over a week, and then produce a neatly formatted percentage-of-change table.

You can record your own macros, or run macros you find embedded in a worksheet that came from somebody else.

Recording a Macro

To record a macro, choose Tools→Macro→Record New Macro. The Record New Macro box appears (Figure 14-33), giving you the chance to name your new macro, provide a description if you like, and specify where to store it (see Figure 14-33 for a rundown of your options).

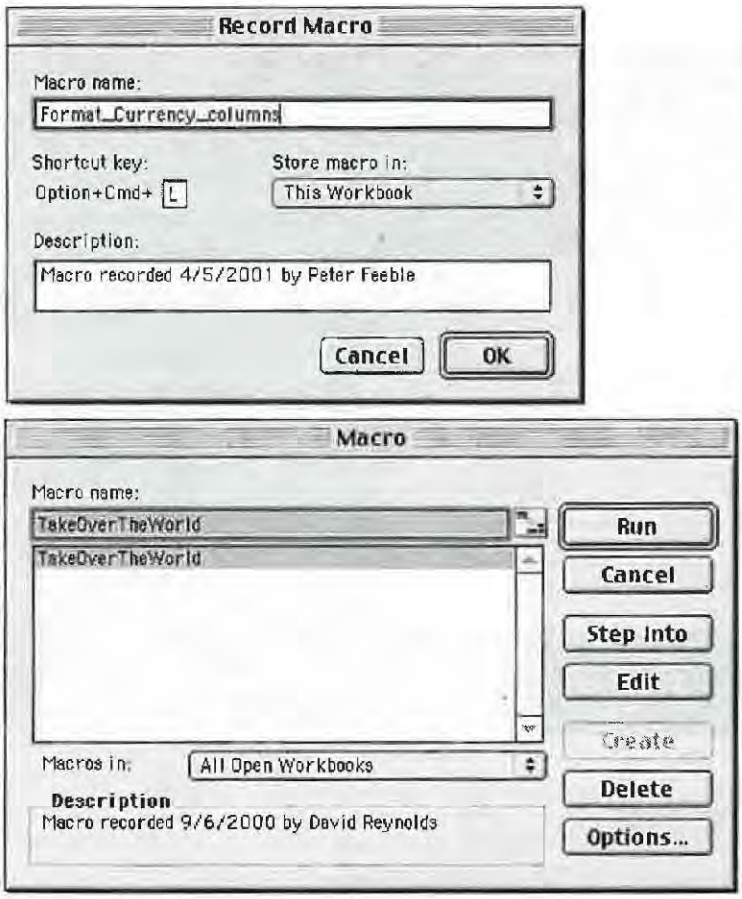


Figure 14-33:
Top: The New Macro dialog box gives you a chance to choose a keyboard combination that will trigger the macro during your everyday spreadsheet work.

Using the "Store macro in" pop-up menu, you can choose to store it ***In the currently open workbook*** *(you won't be able to use the macro without opening the workbook that contains it),* ***In a brand new workbook created to store the macro*** *(useful when you don't want to sully the workbook that you're working on with a macro, but still want to use a macro with it), or* ***In your personal macro workbook*** *(a special workbook that stays with the copy of Excel where the macro is created–a library where you can store all kinds of macros for use in any workbook).*

Bottom: In the Macros dialog box, click the Run button to trigger the highlighted macro, whether it takes over the world–or just merges a few cells and adds a border around the outside.

When you click OK, Excel puts up the macro toolbar (complete with a Stop button) and begins to watch and memorize your every move; each click, drag, and menu command becomes a part of the macro. Excel macros are surprisingly versatile: besides just data entry and formatting, they can drag data around, resize and move chart elements, and execute menu commands that involve dialog boxes.

Like all things that sound too good to be true, though, there are some limitations. Macros don't understand what the data actually means; if you alter the landscape of a spreadsheet with a macro by moving some of its data and formulas around (without modifying the macro to notice the new locations), a macro assumes that everything is in its old place; when it runs, it'll move the wrong things around.

Tip: When you record a macro, you can use the Relative Reference button on the macro toolbar to make sure that the macro refers to relative cell coordinates, which helps alleviate the problem of altering the wrong data with a macro. It doesn't solve the problem completely, though—you have to keep your worksheets largely untouched after you've recorded a macro to avoid these problems.

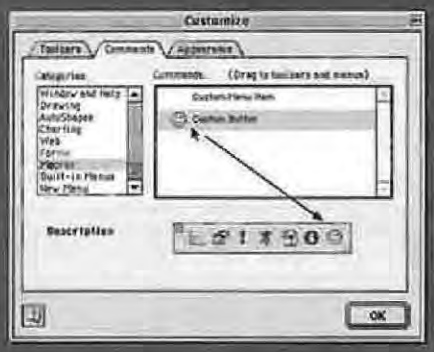
Once you've done everything that you want the macro to do, click the Stop button on the toolbar. You've just created a macro.

POWER USERS' CLINIC

Using Macros in Menus and Toolbars

You don't have to use the Macro dialog box to trigger a macro you've recorded; you can assign it to an Excel toolbar or even a menu, putting its power only a click away.

To assign a macro to a toolbar button, choose Tools→Customize→Commands tab. In the categories list, select Macros; drag a Custom Button to the toolbar where you want the macro button to appear, as shown here. Click OK, then click the new custom button. This brings up the Assign Macro window, in which you choose the macro to link to the button. Once you've done so, click OK. Now, every time you click the toolbar button, the macro attached to it runs.



You can turn a macro into a menu command, too. Choose Tools→Customize→Commands tab. Select Macros in the Categories list, and then drag the Custom Menu Item in the Commands list to the menu where you want it to appear. (See page 578 for more on customizing menus.) Once it's in the menu, double-click the menu item to open the Command Properties window; now you can change its name to something recognizable.

Click OK, then OK again to dismiss the Customize window.

Now click your new menu command, which brings up the Assign Macro window. Select the macro that you want to assign to the menu command; click OK. From now on, your macro runs when you select its name from the menu.

Note: These macros *must* be saved in your Personal Macro Workbook. Otherwise, you'll have to have the workbook that contains the macro open every time you want to use the button or menu command.

Playing a Macro

To play a macro that you've recorded (or that someone has embedded in the currently open workbook), choose Tools→Macro→Macros, which brings up the Macro window. In it, double-click the name of the macro you want to play (or click it once and click the Run button).

Tip: If you've specified a key combination for your macro, you can just press the key combination to run it, bypassing the visit to the Macro window.

Excel now plays back the macro, doing everything that you specified when you recorded it—but at very high speed and with computerish precision.

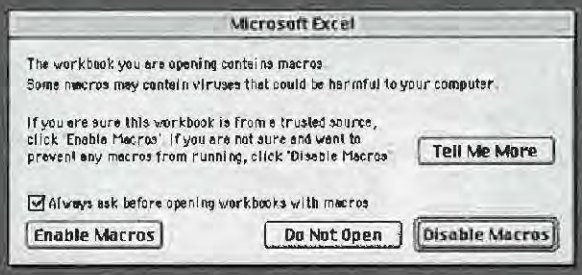
Sharing Macros

To share a macro with someone else, save your macro in a workbook when you create it, and then hand the workbook off to your macro tradee. When that person opens the workbook, your macro is available in the Macro window.

WORKAROUND WORKSHOP

The Trouble with Macros

Although they seem simple on the surface, macros, for Excel, PowerPoint, and Word veterans, represent a messy, controversial subject, thanks to the fact that they're an ideal carrier of *viruses*. It's perfectly possible for some maladjusted social deviant to write a destructive little program that, say, erases your entire spreadsheet.



Fortunately, most are written so that they work only on Windows PCs. Furthermore, the Office 2001 programs themselves help to guard against macro viruses. When you open a document containing an embedded macro, for example, you see the warning shown here, which offers to disable any macros attached to the document (thus rendering them harmless). If you're still worried about viruses, you can buy antivirus software (and keep it up to date); modern antivirus programs can scan for macro viruses in Office documents.

Macros are also a messy, controversial subject because behind the scenes, they're written in a programming language called Visual Basic for Applications. If you aspire to writing or editing macros by hand, you can take a peek at VBA code by choosing Tools→Macros→Macros, clicking a macro name, and then clicking the Step Into button. This catapults you into Microsoft's Visual Basic editor, where the macro's *source code* is visible.

If you're convinced that perhaps you don't want to become a programmer after all, click any visible portion of your workbook to make the VBA Editor go away. If, on the other hand, you're interested in editing your macro by changing the code (or perhaps learning how to code these things by hand), this source code is an excellent place to begin your studies. A book or Web site on VBA programming is another good idea.

4

Part Four: PowerPoint

Chapter 15: Basic PowerPoint

Chapter 16: Advanced PowerPoint

CHAPTER
15

Basic PowerPoint

When you have a point to get across—to the boss, the board of directors, or your spouse—PowerPoint is your program. PowerPoint lets you combine graphics, text, sounds, and movies on a series of slides (or what amounts to a series of drawing documents), which you can then link together to form a slide show. You use that slide show to get your *point* across in a *powerful* way. (So much for our theory on the origins of the name PowerPoint.)

The Views of PowerPoint 2001

One of the big-ticket new features in PowerPoint is its three-pane Normal view, which lets you see individual slides, the slide show outline, and the notes attached to an individual slide all at the same time (Figure 15-1).

To construct a slide show, you generally start by writing an outline (in the Outline pane); here, you can type in the names for your slides, then drag them around into a logical order. You then do most of the nitty-gritty design work in the Slide pane, in which you mix text, graphics, and backgrounds to create individual slide designs. Finally, the Notes pane lets you type speaker's notes for attachment to individual slides, so that you have facts at your fingertips while giving a presentation.

Step 1: Specify a Design

Before you can get more than a single screen into the program, you must answer an important question: What will your slides look like?

The slides in your show may show different kinds of information—one may show some text statistics, another might display a diagram, a third might contain a chart,

and so on. Even so, however, you'll probably want all of these slides to have a consistent design, no matter what's on them: the same fonts, background graphics, color scheme, and so on.

That's why, as soon as you launch PowerPoint, the program offers you the Project Gallery, which should look familiar if you've used Word 2001 or Excel 2001. In PowerPoint's case, the Project Gallery offers several icons that can get you on your way to building your slide show without having to waste a lot of time on the design elements—or even composing the text on the slides.

Tip: If you, PowerPoint master, don't need the Project Gallery intruding into your personal space at every program launch, choose Edit→Preferences→View tab; turn off "Project Gallery at startup," and click OK.

When project deadlines are looming and there are a million things that need to be done (including creating a presentation), you'll welcome those timesaving features.

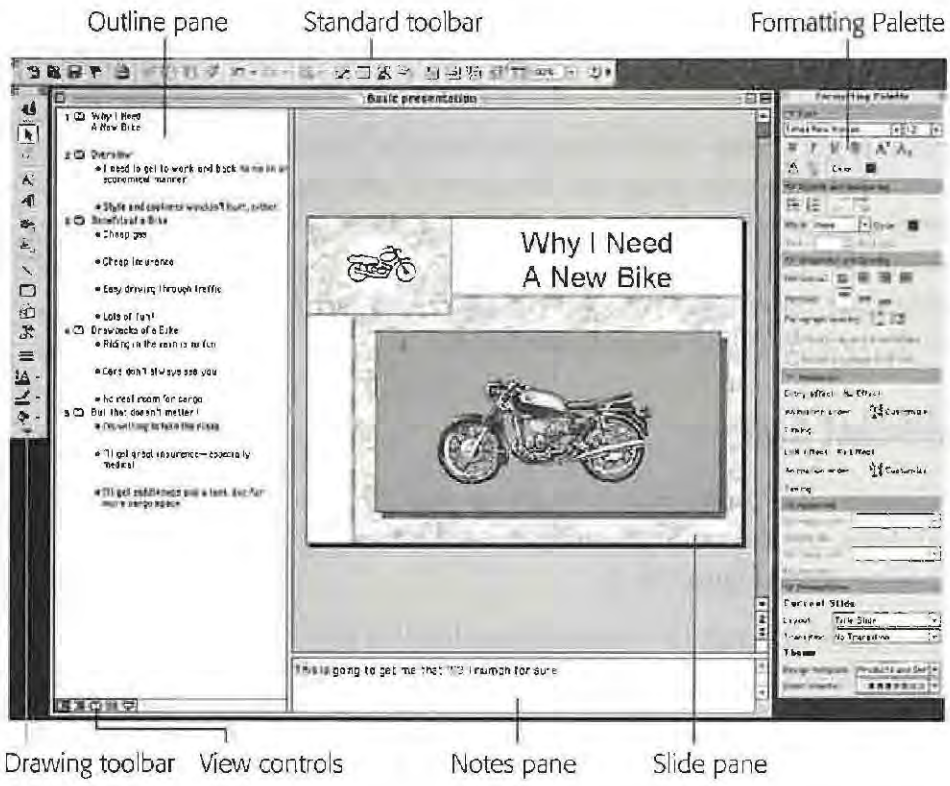


Figure 15-1: *Microsoft has revamped PowerPoint's interface to include a new three-pane view, which sets aside areas for the slide show's outline, a smaller area for notes, and an area in which you actually* build *the slide. To the right, Office's Formatting Palette has been adapted to work with PowerPoint, and both the Standard toolbar and the Drawing toolbar appear automatically. Finally, PowerPoint's View controls sit in the lower-left corner of the main window.*

Canned, Professionally Designed Templates

In the Project Gallery, click the word Presentations (you don't have to click the triangle) in the Category list (see Figure 15-2). Then click Designs. In the middle of the Project Gallery window, you now see 61 predesigned slide show templates—either a list of their names or tiny thumbnail images of representative slides (depending on whether the View pop-up menu at the bottom of the window says List or Catalog).

In the List view, click one of the design templates (such as Artsy, Blueprint, or Bold Stripes); on the right side of the window, you see a miniature version of the slide design. While several of the templates in the gallery are, well, inspirationally challenged, some may be worth considering.

If any of these templates looks like it will work for your purposes, double-click it. The New Slide dialog box appears; see page 529.

Tip: The right design template for you is based not only on your taste and the purpose of your presentation, but also on how it will be presented. All of the included designs look terrific when projected from the Mac itself (using a portable projector, for example). If you plan to *print* the various slides, on the other hand, the designs with solid colors in the background might not be so appropriate—not only will they take forever to print (and a lot of ink cartridges), but the blended backgrounds on some of these designs may not look as smooth as they do on the screen.

Complete Slide Shows, Including Text

You don't have to spend very much time in the corporate world to begin to feel like every meeting is the same. Based on that convenient fact of life, Microsoft has taken the liberty of providing several templates for complete slide shows—not just a design theme (complete with backgrounds, font choices, and standing graphics), but even an outline befitting the situation.

For example, if you choose the Communicating Bad News template, you get a seven-slide outline to help you through the process of telling your colleagues about rocky times ahead, complete with a positive spin (and a placeholder for morale-building information bits). Content templates, in other words, provide a canned but thoughtful structure for your presentation.

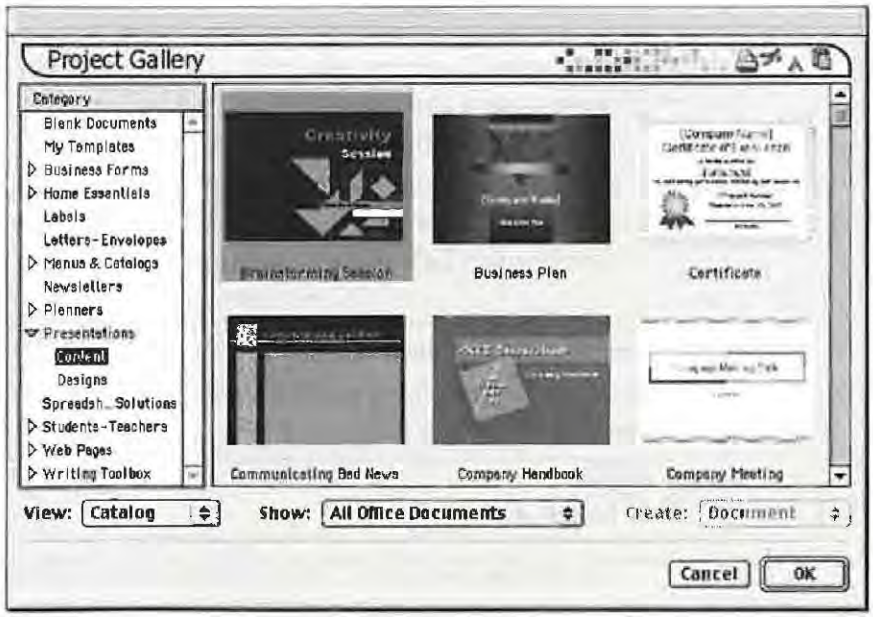


Figure 15-2: *PowerPoint provides 85 different templates for your presentation needs, including a template for telling people some bad news, from "Your stock options are worthless" to "Honey, I wrecked the car today." To choose a template, select it and click OK, or just double-click the one you want. (If the View pop-up menu at the bottom of the window says List, click the name of a slide show to see a preview of it.)*

To survey a list of these ready-made shows, click Presentations in the Category list (of the Project Gallery window), then click Content. You see a long list of ready-to-use slide shows, such as Marketing Plan, Motivating A Team, Project Overview, and so on (see Figure 15-2).

If you find one that looks promising, double-click it. After a moment, you arrive in the three-pane Normal view (Figure 15-1), with the outline and design of your slide show already in place. You're ready to go about replacing the dummy text of this outline with phrases specific to your pitch, as described on page 529.

Complete Slide Shows Based on Your Input

If starting out your presentation building with a completely formatted, ready-to-go slide show feels too much like cheating, you may prefer to take advantage of the very similar AutoContent Wizard. This feature draws upon the same set of canned slide-show designs as the Content list described in the previous paragraphs, but gives you the opportunity to tailor the starter slides up front, rather than after PowerPoint has created them.

In the Project Gallery, click Blank Documents in the Category list. Then double-click the AutoContent Wizard icon in the list to its right. A wizard appears, which leads you through these steps:

1. **Choose a presentation type.**

   On the first screen of the AutoContent wizard, PowerPoint asks you what kind of presentation you're planning. Start by choosing the kind of slide show you intend to give, using the Category pop-up menu (General, Corporate, Projects, or whatever). You'll see a list of design templates appropriate for the category you've chosen; click each to see a preview of that slide design at the bottom of the window. Click Next to continue.

2. **Specify the result.**

   The wizard screen asks you to choose how you're going to present your slide show—on a computer screen, as black-and-white overheads, as color overheads, or as 35 mm slides. This choice affects both the measurements of the slides and the color scheme: darker colors for computer screens and 35 mm slides, lighter colors for color overheads, and, of course, black and white for black-and-white overheads. Click Next to continue.

Tip: You can adjust the dimensions of your slide show at any time later by choosing File→Page Setup (when re-using the show for a different projection method, for example). But the graphics and text boxes on each slide may shift in the process; it's best to pick the right size for the slides at this early phase.

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3. **Name it.**

   On the final wizard screen, you're asked to enter the presentation's title, information about the presentation, and any text that you want to appear at the bottom of each slide (such as your name or your department name).

When you finally click Finish, you wind up with a slide show document containing several ready-to-adapt slides. They have bogus information on them, dummy numbers in the charts, and irrelevant data plotted in the graphs—but the point is that the designs and sequence are already in place. You should now change the actual text and numbers to suit your purpose; after all, you probably don't want to start off a motivational presentation with a slide that says, "Title goes here."

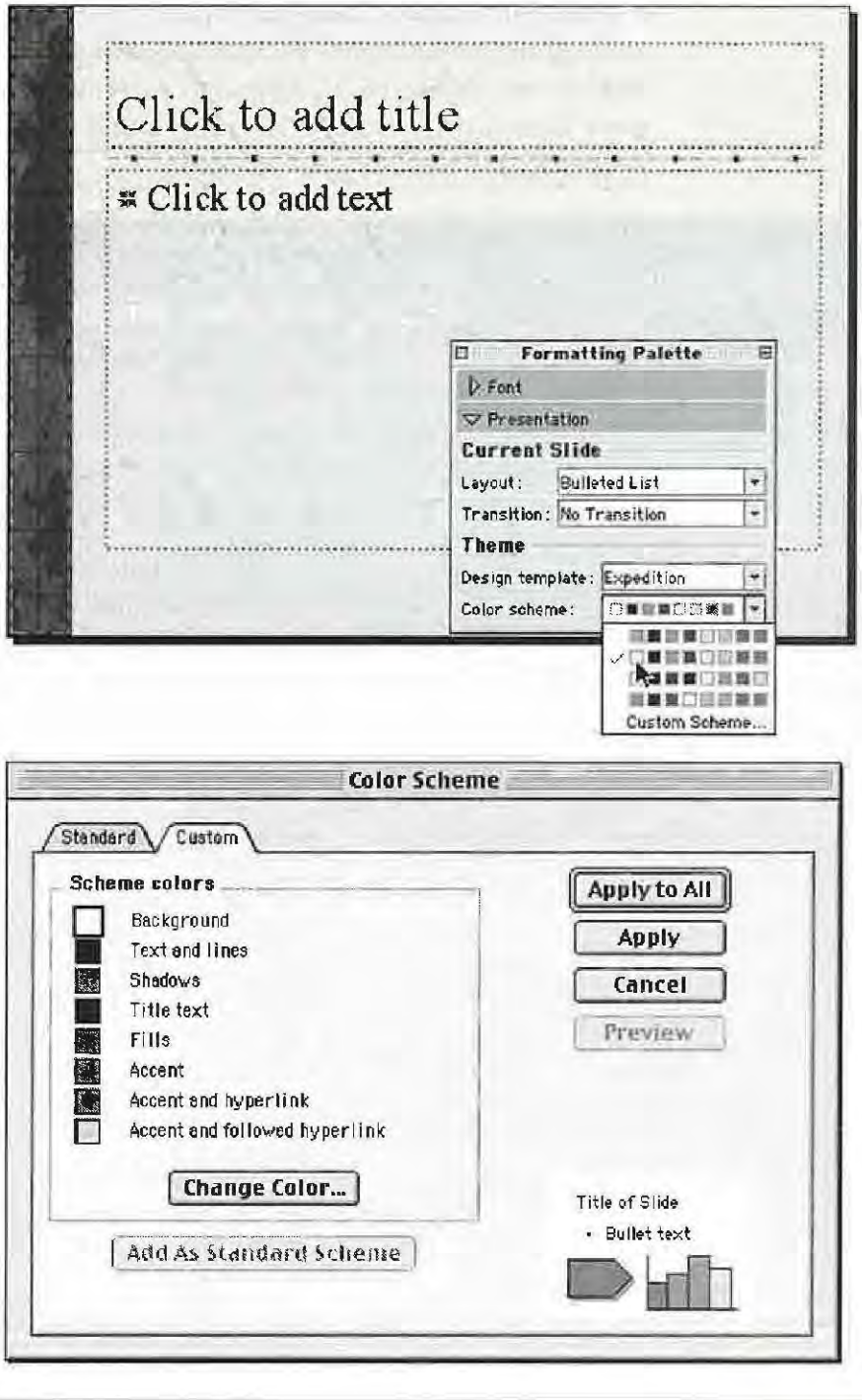


Figure 15-3:
Top: The Theme portion of the Formatting Palette, new in PowerPoint 2001, lets you select various canned design templates and color schemes. Choosing a color scheme is as easy as picking one from the list. (Selecting a new color scheme changes the colors of all of the elements on a slide.) If you want to create your own color collection, choose Custom Scheme from the Color scheme pop-up menu.

Bottom: In the resulting Color Scheme window you can choose new colors for the slide's background, text, shadows, fills, accents, and links.

Starting from Scratch

If you're the kind of PowerPoint pro that Microsoft executives collectively dream about at night, then you might be inclined to design your slide show from scratch, beginning with a blank, white screen. To do this in the Project Gallery, click the Blank Documents category, and then double-click PowerPoint Presentation. Or, if you're already in PowerPoint, choose File→New Presentation (⌘-N).

Either way, you're now facing the New Slide dialog box, from which you can choose a layout for your first slide (see Figure 15-4). To make your slides look less boring, you can use PowerPoint's various text and drawing tools to build each slide from scratch (see Figure 15-3). Although designing slides this way involves a lot more work than just choosing a template, you'll be rewarded with a presentation that doesn't *look* like it came out of a can.

POWER USERS' CLINIC

Adding Your Own Templates

In many corporations, PowerPoint slide shows are an everyday occurrence. In such situations, you may even be asked to use an approved PowerPoint template, designed by your company, as the basis for any slide shows you give. (Remind your superiors that such templates from the Windows version of PowerPoint work just fine on your Mac.)

It's easy enough to make one of these templates show up in your Project Gallery, ready for easy access each time you begin to create a slide show. Just drag the template file (or even a regular PowerPoint file) into Microsoft Office 2001→Templates→My Templates folder. It'll show up in the Project Gallery under the My Templates folder.

When you open it, you'll get a blank *copy* of that file (called "Presentation1," for example), even if it wasn't a PowerPoint template per se. PowerPoint is smart enough to figure: "If it's in the Templates folder, I'm probably supposed to treat it as a template."

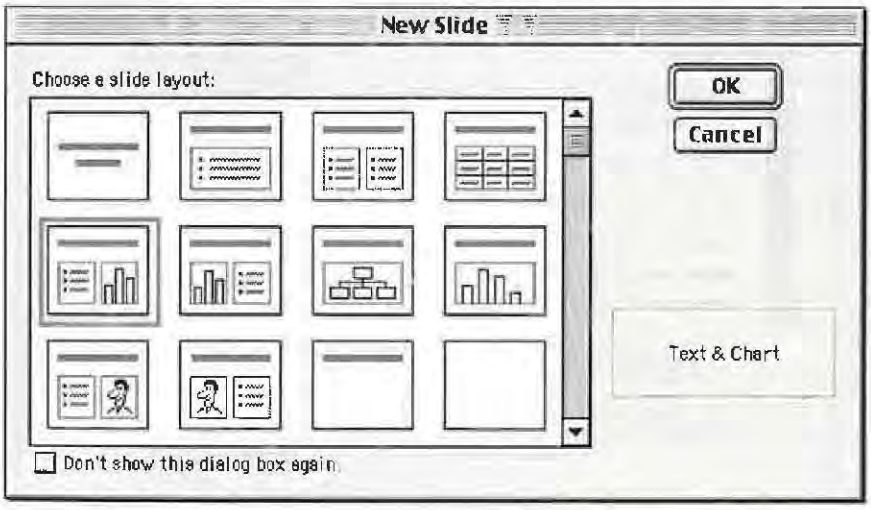


Figure 15-4: *When you add a new slide to your presentation, you'll be presented with the New Slide window, from which you can choose one of 24 different layouts. These layouts make it easy to add elements to your slides by providing placeholders for bullet lists, charts, artwork, tables, and even movies.*

The New Slide Dialog Box

When you create a new presentation, whether by using the Project Gallery or by choosing File→New Presentation, you come face-to-face with the New Slide window (Figure 15-4). This window offers 24 slide designs in a scrolling list, each with a place for text, a picture, a table, a chart, or a media file—or some combination of these elements. Each has been predesigned with centered text, neatly framed graphics, and so on. When you choose a layout and click OK, PowerPoint creates a new slide with those elements.

Which slide form you choose for each slide depends on what you want to do with that slide, as shown in Figure 15-4.

Tip: You can always change a slide from one of these canned layouts to another by choosing Format→Slide Layout. The equivalent of the New Slide dialog box reappears so that you can choose a different layout.

Step 2: Writing the Outline

Using one of the built-in PowerPoint starter slide shows saves you a few minutes of design effort. But sooner or later, you'll actually have to write the *words* that will appear on your slides. One great way to go about this is to use PowerPoint's Outline View, which appears whenever you choose View→Normal (or click the Outline View button at the bottom of the screen). Outlining your presentation helps you organize your thoughts.

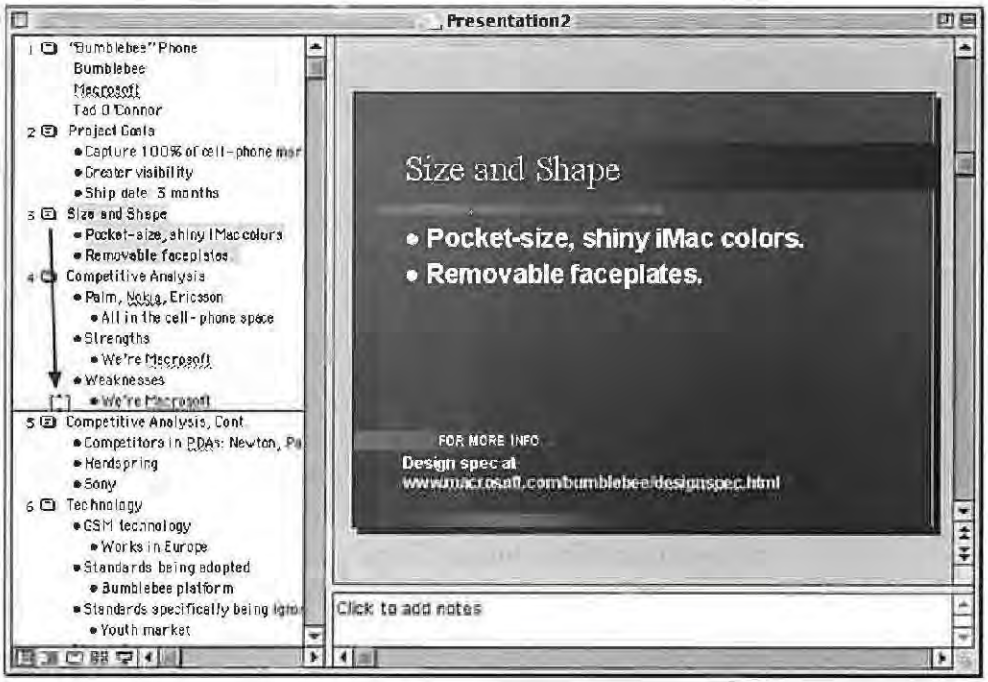


Figure 15-5: *You can drag slides into a different order as you build your outline, just by dragging its tiny slide or bullet icon. A horizontal line indicates where PowerPoint thinks you want to place it when you release the mouse. As you work on your outline (left), you get to see the matching slide in the main window.*

Step 2: Writing the Outline

The basics of typing an outline are simple: Each time you type something and press Return, you create a new slide. What you've just typed becomes the title of the slide, which will appear (as the preview shows you) in big, bold type.

Most slides offer additional text, however, such as a handful of supporting points denoted by bullet symbols (•). You create these as *subheadings* in your outline; Figure 15-5 shows the correspondence. You can even create sub-subheadings.

You can also change your mind at any time, choosing to turn a slide title into a subheading or vice versa; different amounts of indentation indicate what level you're using. To *promote* or *demote* headings, as this is called, you can drag the little slide or bullet icons to the right or left. Or, if the Outlining toolbar is open (choose View→Toolbars→Outlining to make it appear), you can click the Promote and Demote buttons on it.

Tip: You can also drag a heading up or down in the outline (including to an entirely different topic) by dragging it up or down, as shown in Figure 15-5.

If you create more than an occasional PowerPoint show, you'll make your life much easier if you master a few of these key combinations:

Keystroke	What it does
Tab	Demotes a heading
Shift-Tab	Promotes a heading
Return	Creates a new heading at the same level
Option-Shift-right arrow	Demotes a heading
Option-Shift-left arrow	Promotes a heading
Option-Shift-plus (+)	Expands the points below the current heading
Option-Shift-minus (–)	Collapses the points below the current heading
Option-Shift-down arrow	Moves a heading down by one line in the outline
Option-Shift-up arrow	Moves a heading up by one line in the outline
Option-arrow (any direction)	Moves the cursor one word or line in that direction

Both for space reasons and for clarity purposes, keep your main topics to a minimum, and keep your points short and sweet. And don't include too many subtopics on a given slide.

If you type your slide show's outline in the new three-pane view, you can watch the slide being built in the main window as you type—handy feedback to avoid typing too much text for a bullet. There's a drawback, however—you have to type relatively slowly to avoid outracing PowerPoint, which takes a moment per letter to build the slide as you type.

Tip: If the sluggishness of PowerPoint's Normal view makes you feel like you're jogging through quicksand, there's a sneaky solution: Use the secret Outline view instead of Normal view. It's not sold in stores, not listed in the View menu; you get to it by clicking the *second* tiny icon at the lower-left corner of the document window.

The slide image shrinks down to a corner-of-the-window thumbnail, but at least your typing won't be shackled to a slug.

Using a Word Outline

The PowerPoint outliner isn't the only outliner in Office 2001. If, having cuddled up with Chapter 6 for several evenings, you're already proficient with the outliner in Word 2001, you may prefer to write up your slide show in Word. Fortunately, you can easily import such an outline into PowerPoint.

To do so, launch PowerPoint and choose File→Open to bring up the Open dialog box. Select All Outlines in the Show pop-up menu, and then select the Word outline that you want to import. The Office Assistant asks you if you want to open the outline in Word or import it into PowerPoint; choose PowerPoint. PowerPoint now converts your outline into the basis for a slide show; each top-level heading becomes the heading of a new slide, and lower-level headings become body text in bullet points on each slide.

Tip: You can perform this trick from inside Word, too. With the outline open in Word 2001, choose File→Send To→Microsoft PowerPoint. PowerPoint opens (if it's not already open) and converts the outline into a presentation automatically, saving you several steps.

POWER USERS' CLINIC

Typing Directly into Your Slides

Not everybody uses the outliner to hash out the shape of a presentation. Some people prefer to type their text directly onto the slides themselves.

If you fall into that category, begin the slide show by choosing only a design template, not a content template as described at the beginning of this chapter. Then, each time you want to add a slide to your show, choose Insert→New Slide (⌘-M) or click the New Slide button in the Standard toolbar.

The New Slide window appears (Figure 15-4). Double-click the slide type you want; you return to Slide view. Now you can fill in the details by clicking the various text or graphics placeholders and then typing or importing text to fill those placeholders.

Step 3: Building the Show

It's much better to show blank white slides containing an effective message than fancy graphics that don't say anything. That's why it's an excellent idea to begin your presentation planning with the outliner.

Once the outline looks good, it's time to start thinking about the look of your slides. PowerPoint's tools make it easy to adapt your design (or Microsoft's design) for all the slides simultaneously.

Using Masters

A *master item* is a background element that appears on every slide—a logo or a background, for example. When you add, delete, move, or replace a master item, you see the change reflected in all of your slides. For example, if you want to change the background color of all of your slides, just change the background on the *slide master;* PowerPoint updates all the slides instantly.

In fact, PowerPoint offers four different categories of master items: slides, titles, handouts, and notes. Here's how they work.

Slide master

The *slide master*—or, as most people would call it, the master slide—is a special slide whose background, font size and style, bullet style, and footer (whatever appears at the bottom of every slide) determine the look of these elements on every slide in your show.

Editing the slide master

To look at and change the slide master, choose View→Master→Slide Master. Now you're face-to-face with the slide master itself (see Figure 15-6), which comes with these elements:



Figure 15-6: *The Slide Master has a number of automatically generated elements that you can change here; those changes will be reflected in every slide in the presentation (of the same type). The Slide Master also has a small toolbar of its own with two buttons. Click the Slide Miniature button to produce the miniature image of an actual slide in the presentation, which lets you see how your changes to the master slide affect it, like picture-in-picture on a TV. The Close button just takes you back to whatever slide you were viewing.*

- **Title area.** It usually contains some dummy text, a placeholder for the real text that will appear in your slides; the title area is surrounded by a fine white dotted line.
- **Object area.** The settings of this area determine how the body of your slides—text, charts, pictures, and media clips—will look and where they will sit.
- **Footers.** These white-dotted-line boxes at the bottom of the slide master show where the date and time, slide number, and miscellaneous footer text will appear on each slide.

By changing the font size, style, color, and placement of these items, you can change where PowerPoint puts those elements when using its canned design templates.

Note: In View→Master→Slide Master mode, the placeholder text (such as "Click to edit Master title style") is irrelevant. Don't bother editing it; doing so has no effect on your actual slides.

For example, if you want all of your slides' titles to be in 24-point Gill Sans Ultra Bold with a shadow, just click once inside the placeholder text to select the box; then use the Formatting Palette to change the font to 24-point Gill Sans Ultra Bold. Now, any existing slides that have titles (and any *new* slides you make) display the title in 24-point Gill Sans Ultra Bold.

POWER USERS' CLINIC

Expressing a Slide's Individuality

If you're feeling a little oppressed by the idea that slide masters dictate how every slide in a presentation looks, take heart. It's true that you can't *edit* text or graphics on an individual slide if they began life on the corresponding master. But you *can* make the design of an individual slide differ from the master slide in a number of ways.

To change the background of an individual slide, for example, choose Format→Background and make the changes you want in the window that pops up. (For more information on backgrounds, see page 537.)

To hide a background graphic that's been supplied by the slide master, choose Format→Background and then turn on "Omit background graphics from master." Click Apply.

PowerPoint also lets you use *multiple* slide masters, so that, for example, ten of your slides may be based on one master design, while ten of them are based on a different one. (Note, however, that this feature makes life more complicated; now, when you want to make a change to a slide master, you have to remember which one serves as the design basis for a particular slide.)

To turn on this feature, choose Edit→Preferences→Advanced tab. Turn on "Enable multiple designs per presentation," then click OK.

Now go to the Slide Sorter view by choosing View→Slide Sorter. Select the slide or slides to which you want to apply the second design template. (You can select multiple slides by Shift-clicking them.) Then choose Format→Apply Design Template.

After a moment, PowerPoint shows you its complete list of design templates, like the ones described at the beginning of this chapter. Double-click the design template you want, making sure that "Apply to selected slides" is selected. Click OK; you'll now find that the selected slides have taken on the look of the second master slide design.

Adding new elements to appear on every slide

The title, bulleted text items, and various footers revealed on your slide master can appear on every slide. But if you need some additional text to appear on each slide (such as your department or project name), you can create additional default text blocks on your slide master.

To do so, use the Text Box button on the Drawing toolbar, which usually floats at the left edge of your screen. (If it's not there, choose View→Toolbars→Drawing.) If you can't figure out which icon is the Text Box tool, point to the icons without clicking until a yellow tooltip balloon appears. Click the slide where you want the new text box to appear, type some dummy placeholder text, and then use the Formatting Palette to change its font, color, and style to match.

You should also feel free to draw or paste graphics onto the slide master—your corporate logo or a background graphic, for example; anything you place here will appear on every slide in the presentation.

Title slide master

The *title slide master* is a special kind of slide master. It controls the layout of only one kind of slide: the title slide, usually the first one your audience sees. To view and edit to the title master, choose View→Master→Title Master.

Once you understand that this master design applies only to title slides, you can use this slide master exactly like the slide masters described above: elements that you put on the title slide master show up on all title slides.

Handout master

You can read more about *handouts* on page 570; for now, it's enough to know that a PowerPoint handout is a special page design that lets you place several slides on a single sheet for printing and distributing to your audience.

You set up the design of your handouts by choosing View→Master→Handout Master, and then adding or editing the elements you want.

Notes master

In PowerPoint terminology, a Note (see page 570) is another form of handout—one that features a miniature slide at the top half of the page, and typed commentary at the bottom. Once again, you can specify the basic design of your notes printouts by choosing View→Master→Notes Master, and then editing the design you find here (such as altering the font or adding graphics); once again, those changes appear on every notes page in the presentation.

View Controls

To get the most out of PowerPoint, you should become familiar with the program's View controls, which are in the lower-left corner of the PowerPoint window (see Figure 15-1). These five buttons let you switch between PowerPoint's five view modes:

- **Normal view** is the standard three-pane view, as illustrated in Figure 15-1.
- **Outline view** expands the Outline pane so that it dominates the screen, shrinking the Slide pane down to make room. You may prefer this view when you're working up the contents of your talk, when you're still fiddling with the wording; as noted earlier, typing up your outline (the typing itself) goes much faster in this view than in Normal view.
- **Slide view** shrinks the Outline pane down to a sliver, just big enough so that you can still easily navigate your slide show; and it gets rid of the Notes pane entirely. You'll probably prefer this view when you're putting the finishing touches (such as the charts and graphics) on your slides, after the outlining process is complete.

Tip: In any of these views, you can drag the thin gray boundaries between the panes to make individual panes larger or smaller. (A tiny row of dots in the center of these lines denotes a draggable boundary—but you don't have to put your cursor on the dots themselves.)

- **Slide Sorter view** displays thumbnail images of all of the slides that you've created, so that you can rearrange them by dragging (either single slide or several at once; Shift-click them to select more than one). Figure 15-7 shows the vertical "your slide will go here" line that appears when you drag selected slides, plus some other Slide Sorter tricks.

  You can use this view as a handy navigational aid; double-clicking a slide in Slide Sorter view opens the slide in Slide view for full-size viewing.



Figure 15-7:
You can delete slides in the Slide Sorter view by selecting them and then pressing Delete (or choosing Edit→Delete Slide). You can also work with transitions *(page 550) in Slide Sorter view; a transition is represented by a small icon below a slide, shown here on slides 5, 6, and 7. Click the icon to see a miniature preview of your transition.*

- **Slide Show.** If you click this button, PowerPoint actually begins the slide show, filling your screen with the slides you've designed; see page 554 for more detail.

Navigation

No matter which view you're using, moving among the slides in your show is easy. For example:

- **Normal view or Outline view.** The outline is always on the left of the slide; all it takes to move from slide to slide is a click on the corresponding outline heading. If, for example, you want to go to the fourth slide in the presentation, just click the fourth element. PowerPoint displays that slide on the right side of the window.
- **Slide Sorter view.** In the Slide Sorter view, you can move from slide to slide by clicking the slide, or by using the arrow keys to move the selection rectangle around. As noted above, if you double-click a slide, PowerPoint switches to Slide view, where the slide is visible at full size.
- **Slide view.** The Slide view shows a single slide, filling the screen. To move to the next slide in the show, you can click the scroll-down arrow, click the Next Slide button in the lower-right corner of the window, or press the Page Down key. To move to the slide *before* the current slide, click the scroll-up arrow, click the Previous Slide button (also in the lower-right portion of the window), or press the Page Up key.
- **Slide Show.** When you're in slide-show mode, each individual slide takes up the entire screen—no menus, no scroll bars, no controls. There are lots of key combinations that help you move around while in Slide Show mode (see page 557); for now, you can use the right- or down-arrow key to move to the *next* slide in a slide show, or the left- or up-arrow key to move to the *previous* slide.

Manipulating Your Slides

As you construct the show, new ideas will inevitably pop into your head; topics you originally expected to fill only three bullet points on a single slide may expand to require several slides—or vice versa. Fortunately, it's no problem to massage the slide sequence as you go.

Inserting new slides

Inserting a new slide into the lineup once you've created a few is easy. Just click the slide *before* the spot where you want the new slide to appear, then choose Insert→New Slide (⌘-M). The New Slide dialog box appears, as described on page 529.

Tip: In Outline view, creating a new slide is even easier. Just click after an existing heading and press Return; the new heading represents a new slide (unless it's indented, of course).

Inserting old slides

You can also recycle slides from other presentation files just by choosing Insert→Slides from File. The Choose a File dialog box appears; locate and single-click the old PowerPoint file whose slides you want to import. At the bottom of the dialog box,

choose "Import all slides" or "Select slides to insert" (if you want to hand-pick the slides worth importing). Then click Open; if you chose "Select slides to insert," you now see a dialog box offering miniatures of the slides. Shift-click the ones you want, and then click Insert.

When the new slides arrive in your show, PowerPoint automatically substitutes the design template you've selected for the current file, to avoid a design clash with the older slides' master design.

Deleting a slide

Easy one: Click the slide and then choose Edit→Delete Slide.

Moving slides around

The easiest way to rearrange your slide sequence is to use Outline view (by dragging the tiny slide "handles" up and down) or Slide Sorter view (by dragging thumbnails around). In either case, the Cut, Copy, and Paste commands work. (The trick in Slide Sorter view is, before pasting, to select the slide just *before* the spot where you want the pasted slides to appear.)

How to Build a Slide

The outliner is an excellent tool for building the overall flow of your slide show. But sooner or later, you'll probably want to visit the actual slide pictures themselves—to add charts or other graphics, to edit a certain conclusion slide when new data becomes available five minutes before the meeting, and so on.

UP TO SPEED

Return of the Formatting Palette

Other than its groundbreaking plastic CD-case packaging, the greatest single improvement to Microsoft Office may be the Formatting Palette. This magical palette changes its shape and design to accommodate whatever you happen to be working with, such as text or pictures. Of course, the Formatting Palette is also available in Word and Excel, but it's especially critical in PowerPoint, where the look of your slides is very important.

Some of the Formatting Palette controls are designed to affect text, and work exactly as they do in Word—all the controls in the Font and Alignment, Bullets and Numbering, and Spacing sections, for example.

Many more are unique to PowerPoint—Animation, Hyperlink, Presentation, and so on; you can read about them in the appropriate sections of this chapter and the next.

Using Backgrounds

Creating an individual slide is a bit like painting a canvas in the real world: You first paint the background and work your way to the foreground, layer by layer.

For example, PowerPoint lets you set a background color, gradient, pattern, or graphic for your slide. You can also add shapes and import graphics to create a backdrop.

Changing backgrounds

Every slide begins life with a backdrop, courtesy of its slide master. If you'd like to override or enhance that backdrop on a particular slide, however, choose Format→Background, which brings up the Background window (Figure 15-8). In this window, you see a sample slide with the current color theme. At the bottom, a pop-up menu lets you choose, from a swatch of eight coordinated colors, a new background color.

Note: The technique described here *overrides* the background specified by the slide master, just for a single slide. To change the background for *all* of the slides, choose View→Master→Slide Master, and then edit the background of that master slide. Doing so changes the backgrounds of all corresponding slides—except for those that you've changed yourself.

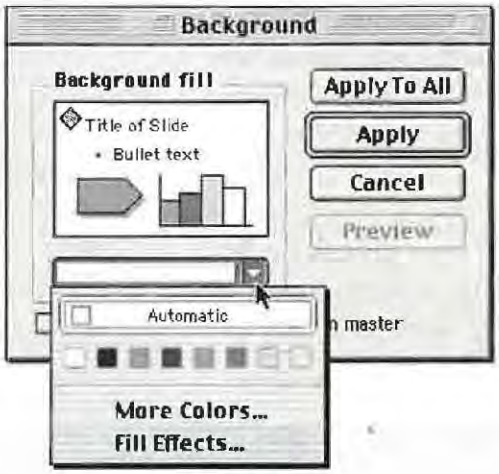


Figure 15-8:
The Background window shows how your background looks when put on a slide with the current color scheme. (If you feel confident overriding Microsoft's professional color groups, choose More Colors from the pop-up menu; the standard Apple color picker dialog box appears, offering access to any color under the sun via several different Color Pickers; see page 600.)

If you want something more than a solid background color, choose Fill Effects from the pop-up menu, which brings up the Fill Effects window. This window lets you choose one of four effects by clicking one of the four tabs along the top: Gradient (a smoothly shifting color blend), Texture (a photograph of some natural material, such as wood grain, marble, or burlap), Pattern (simple, two-color patterns, such as stripes and dots), or Picture (a graphics file from your hard drive). See page 600 for much more on these special tabs.

Tip: Be careful with this feature; textures can make your text very difficult to read. (On the other hand, depending on the news you have to share with your colleagues, that may be exactly what you were hoping.)

Working with Text

Adding text to your slides is an easy matter; there are two ways to go about it. First, if your slide master includes text placeholders, as shown in Figure 15-6, you can

click the individual placeholder text items (which typically read something like "Click to Add Text"), and then type in your own text to replace the dummy text. These placeholders are linked to the slide master, and therefore reflect the font characteristics of the slide master.

But you're also free to add new text boxes (with no corresponding placeholders on the master) to a particular slide. To do so, click the Text Box button on the Standard toolbar (Figure 15-9), and then click the slide where you want to add text. PowerPoint adds a text box to the slide, in which you can type any text you like.

Editing and formatting text

Adjusting the type characteristics of any kind of text box is easy. First, click the Select Objects tool (see Figure 15-9), and then click the text that you want to adjust. You've just activated the text box; now you can select part or all of the text to change its font, size, or style, using the Formatting Palette or the Format menu.

Note: In general, editing text on a slide changes it in the outline, and vice versa; the outline and text on a slide are just different representations of the same text. The one exception: When you add a text box to a slide by using the Text tool, your outline doesn't know anything about this new text, and doesn't display the new text.

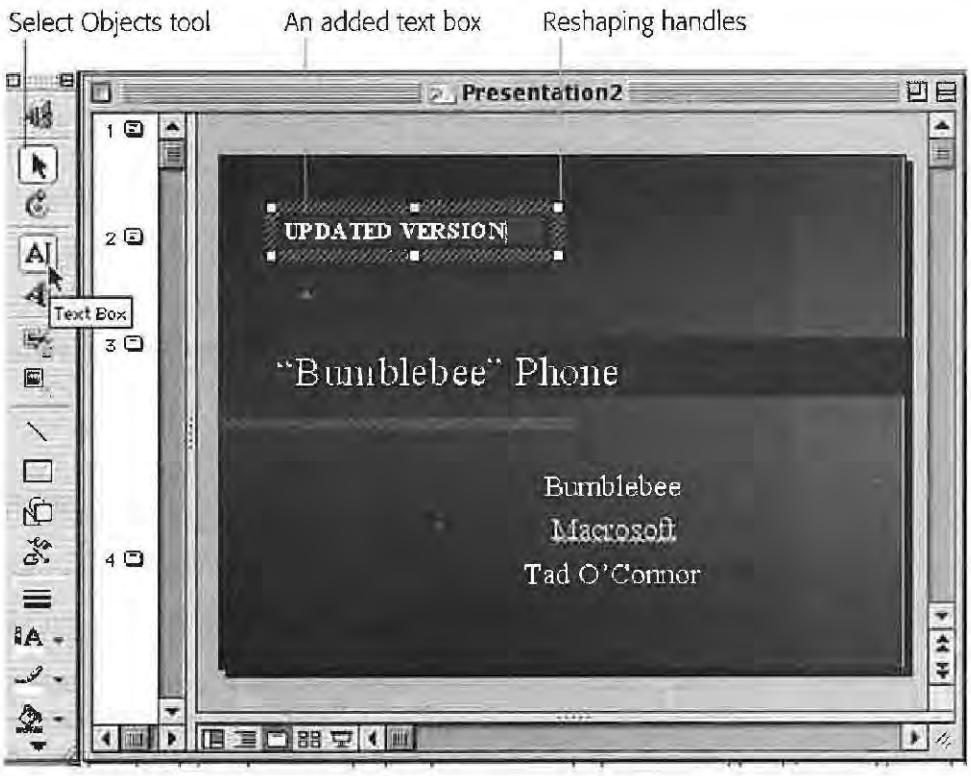


Figure 15-9: *The Select Objects tool (an arrow tool by another name) lets you select text, pictures, and other items on a slide. The tooltip here identifies the Text Box tool, which was used to create the new text box shown here. To move the text box, position the cursor over its border so that the cursor becomes a tiny hand, then drag; to reshape it, drag one of the tiny white handles.*

Formatting bullets

Since bullet-point lists play such a big role in business presentations, learning how to format the bullets is a key skill.

To change the bullet style, put the cursor in the text in which you want to make the change; open the Bullets and Numbering section of the Formatting Palette; and then choose a bullet style from the Style menu you find there.

WORKAROUND WORKSHOP

Shutting Off Two Annoying PowerPoint Features

If, as you add text to a box, you notice that the words and paragraphs are shrinking, don't be alarmed. PowerPoint is just trying to make your text fit into the placeholder text box. PowerPoint makes the text spill over onto another line only if shrinking the font size and line spacing fails.

You can turn this sometimes annoying behavior off by choosing Edit→Preferences→Edit tab. In that window, turn off "Auto-fit text to text placeholder"; you've just disabled the autosizing.

Another favor PowerPoint tries to do you: When you click a word to edit it, PowerPoint highlights the *entire* word, not just the part you clicked or selected. (This feature may sound familiar; it's also available in Word.)

This behavior can be frustrating when all you want to do is get rid of an errant suffix. To turn *this* feature off, choose Edit→Preferences→Edit tab; turn off "When selecting, automatically select entire word." Now you can select as much or as little of a word as you like.

Graphics as bullets

You don't even have to be content with the stultifyingly common round dot (•) as your bullet symbol; you can choose any character from any font by choosing Character in the menu. You can even use a little graphic as the bullet, such as a JPEG file that shows a pointing hand, a checkmark, or your boss's head.

To specify a graphics file on your hard drive that you want to use as a bullet, proceed like this:

1. **Highlight the text attached to the bullet that you want to modify. Then choose Format→Bullets and Numbering.**

   The Bullets and Numbering dialog box appears.

2. **Click the Picture button in the lower-left portion of the window.**

   The Choose a Picture dialog box appears.

3. **Navigate to, and double-click, the graphic you want to use as a bullet.**

   You return to your slide, where the image automatically replaces the bullet at the same size of the text. (You can adjust this size by entering a new percentage in the "Size % of text" box in the lower-left corner of the Bullets and Numbering window. You can also use the Color pop-up menu in the same lower-left corner to give the bullet a custom color.)

Other characters as bullets

To use a single character from the currently selected font, choose Format→Bullets and Numbering, and then click the Character button. A dialog box shows you *all* of the characters in the current font, from which you can choose a font symbol to use as a bullet; see Figure 15-10.

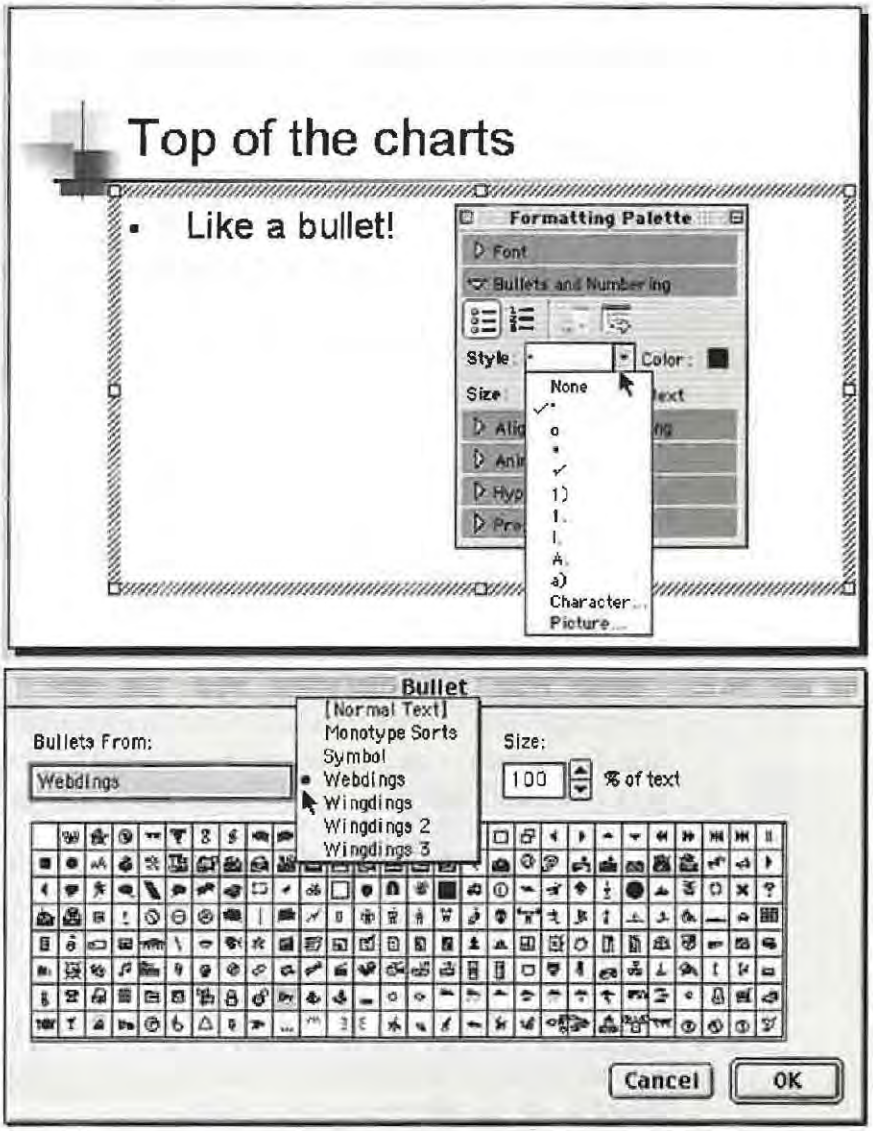


Figure 15-10:
Top: The Bullets and Numbering section of the Formatting Palette lets you control how your bullets appear by choosing the style, color, and size of the bullets.

Bottom: This window contains a pop-up list of dingbat *fonts (fonts made up of nothing but small symbols). Browse through these fonts to find just the right bullet for the point you're making. Once you've done so, click OK to dismiss the window.*

Adding Graphics, Charts, and Tables

Text and backgrounds aren't the only things that you can put onto a slide. You can also place graphics, movies, tables, charts, and other specialized objects in your presentations. For example, you may want to insert a video clip of your company president explaining why this year's sales numbers aren't *quite* what they should be. Or, if you want to include a picture of your product when giving a marketing presentation, you can import it into your slide. Here's how to go about using these specialized objects.

Graphics

PowerPoint gives you lots of options for bringing graphics into your slides via the Insert menu—from Office's clip art, from a file on your hard drive, from a Word table, from a scanner, and so on. Chapter 18 describes these options in detail.

Microsoft Word tables

If you've mastered (or even toyed with) the flexible table-making tools in Microsoft Word, here's an instantaneous return on your investment; PowerPoint stands ready to teleport you into Microsoft Word, wait while you design a table for your slide, and then slurp the result into the PowerPoint slide. It works like this:

1. **Choose Insert→Picture→Microsoft Word Table.**

   The Insert Table dialog box appears.

2. **Type the number of rows and columns you want, then click OK.**

   Strangely enough, you're no longer in PowerPoint; you've been deposited in Microsoft Word, in a window called Document in *Sales Pitch* (or whatever your PowerPoint file is called). You can use all of the table tools described on page 155.

3. **Design your table. When you're finished, close the Word document.**

   You return to PowerPoint. Your Word document vanishes, but the table itself materializes on whatever PowerPoint slide you were editing.

PowerPoint tables

If you don't have the patience (or your Mac doesn't have the memory) to flip into Microsoft Word every time you want to slap a table onto a slide, you may prefer to use PowerPoint's own table-making tools. They're not as flexible as those in Word, but more than adequate for most modern slide shows.

When you choose Insert→Table, a small window lets you specify how many columns and rows you want in your table; when you click OK, PowerPoint inserts the table into your slide. Or, for even less fuss, use the Table pop-up button on the Standard toolbar, shown in Figure 15-11.

Once the table appears, you can adjust its size by dragging the resize handles at each corner, and you can move it or rearrange its interior by dragging the table's borders (see Figure 15-11).

Tip: You can also *draw* a table directly on your slide by calling up the Table toolbar (View→Toolbars→Tables and Borders) and using the Draw Table tool. It works just like its Word counterpart, detailed on page 155.

Inserting a table also brings up the Table toolbar. It contains just enough tools to let you make changes like these to your PowerPoint table:

- **Change border lines.** To change a border's style, width, or color, make your selections using the Border Style, Border Width, and Border Color buttons in the

upper part of the toolbar, and then click the borders you want to change using the Draw Table tool (the upper-left tool on the tiny toolbar shown at the bottom of Figure 15-11).

- **Change text alignment.** To change how text is aligned in a cell, select the cell or cells; then click the Text Alignment buttons in the toolbar, which let you align text at the top, center, or bottom of the cell. (You can also use the text-alignment buttons in the Formatting Palette to do this job.)

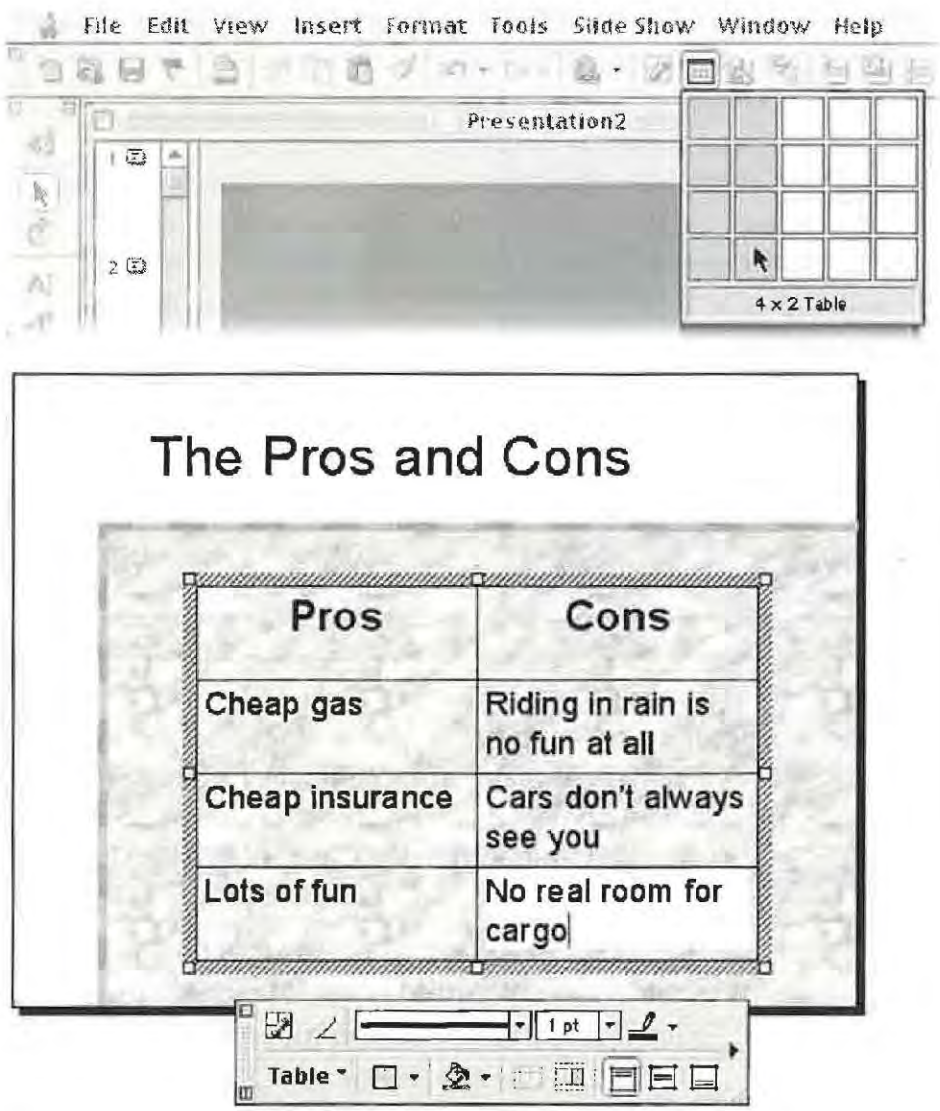


Figure 15-11: *Top: You can create a table very quickly using the Table pop-up button on the Standard toolbar; drag downward from this icon to specify how many rows and columns you want.*

Bottom: Custom tables are plenty easy using the Table toolbar. With the pencil tool, you can draw new table cells anywhere you like within a table; you can also control almost all aspects of the table from this toolbar as well, including line weight and color.

- **Merge or split cells.** By erasing the line between two cells using the Eraser tool, you can tear down the barrier between them, creating one long cell. (Alternatively, select the cells that you want to merge by Shift-clicking them, and then click the Merge Cells button.)

On the other hand, you can also split a cell in two. Click the Draw Table tool and then drag to "draw in" the new border; alternatively, select the cell you want to split and then click the Split Cell button, which vertically divides the cell.

- **Add or remove columns and rows.** The commands in the Table pop-up button (see Figure 15-12) let you insert columns and rows as well as delete them; they also let you merge and split cells, change borders and fill colors, and so on.



Figure 15-12:
In addition to its toolbar buttons, the Table toolbar has a menu of commands that let you insert and remove columns and rows as well as split and join cells. You can also select a row or column or an entire table using this menu.

Movies and sounds

These days, showing your colleagues a bunch of still pictures isn't very flashy (if indeed flashiness is what you're after). Via the Insert menu, PowerPoint can import movies and sounds from the Clip Gallery, from files, and from CD audio tracks; you can also record your own sounds directly into PowerPoint.

- **Movie from Gallery.** Microsoft's Clip Gallery has lots of animated GIF files (short cartoons) that illustrate typical business situations, such as a stock ticker and a checklist. To insert a motion clip from the Gallery onto one of your slides, choose Insert→Movies and Sounds→Movie from Gallery. Use these animated GIFs sparingly; they can quickly turn an otherwise fine presentation into something tacky.

  When, during a slide show, you arrive at a slide containing a movie from the Gallery, it plays automatically, looping until you move on to the next slide.

Tip: From within the dialog box that appears when you choose Insert→Movies and Sounds→Movie from Gallery, you can visit Microsoft's clip-art Web site to search for more animated GIFs. Just click the Online button, which automatically takes you to the appropriate Web site.

- **Movie from File.** The Insert→Movies and Sounds→Movie from File command lets you select a movie of your own to import into your presentation. It brings up an Open File dialog box, in which you can choose a QuickTime-compatible movie (see Figure 15-13).

  When you insert a movie, Excel asks if you want it to play automatically when the slide comes up during the slide show. If you click No, the movie won't play until you click it.

  In either case, the Movie toolbar now appears; its buttons let you insert a movie, play a movie, show its controller scroll bar, make the movie loop over and over, specify the movie's poster frame (which frame of the movie serves as its icon), and bring up the Format Picture window.

Tip: Be careful when you embed movies in your PowerPoint presentation. These movies are *not* saved inside your PowerPoint presentation; rather, the presentation maintains a link to the movie on your hard drive. If you copy your presentation to, say, your laptop, but forget to copy the movie file as well, you'll be in for a rude surprise when the conference-room lights dim; the slide will appear showing the "poster frame" icon of the movie, but nothing will happen when you click it.

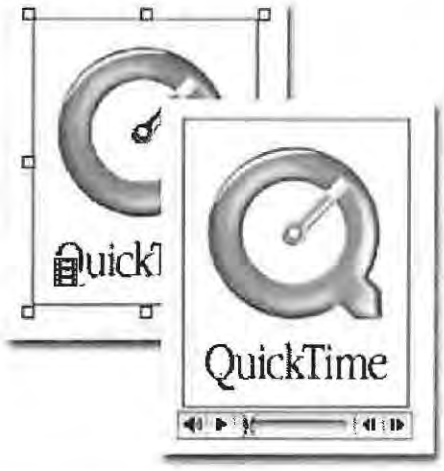


Figure 15-13:
The small filmstrip icon in the lower-left corner of an embedded movie (left) is actually a switch that, when clicked, reveals the movie's controller scrollbar (right). This controller has a volume control, a play/pause button, a timeline, a rewind button, and a fast-forward button. (QuickTime 5 is shown; if you have an older version, the scrollbar looks slightly different.)

- **Sound from Gallery.** The Insert→Movies and Sounds→Sound from Gallery command opens the Clip Gallery and lets you browse for the appropriate sound clip, much as though you're browsing for motion graphics in the gallery. These embedded sound files show up as small speaker icons in your presentation; to play one, just click its icon.

  Because these sound clips don't take up much space, PowerPoint generally embeds them directly in the PowerPoint file; this time, you don't have to worry about bloating your presentation or moving it to another hard drive and losing the link to the sound file. (If you choose Edit→Preferences→General, you'll see that you

can specify the sound-file threshold for automatic embedding; for example, sounds smaller than 100K are made part of your PowerPoint file, but larger ones are left as files on the hard drive, like the movies described in the previous tip.)

Note: If your version of Office doesn't have many (or any) sounds or motion clips in the Gallery, install the Multimedia portion of the Clip Art package by using the Value Pack installer (see page 619).

- **Sound from File.** Choosing Insert→Movies and Sounds→Sound from File lets you choose your own audio file to import—an MP3 file, for example. This process is almost identical to inserting a movie from a file; for example, PowerPoint asks if you want the sound to play automatically when its associated slide appears during your slide show.

Note: Planting a sound file on a slide is like planting a movie there: you're actually installing a *link* to the sound file on your hard drive, not the file itself. This feature keeps the size of your presentation much smaller, but it also means that you have to remember to move the sound file when you move the presentation to another machine. Otherwise, you'll find yourself with a soundless presentation.

- **Play CD Audio Track.** Although the record companies may not particularly appreciate it, you can also grab a song from a music CD to serve as a soundtrack for your slide show (Figure 15-4). When you choose Insert→Movies and Sounds→Play CD Audio Track, PowerPoint lists the songs on the currently inserted CD; when this slide appears during the show, the song will play automatically (or when you click it, at your option). Note that the music won't play unless the actual audio CD is inserted in your Mac at the time of your presentation.
- **Record Sound.** The Insert→Movies and Sounds→Record Sound command lets you record your own sounds that are then inserted into the presentation.

  To record a sound, first visit your →Control Panels→Sound control panel; choose the Input panel and make sure that your Mac's microphone is selected.



Figure 15-14:
In this window, you can choose which CD tracks are included and what portion of the first track is played; perhaps you only want fifteen seconds of the Rolling Stones' "Satisfaction." You can also turn on "Loop until stopped," which causes the track to repeat until you click or move to a new slide.

Now, in PowerPoint, choose Insert→Movies and Sounds→Record Sound. PowerPoint presents the Mac's standard Record Sound window. Click the Record button, speak or sing or squawk into your Mac's microphone, and then click Stop. You can play back the sound by clicking Play to make sure it's just what you want. If so, click Save; you'll be asked to name your new sound.

Once you've named it, you'll find a little speaker icon on your PowerPoint slide; click it during a presentation to hear your recording. (Unlike imported sounds and movies, these sounds are part of the PowerPoint file rather than links to separate files on your hard drive. Be aware that sound files can greatly inflate the size of your PowerPoint document.)

Charts

If your presentation is just crying out for a chart—and what presentation isn't?—just choose Insert→Chart to launch Microsoft Graph, the grandnephew of Excel; it's described on page 610.

Tip: If you want a full-fledged chart, or you've already created one in an Excel workbook, just copy and paste it from the workbook or use the Insert→Object command, described next.

Other objects

The Insert→Object command is the first step to importing (or creating *and* importing) several other kinds of visuals onto a PowerPoint slide—from such other Office programs as Equation Editor, Excel, Microsoft Graph, Organization Chart, or Word. (See Chapter 18 for details on the lesser-known Office programs.)

As shown in Figure 15-15, the resulting dialog box lets you either choose an existing document to install onto your slide, or create a new one.

Tip: The trick to using this dialog box is the sequence of clicks. *First* click the kind of document you want; *then* click either "Create new" or "Create from file"; *then* turn on "Display as icon," if you want that option turned on (described next). Finally, click OK.

If you choose a new document, the corresponding program launches, memory permitting. After building your equation, graph, or whatever, choose File→Close & Return to [Your PowerPoint File's Name], where the new document appears.

You may reasonably scratch your head at the prospect of placing an entire Word or Excel document onto a slide, especially if it's a document (as most are) that's larger than the slide itself. Indeed, PowerPoint displays only the first Word page or Excel worksheet, shrunken to fit the slide; double-clicking it opens the document in the corresponding application for editing.

But the beauty of this feature isn't placing the actual document onto your slide—it's the "Display as icon" checkbox shown in Figure 15-15. When you turn on this option *after* selecting a Word or Excel document (for example) to embed, you wind up

with only a file icon on your slide; it opens the corresponding Word or Excel file only when you click it during your slide show.

Microsoft has provided, in other words, a dandy way to link supporting documents to your PowerPoint presentation. When, during your pitch, some muckraking co-worker objects, "But that's not the marketing plan we talked about last month," you can click the Word document's icon that you've placed on the slide in anticipation of just such a ruckus—and open the actual Word file, in Word, for all to see.

Note: Unfortunately, the "Display as icon" and, indeed, this whole object-embedding business relies on a message technology called Object Linking and Embedding, abbreviated OLE and often pronounced "o-LAY." Object Linking and Embedding has a reputation for behaving oddly from time to time. It works best on computers that have a lot of memory, and when linking to very small documents.

Hyperlink

The Insert→Hyperlink turns the selected text or graphic into a clickable link that opens any Mac file or Web site. See page 270 for much more detail.



Figure 15-15: *Top: In the Insert Object window, you can choose whether you want to bring in an existing Excel, Word, Graph, Equation Editor, or Organization Chart document, or create a new one on the spot. (If you click "Create from file," the Choose a File dialog box opens immediately, which is a bit disconcerting.*

Bottom: Turning on "Display as icon" plants a document icon on your slide instead of the document itself.

CHAPTER
16

Advanced PowerPoint

Building individual slides in PowerPoint can be lots of fun, if that's your idea of a good time. But the real muscle of the program lies in its ability to pull those images together into a running slide show. Although good taste sometimes suffers as a result, you can dress up your slide presentations with flashy cinematics, music, sound effects, and voice narration. You can rehearse your shows to work out the split-second timing; and you can also make printouts of your masterpieces for those who missed the presentation. You can even save your slide shows as QuickTime movies, then edit them later using PowerPoint.

This chapter shows you how to harness these potent PowerPoint features.

Making a Slide Show

Chapter 15 describes building slides and finding your way around PowerPoint. Now it's time to dig in and look at the big picture—to learn how to bring those images together into a complete slide show with all the trimmings.

UP TO SPEED

Avoiding the Cheese Factor

PowerPoint makes it easy to load up your presentations with funky transitions, sounds, and other cheesy gimmicks. But with power comes responsibility. While you may be tempted to show off all the program's entertaining features in a single presentation, bear in mind that old design adage: Less is more. It's usually best to keep your transitions and sounds simple and your designs basic. That way, you won't distract the audience from the important part of the presentation—your message—with a bunch of dazzling gewgaws.

Transitions

PowerPoint gives you broad artistic license in the way you switch from one slide to the next. By varying the *transitions*—between-slide special effects—you can create a sense of movement, or put some zip into otherwise lackluster material such as tables, flowcharts, and scenes from your Cancun honeymoon. PowerPoint transitions range from simple cuts (one slide quickly replacing another) to fancier effects such as dissolves (where one slide melts into the next) and checkerboard wipes, in which slides transmogrify with a moving checkerboard effect. (Even with all this variety, though, it's a good idea to rely mostly on simple transitions and use the pyrotechnics sparingly.)

How transitions work

Transitions, as the term implies, appear in the spaces between images in a slide show. To add a transition in PowerPoint, you first need to specify the location by selecting the slide that *begins* the switcheroo. If, for example, you want to insert a transition between the fourth and fifth slides in a show, select slide four:

- In Normal view, click in the outline heading.
- In Slide view, summon the slide.
- In Slide Sorter view, click the slide thumbnail.

After selecting a slide, you can add a transition in any of several ways:

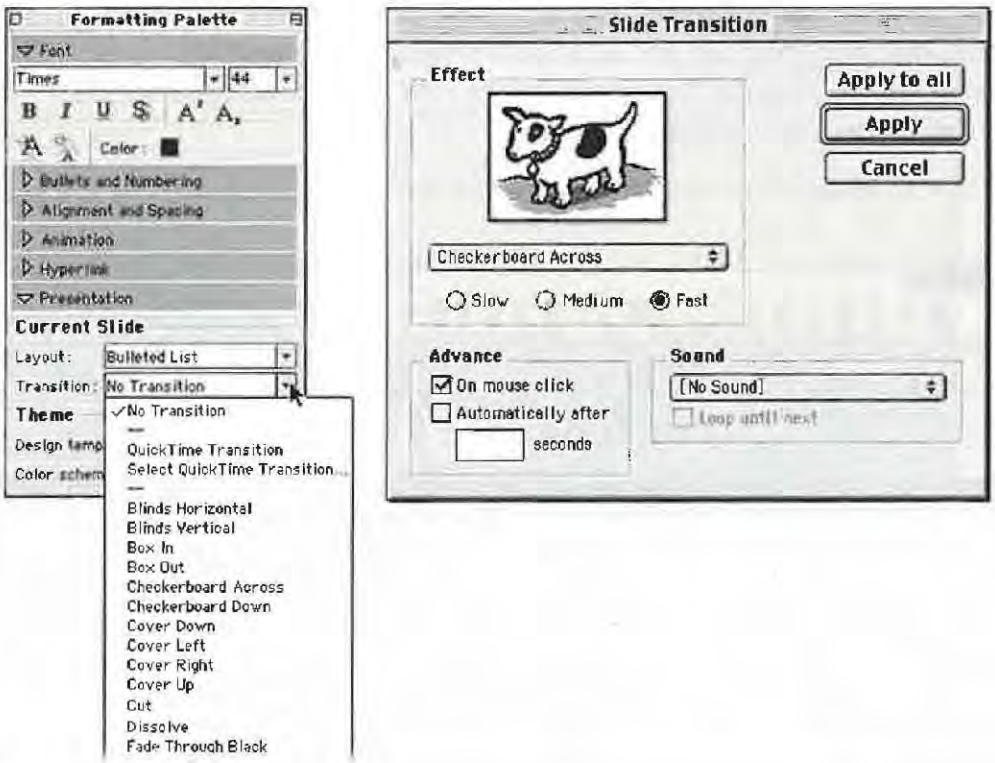


Figure 16-1: *Left: Choosing a transition from the Formatting Palette is the quickest and easiest way to add a transition to a slide show.*

Right: For more complete control over your transitions, though, use the Slide Transition dialog box; it lets you specify a sound effect to accompany the transition, set up an auto-advance timer, and so on.

- On the Formatting Palette, scroll down the Transition pop-up menu and pick the transition you want (see Figure 16-1).
- Choose Slide Show→Slide Transition, or Control-click a slide or outline topic and choose Slide Transition from the contextual menu.

  The Slide Transition window appears, offering a pop-up menu with a list of transitions. Scroll down the list and make your choice, then click Apply.
- In Slide Sorter view, use the Slide Sorter toolbar that automatically appears; it offers a Transitions pop-up menu.

Kinds of transitions

Although you'll probably end up using simple cuts and other tried-and-true favorites over the course of your slide-show career, PowerPoint dangles before you a mouth-wateringly long list of special effects. They fall into two general categories: PowerPoint transitions (those that come with the program) and *QuickTime* transitions, which are part of Apple's QuickTime movie software. The method used for retrieving them is slightly different, but in practice, PowerPoint and QuickTime transitions work the same.

Tip: If the provided transitions don't adequately express the inner you, try downloading and installing the Buena QuickTime Effects Packs (*www.buena.com*)—three shareware collections. You can try them at no charge; if you wind up making them part of your everyday transition diet, the honor system suggests that you pay $30 each ($70 for all three).

PowerPoint gives you a total of 40 transitions, grouped into twelve basic types (described here by their visual effects):

- **Blinds.** The first slide opens like a set of blinds, either horizontally or vertically. As that image moves out, the next one emerges in its place.
- **Box.** The incoming slide wipes over the previous image with an expanding or contracting box, opening from either the center or the edges.
- **Checkerboard.** The first image breaks up into a pattern of adjacent squares, which turns into the next image as it sweeps across or down the screen.
- **Cover.** The new slide scoots in from off-screen to cover the previous image with a framed, three-dimensional effect. The eight variations in this group match the directions from which the incoming slide can enter: top, bottom, left, right, and the four corners.
- **Cut.** The next slide in the show pops in place of the previous one. No frills, no fireworks. This is the most basic, and therefore the most useful, of all the transition types; it's also the "transition" you get if you don't specify *any* transition.
- **Dissolve.** One slide fizzles out and morphs into another in an impressionistic, "pixellated" fashion. Think of Captain Kirk beaming up and you've got the idea.

- **Fade Through Black.** Here, the first slide fades out to black, then the next one materializes in its place. This transition is similar to Dissolve, but without the granulated, melting-in-acid effect.
- **Random Bars.** Irregular horizontal or vertical slats appear across the image, which quickly disintegrates and gives way to the next slide.
- **Split.** The first image splits into doors that open either horizontally or vertically to reveal the next slide.
- **Strips.** As seen in countless old movies, the incoming image wipes across the screen diagonally from one corner to the opposite corner.
- **Uncover.** The existing slide moves off screen to expose the next image lying behind it. Shrewd readers will recognize this as the reverse of Cover.
- **Wipe.** In an effect that's similar to Cover but with more of a squeegee effect, the incoming slide moves vertically or horizontally into view as it wipes away the previous slide.

QuickTime transitions

Apple's QuickTime software offers even more variety—eleven basic transitions, each of which can be modified to your liking. To add a QuickTime effect to your presentation, go to the Formatting Palette and choose Select QuickTime Transition from the Transition pop-up menu. (You can also get there by choosing Slide Show→Slide Transition; from the Transition pop-up menu, choose Select QuickTime Transition.) This brings up the QuickTime Select Effects window shown in Figure 16-2. Here you can choose a QuickTime transition by clicking in the left panel, then adjust its settings in the panel on the right.

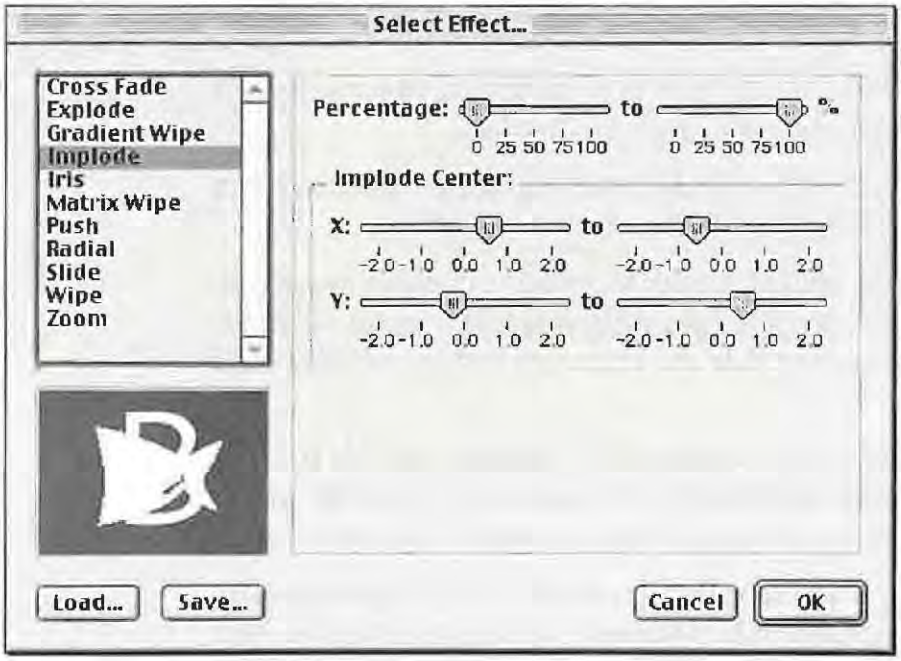


Figure 16-2: *QuickTime transitions are versatile little effects that can be tweaked and molded to create many more variations. (These, by the way, are the same transitions that QuickTime uses with video in other programs.) For example, you can adjust the intensity and timing of each transition.*

Customizing your transitions

Once you've chosen a transition effect, if you've got some time left before the big pitch, you can tinker with its settings to add variety or to make them conform to your presentation's overall style. Of course, customizing transitions is also a good way to set your slide show apart from the efforts of less-creative PowerPoint users. Using the Slide Transition dialog box (Slide Show→Slide Transition), you can control just about every aspect of how transitions behave. Here's a look at some of the things you can manipulate in this window.

- **Effect.** This pop-up menu lists all the available transitions. It also features a picture of a cartoon dog, which looks suspiciously like a black-eyed pit bull.

  Be calm; he is your friend. Once you've selected a transition, you can preview its effect by clicking on the pooch. As Fido changes into a drawing of a key, PowerPoint shows you exactly what the transition does when it switches from slide to slide. This is an extremely useful feature, because most transition types have several, sometimes subtle, variations; and the names of some transitions give few clues to their function.

  Three buttons nearby let you choose the speed of your transition—slow, medium, or fast. Some of the more intricate effects, like Cover and Checkerboard, look more impressive at slower speeds.

- **Advance.** Here's where you tell PowerPoint the method you want to use for advancing to the next image in your slide show. You have two basic choices: advance when you click the mouse, or advance automatically after a number of seconds that you specify (the preferred choice of trade-show booth personnel worldwide). You can also instruct the program to do a little of both—to change slides after a number of seconds *unless* you click the mouse first.

- **Sound.** In the gratuitous bells-and-whistles-department, nothing beats the Sound section. Using this pop-up menu, you can add a sound effect to your transition: applause, breaking glass, a car driving by, or anything else you find in your Microsoft Office→Office→Sounds folder.

Tip: If you find the list lacking, you can use one of your own sound files by choosing Other Sound from the pop-up menu and then navigating to the sound you want to use. You can also add your own sounds (provided they're in System 7 *snd* format) by dropping them in the Microsoft Office→Office→Sounds folder. From now on, those sounds will show up in the pop-up menu.

The occasional explosion or whoosh can bring comic relief, help you underscore a point, or draw special attention to an image. But for the sanity of those viewing your slide show, go easy on the noise. Don't apply sound to every transition, or the next sound you hear will be the silence of an empty auditorium.

Tip: Don't use these files for background music; for that purpose, insert a sound object in a given slide (using Insert→Slide as detailed on page 544) or use a CD as a sound track, detailed on page 567.

Putting On the Show

Now that you know how to build individual slides and insert transitions, it's time to start getting ready for making the presentation itself.

Setting up

Before you slick your hair and strut out on stage, the first preparatory step is to choose Slide Show→Set Up Show. In the dialog box that appears (see Figure 16-3), you can choose the *mode*, or the *kind* of presentation you want it to be—a typical full-screen slide show, a small show for an individual reader to browse, or a self-running kiosk-style show that keeps playing until you (or the police) shut it off.



Figure 16-3:
The Set Up Show window also lets you choose which slides to use and how you want them to be advanced (manually, with a mouse click, or automatically, using preset timings). The window's Pen Color pop-up menu gives you a choice of colors for an on-screen writing tool that allows you to scrawl arrows, circles, cartoons, or quaint Latin expressions on your slides to underscore a point or keep yourself entertained while the audience is napping.

Rehearsing your presentation

As P-Day (Presentation Day) draws near, you can use PowerPoint's *rehearsal mode* to run through the slide show and work out the precise timing. It can be very helpful to know how long it takes to show each slide, especially if you have a tight presentation schedule. This handy feature even allows you to factor in sufficient time for the laughter to subside after your well-rehearsed "off-the-cuff" jokes.

To begin the rehearsal, choose Slide Show→Rehearse Timings. The screen fills with the first slide, and PowerPoint shifts into presentation mode. A timer appears in the lower-right corner of the slide, ticking off the number of seconds you spend on a given slide; each time you advance to a new slide, the timer resets itself to zero and begins the count anew for *that* slide.

When you've gone through the whole show, PowerPoint asks if you want it to remember those timings for use later in an automated show. If you answer yes, PowerPoint logs the timings automatically in the Advance portion of the Slide Transition window. And if you record the times, the program also asks if you want it to write those timings down in the Slide Sorter view, as shown in Figure 16-4. You may as well do this; it's pretty handy to see those time allotments, even if you decide to ignore them and advance the slides manually.

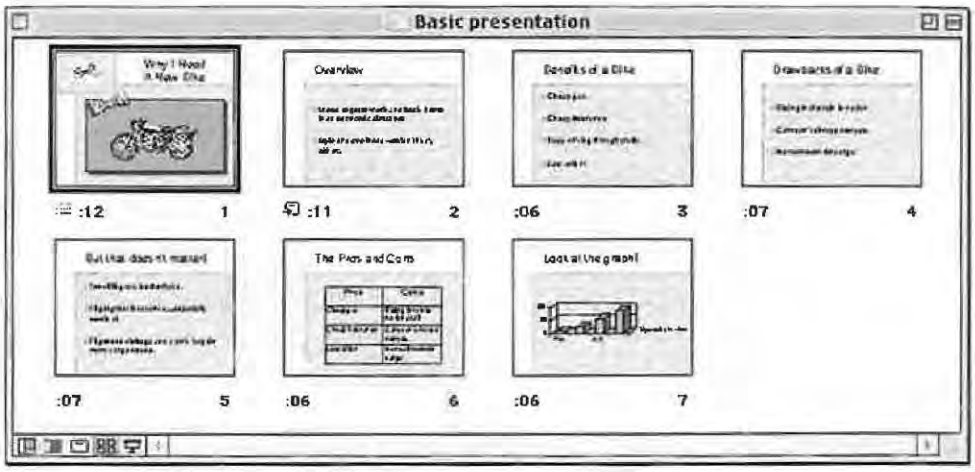


Figure 16-4: *After you've done your timing run, PowerPoint marks the slide duration beneath each slide in Slide Sorter view. But note that the duration of* transitions *isn't factored in. So if you've chosen some slow, fancy transitions, be sure to take their lengths into account when calculating the timing of your show.*

Choosing a navigation scheme

If you choose Edit→Preferences→View tab, you'll find some useful preference settings that affect the look of the show you're about to give. Near the bottom of the dialog box, for example, you'll find a pop-up menu with these choices:

- **Pop-up menu button.** Although you'd never guess it, this option means: "When you twitch the mouse during your slide show, PowerPoint will make a subtle toolbar appear in the lower-left corner. Clicking it gives you the same pop-up menu of useful controls (Next, Previous, End Show, and so on) you'd usually get only by Control-clicking the screen."
- **Navigation bar.** If you choose this option, then you'll see, during your slide show, a peculiar, detached scroll bar floating near the bottom of your slide. You can use it to navigate your slide show; click the end-of-bar arrows to advance or retreat through your slides, or use the center handle to jump around in the show.

The Preferences→View tab also offers an "End with black slide" checkbox, which is well worth turning on; it ensures that when you reach the end of your slide show, you won't awkwardly drop back into the disorganized world of icons and menus that will shatter the illusion of tidiness you've so carefully projected.

Presenting on screen

Your formal wear is clean and pressed. Now the moment has come—it's time to run your show. Once you have it loaded and ready to go, PowerPoint gives you three ways to put your show up on the little screen.

Any one of the following options starts the slide show:

- Click the Slide Show view button in the lower-left corner of the presentation's window. (It looks like an old-time home-movies screen—the rightmost icon.)
- Choose Slide Show→View Show.
- Choose View→Slide Show.

At this point, the program fills the screen with your first slide. Unless you've chosen to use preset timings (see the Note below), the first slide stays on the screen until you manually switch to the next slide (by clicking the mouse or pressing the Space bar, for example).

PowerPoint gives you several ways to move around: A simple mouse click or a press of the Space bar moves you to the next slide, as does pressing the down arrow or right arrow key. (One exception: If you've set up an animation on a slide, these advance keys trigger the animation instead of summoning the next slide; more on animations later.)

After you've reached the end of the show, PowerPoint returns you to its normal view.

Note: If you rehearsed your slide show and chose to save your timings, the show will play automatically to the end, displaying each slide for the predetermined number of seconds.

While your slide show is running, you can Control-click anywhere on the screen to bring up a contextual menu that offers such self-explanatory navigation options as Next, Previous, and End Show. It also gives you some less obvious options that are worth pointing out:

- **Meeting Minder** opens the Meeting Minder floating window. In this window you can enter minutes of your meeting or "action items" (the next steps to be taken by the attendees as a result of your meeting).

  Later, you can export these notes and minutes to Word for printing, distribution, and follow-up. (To do so, choose Tools→Meeting Minder; click the Export to Word button.)

- **Pointer Options,** as you might imagine, lets you pick the kind of on-screen cursor you want to use—Automatic, Hidden, Arrow, or Pen. (Automatic gives PowerPoint the authority to choose a pointer for you; Hidden makes the pointer go away; Arrow is the standard Mac arrow-shaped pointer; and Pen turns the pointer into a writing tool; see Figure 16-5.)

- Finally, the **Screen** submenu's commands let you pause a running slide show (that's otherwise on autopilot), put up a black screen during a discussion, or erase any graffiti that you made with the aforementioned pen tool.



Figure 16-5:
Top: The contextual menu that appears during a slide show offers a number of useful controls.

Bottom: For example, a simple Control-click during a running presentation can summon the Pen tool, a mightier-than-the-sword writing implement that lets you scribble circles, arrows, underlines, and other real-time doodles on your slides during the presentation.

Controlling the show

Here's the rundown on helpful keystrokes you can use while the slide show is running:

Keystroke	What it does
Mouse click, Space bar, Return, N, Enter, right arrow, down arrow, page down	Next slide (or start an animation)
Left arrow, up arrow, page up, P, Delete	Previous slide or animation
S or +	Pauses/resumes an auto-advancing slide show
⌘-period, hyphen, Escape	Ends a slide show
A number and then Return	Jumps to a certain slide number (out of sequence)
Home	Jumps to the first slide
End	Jumps to the last slide
B, period	Displays a black screen (or returns to the show if a black screen is currently displayed)
W, comma	Displays a white screen (or returns to the show if a white screen is currently displayed)

Putting Controls on Slides

If you don't feel like memorizing a bunch of keystrokes, you can embed a host of useful command buttons (for advancing slides, jumping to the end of the show, and so on) right on the slide when you're preparing the show.

Start by switching into Slide view (View→Slide View), which makes the Drawing toolbar appear at the left side of your screen (if not, choose View→Toolbars→ Drawing). On the Drawing toolbar, use the AutoShapes pop-up button to choose from the Action Buttons submenu (see Figure 16-6).

On the Action Buttons palette are twelve buttons. The four in the middle of the palette help you jump around during the show: Previous Slide, Next Slide, First Slide, and Last Slide.



Figure 16-6:
Using the "Hyperlink to" pop-up menu, you can specify that a click on this button jumps to another slide, a Web site, or even another Macintosh file. "Run program" makes another Mac application open when this button is clicked; "Play sound" lets you create a button that, when clicked, plays the thunderous applause the occasional heartless audience may not provide.

UP TO SPEED

Using a Projector

The screen on Apple's PowerBook G4 may be big, but it's still not big enough for a conference room full of your colleagues. Many PowerPoint slide shows, therefore, are destined to be displayed by special projectors that throw those slides onto a large screen.

Every current PowerBook, iBook, and iMac model has a *video out* connector on the back or side panel, which lets you connect the laptop to a projector that can take either VGA or S-video input. (Older iBooks and iMacs lack this jack.)

Connect your Mac's Video Out port to the projector's Video In port. Then you can use the Monitors tile on your Control Strip to control how your video goes out to the projector. Other modules may also appear on the Control Strip, such as one that controls *mirroring* (whether or not the laptop screen shows the same image as the projector, or rather acts as an extension of its area).

To put an Action Button on your slide, click the button you want. (Alternatively, choose a button name from the Slide Show→Action Buttons submenu.) Then drag diagonally on the slide as though using one of PowerPoint's drawing tools. PowerPoint draws the button for you, then opens up the Settings window shown in Figure 16-6.

In this window, you can specify exactly what your newly created button will do. The proposed settings are fine for most purposes; you can generally just click OK. It's worth noting, however, that you can use these controls to make your button do much fancier tricks, as described in Figure 16-6.

Tip: By default, your action will be triggered when you *click* the corresponding button. But if you click the Mouse Over tab, you can also specify that something happens instead when you just *point* to it (mouse over it).

Later, when the slide show is running, press the A key to make the arrow cursor appear, then click your newly created button to trigger the associated event. (Pressing the A key also brings up a small menu in the lower-left corner; you can use this menu to navigate your slide show just as you use the contextual menu that pops up when you Control-click.)

You can put any of eight other Action Buttons on your slides: **Custom** lets you customize your own action button (by running a macro or launching a program); **Home** zips back to the first slide in the show; **Help** lets you create a link to a Help slide that you've designed; **Information creates** a link to an Information slide that you've added; **Last Slide Viewed** takes you back to the last slide you saw (which, if you've been jumping around, isn't necessarily the slide before this one in sequence); **Document** launches a Macintosh file or program that you specify; **Sound** triggers a sound; and **Movie** starts rolling a movie that you've set up beforehand.

If you want to change the appearance of an Action Button—or any other AutoShape—double-click the button to bring up the Format AutoShape window.

POWER USERS' CLINIC

Using Hyperlinks

One custom button action that's especially useful is one for linking to other slides—the next or previous slides in the slide show, the first or last slides, or even a specific slide. But they can also link to a Web page (if your presentation Mac is connected to the Internet), another PowerPoint presentation, or even another file or program on your Mac.

You do all this by turning your button into a *hyperlink*. To set up a hyperlink, select the button and then choose Slide Show→Action Settings to bring up the Action Settings window. Click the "Hyperlink to" radio button and select an action for the slide from the pop-up menu. Click OK; your button is ready to roll. (See page 270 for more details on the kinds of things hyperlinks can do for you.)

Tip: You don't have to use one of the predrawn shapes on the Custom Actions palette as your visible buttons; PowerPoint can turn *any* graphic object into a button. Just Control-click it and choose Action Settings from the contextual menu, then proceed as described in the preceding paragraphs.

Recycling Your Presentations

PowerPoint lets you create multiple custom shows in a single document. This feature comes in handy if, for example, you want to have both long and abbreviated versions of the same show, or if you want to tailor some material you've used before to a different audience.

Suppose, for example, you're going to address two groups on the topic of deer. You have lots of great slides on the topic. But there's a good chance the group from the Bambi Fan Club wouldn't sit through the show you've got planned for Hunters Anonymous. You could easily solve this moral dilemma by creating a *customized show* for each group, one whose slides are a subset of the other.

To build such a custom show, choose Slide Shows→Custom Shows. The resulting dialog box (Figure 16-7) gives you four choices: New, Edit, Remove, and Copy.

When you click New, a window pops up that lets you choose the slides you want to include in the custom show. You can also reorder the slides in your custom show and give your custom set a name.

Then, when it's time to give the actual presentation, choose Slide Shows→Custom Shows to bring up the Custom Shows window, which lists the custom shows you've built. Click the one you want to present and then click Show; your custom show now begins.

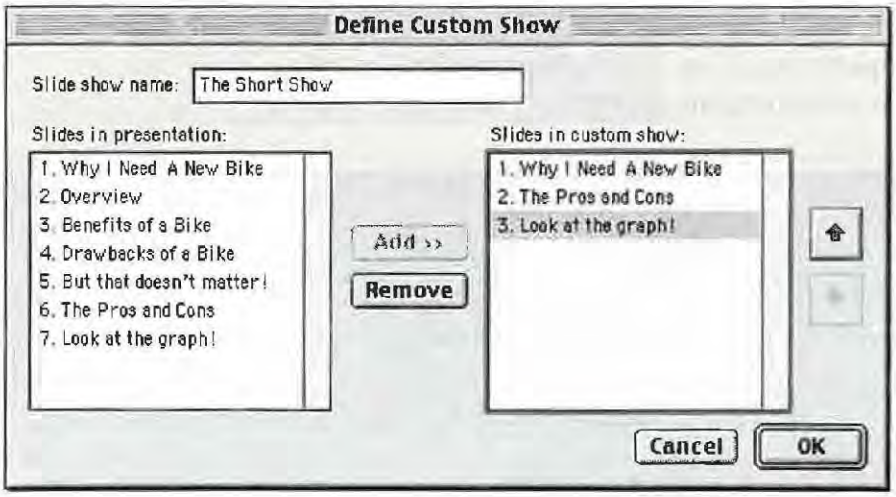


Figure 16-7: *Using the Define Custom Show window, you can choose a subset of slides from the currently open slide show and reorder those slides any way you want to create a customized presentation.*

Hiding slides

If you have a slide that you want to hide in your presentation, there are a couple of ways to go about it. First, you can select the slide you want to hide and then select Slide Show→Hide Slide. You can also use the Slide Sorter view to hide slides by selecting the slides you want to hide and then clicking the Hide Slide button in the Slide Sorter toolbar. If that toolbar isn't visible, choose View→Toolbar→Slide Sorter. Hidden slides won't be shown in the slide show.

Multimedia Effects

PowerPoint puts at your disposal a Spielbergian selection of special effects. In addition to the transitions you insert between slides, the program lets you animate particular elements in an image. It also allows you to add a soundtrack or voice narration to your slide show—features that are especially useful if you want to save the presentation as a stand-alone movie.

Adding Animations

One of the simplest ways to jazz up a PowerPoint presentation is to animate an element in a slide—be it text, an image, or even a movie. Animated objects whisk into view when triggered by an advance key, then dart away the next time you press the advance key. You can control the animated object's path of motion and also whether its action is accompanied by a sound effect.

As always, these effects do nothing to make up for lack of a meaningful message in your presentation, and seem primarily designed for making glitzy demos of PowerPoint at trade shows; use them sparingly and with good taste.

Tip: You've been warned: Animations may not show up when you export your PowerPoint presentation as a QuickTime movie, as described on page 565—especially if you've also created transitions between slides.

Standard animations

To animate an object using one of PowerPoint's ready-made special effects, first select the object you want to animate—for example, click inside a block of text or click an image.

Note: Not all standard animations work with all kinds of objects. Laser Text and Typewriter, for instance, affect only text, not graphics. If a particular effect can't be applied to the object you've selected, that option is grayed out on the Animations menu.

Then choose an animation style from the Slide Show→Animations submenu, which offers fourteen different animations (plus an Off option to remove an animation). A few examples:

- **Fly In.** The selected object shoots in from the left with a *swish* sound and comes to rest at its rightful spot in the layout.
- **Fly Out.** The selected object pops off the slide and exits to the right with the same *swish*.
- **Fly In/Out.** The selected object flies onto the slide from the left and lands in its proper position, then, with another press of the advance key, rockets off to the right. An audible *swish* accompanies both motions.
- **Drive-In/Out.** The selected object enters the slide from the right and, with the sound of a car motor and screeching tires, skids into its resting place. Another press of the advance key sends the object off the slide to the left with the same infernal racket.
- **Flash Once.** No sound here. The selected object simply flashes once in a silent, subliminal kind of way.
- **Dissolve.** The selected object gradually materializes before your eyes, a few pixels at a time.
- **Appear.** In this, the simplest of all PowerPoint's animations, the selected item just pops into its predetermined spot on the slide.

Tip: To preview an animation, choose Slide Show→Animation Preview. A little window pops up, showing you just how the animation looks when it kicks in (although in this preview, you don't have to click the mouse or press a key to trigger each phase of the animation).

Custom animations

If none of the preset animations suits your fancy, you can fiddle with them to create an effect you like better. The Custom Animation window (Figure 16-8) is the shop

FREQUENTLY ASKED QUESTION

Bullet by Bullet

I've seen these really tall, smart, good-looking people do presentations where their bullet lists don't show up all at once. Instead, each point whooshes onto the screen on command. Can I do that too?

It's easy to animate the arrival of your bullets. Choose Slide Show→Animations→Custom, click the Effects tab, and then select the text object (the one that contains your bullets) in the box to the left. From the "Entry effect" pop-up menu, choose an animation style (such as "Fly In From Left," by far the most popular choice among tall, smart, good-looking people).

If you click OK, your bullet points will now fly in one at a time, each time you click the mouse (or press an advance key). If you click the Order and Timing tab, you can specify instead that they appear a certain number of seconds apart; and if you click the Options tab, you can choose the bullet level that you want to group together—something that will make sense only if you've actually created bulleted lists *within* bulleted lists.

where you soup up animations and control multiple animations on the same slide. To open this window, choose Slide Show→Animations→Custom, or click the Customize button in the Animation section of the Formatting Palette.

In the Custom Animation window, you can exercise control over almost every aspect of an animated object, such as how it enters or exits a slide and what sounds it makes. This is also where you let PowerPoint know which animations to trigger if you have *more* than one per slide.

The left side of the Custom Animation dialog box shows a list of all the text boxes, graphics, and other objects on the slide. To animate one of these objects or adjust the animation style you've already applied, click the one you want to work with. Below that list is a preview pane with Stop and Play buttons; use these, if you wish, to show how your adjustments have affected the animation.

The Custom Animation window has three tabbed sections: Effects, Order and Timing, and Options. Here's an overview of their functions:

- **Effects.** Using the five pop-up menus in this section, you can choose what animated effect PowerPoint uses to whisk an object on or off the slide, and whether an effect happens with or without sound; you can choose from among the program's sixteen preset sounds or select one from your hard drive. The Effects tab also lets you add a color effect to an animated object after it has made its grand entrance on screen—that is, after a new bullet point has flown onto the screen in brilliant orange to get the audience's eye, you might decide that it should settle down into a more demure color to match the other bullet points that have already arrived.

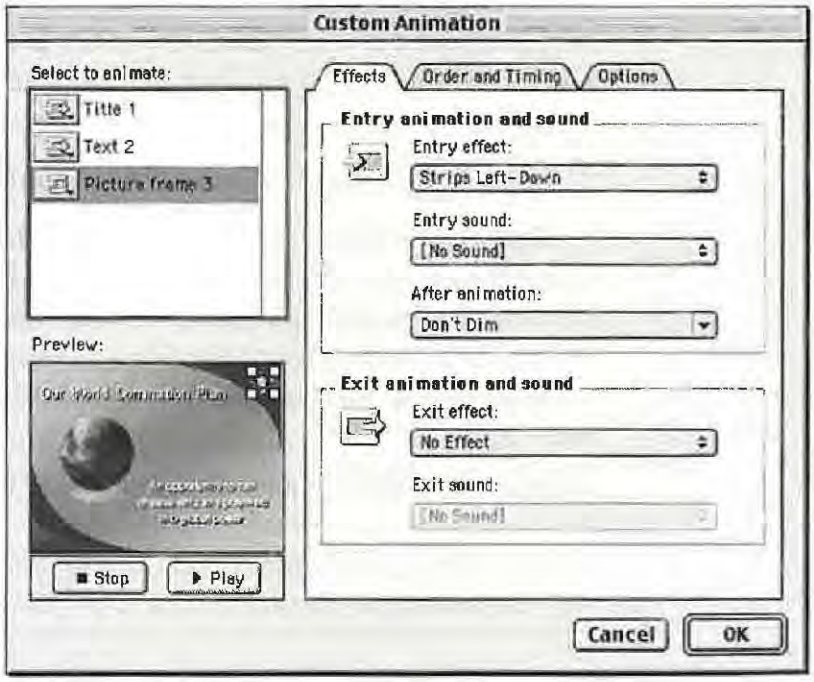


Figure 16-8:
The Animation Effects window is animation headquarters, your personal Dreamworks studio. Its pop-up menus give you access to a wide variety of animation effects–far more than the paltry fourteen presets available through the Animations submenu. A word to the wise: Go easy on these effects, lest you drive your audience nuts.

- **Order and Timing.** When you have more than one animated object on a slide, use this tab to specify their arrival order. (You see a list of all animations scheduled for the slide; after clicking a white area of the list to deselect them, you can drag an animated object's name up and down to rearrange it, or click one and use the up/down arrows to achieve the same end.) Come here, too, to tell PowerPoint how you want the animations to be triggered—either with a click of the mouse, or automatically after a given number of seconds.
- **Options.** This tab lets you set options for any other programs or media that you've selected to use as part of your presentation. For example, if you're planning to show a QuickTime movie clip, here's where you can tell PowerPoint whether to pause or continue the slide show while the movie is playing, and also whether to show the movie just once or to loop it continuously until you tell it to stop. If you have text selected for animation, use this tab to choose whether it appears on the slide all at once, one word at a time, or one *letter* at a time.

Once you've customized your animations, click OK to close the window.

Narration

If you're worried about laryngitis on the day of your presentation, if you're creating a self-running "kiosk" show, or if you have an unnatural fear of public *squeaking*, you might want to record voice narration for your slide show ahead of time. That way, you can sit back and relax while your confident, disembodied voice plays along with the show.

To add recorded narration to your presentation, you need a Mac with a microphone, of course; PowerBooks and iMacs have built-in mikes, USB microphones are available for Power Macs, Cubes, and iBooks, and older Power Macs came with a small plastic microphone and corresponding jack. You might want to visit the →Control Panels→Sound control panel's Input tab to make sure that you've selected the correct microphone for input. Quit all other sound-recording programs, if any are running. Then:

1. **Choose Slide Show→Record Narration to bring up the recording window.**

   This window shows the current recording settings, including the amount of space your narration will take up on your hard drive, along with your maximum recording time, based on your free hard-drive space. Since sound files can be huge, the "Link narrations in" checkbox lets you save your narration files to any location you like, such as an external hard drive with plenty of free space.

Warning: If you don't link your narrations, the sound will be included in the presentation, swelling the file. If you *do* link the presentation, the narrations are saved into a separate sound file in the location indicated in the Record Narration window. You'll have to make sure that you move those files when you move the presentation to another machine, or you risk breaking the links.

---

2. Click OK.

   PowerPoint starts running through your presentation. As you advance through the presentation, PowerPoint attaches the audio you recorded as a sound object on each slide. There's no easy way to re-record just one flubbed slide; for most purposes, it's simplest to start over with a new "take." (And if you're *really* having trouble, you can always record individual sound files for each slide, which you can then attach as described on page 545.)

Note: These voice clips override any other sound effects in the slide show, so if you're using a recorded narration, embedded sound effects (including transition sounds) don't play.

---

3. **Record whatever you want to say on each slide; advance the slides as you normally would (by clicking the mouse, for example).**

   When you reach the end of the slide show, PowerPoint asks if you want to save the timings (to record the amount of time you spent on each slide) along with your narration, just as described on page 554. If you click No, PowerPoint saves only the narration. If you click Yes, it saves the timings along with the narration, overwriting any existing timings.

   Narration is stored as an embedded sound file on each slide. If you choose not to include the timings, each sound will play when you manually advance to a given slide; that way, you can let the narration play and then have some discussion with each slide, moving on only when you're ready.

Warning: Voice recordings can eat up a lot of disk space, so be sure you have enough room on your hard drive to hold the sound. If not, consider saving your voice files to an external hard drive or some other industrial-strength storage area.

Once you're done recording your narration, you've got a self-contained slide show, suitable for parties or board meetings.

Saving Presentations as QuickTime Movies

With PowerPoint 2001 comes a great new feature: the ability to save presentations as QuickTime movies. This is a nifty idea for two reasons: Anyone with QuickTime installed—Mac, Windows PC, whatever—can play these movies even if they don't have PowerPoint; a great way for your associates and underlings to give the same kinds of pitches you give without having to spring for a copy of Office. Also, a presentation movie thus converted can be opened and edited in PowerPoint as if it were a PowerPoint file.

Note: PowerPoint Viewer 98 is a utility for playing PowerPoint presentations on computers that don't have PowerPoint installed. You can download it from Microsoft's Web site.

The Viewer still plays many PowerPoint 2001 presentations, but it doesn't handle exit animations, graphic bullets, QuickTime Transitions, or animated GIFs; in general, the Save as Movie option described on these pages is far more flexible and compatible with far more computers.

To turn an open PowerPoint presentation into a QuickTime movie, choose File→Make Movie. This brings up a standard-looking Save dialog box, which you can use to name your movie file and choose a folder location for it.

Before clicking Save, however, you may want to fine-tune some settings in your movie. To begin, click the Adjust Settings radio button. The Save button turns into a Next button, which, when clicked, opens the Movie Options window shown in Figure 16-9.

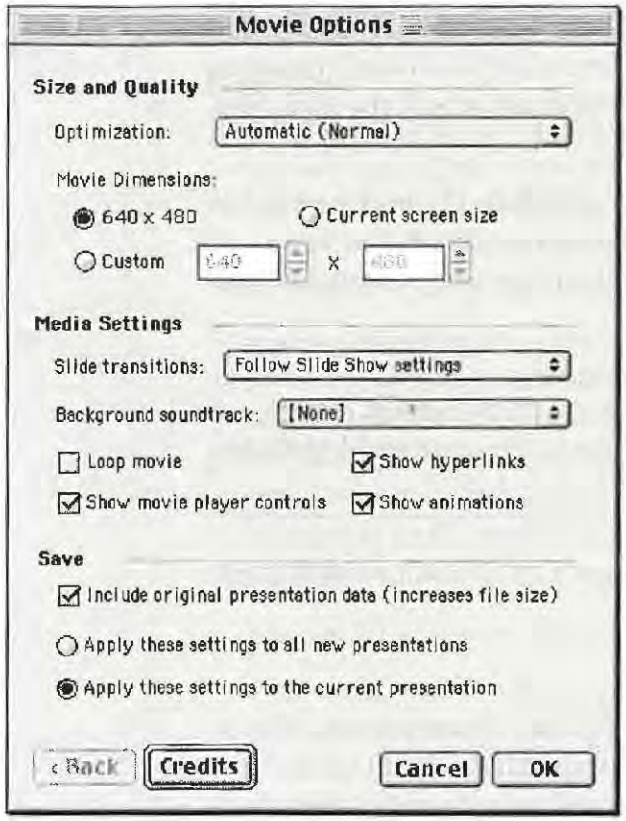


Figure 16-9:
This dialog box lets you specify the size of the QuickTime movie; 640 x 480 won't fill most of today's 15-inch or larger screens. Using the "Background soundtrack" pop-up menu, you can choose an MP3 file or another file to play during the whole slide show—a handy option in self-running, demo situations.

The most important settings worth examining here are Movie Dimensions (see Figure 16-9) and the Optimization pop-up menu. The latter lets you specify which of these often mutually exclusive traits you value more as PowerPoint saves your movie: compact file size, smooth playback of animations, or picture quality. If you want the highest quality animations, for example, the file won't be very small on your hard drive, and the quality of animated photos may suffer.

Tip: After you've saved your slide show as a QuickTime movie, you may notice your PowerPoint transitions acting a little flaky. If you're having these behavior problems, try using QuickTime transitions instead.

This dialog box also lets you import a sound file to use as a soundtrack. Tread carefully, though, to avoid crossing that fine line between "entertaining" and "annoying." These background sound files can be in any number of formats, including AIFF, QuickTime audio, WAV, and MP3.

To add a background soundtrack, choose Select Soundtrack from the Background Soundtrack pop-up menu. PowerPoint asks you to locate a sound file, which it then attaches to your presentation when you click OK. PowerPoint will mix the soundtrack sound with any embedded sounds, including voice narration.

Finally, the Movie Options window lets you decide whether PowerPoint adds the *presentation data* to the movie file. If you choose this option, you or your colleagues will be able to reopen the movie file *right back into PowerPoint* for further editing—but you'll make the resulting movie file much bigger on the disk.

Tip: Because movie files and sound files are so big, PowerPoint doesn't embed them right into your slideshow file if they're over, say, 100 K in size (a threshold you can change by choosing Edit→Preferences→General tab and adjusting the "Link sounds with file size greater than ___ KB" number). Remember, however, to bring such files along with your PowerPoint file when you transfer it to another Mac!

Saving Presentations for the Web

The latest edition of PowerPoint lets you create presentation files that are formatted, coded, and ready to be posted on the Internet. With just a few mouse clicks, you can save your slide show as a Web page, complete with some nifty JavaScript programming that gives viewers a new level of control over how they watch your show.

Before you move your presentation onto the Web, you'll first want to see how it looks after the conversion. To preview your presentation as a Web page, choose File→Web Page Preview. PowerPoint generates all the necessary graphics, HTML, and JavaScript coding, then transfers the whole enchilada into your browser. You can then use your browser to click your way through the presentation, which actually looks very much as it would if you were viewing it in PowerPoint's Normal (three-pane) view. To end the preview, just quit your browser to return to PowerPoint.

To save your presentation as a Web page (or rather, a set of them), choose File→Save as Web Page. PowerPoint asks where you'd like to save your show. Clicking Web Options opens a window that lets you tell the program such things as what colors to use, where to place navigation buttons, how to encode images, and how you want files to be updated. Once you're satisfied, click Save. PowerPoint automatically renders your presentation as HTML files (complete with embedded JavaScript) and Web-ready graphics files; you wind up with an *index* file (a home page) and a folder full of HTML files, graphics files, and sound files. You can upload these files to your Web server as you would any other Web page files (see page 580).

Saving Slides as Graphics

Among its many other gifts, PowerPoint allows you to save individual slides—text and all—as graphics files. This can be a handy little feature if, for example, you want to make sharp-looking, high-resolution images of your presentation to pass along to your friends and your agent.

To save a PowerPoint slide as a graphic file, first open the slide you want to convert, then follow these few steps:

1. **Choose File→Save As.**

   A dialog box appears, offering several options.

2. **From the Format pop-up menu, select a graphics file format.**

   JPEG is a great choice for photos; PICT is, too, but it's a Macintosh-only format. Use GIF or PNG (see page 268) for smaller files, especially if you intend to use the resulting still images on a Web page.

3. **Click Options.**

   At the bottom of the resulting Preferences window, you can choose the file resolution, its dimensions (an important setting; you don't want your monitor to chop off part of the slides), whether to compress the file (smaller files, worse quality), and whether you want PowerPoint to save *all* the slides in the show as graphics or just this one.

Tip: You don't need to set up these options time after time; you can set up your preferred settings only once, on the Edit→Preferences→Save tab. There you'll find the identical graphics-saving options, which affect the proposed values for all your subsequent graphics-saving exploits.

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4. **Change the settings as desired, click OK, then name the still image and click Save.**

   If you opted to save all of the slides, PowerPoint automatically creates a *folder* bearing your file's name. Inside the folder are the individual graphics files, with names like Slide1.jpg, Slide2.jpg, and so on.

TROUBLESHOOTING MOMENT

Funky Fonts

When viewing a presentation that's been converted into a Web page, you may notice that the fonts don't fit quite right—a by-product of the fact that the HTML language of Web pages isn't terrifically brilliant about managing fonts. Although PowerPoint does its best to compensate, sometimes type rendered in HTML is just too big for the allotted space, so chunks of text bump down to the next line.

You can do a couple of things to combat this fat-font problem. Keep your font sizes a shade smaller than you ordinarily would, and try not to squeeze too much copy on a single line. And whenever possible, avoid tables with multiple lines of text; these babies are just *waiting* to bunch together and run over.

Printing Your Presentation

Although PowerPoint is primarily meant to throw images onto a monitor or projector, you can also print out your presentations on good old-fashioned paper—which is especially useful, of course, for printing handouts, overheads, and notes. Whatever the format, all printing is done through the same basic procedure: Open the presentation you want to print, make a few adjustments in the Page Setup dialog box and the Print dialog box, then fire away.

Page Setup

Before printing your presentation, you should pop open the hood and take a peek at the Page Setup dialog box (see Figure 16-11). After all, this all-important window is the engine that controls the size of your slides, whether they're for on-screen viewing or printing. Be sure to make any size adjustments early in the game; if you fiddle with the knobs in Page Setup *after* the slide has been made, it'll stretch to fit, possibly giving the image a warped or distorted look, or knocking certain graphics off of the edge altogether.

You can use the settings in this dialog box to morph your slide show into something appropriate for another format—such as going from an overhead projector to a Web banner. This is the primary place in the slide show to control the size of your presentation. If you want to send your presentation out for printing, you can adjust its resolution by clicking the Options button in the Save dialog box.

To open the Page Setup dialog box, choose File→Page Setup. Doing so brings you face-to-face with Microsoft's version of the Page Setup box, which presents you with a pop-up menu offering preset slide sizes: On-screen show, US letter, US ledger, A3, A4, B4, B5, 35 mm slides, overhead, and Web banner. If you have a custom slide size in mind, you can set its width and height here as well.

Tip: If you'd feel more comfortable using the familiar Mac OS Page Setup dialog box, you can get there quickly by clicking Options in Microsoft's version of the Page Setup dialog box.

Printing Your Slides

When you're ready to commit your presentation to paper, choose File→Print (⌘-P) to bring up the Print dialog box. Here's where you tell PowerPoint exactly what you want to print—slides, handouts, notes, or an outline.

In the Print dialog box, find the General pop-up menu in the upper-left corner of the window. Select Microsoft PowerPoint in that menu to reveal the print settings window (see Figure 16-10, bottom). Here, you can select which chunks of your presentation you want to print (slides, handouts, notes, or the outline); from this spot you can also choose to print a custom show (if you created one earlier). When you're ready, click Print to send your document to the printer.

Notes and Handouts

Every PowerPoint slide can have *notes* attached to it: written tidbits to help you get through your presentation, or to clarify points for your audience. As you build your presentation, the Notes pane in PowerPoint's Normal view provides a place to type notes for each slide. (These notes even show up on PowerPoint-exported Web pages.)

Handouts are printouts of your slides, usually featuring multiple slides per page; they spare your audience from having to take notes during the meeting. (Both Notes and Handouts have master pages, which work the same as slide masters; see page 532 for details.)

To print your notes and handouts, choose File→Print (⌘-P) and then choose Microsoft PowerPoint from the General pop-up menu. This brings up the settings specific to PowerPoint. In the Print What pop-up menu, you can choose to print notes or handouts in layouts that contain 2, 3, or up to 16 slide miniatures per sheet.

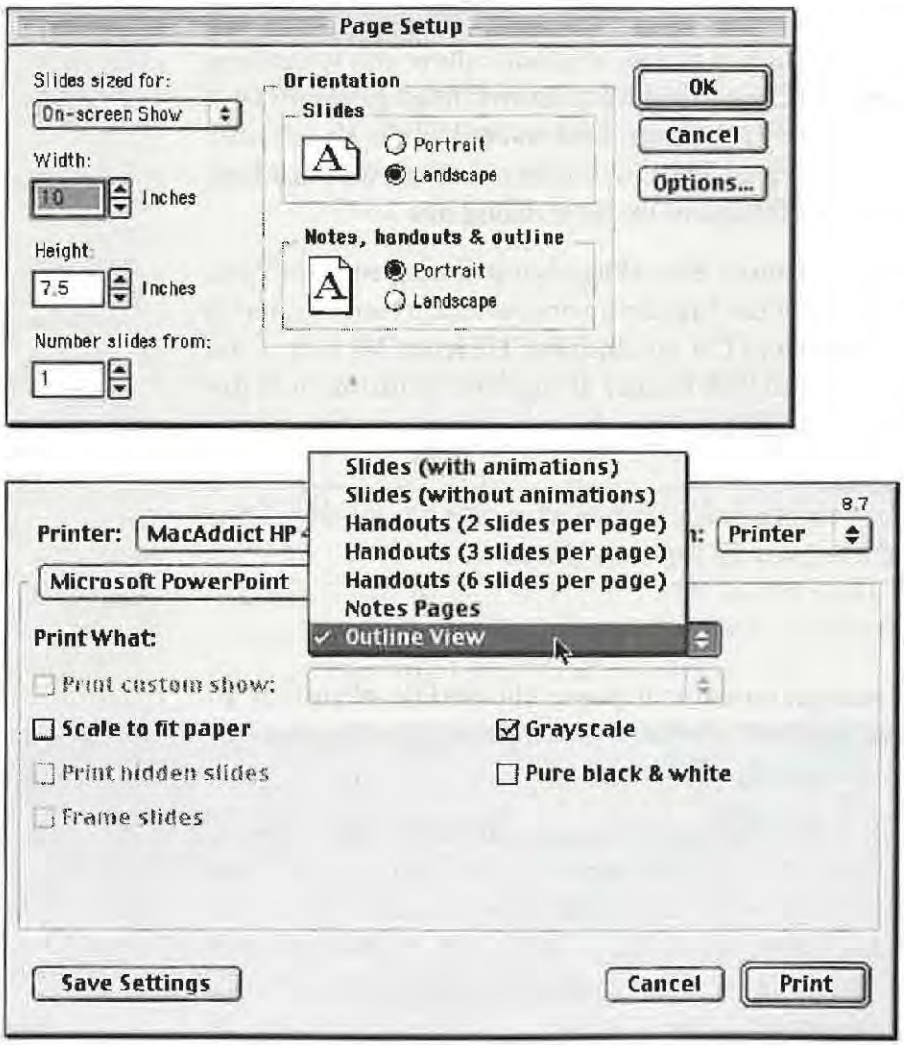


Figure 16-10:
Top: The Page Setup dialog box lets you tell PowerPoint where to start numbering your slides, and it also lets you set a separate orientation (portrait or landscape) for slides and other documents–notes, handouts, and outlines–that you want to print.

Bottom: This window's five checkboxes give you even more choices: You can shrink your document to fit the available paper, print in grayscale or pure black and white, print any hidden slides, or put a snappy little frame around each slide printout.

5

Part Five: Office 2001 As a Whole

Chapter 17: Customizing Office

Chapter 18: The Graphics Programs of Office 2001

CHAPTER
17

Customizing Office

Microsoft desperately wants the approval of Mac fans; its programmers seem willing to do almost anything to make Office for the Mac a hit. For example, its software design seems to subscribe to the theory, "If you don't like something, change it yourself."

Sure enough, very few elements of the way you make things happen in Office are set in stone. Word, Excel, and PowerPoint each let you redesign the toolbars and even rework the menus; in Word, you can also choose different keyboard equivalents for commands. (Entourage, on the other hand, is off-the-rack software; you can't work it over in the same ways.)

Even if you're a novice, this customization feature is worth exploring; there will almost certainly come a day when you wish you could choose an easier keystroke for some function than the one Microsoft chose. With this chapter as your guide, you can.

Customizing Your Toolbars

One way to customize your toolbars is to drag them around the screen and change their shapes to fit your whims (and your monitor shape). To move a toolbar, just drag it, using its skinny title bar (next to the close box) as a handle.

You'll soon discover that toolbars are *sticky*—that is, they like to snap against the sides of the monitor, other toolbars, the Formatting Palette, or to the Office Assistant.

Tip: This snappiness is designed to help you keep your screen tidy, but if you press Shift while dragging, you stifle your toolbars' social tendencies.

You can also reshape your toolbar by resizing it as if it were a window: just drag the diagonally striped area in the lower-right corner, as shown in Figure 17-1.

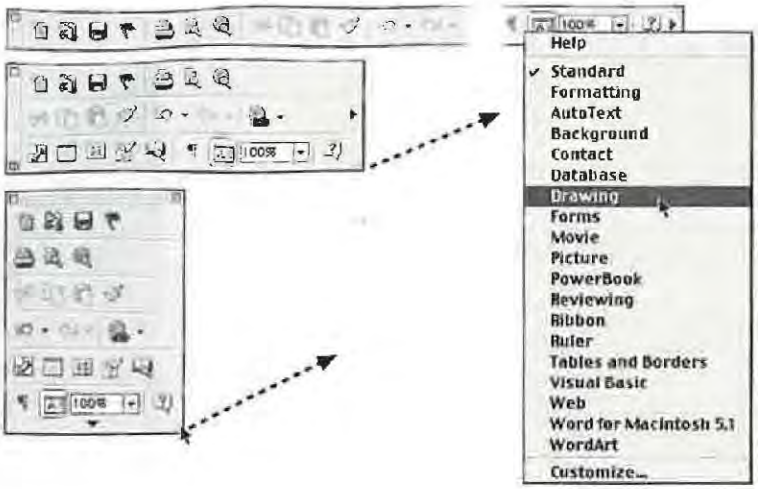


Figure 17-1:
Bottom, middle: The toolbar turns into an outline as you drag its reshaping corner. As you drag diagonally, it goes from a vertical toolbar to various incarnations of a rectangle, and finally to a horizontal toolbar–or the other way. Don't forget that you can rearrange the buttons on any toolbar by ⌘-dragging them.

Top: If you Control-click any empty gray space in a toolbar, you get a pop-up menu of all toolbars. Choose a toolbar name to make it appear or disappear.

Showing Other Toolbars

Excel, PowerPoint, and Word each comes with a toolbar or two that pop up when the program opens; but that's just the beginning. In fact, Word has 24 toolbars, PowerPoint has 17, and Excel has 23, each dedicated to a certain purpose (such as graphics work, Web design, or reviewing comments). Some appear automatically when you use a related command or open a related editing area; the others you can summon or dismiss as you need them.

You can go about opening and closing toolbars in any of three ways:

- Control-click any open toolbar or palette. As shown in Figure 17-1, you get a pop-up menu of what Microsoft considers to be the most useful toolbars; choose the name of the one you'd like to open or close.
- Choose from the View→Toolbars submenu; here again, you see over a dozen of the most important toolbars.
- Choose Tools→Customize→Toolbars tab. Now see a list of *all* of the toolbars, even the obscure ones. Click a checkbox to make the corresponding toolbar appear or disappear instantly. (Because you don't even have to close the dialog box between experiments, this is the fastest way to have a quick look at all the available toolbars.) Click OK to close the dialog box.

Creating Custom Toolbars

The likelihood of Microsoft *perfectly* predicting which buttons you'd like on which toolbars is about the same as finding the shoes you want, in your size, at the first shoe store you visit. Fortunately, it's very easy to delete or add buttons on Excel, PowerPoint, or Word toolbars; or create entirely new toolbars that contain nothing but your own favorite buttons. (If you use Word's styles, as described on page 129, for example, it's a no-brainer to create a palette of your favorite styles, so that applying them takes a single click.)

To move a button or delete it from a toolbar

To move a button, just ⌘-drag the button to a new spot on the toolbar—or even to another toolbar. The button assumes its new place, and the other buttons rearrange themselves to make room.

To get rid of a button completely, ⌘-drag it off the toolbar, anywhere else in the document window. (You can always reinstall it by opening the Customize dialog box, as described below.)

To add a button, or design a new toolbar from scratch

Every now and then, you'll wish you had a one-shot button that triggers some useful command—for inserting the current date into your document, for example.

To add a button to an existing toolbar, choose Tools→Customize→Commands tab, which presents a list of command categories (grouped by menu), and the actual commands that you can use. It's a staggeringly long list of almost every command in the program. You'll notice that Office's commands are a tad user-hostile; no spaces are allowed, and you tend to see the name of the command run together with the menu that usually contains it (such as ToolsSpelling). You'll also notice that each of your Office programs offers *hundreds* of commands that don't appear in the regular menus.

Tip: You can choose a category of commands by typing the first couple of letters of its name. Then press Tab to highlight the list of commands within that category, and once again type the first couple of letters to scroll *this* list.

You can drag *any* of the commands in the window onto a toolbar, as shown in Figure 17-2. Some of them even take the form of pop-up menus, such as Font Color, which then become part of your toolbar. (In fact, if you drag the command at the bottom of the Categories list called New Menu onto a toolbar, it turns into a pop-up menu that you can fill with any commands you like. You might decide to set up several custom pop-up menus filled with small lists of related styles—one just for headings, for example—for quicker access and better arrangement. You can rename your homemade pop-up menu as described in the tip below.)

Weirder yet, look at the top of your screen—there's a *duplicate menu bar* there. Click to open one of these phony menus; now you can drag any menu command *right off*

the menu onto your new toolbar, where it will be available for quicker access. Once buttons are on the toolbar, as long as you don't close the Customize dialog box, you can drag your buttons and commands around to different places, or you can even drag them off of the toolbar to get rid of them.

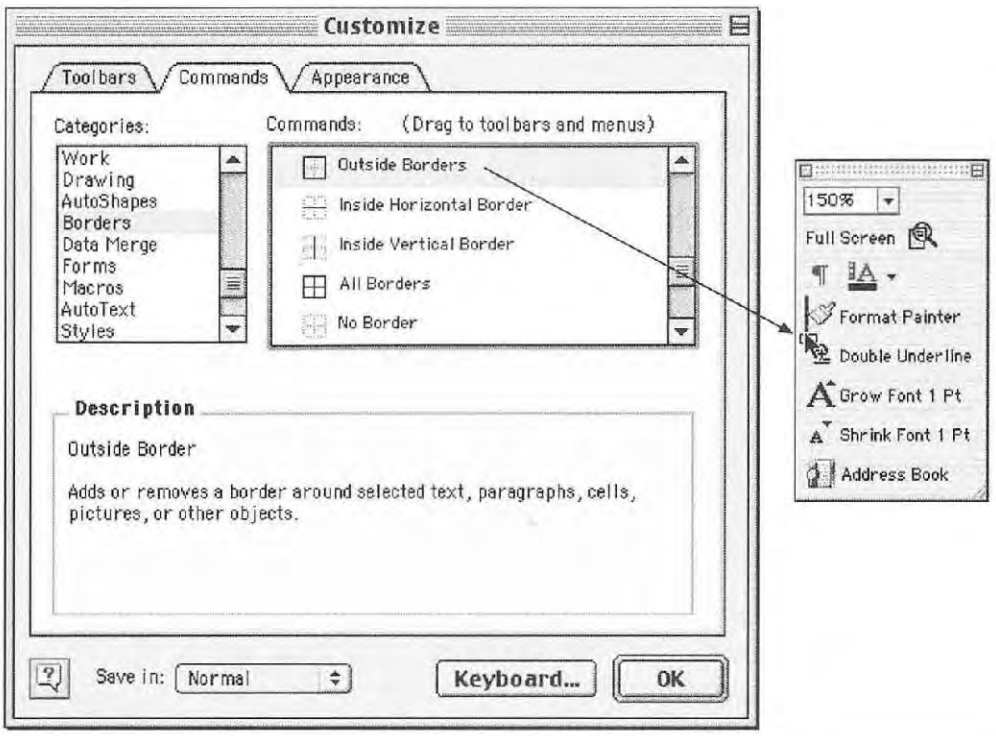


Figure 17-2: *Adding commands to a custom toolbar is as easy as dragging them from the Commands section of the Customize window to the toolbar. The button appears where the thick black line is when you drop it. Once you let go, feel free to drag it or its toolbar-mates around into a more pleasing arrangement, or drag the lower-right corner of the toolbar to reshape it.*

OBSESSIVE USERS' CLINIC

Drawing Your Own Buttons

Not all commands that you drag onto your toolbars come with associated picture buttons; all you get is a *text* button. If you'd prefer an icon, you can add one.

The trick is to Control-click the new button and choose the Properties command. You get the Command Properties window, shown here, where you see a little blank button icon in the upper left corner. Click the pop-up menu attached to find your three alternatives:



If one of Microsoft's ready-made buttons will do, choose it from this pop-up menu. If you've copied a picture from another source, you can paste it in (in shrunken form, of course) by choosing Paste Button Image.

And if you want to paint a new button icon by hand, choose Edit Button Image from the pop-up menu and go wild. Word's painting tools are about as easy to draw with as a lunch box, but that's your punishment for disagreeing with the design team at Mother Microsoft.

Tip: If you double-click a toolbar button or pop-up menu while the Customize window is open, you summon the Command Properties window, in which you can specify how you want the command to look in the toolbar: as a little icon, as a plain-English word, or both. You can also opt to add a vertical separator line to the button's left by turning on "Begin a group."

You can even perform this kind of button editing when the Customize window *isn't* open—in the middle of your everyday work. The trick is to Control-click the button; choose Properties from the contextual menu.

Designing a completely new toolbar works much the same way. Choose Tools→Customize→Toolbars tab, and then click the New button. You'll be asked to name your new toolbar, which then appears as an empty square—a toolbar just waiting for commands that you can provide. Now click the Commands tab and begin populating your new toolbar with commands and buttons, just as described above. Click OK when you're finished.

Attaching Custom Toolbars to Documents

In general, a toolbar you've created or edited is stored in the Normal template (see page 188), so that it will be available for use in any new documents you create. But after spending 20 minutes hand-crafting the world's most brilliant toolbar, the last thing you want is to confine it forever to your own Mac.

Fortunately, you can pass on your brilliance to other people just by attaching the custom toolbar to an Excel workbook or a Word document (PowerPoint lacks this feature, alas):

- **In Excel.** Choose Tools→Customize→Toolbars tab. Click a toolbar's name in the pane on the left side of the Customize window, and then click Attach. The Attach Toolbars window appears; it works exactly like the Organizer, described and illustrated on page 192. Use it to select the destination document and copy the toolbar into it.

POWER USERS' CLINIC

Making Custom Toolbar Sets

Calling all toolbar aficionados: Sure, you can make your own toolbars. But you can also make Excel memorize their *size, shape, and placement*, so that you can quickly recall them on another Mac or another day.

Here's how you do it: Open Excel. Make sure that the toolbars you want are showing and placed and shaped the way you like them. Then, quit Excel, find the Excel Toolbars (9) file (it's in System Folder→Preferences→Microsoft) and give it a memorable name (like *Frank's Toolbar Setup*). (You can also put it wherever you want).

Next time you open Excel, choose File→Open and open your renamed toolbar preferences file. The toolbars pop back into their previous custom arrangement. You can use this method to save any number of custom toolbar arrangements that you like.

Unfortunately, this little trick doesn't work in PowerPoint or Word.

- **In Word.** Choose Tools→Templates and Add-Ins; click the Organizer button. Use the Organizer described on page 192 to copy any toolbar into any document *or* template.

Note: When you open a Word document in which someone has embedded a homemade toolbar, a dialog box offers a word of caution. It lets you know that the toolbar could conceivably contain a macro virus (see page 520).

Redesigning Your Menus

Not only can you build your own toolbars in Excel, PowerPoint, and Word, you can also twist and shape the *menus* of these programs to suit your schemes. You can add and remove menu items from the various menus, and you can even move the menus themselves so that they appear in different places on the menu bar. More than one Excel owner, for example, has found word processing happiness by stripping out over half of the default commands that he found he never used; conversely, you're missing out in Word if you don't *add* commands to the menus that you usually have to trigger by burrowing through nested dialog boxes.

As noted earlier, choosing Tools→Customize doesn't just open the Customize dialog box; it also opens a strange-looking *duplicate* menu bar just beneath the real one. If you click a menu name on this Menu Bar "toolbar," the menu opens, revealing all of the commands in that menu.

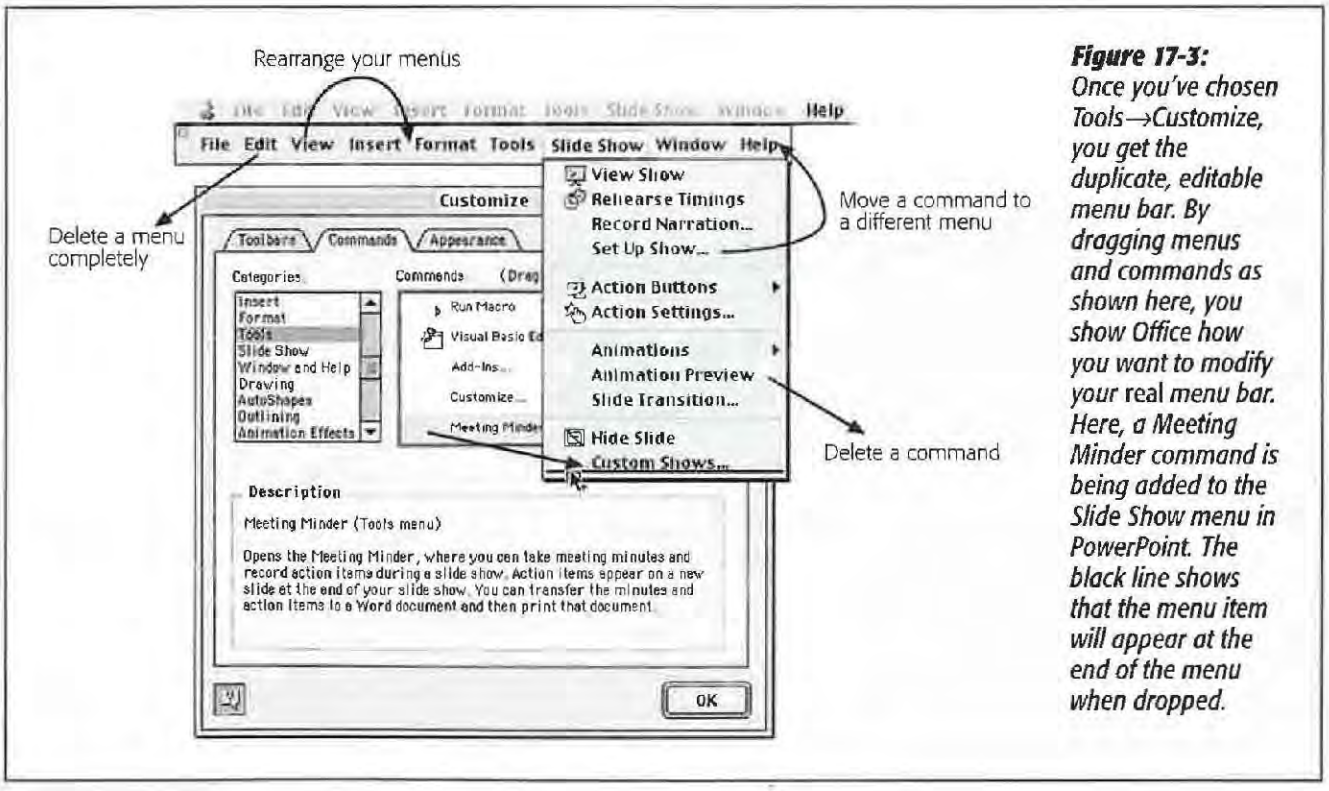


Figure 17-3: *Once you've chosen Tools→Customize, you get the duplicate, editable menu bar. By dragging menus and commands as shown here, you show Office how you want to modify your* real *menu bar. Here, a Meeting Minder command is being added to the Slide Show menu in PowerPoint. The black line shows that the menu item will appear at the end of the menu when dropped.*

Adding a command

To add a command to a menu, choose Tools→Customize, and click the Commands tab. Find the command that you want to add (by clicking the appropriate category on the left side first, for example). Then click the menu name (on the *duplicate* menu bar, as shown in Figure 17-3) to which you want to add the new command.

Note: Excel has *two* menu bars—a Worksheet Menu Bar and a Chart Menu Bar. They're listed individually in the Tools→Customize→Toolbars tab. That's because Excel's Data menu changes into a Chart menu when a chart is selected. These menu bars are independent, so if you make changes to the Insert menu item on the Chart Menu Bar toolbar, those changes *won't* be reflected in the Insert menu item on the Worksheet Menu Bar.

When the menu opens, drag the command *out of the dialog box* and onto the menu. A black line shows you where the new command will appear when you release the mouse, as shown in Figure 17-3.

Tip: You can even rename your newly installed menu command: Control-click it, and choose Properties from the contextual menu. In the resulting dialog box, type the new name and press Return.

Removing a menu command

Suppose that you never use the Dictionary command in Excel's Tools menu; the only word *you* need to know is "Profit." Getting rid of a menu command—whether you put it on the menu or not—is easy. Choose Tools→Customize to make the strange duplicate menu bar appear, as shown in Figure 17-3. Now click the menu title (in the duplicate menu bar) that contains the offending command, and then drag the command itself off of the menu.

Tip: In Word only, there's a faster way to remove a menu command, one that doesn't even involve the Customize dialog box: Just press ⌘-Option-hyphen (on the main keyboard, not the number pad). The cursor is now "loaded," as reflected by its status as a big, bold – sign. Now just *choose* the menu command, using the regular menus, that you want to nuke. When you release the mouse, the command is gone, and your cursor returns to normal.

Removing commands from menus doesn't delete them from the program, of course. To restore a command you've removed from a menu, reinstall it as described in the previous section.

Adding a menu

You can do more than just add commands to existing menus; you can also create completely *new* menus, name them whatever you please, and fill them with any commands you like, in any order you like.

To do so, choose Tools→Customize; click the Commands tab; scroll to the bottom of the Categories list; and click New Menu. Drag the New Menu command from the Commands list (right side of the window) to the Menu Bar toolbar. Put it anywhere you want—between the File and Edit menus, for example.

With the new menu still selected, Control-click your new menu and choose Properties from the contextual menu (or, alternatively, click the Modify Selection button in the Customize dialog box). Type a name for your new menu into the Name field. Finally, press Return. (Control-clicking also offers the Begin Group command, which inserts a separator line into your menu-under-construction.)

Your new menu is installed. Now you can add to it any commands you want, using the same technique described in "Adding a command," above.

Removing a menu

You don't have to stare at Microsoft's complex menus if you rarely use one of them. If you never use tables in Word, for example, by all means get rid of the Table menu.

Doing so couldn't be easier. Choose Tools→Customize to make the phantom double menu bar appear. Point to the name of the menu you no longer need and drag it directly downward and off the menu bar (Figure 17-3); once it's gone, the other menus close up to fill its space.

Moving whole menus, or specific commands

Even the order of menus on the menu bar isn't safe in Office 2001. If it occurs to you that perhaps the Fonts menu should come before the Edit menu, choose Tools→Customize. Now you can start dragging around the menu titles themselves (on the bogus, duplicate menu bar) around until you've reached an arrangement that you like.

While you're at it, you can also drag individual commands from menu to menu; as shown in Figure 17-3, start by choosing Tools→Customize. Then bring the menu command to the screen by opening its current menu (in the duplicate menu bar). Then drag the command to the *name* of a new menu, which opens automatically; without releasing the mouse, drag downward until the black line is positioned where you want the command to reappear. Let go of the mouse.

Resetting everything back to normal

When you delete a command, it's not gone from *Office;* you've just removed it from its menu or toolbar, and it's easy enough to put it back—a handy fact to remember whenever you've made a mess of your menus through overzealous exploration.

Open the Customize window (by choosing Tools→Customize); click the Toolbars tab. In the list at left, click Menu Bar, and then click Reset. You've just restored your menus and commands to their original, factory-fresh condition.

Reassigning Key Combinations

A staggering number of Office commands can be triggered by pressing an equally staggering number of keyboard shortcuts. The only problem arises when you discover that Microsoft has chosen something bizarre (like ⌘-Shift-R for Thesaurus) instead of something more natural (like ⌘-T).

The good news is that you can reassign key combinations for any menu command—in Word, anyway. You can't fiddle with the keyboard commands in Excel, PowerPoint, or Entourage—a real shame in Excel's case, in light of the fact that Microsoft reassigned many familiar Excel 98 key combinations.

To begin, choose Tools→Customize. In the Customize dialog box, click the Keyboard button.

Now the Customize Keyboard window appears (see Figure 17-4). It works a lot like the toolbar-editing dialog box described earlier in this chapter: At left, click a command category; at right, click the name of the command you want to reassign. (Once again, you can jump to a particular category or command, after clicking or tabbing into one of these lists, by typing the first couple letters of its name.)

After highlighting the command for which you'd like to change or add a key combination, click in the box beneath the "Press new shortcut key" field. Now press the keys you'd like to use as the new key combo, using any combination of the Shift, ⌘, Option, and Control keys along with a letter, F-key, or number key.

If that keystroke already "belongs" to some other Word command, the Customize dialog box shows you which command has it, as shown in Figure 17-4. To reassign that keystroke to the new command anyway, just click the Assign button. To keep the current setting, press Delete, and then try another keystroke.

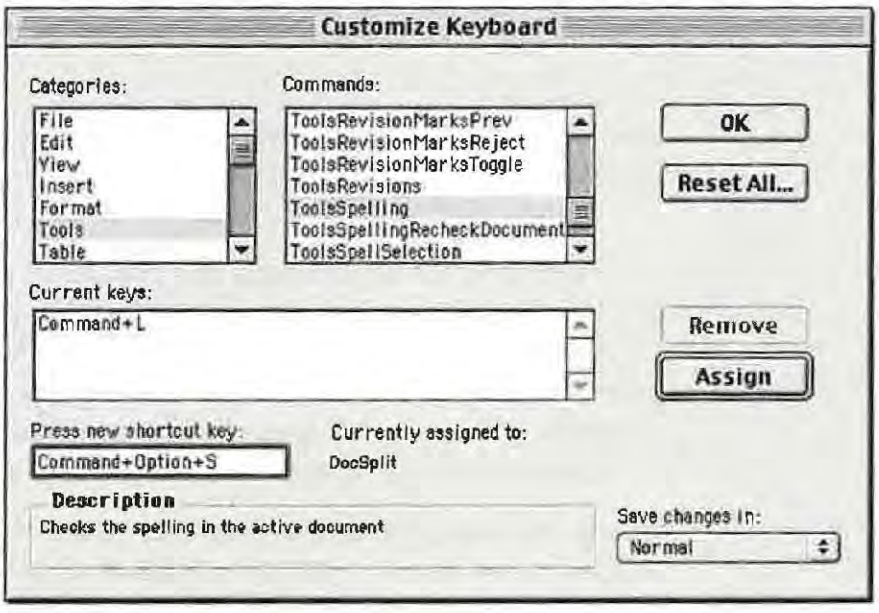


Figure 17-4: *Here, the Spelling command is being changed from ⌘-L to ⌘-Option-S. Word warns that ⌘-Option-S is already in use by another command ("DocSplit," which splits the document window into two panes); if you don't care, just click Assign.*

Obviously, you can't have two commands linked to a single keystroke. However, you *can* create more than one keyboard shortcut for a single command.

Tip: If you find yourself frequently triggering some command *accidentally*, you may want to *remove* its assigned keystroke. To do so, click the command name in the list, highlight the keystroke in the "Current keys" field, and then click the Remove button. Click the OK button to save the changes.

If you don't like the key combinations that you've edited, you can always reset them by clicking the Reset All button in the upper-right portion of the window.

GEM IN THE ROUGH

Faster Keyboard Reassignment in Word

Word offers a shortcut for assigning a keyboard shortcut to a menu: Press @⌘-Option-+ sign. The pointer changes into a boldface + sign.

Now click the toolbar button, or choose the menu command, for which you want to set up a keystroke. A special keyboard-reassignment box appears, looking something like the one in Figure 17-4; just press the keystroke you want as described above. You've just saved yourself several steps.

CHAPTER 18

The Graphics Programs of Office 2001

Office comes with Word for text, Excel for numbers, PowerPoint for slides, and Entourage for email and scheduling. From reading the box (if there even *were* a box), you might conclude that Office is therefore missing one of the cornerstone Macintosh programs: graphics software.

In fact, however, Office comes with a minor army of graphics programs. Microsoft Graph, Equation Editor, the Clip Gallery, AutoShapes, WordArt, and other tools are built right in, and shared among Word, Excel, and PowerPoint. (They're not available in Entourage.)

Inserting a Graphic

You can drag, paste, or insert a picture into a Word, Excel, or PowerPoint document. To insert a graphic, choose Insert→Picture (or click the Insert Picture button on the Drawing toolbar) and then choose one of the following from the submenu:

- **Clip Art** opens the Office 2001 Clip Gallery, as described on the next page.
- **From File** opens a dialog box where you can choose any graphics file on your Mac.
- **Horizontal Line** (Word only) is a quick way to put a horizontal line between paragraphs without opening the Borders and Shading dialog box. These lines are actually GIF files, and are more decorative than standard lines and borders.
- **AutoShapes** are an expanded, elaborate version of the familiar circles and squares that you create with drawing tools. For instance, AutoShapes include arrows, cubes, banners, and talking balloons (see page 590).

- **Organization Chart** opens Microsoft Organization Chart, a specialized miniprogram that creates corporate charts showing how executives, managers, and assistants relate to one another (see page 606).
- **WordArt** is a combination of text and drawing object. After typing the text, you can stretch, color, and distort it using Office's drawing tools (page 591).
- **From Scanner or Camera** lets you import directly from one of these devices connected to your Mac—sometimes. Its success depends on your model of digital camera or scanner.
- **Chart** creates a chart from any Excel file on your Mac. (See Chapter 13 for full detail on charts.)
- **Microsoft Word Table** (PowerPoint and Word only) opens a dialog box to start building a spreadsheet-like table (see page 542).

UP TO SPEED

Pictures and Drawings

There are two distinct kinds of graphics in the computer world, which, in Office, are known as *pictures* and *drawings*.

Pictures include what's known as *bitmap files, raster graphics, painting files*, JPEG or GIF images, photographs, anything scanned or captured with a digital camera, anything grabbed from a Web page, and Office 2001 clip art. What all pictures have in common is that (a) they're composed of individual, tiny colored dots, and (b) you can't create them using the tools built into Office. You can make pictures larger or smaller, but if you stretch something larger than original size, it may wind up looking blotchy.

Drawings include AutoShapes, WordArt, and any graphics you create using Office's own drawing tools. Drawings, also known as *vector* or object-oriented graphics, are stored by the Mac as mathematical equations that describe their size, shape, and other characteristics; that's a fancy way of saying that you can resize, rotate, squish, or squeeze drawings as much as you like without ever worrying that they'll print jagged or blotchy.

Keeping these distinctions in mind may help you understand why your Office programs do what they do when you work with graphics.

The Clip Gallery

Clip art refers to a canned collection of professionally drawn, cartoonlike illustrations designed for use in a wide variety of documents. Designing a Christmas card? You can count on finding a Santa head or snowflake in any self-respecting clip-art collection. Need a sketch of an airplane taking off for a newsletter article about business travel? Off you go to the clip-art collection.

Fortunately, Office comes with about 200 pieces of ready-to-use art, in a collection called the Clip Gallery. To look them over, choose Insert→Picture→Clip Art. The Clip Gallery opens, as shown in Figure 18-1. (Clicking the Insert Clip Art button near the middle of the Drawing toolbar opens it, too.)

Categories

The Categories button in the Clip Gallery window opens a dialog box where you can delete categories from, or add categories to, the Clip Gallery. Neither process deletes or adds any actual pictures—they stay where they always were, in the Microsoft Office 2001→Clipart→Core folder; you're just deleting or adding category names for putting them into.



Figure 18-1: *Click a category in the list at the left to see thumbnails of the available clips, one of which is Search Results (after you've done a keyword search, as shown here). Click a thumbnail and then click Insert (or just double-click the thumbnail) to place the full-size version in your document. (Turn on the Preview box to see the full size image in a separate window.) You then have to click Close to ditch the dialog box.*

Online

Clicking the Online button launches your Web browser (after asking your permission) and connects to the Microsoft Clip Gallery Live Web site, which offers thousands of additional clip-art files in a searchable database. You can download them individually or in groups by turning on their boxes.

Best of all, when you click the "download clips" link in Clip Gallery Live, Word automatically imports the new clips into the Clip Gallery and opens it to display them. New clips arrive in the category called Favorites, as well as into other existing categories based upon their keywords; to move them around, see "Properties," below.

Adding Your Own Clips

You're not limited to clip art from Microsoft. Not only can you bring your own images into any Word document with the Insert→From File command, but you can also make them part of the Clip Gallery. This gives you the opportunity to use the Clip Gallery's search function and organizing features and see thumbnails of your own clip art, too.

To do so, choose Insert→Picture→Clip Art to open the Clip Gallery; click Import. Use the Open window in the Import dialog box to navigate to the graphics files on your Mac that you want to bring into the Clip Gallery. (Make sure the Show menu shows "Clip Gallery Images"; the kinds of images you can import are JPEG, TIFF, PICT, GIF, PNG, or Photoshop files, as well as clip art from Microsoft.)

Use the radio buttons at the bottom of the dialog box to indicate whether you'd like Word to store a copy of the clip (leaving the original in place), move the original from its current location into the Clip Gallery, or just place an alias of the original file in the Clip Gallery. Since it's possible to delete clips from the Clip Gallery (see below), this alias method is the most prudent. It also saves on disk space.

Click to select the image (Shift-click to select multiple images); click Import. The Properties dialog box opens, giving you a chance to rename the image and assign categories to it.

Deleting Clips

If you want a clip out of your life forever, click it in the Clip Gallery and choose Edit→Clear. Word asks for confirmation before nuking it.

Properties

Every image in the Clip Gallery is associated with a list of *properties* that identify and define it. Some, like file size, you can't change, at least not from within the Clip Gallery. Other properties, such as Description, Category, and Keyword, you can change, and thereby control how the Clip Gallery is organized. These bits of de-

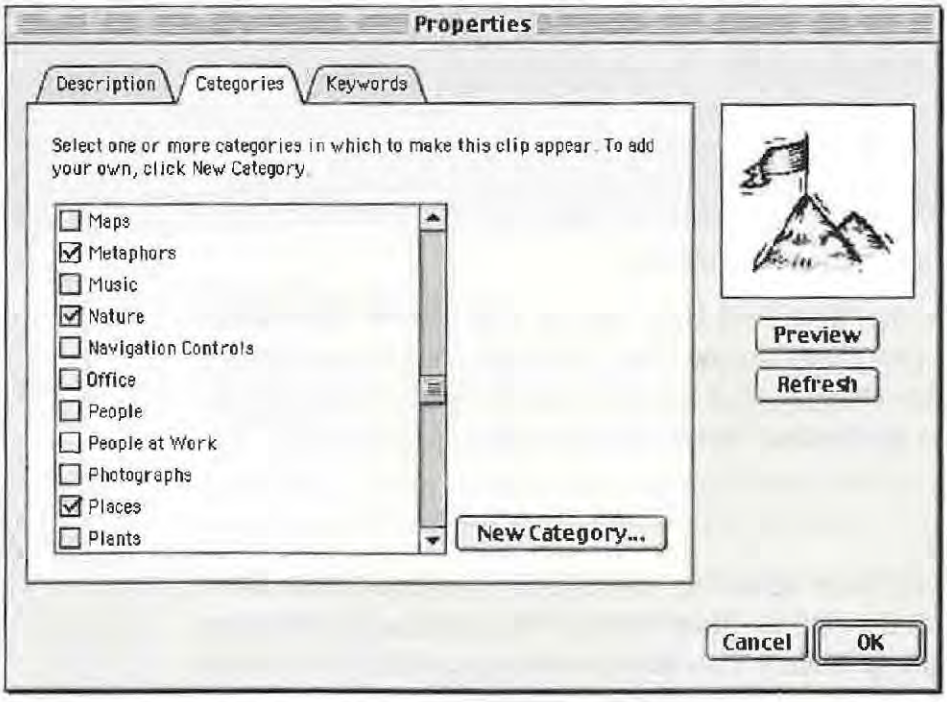


Figure 18-2: *Be sure to visit all three tabs–Description, Categories, and Keyword–when setting a clip's properties. All three will help you find the clip later.*

scriptive text are the "handles" you'll need to *find* particular clips later, among the seething graphic masses you've accumulated.

To work with a clip's properties, click it in the Clip Gallery and click Properties. The Properties dialog box appears, as shown in Figure 18-2.

- **Description.** The description you enter here becomes the *name* that the Clip Gallery uses for the image. The file information on the rest of this tab shows the real file's name and where it's located on your Mac.
- **Categories.** Turn on the boxes for *all* the categories where you may expect to look for this clip later. There's no limit to how many you can choose. You can even add new categories to the Clip Gallery by clicking New Category.
- **Keywords.** Each clip has its own unique list of descriptive *keywords*; again, there's no limit. These words pull up the clip when you search for them. Thus, if you're adding a clip of a dolphin swimming, you may want to give it keywords such as *fish, ocean, wildlife, mammals, animals, marine life, water,* and *Flipper.*

The Properties dialog box is also the place to "delete" a clip from a certain category. When you uncheck a box on the Categories tab, the clip will no longer appear on that category's panel.

Search

When you enter a word in the Search box at the top of the Clip Gallery and click Search, Word finds all the clips that match (or are related to) that keyword. For instance, if you type in *automobile*, Word pulls up all the clips that have "automobile" as keywords. Cooler yet, it also finds clips with "car" or "vehicle" as keywords—it relies on the Office 2001 Thesaurus to figure out which possible keywords mean the same thing as what you typed!

Working with Clip Art

Once you've placed a piece of clip art into your document, you can click it to produce eight tiny square handles at its perimeter. By dragging these handles, you can resize the illustration in various ways:

- **Drag** a handle to resize the figure in that dimension—drag the top one to make it taller, a side one to make it wider, and so on.
- **Shift-dragging** a corner handle keeps an object in its original proportions as you resize it.
- **Option-dragging** any handle resizes the object from the center outward in the direction you're dragging. (This method does not maintain proportion.)
- **Option-Shift-dragging** a corner handle resizes an object from the center outward *and* maintains its proportions.
- **⌘-dragging** any handle overrides the *drawing grid* (see page 596).

You can also move a graphic around the screen by dragging it freely.

AutoShapes and WordArt

There are two kinds of drawings in Word: those you make yourself using Word's drawing tools (see page 586) and those Word makes for you, such as AutoShapes and WordArt.

AutoShapes

An AutoShape is a ready-made drawing object. Like the simple circle, square, and triangle of times past, you drag to size and place them in your document—but you have many more choices. The AutoShapes in Office 2001 include a smiley face, callout balloons, flowchart boxes, and all manner of star shapes.

To use an AutoShape in your document, click the AutoShapes button on the Drawing toolbar. (If it's not already open, choose View→Toolbars→Drawing or click the Drawing button on the Standard toolbar. If you're going to be working with AutoShapes, you'll need it.)

As shown in Figure 18-3, each AutoShape menu gives you a palette of choices. Click one, then release the mouse; now drag in your document to place the AutoShape—you can always resize or move it later.

Note: In Word, adding an AutoShape flips you automatically into Page Layout mode; that's because Word treats such shapes as objects rooted to a certain spot on the *printed page*, not embedded into the text. In fact, if you return to Normal view, the AutoShape *doesn't appear at all.* Many's the Word fan who's grown alarmed, thinking that the carefully modified shape has disappeared forever.

You *can* convert the new AutoShape so that it flows with your text, however; see page 153.

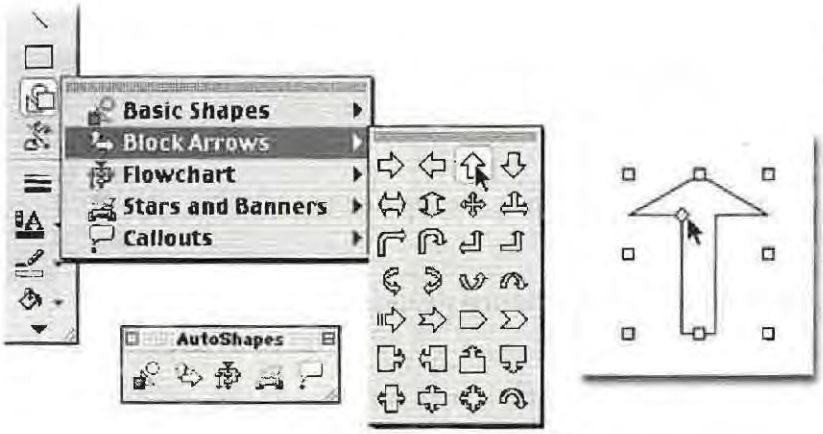


Figure 18-3:
Left: The four drawing tools on the Drawing toolbar give you (from top to bottom): straight lines, rectangles, AutoShapes, and other assorted lines. If you use AutoShapes a lot, you can keep a minipalette (bottom) of them open by choosing Insert→Picture→AutoShapes.

Right: The diamond is called the adjustment handle; it lets you reshape the AutoShape without actually resizing it.

Like other drawing objects, AutoShapes can be grouped (see page 594) and combined with other drawing objects, such as lines. For example, you can combine the Flowchart AutoShapes with arrows to create a flowchart. (See Power Users' clinic on page591 for details on adding text to your flowchart.)

Tip: As you drag to create an AutoShape, press Shift to keep the shape in equal length-to-height proportions. For instance, select the rectangle shape and Shift-drag to create a square, or select the oval and Shift-drag to create a perfect circle. As noted earlier, you can also press Shift when dragging to resize such an object without distorting its original proportions.

If you change your mind, there's a quick way to swap one AutoShape for another without deleting one and creating a new one. Just click the AutoShape with which you're dissatisfied, click the More Buttons arrow at the bottom of the Drawing toolbar, click Change AutoShape, and choose a new one from one of the palettes.

POWER USERS' CLINIC

Make Your AutoShapes Talk

You can add text to any enclosed AutoShape. When you do, the text becomes part of the shape and moves along with it, as shown here—a great way to use AutoShapes as callouts and flowcharts.



To begin, Control-click the AutoShape and choose Add Text from the contextual menu. The AutoShape changes to look eerily like a text box, with an insertion point waiting for you to start typing.

Note that when you rotate an AutoShape (see page 597), the text direction doesn't change. To rotate the text, select it and choose Format→Text Direction, or use the Orientation tool on the Formatting Palette→Alignment and Spacing.

WordArt

Like an AutoShape, a piece of WordArt is a type of ready-made drawing object; in this case, it's used for special text effects—3-D, wavy, slanting, colored, and various other permutations—that would be just right on a movie poster (but should be used sparingly in other situations); Figure 18-4 shows some examples.

To create some WordArt, choose Insert→Picture→WordArt. (Alternatively, you can click the Insert WordArt button on the Drawing toolbar, which looks like a three-dimensional A). Then proceed as shown in Figure 18-4.

When you click a piece of WordArt, the WordArt toolbar appears (Figure 18-4, lower right). Most of the tools on it take you to dialog boxes for formatting WordArt. Clicking Edit Text takes you back to the Edit WordArt dialog box; double-clicking the WordArt itself does the same thing. There are also buttons for the WordArt Gallery and the Format→WordArt dialog box.

The bottom row contains tools for formatting the actual text of your WordArt—spacing and alignment, for example. The most interesting button here is the first one, Same Letter Heights: clicking it stretches the nonascending and descending letters of the selected WordArt so that all letters line up, top and bottom.

Note: As with AutoShapes, adding WordArt to a Word document flips you into Page Layout mode. Again, if you return to Normal view, the WordArt may seem to vanish. See page 149 for instructions on making text wrap around the graphic, if that's what you want.

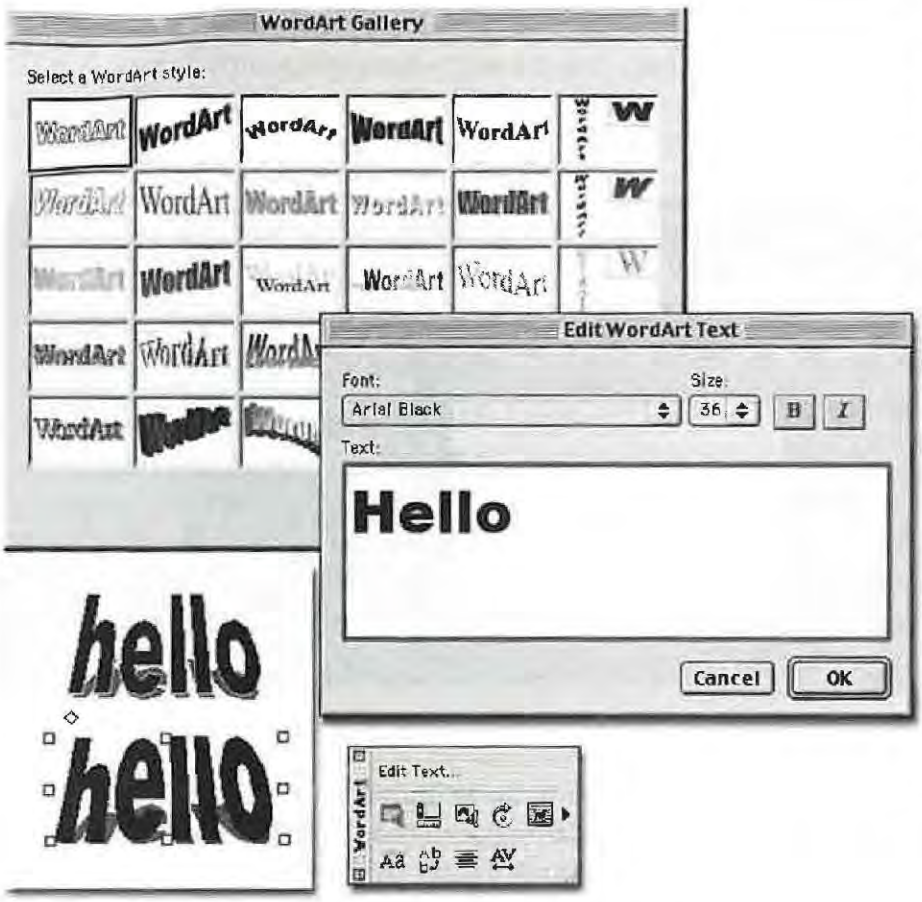


Figure 18-4:
Top: In the WordArt Gallery, choose a text design that strikes your fancy, and then click OK.

Middle: Now the Edit WordArt dialog box opens. Here's where you type the words you'll want in your spectacular text banner and choose a typeface for them; click OK when you're finished.

Lower left: Your new WordArt instantly appears in your document, shown here before and after applying Same Letter Heights.

Lower right: The WordArt toolbar. If you can't find the WordArt toolbar, it's probably not open; click a WordArt object or choose View→Toolbars→WordArt.

Although most of the features of WordArt are the same as for other drawing objects, some of the features are unique:

- **Free rotate.** When you click the Free Rotate button on the WordArt toolbar and drag the round green handles, you rotate either the word itself or its shadow, if any.
- **Changing color.** To change the color of WordArt, don't use the Font Color tools in the Formatting Palette; they don't work. Instead, use the Fill Color control on the Formatting Palette (page 97) to change the color of the letters.

  In most cases, WordArt letters also have a line around them; you can use any of Word's line formatting tools (such as on the Formatting Palette) to change the letter border's color and even its thickness.

- **Changing shape.** You can alter the shape of a WordArt when you drag its sizing handles, but there's also a way to change its shape altogether: click the WordArt Shape on the WordArt toolbar (see Figure 18-4) and select one of the overall patterns from the palette. When you let go of the mouse, the selected WordArt changes shape automatically.

Lines and Shapes: The Drawing Toolbar

Even with the immense variety of AutoShapes and WordArt, some days you just need to unleash your creative spirit. With Office's drawing tools, you can draw freeform lines and shapes and combine them with arrows and AutoShapes to build your own masterpieces.

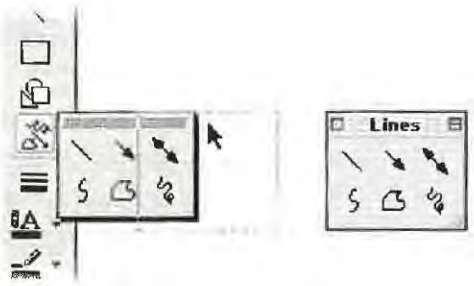


Figure 18-5:
When a toolbar menu has a strip of dotted lines at the top, you can drag it off the toolbar (left) to create a floating palette (right). The Lines palette contains tools for straight lines, arrows, double arrows, curved lines, freeform shapes, and scribbled lines.

To get started, summon the Drawing toolbar by choosing View→Toolbars→Drawing. Click the Line, Rectangle, or Lines toolbar icon, as shown in Figure 18-5. Choose a line type from the Line Style pop-up menu; then drag in your document to place the line, rectangle, or shape you've selected from the Lines pop-up button. (As with AutoShapes and WordArt, lines lie *on top of* text in Word—and are invisible in Normal view—unless you wrap it around them, as described on page 149.)

If you've opted for the Lines tool, you'll find that each of the options in its pop-up button menu works a bit differently:

- **Line.** Drag for the position and length of the straight line you want; the cursor turns into a tiny cross. You resize the newly drawn line by dragging the handles on each side, or reposition it by dragging the line itself (at which time the cursor turns into a hand).
- **Arrow and double arrow** work just like lines. When you draw a single arrow, the point appears where you *stop* dragging; a double arrow automatically springs points on both sides.
- **Curve.** Unlike lines, you draw curves by clicking, not dragging. Click to create a starting point; as you move the mouse, the curve follows. When you click a second time, the line gently curves from the first point to the second. Continue in this manner; the curve tool works best for wiggles and waves rather than closed

shapes. When you're done, double-click to finish off the curve. To enclose the shape, click as close as you can to your starting point.

- The **Freeform** tool is a two-in-one special. When you drag with it, the cursor turns into a pencil and works like a pencil—you can draw lines with any bend and direction without the limitations of the Curve tool. The instant you let go of the mouse button, the cursor turns into a cross and becomes a line tool. You now draw a straight line when you click the mouse again, just as with the Line tool. Hold down the mouse button again to go back to freehand drawing. (Nobody ever promised that Office is a simple program.)
- The **Scribble** tool is like the Freeform tool without the straight-line feature. You drag it to draw a freehand line; the line ends when you let go of the mouse button.

To change the color and thickness of lines and the shapes you've drawn with them, use the Line formatting tools on the Formatting Palette or Drawing toolbar.

Tip: When you click one of the Drawing toolbar icons, you've loaded your cursor with just *one* line or shape. After you've dragged in your document window, Office switches you to the Select Objects (arrow cursor) tool automatically. If you plan to make several lines or shapes in a row, you'll quickly grow fed up with the necessity to reselect your desired tool after each shape.

The workaround: *Double-click* a toolbar icon. Now your selected tool remains in force, no matter how many times you drag in your document, until you select a different one yourself.

Grouping the Parts

Every now and then, you may want to combine various drawing objects—arrows with flowchart boxes, callouts with AutoShapes, text boxes with lines—and keep them together. With Office's *grouping* features, you can combine drawing parts and then move, resize, even format them, as a unit.

To group objects, first select the ones you want to combine: Using the Select Objects (arrow) tool on the Drawing toolbar, click any one of them; Shift-click the others one by one. The objects can be overlapping or completely separate. (To remove one of them from the group, click it again.) Then, on the Drawing toolbar, click Draw→Group. From now on, when you move or resize the drawing, or use any of the formatting tools described in the next section, it acts like a whole new drawing, with no clue that it was ever once made from separate parts.

If you do wish to work on just one element of the grouped object, click it and select Draw→Ungroup on the Drawing toolbar. The individual objects appear with their own handles. If you want to regroup them when you're done, just click Draw→Regroup; you don't have to reselect them all first. Word will regroup the objects that you most recently ungrouped. If you have more than one set of objects ungrouped, click any *one* object in the set that you want to regroup.

Stacking Objects

In Word or Excel, you may use graphic objects only occasionally; in PowerPoint, graphics may be more of a primary weapon. Either way, you may sometimes wind up with several graphics on the screen at once. Using the Office *stacking* commands, you can control which is *in front* of another, covering it up, shuffling your various graphics as though they're on separate sheets of clear plastic. Once you understand the commands, you can create intricate layers of text and objects.

First, ungroup the objects you're working with. Then use the commands described below to arrange the layers.

Tip: In Word, you have another layer to contend with: the one that contains your text. Word offers elaborate control over how graphics interact with the text–for example, how the text wraps around graphics on the page. When you're stacking objects, you can even have one object below the text, and another object (or grouped object) directly on top of it, and have the text flow over the bottom object to wrap around the top one. Just select each object and choose its text wrapping style separately (see page 149).

- **Stacking with text (Word only).** To layer drawing objects and text (whether it's a text box or text on the page), select the *object*. Then, from the Draw pop-up button on the Drawing toolbar, choose Arrange→Send Behind Text or Bring in Front of Text. You can also choose Format→Object→Layout tab and choose "Behind text" or "In front of text."

  Note that the text layering commands operate independently from the Bring to Front/Send to Back and Bring Forward/Send Backward commands.

Tip: It's possible to move and format a drawing object while it's layered behind text, although you may have difficulty selecting it. To switch from the text selection tool (which looks like an I-bar) to the drawing selection tool (which looks like an arrow cursor), click the arrow icon on the Drawing toolbar; you can then click to select the object.

- **Bring to Front/Send to Back.** This pair of commands comes in handy when you are layering more than two objects. On the Drawing toolbar, choose Draw→Arrange→Bring to Front or Send to Back to send the selected object *all the way* to the bottom or bring it *all the way* to the top of your stack. It also works on two objects, when there's only one layer to travel.
- **Bring Forward/Send Backward.** When you choose Draw→Arrange→Bring Forward or Send Backward on the Drawing toolbar, Word moves the selected object forward or back *one layer*. For instance, if you have three stacked objects and send the top one backward, it becomes the meat in the middle of the sandwich.

Tip: To make a quick copy of a drawing object, Option-drag it. When you let go of the mouse button, an exact duplicate of the object appears.

Aligning Drawing Objects

When you have multiple drawing objects on a page, you may want them to be equally spaced apart or evenly aligned by their top edges. Instead of working out the measurements and aligning them yourself, use Word's built-in alignment features.

To do so, select the drawing objects that you need to line up or arrange (press Shift as you click them one by one); then choose one of the following options from the Align or Distribute menu of the Draw pop-up button (on the Drawing toolbar). Use the tiny icons on this menu as a visual clue as to their functions:

- **Align Left, Center, or Right.** These commands bring the selected objects into perfect vertical alignment by their left or right edges, or centerlines.
- **Align Top, Middle, or Bottom.** These commands bring the selected objects into perfect *horizontal* alignment by their top or bottom edges, or centerlines.
- **Distribute Horizontally or Vertically.** Use these commands when you want to spread out your drawing objects, either across the page or from top to bottom, with an equal amount of space between each one.

You can also use the above commands on a single object, to place it at either side or the center of a page.

Tip: If you choose Draw→Arrange or Distribute→Relative to Page before using any of the alignment commands, Office includes the page itself as one of the alignment objects. Choosing Align Top, for example, moves the objects so that their top edges are flush with the top of the page.

The Drawing Grid

Even without using the alignment commands, you may have noticed that it's fairly easy to pull objects into alignment with one another just by dragging. That's because each Word page has an invisible alignment grid that objects "snap to," as if pulled into line by a magnetic force.

To see the grid, choose Draw→Grid on the Drawing toolbar. Turn on "Display gridlines on screen" in the Drawing Grid dialog box, specify a gridline separation in the "Horizontal every" box (and the "Vertical every" box too, if you like), and then click OK; now you can see the grid's faint gray lines superimposed on your document.

Now that you know what the grid looks like, here's how to use it:

- To turn the grid off so that you can drag objects around with no spatial restriction whatsoever, turn off the "Snap objects to grid" box.

Tip: When the grid is turned off, you can ⌘-drag an object when you *do* want it to snap to the grid. Conversely, when the grid is on, ⌘-dragging a graphic moves it exactly where you put it, without snapping to the grid. (This ⌘-dragging business works the same way in Finder windows, of course.)

- You can use the "Snap objects to other objects" box with or without snapping to the grid. When this box is checked, a dragged object snaps into alignment with the edges of the closest nearby object. If the grid is on, the nearest object overrides the grid.
- Change the default grid spacing (an eighth of an inch) by changing the measurements in the "Grid settings" boxes.
- The "Grid origin" settings govern where the grid begins, measuring from the upper-left corner of the page. For instance, you can start the grid 1" from the upper-left by setting the horizontal and vertical origins each to 1".
- Check "Use margins" to limit the grid to the area within the margins, using the margins as the guide; this option ignores the page edges and makes the area within the margins a world unto itself in terms of alignment. This is a good option if the margins are not exactly centered on the page, but you want everything *within* the margins to be centered within the margin area.

Click OK to apply the grid changes to your document.

Rotating drawing objects

There are two ways of rotating drawing objects: freely with the mouse, or using commands to rotate them in precise 90-degree increments.

- To Free Rotate, click the object and, on the Drawing toolbar, click the rotation tool (a curved-around arrow). The handles on the object become green dots. Drag any dot to rotate the object on its own axis; the object is set in place when you let go of the mouse button. (*Option*-drag to rotate the object on its end instead.)

WORKAROUND WORKSHOP

Drawing with Clip Art

Many of the tools for formatting drawing objects don't work on *pictures*–most of the time. However, if the picture is a piece of Microsoft clip art in PICT format, you can actually turn it *into* a drawing object. Then you can use the drawing tools on it, such as rotate, flip, and stacking.

To do so, click the picture; from the Draw pop-up button in the Drawing Toolbar, choose Ungroup. (If the Ungroup command is grayed out, it means that the picture cannot be ungrouped–and that it cannot be converted to a drawing object.)

In Word and PowerPoint, you may find it faster to Control-click the picture; from the contextual menu, choose Edit Picture.

If you're in Word, you now arrive in a separate window containing nothing but the graphic. In PowerPoint or Excel, you're asked if you want to ungroup the object; click Yes.



Suddenly, your clip-art image has turned into a mass of drawing objects. (In PowerPoint, you see all their tiny white handles at once, as shown here, which can be disconcerting.) You can click a component object to see its four handles, which you can then drag independently to adjust the graphic itself. You can also apply the usual drawing commands to it–alignment, layering, rotating, flipping, and so on.

- To rotate in 90-degree increments, click the object and, on the Drawing toolbar, choose Draw→Rotate or Flip→Rotate Left or Rotate Right. Repeat the process to continue rotating the object a quarter turn at a time.
- To flip a drawing object, click the object and, on the Drawing toolbar, choose Draw→Rotate or Flip→Flip Horizontal or Flip Vertical. Flip Horizontal reverses the object from side to side; Flip Vertical turns it head-over-heels.

Formatting Pictures and Drawings

Once you've placed a graphic into a document, you can touch it up in a number of ways, from fixing a scanned photo to fattening up an arrow you've drawn.

Microsoft offers these image tools in triplicate, just to make sure that you can't possibly miss them:

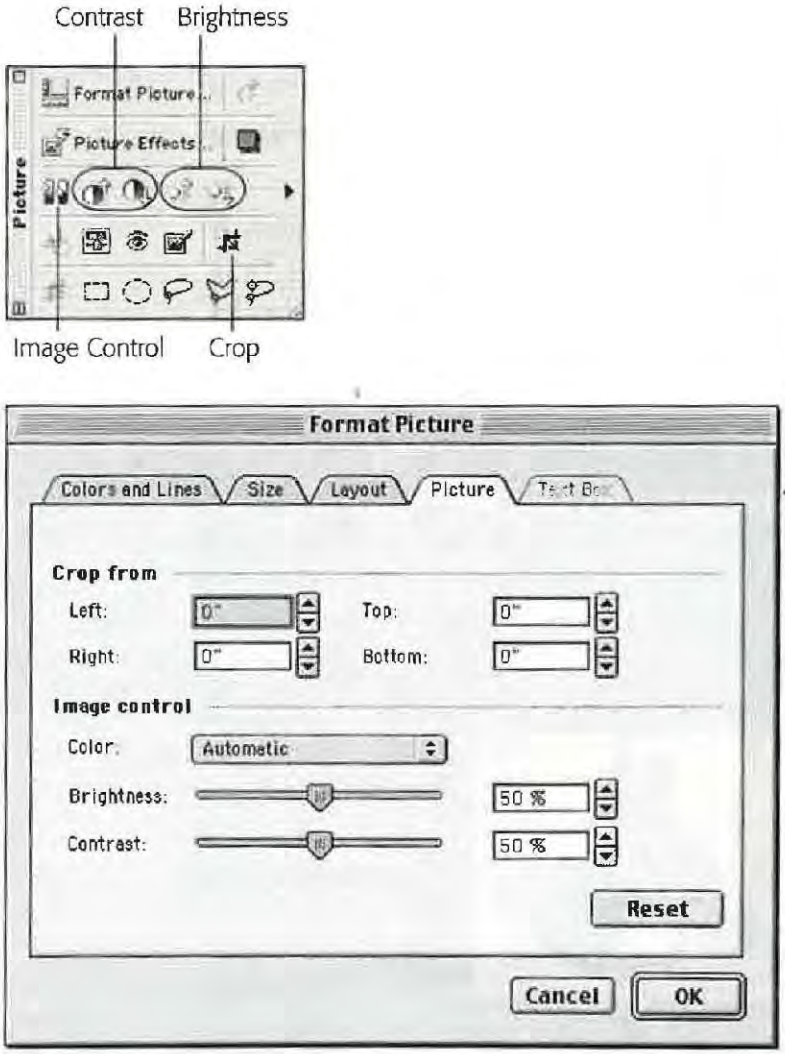


Figure 18-6:
Top: The Picture toolbar is a quicker route to many of the settings that are unique to pictures.

Bottom: The Format Picture dialog box offers the same controls, and more. Note that this dialog box doesn't appear when you double-click a graphic in PowerPoint–only in Word or Excel. To open this dialog box in PowerPoint, highlight the graphic, then choose the bottom command in the Format menu, whose wording reflects the object you've selected (Format AutoShape or Format Picture, for example).

- **The Formatting Palette.** When you click a picture or drawing, whatever sections you're used to seeing there (Font, Borders and Shading, and so on) vanish, to be replaced by an arsenal of graphics controls (Fill, Line, Size, and so on).
- **The Drawing or Picture toolbar** appears on your screen whenever you click a graphic of the corresponding type. The formatting controls available to you are different for each kind of graphic (*drawing* or *picture;* see page 586).
- **The Format dialog box.** When you *double-click* a drawing or picture in Word or Excel, this massive, multitab dialog box appears (see Figure 18-6). Its various panes let you specify every conceivable aspect of the selected graphic.

The following discussion focuses on the Format dialog box because it's the most complete. Most of the choices described in this section also appear, however, in the Formatting Palette and the appropriate toolbar.

The Colors and Lines Tab

On this tab of the Format dialog box, you can specify a color, picture, or pattern that will fill in the interior of your picture or drawing.

Note: This option is designed to fill in the background of *drawing objects* and *Office clip art.* It may have no effect on other kinds of pictures.

Fill Color: Standard palette

Office comes with a standard palette of 40 colors (see Figure 18-7); click a swatch to open the palette, and then click the color you want.

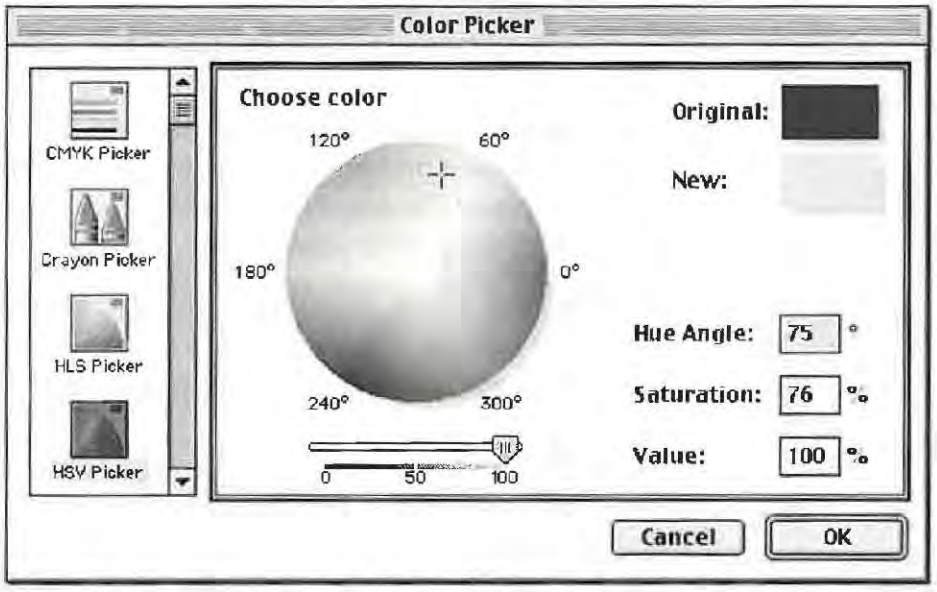


Figure 18-7: *The HSV (shown here) and HLS color pickers are easy to use even if you don't learn all the theory behind them. Just move the bottom slider to about 50% to see all available hues. Click on a color in the circle that appeals to you, and then move the slider to adjust the brightness.*

Fill Color: More Colors

If none of the 40 meets with your artistic standards, Word offers six ways to mix your own electronic paints. To open the Mac's Color Picker dialog box, choose More Colors from the Fill Color pop-up menu.

Apple has provided six different ways to mix the elusive shade you're looking for. Icons at the left side of the Color Picker dialog box represent them. Here are the various color pickers you can try:

- The CMYK (Cyan, Magenta, Yellow, Black) picker has a slider for each of these four color elements (which match the four ink colors used in the printing business). Cyan is a shade of blue, magenta of red—in other words, you may remember using something like the CMYK system to mix colors in first grade.
- The Crayon Picker is the easiest one to use, as easy as picking a crayon out of a box. (The names are lots of fun, too.)
- The HLS (Hue, Lightness, Saturation) picker is a circle controlling three elements of color. The *hues* (pure colors) are located around the edge of the circle—0 degrees for red, 60 for yellow, and so on; as you go toward the middle of the circle, the *saturation* (amount of hue) gets less and less, going down to zero in the middle. The *lightness*, controlled by the slider at the bottom of the pane, is the amount of white mixed with the hue: zero for all black and 100 for all white. Every color can be named by the percentages of Hue Angle, Saturation, and Lightness shown at the lower left. (Most of the time, no one will quiz you on these numbers.)
- The HSV (Hue, Saturation, Value) picker works much the same way as HLS. Instead of a lightness slider, it has a value slider that controls the amount of black mixed with the Hue, without adding in any white. Thus, you can make a wider range of darker shades with the HSV picker.
- The HTML picker is the same as the RGB picker (see below), except its sliders show you the HTML code for the color you're choosing (and limit you to colors that reproduce consistently in Web browsers). If you save your document as a Web page, these numbers will go into your source code to tell browsers what color to display. (The actual color varies depending upon the browser and monitor on which the page is viewed.)
- The RGB (Red, Green, Blue) system is most familiar to people who work in TV and theatre lighting; it measures the way colored light is mixed. For example, you make yellow with an RGB color picker by mixing red and green.

Fill Color: Fill Effects

If you choose Fill Effects from the Fill Color pop-up menu, you get the secret dialog box shown in Figure 18-8. It offers four tabs of its own, each offering a dramatic way to fill in the background of the selected drawing object.

- The Gradient tab lets you apply smoothly shifting colors within the interior of the object—rainbowlike, shimmery effects.

- The **Texture** tab is your personal Home Depot for marble, granite, burlap, and other building materials. When you need to dress up, say, a title or heading by "mounting it" on a stately, plaque-like rectangle, these squares are just the ticket. (Click Other Texture to choose a graphics file on your Mac that you'd like to use instead as a tiled, repeating background pattern.)
- The **Pattern** tab offers a variety of two-color patterns; using the pop-up menus at the bottom of the dialog box, you can specify which is the dark color and which the light one.
- Finally, when you click the **Picture** tab, you'll find no pictures to choose from—at first. Click Select Picture to choose any picture file on your Mac, including but not limited to Word Clip Art. Click Insert to bring the picture into the Picture tab, where you can see what it will look like. Click OK.

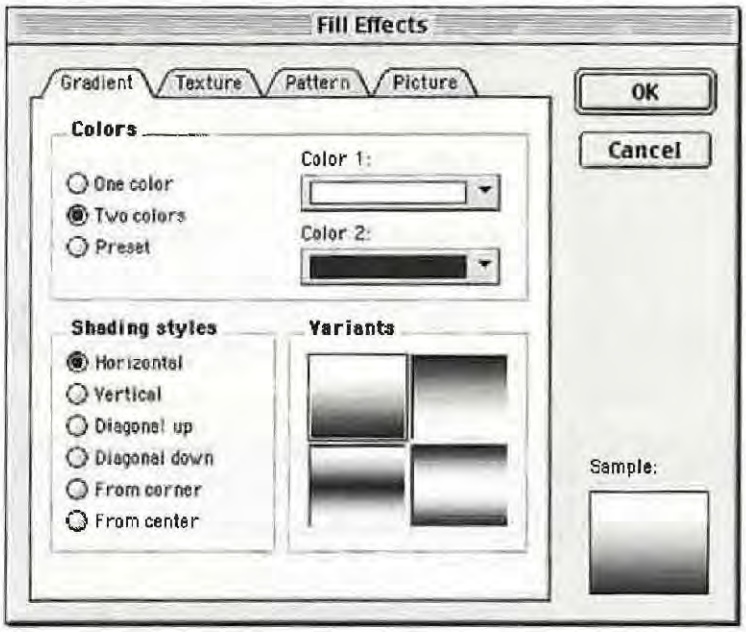


Figure 18-8:
When you click the Colors radio buttons on the Gradient tab, you can use any of Word's color picking tools to choose the colors to apply to the gradient effects. The Preset choice gives you a list of preinstalled custom color combinations with poetic names such as Late Sunset and Fog. Use the bottom controls to indicate the direction of shifting.

Semitransparent

Turning on this box changes whatever color you've chosen into a translucent version; the text or objects layered above or below it remain visible through the color.

Line pop-up menus (Drawing objects only)

In the Line section of the Colors and Lines tab, you can choose colors, dash and dot patterns, styles (single, double, and so on), and weight or thickness; all of it applies to the lines that compose the selected drawing. (*Weight* is measured in points, to the nearest .25 point.)

As you'll soon discover, this option is dimmed for picture objects like clip art and digital photos.

Pick Line Color/Pick Fill Color

Choosing this eyedropper tool on the line or fill color *palettes* (not the Format dialog box) lets you click to pick a color anywhere on your Mac's screen. It can be in any open window, such as a Web page in your browser. When you click a color with the eyedropper, the line or fill takes on that color to match. That color is added to the bottom of all Office color palettes for your future use.

Arrows (Drawing objects only)

If you've drawn a simple line (as opposed to an enclosed shape), you can add an arrowhead to one or both ends, using the Arrow controls here.

Size Tab

You can always resize a picture right in your document by dragging its handles, but the Size tab offers some invaluable features. For example:

- **Height, Width.** These boxes let you specify precise measurements for the height and width of your drawing object, in hundredths of an inch.
- **Rotation.** You can rotate a drawing object (not a picture) to any angle.
- **Scale.** These controls let you enlarge or shrink a selected graphic by a specified percentage. (If you turn on **Lock aspect ratio** before adjusting size, the drawing's original height-to-width proportions remain the same. The **Relative to original picture size** box applies only to pictures; it lets you use the boxes in the Scale section to change the picture's size by a percentage of the original. By changing the percentage to 200, you double a picture's size.)

Tip: Enlarging bitmapped images (like digital photos) is a recipe for blotchiness. And if you intend to print such graphics, be aware that their standard screen resolution, 72 dots per inch, is not fine enough to produce high-quality prints; for that purpose, use digital images of 150 dots per inch or higher.

- **Reset.** Word remembers the original size and aspect ratio (proportion of height to width). Click this button to restore the picture to its original size and shape, no matter how much you've played with it. (This option isn't applicable to drawing objects.)

Layout Tab (Word Only)

This tab of the Format dialog box lets you choose a text-wrapping option for a graphic placed in your text; see page 149 for details.

Advanced Layout (Word only)

You can lay out a Word page in a flash—by dragging. However, there may be times when you need to be more precise; you may want a certain graphic to appear exactly 1.23 inches from the top of the page, for example. For those times, use the Advanced Layout options.

To open the Advanced Layout dialog box, highlight a graphic in the document; double-click it; click the Layout tab; then click the Advanced button. There are two tabs within this inner dialog box: Text Wrapping and Picture Position.

Text Wrapping

These advanced text-wrapping-around-graphics options are described on page 150.

Picture Position

Use these controls to specify exactly where the picture lies relative to the page, and whether or not the graphic should stay attached to its text. (In other words, if you delete some text on an earlier page, should the graphic slide upward?)

Note: Most of the controls here apply only to drawings, not pictures; there is an exception, however, as shown in Figure 18-9.

- **Horizontal.** These settings control the horizontal relationship between a drawing object and other parts of the page. Clicking a radio button activates the two menus where you choose options for the horizontal setting.

  For example, the **Alignment** controls let you choose left, right, or centered alignment on the page, and most importantly, what to align the object *with:* page, column, character (text), or margin. For instance, choosing "Left relative to Column" aligns the left edge of your graphic with the left margin. The image will stick to the left margin even when you adjust the margins.

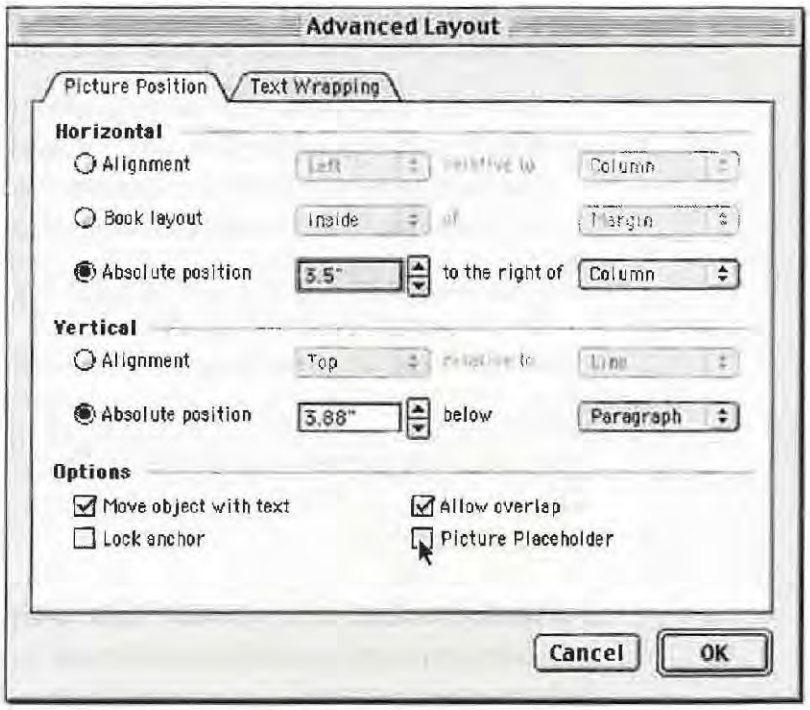


Figure 18-9:
The Picture Placeholder option is available only for pictures, not drawings. Checking this box is a way to swap the selected picture with another. When you click the picture after closing the Format dialog box, the Choose a Picture dialog box opens, so that you can import any picture file on your Mac. Until you actually choose a new picture (or uncheck the Picture Placeholder box), that dialog box will open every time you click the picture.

- **Book Layout** is for when you're using a two-facing-pages format. You can align the object with the inner (gutter) margin or outer margin, or the inner or outer page edge.
- **Absolute Position** measures the distance in inches from the right of a page landmark, such as Column, Margin, Page, or Character (text). Note that you can use the Column setting even if there's only one column on the page.
- **Vertical.** The **Alignment** option lets you line up a drawing object with a margin, page, or line (of text)—vertically, this time. For example, "Bottom relative to Page" puts the bottom of the object against the page bottom.

  You can choose an **absolute position**, in inches, below a Paragraph, Margin, Page, or Line (of text), always measured from the *top*.
- **Move object with text, Lock anchor.** Turn on these boxes to keep the object with the surrounding text, even if you cut and paste it or edit around it.
- **Allow overlap** lets two objects overlap (if they have the same text wrapping style; see page 149). The text will wrap (or not wrap) around both of them together.
- **Picture Placeholder.** As described in Figure 18-9, this option is exclusively for pictures; it lets you swap one image for another.

Picture Tab (Picture Objects Only)

The tools on the **Picture** tab, as shown in Figure 18-6, give you a great deal of control over how your image looks. For example:

- Use the **Crop from** boxes to specify, in hundredths of an inch, how much you'd like to trim off each side of a picture. (There's a crop tool on the Picture toolbar, of course, but it doesn't permit this kind of numerical accuracy.)
- The **Color** menu lets you turn your color graphic into grayscale, black and white, or watermark (an extremely faint image, light enough that you can still read text that flows over it). These choices affect only the image itself, not the fill; adjust the fill on the Colors and Lines tab as described above.
- **Brightness and Contrast** are mainly useful for touching up photographs, but they do affect clip art and other images. Increase brightness and contrast for a crisper look; decrease them for a softer effect.

If you change your mind about anything you've done to a picture, remember you can undo your changes one by one by choosing the Edit→Undo command. To start all over again, click the **Reset** button here to restore your picture to its original, pristine condition.

Picture Position Tab (PowerPoint Only)

The Format dialog box offers this tab only in PowerPoint; its simple controls let you specify exactly where your graphic appears on the slide, relative to the center or corner of the slide.

Protection and Properties Tabs (Excel Only)

You can lock a graphic independently of the other spreadsheet elements, preventing anyone who doesn't have the password from deleting or modifying it; that's the purpose of the Protection tab's sole checkbox. (As noted in the dialog box, however, you must still lock the spreadsheet itself as a next step; see page 477.)

The Properties tab controls how your graphic should respond when you move or resize the spreadsheet cells on which it lies—whether or not it, too, should move or resize in kind. It also offers a "Print object" checkbox that, if left off, makes your object invisible in printouts.

The Picture Toolbar

The Format Picture dialog box described in the previous pages may be overrun with features, but when it comes to touching up pictures (scans, JPEG images, Office Clip Art, and so on), it's only the beginning. The Picture toolbar, which appears automatically when you click a picture, offers many more ways to dress up your images. (You can also summon it by choosing View→Toolbar→Picture.) Move the cursor over the buttons on the toolbar to see their pop-up labels, as identified here:

- **Picture Effects** applies Photoshop-like filters to a photograph, allowing you to radically change its look with a single click. You can make it look as if it were drawn in charcoal, for example, or made of stained glass. Click the Picture Effects button to see the full gallery of choices.
- The **Shadow** button puts a shadow behind any type of picture, making it look as though it's floating just above the surface of your document. Click Shadow Settings to open a toolbar where you can choose a different color for the shadow, and nudge it closer to or further away from the picture.
- When you click the **Set Transparent Color** button, the cursor turns into an arrow pointer. When you click that pointer on a solid color in your picture, everything of that color turns transparent. When your picture is a photograph, this is the way to eliminate the photograph's background and wrap text tight against the foreground image; it works best if the photograph's background is a solid color, or at least mostly so. (This tool has no effect on clip art pictures.)
- The **Color Adjustment** tool works for both photographs and clip art. Clicking it opens a dialog box where you can increase or decrease the *saturation* (making the image colors appear more intense or washed out), or adjust the amount of red, blue, or green in the image. You can do this just for effect, or to correct a photograph that has a distorted tint from improper lighting.

  It's OK if you've never done this before; just click one of the radio buttons and watch what happens in the preview windows. You can see exactly how much you've changed the image. If you click the Reset Settings button, your altered image becomes the new "normal," and you can adjust the color further. (To get back to the really original color, use Edit→Undo as many times as necessary.)

- **Fix Red Eye** and **Remove Scratch** are, of course, special tools for correcting photographs once you've inserted them in a Word document.
- The **Marquee** tools along the bottom of the Picture toolbar are for selecting parts of photographs and other bitmap images. Click on one of the tools and drag it over the image to select the desired area. (To cancel a marquee selection, double-click anywhere in the document.) Now you can click the **Cutout** button to remove that area, or use the Cut, Copy, and Paste commands to place that part of the picture somewhere else.
- The **Magic Lasso** tool (at the lower right) is the most exciting. It lets you click repeatedly around an irregularly shaped item in your picture (a person, for example); the shimmering selection marquee hugs the outline of the item. To close the marquee and complete the selection, double-click back at the starting point.

  Once you've highlighted a portion of the picture in this way, you can cut out the selection, removing your ex-boyfriend from the picture forever. You can also apply effects selectively to that portion of the picture inside or outside the lasso; applying a dry brush effect to the background while leaving the people inside the lasso clear, for example.

Organization Chart

MS Organization Chart 2.1 is dedicated to creating that unique artifact of corporate culture, the organization chart. These charts detail the hierarchy inside a company, noting who reports to whom with a series of boxes and lines. Each employee is represented by a rectangle containing his name, title, and notes.

UP TO SPEED

Helper Programs: Organization Chart, Equation Editor, and Graph

Office comes with several helper programs, each of which is dedicated to one specific task: organization charts, equations, and graphs.

You're not meant to open these programs by double-clicking them as you would a normal Mac program; in fact, Equation Editor doesn't even *have* a Save command, and Microsoft Graph can't be launched by a double-click. Instead, you open one of these helper programs from within another Office application. For example, if you're working in Word or PowerPoint, and you want to embed a graph (but you don't want to go through the hassle of opening Excel to do the job), simply choose Insert→Object.

Office presents you with a list of the possible object types that Word can insert. Double-click the one you want, such as Microsoft Graph. Now Microsoft Graph opens; at the same time, Office puts a placeholder graphic in your Word document, which shows where the graph will appear when you quit Graph. Once you're done creating your graph, close Microsoft Graph; the graph that you created appears automatically at the point that you chose—no copy and paste necessary. (In fact, the chart or equation appears there even if you close the helper program's window without saving changes! Choosing Edit→Undo is the quickest way to get rid of the aborted image from your document.)

If you've already created an equation, graph, or chart using one of these applications, you can edit it by double-clicking the object. The appropriate helper program opens automatically.

This sometimes cranky program is in the Microsoft Office 2001→Office folder, but most of the time you'll open it by choosing Insert→Object from within Word, Excel, or PowerPoint, and then selecting it from the list of objects to insert.

Creating a Chart

When you first launch MS Organization Chart, you'll be presented with an Open Chart dialog box, in which you can select an existing chart to work with, or you can click the New button to create a new chart. You get a sparse window containing an area for creating your chart, and a toolbar (see Figure 18-10).

You start out with a chart showing positions for a manager and three subordinate co-workers. You use the toolbar button to add employee boxes to your chart, which expands to accommodate new boxes, like this:

- **Select.** This arrow-shaped tool lets you select boxes or lines in your organization chart, or select text inside a chart item, before copying, cutting, dragging, or formatting them.
- **Enter Text.** This tool lets you type text snippets directly on your organization chart without putting them in an "employee box."
- **Zoom.** This tool magnifies or reduces the image of your chart by one degree. (With the Zoom tool selected, click the chart itself.)
- **Subordinate.** Click this button, then an existing employee box, to get a box below the box you click, creating a subordinate employee.

Tip: If you click the Subordinate button (or one of the other box-name buttons) more than once before clicking a box in the diagram, you get that many boxes all at once. For example, click the Subordinate button four times, then click a box in your diagram, to give that box four underlings.

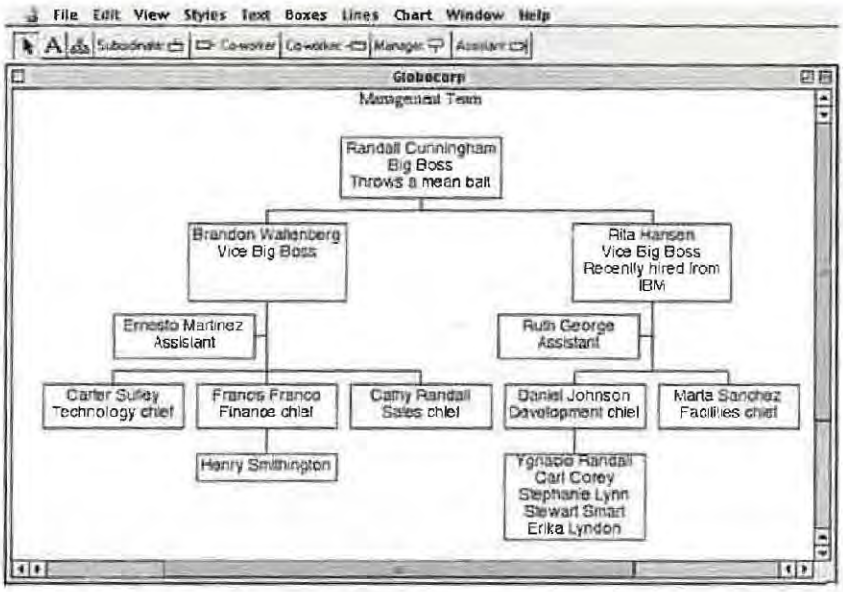


Figure 18-10: *To move someone's box, representing a promotion or reassignment, use the Select (arrow) tool to drag a name to a new position. Most of the time, you'll want to drag a box so that it's squarely superimposed on another box; at this point, your cursor may change to show where the box will appear when you let go. Move the cursor to the bottom edge of the target box to make the box you're moving an underling, or to the left edge to make it an equal, and so on. To get rid of an item in an organization chart, click it to select it and then press Delete.*

- **Left Co-worker, Right Co-worker.** These tools add a box for a co-worker to the left or right, respectively, of the box you click.
- **Manager.** This tool creates a box above the box you click in, which indicates a manager for that employee.

Tip: ⌘-click the Manager icon to insert a box between a manager box and its subordinates. (Highlight the subordinate boxes first.)

- **Assistant.** This tool creates a box *below and to the side* of an employee box, indicating an assistant to that employee.

Changing employee information

Each employee box that you create has two lines of text in it: *Type Name Here* and *Type Title Here.* To edit this info, click the Select (arrow) tool, click a box, and type the employee's name. Hit the Tab or Return key to highlight the placeholder for the employee's title, and then type right over it. You can also type in two lines' worth of comments below each employee's name and title. (If you click outside the box, the <Comment> placeholders disappear.)

When your company reshuffles, you can drag the boxes around to reflect the new corporate structure; as pointed out in Figure 18-10, Chart, when it's had a good night's sleep, makes your cursor change as you drag one box on top of another, to indicate where it will go when you release the mouse button. The trick often boils down to dragging a box in an L shape: directly onto another box, and then downward (to make the dragged box subordinate) or left or right (to make it an equal).

Tip: Press Shift-Tab to move backward through the lines in an employee's box.

More tips:

- ⌘-drag a box onto its new co-worker or manager to move a box *without* moving its subordinates.
- Shift-drag a box up or down to move its group up or down.
- Shift-drag a box in a horizontal group of boxes left or right to change the distance between it and the box to its left.
- Drag the topmost box downward to move the whole chart on the page.

Using different chart styles

The Styles menu (see Figure 18-11) lets you set one of three kinds of styles for the boxes in your chart:

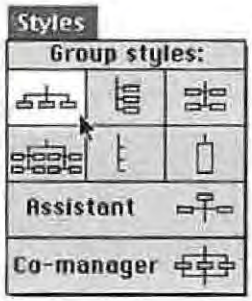
- **Group.** This part of the menu gives you six choices for how co-workers appear on an organization chart: horizontally, vertically, and so on.

- **Assistant.** The Assistant style turns the selected box into the assistant of the manager above it.
- **Co-Manager.** For those hellish business situations where an employee has more than one manager, you can apply a *co-manager* style to an employee box, making that employee the co-manager of her co-workers.

Tip: Along the way, you can use the Text, Boxes, Lines, and Chart menus to specify the fonts, line styles, and colors used by your chart.

When you close the window, you return to your Office document, where the graph is now in place.

Figure 18-11:
These styles govern how boxes are positioned and linked together. To apply a style, select a box, or several boxes (by Shift-clicking them), and then choose a style from the menu.



Equation Editor

For the scientifically minded, Microsoft offers the Equation Editor program, which lets you create full-on equations worthy of any Ph.D. student at CalTech.

When, in Word, Excel, or PowerPoint, you choose Insert→Object and double-click Microsoft Equation Editor, you open this program: a window in which you type your equation, and a double-row toolbar across the top that's filled with equation element templates—fractions, radicals, integrals, summation, and set theory templates. Each offers a variety of symbols that you can incorporate into equations as complicated as you're likely to need.

Note: Equation Editor isn't part of the regular installation—you have to install it using the Value Pack installer, as described on page 619.

To create an equation, simply type it into the main window (see Figure 18-12). When you run across a symbol that you can't enter via the keyboard (the standard Apple keyboard lacks, for example, an integral key), click the toolbar template button that contains the symbol you want to enter, and then select the symbol itself from the palette that pops up. If the symbol normally contains a few different places for other elements (such as a summation symbol), the symbol that you insert has placeholders for the elements that surround that symbol.

As you work, you can:

- **Change views.** Equation Editor lets you magnify or reduce your view of the equation you're building; use the View menu to change zoom level.
- **Change spacing and alignment.** When creating an equation, it's important to control spacing—especially when creating a matrix. The Format menu lets you set how your equation is aligned and how its elements are spaced.
- **Choose a style.** Equation Editor lets you choose one of seven typographical styles for the equations that you write—Math, Text, Function, Variable, Greek, Matrix-Vector, and Other (which lets you define your own style). To create your own style, choose Style→Define, which lets you set all kinds of characteristics for elements of your equations (such as how text, variables, and symbols appear).
- **Change sizes.** To quickly swap between normal and superscript sizes, use the Size menu, which gives you six options, plus the option of specifying your own size.

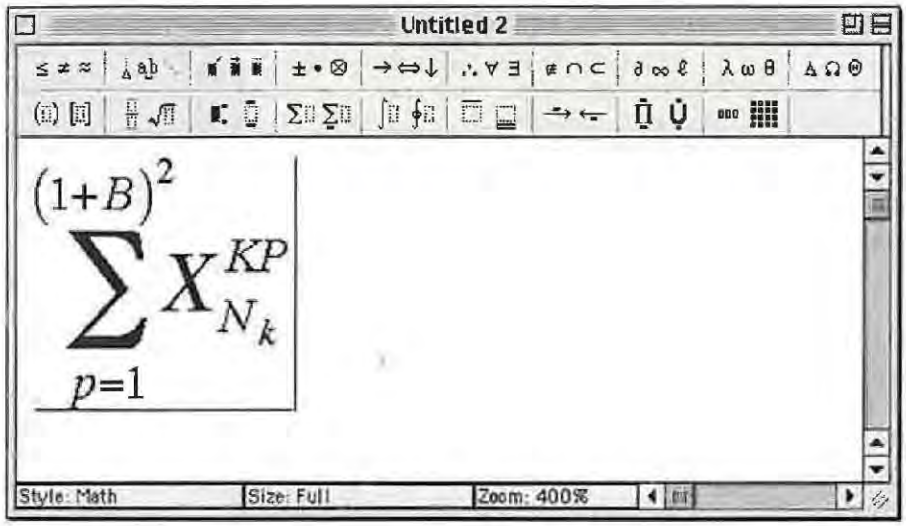


Figure 18-12: *Pythagoras would be proud—or at least satisfied. With its double-row of symbol buttons, Equation Editor lets you insert just about any mathematical and logical symbol available.*

Equation Editor has no Save command. When you're finished designing the equation, close the Equation Editor; the equation lands in the Word, Excel, or PowerPoint document from which you began this exercise.

Microsoft Graph

Microsoft Graph (Figure 18-13) is a stripped-down version of Excel's charting functions. With it, you can create almost any kind of graph. You're likely to use it most often in Word or PowerPoint; there's little point to using it in Excel, whose charting functions are much more highly evolved.

In a Word or PowerPoint document, choose Insert→Object. The Microsoft Graph window appears, carrying unmistakable echos of Excel. It has four main elements:

- **Cells.** Just as in an Excel spreadsheet, Graph draws the information for its charts from its own set of cells. You can't type formulas into them, this time; you must type the numbers themselves into each cell.
- **Graph preview.** This window shows you what your graph in progress looks like as you work.
- **Standard toolbar.** Its commands let you manipulate items in your chart and in Graph's spreadsheet.
- **Formatting toolbar.** The Formatting toolbar contains formatting commands a lot like those in Excel's Formatting Palette, such as text alignment, style commands, and cell formatting commands.

Entering Data

To get started in Microsoft Graph, start by plugging numbers into the cells. Navigating through Graph's cells is similar to moving through an Excel sheet (press Tab to move right one cell, Shift-Tab to move left; Return to move down one cell, Shift-Return to go up). You can also click the cell you want to edit.

As in Excel, cells are labeled with letters and numbers. Unlike Excel, Graph's spreadsheet has an extra row at the far left and an extra column at the top; you're supposed to type row and column headers into these special dedicated areas. Graph will use these cells in the chart for its axes and for the legend.

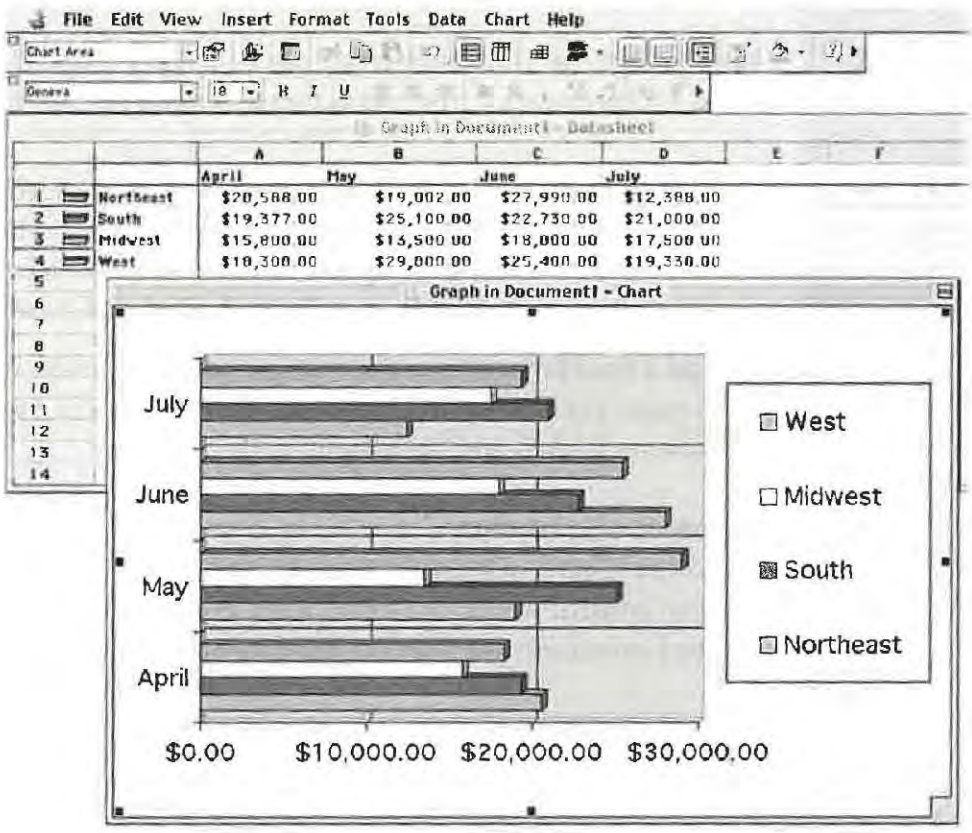


Figure 18-13: *The best time to use Microsoft Graph rather than Excel is when you want to whip up a quick graph without bothering with Excel. If, on the other hand, the data you want to graph is already in an Excel worksheet, go ahead and create the chart in Excel instead.*

As you work, you can make these kinds of changes to your chart:

- **Change the chart type.** Microsoft Graph can produce every chart type that Excel can, but it starts out with a vertical bar graph. To change this chart type, choose one of the eighteen chart types from the Chart Type pop-up button in the Standard toolbar. (If you can't figure out which icon it is, point to the toolbar icons without clicking and read the resulting tooltips). (See Chapter 13 for a discussion of which chart type to use with which kinds of data.)

  To use a chart type that isn't present in the Chart Type palette, choose Chart→Chart Type to open the Chart Type window. This window is nearly identical to the Chart Type window in Excel, and it features the same range of chart types.

- **Swap axes.** If Graph is showing the data on the wrong axes, click the By Row or By Column button in the Standard toolbar; either will swap the horizontal and vertical dimensions of the chart.

- **Change element colors.** Click the element that you want to change (such as a bar or its background) and then select a new color from the Fill Color pop-up button (the "pouring paint can" icon) in the Standard toolbar.

- **Move or resize something.** You can move the chart's legend by dragging it. Most other graph elements are fixed, but you can resize something (such as the legend or the chart's plot area) by clicking it and then drag one of the resize handles that appear at its corners. If you have a 3-D item in a chart, you can also drag its corners to rotate it, just as you can in an Excel chart that contains a 3-D element.

Tip: If you *really* want to fine-tune control over a 3-D object, choose Chart→3-D View, which gives you a control window in which you can control the exact rotation of a 3-D object.

- **Change the fonts.** You're not stuck using Geneva in your tables. To change the font, select the item in question (label, axis, whatever) and then choose Format→Font to bring up the Format window, where you can tweak the font size, style, color, underline, and so on. Click OK to save the changes.

- **Add a data table.** If you want to include a *data table* (which shows the cells used to make the chart), click the Data Table button in the Standard toolbar. It plops the data table below the chart.

Advanced chart options

Choosing Chart→Chart Options brings up the Chart Options dialog box, where you can control your chart's title, axes, gridlines, legend, data labels, and data table. It offers essentially the same as Excel's Format windows (see pages 462–464).

Tip: If you have some information in an Excel sheet (or another database) that you'd like to import into Graph, you can do so by choosing Edit→Import File, which lets you import an Excel worksheet, or tab- or comma-delimited data, into Graph.

6

Part Six: Appendixes

Appendix A: Installation and Troubleshooting

Appendix B: The Office Help System

APPENDIX
A

Installation and Troubleshooting

Installing Office

There are two ways to install Microsoft Office 2001 on your Mac:

- Drag the Office folder from the Office CD-ROM onto your hard drive. This method is fast and simple, requires 160 MB of hard drive space, and gives you all four primary programs.
- Run the Office Installer, a more traditional method of installing new Mac software. Use this method if you want to control how Office is installed on your Mac and specify which components you want.

Both of these methods are described in the following sections.

Regardless of the primary installation method you chose, you can also install a few eccentric, optional Office components by running something called the Value Pack; see page 619.

Drag-and-drop Installation

Microsoft's Macintosh Business Unit—the people responsible for building Mac programs at Microsoft—have done a lot of research to find out what Mac people want in their programs. One finding was that, surprisingly enough, people don't like complicated installers. So Microsoft came up with the drag-and-drop installation, which set a new world standard for simplicity and speed. (Or, more accurately, it returned to an *old* standard—the way Mac software was in its earliest days.)

Here's how it works.

1. **Put the Office 2001 CD into your CD-ROM drive.**

   After a moment, the Microsoft Office 2001 CD window opens. Inside you'll see three folders: Microsoft Office 2001, Internet Explorer 5 Folder, and Value Pack (see Figure A-1).

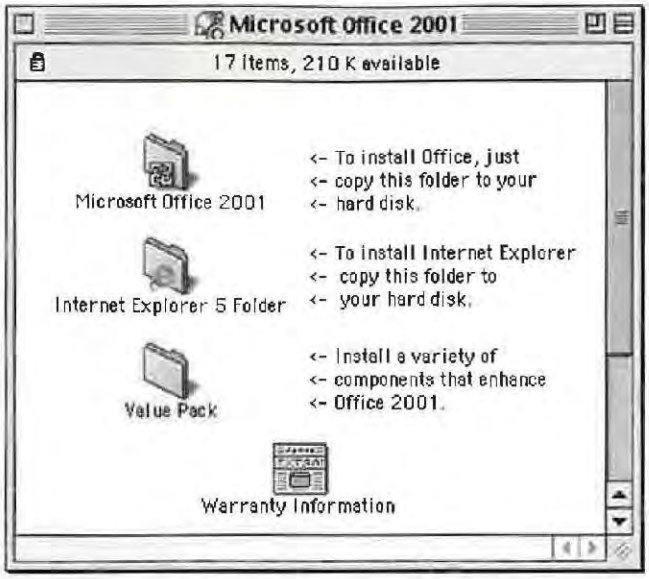


Figure A-1:
The major item of interest in this window is the Microsoft Office 2001 folder—to install Office, drag this folder onto your hard drive. If you want to install Internet Explorer, you can also drag its folder onto your hard drive.

UP TO SPEED

Office 2001 Requirements—and Mac OS X

To use Microsoft Entourage 2001, your computer must have at least:

- A 120-MHz PowerPC chip
- Mac OS 8.1 or later (OS 8.5 or later recommended)
- 160 MB of disk space (depending on the modules you install)
- Monitor that can display 256 grays or colors and 640 x 480 pixels or more.
- *With Mac OS 8.1 through 8.6:* 32 MB of memory, with virtual memory cranked (in the Memory control panel) to at least 33 MB
- *With Mac OS 9 and later:* 48 MB of memory, with virtual memory cranked (in the Memory control panel) to at least 49 MB
- *With Mac OS X:* If you're running the traditional Office 2001 in the Classic emulation mode, it behaves just as though you're running it on a regular Mac OS 9.1 Mac. Of course, Mac OS X itself requires about 64 MB to itself, so you'll need 128 MB to run Office.

Of course, Microsoft is planning to release an enhanced version of Office:Mac in the fall of 2001. At this writing, nobody knows what it will be called. But Microsoft has said that the upgrade will cost at least $100 (less if you own Office 2001), and that it will offer new features not available in the original Office 2001. When the time comes, check *www.missingmanuals.com* for a free update supplement to this book that covers the new features.

2. **Drag the Microsoft Office 2001 folder onto your hard-drive icon, or into your hard-drive window.**

   After the Finder has finished copying about 800 files onto your hard drive (which should only take a few minutes), the first part of your installation is essentially done. You're ready to run your first Office program.

3. **Open the Microsoft Office 2001 folder on your hard drive. Double-click one of the Office programs—Word, Excel, PowerPoint, or Entourage.**

   The first time you launch one of these programs, something called Microsoft Office First Run pops up. It's a special program that appears the first time you start Office; it's designed to collect your serial number, process your registration, and copy various files (such as *shared libraries*, which are chunks of computer code that the various Office applications can share to avoid duplication) into special nooks and crannies of your System Folder.

4. **Fill in your name and (if you like) your organization's name, and then the 10-digit product code that came with Office.**

   You can find this serial number on the back of the *first* CD sleeve in the Office CD case.

5. **Click OK.**

   Office shows you a code and asks you to remember it; you'll be asked for it when you call Microsoft's help line. (You don't actually need to remember it; you can always retrieve it by choosing the About command from the menu while running any Office program.)

   First Run now copies the various files that Office needs to do its job into the appropriate folders of your System Folder.

   The splash screen for the Office program you double-clicked now appears. This first time, the program takes longer than normal to launch, because it has to configure the various office components, analyze your Mac's fonts, and so on.

   Next, a window pops up asking you to register Office. It gives you two choices: Register Now and Register Later (apparently, Never Register isn't an option.)

6. **Click Register Now or Register Later.**

   Register Now opens your Web browser to take you to Microsoft's registration Web page, while Register Later dismisses the window and finishes opening your program.

Using the Traditional Installer

If you're the type who *likes* using a more traditional installation program, Office has you covered. You may want to use this installer if, for example, the drag-and-drop approach gives you more, or less, or different software components than you'd like.

1. Insert the Microsoft Office 2001 CD in your CD-ROM drive.

   After a moment, its window appears.

2. Scroll to the bottom of that window to reveal the Microsoft Office Installer icon (it's not immediately visible). Double-click it to launch the Office installer.

   When the program launches, you'll see a standard installation window like the one shown in Figure A-2.

3. Choose Easy Install or Custom Install from the pop-up menu in the upper-left corner.

   Use the Easy Install if you just want to install Office and don't need—or want—to specify exactly which Office features you want to install. (You'll get exactly the same components you'd have received using the drag-and-drop installation method.)

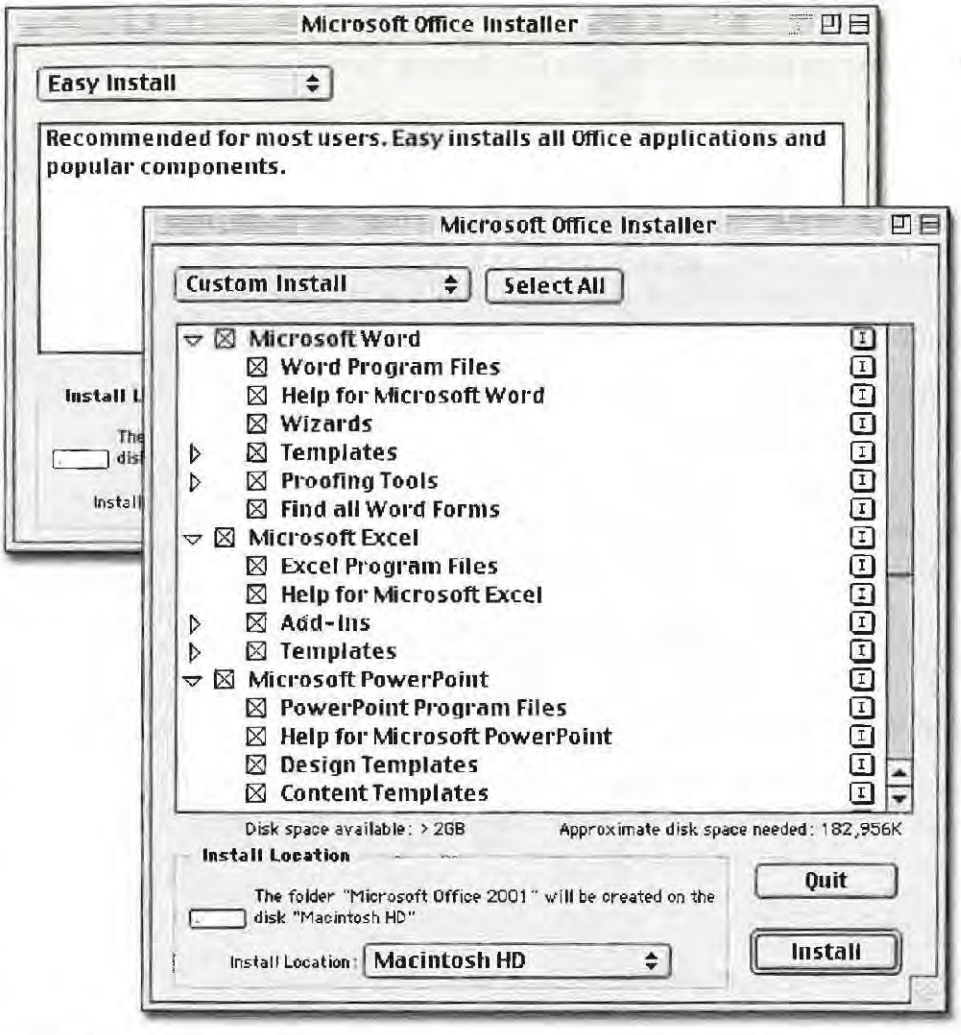


Figure A-2: *If you use the Office Installer, you can choose between Easy Install and Custom Install. A Custom Install (bottom) lets you choose exactly what parts of Office you don't want. You have individual control over each of the four major Office programs, many of its add-on programs (such as the Clip Gallery and Microsoft Graph), and the various starter documents (templates, wizards), proofing tools (spelling and grammar dictionaries), and help files that accompany them.*

Use a Custom Install if you'd prefer to specify exactly what parts of Office you want to install. You're immediately offered a list of Office components, as shown in Figure A-2. You can click the little I button for a brief description of each element, but the basics are clear enough: To save disk space and installation time, you can turn off the checkboxes for certain Office software bundles.

4. Click Install.

   After asking you for your name, organization, and product identification number (the 10-digit serial number on the first CD sleeve in your Office CD case), the Office Installer starts throwing files onto your hard drive. As it does so, it gives you some information about Office 2001's new features.

   Once it finishes up, you're ready to launch an Office application. You won't have to sit through the First Run program, as described in the previous Step 5; the Office installer has already done that work for you.

Installing the Value Pack

When you install Office 2001, either by dragging the Office folder to your hard drive or using the traditional installer, you're not getting everything that Office has to offer. And that's why there's the Value Pack Installer. It can install hundreds of megabytes' worth of useful components, including more Assistant characters, more fonts, more clip art, more templates, the Equation Editor, the software you need to synchronize Entourage with your Palm organizer, Unbinder (a utility to split Windows Office Binder files into their component Office documents), Word 97-2001 Converter (lets Word 5.1 or 6.0 users import Word 2001 documents), and so on. Most or these components are described in the appropriate chapters of this book.

To install items from the Value Pack, double-click the Value Pack Installer and choose the items that you want to install. If you want to go hog wild, click the Select All button, which takes care of the whole enchilada—over 7,000 files. Now *that's* value.

Even More Valuable Downloads

Just after Microsoft released Office 2001:Mac, it also released three useful downloads:

- **Entourage Add-ins** is a set of AppleScripts for Entourage that lets you quickly open a contact, copy a contact to the clipboard, and switch a contact's home and work addresses.
- **QuickView** is a Control Strip tile that lets you create new Office documents, open the Office Address Book, and switch identities with a single click.
- **Remove Office** lets you completely uninstall Office 98 (if you had it previously installed) or Office 2001 from your hard drive.

These downloads are available from Microsoft's MacTopia site *(www.microsoft.com/mac)*. That's where you can also find Service Release 1, a free updater released in April 2001 that fixes dozens of bugs in all four Office programs.

Self-Repair and Troubleshooting

Once you've installed Office, you're supposed to leave its thousands of software pieces where they lie. If you drag Word out of the Microsoft Office 2001 folder, for example, it won't work; double-clicking it gives you only a stern reprimand—and a suggestion that you put Word's icon *back* where it came from.

Tip: Taking a moment to add the Office programs to your menu or Launcher is an excellent idea; nobody wants to burrow into the Microsoft Office 2001 folder to find the Word icon 23 times a day. Or, at the very least, ⌘-Option-drag the four main programs' icons out of the Microsoft Office 2001 folder and onto your desktop, creating aliases that remain convenient for quick launching.

Unfortunately, the occasional Mac owner still sometimes throws out Office shared libraries by accident, movies software pieces around, and so on. After hearing from one too many Office user who couldn't open Excel because of some missing System Folder file, Microsoft decided to create a feature called *self-repair*.

Self-repair means that Office 2001 keeps *duplicate copies* stashed away of every System Folder file that it needs to function properly. If one of those files ever goes missing from your System Folder, Office quietly reinstalls it. All you experience is a delay as Office copies the proper file to the System Folder.

Rarely, though, one of these library files becomes corrupted. If you're experiencing strange crashes, investigating that possibility is one of the three general Office troubleshooting steps:

- **Give the problem program more memory.**

  Start by *quitting* the program. Then open the Microsoft Office 2001 folder, highlight its icon, and choose File→Get Info→Memory. Edit the number in the bottom box—the Preferred Size. If you've been having trouble with the program or getting memory error messages, for example, increase this number by 10 percent. (If the problems persist, increase it another 10 percent.) After changing the Preferred Size number, close the Get Info window. The job is done.

- **Try throwing away the Office preferences files.**

  That is, open the System Folder→Preferences→Microsoft folder; throw away the files bearing the name *Office, Word, PowerPoint, Excel,* or *Entourage.* (These preference files occasionally become corrupted.) When you next start the corresponding programs, they'll create fresh, clean copies.

- **If these tactics don't help, try going into the Extensions folder (System Folder→Extensions).**

  Round up and delete the files in this folder that begin with *Microsoft* or *MS.* Then, launch the offending Office application, which *reinstalls* the moved files. If the problem goes away, it may have been a corrupted shared library; go ahead and throw out the desktop folder containing the files you moved.

APPENDIX
B

The Office Help System

Microsoft's electronic help screens may not explain all the burning mysteries of life, or even of Office 2001, but they're often enough to get you out of a jam. And they're great for showing you different, and often faster, ways of doing something or revealing Office features you never knew existed.

In fact, Office offers two different help systems: Balloon Help and the full-blown online help system, for which the animated Assistant character is a front end.

Balloon Help

When you choose Help→Show Balloons, in time-honored Mac tradition, pop-up text balloons identify whatever you're pointing to (see Figure B-1). Balloon Help seems to be disappearing from most Mac programs these days, but in Office 2001, it works almost everywhere—when your cursor points to menu commands, controls in dialog boxes, and buttons on toolbars and palettes. (They also, when turned on, stand in for pop-up labels in the reviewing and comments features.)

Note: Although Office's dialog boxes offer Balloon Help, the balloons don't show up if you have a Help window open (not counting the Assistant, described next).

The Assistant

When you first launch Office and open a document, a little window pops up alongside your document window, showcasing a little Mac Plus with feet and a repertoire of cutesy mannerisms. This is Max, the Assistant.

Tip: To witness all of Max's moves, Control-click him and choose Animate! from the contextual menu. Max performs a different animation each time.

You can make Max's window smaller by dragging the lower-right corner, and collapse or close his window using the boxes at the left side. And of course, as with any Word toolbar, you can move Max around on the screen by dragging the bar.

To the surprise of many, Max was not, in fact, designed purely to annoy you. His primary function is to give you access to Office's help screens, like this:

1. **Click the Max window, or choose Help→Microsoft Help, or click Help on the Standard toolbar, or press the Help key.**

   Max's speech balloon opens, asking, "What would you like to do?"

2. **Type a question, or a few key words, into the balloon window and click Search (or press Return).**

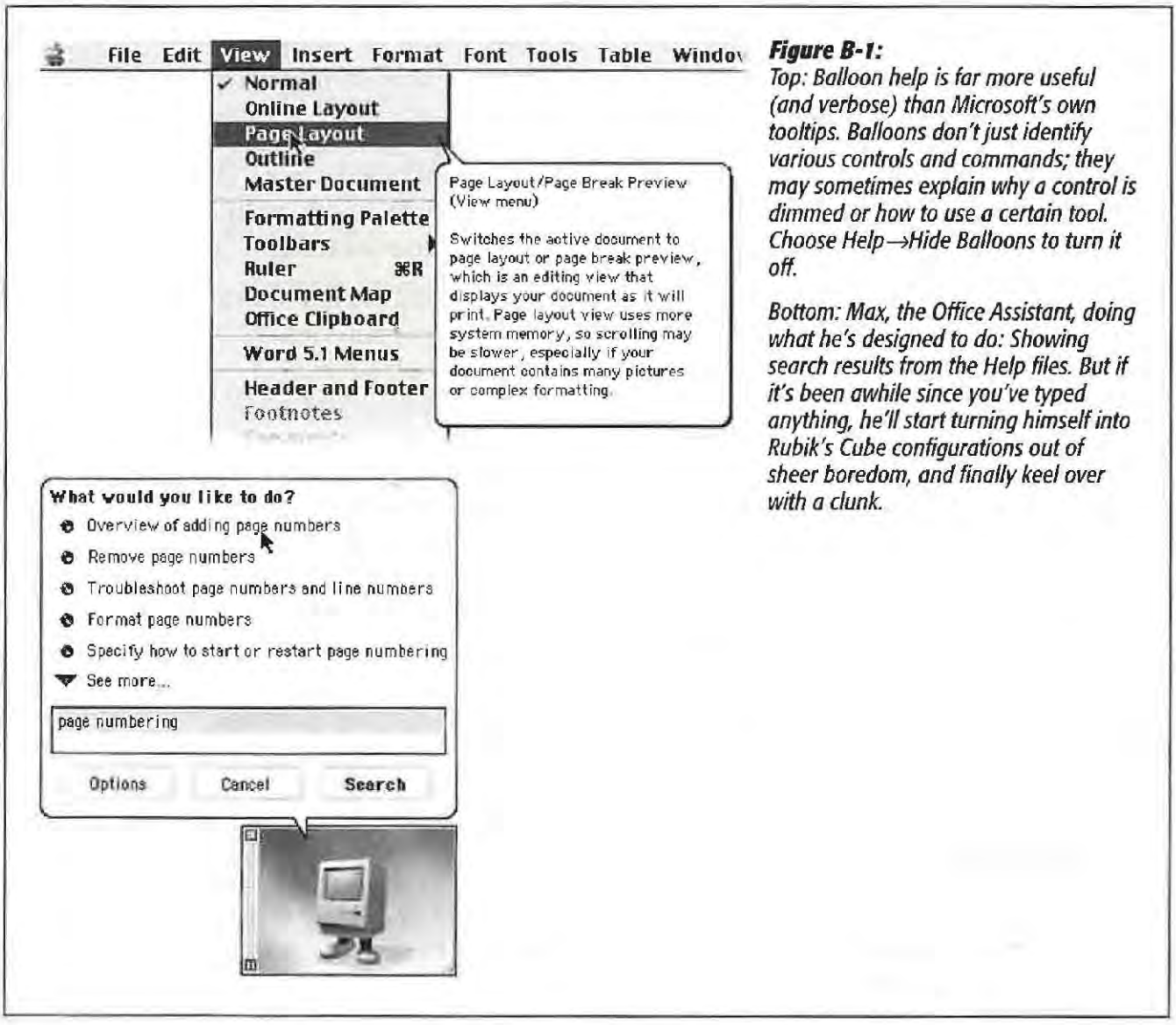


Figure B-1:
Top: Balloon help is far more useful (and verbose) than Microsoft's own tooltips. Balloons don't just identify various controls and commands; they may sometimes explain why a control is dimmed or how to use a certain tool. Choose Help→Hide Balloons to turn it off.

Bottom: Max, the Office Assistant, doing what he's designed to do: Showing search results from the Help files. But if it's been awhile since you've typed anything, he'll start turning himself into Rubik's Cube configurations out of sheer boredom, and finally keel over with a clunk.

For example, you might type *page margins* or *How do I make a table?* Office searches the Help system and displays a list of topics in Max's speech balloon that more or less match your query.

3. **Click the blue button beside a promising-looking topic.**

   A Microsoft Office Help window opens to the selected topic. (See "Using the Help Index" below for more detail on navigating this window.)

To look at a different topic, click Max again to bring back the search balloon and list of topics; when you click another blue button, the next topic appears in the Help window. The Help window has Forward and Back buttons to navigate among the help screens you've looked at so far.

Tip: You can work in your document with the Help window open. If you don't need it anymore, click its Close button to dismiss it.

Assistant Options

Sometimes, as you're working along, the Assistant chimes and displays a light bulb icon. Clicking the light bulb displays a tip about the Office feature that you appear to be stumbling with. Other times, the Assistant offers to launch a Help topic, such as when you start to draw a table, open a wizard, or start to format a letter.

You can always ignore the tip, or click Cancel if you don't want to use the letter wizard, but it's possible to prevent the Assistant from even suggesting such a thing—and that's fortunate, because these tips are rarely relevant. The place to control the Assistant's behavior is the Office Assistant dialog box; to open it, click Options in the Assistant's speech balloon. You can always open this dialog box by control-clicking the Assistant and choosing Options from the contextual menu.

Some of the options are self-explanatory; here are a few that may not be:

GEM IN THE ROUGH

More Assistant Characters

Why do so many Mac fans react so negatively to the Help character? Is it the notion of an onscreen peeping Tom who's observing your actions? Or is it Max himself?

If it's the Mac Plus itself that bugs you, you can choose a different Assistant from a set of thirteen other assistants. In order to access them, you must first install them from the Value Pack on the Office 2001 CD, as described on page 619.

Once you've installed the entire gamut of Assistants, you can switch among them by Control-clicking the Assistant and choosing Options from the contextual menu. The Office Assistant dialog box opens, as shown in Figure B-2. If you click the Gallery tab and then click the Back and Next buttons, you can view all the Assistants available, and listen to a sample sound snippet of each. (Hint: The Office Logo is the least obtrusive Assistant.) Click OK when you find an Assistant that you can live with.

The Office Assistant dialog box closes and the new Assistant takes Max's place.

- **Respond to Help key.** If you uncheck this box, pressing Help will open the Office Help system window instead of opening the Assistant's balloon.
- **Help with wizards.** When you use a wizard in Office, the Assistant can offer additional tips as you work. Clearing this box turns this feature off.
- **Display alerts.** This option makes Office error messages appear via the Assistant's speech balloon. Turn it off to see them in standard message boxes.
- **Include product help in Visual Basic Editor.** This option makes the Assistant offer help in the Visual Basic Editor, as it does in the other Office programs.
- **Guess Help topics.** This option is one of the first things Office veterans turn off; it makes the Assistant offer help when you're starting a letter, for example.
- **Show tips about.** The three checkboxes on this panel control what kinds of tips the Assistant offers while you're working. In reality, tips are few and far between.
- **Show the Tip of the Day at startup.** Office can show a different learning-this-program tip each time you launch any Office program. Usually, they contain useful information ("To repeat most commands and actions, press Command-Y.") Occasionally, Microsoft's programmers throw in attempt at humor ("You can hurt yourself if you run with scissors.")

  Clicking "Reset My Tips" reshuffles startup tips you've already seen into the pile. Office warns you that you may see repeat tips when you click this button.

Turning the Assistant Off

Just clicking the Assistant window's Close box makes Max wave and chirp, but he may still reappear now and then. If you'd really rather not include him in your Office experience, ever, use the new Office 2001 command that has a certain population of Mac fans cheering: Help→Turn Assistant Off.



Figure B-2: *If you're trying to sleep and you hear your Mac making clanking noises, it may just be the Office Assistant up to his usual tricks. Consider turning off "Make sounds."*

Click OK to put your new settings into place, or click Cancel to exit the Office Assistant dialog box without changing any settings.

To get help with the Assistant turned off, use any of the techniques described next.

The Help Index

The real meat of Microsoft's help—the help screens that are supposed to take the place of a real manual in Office 2001—appears when you use one of these methods:

- Do a search using the Office Assistant, as described on page 621.
- Choose Help→Contents and Index.
- Turn the Assistant off (as described above), and click the Help button on the Standard toolbar, press the Help key, or choose Help→Microsoft Help

The Help window opens, as shown in Figure B-3, with three key buttons at the top:

- The **Contents** button, which looks like a little house, displays the master list of topics in the left pane of the Help screen (see Figure B-3).
- Clicking the **A-Z Index** button changes the contents of the left pane to a list of hyperlinks, one for each letter of the alphabet. Clicking a letter shows a list of topics that begin with that letter. Click a topic name to see a list of subtopics, which are once again links to pertinent Help screens. This method may be the quickest when you know exactly what you want to look up, for example, margins or tables.
- Clicking **Search** opens a text box and a Search button in the left pane. Type a question or a few key words into the box and click Search—this approach pro-

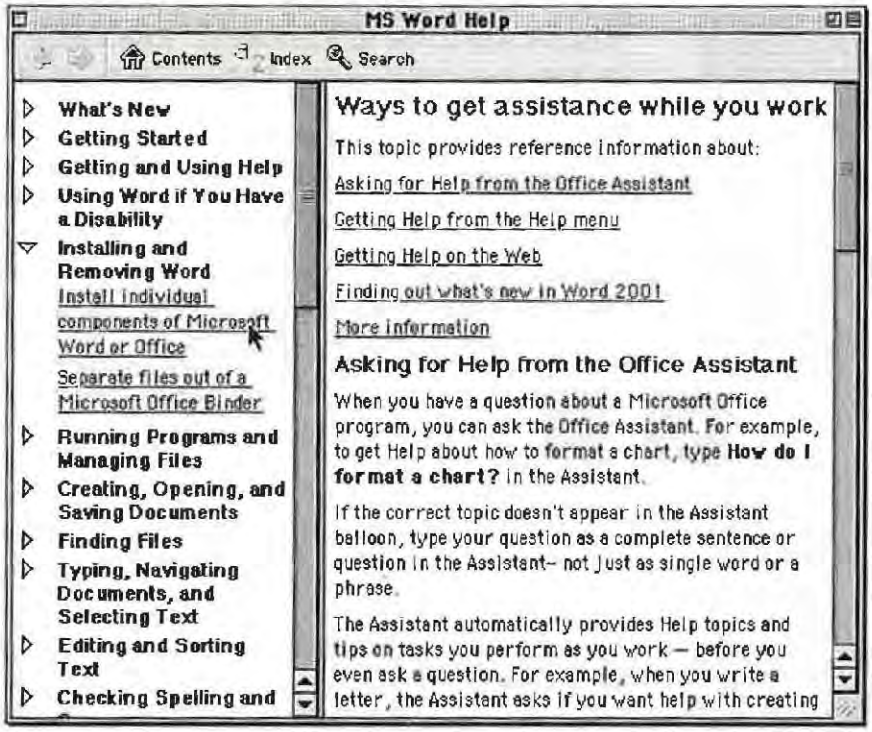


Figure B-3:
Click one of these topics (you don't need to click the flippy triangle) for a list of subtopics. Each subtopic is a hyperlink that opens the topic's Help screen in the right pane.

If you can't find the information you need in the Help window, choose one of the links to Microsoft's Mac Web site, where you might have better luck.

duces the same results as typing into Max's search window. The topics found by the search are listed below the Search button in the left pane. As always, these topics are links that open the corresponding Help screen.

Web-Based Help

The Microsoft Office for the Mac Web site contains Frequently Asked Questions pages, instructional articles, updates for download, and, when all else fails, a gateway to Microsoft's technical support department. To go there, choose Help→Help on the Web. Office launches your Web browser and shows you an introductory page. It contains hyperlinks to five of the most useful Mac pages on Microsoft's Web site:

- **Visit our Web site at microsoft.com/Mac** links you to Microsoft's primary Web page for its Mac users: MacTopia. Some pains have been taken to gather everything a Microsoft for Mac user might need in one place, including tips, links to news articles, and free downloads like Internet Explorer and Outlook Express.

  The most important things to read on this page are the "Office 2001 News" links, which include tip sheets, explanations of problematic error messages, and new download announcements.

- **Microsoft Office 2001 for Mac** is a link to MacTopia's Office 2001 home base. Although much of this page is directed toward selling Office, a list of links at the left side of the page is helpful to those who have already made the purchase: FAQ pages, How-to articles, and news announcements.

  One of the most critical links on this page is the Support link, which takes you to a technical-help page. Here you'll learn that you're allowed to call for free Office help on two different issues before Microsoft starts charging $35 for each call. There's also a link to Microsoft's "Knowledge Base," a vast, searchable collection of how-to articles (most of which are about Windows products).

- **Office 2001 How-to Articles** is a link to the how-to articles mentioned on the other MacTopia pages: illustrated, step-by-step procedures for such Office tasks as creating invoices, animating a chart in PowerPoint, and publishing a flyer.

- **Microsoft Product Support Services** takes you to a list of links to FAQ pages for all Office programs. These pages cover major issues, often helping you take advantage of Office features (such as configuring Entourage to collect email from your Hotmail account) or providing timesaving troubleshooting information (such as a list of known extension conflicts).

- **Free Updates and Downloads** are free downloadable accessories, like the "Remove Office 98" application, a Microsoft auxiliary application called WordSpeak, a launcher for Office programs called Microsoft Office Manager, and updaters like the Service Release 1 pack of April 2001. You'll also find lists of keyboard shortcuts and the AppleScripts described on page 619. None of it came on your Office 2001 CD, and all of it may get company as Microsoft adds new utilities.

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